

OFFICIAL REPORT OF PATENTS AND CLAIMS

Issued by the United States Patent Office.

FOR THE WEEK ENDING JULY 14, 1868.

Reported Officially for the Scientific American.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:—

Table with 2 columns: Fee description and Amount. Includes items like 'On filing each caveat', 'On filing each application for a patent', etc.

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying the mode of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific American, New York.

79,800.—FASTENING FOR BOOT.—A. A. Abbot, Boston, Mass. I claim the within described fastening, consisting of the spring bottom, C, in combination with an eyelet, B, or its equivalent, substantially as described.

79,801.—SELF-LOCKING BOLT FOR METER SAFE.—Alonzo W. Adams, New York city. I claim, 1st, The bolt, A, and the devices attached thereto, or equivalents, as shown and described.

79,802.—MACHINE FOR SEPARATING LIGHT FROM HEAVY PARTICLES OF LIMEARGE, PAINT, ETC.—W. Atwood, Cape Elizabeth, Me. I claim, 1st, The combination of the fan wheel, f, tube, g, and rotating drum, b, as and for the specified purposes.

79,803.—ROTARY STEAM ENGINE.—J. S. Barden, Providence, R. I. assignor to himself and D. N. Pickering, Boston, Mass. I claim as my invention, the combination consisting of the two sectoral chambers, c, c, the oscillating pistons, C, D, the shaft, B, the cylinder, d, the reciprocating valve piston, G, its cylinder, F, and tapered or stemmed valves, b, b, arranged and provided with steam passages of induction and eduction the whole being substantially as and so operate as described.

79,804.—SCROLL FOR WATER-WHEEL.—J. L. Beers, McAlisterville, Pa. I claim the arrangement of the gate, D, and bar, C, with the adjustable tongue, B, and the throat, A, as and for the purpose specified.

79,805.—CAR BRAKE.—Wm. P. Blades, Baltimore, Md. I claim the brake block, B, constructed with the slotted cavity, in combination with the supporting bolt, D, made with a neck or bolt to pass through brake car, and when pivoted to the block by the same link which supports the whole, substantially as described.

79,806.—REVENUE STAMP.—G. W. Bowlsby, Monroe, Mich. I claim, 1st, A blank stamp, having no fixed value while in the hands of the Government, until the inspector has estimated the tax, through the proper means, and the amount of the stamp for a specific purpose.

79,807.—HOT WATER TANK ON COOKING STOVE.—Albert Brown, Troy, N. Y. I claim a hot water reservoir, having a descending or driving flue therein substantially as and for the purpose herein specified.

79,808.—FIRE PROOF SAFE.—H. H. Bryant, Boston, Mass. I claim, 1st, The combination of one or more vessels, adapted for containing a liquid suitable for generating steam, with a safe which has its chamber of position steam tight against the steam which is generated from the water in said vessels, substantially as and for the purpose herein described.

79,809.—FIRE-PROOF STRUCTURE.—H. H. Bryant, Boston, Mass. I claim in combination with a safe or other structure of a similar nature, the use of one or more vessels or chambers, used as steam or water generators that are provided with a suitable number of pipes, a, arranged substantially as and for the purpose set forth.

79,810.—MACHINE FOR ATTACHING SPANGLES TO HOOPS OF SKIRTS.—Albert Carter, Forrestville, Conn. I claim the swinging gate, c, with its end inclined upwards, in combination with the inclined as or plate, a, opening, e, and fence, b, substantially as and for the purposes specified.

79,811.—MUSTARD PLASTER.—B. I. Crew, Philadelphia, Pa. I claim a plaster composed of mustard deprived of its fixed oils, and mixed with a solution of India-rubber, or other material insoluble in water as set forth.

79,812.—RAILROAD SWITCH.—James Dampman, Lebanon, Pa. I claim, 1st, The bent switch-rail, C1 C2, and straight rail, C, in combination when the former has the tapering section, N, applied to it by means of rods, f, f, an springs, e, e, and the latter has the frog, F, and pointed rail-extension P, applied to it, all substantially in the manner and for the purpose described.

79,813.—GRAIN SEPARATOR.—L. H. Davis (assignor to Casho and Company, New York, N. Y.). I claim, 1st, The longitudinally vibrating stair shaped screen, F, provided with rectangular perforations, f, in the riser of the stair, as and for the purpose set forth.

79,814.—CORN PLANTER.—Geo. Dickerson, Harveysburg, Ohio. I claim, 1st, The general arrangement of the bracing and adjusting bolts, P e e' and S, sheath, B, tube, K, coverers, D D, and roller, E, all constructed and employed as described.

79,815.—PICK AND PICK-AXE.—E. P. Dickie, Morristown, N. J. I claim the twist-pointed pick or pick-axe, herein described.

79,816.—CLOSING VULCANIZING FLASKS.—Horace M. Edson, Mount Vernon, Ohio. I claim the screw of brass or other suitable metal, which, screwed down through a nut in the top of a vulcanizer, will close the flasks inside of the vulcanizer, as above described, and the steam tight packing box around the screw, to prevent the steam from escaping from the vulcanizer during the process of vulcanizing.

79,817.—STOVE PIPE DAMPER.—L. S. Enos, Almond, N. Y. I claim the serrated latch, C, as constructed and arranged, in combination with the oval plate damper, B, substantially as and for the purposes herein set forth.

79,818.—TOOL SHARPENER.—Samuel Farrenburg, Taylorsville, Ind. I claim, 1st, The arrangement of the wheel, E, cranks, F, F, pitmen, G, G, stones, H, H, slides, I, I, rests, L, L, and binders, M, M, upon the table, A, and operating as set forth.

79,819.—ELECTRIC MACHINE.—A. L. Fleury, New York city. I claim, 1st, The above described electric machine, composed of the non-conductor casing, A, the battery of plates, f, f, f, arranged substantially in the manner set forth.

79,820.—CHIMNEY COWL.—J. W. Foard, San Francisco, Cal. I claim the ventilator, composed essentially of the pipe, A, and cowl, C, united by the connection-pipe, B, the cowl having the expanded end, c, to receive the air to create the current and the elongated cylindrical or parallel-pipedon discharge end, c', for the purpose described, all the said parts being constructed and arranged to operate together, substantially in the manner specified.

79,821.—CHURN.—J. C. Gilbert, Galesburg, Ill. I claim the revolving-box, B, with perforated dashers, H H K, and small lid, F, on the main lid, when the several parts are constructed, arranged, and used to operate substantially as shown and described.

79,822.—ATTACHING PAD HOOKS TO PADS.—Geo. D. Gillett, Meriden, N. Y. I claim in combination with the pad hook, B, the hook, c, and shoulder, b', with or without the shoulders, b, b, as herein shown, and for the purpose described.

79,823.—LAMP CHIMNEY ATTACHMENT.—F. N. Gisborne, and Herbert Almond, London, England. We claim, 1st, Our improved apparatus for regulating the supply of air to the flame of a lamp or burner, when constructed and arranged substantially as herein described and set forth.

79,824.—DISH COVER.—H. S. Goff, and F. M. Goff, Middletown, Conn. We claim, 1st, The arrangement of the cover, B, of the dish, upon one or more vertical pieces, A, so that it slides up or down, and can be fastened up or down upon the dish at pleasure, substantially in the manner described and shown.

79,825.—BIT STOCK.—A. D. Goodell, Florence North Hampton, Mass. Antedated July 3, 1868. I claim, 1st, A bit-stock in which the clamp is formed of the two pieces, D and E, operated by a collar, B, arranged and constructed substantially as shown.

79,826.—STEAM HEATING APPARATUS.—Chas. C. Hall, Portland, Me. I claim, 1st, The open boiler, b, constructed and operating as herein set forth and for the purposes described.

79,827.—FRUIT GATHERER.—O. Court Hamilton, and Harvey McKinney, Turin, Creek, Pa. We claim, 1st, The combination, substantially as set forth, with a partly open box, of jaws, hinged near the edges of the opening, which jaws when closed, complete the box, and thus prevent the spilling of the fruit.

79,828.—NOTARY STEAM ENGINE.—Caleb Harrison, Milwaukee, Wis. Antedated June 27, 1868. I claim an engine consisting of the serrated disk, B, mounted in a case provided with the two steam passages, L, L, and valve, H, and having the shaft, D, provided with the endless screw, P, engaging in the wheel, F, all constructed and arranged to operate as shown and described.

79,829.—HARROW.—Anthony Hochstein, Williamsville, N. Y. I claim the combination of the adjustable teeth-supporting beams, B, independent of each other, and set screws, b', b', substantially as and for the purpose described.

79,830.—WORKING THE PEDALS OF PIANO-FORTES, ETC.—R. H. Hooper, West Roxbury, Mass. I claim, 1st, The pedal levers and treadles, when constructed substantially as shown, and used with the pedals of a piano or other similar musical instrument, all substantially as and for the purpose described.

79,831.—MACHINE FOR WASHING LEATHER.—Adolphus Howard, Westville, N. Y., and George F. Howard, Chicago, Ill., assignors to Geo. F. Howard. We claim, 1st, In a machine for washing leather, the application and use of split brooms, substantially as and for the purposes herein described.

and reciprocating rakes, with the fan and second longitudinally vibrating shaking shoe, for the purposes specified.

79,814.—CORN PLANTER.—Geo. Dickerson, Harveysburg, Ohio. I claim, 1st, The general arrangement of the bracing and adjusting bolts, P e e' and S, sheath, B, tube, K, coverers, D D, and roller, E, all constructed and employed as described.

79,815.—PICK AND PICK-AXE.—E. P. Dickie, Morristown, N. J. I claim the twist-pointed pick or pick-axe, herein described.

79,816.—CLOSING VULCANIZING FLASKS.—Horace M. Edson, Mount Vernon, Ohio. I claim the screw of brass or other suitable metal, which, screwed down through a nut in the top of a vulcanizer, will close the flasks inside of the vulcanizer, as above described, and the steam tight packing box around the screw, to prevent the steam from escaping from the vulcanizer during the process of vulcanizing.

79,817.—STOVE PIPE DAMPER.—L. S. Enos, Almond, N. Y. I claim the serrated latch, C, as constructed and arranged, in combination with the oval plate damper, B, substantially as and for the purposes herein set forth.

79,818.—TOOL SHARPENER.—Samuel Farrenburg, Taylorsville, Ind. I claim, 1st, The arrangement of the wheel, E, cranks, F, F, pitmen, G, G, stones, H, H, slides, I, I, rests, L, L, and binders, M, M, upon the table, A, and operating as set forth.

79,819.—ELECTRIC MACHINE.—A. L. Fleury, New York city. I claim, 1st, The above described electric machine, composed of the non-conductor casing, A, the battery of plates, f, f, f, arranged substantially in the manner set forth.

79,820.—CHIMNEY COWL.—J. W. Foard, San Francisco, Cal. I claim the ventilator, composed essentially of the pipe, A, and cowl, C, united by the connection-pipe, B, the cowl having the expanded end, c, to receive the air to create the current and the elongated cylindrical or parallel-pipedon discharge end, c', for the purpose described, all the said parts being constructed and arranged to operate together, substantially in the manner specified.

79,821.—CHURN.—J. C. Gilbert, Galesburg, Ill. I claim the revolving-box, B, with perforated dashers, H H K, and small lid, F, on the main lid, when the several parts are constructed, arranged, and used to operate substantially as shown and described.

79,822.—ATTACHING PAD HOOKS TO PADS.—Geo. D. Gillett, Meriden, N. Y. I claim in combination with the pad hook, B, the hook, c, and shoulder, b', with or without the shoulders, b, b, as herein shown, and for the purpose described.

79,823.—LAMP CHIMNEY ATTACHMENT.—F. N. Gisborne, and Herbert Almond, London, England. We claim, 1st, Our improved apparatus for regulating the supply of air to the flame of a lamp or burner, when constructed and arranged substantially as herein described and set forth.

79,824.—DISH COVER.—H. S. Goff, and F. M. Goff, Middletown, Conn. We claim, 1st, The arrangement of the cover, B, of the dish, upon one or more vertical pieces, A, so that it slides up or down, and can be fastened up or down upon the dish at pleasure, substantially in the manner described and shown.

79,825.—BIT STOCK.—A. D. Goodell, Florence North Hampton, Mass. Antedated July 3, 1868. I claim, 1st, A bit-stock in which the clamp is formed of the two pieces, D and E, operated by a collar, B, arranged and constructed substantially as shown.

79,826.—STEAM HEATING APPARATUS.—Chas. C. Hall, Portland, Me. I claim, 1st, The open boiler, b, constructed and operating as herein set forth and for the purposes described.

79,827.—FRUIT GATHERER.—O. Court Hamilton, and Harvey McKinney, Turin, Creek, Pa. We claim, 1st, The combination, substantially as set forth, with a partly open box, of jaws, hinged near the edges of the opening, which jaws when closed, complete the box, and thus prevent the spilling of the fruit.

79,828.—NOTARY STEAM ENGINE.—Caleb Harrison, Milwaukee, Wis. Antedated June 27, 1868. I claim an engine consisting of the serrated disk, B, mounted in a case provided with the two steam passages, L, L, and valve, H, and having the shaft, D, provided with the endless screw, P, engaging in the wheel, F, all constructed and arranged to operate as shown and described.

79,829.—HARROW.—Anthony Hochstein, Williamsville, N. Y. I claim the combination of the adjustable teeth-supporting beams, B, independent of each other, and set screws, b', b', substantially as and for the purpose described.

79,830.—WORKING THE PEDALS OF PIANO-FORTES, ETC.—R. H. Hooper, West Roxbury, Mass. I claim, 1st, The pedal levers and treadles, when constructed substantially as shown, and used with the pedals of a piano or other similar musical instrument, all substantially as and for the purpose described.

79,831.—MACHINE FOR WASHING LEATHER.—Adolphus Howard, Westville, N. Y., and George F. Howard, Chicago, Ill., assignors to Geo. F. Howard. We claim, 1st, In a machine for washing leather, the application and use of split brooms, substantially as and for the purposes herein described.

79,832.—MACHINE FOR SIZING HAT BODIES.—Wm. H. Hoyt (assignor to himself and Nathan Seeley), Bethel, Conn. I claim, 1st, The combination of the vibrating or swinging segment, D, and the correspondingly formed bed, a, a, hinged or pivoted at N, it being elastically supported by the spring, O, substantially as herein described and for the purpose set forth.

79,833.—MACHINE FOR SIZING HAT BODIES.—Wm. H. Hoyt (assignor to himself and Nathan Seeley), Bethel, Conn. I claim, 1st, The combination of the vibrating or swinging segment, D, and the correspondingly formed bed, a, a, hinged or pivoted at N, it being elastically supported by the spring, O, substantially as herein described and for the purpose set forth.

79,834.—PLOW.—Abram C. Jacques, Leavenworth, Kansas. I claim, 1st, The adjustable frame, F, and roller, G, to determine and guide the width of the furrow, substantially as and for the purpose described.

79,835.—WINDOW SASH STOP.—James G. Jewell, Washington, D. C. I claim the combination of the metallic socket nail, g, with the tooth, F, the socket nail to be made with a sharp point where it penetrates the wood, so that it may be driven into its proper place, like a nail or tack, having an angular groove in its head, in which the tooth, F, rests when the window is locked down.

79,836.—STOVE PIPE DAMPER.—John Johnson, Atkinson, Ill. I claim a stove damper consisting of one center plate, A, made of a circular r m, a, and two wire sieve, with arms, c, c, and two outside perforated plates, B and C, of oval shape, arranged and used together as described, substantially as and for the purposes herein set forth.

79,837.—CAR SEAT.—C. P. Kimball, Portland, Me. I claim, 1st, Locking or securing the seats of cars so that they cannot be turned or reversed, either separately or altogether, without operating the lever or brake, c, in the manner and by the means substantially as set forth.

79,838.—MACHINE FOR SEPARATING IRON FROM SUGAR.—John Meyer, Portland, Me. I claim an improvement in the process of filtering sirup in manufacturing sugar, the improved filtrator herein shown and described, having the metallic sieve, for the purpose of eliminating the particles of iron which have become mixed with the charcoal in the process of preparing the same.

79,839.—INSTRUMENT FOR STRETCHING BOOTS AND SHOES.—George Munro, Philadelphia, Pa. I claim, 1st, The combination of the sections, A, B, block, C, screw spindle, D, and G, bevel wheels, h and h', and the whole being arranged and operating substantially as and for the purpose herein set forth.

79,840.—MACHINE FOR SEPARATING IRON FROM SUGAR.—John Meyer, Portland, Me. I claim an improvement in the process of filtering sirup in manufacturing sugar, the improved filtrator herein shown and described, having the metallic sieve, for the purpose of eliminating the particles of iron which have become mixed with the charcoal in the process of preparing the same.

79,841.—DITCHING MACHINE.—Patrick O'Conner and Morris Collins, Decatur, Ill. We claim in combination with the beam, A, and the plow, C, the mold boards, D, knives, K and L, screw, G, and guides, I, so that the whole may be moved and adjusted by said screw, substantially as specified and for the purpose set forth.

79,842.—HORSE POWER.—George Oerlein, Utica, Minn. I claim, 1st, A horse power arranged on wheels substantially as described.

79,843.—PAINTERS' HOOK.—John W. Pattee (assignor to himself and Ephraim Elliott), Thorston, N. H. I claim the combination and arrangement of the arms, c, and d, with their projections, e and f, eye hook, g, or its equivalent, and main hook, i, with or without the projection or barb, when arranged substantially as described and for the purposes fully set forth.

79,844.—WIRE AND PICKET FENCE.—Elias C. Patterson, Rochester, N. Y. I claim a wire and picket fence in which each picket is provided with two or more pairs of oblique slots or notches for wires, at different heights, the notches of each pair in the same picket being also at different heights on opposite sides, and inclined, the one upward and the other downward, the pickets being so arranged that each wire of a pair shall alternate from a high to a low notch, and vice versa, in the successive pickets, and the two wires of each pair being tightened by being seized together at their crossings, substantially as described.

79,845.—WAGON BRAKE.—David Philips, Cordova, Ill. I claim the brake consisting of the roller bar, B, having the blocks, d, pivoted thereon, with the lever, D, supports, C, and chains, F, when said parts are constructed and arranged to operate substantially as described.

79,846.—SEWING MACHINE.—Hiram Plummer, Brooklyn, N. Y. assignor to himself and Wm. E. Donbley & Co., New York city. I claim, 1st, The combination a reciprocating perforating needle with the folder, o, constructed and operating substantially as described, and shutter, r, or its equivalent, for the purposes and as set forth.

79,847.—GATE.—Jerome Potter, Pierceton, Ind. I claim a sliding gate having a long stile, I, and a short stile, J, in combination with a stationary bar, D, and movable bar, E, the whole being constructed and arranged substantially as and for the purpose set forth.

79,848.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,849.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,850.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,851.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,852.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,853.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,854.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,855.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,856.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,857.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,858.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,859.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,860.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,861.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,862.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,863.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,864.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,865.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,866.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,867.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,868.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,869.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,870.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,871.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,872.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,873.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,874.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,875.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,876.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,877.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,878.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,879.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,880.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,881.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright hollow shafts, D D, and their hoppers, M M, or their equivalent.

79,882.—MACHINE FOR DRESSING STONES.—Francis L. King, Worcester, Mass. The arrangements of the grinder blocks, U, U, so as to leave a hollow space in the center, and the conveyance of sand and water to the hollow space left by this arrangement of the stone in the grinder boxes by means of the upright

79,858.—MACHINE FOR MAKING WOODEN BOXES.—Reuben Ramsdell, Rindge, N. H.
I claim in combination with the former block or its equivalent, the groove or grooves, d, for turning the nail points, substantially as set forth.
Also in combination with the block, c, the jaw block, e, with its clamping or gripping jaw, g, and the spring, h, substantially as set forth.
I claim the combination with the jaw, e, and the block, c, the adjusting screw, k, substantially as set forth for the purpose set forth.

79,859.—PADLOCK.—David F. Randall, Chicopee, Mass.
I claim, 1st, The arrangement of the detent, O, in the curved depression beneath the heel of the shackle, so that the detent cannot be removed without detaching the shackle from the body of the padlock, as set forth.
2d, The combination of the padlock body, for me as described, slotted and serrated bolt, B, spring, H, detent, O, and shackle, C, with the elongated and rigid key shank, T, the whole constructed and operating substantially as described.

79,860.—TEA KETTLE.—Ezra Ripley, Troy, N. Y., assignor to himself and W. C. Davis & Co., Cincinnati, Ohio.
I claim, 1st, A tea kettle or other culinary vessel having a hinged ball and an edge-wise swinging cover, so hinged or pivoted, and made flat, or so shaped on top that the cover forms a convenient shelf for supporting and warming other culinary vessels of larger diameter than the cover.
2d, In combination with a cover formed and hinged as specified in the preceding clause, so constructing and applying the ball or lifting handle and the rear ball lug, that when the ball is turned down it will permit the cover to swing over it, as described.

79,861.—DETACHABLE MUZZLE FOR SHOT GUNS.—S. H. Roper, Roxbury, assignor to the Roper Repeating Rifle Company, Amherst, Mass.
I claim a contracted ring or ferrule, substantially as described, attachable to and detachable from the muzzle of a shot gun by means of a screw joint, for the purpose of diminishing or increasing the scatter of the shot, substantially as shown and described.

79,862.—DOOR STRAIGHTENER.—O. C. Ross, Penfield, N. Y.
I claim the device for straightening doors consisting of sections, D, D, connecting intermediately at b, and engaging at the extremities with lugs, C, C, by means of angles, f, g, and ribs and slots, b, i, substantially as herein set forth.

79,863.—STEAM ENGINE.—W. G. Savage, Knoxville, Iowa.
I claim, 1st, The arrangement of the lever, S, and spring, x, with the shaft, F, and wheel G, by which means the motion of the engine is reversed, substantially as set forth.
2d, The combination of the valve, C, with the head, A, having a hub, b, and the cylinder, D, with its steam press, B, a, constructed and operating substantially as specified.

79,864.—GUDGEON FOR BOOM.—Charles Sayward, Gloucester, Mass.
I claim the arrangement of the swivel, hinge, yoke, and bolt, the swivel inter-lying between the boom and the hinge, substantially as and for the purpose specified.

79,865.—GRINDING PLATE FOR GRIST-MILL.—Henry Shaw and William D. Leavitt, New Orleans, La.
We claim the combination and arrangement of the cast iron grinding plate, B, having diamond shaped projections, A, the angle-iron, non-conducting paper packing, C, and back plate D, all constructed and secured together in the manner and for the purpose herein described.

79,866.—FURNACE FOR MELTING METALS.—William Shea and L. D. Harvey, Harvey, Mich.
We claim the putting of pipes into cast iron plates, substantially as and for the purposes above set forth.

79,867.—JOURNAL BOX.—William Sherburne, Charlestown, Mass.
I claim, 1st, The bolt, E, constructed as and for the purposes above described.
2d, The bolt, E, in combination with the jaw, m, and oil box, B, substantially as and for the purpose above specified.

79,868.—TYPE WRITING MACHINE.—C. Latham Sholes, Carlos Glidden and Samuel W. Soule, Milwaukee, Wis.
We claim, 1st, A circular annular disk, C, with radial grooves and slots, or grooves alone, to receive and guide the type bars or hammers, so that they inevitably and necessarily will strike the central point with perfect accuracy, when made and operated for the purpose, as described.
2d, The combination of a circular annular disk, C, with radial grooves or slots, with type bars fitted therein, and pivoted thereto, when made operated for the purpose, as described.
3d, The combination of a ratchet, or regular or equidistant teeth or cogs, with rods and levers to the keys, so that the paper carriage will be moved a certain and exact distance every time a key is struck, when made and operated for the purpose, as described.
4th, The clamps, or rod, u, in combination with the hinges, h, and the catches or buttons, m, for holding the paper securely down on the carriage, when made and operated for the purpose, as described.

79,869.—BRIDGE BLOCK.—J. R. Smith, Springfield, Mass.
I claim, in combination with the wrought iron locks, D, D, connecting the heads, a, of the chords, the cast iron block, filling in closely around the joints, substantially as and for the purpose herein described.

79,870.—WATER WHEEL REGULATOR.—Hervey D. Snow, Bennington, Vt.
I claim the adjustable stops, g, g', in combination with the pawls, r, s, satchel wheel, f, and flange, t, moved by a connection to the governor, substantially as set forth.

79,871.—HARVESTER.—Welcome Sprague, Farnham, N. Y., assignor to himself and Bernard H. Meuble, Antebated June 30, 1868.
I claim so constructing a reaping machine that the grain, after it is cut by the knives or cutters, will be collected and formed into a rope, or equivalent, and in that shape be left, in the rear of the machine upon the ground.

79,872.—CARD CYLINDER.—Joseph M. Stone, (assignor to himself, George L. Davis, and John A. Wiley), North Andover, Mass.
I claim a card cylinder, formed of a thin shell, with three or more spiders or sets of arms in the same, all cast in one piece, substantially as described, as a new manufacture.

79,873.—HOISTING GATE.—George Stowe, Braceville, Ohio.
I claim, 1st, The supporting bars, B and C, constructed with a slot, and operating substantially as described and specified.
2d, The grooves, D and E, in the ends of the tire box, constructed and operating as herein described.
3d, The bottom grate, H, provided with an rib or guide, or its equivalent, for the purpose of guiding the grate, and constructed and so arranged as to be hoisted and dumped, substantially as shown and described.

79,874.—HARNES BUCKLE.—W. H. Taylor, Baldwinville, N. Y.
I claim the combination of buckle and loop, substantially as and for the purpose specified.

79,875.—OIL TOBACCO, AND OTHER PRESSES.—Enoch Thomas, Craigsville, Va.
I claim, 1st, The combination and arrangement of the double acting toggle levers, E E' and F F' with the follower frame, D, and the reciprocating frame, I, substantially in the manner herein described, and for the purpose specified.
2d, The combination and arrangement of the sectors, J J and J' J', rocking shafts, H H', shaft, K, and eccentric wheels, L L, in relation to each other and to the reciprocating frame, I, toggle levers, E E' and F F', substantially as herein described, and for the purpose specified.

79,876.—WEATHER STRIP.—James H. Thomas, Lynn, Mass.
I claim the combination of the flexible elastic roll, D, with the short cylinder, K K', &c., and the spindle, H, arranged substantially as described, and for the purpose set forth.

79,877.—LATHE REST.—William Thompson, Worcester, Mass.
I claim connecting the nut, E, to the poppet block, C, by means of a screw passing through a slot in the side of the rest B, in the manner herein described.

79,878.—FILE CUTTING MACHINE.—Thomas E. Thurston, assignor to himself and James Kearney, Newark, N. J.
I claim, plate having the part, c, cast or forged therewith, in combination with parts, a, b, and B and E, all combined and arranged in the manner and for the purpose set forth.
Also the improved adjustable stem, D, the improved parts, E and F, the improved part G, and the adjustable roller, u, when arranged and used in a file cutting machine, which has thereon the improved part, e, all constructed and arranged as hereinabove set forth.

79,879.—LOCK BOLT.—George Washburn, New York city, Antebated June 27, 1868.
I claim, 1st, The combination and arrangement of the slide bolt, C, provided with the rack, E, the case, G, pinion, F, and shaft, H, provided with the bolt, I, and collar, e, all operating as described, for the purpose specified.
2d, The key, J, provided with the thumb lever, L, having the pin, g, attached, in combination with the shaft or arbor, H, of the pinion, F, said shaft having the hole, f, substantially as and for the purpose specified.

79,880.—GANG PLOW.—Jas. T. Watkins, Santa Clara, Cal.
I claim, 1st, The plows, H, H, in combination with the blocks, E E', the holding screws, I, I, by which the plows are adjusted, and the wedges, a, a, constructed and arranged substantially as described.
2d, The blocks, E E', mounted upon the axles, C C', and the bent arms, J J', with the set screws K K', for regulating the depth of the furrows, substantially as described.
3d, The bent arm, N, and connecting rod, O, with the handle, M, and the catch, P, for disengaging the plows, substantially as described.
4th, The bent axle, R, with the nut, R', and the screw, S, for raising and depressing the furrow wheel, substantially as described.

79,881.—HARVESTER RAKE.—Cyrenus Wheeler, Jr., Auburn, N. Y.
I claim, 1st, The construction and arrangement of the chain sheave or pulley, whereby it is adapted to serve as the rotating head to which the rake and reel arms are pivoted.
2d, The arrangement of the endless chain and the driving and guide pulleys, for driving the rake, arranged on one side of the drive wheel, from a pulley or sheave on the opposite side of said wheel, substantially as described.
3d, The rake cam or track made in one piece with the base plate or yoke, and attached to the rake stand, substantially as described.
4th, M, uniting the friction rollers that traverse the guiding cam in detachable boxes or stands, located in recesses or chambers formed in the rake and reel arms.
5th, Linking the rake and reel arms together in pairs, in such manner that the angle of relation of said arms may be varied by adjusting the point of connection of the links, therewith at either end.
6th, The rake and reel arms provided with lugs or ears, having set screws for adjusting the same in passing over the platform.
7th, The guiding sheave or pulleys in front of the drive wheel, around which the rake driving chain passes, made adjustable for the purpose set forth.

8th, The main frame, or arm, A', thereof, extended in rear of the drive wheel, and affording a point of support for the seat bar, substantially as described.

79,882.—WASHING COMPOUND.—H. K. White, Conneaut township, Pa.
I claim the above described composition for washing and cleansing clothing and other goods, compounded in about the proportions specified.

79,883.—APPARATUS FOR MOVING HEAVY BODIES.—Charles Whitaker, Milwaukee, Wis.
I claim the portable lifting apparatus consisting of a frame, A, mounted on wheels, with a series of vertical screws, E, with the bars, F, and stirrups, G, arranged to be operated by bevel gear attached to the horizontal shafts, H, all substantially as described.

79,884.—PORTABLE FENCE.—Henry Willard, Ripon, Wis.
I claim the adjustable braces, C C, the mortised posts, A, the hook, D, and the pin, B, the whole arranged and combined with the fence in the manner substantially as and for the purposes shown and described.

79,885.—WINDLASS.—Geo. L. Woods, Newburyport, Mass.
I claim the arrangement of the spaxton, c, shaft, f, f', and the bevel gears, g, h, h', in connection with the windlass, r, when constructed and operated as and for the purpose set forth.

79,886.—FEED RACK.—Morgan Workman, Washington township, Ohio.
I claim in the construction of a feed rack, the arrangement of the removable troughs, B, and hinged covers, b, substantially in the manner and for the purpose herein described.

79,887.—LAMP.—Ferdinand Adt (assignor to himself and Elisha Turner), Wolcottville, Conn.
I claim a reflector placed between two or more deflectors, and within the chimney, so as to reflect the light from the flames in the manner specified; and in combination with such deflectors and reflectors, the air tube, f, for the purposes set forth.

79,888.—INKING APPARATUS FOR COLOR PRINTING.—Thos. L. Bayles, Richmond, Ind., assignor by reassignment to the American Patent Chromatic Printing Press Company.
I claim, 1st, The combination of the central bar, u, a series of adjustable inking bars, D E, and a clamp for securing the bars at the ends without the intervention of an external lateral support, substantially as set forth.
2d, Interposing rubber or other yielding material, between the inner surface of the hook of bars, D and E, and the point of contact with cylinder, B, and longitudinal bars, e and e', for the purpose set forth.
3d, The c, m, b and b', in combination with bars, f and f', and rollers, C and C', substantially as described and for the purpose set forth.

79,889.—FRUIT CAN.—Charles Becker, John A. Ross, and Jacob S. Ruernagel, Allegheny City, Pa.
We claim the arrangement of the corrugated lip, D, shoulder, o, flange, l, and recess, s, constructed, arranged, and operating as herein described and for the purpose set forth.

79,890.—MANUFACTURE OF FRUIT CANS.—Charles Becker, John A. Ross, and Jacob Steuermagel, Allegheny City, Pa.
We claim the method herein described for forming and providing fruit cans with an inner flange, for the purpose set forth.

79,891.—THRILL-COUPLING.—Henry M. Beecher (assignor to H. D. Smith & Co.), Plantville, Conn.
I claim the improved shaft connection, as made with the lips, a, a, to its base, and in other respects substantially as described and represented.

79,892.—MANUFACTURE OF GLASS.—Leon Bemelmans and Laurent De Give, Atlanta, Ga.
We claim, 1st, The process, broadly, of manufacturing window and mirror-glasses, of whatever thickness and size, by pressing the melted glass between two parallel and polished plates, whatever may be the mode of pressing employed.
2d, The machine to carry said process in operation, called window and mirror-glass-manufacturing machine, heretofore described, or any other substantially the same, and which will produce the intended effect.

79,893.—MANUFACTURE OF GLASS.—Leon Bemelmans and Laurent De Give, Atlanta, Ga.
We claim a machine called window and mirror-glasses-molding machine, heretofore described, or any other substantially the same, and which will produce the intended effect.

79,894.—CIRCUIT CLOSER.—William J. Biggar and John C. Blood, Cincinnati, Ohio.
We claim the combination of the board, A, the brass and iron strips m, n, the sliding bolt, e, the spring lever, c, and the posts, b, b', with the insulated wires, arranged and operating substantially as and for the purpose herein described.

79,895.—ELECTRO-MAGNETIC BURGLAR ALARM.—William J. Biggar, John C. Blood, and Del M. Griswold, Conneaut, Ohio.
We claim the combination and arrangement of the magnets, B B', armature, C, pivoted frame, D, wheel, E, provided with pins, d, and catch, r, hinged lever catch, b, bell, K, hammer, H, handle, m, spiral springs, s, s, catch, p, swinging holder, N, rubber, O, stand, M, lamp, L, weight, F, cord, J, shaft, G, wires, z, and circuit connections and breakers, all substantially as and for the purpose herein shown and described.

79,896.—APPARATUS FOR INSULATING TELEGRAPH WIRES.—Samuel B. Bishop and William W. Marks, New York city.
We claim the combination of the dies, E C, with the feed orifice, a, when the back or male die, B, is perforated for the passage, in a separated manner, of duplicated wires, and so arranged, relatively to the feed of the insulating material through the orifice, a, as that the wires, in their passage to and through the front die, C, are caused to travel in a plane which is transverse or at right angles to the feed orifice, a, substantially as and for the purpose herein set forth.

79,897.—KNITTING MACHINE.—Charles W. Blakeslee, Watertown, Ebenezer D. Beecher, Westville, and Anthony G. Davis, Watertown, N. Y.
We claim the combination, with the beedle-actuating cam, of an endless belt or chain for driving it, substantially as set forth.
Also the combination, with an endless chain or belt, of an arm, which, when revolving continuously or reversing its movements around the machine, substantially as set forth, will impart a reciprocating motion to the thread guide.
Also the combination of the traveling needle-operating cam with the guide bars, M, M, with which it engages and disengages, substantially as set forth.
Also, the narrowing and widening stops, constructed with cam surfaces, as described, for insuring the connection of the thread guide with its driver, and its disconnection therefrom, substantially as set forth.
Also, the combination, with the thread guide, of stops with the removable bar which supports them, constructed substantially as and for the purpose set forth.
Also, the combination, with a knitting machine, of a detachable automatic traveler for narrowing and widening, actuated by a traversing finger or projection, substantially as described.
Also, a narrowing and widening device, constructed and operating substantially as set forth.

79,898.—SPECTACLES.—Erastus S. Clapp, (assignor to himself and Isaac Chinery), Montague, Mass.
I claim the combination of the spectacle frame, the rod, D, with glass rings and glasses attached thereto, and made adjustable, substantially as and for the purpose herein shown and described.

79,899.—MACHINE FOR MAKING ROVING.—Nathan F. Clark, (assignor to himself and George H. Cook, Lawrence, Mass.)
I claim the combination and arrangement of the tube, F, and bobbin rest, D, constructed as described, with the bolster A, the tube, F, having the oil passages, b and c, for conveying the oil to the surface of the spindle and to the interior of the bolster, substantially as and for the purpose set forth.

79,900.—JOURNAL BOX.—Richard Colborn and George W. Gould, Norwich, Conn.
We claim, 1st, The combination with the bottom, A, the top, B, of the box, of the end grooves, C, C, longitudinal grooves, b, g, cross grooves, c, c, and the wicks, m, h, with or without grooves, 4 4, substantially as and for the purposes set forth.
2d, The combination, with the parts, A and B, of the end grooves, C C' longitudinal groove, b, cross groove, c, c', and wick, m, substantially as and for the purposes herein set forth.
3d, The combination, with the metal part, e, and groove, h, of the box, of the groove covering and rabbit supporting plate, i, substantially as and for the purposes set forth.

79,901.—EMBROIDERING MACHINE.—Jacob Einhorn, (assignor to himself and Jacob Engster), New York city.
I claim, 1st, The arrangement of embroidery mechanism, substantially as described, in a jointed, swinging horizontal frame, D, E, so that ornamental designs may be produced without moving the fabric after each stitch, substantially as herein shown and described.
2d, The longitudinally adjustable frame, B, in which the fabric is held, in combination with the jointed swinging horizontal frame, D, E, made as set forth.
3d, The rotating cam, M, rod, k, and lever, l, and hook, I, in combination with the tube, J, and with a spring on or within the same, all made and operating substantially as herein shown and described.
4th, The oscillating lever, n, o, in combination with the crank shaft, I, and reciprocating holder, N, all made and operating substantially as herein shown and described, for the purpose of operating the needle in the manner specified.
5th, The longitudinally adjustable oscillating lever, n, in combination with the levers, P, P, and the spring catch, e, or its equivalent, all made and operating so as to allow the needle to be easily thrown in or out of gear.
6th, The application of the hook, L, and needle, O, operated by the mechanism described for working a chain stitch, for the purpose specified.

79,902.—MEAT CUTTER.—C. A. Foster, Fitchburg, Mass., assignor to himself and Harlan P. Derby.
I claim, 1st, The combination of the chopping knife, its slotted arm, H, and sliding blocks, 4, with the grooved wheel, in which said blocks move, and the pin, upon which the said arm is hung, substantially as and for the purposes shown and set forth.
2d, The combination of the chopping knife, its vibratory arm, and the grooved or slotted wheel for actuating the same, with their supporting frame arranged to overhang or extend across the revolving meat tub, substantially in the manner and for the purposes shown and described.
3d, The combination, with the cross piece, C, and stands, B, B', and F, of shaft, E, wheel, G, stand, D, stud, c, and arm, H, substantially as and for the purposes set forth.

79,903.—FIRE KINDLING.—Charles Gaudin, Zoe Granier, and Jules Granier, San Francisco, Cal.
We claim forming a fire kindling ball upon the end of an inflammable wick for the purpose of ready ignition, as herein shown and described.

79,904.—FAGOT OR PILE FOR MANUFACTURING RAILROAD RAILS.—William Hayward and John Lees, Danville, Pa.
We claim the "pile," as represented in the drawing, either with or without the part, A, substantially as shown, and for the purposes set forth.

79,905.—MACHINERY FOR MAKING WIRE HEDDLES.—Emil T. Hertle and Richard Thompson, New York city.
We claim, 1st, Arranging the head stocks b' b' which support the inner or

adjacent ends of the cylinders, a, a', in the manner described and for the purpose set forth.

2d, The combination of the movable cylinders, a, a', the rods, i, i', bars, h, h', and cam pieces, g, g', substantially as described and for the purpose set forth.

79,906.—FRUIT PICKER.—Leander Hotchkiss, Torrington, assignor to Elisha Turner, Wolcottville, Conn.
I claim a fruit gatherer formed of a jointed segmental ring, that closes upon the fruit in the act of pulling or cutting the same off, substantially as set forth.

79,907.—MILK CAN.—George A. Huggins (assignor to himself and H. W. Shepard, Mansville, N. Y.)
I claim the sheet metal body, A, and cast or malleable bottom, B, when the latter is grooved so as to form a seat for the lower end, and at the same time furnish an outer rim for the protection of its lower edge, when the same are combined and attached, substantially as described as and for the purpose specified.

79,908.—LOOM.—John P. Humaston (assignor to himself and Hamilton E. Towle), New York city.
I claim, 1st, The combination of the fly and the pivoted and vibratory shuttle carriers with connecting rods and levers, receiving and imparting their movement from a single revolving cam shaft directly to said lay and shuttle carriers, substantially as herein shown and described.
2d, The construction of the two shuttle carriers, vibrating on an axis common to both, when the same are provided with shoulders or jogs, acting in the manner and for the purpose set forth.

79,909.—WAGON SEAT.—Almon Hunt and C. C. Chapman, Macomb, Ill.
We claim the springs, B B', cross pieces, b, c, hooks, b', pins, d, and seat, C, the whole being combined and arranged as described.

79,910.—INKING APPARATUS FOR COLOR PRINTING.—Joshua Hunt, Richmond, Ind., assignor, by reassignment, to The American Patent Chromatic Printing Press Company.
I claim the combination of the type bed, B, the two forms, and the type inking rollers, E G', and the adjustable cam tracks, I I', when constructed and arranged in relation to the ink distributing rollers, that different colored inks, first disposed in bands on the type inking roller, or on part thereof, shall be transferred simultaneously to the lines of type, as a single color be transferred to the other form, so that by two impressions the sheet or the form being reversed, two completed jobs may be printed, which the letter press is printed in more than two colors, and the border in one color, substantially as set forth.

79,911.—PASSENGER REGISTER.—Thomas S. Huntington and A. Fulton, Bellefontaine, Ohio.
We claim, 1st, The hinged or pivoted levers or arms, D, when used for operating a register or indicator, in connection with the rotating disk, C, and cams, d', d', substantially in the manner and for the purpose herein set forth.
2d, The combination of the revolving disk, C, the fixed cam, F, and the lever or arms, D, substantially in the manner and for the purpose set forth.
3d, The combination of the cam, E, and the fixed cam, F, for the purpose of operating the arms, D, in the manner and for the purpose set forth.
4th, The combination of the cams, d, and the disk, C, for the purpose set forth.
5th, The combination of the levers, J K L, the spring, M, and the register, substantially in the manner and for the purpose set forth.
6th, The register ring, g, with its cylinder, k, and slot, l, when constructed in the manner and for the purpose specified.
7th, The combination of the register rings, the slot, l, and the pawls, g' h' i', in the manner and for the purpose specified.
8th, The arms, D, when constructed and operated by means of the fixed cam, F, on the cylinder, k, in the manner and for the purpose specified.
9th, The register rings, so constructed that, on their outer surfaces, figures, letters, &c., may be placed, and on their inside a ratchet and flange, as and for the purpose herein described.
10th, In combination with the rotating rings, the reciprocating shaft, I, and pawls, g' h' i', when constructed and operated substantially as described.

79,912.—MACHINE FOR PUNCHING AND SHEARING.—Michael A. Lanagan, Brooklyn, N. Y., assignor to himself, John Dailey, Robert Russell, and Andrew Mercein.
I claim, 1st, In combination with the punch, C, the plate carrying bed, A, arranged to slide crosswise of the punch, and provided with racks or teeth, l, l, on opposite edges of its reverse pawls, g, h, connected by arms, g' h', with a vibrating shaft, H, slotted levers, g' h', in connection with said pawls, and beam lever, g', for throwing either pawl in gear with the bed, or disconnecting both therefrom, to reverse or stop the motion of the bed, without changing or arresting the movement of the punch, essentially as specified.
2d, The combination of the punch, C, of the intermittently fed bed, A, and shears, M, N, arranged, as described, or operation together automatically to punch the plate in a regular or uniform manner, and to trim or dress its edge as it is passed through the machine, substantially as herein set forth.
3d, The combination, with the shears, M, N, and intermittently fed bed, A, of the double pawl, m, n, and accompanying mechanism for giving a reverse action to the bed, or arresting its motion without changing or stopping the shears, essentially as specified.

79,913.—SNOW PLOW.—Samuel Lewis (assignor to William H. Cameyer), Brooklyn, N. Y., Antebated July 6, 1868.
I claim the combination of the lever, 9, axle, 10, gearing, 7, 8, chains, 11, 12, 13, pulleys, 6 6 6 6, levs, 14 14, and guides, 17 17 17, as set forth, to the body of a "snow plow," as ordinarily constructed, all as explained and specified.

79,914.—APPARATUS FOR FEEDING FUEL TO FURNACES.—John McCormick, Louisville, Ky., assignor to himself and M. W. Ferguson, Antebated July 3, 1868.
I claim, 1st, The arrangement of the double acting screw, e', within cylinder, C, when constructed and used substantially as and for the purpose specified.
2d, The arrangement of the concaves, e, e', and wheels, e, e, within the spout, E, through which fuel is fed to a furnace, substantially as and for the purposes indicated.
3d, The arrangement of the bifurcated spouts, E E, astride of the boilers, A, A, substantially as and for the purposes described.
4th, The instrument, I, when used in a feeding spout for the purpose of directing the fuel to its proper destination, and constructed and operated as above described.
5th, The vibrating plates, m, m, substantially as and for the purpose specified.
6th, The arrangement of the vibrating grate, G, with the horizontal boilers, A, A, in such a position that it vibrates back and forth transversely under them, for the purpose of leveling the fuel beneath them, substantially as described.

79,915.—RAILROAD TELEGRAPH ALARM.—G. Natcher, Sidney, Ohio, assignor to himself and L. Marks & Co.
I claim, 1st, A telegraphic alarm for railroads, which is capable of indicating at each station the progress of the train along the track, and also of giving a suitable alarm along the entire track, both in front and rear of said train, by means of the signal boxes, F, gongs, G, hammers, H, levers, J, tape, K, K', and rods, O, or their mechanical equivalents, the whole being arranged and operating substantially as herein described, and for the purpose set forth.
2d, In combination with the elements, F, G, H, J, K, K', and O, of the preceding clause, the spring guard, L, for the object set forth.
3d, In combination with the elements, F, G, H, J, K, K', and O, of the first clause, the indicator, P, for the purpose herein described.

79,916.—AXLE BOX.—Benjamin M. Pearne and Leroy Coville, Oxford, N. Y.
We claim the combination of the metallic box, B, and bands, C, C, with the axle, A, when said box has a central depression, and is enlarged at each end for the bands, as set forth.

79,917.—GANG PLOW.—John F. Porter and Alonzo Norton, Tidoute, Pa.
We claim, 1st, The hinged coupler, I, attached to the plow, and operating as set forth.
2d, A plow, so constructed and operating that the draft is mainly or wholly upon the point, as herein set forth.
3d, The combination of the hinged standards, K E', with the plow, D, substantially as described.
4th, The combination of the rack, n, socket, S, cam, o, lever, p, standard, K, and plow, D, substantially as described, and for the purpose set forth.

79,918.—BUCKLE FOR SUSPENSE.—Augustus Pototsky (assignor to Fisk, Clark & Flagler), New York city.
I claim the combination of the members thereof with a spring stud upon one member, and with the slotted stop plate upon the other member thereof, substantially as before set forth.
Also, the combination of the stock of the buckle, constructed with a toothed slot, with a turning bar clamp, substantially as before set forth.

79,919.—ADJUSTABLE BARREL HEAD.—Peter Rink and James Docherty, Westville, N. J.
We claim the bevel edge, C, grooved upon each side to receive the edges of the parts, a, b, of the barrel head, the short beveled wedge, D, raised upon a shoulder side to fit between the said parts, and rest upon their upper sides, both wedges secured together and tightened in the head by means of the beveled wedge, E, all constructed, arranged, and operating as herein described, for the purpose specified.

79,920.—RAILROAD CAR STOVE.—John K. Sax and George W. Kear, Kingston, Pa.
We claim, 1st, The door, M, provided with the eccentric spring latch, O, and sunk in from the surface to protect it from breaking in time of accident, substantially as and for the purposes above set forth.
2d, The combination of the base, A, pan, B, and its valve, revolving grate, F, and its cog gearing, and perforated cover, C, and its perforated dome, N, and the door, M, all constructed and forming a cylindrical stove for railroad cars, and operating as specified.

79,921.—COFFIN.—Bernard Smith (assignor to "American Burial Case Company," Cincinnati, Ohio).
I claim constructing a burial case substantially in the manner herein described, with the outer edge of the flange, D, flush, or nearly so, with the sides, B B', of a body, A, whose upper portion is set in, as and for the objects designated.

79,922.—SCOOP AND SIFTER.—E. J. Smith & F. B. Perkins, Chicago, Ill., assignors to E. J. Smith.
We claim the combination of the sifter, J, rod, E, coil spring, H, and curved rod, G, substantially as and for the purpose herein set forth.

79,923.—LOOM FOR WEAVING PALM LEAF.—John C. Smith, Chicopee, assignor to himself and L. D. Hills, Amherst, Mass.
I claim, 1st, In combination with a reciprocating weft carrier, the feed trough and oscillating box, constructed substantially as and for the purpose set forth.
2d, In combination with the feed trough and oscillating box, the sliding weights, D, substantially as and for the purpose described.
3d, In combination with the feed trough, and weft carrier, the books, e, e, operating substantially as and for the purpose specified.
4th, In combination with the feed trough weft carrier, and books, e, e, or their equivalents, the sliding bar, v, substantially as and for the purpose set forth.
5th, The mechanism, substantially as described, for causing the cloth beam and harness to stop when the pincers fall to make a successful pick.
6th, The slotted arm, y, attached to the lay, to receive the strip of palm leaf, and to prevent it from turning or twisting, substantially as described.
7th, The lever, N, so arranged that it will bear against the lower side of the

strip of wool while the same is being drawn into the shed, and thereby tend to prevent it from twisting or turning.

79,924.—LAMP.—David M. Smith, Orange, N. J., assignor to Benjamin F. Small, New York City.
I claim the safety lamp, formed of a tube, and constructed substantially as hereinbefore set forth.

79,925.—TOOL FOR FITTING BANDS ON HUBS.—Charles E. Stone, Amesbury, and Alfred Herbert, Salisbury, Mass.
We claim the handle, B, curved at c, c, c, and adjustably pivoted to the extension, C, of the handle, A, by means of the set screw, a, fitted into either one of a series of holes, b b b formed in said arm, C, substantially as and for the purposes herein shown and described.

79,926.—APPARATUS FOR THE MANUFACTURE OF WHISKEY.—Hiram Vaughn, Thomas Chaffwell, E. H. Childress, and G. A. Webber, Nashville, Tenn. Antedated July 2, 1868.
We claim 1st, The process hereinbefore described of manufacturing whiskey, or any kind of spirit, whatever, by the employment of pipes, pumps, hydrometers, gages, padlocks, substantially as described.
2d, The manner herein described of employing pipes, pumps, hydrometers, gages, padlocks, as set forth.
3d, The method of working said pumps, pipes, hydrometers, either by steam or other power whatever, and using them in combination with gages and padlocks, in the manner and for the purposes set forth.

79,927.—PAPER RULING MACHINE.—Charles F. West, Boston, assignor to J. F. Tapley & Co., Springfield, Mass.
I claim 1st, Combining with a ruling mechanism, the wheel, o, provided with lifter surfaces or pieces, for effecting the rise of the pens at the proper times, when the wheel is arranged in relation to the ruling cylinder substantially as described.
2d, Making the lifter pieces, w, adjustable within the circular grooves, v, when held in position, substantially as set forth.
3d, Arranging the wheel, o, with its axis at right angles to that of the ruling cylinder or bed so as to be driven by frictional contact therewith, substantially as set forth.
4th, Combining with the wheel, o, and cylinder, b, arranged in relation to each other, substantially as described mechanism for arresting the rotation of the wheel, and for effecting its release, substantially as and for the purpose specified.

79,928.—CLINCHING NIPPER.—John B. Wilder, (assignor to himself, W. H. Shepard, and George A. Huggins) Mansville, N. Y.
I claim 1st, The cutters, b and b1, when the same are so applied to a pair of clinching nails, that they can be operated substantially as described, as and for the purpose specified.
2d, The cutters, b and b1, jaws, a and a', and shoulder, e, when the same are arranged substantially as described, as and for the purpose specified.

79,929.—ELECTRICAL BATH.—Charles Winterburn and William Kent, Cincinnati, Ohio.
We claim the application of electricity to the human body while the latter is in vacuo.

79,930.—HAMES FASTENER.—A. B. Woodward, Alfred Centre, and Samuel A. Woodward, Hornellsville, assignors to themselves and Orson Mosher, Hornellsville, N. Y.
We claim an improved hames fastener, formed by the combination of the strap, A, strap, B, lever catch, C, and spring, E, or equivalent, with each other, said parts being constructed and arranged substantially in the manner herein shown and described.

79,931.—BEER COOLER.—John Agate, Pittsburg, N. Y.
I claim box, b, divided into several compartments, H, in combination with the tanks, C, and connecting pipes, l, operating conjointly, substantially as and for the purposes shown and described.

79,932.—CHECK AND DRIVING LINE.—C. M. Alexander, Washington D. C.
I claim the check lines, A, A', made continuous, and connected to or forming a part of the driving line, B, and operating upon the mouth of the animal with one or two bits, substantially as specified.

79,933.—INFLATED RUBBER GOODS.—George M. Allenton, New York City.
I claim the separate covering of cloth, felt, or similar material, in combination with the enclosed india-rubber article, as and for the purposes set forth.

79,934.—LIFE PRESERVER.—George M. Allenton, New York City.
I claim an annular inflatable elastic rubber life preserver, substantially as specified.

79,935.—MACHINE FOR WASHING PAPER STOCK.—J. E. Andrews, Coeyman's Hollow, N. Y.
I claim 1st, The combination with the tank, A, of the wheel C, provided with floats, C1, screen, C2, and hub, a, substantially as and for the purpose described.
2d, The combination with the tank, A, of the chute, E, cylinders, D and D', and endless chains, provided with the rakes, substantially as and for the purpose described.
3d, The combination with the endless chains, provided with rakes, of the guides or ways, F, substantially as and for the purpose described.
4th, The combination with the water tank, A, chute, E, and rakes, b, of the screen, G, substantially as and for the purpose described.

79,936.—ROSE FOR DOOR KNOBS.—William H. Andrews, New Haven, Conn.
I claim the combination of the plate, d, constructed with the flange, a, with the plate, A, formed from tin or similar hard metal, as described, and when the flange, a, extends up through the central perforation of the plate, A, substantially as and for the purpose set forth.

79,937.—PROPELLING VESSELS.—B. T. Babbitt, New York City.
I claim the combination of the tubes, c b, open at both ends, with the jet-tubes, d, arranged to project within the former intermediate of their length, and with their jet orifices facing either open end of said larger tubes, substantially as shown and described.

79,938.—GAS EXPLOSIVE ENGINE FOR CONDENSING AIR.—B. T. Babbitt, New York City.
I claim 1st, A motor or power generator, operating to compress or force air or gas into a cylinder in an automatic manner, of a weighty and independent piston or projectile, free from constant connection with outside working parts, the same being started or set in motion by any suitable explosive force or expansion of gas or vapor under heavy pressure, within a tube or cylinder provided with suitable openings for producing the necessary explosion or starting impetus to the piston, and for reception and discharge of the same in such manner, and said parts or devices being so constructed as that the piston in its rotation is caused to open and operate the admission or admission valves by contact with the same, essentially as and for the purpose or purposes herein set forth.

79,939.—GAS EXPLOSIVE ENGINE FOR CONDENSING AIR.—B. T. Babbitt, New York City.
I claim 1st, A motor or power generator, operating to compress air by gas by the rotary travel or action, within a cylinder or annular chamber, provided with one or more inlet and outlet passages, and an inlet valve of a loose or detached and independent piston, having imparted to it at intervals power to establish and continue its momentum by any suitable explosive force or expansion of gas or vapor, substantially as specified.
2d, The combination of a loose or independent piston operating within a cylinder or annular chamber, substantially as described, with a sliding admission or admission valve in such manner, and said parts or devices being so constructed as that the piston in its rotation is caused to open and operate the admission or admission valves by contact with the same, essentially as and for the purpose or purposes herein set forth.

79,940.—SWITCH FOR STREET RAILROADS.—Gilbert L. Bailey, Portland, Mo.
I claim the construction and arrangement of the spring, S, levers, 7 and 8, friction rollers, 5 and 6, and treadle, 11, all substantially as and for the purposes described.

79,941.—BOOT AND SHOE SHANK.—August Bertram, New Albany, Ind.
I claim the right and left shoe shanks, A, B, of the form shown, when the same are made entirely of wood, and are inserted between the upper and lower surface of the sole, so as to be imbedded in the leather, substantially as herein described, and for the purpose specified.

79,942.—ANILINE DYE.—Benoit Bloch, Soultz, France.
I claim a dye, composed of the ingredients herein named, and treated in the manner substantially as set forth.

79,943.—COFFEE POT.—Benjamin Boardman, Malden, Mass.
I claim the cup or containing chamber, D, constructed and applied to an ordinary coffee pot, A, in the manner substantially as and for the purpose herein set forth.

79,944.—SNAP HOOK.—William H. Bousier, Paris, Ill.
I claim a snap hook for harness, having hook, A, spring, B, shield, D, and thumb piece, E, constructed, combined, arranged, and operating substantially as specified.

79,945.—GLUE POT.—James Bragdon, Boston, Mass.
I claim, in combination with the glue pan or vessel, d, the water-containing vessel, c, made with the conical bottom, l, and the steam chamber, j, and having beneath it the inclined flue, i, for escape of the smoke from the lamp, all substantially as shown and described.
Also, in combination with the conical bottom, l, and flue, i, the vertical flue, m, substantially as shown and described.
Also, in combination with the conical bottom, l, and flue, i, the lamp, b, having a packed tube, g, substantially as described.

79,946.—HAND LOOM.—James L. Branson, Cincinnati, Ohio.
I claim 1st, The swinging dog, E, in combination with the ratchet wheel and clips, substantially as and for the purpose described.
2d, The rigid connecting wire, S, combined with the strap, O, and picker block, 1, substantially as and for the purpose described.

79,947.—STEERING WHEEL STOP.—Isaac N. Bunker, Weymouth, Mass.
I claim 1st, Arranging a notched hinged bracket, D, in combination with the steering wheel, A, substantially as and for the purpose herein shown and described.
2d, Providing the bracket, D, when the same is made and operating as described, with springs, c, c, substantially as and for the purpose herein shown and described.
3d, The bracket, D, when provided with a lip, d, substantially as and for the purpose herein shown and described.

79,948.—HARVESTER CUTTER SHARPENER.—Edwin L. Bushnell, Poughkeepsie, N. Y.
I claim, as a new and improved article of manufacture, the rhomboidal shaped cutter sharpener, substantially as described, and for the purposes set forth.

79,949.—FORCE PUMP FOR HYDRAULIC PRESS.—W. P. Callahan, Dayton, Ohio.
I claim 1st, The combination of the pumps, as shown, with check blocks and valves, arranged to operate in connection with hydraulic presses, substantially in the manner set forth.
2d, The pump, F, in combination with the pumps, D and E, the stop valve, J, and the check valves, K, P, substantially as and for the purposes described.

79,950.—DOUBLE ACTING HINGE.—James H. Carkeet, Montgomery, Ala.
I claim the pivoted arm, h, provided with two clutches, J, J, so arranged that either one side or the other of the hinge may be closed, while the opposite side is free to operate, thus allowing the door or shutter to swing in or out as may be desired, substantially as described.

79,951.—INSULATOR.—A. H. Castle, Ann Arbor, Mich.
I claim the insulated bracket, A, with a core, E, formed solidly with said bracket, and the angular traverse notch, B, by which the hook is covered by the projections, C, D, in the manner as and for the purposes specified.

79,952.—ELEVATED RAILWAY.—Robert A. Chesbro, New York City.
I claim an elevated railway, composed of inclined planes or sections, arranged substantially as described, in combination with elevating platforms at the junctions of the sections, and operated by stationary motive power to establish continuity of the sections, as herein set forth.

79,953.—LUGGAGE SUPPORTER FOR SADDLES.—William Cline, Boston, Mass.
I claim, in combination with a saddle, an adjustable supporting arm, substantially as and for the purpose set forth.

79,954.—ORE CRUSHER, GRINDER, AND AMALGAMATOR.—John A. Collins, Virginia City, Nevada.
I claim 1st, The combination and arrangement of the cylinders, C, crushing wheels, D, axle, E, and central plate, F, with arms projecting downward, and supporting said axle, substantially as described.
2d, The combination and arrangement of the driving plate, G, on the shaft, H, the friction rollers, N on the arms of the revolving plate, L, and the stationary plate, K, above it, substantially as described.
3d, The combination and arrangement of larger rollers, S, with smaller, S', within the cylinders, C, the former rolling upon the latter and upon the cylinder, but the latter or smaller rubbing and grinding against the cylinder, as described.

79,955.—BLEACHING APPARATUS.—Elizabeth A. Combs, Monroe, Wis.
I claim a bleaching pot or furnace, D, in combination with the box described, all constructed substantially as and for the purposes specified.

79,956.—CULTIVATOR.—George W. Cook, Macon, Ill.
I claim the connecting of the standards, F, F, of the plow beams, E, E, by crossbars, c, c, as shown in combination with the crank shafts, I, L, chains, d, pulleys, f, and treadles, H, H, all arranged and applied to mounted frame, A, substantially as and for the purpose set forth.

79,957.—TOOTHED WHEEL.—John Cowell, Ansonia, Conn.
I claim 1st, The combination of a detachable tooth with the corresponding mortises in the rim of the wheel, when constructed with a recess in one face of the tooth, so as to lock on to the corresponding face of the mortise, and secured by the key, d, substantially as set forth.
2d, The combination of the plate, E, and set screw, f, with the key or keys, d, so as to secure the keys, substantially in the manner herein set forth.

79,958.—LAMP CHIMNEY.—Robert R. Crosby, Boston, Mass.
I claim the abrupt or nearly right angled enlargement of the chimney, as represented in fig. 3, arranged in relation to the lamp burner, substantially as and for the purpose herein specified.

79,959.—PUMP.—Rufus W. Crouse, Westminster, Md.
I claim the combination and arrangement of the cylinder, A, plunger, D, induction, I, and induction, E, when connected by the apartments, C, C1 C2 C3, and the passages, F, F', provided with the valves, c, c', c'', all the said parts being constructed, arranged, and operating together, substantially in the manner and for the purposes set forth.

79,960.—FIRE PLUG.—James P. Cummings, Newport, Ky.
I claim 1st, The stuffing box, guide, and stop, k, in combination with the block, n, and rod, g, substantially as described.
2d, The stop, d, and waste hole, c, in one of the legs of the valve in the manner explained, and arranged relatively to the waste opening, f, in the stock, and the valve seat, o, to operate in the manner and for the purpose specified.
3d, The stuffing box, guide and stop, k, and block, n, as arranged in relation to the valve, c, substantially as described.

79,961.—CORN SHELLER.—Milton Day, Baltimore, Md.
I claim the combination, in a corn sheller, of two palms, B, B, each having three or more fingers or tines, b b, to embrace the cob, with the springs, C, C, C, and waste hole, d, when the latter is permanently secured to the rim, all constructed and arranged substantially as described, and for the purpose specified.

79,962.—CORN SHELLER.—Milton Day, Baltimore, Md.
I claim a corn sheller, having a series of palms, B, B, each having feeding threads, f, f, on their inside, when the same are so arranged that they afford protecting tines, b, to receive the cob, and are in combination with the fingers and springs, C, and the whole are made to operate substantially as described.

79,963.—POCKET SIGNAL DEVICE.—J. J. Detwiller, Greenville, N. J.
I claim 1st, A metallic signal cup, A, grooved spirally for attachment to a staff or suspension rod, as and for the purposes set forth.
2d, The combination of two or more cups, A, A2 A3, tapered and grooved as herein described, to make them relatively interchangeable, for the purpose specified.
3d, The spiral socket, C', constructed and adapted to receive and hold the cups A1, A2, and A3, for the purposes specified.

79,964.—SAW SET.—Isaac Estell, St. Lewis, Mich.
I claim the arrangement of the slotted bottom plate, e, A, arm, H, screws, I and G, gage, D, and rod, e, constructed as described, and operating substantially as and for the purposes herein set forth.

79,965.—TAPE MEASURE.—A. J. Fellows, New Haven, Conn.
I claim the combination of the case, A, with the plate, B, clickspring, d, d', and the combination of the plate, B, with the case, A, constructed, arranged, and adapted for use, substantially as herein described.

79,966.—STEAK MASHER.—Richard Flynn, West Brookfield, Mass.
I claim the employment in a steak-mashing machine, of the rolls, A, A, the teeth of which are arranged so as to form a continuous spiral from one end to the other of each roll, the said rolls being geared together so as to move in opposite directions, while their spirals run in the same direction, as shown and set forth.

79,967.—DISCHARGING APPARATUS FOR HARVESTER.—J. S. Fowler, Davenport, Iowa.
I claim 1st, The slatted gates, G G G, constructed and operating substantially as and for the purposes set forth.
2d, The combination of the gates, G G G, the rack, H, sliding bar, K, and levers, F and I, constructed and operating substantially as specified.

79,968.—WATCH.—M. N. Frederick (assignor to himself and C. S. Moseley, Elgin, Ill.)
I claim 1st, The stud or post, B, having a bearing through the plate, C, and box, D, thereby holding the drive wheel, A, firm and steady, substantially as described.
2d, In combination with the stud or post, B, and drive wheel, A, the screw, T, constructed substantially as described.
3d, The double wheel, K, in combination with the wheels, A, J, and the vibrator, B, seat, C, platform, E, vessel, F, additional seat, H, and receptacles, I, all made and operating substantially as herein shown and described.
4th, The spur wheel, L, in combination with the box, D, and post plate, C, when arranged so that the bearing of the spur wheel is partly in the box and partly in the plate, substantially as set forth.
5th, The plate, R, in combination with the wheel, L, and main-spring arbor when arranged substantially as specified.

79,969.—LAMP BURNER.—F. H. Fuller, South Boston, Mass.
I claim 1st, The wick tube, D, made in two sections, when the upper section is fitted over the lower, as at, I, whereby the separation of the parts of the burner for cleaning is facilitated, as herein set forth.
2d, The lamp burner, B, constructed as described, and consisting of the perforated section, C, supported on stands, C, projecting from the upper section of the wick tube, and the concave perforated disk, F, rim, E, and part, G, attached to the lower section of the wick tube, all arranged as herein shown and described, for the purpose specified.

79,970.—APPARATUS FOR DECORATING AND CLEANING CERAMICS.—William Walker Gibson, Edinburg, North Britain.
I claim the employment of a revolving drum for decorating ceramics, upon the surface or periphery of which strips or blades of glass, porcelain, or like material are fixed and arranged, substantially in the manner shown and set forth.

79,971.—SCREW THREADING MACHINE.—Ezra Gould, Newark, N. J.
I claim 1st, The arrangement, herein described, of the driving wheel, F, concentric gears, G, C, and projections, a, b, for the purpose set forth.
2d, The combination of the lever, K, and slide, L, secured one to the other, by a pivot, h, which moves in a slot, j, with the lever jaw, m, frame, A, and head block, J, all constructed, arranged, and operating substantially as and for the purpose described.

79,972.—ELECTRO-MAGNETIC TEMPERATURE ALARM.—John H. Guest, Brooklyn, N. Y.
I claim 1st, The spring axis, on which the armature swings, in combination with the hammer and bell, as and for the purposes set forth.
2d, The combination of the breaker, B, and adjusting screw, a, provided with a head or button, in combination with the armature and spring axis, h, for the purposes and as set forth.
3d, The alarm thermometer, formed with the horizontal circuit closer and its adjusting arm, in combination with the case enclosing the adjustable parts as set forth.

79,973.—ELECTRO-MAGNETIC BURGLAR AND FIRE ALARM.—John H. Guest, Brooklyn, N. Y.
I claim 1st, A pair of magnets and armatures, arranged and acting in the manner specified, in combination with a hammer and bell, the former being attached to the lever of the armature, for the purposes and as set forth.
2d, An expansive corrugated disk and hinged arm, forming a thermal circuit closer, substantially as set forth.
3d, The adjusting screw, 7, in combination with the thermal circuit closer, as and for the purposes set forth.
4th, The pendulum and spring, in combination with the circuit wires and notch, as and for the purposes set forth.
5th, The two springs, 13, 14, connected with the circuit wires, in combination with the pusher, q, for the purposes and as set forth.
6th, The plate, i, screw studs, s, and nuts, t, constructed substantially as specified, in combination with the circuit wires, to form a designating or disconnecting apparatus in a fire or burglar alarm, substantially as set forth.

79,974.—TOOL HOLDER.—Jacob W. Haskell, Boston, Mass.
I claim the combination of the tube, e, bearing the mortise headed bolt, d, with half boxes, h, i, when the tube and boxes are connected with a feather

and spindle, and are otherwise arranged, substantially as and for the purposes set forth.

79,975.—FEATHER RENOVATOR.—Charles E. Hendrick, Chicopee, Mass.
I claim 1st, Three or more valves, D D D, rod, E, nut, N, in combination with the receiver, C, the whole arranged and operated substantially in the manner herein shown and described for the purposes set forth.
2d, The swinging valve, D, with the spiral spring, t, substantially as described, and for the purposes set forth.

79,976.—MACHINE FOR SHAVING RATTAN.—Levi Heywood, Gardner, Mass.
I claim the arrangement of the knife, M, constructed and operated substantially as described.
Also, the arrangement of the knife, d, in combination with the presser rolls, l, and operating screws, h, all constructed and operating substantially as described, and for the purposes set forth.

79,977.—BREAST STRAP.—A. L. Hill, Decatur, Ill.
I claim 1st, The breast strap, constructed as described, and consisting of the strap, C, to which the plate, D, having ribs, d, is rigidly secured, when said strap is provided at each end with a hook, B b all arranged and operating as and for the purpose described.
2d, The ribs, d, on the exterior surface of the bar, D, when used in combination with and applied to the strap or straps, C, for the purpose substantially as set forth.

79,978.—TRACE BUCKLE.—Henry Hise, Chicago, Ill.
I claim 1st, The combination of the plate, B, provided with one or more inclines, a, with a clasp, C, arranged and operating substantially as set forth, and for the purposes specified.
2d, A plate, B, when constructed so as to be secured upon a trace, and provided with one or more inclines, a, in the manner described.

79,979.—SAW HANDLE.—Charles W. Hubbard, Pittsburg, Pa.
I claim a new article of manufacture, to wit, a saw handle, consisting of the part, J, provided with a recess, f, for the nut of the bolt, B, and with a groove adapted to the end of the saw blade, said handle and its part, J, being made substantially in the form herein described and represented.

79,980.—MACHINE FOR GRINDING SAWS.—Charles W. Hubbard, Pittsburg, Pa.
I claim 1st, Providing a saw grinding machine with an unjointed thin metallic belt or endless apron, substantially as herein described and for the purpose set forth.
2d, Providing the bearing roller, A', so that it can be deflected to correspond to the desired taper of the saw blade, substantially as herein described and for the purpose set forth.
3d, Providing the shaft of a grindstone with a flange provided with a socket joint, substantially as herein described and for the purpose set forth.

79,981.—CATCH FOR MONEY DRAWERS.—Saunders Hubbell, Jr., West Salem, Ohio.
I claim the combination and arrangement of the levers, A and B, the fulcrum support, C, and spring, m, or its equivalent, in the manner substantially as described, and for the purposes specified.

79,982.—CAR COUPLING.—Frederick A. Hull, Belvidere, Ill.
I claim the combination and arrangement of the tubular draught iron, B, the bars, D, E, the spring S, and the link, L, and pin, b, arranged and operating substantially as specified and shown.

79,983.—NEEDLE FOR SEWING MACHINE.—George M. Isbell, Farrington, Conn. Antedated July 3, 1868.
I claim a sewing machine needle, formed as specified, with the flattened body, the circular edge to the hook, the lengthened opening in the hook, and the curvature or swell at the back of the hook, as and for the purposes set forth.

79,984.—ATTACHMENT FOR BALANCING POLISHING WHEELS.—Horace K. Jones, Kensington, Conn.
I claim the combination of the ring, A, and weights, a, constructed and arranged as herein described, with a polishing wheel, for the purpose of balancing it, substantially as specified.

79,985.—SPIRAL OR WINDING STAIRS.—William J. Keim, New York City.
I claim an arrangement of winding steps, constructed in such a manner as to give two or more flights within the same space, substantially as described.

79,986.—BELT SHIPPER FOR LOOMS.—L. J. Knowles, Warren, Mass.
I claim 1st, The combination, with the shipping lever, D, applied to one end of the shipping rod, C, of the inclined guide rod, c, substantially as and for the purposes set forth.
2d, The combination, with the shipping lever, and slotted and notched guide piece, in which it moves, of the dog and ears for actuating said lever, and the rotating and longitudinally sliding rod upon which the same are mounted, together with the spring, I, and lever, D, the said parts being arranged for joint operation, as herein specified, so that the movement of the lever, D, shall cause the shipping lever to be drawn in either direction, as required.

79,987.—ANIMAL AND BIRD TRAP.—A. T. Latta, Camden, S. C.
I claim 1st, The weighted and pivoted door, c, cord, d, pulley, e, platform, a, and catch, f, all constructed as described, and combined and operated in the manner set forth.
2d, In combination with the above, barrel, g, arm, h, bent lever and catch, f, the whole being operated in the manner and for the purpose set forth.

79,988.—PRINTERS' GALLEY.—Charles H. Lawrence, New York, assignor to himself and N. P. Tyler, Barrytown, N. Y.
I claim the lining, c, having the metal tongue, b, in combination with the frame, a, bottom, d, and screw, e, applied in the manner and for the purpose, substantially as herein shown and described.

79,989.—GAS HEATER.—H. Y. Lazear, New York City.
I claim 1st, The V-shaped trough, E, and the filling, E', by which the flame is divided, and the grease protected from burning, and smoke thereby prevented, substantially as described, in combination with a gas steak boiler, F, and an animal space, B, and the orifices, h and i, substantially as and for the purposes set forth.
3d, An apparatus for broiling steak by gas, whereby the steak is broiled or cooked simultaneously on both sides, or where the sides are equally exposed to the flame and heat, substantially as shown and described.

79,990.—MACHINE FOR DRESSING GRINDSTONES, MINERALS, &c.—Philip Leonard, Sharon, Pa.
I claim the adjustable frame, B, fitted in a frame, A, as shown, in combination with the sliding frame, C, provided with the tool stock, C', arranged for a lateral movement, substantially as and for the purpose set forth.

79,991.—TRUSS PAD.—Thomas J. Lindley, Medora, Ind.
I claim the wooden pressure pad, B, having an inserted lead centre, C, and attached to the strap, A, all arranged substantially as and for the purpose set forth.

79,992.—STOVE PIPE.—James C. Loup, Galveston, Ind.
I claim the sliding pipe, B, for making connection of stove pipes to the flue and shutter, H, for closing the aperture in the rest, when the pipe is not in use below the rest, as described.

79,993.—GRAIN SEPARATOR.—Elijah Lucas, Winslow, Ind.
I claim 1st, The polygonal shaped wire sieve, B, provided with shafts, d, d, metal strips, e, e, and wires, i, i, constructed and operating substantially as and for the purposes herein set forth.
2d, The reversible chute, F, in combination with the rod, f, and the lever, G, substantially as and for the purposes herein set forth.

79,994.—PORTABLE CHAMBER CLOSET.—William J. Lyman, East Hampton, Mass.
I claim the arrangement and combination, with each other, of the box, A, cover, B, seat, C, platform, E, vessel, F, additional seat, H, and receptacles, I, all made and operating substantially as herein shown and described.

79,995.—CHAFING ROLLER FOR WAGON.—James M. Mayhew, Providence, R. I.
I claim the construction of the chafing roller, C, upon the longitudinal rod, a, having its bearings in the ends, C', of the side pieces, A, which are recessed to receive the elastic cushions, c, c, bearing against the ends of said roller, all operating as described for the purpose specified.

79,996.—SHACKLE BEARER.—John W. Mayhew, San Francisco, Cal.
I claim the manner of supporting and bracing the bearer ring, A, by means of the back brace, C, formed and shaped as herein described, and secured to the end of the shackle in the manner set forth, in combination with the braces, D, of the particular shape and construction described, having fork shaped ends.

79,997.—HORSE COLLAR STUFFING MACHINE.—S. B. McCorkle, Greenville, Tenn.
I claim 1st, A machine for stuffing horse collars, so constructed and operating that as the plunger enters the collars, its forks, a, will have its prongs in a horizontal plane, for the purpose described.
2d, A machine for stuffing horse collars, so constructed and operating that the plunger rotates as it moves back and forth, in order that its prongs, a, may lie in a vertical plane as it catches the straw, and in a horizontal plane as it delivers the straw into the collars, substantially as described.
3d, The combination of the plunger, A, having the fork, a, with the arm, e, and bent guide rod, H, when the several parts are constructed to operate in the manner described.

79,998.—DOUBLE CORN PLANTER.—William McLucas, Rein-ersville, Ohio.
I claim 1st, The tube, H, when the same is constructed with angular opening and supplied with a plow, h, in such a manner that the same can be actuated by the driving wheel, D', or controlled by the upright lever or needle, h'.
2d, The foot lever, G', when in combination with suitable mechanism, and the universal casters, f' f' when the same is so constructed and arranged substantially as described and for the purpose specified.

79,999.—TIRE FRAME ATTACHMENT.—N. H. Mead, Waterport, N. Y.
I claim the combination of the pivoted lever, C, adjustable toothed bar, E, slotted cap plate, F, and toothed bar, G, with each other and with the frame, A, substantially as herein shown and described, and for the purpose set forth.

80,000.—WASHING MACHINE.—Cyrus Miller, Des Moines, Iowa.
I claim the box, A, cylinder, D, and adjustable board, E, when said cylinder is provided with a series of corrugated staves and brushes, as described, and the board, E, with corresponding brushes, to operate substantially as set forth.

80,001.—CHURN MOTION.—David Morris, Bartlett, Ohio.
I claim the frame, consisting of the upright, A, foot, B, and screw threaded stem, a, the latter serving the double purpose of a guide for the dasher shaft in a means of attachment of the frame to the lid of the churn vessel, in combination with the grooved wheel, G, slides, g, g', pitman, F, and dasher shaft, h, the whole arranged and operating in the manner and for the purpose specified.

80,002.—HORSE HAY FORK.—C. E. Murray, Sugar Valley, Pa.
I claim the frame, composed of the diverging prongs, a, and head,

combination with the pivoted or jointed teeth, e, e, rods, f, and eccentric, h, all arranged for joint operation, substantially in the manner as set forth for the purpose set forth.

80,003.—CALCULATING BALANCE.—Benjamin W. Ogburn, White's Mills, Va.

I claim the combination of the sliding fulcrum, M, and pea, L, when working upon graduated beam, I, in connection with a balance frame, B, the parts being constructed and arranged as described, so as to operate together in the manner and for the purpose set forth.

80,004.—POWDER FOR BLASTING AND OTHER PURPOSES.—Paul A. Oliver, New York city.

I claim the use of peat in the manufacture of gun and blasting powder, substantially as set forth.

Also, as an improved article of manufacture, the powder made substantially as herein described.

80,005.—RAILROAD STATION INDICATOR.—Thomas Payne, Detroit, Mich.

I claim, 1st, The arms, N, N, arranged as described, on the roof of a car, and provided with cars, r, r, to guide them along the circular rods, s, s, in combination with the springs, h, h, on said rods, to prevent any rubbing or lost motion, substantially as and for the purposes herein set forth.

2d, The slotted bars, E, E, forming a frame, and placed on the shaft, a, on each side of the circular disk, B, in combination with the shoes, b, b, and levers, F, F, for the purpose of turning the shaft in either direction, substantially as and for the purposes herein set forth.

3d, The arms, N, N, on one end, one having a weight or spring, L, attached to the other end, and the other attached to a bell or alarm, M, by means of a spring, c, and both provided with adjustable corrugated clamps, K, K, in combination with the cog wheels, c, c, when arranged and operating substantially as and for the purposes herein set forth.

4th, The slotted bars, E, and T, when arranged so as to regulate the movement of the cog wheels, c, c, substantially as and for the purposes herein set forth.

5th, A drum, constructed as described, for the purpose of indicating names, figures, or characters, suspended in a car, and operating substantially as set forth.

6th, The cylinder, d, and roller, o, in combination with the spring, p, and ribbon, e, when arranged as described, so that when said cylinder is revolving in one direction the spring winds up the ribbon on the roller, and when revolving in the opposite direction the ribbon unwinds from the roller and winds up the spring, substantially as and for the purposes herein set forth.

7th, The arms, S, S, when attached to the posts, R, R, in the manner described, with spring, n, n, to soften or lessen the blow, and used for the purpose of making a station indicator for self-operating from any station or direction, substantially as herein set forth.

8th, The arrangement of the circular disk, B, and its cog wheel, C, the bars, I, D, lever, F, bars, E, E, and shoes, b, b, when constructed and operating substantially as set forth.

9th, The arrangement of the arms, N, N, and their springs, when operated by the arms, S, S, upon the posts, R, R, substantially as specified.

80,006.—APPARATUS FOR CONDENSATION OF VAPORS IN LARD BOILING, ETC.—C. C. Peirson and Geo. F. Peirson, Philadelphia, Pa.

We claim 1st, The showery pipes, R and S, constructed and operating substantially as and for the purposes specified.

2d, A condenser and evaporating apparatus, having cover, B, condensing boxes, D and E, showery pipes, R and S, and chimney, K, and condut pipes, as described, constructed, arranged and operating substantially as described, and operating as described.

80,007.—BASE BURNING STOVE.—Samuel Pierce, Boston, Mass.

I claim, 1st, In base burning stoves, making the walls, which divide the coal receptacle from the ignition chamber, double, and enclosing water, said water serving to preserve the said walls, and also for heating purposes.

2d, The combination of the rotating drum, C, with the receptacle, D, arranged and operating as described.

80,008.—CLAY MILL.—Rath. F. Potter, Providence, R. I.

I claim, 1st, Combining the rack and pinion mechanism, k, b, for giving a radial movement on its axle to the tempering wheel, with its driving gear, L, by means of the adjusting screw, e, or equivalent device, for pressing the connection between the two at pleasure, substantially as herein described.

2d, Combining the driving shaft, D', of a tempering mill, with the driving gear, by means of the friction strap, P, applied and operating in the manner, substantially as shown and described.

80,009.—TABLE FORK.—L. A. Powers, Meriden, Conn.

I claim making the socket for the guard of a carving fork solid with the bolster, or with a portion of said bolster, and independent of the tang or body of the fork, substantially as and for the purpose set forth.

80,010.—APPLE CORER AND SLICER.—David R. Reed, Tekonsha, Mich.

I claim the arrangement and combination of the flange coring tube, C, presser, P, hand lever, D, arm, E, with the receiving box, A, substantially in the manner and for the purpose specified.

80,011.—STEAM ENGINE.—Thomas Reese, St. Louis, Mo.

I claim the cross head, G, suspended by links, J, from a rock shaft, I, mounted in pivoted standards, K, said standards being so connected with the reciprocating cross heads as to receive an oscillating motion therefrom, in the manner and by the means substantially as herein described, for the purpose specified.

80,012.—DEVICE FOR STRAWBERRY CULTURE.—Henry Seymour Robbins, Newton Falls, Ohio.

I claim a plate for strawberry culture, constructed in the form herein shown and described, and having apertures, B and C, and projections, D, combined and arranged substantially as specified.

80,013.—MACHINE FOR DRESSING FELLOES.—Wm. H. Rodeheaver, Miamiburg, Ohio.

I claim the convex and flanged rest or bed, V, adjustable in height in the manner described, in combination with the cutter head, D, and adjustable feed and pressure rollers, P, or their mechanical equivalents, the whole being arranged and adapted to operate substantially as set forth.

80,014.—APPLE CORER AND SLICER.—Isaac Rogers, West Chebelem, Oregon.

I claim, 1st, The combination of the slide bars, F, cross bar, H, tube, M, knives, N, and rim, O, with each other and with the guides or slides, G, and presser fork, as substantially as herein shown and described, and for the purpose set forth.

2d, The combination of the adjustable gangle, P, with the rim, O, and slide bars, F, substantially as herein shown and described, and for the purpose set forth.

3d, The combination of the cross or foot bar, J, and levers, I, with the bottom board, and presser fork, H, of the sliding bars, F, substantially as herein shown and described, and for the purpose set forth.

80,015.—CULTIVATOR.—A. P. Rountt, Liberty Mills, Va.

I claim, 1st, The instrument, consisting essentially of the standard M, loop, a, point, m, and blades, n, n, having sharp front cutting edges, when these several parts thereof are constructed and arranged as above described and for the purpose set forth.

2d, The combination of said instrument with the plow standard, B, B, and wedge, W, substantially as described.

80,016.—BASE BURNING STOVE.—A. K. Sanders, Brooklyn, N. Y.

I claim, 1st, The descending smoke flue between the casing, m, opening in to the base of the heater, in combination with the air flues, 3, 3, and 4, arranged and acting in the way specified, so that the air to be heated comes in contact with one side of the fine plates or tubes, and the products of combustion on the other side, as set forth.

2d, The magazine, g, supported by cylinder, f, top plate, f, in combination with the fire pot, a, and combustion chamber formed between the said magazine, g, and the casing, e, in which chamber are the air-heating pipes, 5, 5, and for the purpose set forth.

3d, The doors, 8, between the plates, d, n, and at the end of the air flue, 5, for the purposes and substantially as set forth.

4th, The door, 9, between the cylinder, f, top plate, f, and grate or mantel frame, t, and opening into the hot-air enclosure, for the purposes and as set forth.

5th, The descending flue, m, conveying the products of combustion from the fire chamber to the base of the heater, in combination with the air flue, 3, 3, that exposes the air to be heated to the wall of the ash pit, the fire pot, and said descending flue, m, substantially as specified.

6th, A fireplace heater, in which the magazine for the fuel extends to the top of the heater, and is provided with an opening in front of the mantel frame for the introduction of fuel, substantially as set forth.

80,017.—RENOVATING AND DRESSING FEATHERS.—A. C. Sanford, Plymouth, Conn.

I claim the combination and arrangement of the outer tube, D, with the inner tube, E, and respective openings, f and g, over the valve, d, and having tubes, a, leading from the inner tube into the cylinder, and constructed so as to operate in the manner and for the purpose herein specified.

80,018.—MACHINE FOR STRETCHING AND SOFTENING SKINS.—Christian Schmitz, Philadelphia, Pa.

I claim, 1st, An instrument having a set of parallel, or nearly parallel, stationary blades or supports, and a set of parallel rollers, operated by a lever or otherwise, for the purpose of stretching leather, as set forth.

2d, The arrangement of the blades, D, D, upon the supporting head, C, so as to adapt them for adjustment by means of the set screws, c, substantially as set forth.

80,019.—MANGLE AND IRONING MACHINE.—Joseph Seaman, Chicago, Ill.

I claim the combination of the rollers, A, A', levers, D, eccentric disk, E, pillow block wheels, F, and weight, W, or their equivalent devices, substantially as shown and described for the purpose specified.

80,020.—FURNACE FOR ROASTING AND SMELTING GOLD AND OTHER ORES.—J. W. Sheaffer, Red Wing, Minn.

I claim a furnace for smelting and reducing gold, silver, copper, and other ores, constructed substantially as herein shown and described.

80,021.—CHURN.—E. F. Shaw, Wyoming, Mich.

I claim the oscillating vessel, D, provided with the cross bar, E, and dasher, F, in combination with the gear wheels, K, M, O, and their shafts and pinions, and the spool, I, cord, G, and weight, W, all arranged and operating substantially in the manner specified.

80,022.—MANUFACTURING SCREWS.—G. V. Sheffield, Worcester, Mass.

I claim the combination of the reciprocating rods, H, H, the frame marked B, J, and K, of the shafts, L, L', and wheels, 5, and 6, pins, 3, 3, and arms, M, for operating the same, and for the purposes stated.

2d, The combination of the reciprocating frame, I, J, K, and shafts, L, of the sliding boxes of the wheels, 5, and 6, hinged connections, f, arms, M, and pins, 3, 3, substantially as and for the purposes set forth.

3d, The combination of the stationary frame, A, tubular shaft, B, spindle, F, and jaws, G, and respective openings, f and g, over the valve, d, and 5, 6, connections, f, arms, M, and pins, 3, 3, the said parts being arranged for joint operation, as and for the purposes set forth.

80,023.—MODE OF OPERATING SHUTTERS.—T. J. Sloan, New York city.

I claim, 1st, The bevel gears, K, H, in combination with the spring shaft, F, retaining button, I, and rim, m, when the said shaft is arranged to drive the gear, K, and slide longitudinally through it, as and for the purpose set forth.

2d, The employment, in connection with a mechanism for opening and closing blinds from the inside of the window, of a positive lock mechanism composed of the locking shaft, O, r, and spring-retaining mechanism, q, R, t, all as specified.

80,024.—FRICTION CLUTCH PULLEY.—H. K. Smith, Norwich, Conn.

I claim, 1st, The pin, E, and nut, J, in connection with the levers, D, 2d, The friction pulley, constructed and arranged substantially as described and for the purpose specified.

80,025.—CUT-OFF VALVE GEAR.—Samuel Stanton, Newburg, N. Y.

I claim, 1st, The combination of the bent levers, H, H, rollers upon the pins, j, and the cams, g, g', for opening and closing the valves, as herein shown and described.

2d, The sleeve, G, wheel, F, flange, c, and ring, e, in connection with the governor and the valve levers, H, H', all arranged to operate in the manner as and for the purpose set forth.

80,026.—CAR COUPLING.—D. M. Steward, Dayton Ohio.

I claim the pin, C, with handle, D, fastened by the eye bolts, a, in combination with the slotted bar, B, which forms the coupling chamber, all structured and arranged substantially as described and for the purposes specified.

80,027.—MANUFACTURE OF AUGER BITS.—James Swan, Seymour, Conn.

I claim, 1st, As my improvement of the dies, B and C, the cavities, e, e, for preserving the material for the spur, c, c, as described.

2d, As my improvement in auger blanks, the projecting portions, b, c, d', of metal, forming the inner conical portion of the form, and arranged relative to the screw point and cutting bit, as described.

80,028.—MACHINE FOR FORMING SHEET METAL PANS.—W. H. Teal, Weyanwaga, Wis.

I claim a machine for forming sheet metal pans, consisting of an upper die, H, hinged to a lower die, E, provided with formers g, so that both dies may be firmly locked together, and the whole operated simultaneously with the lever, B, and actuating guides, D, C, substantially as herein described.

80,029.—COMPOUND FOR ROOFING.—H. M. Teasdale, Danville, N. Y.

I claim the combination of the within-specified ingredients when compounded in or about the proportions described, for the purpose set forth.

80,030.—STEAM PUMP.—W. R. Thomas, Catsaqua, Pa.

I claim the arrangement of the ports, e, e', with relation to the cylinder, A, the eccentric, g, and valve, G, and the connecting rods, h, and the eccentric ports, d, d', all operating as described for the purpose specified.

80,031.—CUTTING NIPPER.—N. Thompson, Brooklyn, N. Y.

I claim a cutting nipper, consisting of two cutting edges thereof shall be as close as possible to the knuckle which surrounds the pivot on which the jaws turn, or shall be even closer to the pivot, with the knuckle projecting between the divided edges, as described, and so close that there shall be a double connection between the jaws and the handles, one part of each connection being embraced by the parts of the other, in the manner substantially as herein described.

80,032.—DRESSING BARREL.—C. Titus, Union, Me.

I claim the arrangement and combination of the separate levers or treadles r, e, the shaft, p, and bent levers, n, n', with one another and the shaft, B, the cutter head, A, and the cutter carrier, E, G, such head and carriers being provided cutting and a guide ring, D, as set forth.

80,033.—HORSESHOE.—J. S. Toan, King's Ferry, N. Y.

I claim, 1st, A horseshoe provided with a nail flange, D, and an india-rubber sole, substantially as described.

2d, The clamps, F, F', for the purpose of readily securing and removing the india-rubber sole, F, substantially as described.

80,034.—LOCK NUT.—A. N. Towne, Chicago, Ill.

I claim the corrugated nut, D, and washer, E, constructed as described, when used in combination with an elastic packing or washer.

80,035.—LARD PRESS AND SAUSAGE STUFFER.—A. J. Truxell, Salem, Va.

I claim the combination of the removable cup, E, formed with a concave bottom and spout, F, and provided with a perforated plate, G, with the beech screw, F, follower, D, and pivoted lat, h, H, all constructed and operating as set forth.

80,036.—COMPOUND FOR WELDING.—J. R. Tryon, La Crosse, Wis.

I claim the welding flux or compound, substantially as described.

80,037.—BOOT SOLE.—B. Van Ausdall, Keokuk, Iowa. Antedated July 6, 1868.

I claim as a new article of manufacture a flexible wooden boot sole and heel formed of independent sections of wood riveted to the leather inner sole as herein described for the purpose specified.

80,038.—OFFICE BED.—A. J. Vawter, Indianapolis, Ind. Antedated July 10, 1868.

I claim the case, A, having a front, B, which is hinged at the bottom in the manner specified, the inner face of said front being provided with a bed, C, which is supported either in a horizontal or vertical manner, by means of the legs, L, the various parts being constructed and operating as specified.

80,039.—GANG FLOW.—Geo. Wharton, Jerseyville, Ill.

I claim, 1st, Constructing the axle of two parts, H, I, connected by a joint, e, in combination with the two levers, J, J, all arranged and applied substantially in the manner as and for the purpose set forth.

2d, The foot lever, M, connected with one of the beams, A, and to the post, h, of the axle, as shown, in combination with the shaft, L, secured to the axle, and having the front ends of the beam, fitted loosely to it, all arranged to operate substantially as and for the purpose specified.

3d, The saddle platform, D, draft pole, E, and the lever, F, connected to the draft pole by chain, b, all combined and arranged substantially as and for the purpose set forth.

80,040.—LANTERN.—A. Whelden, South Dennis, Mass.

I claim the perforated base, B, and band, F, in connection with the jacket, D, provided with a perforated top, a, and the plate or deflector, E, all being constructed, arranged, and applied to a lantern, substantially as and for the purpose set forth.

80,041.—RAILWAY CAR SEAT.—Albert M. White, Thompsonville, Conn.

I claim the studs, a, a', and grooves, f, f, g, g, in combination with a car seat, substantially as described and for the purposes herein set forth.

80,042.—DIE AND PLUNGER.—Henry G. Williams, Providence, R. I.

I claim the die, A, when its upper inside edge is fluted or serrated, as described, whereby the tin or other metal to be struck up is crimped evenly to prevent the uneven lapping, and consequent breaking, of the metal, as herein set forth.

80,043.—BREACH-LOADING FIRE-ARM.—Thos. Wilson, Birmingham, England.

I claim, 1st, The combination, with the breech shoe or shoe cap, of the breech plug, and a spring locking collar or handle, attached to but having a rotary movement independent of said plug, together with the self-engaging lugs, or their equivalents, for holding the collar to the breech shoe, in the manner specified, so that when the breech plug is pushed up to close the breech, the collar shall be first partially rotated in one direction by the action of the said lugs entering the openings or recesses in which they are held, and then by the action of its spring, rotated in the opposite direction, to effect the engagement of the lugs, and the consequent interlocking of the collar and breech shoe substantially as set forth.

2d, The rotating locking collar, with its lugs and inclosed spring, constructed and combined with the breech plug, upon which it is mounted in the manner specified, and arranged to operate in connection with the rear of the breech shoe or shoe cap and the beveled openings and annular space formed in said shoe for the reception of the lugs, substantially as and for the purposes set forth.

3d, The combination, with the breech plug and sliding hammer, of a spring stop and guide, h, z, for guiding the said plug and hammer and for holding and releasing the hammer, substantially as shown and set forth.

4th, The combination, with the slotted tubular breech plug and the spring stop and guide, h, z, of the inclosed sliding hammer, and its jointed catch and sear, both the said stop and the catch or sear being arranged so as to lie partly within the slot in the tubular breech plug, substantially as herein shown and set forth.

5th, The safety slide or bolt, v, under the breech shoe or shoe cap, for preventing the accidental retraction of the detent or stop, h, z, constructed and arranged to operate in connection with the locking handle or collar, in the manner shown and specified.

6th, The combination and arrangement, with the rotating locking handle or collar, of the locking check bolt for preventing the movement of the trigger until the collar and the breech plug are securely fixed or locked in their places, substantially in the manner specified, as shown and set forth.

7th, The combination of the trigger check bolt and the safety slide for locking the detent, with the sliding breech plug and its rotating locking handle or collar, under the arrangement and for operation as set forth.

80,044.—DEVICE FOR SHARPENING HORSESHOE CALKS.—Peter Winograd, Coldwater, Mich.

I claim the block, A, constructed substantially in the manner and for the purpose specified.

80,045.—FRICTION CLUTCH PULLEY.—C. Wright, Newark, N. J. Antedated July 10, 1868.

I claim the set screw, X, when employed in a friction clutch, substantially in the manner and for the purposes specified, the nut being in the stem of the block, C.

The sliding arm, E, link, w, and eccentric, D, in combination with the adjustable block, C, when constructed, combined, and arranged in the manner and for the purpose herein above set forth.

19,908.—DRESSING MACHINE.—Dated April 13, 1858; reissue 3,028.—E. B. Bishop, New Orleans, La.

I claim a revolving excavator or dredging machine, constructed and operating substantially as and for the purposes set forth.

60,714.—STREET CAR HEATER.—Dated Jan. 1, 1867; reissue 3,029.—John Gibson, Jr., Albany, N. Y.

I claim, 1st, The stove or heater, C, and smoke pipe, e, inclosed or in a tubular case, with the boiler, B, and the pipes, h, h, and other suitable heating pipes, other than steam pipes, when arranged under the seat of any traveling conveyance, or in a room under a seat, for the purpose set forth and described.

2d, The protection piece, D, constructed and arranged as described, or its equivalent, for the purposes set for the purpose specified.

3d, The pinch screw, p, or its equivalent, in combination with the draft doors, m, as shown in the purpose specified.

73,807.—LAWN MOWER.—Dated Jan. 28, 1868; reissue 3,030.—A. Hills, Lowell, Mass.

I claim, 1st, The balance frame on the roller, E, in combination with the ball, Q, to which the handle, S, is secured, all constructed and arranged substantially as and for the purpose set forth.

2d, The horizontal cutter, M, having the spiral cutters, c, c, when hinged

front of the cutter, D, in a frame, which is adjustable upon the shoes, N, N, in the manner and for the purpose specified.

3d, The combination of the frame, roller, shoes, cutting device, and handle, all constructed and arranged to operate in the manner substantially as and for the purpose set forth.

61,431.—SEED PLANTER.—Dated Jan. 22, 1867; reissue 3,031.—D. S. Holman, Connecticut, Pa.

I claim, 1st, The two seed slides, H, H', placed one above the other, at the upper part of the tubes, G, and having springs, d, bearing against them, in combination with the wheels, I, and projections, e, having pins, f, g, in their peripheria, all arranged to operate substantially in the manner as and for the purpose set forth.

2d, The regulating slides, J, in combination with the seed slides, H, H', arranged substantially as and for the purpose specified.

3d, The combination of the metallic tubes, L, and covering shares, O, all arranged and applied so as to be capable of operating and being adjusted substantially as shown and described.

4th, The seed slides, H, H', tubes, G, springs, d, wheels, I, projections, e, with the pins, f, g, in combination with the slides, J, metallic tubes, L, and the covering shares, O, all arranged to operate in the manner substantially as and for the purpose specified.

11,729.—PLATFORM SCALE.—Dated Sept. 26, 1854; reissue 3,032.—J. F. Keeler, Pittsburgh, Pa.

I claim, 1st, The combination of the platform scale with a device acting independently of the weighing levers for the purpose of raising or lowering the platform simultaneously at all points when constructed and operating substantially as described.

2d, In combination with the weighing levers of a platform scale, the intermediate platform or frame, G, constructed and operating in the manner and for the purpose substantially as set forth.

3d, The combination of a spring balance with the vibrating beam of a weighing scale, substantially as and for the purpose set forth.

8,724.—GRASS AND GRAIN CUTTING MACHINE.—Dated Feb. 10, 1852; reissue 259, dated Feb. 28, 1854; reissue 466, dated June 2, 1857; extended seven years; reissue 6,033.—Division A.—Louisa R. Ketchum, Buffalo, N. Y., executrix of the estate of Wm. F. Ketchum, deceased.

I claim, 1st, Extending the shoe, H, G, from the heel of the rack or finger bar upward and forward, and firmly connecting its continuation with the draft when the finger bar is located as set forth, so that the power by which the machine is drawn shall, through the shoe, be communicated to and draw forward the heel of the rack or finger bar, thus relieving the great strain which would otherwise come upon the lateral connections of the rack or finger bar with the wheel frame, while the heel is enabled to slide over obstacles or obstructions, substantially as shown.

2d, When the main wheel and inner end of the short finger bar or rack, D, are located relatively to the frame, substantially as described, projecting the shoe, H, G, which supports the inner or heel end of said bar forward and toward from the said heel to a point in advance of the cutters, and above the plane thereof, sufficiently far to keep the grass down, and prevent its rising over the shoe, thus acting the shoe to ride over the mown grass, or other obstructions, substantially as shown.

8,724.—GRASS AND GRAIN CUTTING MACHINE.—Dated Feb. 10, 1852; reissue 259, dated February 28, 1854; reissue 466, dated June 2, 1857; extended seven years; reissue 3,033.—Division B.—Louisa R. Ketchum, Buffalo, N. Y., executrix of the estate of William F. Ketchum, deceased.

I claim, when the main wheel and inner end of the finger bar or rack, D, are located relatively as described, supporting the heel of the rack or finger bar sufficiently near the ground, and at a convenient distance from the main wheel, by one or more arms or braces extending upward and backward therefrom, and connected with the frame or strong parts, firmly bolted across the frame, in rear of the said rack or finger bar, while the said finger bar are elevated or arranged so as to pass over the cut grass, substantially as shown.

73,122.—GAS LAMP.—Dated Jan. 7, 1868; reissue 3,035.—Division No. 2.—Ripley & Company (assignees of Daniel C. Ripley, Pittsburg, Pa.)

We claim, 1st, The construction of the base, A, and the two handles, B, B, of one piece, for receiving a blown glass or reservoir, C, substantially as described.

2d, A pressed base, A, produced with one or two handles upon it, and having a globe, C, blown upon and united to the base and handle, or handles, substantially as described.

3d, The construction of the base, A, and handle or handles, B, in one piece by casting, and with a concave seat for supporting and having blown upon the same a bowl or reservoir, substantially as described.

14,257.—REFINING IRON.—Dated Feb. 12, 1856; reissue 1,686, dated May 31, 1864; reissue 2,118, dated Nov. 28, 1865; reissue 3,036.—Christian Shunk, Philadelphia, Pa.

I claim, 1st, The refining and decarbonizing of molten crude iron by the employment of an atmospheric air blast, uniting the oxygen of the air with the carbon of the crude metal, and thereby decarbonizing, or partially decarbonizing, and refining the same thus prepared; it to be molded into ingots, or otherwise, of iron or steel, for the hammer or the rolls, or to be molded into castings, or to be reconverted into fine cast steel.

2d, Such refining, when effected by the introduction of the oxide of manganese, as above described, by which the carbon is not only reduced, but the metal is thoroughly fused and incorporated with iron through the instrumentality of the high heat produced by the air blast, in the manner above shown.

3d, The use of a compound, consisting of common salt and manganese as a flux and deoxidizer in said process, as set forth.

66,268.—MANUFACTURE AND PRESERVATION OF LARD.—Dated July 2, 1867; reissue 3,037.—Division A.—Charles Lafayette Tucker, Chicago, Ill.

I claim, 1st, The box herein described, when constructed without a lid or cover, and with straight, even sides, from top to bottom, substantially as and for the purposes specified.

2d, The application of gum arabic, or its equivalent, to lard packages, for the purpose of making them tight and non-absorbing, substantially as specified.

66,268.—MANUFACTURE OF LARD.—Dated July 2, 1867; reissue 3,038.—Division B.—C. L. Tucker, Chicago, Ill.

I claim, 1st, The application of a coarse or fine lead foil, or foil-paper covering for lard packages, constructed of wood or paper, substantially as and for the purposes specified.

2d, The process of putting up lard in a light wood or paper casing or box, by drawing or pouring the lard therein in a fluid state, and closing up the casing or box by inserting the head so as to leave a small space between the lard and the head, to provide for expansion, substantially as specified.

3d, A new article of manufacture, small measured or specific quantities of lard incased in a light wood or paper casing or box, substantially as and for the purposes specified.

66,268.—PROCESS OF PUTTING UP LARD FOR STORAGE AND TRANSPORTATION.—Dated July 2, 1867; reissue 3,039.—Division C.—C. L. Tucker, Chicago, Ill.

I claim the mode herein described of packing lard for transportation or storage, by first packing the lard in separate small packages of light wood or paper, and inclosing such small packages in an outer, close-fitting case, substantially as specified.

71,670.—CUTTER FOR WOOD MOLDING.—Dated Dec. 3, 1867; reissue 3,040.—John Whitworth and W. H. Hawkins, Cleveland, Ohio, assignors of John Whitworth and W. H. Hawkins.

We claim herein-described hard or chilled cast iron rotary cutter for working wood, made in the manner as and for the purpose substantially as set forth, as a new article of manufacture.

DESIGNS.

3,095 and 3,096.—CENTER PIECE.—Henry Berger New York City. Two Patents.

3,097.—IMITATION BRAID FOR BONNETS.—S. A. Blake, Milford Conn.

3,098.—CLOCK CASE.—Paschal Converse, New Haven, Conn.

3,099.—PARLOR STOVE.—J. B. Geyser (assignor to Mitchell, Stevenson & Co.), Pittsburgh, Pa.

3,100.—BOTTLE.—John Hart, Lancaster, Pa.

3,101.—FLOOR OILCLOTH PATTERN.—R. Hoskin, Brooklyn, assignor to E. C. Sampson, New York city.

3,102.—TRADE MARK.—D. D. Mallory, Baltimore, Md.

3,103.—ARMY AND NAVY EMBLEM.—John P. Reynolds, Salem, Mass.

3,104.—CARPET PATTERN.—R. R. Campbell (assignor to Lowell Manufacturing Company), Lowell, Mass.

3,105 to 3,107.—STOCKING FABRIC.—T. Dolan, Philadelphia, Pa. Three Patents.

3,108.—KNIFE HANDLE.—R. H. Fisher, Beaver Falls, Pa.

3,109.—FIGURE.—Carl Muller (assignor to Nicholas Muller), New York city.

3,110.—FORK OR SPOON HANDLE CALLED "BRIDAL."—Geo. Wilkinson (assignor to Gorham Manufacturing Company), Providence, R. I.

3,111.—KNIFE OR FORK HANDLE CALLED "IVY."—George Wilkinson (assignor to Gorham Manufacturing Company), Providence R. I.

3,112.—KNIFE OR FORK HANDLE CALLED "ELIZABETHIAN."—Geo. Wilkinson (assignor to Gorham Manufacturing Company), Providence, R. I.

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

PROVISIONAL PROTECTION FOR SIX MONTHS.

1,588.—APPARATUS FOR MARKING OR DIRECTING BOXES AND PARCELS.—Wm. W. Becombe, New York city. May 14, 1868.

1,598.—EMBROIDERING APPARATUS FOR SEWING MACHINES.—Singer Manufacturing Company, New York city. June 10, 1868.

1,912.—CEMENT.—Chas. D. Peasley, Hildeford, Me. June 11, 1868.

1,918.—GOVERNORS FOR STEAM AND OTHER ENGINES.—D. la Forest Chase, Boston, Mass.—June 12, 1868.

1,920.—TREATING QUARTZ AND SILICIOUS SUBSTANCES TO OBTAIN HYDRA OF SILICA, AND APPLYING THE SAME.—A. L. Henry, Boston, Mass. June 12, 1868.

1,928.—ANCHOR.—F. Wittram, San Francisco, Cal. June 12, 1868.