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**55,799.—MODE OF CUTTING BOOTS.**—John Adams, Kokomo, Ind.:

I claim a new article of manufacture, a boot produced as follows, to wit: by cutting the foot and toe portion out of a single piece of leather, the counter or heel piece being left out, and then constructing the uppers of the boot from said foot and leg portion and a separate counter-piece, by having a seam extend down the back to the tops of the counter, then running the seam to the front edges of the counter and from thence down to the Shank of the foot, said horizontal and vertical side seams serving to fasten the separate outside counter-piece of leather over the opening which was left in cutting the foot and leg of the boot, all substantially as and for the purpose described.

**55,800.—GRAIN SEPARATOR AND CLEANER.**—William M. Arnall, Sperryville, Va., assignor to himself and W. H. Brownell, New York City:

I claim, 1st, The arrangement of the cylinder, B, the rollers, F, F, F, in the arc of a circle described by a radius from cylinder, E, together with the adjustable brushes, A, A, A, and dividing board, P, substantially as and for the purpose herein set forth.  
2d, The throat, G, with its gauge-board, F, rollers, F, cylinder, E, and fan, D, arranged and used as and for the purpose specified.

**55,801.—DEVICE TO PREVENT BOILER EXPLOSIONS.**—Alfred Arnold, Tenaply, N. J.:

I claim, 1st, The mode of preventing steam boiler explosions, substantially as herein set forth.  
2d, The construction and arrangement of the devices necessary to carry the mode into operation, substantially as described.

**55,802.—EGG-BEATER.**—Frederick Ashley, New York City:

I claim the grooved or screw threaded slide or sleeve, E, in combination with the plain shaft, A, having a fixed stud or pin, a, and a beater, B, arranged together and operating as and for the purpose specified.

**55,803.—WATER WHEEL.**—Samuel W. Ayres, Monticello, Ind.:

In combination with the spiral scroll, A, I claim the double wheel, B, C, from so arranged that the water shall be discharged from the scroll through the upper section, towards the center, and thence passing into the lower section be discharged from the center through the periphery, substantially in the manner set forth.

**55,804.—HORSE RAKE.**—H. A. Bailey and A. R. Burdick, Racine, Wis.:

We claim, 1st, The metal heads, J, provided with lips, g, and grooves, i, and retained on the rake-head by the upper ends of the rake teeth, K, passing through them and the rake-head, substantially as and for the purpose herein set forth.  
2d, The attaching of the rake-head, H, to catches, D, D, fitted loosely on the axle, A, and operated by means of levers by the driver from his seat, G, for the purpose of automatically raising the rake to discharge its load, substantially as shown and described.

**55,805.—ROOF OF BUILDINGS.**—William W. Beach, New York City:

I claim, 1st, The use of mica or mineral isinglass in sheets or plates as a roofing material, translucent, translucent, opaque, and ornamental, substantially in the manner and for the purpose herein set forth.  
2d, Ornamenting upon or between the plates or thicknesses of the mica, substantially as set forth and described.  
3d, Making an elastic roofing by cementing the plates of mica with flexible cement, substantially as set forth herein.  
4th, The combination of mica with wood, slate, or other equivalent substances, substantially in the manner and for the purposes herein set forth.

**55,806.—LAMP.**—Jacob H. Beidler, Lincoln, Ill.:

I claim, 1st, The method herein described of creating an ascending current of air to fan the flame, by means of steam generated by the calorific emanating from the illuminating flame of the lamp.  
2d, The combination of the boiler or heater, D, the steam pipes, D', D', the annular chamber, C, and the feed-tube, B, with the oil cup, A, perforated plate, g, and deflector, F, as and for the purpose described.  
3d, The hot water-tank, C', in combination with the feed-tube, B, and the boiler or heater, D, as and for the purposes described.

**55,807.—GRATER AND EGG-BEATER.**—William A. Bemis, Spencer, Mass.:

I claim, 1st, The combination with the lower half, B, of the body of the beater, of the removable frame, D, provided with the cutting wires, a, substantially as and for the purposes set forth.  
2d, In combination with the egg-beater, I claim the grater moving in guides on the body of the egg-beater, the whole being constructed and arranged substantially as and for the purpose shown and described.

**55,808.—MACHINE FOR FRAMING MATCHES.**—Jacob Bentz, Brooklyn, N. Y.:

I claim, 1st, In combination with the grooved bed and hopper, the loss a hopper-box or frame, constructed and operating substantially as described.  
2d, The construction of the grooved bed in two parts; the front part being hinged to the rear fixed part for the purpose of being swung down below the plane of the fixed part when required to remove broken splints, splinters, or other obstructions, substantially as described.  
3d, In combination with the grooved bed, I claim the guides or stops in front of the grooved bed, substantially as described.  
4th, In combination with the plunger frame and the front sliding frame which supports the splint frame, I claim the rock-shaft and system of levers and links, whereby the down-ward motion of the sliding frame is communicated thereto by the back motion of the plunger frame.

**55,809.—STUMP EXTRACTOR.**—John W. Blodgett, Plymouth, Ind.:

I claim, 1st, The combination and arrangement of the posts, C, and foot-boards, E and N, substantially as and for the purposes set forth.  
2d, Wheels, M and P, frame, L, windlass, W, chain, L, and lever, K, in combination with wheels, A, foot-boards, C, E, N, substantially as and for the purposes set forth.

**55,810.—UTILIZING STEAM.**—John M. Brosius, Liberty, Va.:

I claim the arrangement, with a stationary depot or water station casing, of the locomotive boiler, substantially in the manner and for the purpose described.

**55,811.—COTTON-SEED PLANTER.**—Frederick H. Brown, Chicago, Ill.:

I claim, 1st, In a cotton-seed planter the combination of the shaft, K, provided with arms, V, and the conveying belt, L, provided with teeth as described, arranged, and operating substantially in the manner and for the purposes herein specified.  
2d, In combination with the said conveying belt, L, I claim the shaft, U, provided with suitable wings or cleaners, arranged and operating substantially as specified and shown and for the purposes set forth.  
3d, The combination of the shaft, R, provided with arrows or spikes, the toothed belt, L, and the winged shaft, U, arranged and operating as and for the purposes described.

**55,812.—MODE OF CONSTRUCTING VACUUM VESSELS FOR EVAPORATING, ETC.**—Duncan Bruce, Rossville, N. Y.:

I claim the method, substantially as herein described, of strengthening and rendering wooden vessels air-tight, for the purposes set forth.

**55,813.—HAMMER FOR BENDING COUPLINGS.**—John T. Bruen, New York City:

I claim, 1st, The anvil, the hammer, the connecting-rod, and the treadle, when constructed and arranged substantially as and for the purpose herein specified.  
2d, The apparatus for throwing out the material after the successive operations of the hammer, applied, arranged, and operating substantially as herein specified.  
3d, The annular spring or buffer, d'', applied at the lower end of the connecting-rod, substantially as described, and serving the two purposes of regulating the stroke of the hammer and of preventing destructive concussion and noise.

**55,814.—LOCK.**—Henry and Samuel W. Budd, Philadelphia, Pa.:

I claim, 1st, The bolt, B, and its spring, d, in combination with the sliding block, F, and plate, b, or its equivalent, the whole being constructed and operating substantially as and for the purpose described.  
2d, A series of tumblers in combination with the block, F, and with projections in the casing, D, the whole being constructed and operating substantially as and for the purpose specified.

**55,815.—BRUSH FOR BOILER FLUES.**—Charles H. Bush, Fall River, Mass.:

I claim an expanding and contracting brush for clearing obstructions from the flues of steam boilers, constructed and operating as herein set forth and described.

**55,816.—RAILROAD WATER-ELEVATOR.**—William H. Butler, Chicago, Ill.:

I claim, 1st, A metal tank lined with wood which has been previously saturated with oil or other resistant to rapid condensation of steam, or coated with such resistant on one or both sides, substantially as described and for the purpose mentioned.  
2d, I claim in combination with the follower and steam pipe the rubber packing, I, as described.

**55,817.—STEP-LADDER.**—E. P. H. Capron, Springfield, Ohio:

I claim, 1st, The ladders, A and B, platform, C, and the notched bar, E, all combined and arranged to operate as shown and described.  
2d, The slotted bar, D, provided with the series of holes and pin, I, arranged to operate in combination with the ladders, A and B, and platform, C, as herein set forth.

**55,818.—TREATING ORES.**—Charles F. Carpenter, Louisville, Ky.:

I claim the mode of using steam of any temperature for the purpose of facilitating the process for extracting gold and silver from ores, and consists in introducing said steam into a reverberatory furnace between the flame of said furnace and the ores containing gold or silver which are spread upon the hearth of said furnace, as herein described, or any other substantially the same.

**55,819.—WATER-INDICATOR FOR STEAM GENERATORS.**—Franklin Chalfant, Lancaster, Pa.:

I claim, 1st, The vibrating column or cylinder, F, in connection with a steam boiler, A, when employed for the purpose specified.  
2d, I also claim the soapstone disks, K, when applied substantially in the manner and for the purpose set forth.

**55,820.—ICE-CREAM FREEZER.**—John R. Champlin, Laconia, N. H.:

I claim, 1st, The side-scrappers, G, when made in the form and adjusted in the manner described, in combination with the horizontal arm, E, of the beater, substantially as and for the purposes set forth.  
2d, The frame, K, and support, X, when constructed substantially as described, in combination with each other and with the shafts, F and L, as and for the purposes set forth.  
3d, The use of a combined joint and swivel for coupling the beater to the beater and cream-holder of an ice-cream freezer, substantially as described.  
4th, The coupling device herein described, in which the coupling is accomplished by dropping the clutch upon the shaft and cream-holder, substantially as described and for the purpose set forth.

**55,821.—PUMP.**—Robert Cochran, Morrison, Ill.:

I claim the combination and arrangement of the valve, I, pipes, O and P, and cylinders, A and B, substantially as herein described and set forth.

**55,822.—PUMP FOR DEEP WELLS.**—Robert Cornelius, Philadelphia, Pa.:

I claim the combination of an outer case with apertures, an interior wire gauze or perforated screen, and a receptacle below for the debris, substantially as described.

**55,823.—DOOR-BELL AND BURGlar-ALARM.**—Elliot H. Crane, Burr Oak, Mich.:

I claim, 1st, So arranging two hammers to a bell that, while the bell answers the purpose of an ordinary door-bell, its parts can be adjusted to act as a burglar-alarm when the door is opened, substantially as described.  
2d, The combination of the two hammers, L and O, bell, D, notched base-plate, c, swinging pawl or arm, T, and knob handle with a plate or tripper, H, upon its spindle, when the several parts are arranged together and so as to operate substantially in the manner and for the purposes described.

**55,824.—HORSE HAY-FORK.**—Thomas C. Craven, Albany, N. Y.:

I claim, 1st, Applying a hook or barb, h, to the hollow point of a harpoon hay-fork, so that this hook shall work loosely within said point, and be projected therefrom by the depression of a rod, C, substantially as described.  
2d, Connecting the upper portion of the curved rod, C, to the upper portion of its hollow stem, A, by means of toggle-joints,

which are adapted to serve as a locking device, substantially as described.  
3d, The combination of the tripping lever or eccentric, f, or its equivalent, with locking toggle-levers and rod, C, for the purpose of unlocking said rods.  
4th, Curving the upper portion of the rod, C, for the purpose substantially as described.

**55,825.—CHURN.**—F. J. Crissey, Leesburg, Va.:

I claim the arrangement and combination of the center dasher with fly-wheel at top and propelling cord on the shaft, so that the shaft is operated swiftly with a forward and reverse action, as herein described and for the purposes set forth.

**55,826.—CULTIVATOR.**—John Custer, Sandusky, Ohio:

I claim, 1st, The hinged cleaners, H, in combination with the levers, I, arranged to operate with the cutting rollers, D, in the manner and for the purpose herein specified.  
2d, The combination of the cutting rollers, H, hinged cleaners, H, frame, A, bar, K, and chain, J, arranged and operating as described.

**55,827.—MARINE COMPASS.**—Samuel Custer, Salem, Va.:

I claim, 1st, The combination of the lower battery magnet with the upper indicator magnet, substantially as and for the purpose described.  
2d, The construction of the cruciform indicator-magnet with a pointer placed midway between the north and south poles of its two needles.  
3d, The arrangement of the indicator-magnet upon and eccentric with the main compass-card or its frame, for securing a longer radius to the pointer.

**55,828.—ROLLER-FEED FOR CARDING AND PICKING MACHINES.**—James Dempster, Nantucket, Conn.:

I claim an improvement in roller-feed for cards and pickers the combination and arrangement of the rolls, B, C, D, E, F, G, and the gear-wheels, L, M, N, S, R, and the gear-wheels, J, K, O, P, T, U, with each other and with the frame, A, of the machine, substantially as described and for the purposes set forth.

**55,829.—HAY-RACK FOR WAGONS.**—Daniel Dennett, Buxton, Me.:

I claim the stretchers, b, b, b, cut in two at d, d, in the manner and for the purposes specified.

**55,830.—CAR FOR TRANSPORTING PETROLEUM.**—J. Densmore, Meadville, Pa., and G. W. N. Yost, Corry, Pa.:

We claim the combination of the two-tank car with the one-tank car, being the three tanks, B, B, B, attached to and combined with the car-platform, A, A, A, by means of the frames, C, C, C, C', C', C', and the bolts, D, D, D, D', D', D', D', when constructed in the combination herein-before described, and for the application to the purposes herein-before written, or when done by any other mechanical construction substantially the same and which will produce the same results.

**55,831.—CAR FOR TRANSPORTING PETROLEUM.**—J. Densmore, Meadville, Pa., and G. W. N. Yost, Corry, Pa.:

We claim the one tank, B, attached to and combined with the platform of a car, A, by means of the frame of cars, C, C, C, C', and the bolts, D, D, D, D', over and upon the middle of the platform and car, when constructed and combined for the purposes herein-before described and set forth, or when attached and combined by any other mechanical construction substantially the same and which will produce the same results.

**55,832.—CAR FOR TRANSPORTING PETROLEUM.**—James Densmore, Meadville, Pa., and Amos Densmore and G. W. N. Yost, Corry, Pa.:

We claim, 1st, The one tank, B, square or oblong square of wood planks bolted together and attached to an ordinary railway car, A, by means of the cleats, E, and the bolts, D, D, D, D', when the same are constructed and combined as herein-before described and for the purposes set forth.  
2d, The two tanks, B, B, square or oblong square, directly over the trucks or axles together in the middle of the car, of wood planks bolted together and attached to the car, A, by means of the cleats, E, E, and the bolts, D, D, D, D', when the same are constructed and combined as herein-before described and for the purposes set forth.  
3d, The three tanks, B, B, B, square or oblong-square, of wood planks bolted together and attached to the car, A, by means of the cleats, E, E, E, E, and the bolts, D, D, D, D', when the same are constructed and combined as herein-before described and for the purposes set forth.  
4th, The square or oblong-square tank or tanks of wood planks, attached to an ordinary car, when constructed and combined by any other mechanical contrivance, substantially the same, and which will produce the same results.

**55,833.—MACHINE FOR PLANING MOLDINGS.**—Thomas Dickinson, Newark, N. J.:

I claim the arrangement described and represented for dressing two moldings simultaneously by one center-head, consisting of the adjustable box-table, W, X, constructed and operated substantially as described.

**55,834.—APPARATUS FOR MAKING PAPER-PULP, FOR BLEACHING AND FOR OTHER PURPOSES.**—John W. Dixon, Philadelphia, Pa.:

I claim, 1st, The combination of the digester, A, the man-hole, B, the diaphragm, C, and the discharge-pipe and aperture, N.  
2d, The combination of the digester, A, the heating coil, and the pump, D, as described.

**55,835.—APPARATUS FOR MAKING PAPER-PULP FROM WOOD, STRAW, AND OTHER MATERIALS.**—John W. Dixon, Philadelphia, Pa.:

I claim the combination of the circulating pump, the pulp digester and heating coil, or its equivalent, for heating the liquid while being made to circulate by the pump.

**55,836.—PROCESS OF MAKING PAPER-PULP FROM WOOD, STRAW, AND OTHER MATERIALS.**—John W. Dixon, Philadelphia, Pa.:

I claim, 1st, The pulping of wood, straw, and other vegetable substances with a solution of highly-heated aluminate of soda under pressure, substantially as described.  
2d, I claim the pulping of wood, straw, and other vegetable substances by circulating a highly-heated solution of aluminate of soda through the mass to be pulped, substantially as described.

**55,837.—HARVESTER.**—John A. Dodge, Auburn, N. Y.:

I claim, 1st, The combination of the cam, B', bed-piece, B, and frame, A, resting upon the platform, the said several parts being respectively constructed and arranged for use, substantially in the manner and for the purpose set forth.  
2d, The plate, E, and ratchet, E', upon the outside of the driving-wheel and pulley, D, upon the projecting extension of the axle, in combination with the belt, M, pulley, C, and bevel gear, for actuating the rake with the forward motion of the machine, substantially as set forth.  
3d, The hook or detent for supporting the arm, H, by means of the bracket, L', attached to the socket, I, secured to the frame, substantially as set forth.  
4th, The arrangement as herein set forth for supporting adjustably the inner end of the cutter-bar and platform by means of the arm, G, attached to the platform and connecting chain and projecting arm, H, secured to the main frame by the bracket, I', and socket, I.







- 55,913.—RAILWAY SWITCH.**—Charles H. Sawyer, Hollis, Maine:  
I claim, 1st, The combination of the jointed levers, h, with the sliding bar, g, and curved arms, a, with the cross-bar, b, all constructed, arranged, and operating as herein set forth and described.  
2d, The arrangement of the springs, y, to lift the levers, i, as described.  
3d, The arrangement of the arms, z, z, for the purpose of locking and unlocking the switch by hand, as described.
- 55,914.—AUTOMATIC GATE.**—J. H. Schenck, Chicago, Ill.:  
I claim, 1st, The gate, A, pivoted at the top of the post so as to swing like a pendulum, when the way is to be opened, substantially as described.  
2d, In combination with the vibrating gate, A, the reciprocating platform, for the purpose set forth.  
3d, In combination with the vibrating gate, A, the latch, substantially as and for the purpose set forth.  
4th, The reciprocating platform, supported upon the lary bars, and connected to the gate by the rod, substantially as described.  
5th, In combination with the reciprocating platform and the flanges, substantially as described and for the purpose set forth.
- 55,915.—APPARATUS FOR PRODUCING EXTRACT OF HOPS, ETC.**—John Schneider, Williamsburg, N. Y.:  
I claim the siphon-tube, E, in combination with the tightly-closed vessel, A, which is provided with a horizontal partition or spurger, D, false bottom, C, and discharge coil, F, substantially as and for the purpose described.
- 55,916.—MANUFACTURE OF CAR WHEELS.**—J. Scoville, Buffalo, N. Y.:  
I claim the combination of spiegelisen and iron in the manufacture of car wheels, in the manner herein described.
- 55,917.—PICTURE NAIL.**—Frederick J. Seymour, Wolcottville, Conn.:  
I claim an ornamental picture nail-head made with a screw for the nail, in the manner specified.
- 55,918.—DRILLING MACHINE.**—Frederick Shaller, Hudson, N. Y.:  
I claim, 1st, The fixed feed-screw, E, the hand-wheel, F, containing the nut, x, and the arms, l, a, and b, in combination with the drill-spindle and frame, B, of the machine, all arranged substantially as herein specified.  
2d, The combination of the frame, f, f, the drill-spindle, C, the pulley, D, and rod, d, substantially as and for the purpose herein set forth.
- 55,919.—MACHINE FOR CUTTING WINDOW SHADE SLATS.**—P. P. Simmons, Davenport, Iowa:  
I claim, 1st, The arrangement of the nearly horizontal rotary cutters, C, C, table, A, and the guides, a, a, substantially in the manner and for the purpose described.  
2d, The arrangement of the roller bearings, D, cutter-arbor, b, cutter, C, adjustable device, c, and d, and table, A, substantially in the manner and for the purpose described.
- 55,920.—GARBAGE BOX.**—James Joseph Slevin, New York City:  
I claim, 1st, The garbage box, with its top constructed so as to form a part of the sidewalk of the street, and with a door or lid in said top, so that the said top with its door covers the garbage box, forms part of the sidewalk for pedestrians, and permits the contents to be readily thrown out, thus enabling the garbage box to be sunk below the level of the sidewalk, as described.  
2d, The construction of the garbage box with two horizontal doors, to form parts of the sidewalk, the smaller within the larger, as described.  
3d, The garbage box with one of its sides constructed so as to form a part of the curb of the sidewalk, so that the box may be set as close as possible to the carriage-way for convenience of throwing its contents into a cart.  
4th, The combination of the garbage box with a drain grating extending up to or near its top, so that the liquid matter may drain from the surface of the garbage, wherever that may be, as described.  
5th, The combination in a garbage box of the following parts, viz., the body of the box, the top constructed with a door to form part of the sidewalk of the street, and one side constructed to form part of the curb of the street, as described.
- 55,921.—GANG PLOW.**—Joseph D. Smith, Peoria, Ill.:  
I claim, 1st, Arranging the gang of plows between the forward and the rear points of support of the carriage frame, to which said plows are attached when they are free to rise or fall independently of each other, substantially as described.  
2d, Pivoting the forward ends of the plow-beams, D, D, to the carriage frame, by means of rods, b, b, which are adjustable at their outer ends, in slots, c, c, for the purpose of leveling the plows, substantially as described.  
3d, The combination of the vibrating plow-beams, D, which are pivoted to a carriage frame at a point which is in front of the transporting wheels, with a device which will admit of the forward part of said frame being elevated or depressed at pleasure, substantially as described.  
4th, In combination with plows which are arranged in advance of the axle-tree, B, and pivoted so as to be capable of rising or falling, I claim the gravitating catches, d, d, or their equivalents, substantially as described.  
5th, The arrangement of levers, F, E, vibrating plows, D, D, and catches, d, d, substantially as described.  
6th, Providing for adjusting the forward end of the carriage frame, for regulating the pitch of the plows, by means of draught-pole, G, lever, H, substantially as described.  
7th, Connecting the rear end of the pole, G, to the axle, B, by means of a pin, e, and a laterally adjustable plate, f, substantially as described.  
8th, The adjustable draught-rod, K, arranged and applied to the plow frame so as to operate substantially as described.  
9th, The combination of a pole, G, which is adjustable at its rear end, with a draught-rod, K, which is adjustable at its front end, substantially as described.
- 55,922.—TOP-SAIL REEFING RIG.**—Wm. G. Smith and Daniel Hooper, New York City:  
We claim, 1st, In connection with a single top-sail, a flowing middle yard or reefing-boom, D, checking-line, k, g, bifurcated lifts, M, m, m, and preventer lifts, K, all arranged and operating as herein shown and explained.  
2d, The combination of the binding-rope, f, f, and loops formed by stops, e, e, for securing the belly of a top-sail to a boom, M, or middle yard, substantially in the manner and for the purpose specified.
- 55,923.—LACING FOR BOOTS AND SHOES.**—Leonard A. Sprague, New York City:  
I claim, 1st, The lacing-eyelot in which the lacing-eye is formed in one piece with the fastening device, substantially as herein shown and described.  
2d, I claim the combination of two or more lacing-eyes with intermediate links, when the same are formed of one piece of wire, substantially as herein shown and described.  
3d, The method of fastening lacing-eyelots, substantially as described, by confining the shanks or links thereof in the folds or between two thicknesses of leather or other material, to which the lacing is attached.
- 55,924.—BOOK-HOLDER.**—David J. Stagg, New York City:  
I claim the arms, C, C, secured in the cleat or strip, B, by screws, b, b, and provided with pivoted fingers, D, at their outer ends in connection with the inclined frame or base, all arranged substantially as and for the purpose specified.
- 55,925.—STAND, DESK, AND BOOK-HOLDER.**—David J. Stagg, New York City:  
I claim the stand, writing-desk and book-holder consisting of the bed-piece, D, hinged-frame, E, hinged-board, F, provided with the fingered arms, G, G, and hinged-bar, I, combined and operating in the manner and for the purpose herein specified.
- 55,926.—PORTABLE FENCE.**—Jno. K. Staman, Mifflin, Ohio:  
I claim the braces, d, d', and counter-brace, d'', in combination with the posts, B, and cross-rails, e, e', when constructed and arranged in the manner and for the purpose set forth.
- 55,927.—NEEDLE FOR SEWING MACHINES.**—Monroe Staimarj, New Britain, Conn.:  
I claim the employment of the needle as described, in combination with a shuttle or its mechanical equivalent, substantially as and for the purpose described.  
2d, As a new article of manufacture, I claim an eye-pointed sewing-machine needle, a, eccentric with reference to its shank, c, substantially as and for the purpose described.
- 55,928.—WASHING MACHINE.**—Henry H. Staples, Woburn, Mass.:  
I claim the arrangement and combination of the bar or lever, D, its handle or handles, d, d, and the standards and roller, e, with the rubber, the tub, and the series of rollers disposed in such tub, the whole being substantially as specified.
- 55,929.—MEANS FOR FISH TO PASS OVER DAMS.**—Daniel Steck, Hughesville, Pa.:  
I claim an improved device for facilitating the passage of fish over dams, formed by combining a series of inclined planes, E, I, J, K, L, with each other, with the partition walls, G, O, P, F, with the side walls, F, N, and with the end walls, T and S, the whole being constructed and arranged in connection with the end of the dam and with the bank of the stream, substantially as described and for the purpose set forth.
- 55,930.—HORSE RAKE.**—Henry Stimmel, Canton, Ohio:  
I claim the combination of the peculiarly shaped iron, "G," having a slot, "K," therein, with the screw, "H," in connection with the lever, "F," substantially in the manner and for the purpose specified.
- 55,931.—STOP-COCK.**—Herman Strater, Jr., Roxbury, Mass.:  
I claim in a stop-cock providing its plug with elastic yielding filling, substantially as and for the purpose described.
- 55,932.—WRENCH.**—George C. Taft, Worcester, Mass.:  
I claim the arrangement of the nut, I, in combination with the handle, G, tang, A, and ferrule, H, with its shoulder, b, and step, J, constructed and operating in the manner and for the purpose herein described.
- 55,933.—BUCKLE.**—D. S. Thompson, West Haven, Conn.:  
I claim the combination of the frame, A, with the tongue, B, and bar, C, when the tongue and bar are hinged to the rear bar of the frame, the whole constructed and arranged to operate substantially in the manner herein set forth.
- 55,934.—CHURN.**—W. H. Tillou and S. Shumway, Le Roy, N. Y.:  
We claim the gear or cog-wheel, B, constructed with curved cogs or flanges on the side of its rim, substantially as herein described, in combination with the cog-wheel, C, of the dasher-handle, B, for the purpose of frequently reversing the motion of the dasher, A.
- 55,935.—CARPET-STRETCHER.**—E. W. Twing, Springfield, Mass.:  
I claim, 1st, The coupling consisting of the slides, D, E, pivot, b, socket, c, and set-screw, a, or its equivalent, in combination with the shafts, A, B, of a carpet-stretcher, substantially as specified.  
2d, The rounded head, C, in combination with the levers, A, B, and slides, D, E, arranged and operating in the manner and for the purpose herein specified.
- 55,936.—BROOM-HEAD.**—James Wasson, Fairwater, Wis.:  
I claim, 1st, An improved broom-head formed by combining with each other and with the socket, A, the two parts or halves, B and C, constructed substantially as herein described and for the purpose set forth, said halves being held together at the lower part of their side edges by the barbed spike-hooks, F.  
2d, The combination of the two perforated or roughened plates, D and E, constructed as described, with the parts or halves, B and C, substantially as and for the purpose set forth.  
3d, The combination of the barbed spikes, F, with the halves or parts, B and C, substantially as described and for the purpose set forth.
- 55,937.—TOBACCO-PRESS.**—W. H. Watson, Yonkers, N. Y.:  
I claim, 1st, The inner or secondary box, constructed and operating, substantially as described, for the purposes set forth.  
2d, In combination with the same, I claim the outer box top-plate and clamps, when the same shall be constructed, combined, and operated substantially as shown.
- 55,938.—APPARATUS FOR OILING JOURNALS.**—James E. Weaver, Temperanceville, Va.:  
I claim the combination of the vessel, c, and pipes, d and e, with a "plumber-block," or bearing of shafting, as herein described and for the purpose set forth.
- 55,939.—STOVE-PIPE DRUM.**—Harvey G. Whittaker, Brattleboro', Vt.:  
I claim the combination of the internal drum, B, intermediate drum, A, and external drum, C, with the pipes, D, E, F, G, when the parts are constructed and arranged in the manner and for the purposes herein described.
- 55,940.—SASH-SUPPORTER.**—Martin V. B. White, Troy, N. Y.:  
I claim the employment of the arm-piece or rod, e, having the thumb-piece, I, thereon and the opposite end thereof so constructed as to receive the roller, D, and operate the same within the triangular recess, E, each being arranged and combined in the manner substantially as herein described and set forth.
- 55,941.—MEASURING-FUNNEL.**—A. H. Whitney, Portland, Me.:  
I claim the combination in a funnel of the graduated scale, the stop-cock, the flange and air-vent, all as and for the purposes specified.
- 55,942.—HARNESSE-HOOK.**—J. J. Wilkins, Virdeu, Ill.:  
I claim the hook, A, provided with the transverse opening or hole, n, and the horizontally projecting ears, a, constructed and operating as shown and described.
- 55,943.—RAILROAD SWITCH.**—John A. Williamson, Lafayette, Ind.:  
I claim the combination of the bridge, A, tapered guide, B, and tapered bar, C, when the latter is securely pivoted to the guide, B, and all constructed and arranged in the manner and for the purpose herein specified.
- 55,944.—DIE FOR CUPPING OR RAISING ARTICLES OF METAL.**—Samuel R. Wilmot, Bridgeport, Conn.:  
I claim the attachment of the blank-holder, B, directly to the bed-plate or fixed die, A, substantially as herein set forth for the purpose specified.
- 55,945.—BORING MACHINE.**—Benjamin T. Young, Charlestown, Mass.:  
I claim a grooved cam constructed with inclined sides, in combination with a cone-traveler.
- 55,946.—WEIGHING-CAR.**—Joshua H. Zinn, Kingston, Tenn.:  
I claim, 1st, The arrangement of the levers or frame, B and C, within the bottom portion of the frame of a car and connected together, and with any suitable weighing-lever or beam in combination with the inside box or casing resting at each end upon such frames, B and C, substantially as described and for the purpose specified.  
2d, The shaft, P, having cam-shaped disks, R, so arranged as to lift the inside box from the weighing-levers or frames, for the purpose set forth.
- 55,947.—MACHINE FOR HULLING COFFEE.**—Robert Anderson, Brooklyn, N. Y., assignor to S. O. Ryder, New York City:  
I claim the combination in a machine for hulling and polishing coffee of an obliquely ribbed wheel, E, rotating within a slightly conical toothed concave, A, constructed as described, and a series of wings, G, rotating within a horizontal tapering or conical case, A, the whole arranged to operate substantially as herein set forth for the purpose specified.
- 55,948.—BROOM-HEAD.**—J. D. M. Armbrust, assignor to himself and Jacob Freetly, Apollonborough, Pa.:  
I claim the metallic band composed of thin metal and furnished with slots, in combination with the strengthening pieces and bolts and nuts as and for the purpose described; also the combination of the movable cap piece and the handle slotted at its lower end, for the passage of the bolts constructed as described, and for the purposes set forth.
- 55,949.—APPARATUS FOR CARBURETING AIR.**—Franklin H. Brown, assignor to himself and James F. Griffin, Chicago, Ill.:  
I claim, 1st, The combination of a series of revolving buckets, F, and a hollow stationary shaft, G, provided with the openings, a and b, arranged and operating substantially as and for the purposes specified.  
2d, The combination of a series of revolving buckets, F, and a stationary hollow shaft, G, when provided with the partition, m, and c and d, and a and c and d, arranged and operating as and for the purposes shown and described.  
3d, In combination with a carburetor, A, arranged above the burners, I claim the employment of a device for compressing and forcing air into the same, substantially as and for the purposes herein specified and shown.  
4th, The employment of an automatically closing valve, V, in combination with a close carburetor arranged above the burners and a device for compressing and forcing air into the carburetor, and a weight or its equivalent, for operating the same, substantially in the manner and for the purposes specified.
- 55,950.—APPARATUS FOR CARBURETING AIR.**—Franklin H. Brown, assignor to himself and Jas. F. Griffin, Chicago, Ill.:  
I claim, 1st, The combination in one device of two or more siphons, arranged and operating substantially as and for the purposes specified and shown.  
2d, The arrangement of the parts of a carburetor in two or more independent sets, in combination with devices for drawing off the contents of said sets separately, and of the pans in each set simultaneously, substantially as specified and shown.  
3d, The arrangement of a deflector, V, with the inlet tube, N, substantially as and for the purposes described.  
4th, Providing the inlet tube, N, with a cap, P, arranged as shown and for the purposes set forth.  
5th, The combination and arrangement of the deflector, V, and cap, P, with the inlet-pipe, N, substantially as specified and shown.
- 55,951.—COMPOSITION OF MATTER.**—Lewis Francis, assignor to himself and Cyrus H. Loutrel, New York City:  
I claim combining glue, glycine, and silicates, with or without saccharine matter, to form a new and useful composition of matter for various purposes.
- 55,952.—GRAIN SEPARATOR.**—John Green, assignor to himself and James W. Barker, Norwalk, Ohio:  
I claim, 1st, The two fans, c, c', in combination with the two shoes, F, F', operated by means of the gearing, connecting-rods, and shafts from the driving-shaft of the machine, substantially as and for the purpose herein set forth.  
2d, The double inclined ends of the upper screens, I, of the shoes, F, F', in combination with the side openings, m, in the shoe-boxes, substantially as and for the purpose set forth.
- 55,953.—FASTENING FOR FRUIT CANS.**—George H. Hammer, Newville, Pa., assignor to himself, D. J. Brougher and Wm. A. Middleton, Harrisburg, Pa.:  
I claim securing the cover, a, by means of the ball, B, attached to ears, e, or lugs, c, substantially as shown and described.
- 55,954.—BUTT HINGE.**—James C. Hyde, assignor to D. S. Thompson, West Haven, Conn.:  
I claim a hinge, the two parts of which are formed and united, substantially in the manner herein set forth.
- 55,955.—METALLIC SEAL ENVELOPE.**—Ralph S. Jennings, assignor to himself and Norman G. Kellogg, New York City:  
I claim, 1st, The metallic seal applied to envelopes in their manufacture, substantially as and for the purpose described.  
2d, The new article of manufacture herein described and shown, to wit, an envelope for letters furnished with a metallic seal, which envelope is ready for being sealed when on sale, as set forth.
- 55,956.—CLOTHES-SPRINKLER.**—John L. Kendall, assignor to himself, R. H. Trested, and Lewis Hurst, New York City:  
I claim a clothes-sprinkler, composed of a conical vessel, A, handle, B, neck, C, and nipple, D, as a new article of manufacture.
- 55,957.—FIRE-ALARM.**—C. D. Kubach, assignor to himself and W. W. Clay, Philadelphia, Pa.:  
I claim the casing, E, with its piston, G, pin, w, and spring, t, in combination with the slotted plate, F, and the within-described alarm mechanism, or its equivalent, the whole being constructed and operating substantially as and for the purpose described.
- 55,958.—MODE OF SETTING STATIONARY STEAM BOILERS.**—Caleb S. Nelson, West Troy, N. Y., assignor to himself and Henry I. Seymour, Troy, N. Y.:  
I claim, 1st, The annular chamber or surrounding chamber, s, formed between the stationary boiler, B, and steam-dome, C, and the inner part or surface of the brick or mason work, A, in

RE-ISSUES.

2,292. — LIQUID-COOLER. — Adalbert Fischer, New York City. Patented May 15, 1866 :

I claim the movable heads, b, with annular recesses, a, in combination with one or more bolts, F, annular cylinder, A, and vessel, b, all constructed and operating substantially as and for the purpose described.

2,293. — STRAW-CUTTER. — Warren Gale, Chicopee Falls, Mass. Patented March 7, 1854 :

I claim, 1st, The fixed pivot, F, on which the moving-knife works, provided with a flange for fastening to the cutter-box, and made adjustable thereon by means of slots and bolts, or their equivalents, substantially as and for the purpose herein specified.

I also claim the arrangement of the adjustable range-plate, G, in front of the fixed knife in such a manner that it shall be raised above the said fixed knife in proportion to the increased distance at which it is adjusted away from the knife, to give a longer cut and vice versa, substantially as herein set forth.

2,294. — HARVESTER. — William K. Miller, Canton, Ohio. Patented July 2, 1861 :

I claim, 1st, The pulleys at or near the lower end of the inner reel support, for the purpose specified.

I also claim the single endless belt or chain passing from the driving-pulley, g, on the main frame, to and over intermediate pulleys placed to one side of a vertical plane passing through said driving-pulley, and thence to and over the pulley on the inner end of the reel-shaft, substantially as and for the purpose described.

2,295. — HARVESTER. — William K. Miller, Canton, Ohio. Patented July 2, 1861 :

I claim the bent levers, s, pivoted at the heel of the shoe, and extending to a point between the driving wheels, and thence connected to a lever near the finger's seat or stand, for the purpose of raising the outer end of the finger beam, substantially as described.

2,296. — HARVESTER. — William K. Miller, Canton, Ohio. Patented July 2, 1861 :

I claim the brace on the grain side of the machine extending from the front end of the frame to the axle of the driving wheel as a support for the finger-beam and the reel-post, substantially as described.

2,297. — METHOD OF WARMING AND VENTILATING BUILDINGS. — E. Y. Robbins, Cincinnati, Ohio. Patented May 6, 1862 :

I claim, 1st, The arrangement of the hot-air chamber or reservoir of heat for warming the floor and lower part of the walls, in connection with the arrangement for the introduction at the bottom of the room of moderately warmed fresh air, which has not been in contact with the hot metallic surface either of hot-water pipes or steam pipes, or of a stove or furnace, or any other highly-heated surface, substantially as above set forth.

2d, The hot-air chamber, P, Fig. 1, under the hot-air chamber, C, Fig. 1, and under the reservoir of heat formed by the pipes, mortar, etc., of the radiator, W, Fig. 6, all substantially as set forth.

3d, In case of warming the upper rooms by the waste heat of the fire in the lower story, I claim the arrangement of an inner smoke-flue within the brick fire or chimney, B, Fig. 3, and the diaphragm, P, Fig. 5, for turning the current of hot-air rising between this inner smoke-flue and the sides of the chimney inwards under the floor of the upper room for warming it, or any equivalent device, substantially as set forth.

4th, In using hot-air pipes for warming cars or rooms, I claim the making of said pipes in their different parts of different materials and of different sizes, so that their conducting and radiating power shall increase as the distance from the furnace or source of heat increases, and as the temperature of the air within them decreases, so that they shall distribute the heat as nearly uniform as possible throughout their entire length, substantially as above set forth.

5th, The horizontal radiator, W, Fig. 6, formed of tiles, mortar, cement, or other similar material (which has acquired, or will acquire, a sufficient degree of hardness), placed in and forming a part of the floor, in combination with the arrangement for heating it by hot-water pipes or steam pipes, placed under the tiles or other material of which said radiator may be formed.

2,298. — WATER-PROOF GAITER SHOE AND BOOT. — The Goodyear Metallic Rubber Shoe Company, Naugatuck, Conn., assignees of Thomas C. Wales, Dorchester, Mass. Patented February 2, 1858 :

We claim a new or improved manufacture, or water-proof vulcanized rubber and cloth gaiter shoe, made in manner and with its external layer of cloth and its lining of cloth arranged together and with respect to the remainder or rubber parts or foxing, substantially as specified.

DESIGNS.

2,340. — ENVELOPE. — Samuel Rayner, New York City.

2,341. — TRADE-MARK. — Levi Sohl, A. J. Sohl, and David Gibson, Indianapolis, Ind.

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the manner and for the purpose substantially as herein described and set forth.

2d, The suspending of the stationary steam boiler, B, within the brick arch or mason work, A, surrounding the same so as to form an air-chamber, a, immediately upon and over the upper surface of such steam boiler so as to prevent the escape of heat, in the manner and for the purpose substantially as herein described and set forth.

55,959. — PICKER-ARM FOR LOOMS. — George W. Paterson, assignor to himself and H. M. Payne, Newburyport, Mass. :

I claim, 1st, The picker-arm, constructed and arranged for operation substantially as herein shown and described.

2d, In a picker-arm, I claim the combination of a friction-roller with a shell inclosing the same on top and sides, as herein described.

3d, In a picker-arm and in combination with an inclosing shell, as herein described, I claim the friction-roller when of an ovaloid or equivalent shape, and having its bearings in the shell, as herein shown and set forth.

55,960. — CHURN AND ICE-CREAM FREEZER. — Thomas W. Pomeroy, assignor to himself and Wm. J. Layman, East Hampton, Mass. :

I claim the combination of the cylinder, C, with the case, A, and rotary dasher, B, within the cylinder, C, is secured within the case, A, by means of horizontal arms, b, projecting from C, and fitted between guides or lips, a, attached to the inner surface of A, and either with or without the foot, c, to rest on the bottom of A, substantially as and for the purpose specified.

55,961. — MOP-HEAD. — Louis C. Rodier, Springfield, Mass., assignor to himself and Henry Hammond. Ante-dated Dec. 26, 1865 :

I claim the jaws, B and C, having fingers or teeth, for the purpose herein specified, when combined with the handle and ring, d, in such manner as to form a floor mop, the whole being arranged substantially as herein described.

55,962. — LIQUID-COOLER. — Joseph R. B. Schwarze, assignor to himself and Daniel Pfeil, Washington, D. C. :

I claim the chamber, C, provided with a pipe, B, and arranged for attachment to the faucet by the coupling, E, as described and represented.

55,963. — PLATFORM SCALE. — F. M. Strong and Thomas Ross, assignors to Joan Howe, Jr., Brandon, Vt. :

We claim, 1st, The combination of the levers, C, C, and the links, k, k, with their upper and lower bearings, m, l, and the secondary lever, D.

2d, The shaft, F, in combination with the adjustable arms, E, E, as and for the purpose described.

3d, The combination of the poise, s, lever, P, x, graduated plate, u, and movable stop-pieces, w, as and for the purpose described.

55,964. — CAR-BRAKE. — James Temple, assignor to himself, John Schock, and H. E. Miller, Selinsgrove, Pa. :

I claim the combination of the rock-shafts, D, arms, f, f, and rods, a, with the arms, e, and rubbers, E, operated by the levers, h, and arranged as described for the purpose set forth.

55,965. — NUT TAPPING MACHINE. — Frederick Voteler, assignor to Jacob W. Holenshade, Cincinnati, Ohio :

I claim, 1st, The combination in a tapping machine of taps for right and left-hand nuts, arranged and operating substantially as described.

2d, The combination of two or more taps with a mechanism for adjusting simultaneously a nut to each, arranged and operating substantially as described.

55,966. — PENCIL-CASE. — D. T. Warren, assignor to himself and Amedee Spadone, New York City :

I claim the arrangement of the lead-holder, a, shaft, b, tube, c, straight slot, d, stand or pin, h, loose sleeve, m, with its enlargement, o, spiral slot, l, tube, r, pen-holder, t, tube, v, straight slot, w, pin, x, spiral slot, y, and loose sleeve, z, as and for the purpose set forth.

55,967. — WATER-CLOSET. — Darius Wellington, assignor to Cornelius Wellington, Boston, Mass. :

I claim, 1st, The arrangement of the shaft, a, slotted plate, f, arm, l, and rod, k, for supporting the pan by the connection between it and the operating rod, substantially as described.

Also, combining with the supply-pipe and pan the flexible air-ball or chamber, operating to seal the pan, substantially as set forth.

Also, in combination with the hopper, a, the divided nozzle and plate, o, operating as and for the purpose described.

Also, the combination of the ring (serving as a elastic packing) with the flange, p, and stand, b, substantially as described.

Also, connecting the supply-pipe to the hopper by means of the flanged coupling, t, the nut or screw in the supply-pipe, and the interposed packing, u, arranged and operating substantially as shown and described.

55,968. — KNITTING MACHINE. — H. L. Williams, assignor to The National Knitting Machine Company, Seneca Falls, N. Y. :

I claim, 1st, The combination of the cogs, k, k, with the lags constituting the "form" and with the gear-wheel by which they are driven, substantially as specified.

2d, The combination of the curved guide, G, with the form, B, and gear-wheel, C, substantially as described.

55,969. — MANUFACTURE OF ARTIFICIAL STONE. — William Kirrage, London, England :

I claim, 1st, The manufacture of artificial stone, bricks, and tiles, or other hard material, by mixing and using the sulphate of iron or other similar metallic sulphates, or other similar mixtures of acids with metallic bases, and the several materials herein-before described, in combination with cements and silica, and lime and silica, contained in the materials such as I have mentioned for the purposes herein-before described.

2d, The application of the coloring matters before named in combination with the silica and other materials.

3d, In the manufacture of bricks and tiles from plastic materials, the application of the material is specified for the purpose of effecting a more perfect combustion, burning, and hardening, thus producing a superior form of article.

55,970. — PETROLEUM TANK. — Paul Jacovenco, Bucharest, Wallachia :

I claim the herein-described apparatus for preserving or storing petroleum and other oils, the same consisting of two concentric cylinders, the space between them being divided by a transverse partition, and communicating with the interior cylinder by means of apertures, as described, in combination with pipes arranged for operation as and for the purpose set forth.

55,971. — HOT-AIR ENGINE. — William Reintein, Barcelona, Spain :

I claim, 1st, The arrangement of the support of an air engine so that the axis of the motor cylinder shall be vertical, in the manner and for the purposes set forth.

2d, The combination and arrangement of a tubular boiler in the place of the dome which serves as a furnace in the Ericsson machine, as and for the purposes described.

55,972. — CORSET. — E. Hambujer, Detroit, Mich. :

I claim, 1st, A corset made substantially as herein-described, with a continuous or connected back, forming a lap or gore when the lacing are drawn to tighten the garment around the person.

2d, In combination therewith I claim the skirt supporting hooks, H, H, arranged substantially as described.



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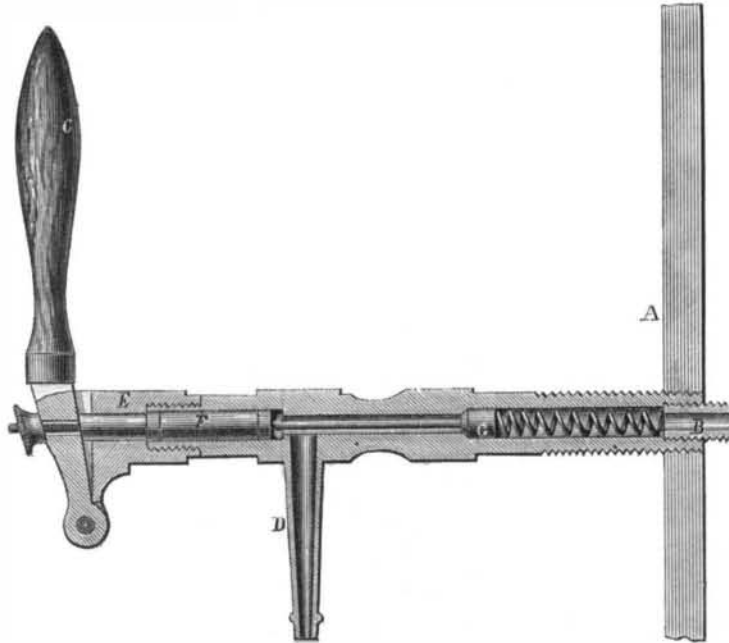
**Improved Gage Cock.**

The common try-cock for steam boilers is similar in construction to the faucet, or is operated by a button in the line of the barrel, the pressure of steam or a spring returning the valve to place. The engraving illustrates an improved gage cock which is easily understood. A represents the front of the boiler into which the cock is screwed. B is a hollow screwplug to admit the steam or water, which, by the movement of the lever, C, is discharged through the pipe, D. E is a stuffing-box, or cap, provided with a projection, with rule joint, to receive the end of the lever. The plunger, F, fits the chamber, so that its movement forward closes the aperture in front of the delivery pipe, and obviates the necessity of close packing.

The operation is perfectly simple. By a pressure on the lever the valve, G, is opened, and on the removal of the pressure the coiled spring returns it to place, if there is no adequate pressure of steam. The view is that of a horizontal section, and can be understood by any mechanic.

Patented through the Scientific American Patent Agency, May 15, 1866.

Address, for further information, Frederick Henke, Scranton, Pa.

**HENKE'S GAGE COCK.**

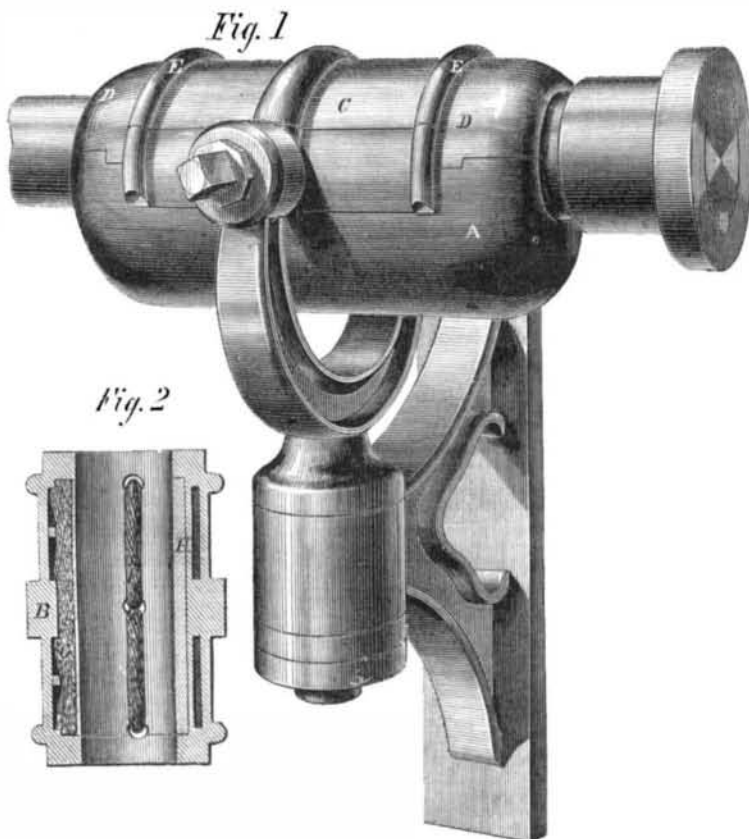
into the inclosed spaces between them and the ends of the shell, and is again deposited in the reservoirs. It will be seen that the lubricated portion of the shaft is kept closed against the admission of dust. It is claimed that when worn, the lower part of the box can be adjusted by the introduction of a piece of card board, tin, or sheet metal. On common shafting the supply of oil in the reservoir is said to be sufficient for six or eight months' consumption. In its appli-

**Improved Journal Box.**

The waste of oil by the overflow of journal boxes, the annoyance of drippers, and the loss and inconvenience by the upsetting of the oil receptacles, comprise together a source of much trouble and vexation in every manufactory using shafting. Added to this is the time required daily in proper attention to the journals of shafting. A self-lubricating box, therefore, which requires but little attention, and which obviates the necessity of using dripping tins, would be a valuable improvement.—Such is the design here illustrated.

A, Fig. 1, is the case of the box, and B, Fig. 2, is the lower half of the box proper. It will be noticed that the case or shell projects much further below the shaft than the cap, C, does above it. The space between the bottom of the shaft and the inner lower surface of the shell is an oil receptacle, intended to receive the lubricator. The cap, C, is the top of the box proper and is lined, as is B, with Babbitt metal or other anti-friction material. The box is not so long as the shell, leaving a space at either end, which is covered, at D D, with a hood held in place by a movable pin passing through the top of the bead, E. These end hoods or caps can be removed at will to examine the bearing and replenish the receptacle or reservoir.

This is the general construction of the box and its parts. The means of lubricating are wicks, shown at F and G. Through the bottom of the box, B, are

**SELF-LUBRICATING JOURNAL BOX.**

cation to saw arbors it will supply the bearings of a shaft running 400 turns per minute for from one to three days. These boxes can be mounted on swivels and adjusted to post bearings, hangings, pillow blocks, or in any other position desired.

Patented March 14th and Aug. 22, 1865, by Rice &

Miller. For further information apply to M. J. Rice, assignee, No. 1,211 Washington street, Boston.

**The "Galaxy."**

One of the most brilliant periodicals that has appeared in a long time is the *Galaxy*. It is devoted to general literature, such as stories, narratives, biographies of men celebrated in art or science, and to such as are favorites of the muse of poetry it lends a willing but discriminating ear. Many of the names best known in modern literature are to be found in the *Galaxy*.

The *Galaxy* possesses many features that are novel and pleasing, and not the least is the Editor's peculiar department; he brings up the rear of the book, and styles his lucubrations *Nebulae*—not a happy name, for they shine with no faint light, but with a steady and abiding radiance.

We publish on another page an article on the Spectroscope, by Prof. Draper, which is taken from the *Galaxy*, and our readers will thus have a chance to taste its quality. It appears every fortnight in a brilliant dress of brown and gold, and is already a permanent institution in the world of magazinedom.

**University Law School.**

On Tuesday the 19th ult., the graduating class of the Law School of the University of the City of New York were admitted, by the Supreme Court, to practice as Attorneys and Counselors at Law. The examination of the students occupied the greater part of five days, and was held before a committee appointed by the Supreme Court of this State. The commencement exercises were held in the large chapel of the University on the evening of the 19th, and the degree of Bachelor of Laws (LL. B.) conferred upon the graduating class.

We understand that Prof. J. N. Pomeroy, Dean of the Law Faculty, intends, in addition to the usual course of study, to introduce a course of instruction in Patent Law. This will be a new feature in our law schools, and one which we hope will be successful. The practice of patent law has grown to be a distinct and important branch of the legal profession, and any one attempting to practice it needs to be well instructed.

It is in contemplation to build a new and costly Executive Mansion on the high grounds east of the Capitol, and turn the White House into a fire-proof building for the State Department.

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