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### 30,381.—J. E. Ambrose, of Batavia, Ill., for an Improvement in Lamps:

I claim, first, The arrangement of the hangers, G H, with a space between them communicating directly with the external air, in connection with the collar, p, and plates, q q, fitted on the top of the wick tube, E, and the perforated cap, C, substantially as and for the purpose set forth.

Second, In combination with the parts aforesaid, the vapor tube, F, placed within the cap, C, and adjoining or contiguous to the wick tube, as and for the purpose specified.

Third, The shaft, e, provided with the rod, f, and spurs, g, which are within the chamber, d, of the wick tube, in connection with the plates, h i k, and a spring, l, on said shaft, all being arranged to operate as and for the purpose set forth.

[The object of this invention is to obtain a lamp which will burn without a chimney, and without danger of explosion, those hydrocarbons which are volatile, and contain an excess of carbon.]

### 30,382.—James Bain and S. C. Brown, of Richmond, Ind., for an Improvement in Dovetailing Machines:

We claim, first, The arrangement of the guides, v, and bearings, w, of the cutter arbors J, substantially as shown, to admit of the adjustment of the cutters, for the purpose specified.

Second, The combination of the tilting or adjustable bed, E, with the adjustable arbors, J J, arranged for joint operation, as and for the purpose set forth.

[This invention consists in the employment or use of an adjustable bed and cutters, so arranged, that both the stuff to be operated upon and the cutters may be placed relatively with each other, that the desired work may be done expeditiously and in a perfect manner.]

### 30,383.—James Boyd and James Belford, of Philadelphia, Pa., for an Improved Door Spring:

We claim, first, The combination of the two springs, F F, with the door, B, when the said springs are arranged as set forth, and when they are adjustable on the door by the devices described, or their equivalents, for the purpose specified.

Second, We claim the plate, G, with its hinged bar, H, and bolt, I, when constructed and applied for the retention and release of the spring, as set forth.

### 30,384.—J. A. Burnap, of Albany, N. Y., for an Improved Regulator for Steam and Other Engines:

I claim the movable pantulona lever or ratchet arm, C, working on a fixed rack, B, said lever being constructed and operating substantially as and for the purpose specified.

Second, I claim the friction jointed arm, P, for adjusting the relative position of the guard, O, substantially as set forth.

### 30,385.—George Butterfield and Daniel Bowker, of Boston, Mass., for an Improved Window Curtain:

We claim the application to a window curtain of the elastic bands or cords, E E, substantially in manner and to operate as above described.

### 30,386.—Charles Carlisle, of Woodstock, Vt., for an Improved Nail Hammer:

I claim combining an angular lever with a nail hammer or hatchet substantially in the manner and for the purpose set forth.

### 30,387.—A. P. Cassel, of Wataga, Ill., for an Improvement in Shrinking Tires:

I claim the arrangement of the adjustable bars, F G, and dogs, H H, with the curved bar, A, jointed bars, B B', slide, D, spring, E, and eccentric, C, as and for the purposes shown and described.

[The object of this invention is to obtain a simple and portable device for upsetting or shrinking wheel tires, so that the latter may be made to fit the wheels without cutting and re-welding after being once formed.]

### 30,388.—Rowland Chapman, of Darlington District, S. C., for an Improvement in Sowing Machines:

I claim the arrangement of the frame, A, the furrow opener, B, the furrow smoother, C, the uprights, D D, the wheel, E, and the spikes, e e e, operating in connection with the spikes, i i i i, the spur, L, cup, G, and ring, I, the whole being constructed for operation conjointly, in the manner and for the purpose set forth.

### 30,389.—Kenyon Cox and Theodore Cox, of New York City, for an Improvement in Rotary Engines:

We claim, first, The jointed pistons, G H G H, and arc-formed guide plates, F F, constructed, combined and applied in connection with the stationary cylinder, A, and rotating drum, D, substantially as and for the purpose described.

Second, The ports, a, elongated in the manner and for the purpose described.

Third, The construction of the packing-piece, C, with beveled projections fitted in the cylinder, substantially as and for the purpose specified.

### 30,390.—Roswell Crane and Wm. Baldwin, of Anamosa, Iowa, for an Improvement in Tanning:

We claim the process of tanning leather shown and described, consisting in the use of a compound of terra-japonica and lye in the proportions and manner specified.

[This invention consists in treating the hides with a simple composition of lye and terra-japonica in the proportion specified, increasing the terra-japonica and diminishing the lye at subsequent stages of the process until the tanning of the leather is complete.]

### 30,391.—S. F. Dexter, of Paris, N. Y., for an Improvement in Boots and Shoes:

I claim the formation of an air-chamber in or on the sole of a boot or shoe, substantially as set forth.

### 30,392.—Andrew Dietz, of New York City, for an Improvement in Tanning:

I claim tanning leather by the use of salting solutions, as set forth, when used in combination with tannic liquors of different and increasing strengths, for the purposes as set forth.

### 30,393.—Andrew Dietz, of New York City, for an Improvement in the Manufacture of Tanned Leather:

I claim the use and application of honey, in the tanning or treatment of leather, during the last stages of the process of tanning, or in the finishing of leather, or after the leather is tanned and finished, as set forth.

### 30,394.—Solon Dike, of Columbus, S. C., for an Improved Cotton Press:

I claim, first, The employment of the guide rod, H, operated and secured in the manner represented, for the purpose of directing the press block, R, and for keeping the levers, F and D, in proper position, substantially as specified.

Second, The trucks, E E, secured between the bars, L L, and operating in connection with the levers, F F' and D D, frames, G and C, guide rod, H, and cords, K and J, substantially as and for the purpose specified.

Third, In combination with the subject of the second claim, I claim the arrangement of the capstan, M, operating substantially as specified.

### 30,395.—N. T. Edson, of New Orleans, La., for an Improvement in Metallic Hubs for Carriage Wheels:

I claim so constructing the two metallic flanges, C and B, which are provided with grooves, A A A, and projections, as represented that they will clamp and hold the spokes separate and distinct from each other on their edges, while they are allowed to bear and press against each other on their faces, forming a wheel of dodged spokes, substantially as and for the purpose specified.

### 30,396.—E. W. Ferris, of Macon, Miss., for an Improvement in Astringent Medicines:

I claim the combination of recipes No. 1 and No. 2, substantially as stated.

### 30,397.—A. T. Finch, of Meriden, Conn., for an Improvement in Window Blind Fasteners:

I claim forming a blind fastener by casting the hooks solid with their axis pins and combining them together by clamping plates, as set forth.

### 30,398.—J. R. Floyd, of New York City, for an Improvement in Making Burglar Proof Safes:

I claim the employment of the described franklinite, or other similarly constructed metal, in forming cast metal safes, substantially as and for the purposes set forth.

### 30,399.—Joseph Foster, of Richmond, Va., for an Improvement in Gas Regulators:

I claim, first, The arrangement of the load or weight on the inverted cup below the said cup and between the said cup and the valve, substantially as described.

Second, The arrangement of the guides of the inverted cup outside of or beyond the circumference of the said cup, substantially as and for the purpose set forth.

### 30,400.—E. P. Glendon, of Providence, R. I., for an Improvement in Socket Coupling:

I claim a socket coupling having a hollow cylindrical cushion of caoutchouc, or other similar elastic gum, adhering to the inner walls of the socket shell, and having the surface of the opening through the same molded in a proper form by compression, and made elastic by the action of heat applied thereto, in the manner and for the purpose substantially as specified.

I also claim, in combination with such a cushion, a socket piece or nipple having a bulb or swelling ridge upon the end which passes through the opening in said cushion, by the contraction of which opening the nipple is held securely within the socket, as set forth.

### 30,401.—Richard Wright, of London, England, for an Improvement in Evaporating Cane Juice. Patented in England Sept. 6, 1860:

I claim the combination of rotating disks with a vessel, a, and vessel, b, so arranged that the water in the vessel, b, cannot rise up to the vessel, a, or the water in the vessel, b, be raised to a higher heat than boiling water (212° Fahr.), substantially as described.

### 30,402.—Ezekiel Guile, of Waverly, Mo., for an Improvement in Hemp Brakes:

I claim the combination and relative arrangement of the feed and crushing rollers, B B', the upper roller, B', being transversely fluted, and brake bar, D, with the beating cylinder, L, and cleaning and beating drums, G H J, all arranged and operating in the manner and for the purposes described and represented.

[This invention consists in a novel arrangement of breaking swords upon cylinders, and in a novel arrangement of four cylinders themselves with feed rollers, one of which has its surface made up of grooves running around the roller, and the other is smooth on its periphery; said cylinders and feed rollers are arranged in such a relation to one another that the shives or ligneous matter will be nicely separated from the fibers, while at the same time the stalks are kept in a straight state in passing from one cylinder to another, and submitted to the action of each cylinder of swords or slats; in combination with an adjustable bar, placed parallel with and between the lower feed roller and uppermost breaking cylinder, whereby the flax or hemp will be brought up close to the swords or slats in said cylinder, so that the slats may have a more perfect action upon the flax or hemp.]

### 30,403.—G. W. Hathaway, of Tioga, Pa., for an Improvement in Corn Shellers:

I claim the arrangement of two endless revolving screws, A A, in combination with the rotary toothed disk, K, constructed and operating substantially as and for the purpose specified.

[This invention consists in the arrangement of two endless revolving screws, in combination with a rotary disk having teeth on its under surface and attached to a vertical axle which rises and falls freely, in such a manner that, by the action of the endless screws, the ears are fed under and exposed to the action of the rotary disk, which accommodates itself to the varying diameters of the ears, thereby shelling the same from end to end.]

### 30,404.—D. B. Hedden, of Newark, N. J., for an Improvement in Wood-bending Machines:

I claim my mode of applying the end pressure, by means of an adjustable weight, as superior to all other modes, being a self-acting, perfectly graduating and equalized pressure.

### 30,405.—R. Humphrey, of Unionville, Conn., for an Improvement in Punches:

I claim constructing the punch and die plate in the manner substantially as shown, to wit: the punch, A, having an interior cavity with rounded edges to form a cutting edge, and a solid punch B, projecting from the upper part of the cavity, and the die plate, D, having a central hollow mandrel, G, rising through its center, so that when the sheet metal is placed between the die plate and punch, A, the latter, on descending, will first cut out the blank, then bend the same into the form of a ferule and then punch an opening in the upper end thereof, thus completing the ferule all at one operation or motion of the punch, A, as set forth.

[This invention is an improved punch for cutting out and forming a metal ferule or thimble, having a hole through their crown. The invention consists in constructing a die and counter die or punch, in such a manner that, by one downward movement of the punch, the ferule will be completely cut out and formed into the desired shape from a flat strip of suitable sheet metal.]

### 30,406.—J. J. Hutchison and J. D. Brandbery, of Cape Girardeau, Mo., for an Improvement in Brick-molding Machines:

We claim the combination of the wheels, K and R, the clay box, B, the press box, H, and the plunger, F', when these several parts are constructed, arranged and operated substantially in the manner described.

### 30,407.—E. J. Hyde, of Philadelphia, Pa., for an Improvement in Grinding Mills:

I claim the arrangement of the eccentric ridges, f f, concentric ridges, e, and notched flanges, h, with the disks, B F, and concave, C, as and for the purposes shown and described.

[This invention consists in arranging on the grinding disks, and near to the cone of a grinding mill, a concentric ridge, which confines the substance to be ground on the cone and near to the center of rotation until it is reduced to a certain degree of fineness. It also consists in arranging the eccentric ridges with a series of diamond-shaped notches, each cut into their grinding side and extending to about two-thirds through the entire width of these ridges, so that the grinding surface is increased and the eccentric ridges produce both a cutting and crushing surface.]

### 30,408.—E. M. Judd, of New Britain, Conn., for an Improved Window Fastener:

I claim the combination, with a bolt pivoted intermediately of its length or depth, and mortise box or case for carrying the same and for imbedding it, as specified, of a spring or spring back plate to the box, arranged to act upon the rear of the pivoted bow bolt by a jog or jogs, or their equivalents, to hold or lock the bolt both in its open and closed conditions, and so as to cause the spring to adjust the bolt to lie, when closed, flush or thereabouts, at its front or opposite finger surfaces, with the mouth of the mortise or face plate of the box, essentially as specified.

### 30,409.—J. W. Kellberg, of Pittsburgh, Pa., for an Improvement in Churns:

I claim the dasher and disk, made and operating substantially as described.

### 30,410.—Gustavus Kleinwort, of Albion, Ill., for an Improvement in Uterine Supporters:

I claim the ring, or its equivalent, to support the uterus, in combination with the flaps, connected with each other by a hinged joint and with the ring by hinged braces, so that the instrument may be folded up for insertion and then spread out, that the instrument may be retained in place, without external supporters.

### 30,411.—S. T. Lamb, of New Washington, Ind., for an Improvement in Fastening Blades of Churn Dashers:

I claim interlocking or overlapping of the shanks of the blades, J, so that they shall serve to hold each other firmly in the staff, as described and represented.

### 30,412.—S. T. Lamb, of New Washington, Ind., for an Improvement in Washing Machines:

I claim hanging the roller, F, in the weighted levers, C, for the purpose and in the manner set forth.

### 30,413.—George Landers and Henry Lampman, of Afton, N. Y., for an Improvement in Grain Separators:

We claim the arrangement of the spout, F, with the shoe, E, screen, f, trunk, A, and divided spout, D, as and for the purposes shown and described.

We also claim the arrangement of the curved partition plate, c, and shelves, e e, with the spout, D, trunk, A, spout, f, screen, f, and hopper, F, as and for the purposes shown and described.

We also claim the construction of the interior surface of the spout, D, with convex sides, i i, the convex portions made to approach each other, and with enlarged concave ends, j j, as and for the purposes shown and described.

[This invention relates to a new and improved grain separating device, to be used simultaneously with the grinding mechanism, and interposed between the grain hopper and the eye of the stone.]

### 30,414.—J. H. Lilly, of Bardstown, Ky., for an Improvement in Straw Cutters:

I claim the arrangement of the three sickle-edged knives, a b and c, with the steel bars, d and e, all the parts being constructed and operating in the manner set forth.

[This invention consists in the arrangement of three sickle-edged knives in straw cutters (one of them being V-shaped and the other two triangular), with rests or supporters for the projecting straw while the said knives are cutting it off. The cutting edge of the knives is so arranged as to have a shearing stroke. The triangular-shaped knives cut—one from the center of the mouth of the box to one side and the other one from the center to the other side, and the V-shaped one cuts both ways from the center, but only about half as far as the other two.]

### 30,415.—J. G. Liffingwell, of Newark, N. J. (formerly of St. Louis, Mo.), for an Improvement in Gas Regulators:

I claim, first, Interposing between the flanges of the cups or sections of the regulator and the clark in a diaphragm the non-corrosive metal for protecting the flanges and the diaphragm.

Second, I claim clamping the diaphragm between the edges of the metal plates, constructed and operated substantially as described.

Third, I claim connecting the extended part of the regulator to which the exit or ejection pipe is attached to the induction pipe by a syphon, constructed and arranged and operating as set forth.

Fourth, I claim the independent valve seat made of non-corrosive metal, and fitted to the regulator by a grooved joint, in combination with a non-corrosive metal valve, as described.

Fifth, I claim the lever valve, r, in combination with the tube or opening, g, of the upper section of the regulator for the purpose of regulating the condition of the atmospheric pressure upon the upper side of the diaphragm, as set forth.

### 30,416.—Joseph Marks, of Boston, Mass., for an Improved Method of Lubricating Engines, &c.:

I claim the mode or process described of saturating, mixing or impregnating steam air, gas, &c., with lubricating material for the lubrication of the various working parts of engines and machines operated by steam, air, gas or vapor, by means of any impregnating, mixing or saturating apparatus, containing any proper lubricating material through which the steam, &c., is made to pass, and arranged and operating substantially as described.

### 30,417.—T. J. Mayall, of Roxbury, Mass., for an Improvement in the Manufacture of Tiles for Flooring:

I claim the new manufacture of tiles or slabs for flooring, the same consisting of an india-rubber or gutta-percha composition, which, when combined with various coloring ingredients, made into sheets of suitable thickness, cut or molded into desired patterns and vulcanized, produce tiles of the peculiar softness and nature described.

### 30,418.—H. L. Nichols, of New York City, for an Improvement in Slivering Machines:

I claim the slanting pointed cutters, c c', when they are arranged in the relation to the two plane irons, d d', and operate in the manner described.

I also claim allowing a lateral yielding motion to slitting cutters, e e', for the purpose and substantially as set forth.

30,419.—Henry Port and Eugene Surgi, of New Orleans, La., for an Improvement in Boots and Shoes:

We claim the metallic skeleton plate or frame, C, when used in combination with the sole and upper leather, in the manner and for the purpose specified.

30,420.—Lemuel Postlewait, of Russellville, Ohio, for an Improvement in Lathes:

I claim the combination of the movable or pulley, C, with the stationary spindle or shaft, D, when the same are used in the manner and for the purpose specified.

30,421.—D. R. Pratt, of Worcester, Mass., for an Improvement in Trucks for Locomotives:

I claim, first, Attaching the locomotive to the truck by means of the king bolt and lagging bar, C, said bar being hung upon the shaft, c, by means of the connecting rods or bars, d, substantially as shown and for the purpose specified.

Second, The employment of the springs and levers used in connection with the truck, as represented, whereby the forward and rear ends of the truck are guided at the same time by the movement of the locomotive, substantially as specified.

30,422.—S. R. Pressy and Daniel Sheets, of Suisun City, Cal., for an Improved Carriage Spring:

We claim a compound spring, composed of two elliptical portions, A A, two scroll portions, B and C, shaped portion, c, the whole arranged in the manner and for the purposes set forth.

30,423.—A. J. Preston, of East Guilford, N. Y., for an Improvement in Machines for Raking and Pitching Hay:

I claim, first, The combination of the vibrating pitcher with a rotary rake having an intermittent motion, the whole arranged and operating substantially as described for the purposes set forth.

Second, I claim the arms, J, and shifter fingers, J, on the pitcher, in combination with the retaining levers, K, and springing vibrating arm, H, the whole constructed and arranged substantially as described, for the purpose of causing the rake to rotate automatically, for the purpose set forth.

Third, I claim, in combination with the vibrating pitcher and automatically rotating rake, the sliding gears, or their equivalents, for changing the speed of the pitcher, substantially as and for the purpose specified.

Fourth, I claim the hinged guides, I, in combination with the intermittently rotating rake teeth, g, arranged as and for the purpose specified.

Fifth, I claim, in combination with the rotating self-shipping shaft, the mechanism specifically as set forth, for imparting to the pitcher the vibrating self-reverse motion, as and for the purpose described.

30,424.—W. W. Reid, of Rochester, N. Y., for an Improved Churn:

I claim the annular perforated tube, n, in combination with the bars, II, and dasher, o, for the purposes specified.

30,425.—Sheridan Roberts, of Cleveland, Ohio, for an Improved Method of Making Barrels:

I claim making the cylinder part or body of barrels from hollow cylinders turned off or rounded from solid cylinders, and then slitted, and a piece taken from or added to, as may be required, to bring the body to the proper dimensions and completed, as set forth.

30,426.—J. A. Rosbling, of Trenton, N. J., for an Improvement in Metallic Railroad Cars:

I claim the combination of the longitudinal pieces, ribs or uprights, straps and plates which constitute the framework of the sides and roof of a metallic railroad car, with curved and flat panels, in such manner as to leave a partial space between the panels, and thus forming a non-conducting wall and affording a receptacle for windows when required, while the curved and flat panels may be united with any part of the framing with which they come in contact by one single rivet.

30,427.—L. C. Rogers, of Danvers, Mass., for an Improvement in Tools for Trimming Boots:

I claim the arrangement of the knife, g, or cutter, and the socket, c, so as to allow the knife to travel on the arc of a circle and to admit of its being adjusted or moved toward the guard as far as it becomes worn, substantially as described.

30,428.—C. H. Styre, of Utica, N. Y., for an Improvement in Straps for Handles of Shovels:

I claim malleable cast iron straps, with pins formed on their inner sides to serve as rivets, and countersunk holes on their outer sides, in the manner and for the purposes described.

30,429.—H. B. Smith, of Lowell, Mass., for an Improved Blind Slat Machine:

I claim the combination of the apparatus for boring the stiles with the apparatus for driving and setting the staples in the rolls, in manner substantially as described and for the purpose of producing the effect set forth in the specifications.

Second, I claim a sliding rack, having adjustable teeth, when used for the purpose of driving the spikes between the holes in the stiles or the staples in the rods for rolling slat window blinds, substantially as specified.

Third, I claim the hopper or feeder, having a space inside fitted to the staples, and made so as to open substantially as specified.

30,430.—D. Squire, Jr., and E. A. Preston, of Battle Creek, Mich., for an Improvement in Grain-weighing Machines:

We claim the arrangement of the adjustable head blocks, G, G, and levers, D, and valve, C, with the rods, I, I, arms, J, J, valves, H, H, boxes, B, E, plate, L, wheel, P, and index plate, N, and as for the purposes shown and described.

[This invention provides for weighing different quantities of grain by a very simple adjustment, and for stopping the flow of grain from the hopper at the very instant the quantity to be weighed is attained.]

30,431.—G. C. Taft, of Worcester, Mass., for an Improved Screw Wrench:

I claim the combination of nut, I, with its reverse screws, c and d, with screw, a, on the shank part, C, and screw, b, on the rear part of the sliding jaw, H, substantially as and for the purposes set forth.

30,432.—Wm. H. Tambling, of Berlin, Wis., for an Improved Bed Bottom:

I claim the employment of the slats, a, a', and screws, c, c, in connection with the canvas, B, and the side and end rails of the bed, arranged and constructed substantially as and for the purpose specified.

30,433.—D. C. Teller, of Beaver Dam, Wis., for an Improvement in Sowing Machines:

I claim the arrangement of the vertically-sliding plates, I, and turning beams, H, from which the shares are suspended, in combination with the hopper, D, and discharge tube, F, constructed and operating substantially as and for the purpose set forth.

[This invention relates to certain improvements in machines for sowing broadcast, and it consists in the arrangement of vertically-adjustable slides which form the bearings for a double series of swinging shares, in combination with the seed-discharging device, in such a manner that said shares can be made to cut deeper and shallower, according to the quantity and quality of the seed discharged from the hopper, and that they can be made to cut at a

greater or smaller inclination, according to the soil through which they have to pass. It also consists in arranging, in the interior of a seed-discharging tube, a series of rods or pegs, forming a number of zigzag passages for the purpose of scattering the seed.]

30,434.—C. H. Thomas, of New Orleans, La., for an Improvement in Prophylactic Remedies:

I claim the above composition of matter or compound of medicines, as a preventive of yellow fever.

30,435.—J. W. Thorne, of Courtland, Ala., for an Improvement in Cotton Cleaners:

I claim, first, Constructing the beater chamber, S, as described, of the close box, G, and the grid, C, springing from a common point at or near the feed rollers, and diverging from each other as and for the purposes set forth.

Second, I claim the combination of the beater chamber, S, containing a series of beaters, with the trap door, H, and the devices for opening and closing the same and for putting the feed rollers in and out of action, substantially as and for the purposes described.

[With this invention, the seed cotton is opened and subjected to the combined action of a strong blast of air and a series of rotating arms, which separates all extraneous matters, such as leaves, dirt, &c., from it, and prepares it in a fit state for the ginning operation.]

30,436.—J. E. Tourné, of New Orleans, La., for an Improvement in Drying Chambers:

I claim, first, A desiccating apparatus, composed of a chamber for the reception of the substance to be desiccated, a feeding apparatus for conveying the substance to and from and through said chamber, and a vessel containing metal or alloy, fusible at a low temperature, to serve as a heating medium; the whole combined to operate substantially as described.

Second, Furnishing the interior of the desiccating chamber with inclined plates, I, I, applied in combination with gutters, k, k and l, I, substantially as and for the purpose described.

Third, Making the feeding apparatus vertically-adjustable along with the removable heads, H, H, of the chamber, and in relation to the box of fusible metal, substantially as and for the purpose specified.

30,437.—N. S. Warner and H. S. Benedict, of Bridgeport, Conn., for an Improved Ladle, with Fork Attached:

We claim the movable framework, C, C, attached to the fork, which, in combination with said fork, composes a skimmer, as set forth.

30,438.—J. J. Watson, of Buffalo, N. Y., for an Improved Churn Dasher:

I claim the arrangement of the main dasher, D, D, with the auxiliary dashers, a, a, and the spiral flange, E, when the same are used as and for the purpose specified.

30,439.—Samuel Wetherill, of Bethlehem, Pa., for an Improvement in the Manufacture of Glass:

I claim the use of the oxyd of nickel in the manufacture of glass, substantially in the proportions and manner and for the purpose set forth.

30,440.—H. Y. Wildey, of Philadelphia, Pa., for an Improvement in Apparatus for Sealing Cans:

I claim the arrangement of the socket, C, and screw plunger, D, with the nipple, b, and air-pump, A, as shown and described, so that when the air has been exhausted from the can by the pump, the plunger, D, may be screwed down and cause the wax plug to seal the aperture, a, all as set forth and described.

[The object of this invention is to enable the sealing of the nipple or small aperture, provided in a preserve or other vessel for its exhaustion by an air-pump, to be effected while the pump remains attached,—after the exhaustion, and before the vacuum is impaired—and, to this end, the invention consists in the attachment to the suction-pipe of the pump, of a socket, so constructed as to be capable of being attached or fitted air-tight to the nipple or aperture of the vessel, and so fitted with a plunger that the latter need not interfere with the exhausting process, but that it may be capable of depositing within or upon the aperture a sufficient quantity of wax or other suitable material to make a perfect seal.]

30,441.—E. H. Graham, of Manchester, N. H., for an Improvement in Picker-staff Motion:

I claim the arrangement of the rocker, a, a, and guiding shaft or bar, g, g, traveling in suitable journals or bearings, h, h, and operating together substantially as described.

30,442.—Samuel Yeatman, of Providence, Ala., for an Improvement in Filing Gin Saws:

I claim the arrangement of the saw shaft, G, saws, H, and carriage, E, with the saw, D, saw shaft, C, swinging frame, B, and spring stop bar, I, as and for the purpose shown and described.

30,443.—H. O. Ames (assignor to himself and F. W. Ames), of New Orleans, La., for an Improvement in Evaporating Pans:

I claim the arrangement of the partition, a, in the main box, B, substantially as described, in relation to the evaporating pipes, D, D, the induction and ejection pipes, E, E, and box, C, whereby only one or a limited number of the said pipes, D, D, are brought into communication with the exhaust chamber, c.

30,444.—H. W. Dopp (assignor to J. B. White), of Buffalo, N. Y., for an Improvement in Lamps:

I claim, first, The employment of a bellows or elastic diaphragm, operated by a spring or equivalent, for the purposes of driving or forcing the fluid from the body of the lamp toward or in the direction of the burner, substantially as specified.

Second, I claim operating the valve, S, and needle point, x, for graduating and cleaning purposes, by means of a cam groove or its equivalent, in the stop-cock, F, in combination with the nozzle, n, whereby I avoid the necessity of packing, substantially as specified.

Third, I claim the rod, a, or its equivalent, when used as described, by means of which I am enabled to place the cam stop-cock, or its equivalent beyond the reach of the surplus heat, substantially as set forth.

Fourth, I claim the valve, S, in combination with the rod, a, spring, d, and cam stop-cock, F, for the purpose of graduating the size of the flame, substantially as specified.

30,445.—J. W. Harbin (assignor to himself and R. S. Willis), of Delaware Station, Ind., for an Improvement in Corn Planters:

I claim the arrangement of the spring lever, b, supported by the standard, F, and operated by the projecting pins, a, upon the traction wheel, D, in connection with the rod, d, operating the spring slide, k, and the rod, c, operating the agitator, g, in the manner and for the purposes set forth.

30,446.—B. T. Henry (assignor to O. F. Winchester), of New Haven, Conn., for an Improvement in Magazine Fire-arms:

I claim, first, In combination with the hollow breech pin, N, and the piston, I, working through and with it, the giving of said piston additional end motion for the purpose of exploding the fulminate, substantially as described.

Second, I also claim, in combination with the hollow breech pin and the piston working through it, the spring catch and rest on the breech pin and the filets on the piston, substantially as and for the purposes set forth.

Third, I also claim, in combination with the carrier block, c, and the spring, a, placed on top of the breech pin, N, the forming of

the top of said carrier block near the rear end (as shown at z z) as to strike the cartridge forward of the center, and thus raising the forward end of the cartridge while the rear end is held down by the spring catch tripping it over and freeing it from the spring and ejecting it from the gun, substantially as described.

30,447.—William May (assignor to himself and Jerome de Bruin), of Winchester, Ohio, for an Improvement in Cultivators:

I claim the curved bar, P, carrying weight, Q, pressing on the roller, o, in connection with the curved bars, T and O, substantially as and for the purposes shown and described.

30,448.—John McCarty, of Philadelphia, Pa., assignor to Leyfert, McManus & Co., of Reading, Pa., for an Improved Horse Shoe Machine:

I claim, first, The upper die, N, with its projection, n, off the form of the inside edge of the shoe, in combination with the lower die, M, with its recess of the form of the outer edge of the shoe, the dies being so constructed and arranged that when the said projection penetrates the said recess a space of the desired form of the shoe shall be inclosed by the two dies.

Second, I claim the weighted lever, J, its rods, K, K, the latter passing through the guides, e, e, of the frame and being connected to the ram as specified, and the whole being arranged and combined with the revolving cam, P, substantially as and for the purpose set forth.

Third, The block, P, with its rods, q, q, passing through the lower die, M, and into the recess of the same, in combination with the arm, Q, lever, S, and revolving cam, G—the whole being arranged and operating substantially as described for the purpose specified.

RE-ISSUES.

H. R. Burger, of Richmond, Va., for an Improved Machine for Grinding Saws. Patented Sept. 11, 1860:

I claim, first, So arranging the saw-supporting disk shaft, I, the feed carriage and the gearing, that said shaft is moved laterally independently of the carriage, and simultaneously therewith the shaft and carriage moved together longitudinally, substantially as and for the purposes set forth.

Second, The combination of the gear stop, R, and its adjusting screws with the sliding shaft, J, and the mechanism by which it is controlled and actuated, substantially as and for the purpose set forth.

Third, The combination of a sliding bearing of the disk shaft with a double eccentric upon the disk shaft and a friction roller upon an independent shaft, substantially as and for the purposes set forth.

Fourth, Holding the saw to the disk by means of two center pins and an adjustable friction roller, substantially as and for the purposes set forth.

Fifth, The arrangement and combination of the set screw, U, bearing, P, and shaft, I, of the saw-supporting disk, so that the face of said disk may be adjusted parallel to or oblique to the circumference of the grindstone, substantially as and for the purposes set forth.

[This invention allows of the shaft which carries the saw blade supporting disk being moved laterally while the carriage on which it is supported moves longitudinally. It also provides for grinding saw blades which are thicker at one place than at another. By having the sawdisk shaft thus arranged, the necessity of reciprocating the grindstone is obviated, and at the same time one carriage answers for supporting and bringing the circular saw blade, from circumference to center, in contact with the grindstone. This machine operates well and is very simple and compact.]

E. P. Monroe (assignee of J. F. Monroe and E. P. Monroe), of New York City, for an Improved Egg Beater. Patented April 30, 1859:

We claim, first, In combination with a rotary egg beater, an arm, n, having at one end bearings for the journals to rotate in, and at the other a clamping device for the purpose of securing the beater to the table, with its shaft or bearings in a vertical line, as set forth.

Second, We claim the beaters, I and J, revolved in opposite directions by suitable mechanism, substantially as set forth.

T. L. Pye, of New York City, for an Improvement in Locks. Patented Sept. 28, 1858:

I claim, first, A series of tumblers provided with openings or notches into which the shackle or stud of the bolt passes, in combination with a key having bits on the opposite sides, by the turning of which said tumblers are moved in reverse directions to bring the notches or openings into line for receiving or liberating the shackle or stud of the bolt, as set forth.

Second, I claim a V-shaped sliding bar and spring combined with said reverse-moving tumblers, to restore them to a normal position when the keys is not in action, as set forth.

C. D. Wheeler, of Bridgeport, Conn., for an Improved Needle Case and Index. Patented May 17, 1859:

I claim a cylindrical case constructed with cells substantially such as described, for containing the needles, and combining therewith an index of letters or figures for designating the size of the needles, substantially as and for the purposes set forth and specified.

I also claim arranging the cover or some convenient part of said case with an index which shall designate the appropriate sizes of thread and needles to properly work together, as set forth.

Louis Lefebvre, of New Orleans, La., for an Improvement in Steam Boilers. Patented May 3, 1859:

I claim the longitudinally-fluted boiler braced as described.

I also claim, in combination with this construction of boiler, the conformable under surface of the exterior flue, Y, operating as described.

I further claim the longitudinally-fluted flue as described.

J. W. Bliss, of Hartford, Conn., for an Improvement in Door Plates. Patented July 13, 1858:

I claim, first, A frame or perforated plate attached to a door, in combination with a hinged plate upon which the name of the occupant of the house is depicted, and with a slot or aperture through the door to which the name plate serves as a cover, the combination being substantially such as is specified; and this combination I also claim when the hinged name plate is combined with an alarm bell which is struck when the plate is lifted.

Second, I claim a hinged door plate and a bell pull on the outside of a door, in combination with a single bell and a single striking mechanism attached to the inside of the same door, when the whole are arranged and combined substantially in the manner specified.

NEW BOOKS AND PERIODICALS RECEIVED.

BRYANT, STRATTON & PACKARD'S BOOKKEEPING; 216 Pages. New York: Ivison & Phinney.

We notice this book chiefly to suggest to the inventors that if they would pay a little more attention to the art of keeping accounts, they might be more thrifty. Inventors have the reputation of being more generous to others than to themselves—a very pardonable fault. But charity should begin at home. Bookkeeping is almost equivalent to money-keeping, and is essential to money-getting. Having examined this book with a good deal of interest, we find it everything desirable in a text-book. There is little doubt that it will become the standard treatise on bookkeeping, and take the position which the droll Preston occupied in our school days.

A PRACTICAL TREATISE ON COAL OIL AND PETROLEUM; by Abraham Gesner; M. D., Consulting Chemist. This work is in press, and to be issued immediately by Baillière Brothers, publishers, New York, and J. Baillière, Regent-street, London. Dr. Gesner is the author of several historical and scientific publications.