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38,719.—Railroad Car Truck.—C. R. Anderson, St. Louis, Mo. :

I claim, first, arranging the supporting beam, C, for the bolster, D, below the plane of the bottom of the truck frame, and making said beam a fixture with A, and a support for the ends as well as the center of the bolster, substantially as described.

Second, Supporting the ends of a centrally pivoted bolster, D, suspended upon pivoted quadrants, F, F', which admit of a longitudinal movement and a depressed beam, C, substantially as described.

Third, The application of the center pivot bearing, consisting of plates, G, G', cylindrical box, G'', and a vertical key-head, d, d', in a car truck, constructed substantially as herein described.

Fourth, Making the base and side bearing for the hollow center pivot, an oil cup for lubricating the pivot, and also a chamber for keeping said pivot in place, substantially as described.

Fifth, A truck frame for railroad cars consisting of two side beams, A, A', transverse beams, B, B', depressed transverse bolster support, C, and the tapering bolster, D, arranged and operating substantially as herein described.

Sixth, The combination of plates, G, G', quadrants, F, F', and beams, C, D, all arranged substantially as described.

38,720.—Instrument for describing Ellipses.—J. B. Atwater, Chicago, Ill. :

I claim, first, The shaft, A, in combination with the slide, G, the ellipses, F, and the curved spring, f, the whole arranged in the manner and for the purpose herein specified.

Second, I claim the base, B, in combination with the center point, I, and the spiral spring, K, the whole arranged in the manner and for the purpose herein specified.

38,721.—Rotary Engine.—Cyrus Avery, Tunkhannock, Pa. :

I claim the circular plate, F, in combination with the valve, J, and slot, L, or its equivalent, for the purpose specified.

38,722.—Valve for Steam Engines.—John Baird, New York City :

I claim a divided slide valve for a steam engine, operating substantially as specified, or, in other words, I claim two slide valves working side by side, both capable of being moved and moving when the engine is hooked on, and one capable of being moved independently by hand, the two working under a mode of operation substantially as hereinbefore set forth.

I also claim, in combination, two valves operating substantially as specified, when one has less or more lap or lead than the other either on exhaust or steam, substantially as described and for the purpose specified.

38,723.—Grain-dryer.—H. H. Beach, Philadelphia, Pa. :

I claim, first, A series of inclined planes which the grain is caused to traverse in strata of uniform thickness, or nearly so, and on which the grain is caused to change its position by regulating the openings which form the communication between the planes, substantially as described; the planes being heated or perforated for the passage through them of a hot blast.

Second, In combination with the said inclined planes, arranged as set forth, I claim the sliding plate, d', or its equivalent, for the purpose specified.

Third, The structure separated into the within-described hot-air compartments and exhaust compartments by the horizontal plates and inclined planes herein set forth, for the purpose specified.

38,724.—Hydraulic Propeller.—J. B. Booth, Portsmouth, Va. :

I claim the construction and combination of the cylinders and pistons, the crank shaft and intermediate shaft, and the pinions and cranks, substantially as and for the purpose specified.

38,725.—Unloading Freight or Merchandise.—Robert Bragg, San Francisco, Cal. :

I claim the plank, A, having ways, c, c, attached to one or both sides in combination with the endless chains, B, B', connected by crossbars, f, arranged or applied to the plank, substantially as and for the purpose herein set forth.

I further claim the guards or side strips, a, a, applied to the plank, A, when used in combination with the ways, c, c, endless chains, B, B', and crossbars, f, as herein described.

38,726.—Mode of connecting Cars to Trucks.—Alfred Bridges, Newton, Mass. :

I claim hanging the car body by a spring or yielding connection extending from the pedestal to the truck frame, and acting in the manner and for the purposes specified.

38,727.—Stove-pipe Thimble.—J. S. Brooks, Rochester, N. Y. :

I claim a stove-pipe thimble having the adjustable slide, C, or its equivalent, as and for the purposes shown and described.

I also claim the corrugated collar when so made as to hold the pipe by its inner points while the outer points or grooves carry the creosote into the flue.

38,728.—Sad Iron.—F. A. Cannon, New York City :

I claim the use of a slipper and roller in combination, made substantially as described, to fit on the bottom of smoothing irons attached thereto and removed therefrom by means of a spring catch.

38,729.—Still.—Hezekiah Clements, Warsaw, Ky. :

I claim the vertical shaft, H, and the paddles, k, k, when used in connection with the worm, G, and steam space, A, substantially as and for the purpose described.

38,730.—Feed-water Heater for Locomotives.—Benjamin Crawford, Pittsburgh, Pa. Ante-dated Nov. 16, 1862 :

I claim, first, The arrangement, substantially as herein described, for heating feed water for locomotives by exhaust steam taken from the blast pipes at a point or points below the chimney or smoke-stack, as herein set forth.

Second, The valves, E, E, applied and operated between the blast pipes, B, B', and the heater, A, substantially as and for the purpose described.

Third, The valve, D, applied and operated substantially in the manner and for the purpose described.

38,731.—Pianoforte.—David Decker, New York City :

I claim elevating the portion, C, of the plate in such manner that it passes entirely over a number of the longer or bass strings, e, e, of the instrument, and enables the said strings to pass between it and the wrest plank, and so enables a wooden bridge, f, to be used upon the wrest plank for the support of those strings, and the said strings to be brought close to the wrest plank, substantially as and for the purpose herein specified.

38,732.—Process of burning Petroleum and other Liquid Fuel for the generation of Steam and other purposes. David Dick, Meadville, Pa. Ante-dated April 25, 1863 :

I claim the method of employing coal oil, petroleum, or other mineral oils, as fuel for the generation of steam or for other purposes, by saturating a bed or stratum of incombustible or refractory materials with the oil and burning it upon the surface thereof, substantially in the manner described.

38,733.—Grain Drill.—M. A. Dille, Mendon, Mich. :

I claim the manner of adjusting, that is to say, raising and lowering the teeth, K, to wit, by means of the bar, M, having the teeth connected at its ends by chains, N, N, to a bar, P, pivoted to a semicircular plate, Q, provided with holes, u; the bar, P, having a catch, R, attached to it, and all arranged as and for the purpose herein set forth.

[This invention relates to an improved seeding machine of that class which are designed for sowing seed broadcast or in close drills, and which are provided with seed covers arranged in such a manner as to cover the seed perfectly, and also to serve the office of cultivators when desired.]

38,734.—Mop.—R. H. Ewing, Elizabethtown, Ohio. Ante-dated March 11, 1862 :

I claim, as a new and improved article of manufacture, the mop substantially as herein described.

38,735.—Rag Engine of Paper-making Machines.—Jonathan Faw, Lockland, Ohio :

I claim the combination with the cap of a rag engine of the deflector, E, constructed and arranged as and for the purposes set forth.

38,736.—Pump.—Andrew Fitzpatrick, New York City :

I claim the rotary screw spindle, D, and crosshead, C, connecting by rods, a, with a piston moving in a pump cylinder, B, in combination with the longitudinally sliding clutch, G, wheels, E, E', F, and tappet rod, H, all constructed and operating substantially as and for the purpose shown and described.

[This invention consists in the arrangement of a rotary screw spindle connected with and acting on the piston of the pump in combination with a longitudinally sliding clutch and reversible bevel gear, in such a manner that, by the action of the reciprocating piston on suitable tappets, the clutch is shifted and the bevel gear reversed, and that by these means the screw spindle is made to rotate alternately in one direction and then in the other, and the continuous rotary motion of the driving wheel is converted into a rectilinear reciprocating motion of the piston.]

38,737.—Composition for Black Varnish.—J. P. Gay, Cincinnati, Ohio :

I claim the composition for black varnish consisting of the materials herein specified, combined in the proportions and substantially in the manner herein described.

38,738.—Corn Harvester.—George Gear, Douglas, Ill. :

I claim, first, The rotating cylinder, H, provided with a spiral rib, j, in combination with the endless chain, L, provided with arms, a', arranged to operate in connection with the plates, J, I, substantially as and for the purpose herein set forth.

Second, The endless toothed chain, M, in combination with the endless chain, L, provided with arms, a', and the spiral-ribbed cylinder, H, as and for the purpose specified.

Third, The cutter, U, placed at the back part of the space, m, and arranged so as to be operated through the medium of a treadle, n', and spring, n'', as set forth, but the cutter thus arranged to operate, I claim for the purpose herein set forth with the ribbed cylinder, H, and endless chains, L, M, for the purpose set forth.

Fourth, The serrated wheels, f', f', in combination with the endless chains, L, M, ribbed cylinder, H, plate, J, and bar, l, of the semicircular bars, k, for the purpose specified.

Fifth, The V-shaped plates, R, R, attached to the frame, A, by hinges or joints and provided with rollers, T, T, and bent rods, S, to operate as and for the purpose herein described.

Sixth, Constructing the frame, A, of two parts, a, b, one part, b, having an inclined position relatively with a, when said frame, thus constructed is used in combination with the cylinder, H, endless chains, L, M, plates, J, I, all arranged as herein set forth.

[This invention relates to a new and improved machine for gathering ears of corn from the standing stalks, and it consists in the employment of a revolving cylinder provided with a spiral rib and fitted between guards, and using in connection therewith two endless chains, guide plates and a cutter, all so arranged and fitted upon a mounted frame as to operate in a perfect manner to effect the desired end.]

38,739.—Artificial Leg.—G. W. Hall, Lyndonville, N. Y. Ante-dated Dec. 27, 1862 :

First, I claim the ankle coupling, E, having a broad or double anterior bearing, d, g, connected with the leg, and transverse journal, f, connected with the foot, arranged and operating substantially as and for the purposes set forth.

Second, I also claim the means of adjusting and tightening the journal, f, consisting of the bearing pieces, j, j, attached to the foot, as described, together with the clamp, k, and adjusting screw, l, substantially as set forth.

Third, I also claim connecting the jointed side irons, H, to the socket, D, by the pivot, n, to allow free motion or vibration thereof between the seams, o, p, or corresponding limits of action, substantially as shown and described.

Fourth, I also claim the combination of the slot and movable bearing, s, screw-follower, t, and transverse screw, u, with the pivot, Q, of the jointed side irons, substantially as and for the purposes set forth.

Fifth, I claim connecting the lower portion of the leg, B, with the upper socket, D, by means of the elastic strap, U, and pad, T, arranged and operating substantially as set forth.

38,740.—Sewing Machine.—T. J. Halligan, New York City :

I claim the combination of the rock shaft, H, carrying an arm, H² and a cam, L, the rock shaft, P, carrying arms, P¹, P², and a dog, N, and the springs, f and g, the whole arranged and applied in relation to each other and in connection with the shuttle-carrier and feed wheel, substantially as and for the purpose herein specified.

[This invention relates to sewing machines in which a shuttle is used, and it consists in an improved combination of mechanism for driving the shuttle and feed mechanism, whereby the machine is much simplified.]

38,741.—Pocket-book.—Edward Hassenpflug, Boston, Mass. :

I claim, as a new article of manufacture, a self-closing pocket-book, provided with a spring or springs, a, and stops, c, as shown and described.

[The object of this invention is to arrange the flap of a pocket-book in such a manner that the same is rendered self-operating, or, more properly speaking, so that the flap closes down spontaneously whenever it has been opened, as soon as it is released.]

38,742.—Lamp Burner.—A. N. Henderson, Buffalo, N. Y. :

I claim, first, The isolated space, D, open at the top around the flame, without air holes around the bottom but with small holes connecting with the oil reservoir, constructed in the manner and for the purpose described and represented.

Second, I claim the said isolated air space in combination with the outer descending air space, E, with the various modifications of the cap for the formation thereof, so constructed as to admit the air, as herein described, and in some of the forms at the top also, so as to throw it at right angles against the flame, and in further combination with these devices the plate, F, now in use in other forms of lamps, all constructed in the manner and for the purpose herein substantially described and set forth.

38,743.—Railroad-car Platform.—Henry Holcroft and C. S. Smith, Chester Valley, Pa. :

We claim the slide, B, applied to the platform, A, and arranged with the spring, E, bent lever, D, lever, D', and rod, F, and recess, f, in

combination with the spring catch, G, and recess, c, in the platform, A', all arranged as and for the purpose specified.

[This invention consists in the employment of a slide attached to one end of the platform of a car and arranged with a treadle, lever and spring, and used in connection with a catch applied to the end of the platform of an adjoining car, and also arranged with a treadle, whereby the slide may, by simply depressing the treadles with the foot, be thrown across the space between the ends of the platforms of the adjoining cars, so as to form a complete bridge, and when any person passes over from one platform to another, be released and thrown back to its original position.]

38,744.—Cooking Stove.—G. P. Hopkins, Albion, N. Y. :

I claim, first, The tubular perforated shaft, J, fitted in the lower part of the flue, G, and provided with the wing, C, and serrated plate, d, and placed in such position relatively with the fire chamber, A, and magazine, D, to operate as and for the purpose specified.

Second, The sliding or adjustable fire chamber, A, arranged as shown, when arranged and combined with the flues, G, C, perforated shaft, J, and the magazine, D, as herein set forth.

[This invention consists in the employment of a magazine or coal receptacle for feeding the fire chamber with coal, and also in a novel arrangement of the grate or fire chamber, whereby the capacity of the same may be regulated as desired.]

38,745.—Machine for shaping Wooden Trays.—Ansel Howard, Jr., of Readsboro', Vt. :

I claim the combination of the separate carrier, D, and its adjustment, g, h, i, l, m, n, or their mechanical equivalent or equivalents with the platform, C, and the rotary cutter or plane, B, the whole being applied and arranged with respect to one another in the manner and so as to operate substantially as specified.

I also claim the combination of one or more adjustable holdbacks, g, with the platform, C, and the rotary cutter, B.

I also claim the combination of the holdfast, u, with the platform, C, when combined with a rotary cutter, B, the whole being substantially as and for the purpose specified.

38,746.—Valve for Steam Engines.—J. S. Howell, Portsmouth, N. H. :

I claim, in combination with the steam cylinder, H, I claim the exhaust ports, C, C, and passages, J, J, steam chest, I, provided with valves, A, A, balanced or nearly balanced, as described, and so constructed, arranged and operated as to supply steam to and exhaust it from each end of the cylinder, H, as required.

38,747.—Embalming Fluid.—F. A. Hutton, Washington, D. C. :

I claim the ingredients mixed in the manner and in the quantities as herein described, as a fluid for the purpose of embalming the dead.

38,748.—Composition for disinfecting and purifying Hospitals, Camps, &c.—J. L. Kidwell, Georgetown, D. C. :

I claim, first, The combination of sulphate of lime with the sulphate of magnesia, as set forth, for the production of a disinfecting, deodorizing and antiseptic compound or composition of matter.

Second, The combination of sulphate of lime and sulphate of magnesia with sulphate of copper, charcoal and coal tar, or either one or more of them, substantially as set forth.

38,749.—Friction Brake.—Richard Kitson, Lowell, Mass. :

I claim the brake composed of the disk, B, fast upon the shaft or axle, the toothed box, C, clamped upon the said disk, and the stop, E, to act upon the teeth of the box, the whole combined to operate substantially as and for the purpose herein specified.

[This invention is composed of a disk firmly secured to a shaft or axle and inclosed within a box or casing which is fitted to turn upon the shaft, but so clamped upon the said disk by means of screws as to produce any desirable degree of friction and which is furnished upon its periphery with a surrounding series of ratchet or other teeth, in relation to which a stop is so applied as to be capable of being made to engage with any tooth, and thereby to stop the revolution of the box and cause it, by its friction upon the disk, to gradually stop or retard the velocity of the revolution of the shaft.]

38,750.—Apparatus for cutting Card-board.—Lafayette Knickerbocker, Philadelphia, Pa. :

I claim cutting openings in card board by means of plates, E, arranged to inclose a space of the desired form and dimensions of the opening, in conjunction with the reciprocating block, G, or its equivalent, and the blades, H, arranged in a form corresponding to that of the space, when the cutting edges of the said blades are made of a concave or angular form, as described, for the purpose specified.

Second, The steel plates, E, secured to the adjustable plates, B, and arranged in respect to each other, as described, so that the space inclosed by the plates may be increased or diminished at pleasure, as set forth.

38,751.—Hanging Carriage Bodies.—Edward Lane, Philadelphia, Pa. :

I claim hanging the body of a vehicle to the front and rear axles of the same by means of the gum-elastic springs, H, H and H', H', the levers, D, D and D', D', the rods, G, G and G', G', or their equivalents, arranged as set forth, when the spring of one lever is independent of the springs of the other levers, as described, for the purpose specified.

38,752.—Carriage Brake.—M. K. Lewis, Iowa City, Iowa :

I claim, in combination with a cam-shaped brake block arranged to turn on the brake bar, the links or chains which connect it to the axle or some part of the carriage, substantially as described, for the purpose set forth.

In combination with a crank-shaped brake bar I claim a cam-shaped brake block, for the purpose set forth.

38,753.—Apparatus for desiccating Vegetables.—William K. Lewis, Boston, Mass. :

I claim, first, The employment for the desiccation of vegetables, or other substances, at a temperature not above the boiling point of water, of a vessel, A, heated by the vapor rising from or through water heated in a vessel, B, which is open to the atmosphere, substantially as herein described.

Second, The combination, as herein described, of one or more rollers and one or more rakes, scrapers or stirrers, with each other and with a desiccating vessel, A, heated in the manner herein set forth.

38,754.—Lantern Globe.—Charles P. Lindley, Waterbury, Conn. :

First, I claim providing a lantern globe with an opening, a, for the purpose specified.

Second, In combination with the same, I claim the lip for the purpose described.

Third, In combination with the globe provided with the opening, a, I claim the use or employment of the reflector, C, or its equivalent, for the purpose herein set forth.

38,755.—Letter Envelope.—William Murphy, New York City :

I claim, first, Overlapping the flaps, b, b', with or without gum, when the same extend over the whole width of the sheet, A, as and for the purpose shown and described.

Second, The arrangement of marks, e, g, opposite the points, d, f, where the head flap, a, joins the side flaps, b, b', substantially as and for the purpose specified.

38,756.—Machinery for turning Logs on Saw-mill Carriages.—W. L. Oliver and A. J. Hancock, Indianapolis, Ind. :

We claim the movable elevators, H, constructed and operated substantially as described, and in combination with the additional head blocks, A, and the center blocks, L, for the purpose of facilitating the turning and raising of the log, in the manner described.

38,757.—Garment having Body and Sleeves.—Hermon Osler, Philadelphia, Pa. :

I claim a garment having body and sleeves drafted in one piece, and formed by the sutures, N, H, O, G, F, P and R, Q, on each side, substantially as shown and described.

38,758.—Process of utilizing the Tin from Tin-plate Clippings, &c.—J. M. Patterson, Woodbury, N. J. :

I claim utilizing or recovering the tin of the "waste clippings" of tin plates, substantially in the mode described.

38,759.—Furnace of Sugar Evaporators.—A. H. Perry, Tipton, Iowa :

I claim, first, The arrangement of the hopper, H, with a trap door, I, and revolving grate, E, in combination with the flues, B, D, leading from the furnace, A, to the chimney, the whole being constructed and operating in the manner and for the purpose substantially as described.

Second, So combining two furnaces, A and C, and their flues, B and D, that the fuel in the second furnace is dried and set on fire by the heat emanating from the fuel in the first furnace, substantially as set forth.

[The object of this invention is to use bagasse fresh from the crushing rollers as part of the fuel for heating the juice.]

38,760.—Lubricating Journals and Axles.—J. B. G. M. F. Piret, Paris, France :

I claim, first, The application within an axle or journal of what I have herein described as a "helicoïd winged crown" rotating in contact with a stationary disk, h, or other equivalent flat surface, substantially as and for the purpose herein specified.

Second, The overlapping disk, n, encircling a flange, o, formed upon the inner end of the box, substantially as and for the purpose herein specified.

[This invention consists principally in a device which is termed the "helicoïd winged crown" applied within an axle or journal box to provide for the more effectual lubrication of the axle or shaft, and its bearing.]

38,761.—Stopping Mill-stones.—Abner Reeder, Buckingham, Pa. :

I claim the funnel, G, or its equivalent, arranged in respect to the hopper of a mill, substantially as described, in combination with the devices herein set forth, or their equivalent, through the medium of which the rising of the said funnel, or its equivalent, when relieved from the weight or pressure of the grain, will cause the power from which the stones derive their motion to be arrested as described.

38,762.—Card for Liquid Compasses.—Edward S. Ritchie, Brookline, Mass. :

I claim the new or improved liquid compass card, substantially as hereinbefore described.

38,763.—Leather-splitting Machine.—Bradford Rowe, Albany, N. Y. :

I claim, first, The elastic and flexible gage plate, in combination with the springs employed to keep its edge duly pressed upwards towards the roller.

Second, The roller having a center and side divisions of different diameters, the center division being the largest, and the others similar to each other, in combination with the knife and gage-plate.

Third, The treads, in combination with the rods and springs.

38,764.—Head Lamp for Vessels.—Hugh Sangster, Buffalo, N. Y. :

I claim, first, The reflector made movable for the purpose set forth, by means of the two knobs, H and G, and the piece, K, or reflector-holder, or their equivalents.

Second, The lamp pot so arranged that it may be moved and its position changed inside of the lamp base by means of the knob, I, or its equivalent, on the outside of the lamp, for the purpose of adjusting it to the focus of the reflector.

Third, The manner described of attaching looking-glass and frame to the wings of the lamp, also the panel, or recess, which is stamped into the wing for its reception.

Fourth, The cone covered hot-air tubes, as described, and the grooves for the glass, bent and formed of the same pieces of metal as the top and bottom, as shown in Fig. 3 and lettered W, X, Y, also the manner of holding the front glass (in the door) to its place, as shown in Fig. 7, and by the piece, V.

38,765.—Car for carrying Petroleum, &c.—Samuel J. Seely, Brooklyn, N. Y. :

I claim, first, A railway car having its body composed of a corrugated or other sheet-iron cylinder, substantially as and for the purpose herein specified.

Second, The combination with the car body of one or more pipes, k, k, arranged below the car, as described, and furnished with a series of flexible branches, l, l, connected by cocks, k, k, substantially as and for the purpose herein set forth.

Third, The boxes, n, n, arranged as described, for the protection of the cocks, k, k, and for the storage of the flexible branch pipes, l, l.

38,766.—Boot and Shoe.—Philander Shaw, Boston, Mass. Ante-dated Oct. 18, 1862 :

I claim, as a new article of manufacture, a boot or a shoe which is made of a flexible "upper" united with a sole composed wholly or in part of compressed wood; also the combined arrangement, operating substantially as shown and described, of the metallic plate, c, with the whole or a portion of the sole, when made of compressed wood.

38,767.—Press for forming Dies.—Max Henry Stein, New York City. Ante-dated April 9, 1863 :

I claim the arrangement of two hinged levers, E, E, plunger, F, and bars, e, in combination with the main follower, D, and an adjustable press-box, H, constructed and operating substantially in the manner and for the purpose shown and described herein.

38,768.—Manufacture of Tooth-picks.—Benjamin F. Sturtevant, Boston, Mass. :

I claim, as a new or improved manufacture, for the purpose aforesaid, the making of tooth-picks with bevels or chamfers at the opposite ends of each, the blank or band of wood as made with the chamfers or bevels, at its opposite edges, and in other respects substantially as specified.

38,769.—Horse Rake.—Henry K. Stoner, Lancaster, Pa. :

I claim the construction and application of the tooth-head, A, with its perforated ears, D, D, raised and notched flange, B, F, for holding and securing the teeth, in the manner specified.

I also claim the supporting and projecting base, C, in combination with the projecting flange with its notch, for the additional purpose of attaching the springs, in the manner specified.

38,770.—Self-priming Hammer for Fire-arms.—Arthur F. Tait, Morrisania, N. Y. :

I claim the combination of the lever, C, spring, q, slide, B, and stop t, n, with the hammer, A, magazine, h, and the inclined plane, r, in the manner and for the purpose herein shown and described.

38,771.—Iron-clad Vessel.—Lewis Tees, Philadelphia, Pa. :

I claim the combination of the prominent steel-tipped edge, b, the inclined portion of the vessel from the said edge to the spar-deck, A, and the inclined or curved portion from the edge, b, to a point below the water-line, the whole being arranged in respect to the gun-deck, B, as set forth for the purpose specified.

38,772.—Breech-loading Fire-arm.—Henry Underwood, Tolland, Conn. :

I claim, first, Combining the cylinder with the hammer by means of the ratchet teeth, c, c, d, in the cylinder, arranged in different planes, and the dog, F, attached to the hammer and having two teeth, e, f, set in planes to correspond with the ratchet teeth, substantially as and for the purpose herein set forth.

Second, The stop, G, applied in combination with the cylinder, C, and dog, F, and operated by a tooth on the said dog, substantially as and for the purpose herein specified.

Third, The cam, r, and levers, s, applied in combination with the dog, F, substantially as and for the purpose herein specified.

[This invention relates to fire-arms having a single-chambered cylinder, the axis of which is arranged in a horizontal position transverse to the axis of the bore of the barrel, and it consists in so applying and operating such cylinder and so constructing the frame or stock of the arm that its chamber may be loaded through an opening in the top of the frame or stock, and that, by the act of loading, a previously-discharged cartridge shell or case may be pushed out through an opening in the bottom of the frame or stock. It also consists in certain means of combining the said cylinder with the hammer of the fire-arm, whereby the backward or upward movement of the hammer to the position of half-cock brings the cylinder to the position for loading, and the continued movement to the full-cock position brings the cylinder to the position for firing. It also consists in an improved arrangement of and mode of operating a stop for

locking the cylinder in position for firing, and for disengaging it to enable it to be brought to the position for loading. And it further consists in a device for disengaging the cylinder from the hammer whenever desirable.]

38,773.—Maching for separating and dressing Ores.—Horace Trumbell, Jersey City, N. J. :

I claim, first, Giving to the water a sudden rising movement, followed by a slowly falling motion through the ore, substantially as herein shown and described.

Second, The disks, B, B, arranged and operated by the cam wheels, C, and springs, G, in combination with the tank, A, ore box, I, and sieve or netting, e, as and for the purpose set forth.

[This invention consists in constructing a machine for separating or dressing ores in such a manner that a body of water may be suddenly impelled upward, at intervals, throughout the whole extent of a bed of ground ore, resting on a sieve, so as to raise and loosen the mass, and allow the heavier particles to settle to the bottom or to pass through the same. The box or sieve containing the ore, or other material to be operated upon, remains stationary.]

38,774.—Telegraph Magnet.—Silvanus F. Van Choate, New York City. Ante-dated April 26, 1862 :

I claim, first, The mode above described of making magnets, consisting of the parts, G F W W and H W W, as and for the purpose specified.

Second, I claim the mode above described of constructing and arranging the armature, L, and lever, j, with reference to the coils and cores, in combination with the adjustable screw, m, as set forth.

Third, I claim the above-described mode of combining sounders and the several parts thereof with the adjustable screws and movable base to regulate the stroke of the hammer and to adapt such sounders to the varying strength of the magnetic forces than may be working the armature, as above specified.

Fourth, I claim the use in magnets of bells or sounders of different sizes, that is one smaller than the other, as and for the purpose set forth.

Fifth, I claim the sliding, moveable bar, F, Fig. 4, with its slotted connection, as and for the purpose set forth.

Sixth, I claim, in the construction of a magnet, the use of the parts described, viz., G F W W, and H W W, in combination with the armature, L, lever, j, and bells or sounders, A and B, as and for the purpose specified.

38,775.—Water Wheel.—Henry Van Dewater, Worcester, Mass. :

I claim, first, The buckets, H, constructed as shown, so as to conform to the shape of the hub, G, and provided with the lips, k, and segment flanges, I, as and for the purpose set forth.

Second, The pendulum lips, m, attached to the under side of the rim, l, of the hub, G, when arranged relatively with the buckets, H, to operate as and for the purpose herein set forth.

Third, The combination of the hub, G, buckets, H, provided with the lips, k, and flanges, I, the pendulum lips, m, and case, C, provided with the chutes, D, all arranged to operate as and for the purpose herein set forth.

Fourth, The inverted conical chamber, F, placed below or underneath the wheel, D, and inclosing the step of the shaft, E, as and for the purpose herein set forth.

[This invention relates to an improved water wheel of that class which are placed on vertical shafts, are enclosed within a case, and have a draught tube connected with the case. The invention consists in a peculiar construction of the wheel, the hub and buckets thereof, and also in a novel construction and arrangement of the case and water chamber in which the shaft of the wheel is stepped, whereby it is believed that a very efficient water wheel of the kind specified is obtained.]

38,776.—Damper.—P. Verbeck and O. T. Walker, Neenah, Wis. :

We claim a damper consisting of two segmental disks, A, which are connected by end pieces, B, provided with gudgeons, C, as and for the purpose shown and described.

[This invention consists in the combination of two segmental disks united by end pieces, which are provided with gudgeons, in such a manner that the whole damper can be readily cast out of one piece, and no further labor is required to finish the same up, and, at the same time, the desired object of stopping the heat and allowing the smoke to ascend is fully obtained.]

38,777.—Car Spring.—Richard Vose and Charles D. Gibson, New York City :

I claim, first, Combining a central non-elastic core, B, with a coiled metallic spring, A, and one or more compensating springs, E, F, substantially in the manner and for the purpose herein set forth.

Second, Combining a volute or a helical spring, with its supporting base, by means of a non-elastic core within said spring, united to said base, substantially in the manner and for the purpose herein set forth.

Third, Combining an elastic supporting disk or spring, F, with the metallic base, C, of a coiled metallic spring, substantially in the manner and for the purpose herein set forth.

38,778.—Link for Railway Horse-powers.—Seth Wheeler, Albany, N. Y. :

I claim, first, The connecting link, a, b, constructed as described, in combination with friction rollers, d, endless chain links, e, and lag, H, substantially as and for the purpose described.

Second, The use of a link which has a short, hard-metal pin or journal, and a cast metal body, united together in the act of casting, for the purpose set forth.

38,779.—Thrashing Machine.—J. A. Woodward, Plattville, Wis. :

I claim the combination and arrangement of the suction spout, G, fan, J, screw, E, and screens, N, O, when applied to a thrashing machine or arranged in relation with a thrashing cylinder, B, and concave, C, to operate conjointly therewith, as and for the purpose specified.

[The object of this invention is to obtain a machine of simple construction by which grain may be thrashed and separated from impurities at one and the same operation, and, at the same time, without allowing the dust and dirt to be expelled from the feed orifice or opening into the face of the attendant.]

38,780.—Cast-iron Bottom for Tea-kettles.—Leonard J. Worden, Utica, N. Y. :

I claim, as a new article of manufacture, making the bottoms of tea-kettles of cast-iron by uniting it to and with the body of the vessel, in the manner and for the purpose as herein described and set forth.

38,781.—Printing Press.—William H. Baker and George J. Hill (assignor to themselves, Jay Pettibone and Joseph Warren), Buffalo, N. Y. :

We claim, first, The combination of two or more reciprocating cross-heads, B, each carrying a "form" of type with an inking apparatus capable of inking each form of type with a different color, and an intermittent feed motion, whereby cards or railroad tickets may be printed in two or more different colors by one passage through the press, substantially as herein described.

Second, The giving of a vertical reciprocating motion to the cross-heads, B, by means of cams, E, of such form as will cause them to remain stationary a certain length of time at each end of their movement, in combination with a cam, J, for giving a reciprocating motion to the inking rollers, S, of such figure as will cause the inking rollers to pass in under the cross-heads while they are up and stationary, and return, evenly distributing the ink upon the face of the type, and to then remain stationary during the down-and-up movements of the cross-heads, substantially as described.

Third, We claim the feeding arm, P, spring foot, Q, curved arm, P4, elliptic spring, P5, and spring-catch, S, the lifting toes, r2, and adjustable tripping rollers, S1, of such figure as will cause the inking rollers, R, the whole combined and operating to form a variable intermittent feed-motion, substantially as described.

Fourth, We claim the arrangement of a number of the feeding arms, P, or their equivalents, upon a rock-shaft, P1, and their combination with a printing press, so that they may be made to feed simultaneously a number of distinct strips of paper or cardboard, and to give any length of "feed" desired to each strip, so that a number of dif-

ferent tickets of different lengths may be printed at each impression, substantially as herein set forth.

Fifth, We claim the combination with a printing press of circular revolving cutters by which a sheet or roll of paper or card-board may be cut into any required number of strips while passing through the machine, substantially as described.

38,782.—Machine for facing Grindstones.—James Bidwell (assignor to himself and William W. Marston), of New York City :

I claim, first, The tool rest, g, in combination with the adjustable frame, c, as specified, whereby said tool rest is moved up to the stone as the stone wears, as set forth.

Second, I claim the roller, f, composed of a series of metallic disks, and taking the entire face of the grindstone and pressed thereto substantially as and for the purposes specified.

Third, I claim the combination of the roller, f, tool-rest, g, and adjustable frame, c, for the purposes and as specified.

38,783.—Flour Bolt.—John C. Cookson, Lancaster, Pa. assignor to himself and David Reynolds, Indianapolis Ind. :

I claim the metallic bug-screen, F, with its oblong slots, as shown, surrounded by a cylinder, A, which opens, by its entire circumference, directly into the bolt, E, closed externally and connected with the screen, B, said bug-screen being closed on its inner end, and placed outside of the bolt, but on the same shaft, as shown, for the purpose specified.

I claim surrounding the bolt, E, with an external screen, B, provided with a cap or slotted bran-chamber, C, in combination with the cylinder, A, in the manner and for the purpose set forth.

I also claim the use of balls or knockers, when employed within a bug-screen.

38,784.—Water-proofing Cloth, Leather, &c.—William Elmer, New York City, assignor to Andrew McKinney, Boston, Mass. :

I claim rendering cloth and other texture impermeable to water and other fluids, by the application of an elastic coating, the selenide or sulphide of caoutchouc or gutta-percha, and giving increased body and durability to vegetable, woody and animal fibrous texture, as silks, woolsens, leather, gelatinous tissue, prunella, cotton, linen, satins, mixed goods, &c., by first subjecting such goods or articles to the action of a solution of alumina (or its basic salts) or other true mordants and ichthyocolla, in such proportions and in such manner as to chemically combine the alumina and ichthyocolla and form an insoluble composition, which combines chemically with the fiber of the cloth, making the three a chemical compound; and subsequently subjecting the said goods to the series of actions, operations or processes of the chemical and other agents employed, as fully described in the foregoing specification; so that, by these various processes and substances employed, texture is added to a fibrous tissue, and chemically united, forming a compact body, possessing great tenacity, flexibility, and, at the same time, being water-proof. And this I claim, whether the precise chemicals before described are employed, and in the proportions named, or equivalent ones, and the processes varied, according to the nature of the article under treatment, or other processes, &c., be employed, which are substantially the same, by which analogous results are produced.

38,785.—Artificial Leather.—William Elmer, New York City, assignor to Andrew McKinney, Boston, Mass. :

I claim, first, Producing a durable artificial leather, from any kind of suitable cloth, woolen, cotton, linen, silk or mixed goods, by first filling the interstices or meshes of the same, with a compound of ichthyocolla, albumen, extracture and fatty matter; in the proper proportions and then subjecting this compound to the action of tannic acid, or other agents capable of rendering it elastic and impenetrable or permanent.

Second, Alumina, or other true mordants are employed to unite chemically the various substances used, together with subjecting them to the various processes, manipulations and applications, as fully set forth in the foregoing specification under the head of "artificial leather," and this I claim whether the proportions of the substances employed and the processes, &c., detailed in this specification, be strictly observed or changed to suit different kinds of materials as for other purposes, and equivalent substances used without altering the real character of the processes, &c., or the results produced.

Third, The finishing of "artificial leather," so as to represent any kind of true leather, and producing a brilliant and durable polished surface on either artificial or true leather, by subjecting the same to the varnished coatings, compounds, applications, manipulations, &c., as fully set forth in the foregoing specification and for rendering all kinds of leather water-proof, as before described, by the selenide or sulphide caoutchouc or gutta-percha.

38,786.—Knife-cleaner.—Thomas M. Fell (assignor to John Mather Jones), Brooklyn, N. Y. :

I claim, first, The rotating cleaning disks, d, and e, faced with felt or other soft material and kept together by a spring, in combination with the rests, k, and l, taking the knife as specified.

Second, I claim the grinding ring, n, applied as specified in combination with the cleaning disks, d and e, for the purposes and as specified.

38,787.—Machine for compacting Sugar, &c., in Barrels, Boxes, &c.—Gustavus A. Jasper (assignor to the Union Sugar Refinery), Charleston, Mass. :

I claim a machine, substantially as specified, that is to say, as consisting of a combination of the barrel platform, the shaft, the cushioned step, or their mechanical equivalents, and mechanism for elevating the shaft and allowing it to fall by gravity, the whole being arranged in manner and so as to operate as hereinbefore explained.

38,788.—Mode of Ventilating and Illuminating Risers.—Michael J. McCormick (assignor to Lewis R. Case), New York City :

I claim, first, The arrangement of a permanent perforated plate, with a sliding plate similarly perforated, the alternate apertures, or rows of apertures, being filled with glass, in the manner and for the purposes set forth.

Second, I claim the grooves, G, G, upon the inside of one or both plates, communicating with the openings, c, c, c, in the front plate, substantially as specified.

38,789.—Gunpowder.—Johann F. E. Schultze, Potsdam, Prussia, assignor to himself and H. M. C. Werner, Washington, D. C. :

I claim, first, The production of grains or particles from plates, sheets or veneers of wood, substantially in the manner set forth.

Second, The preparation of these grains or particles of woody substance, substantially in the manner set forth, for conversion into an explosive powder.

Third, Combining the grains or particles of wood or woody substance, thus prepared, with salts containing oxygen and nitrogen in this composition, for the production of an explosive powder, substantially as set forth.

Fourth, The preparation of the dust or fine powder resulting from the preceding operations for the production of an explosive powder.

Fifth, The granulated explosive powder produced by the processes hereinbefore described.

38,790.—Grain-dryer.—Peter C. Schuyler & Sylvester W. Warren (assignor to Peter C. Schuyler), New York City :

We claim, first, The construction of a hollow metallic steam table connected together by the studs, 3, 3, and heated by steam or hot water for drying grain or other substances as specified.

Second, We claim the arrangement of the shafts, w, cams, v, levers and chains or bands, s, in combination with the hollow metallic steam drying tables as specified.

Third, We claim the slide bars, h, adjustable as specified, in combination with the shafts, r, wheels, q, and shaking apparatus aforesaid, whereby said tables can be adjusted to the desired inclination, and agitated as set forth.

38,791.—Apparatus for burning Fluids for the generation of Steam, &c.—Thomas Shaw (assignor to himself and John L. Linton), Philadelphia, Pa. Ante-dated May 19, 1863 :

I claim, first, The construction of cone, G, substantially as and for the purpose set forth.

Second, The pipe, L, or its equivalent for conducting the air downwards over the cone, G, substantially as and for the purpose specified.

38,792.—Car Coupling.—Chas. D. Tisdale, East Boston, Mass., assignor to himself and Barna W. Tisdale, Boston, Mass. :

I claim the combination of the intermediate elastic cushion or link pad, E, with the link, B, and the bunter, A, the said link pad being affixed to the link and so as to operate as specified.

38,793.—Buckle.—Luther Fogg, Boston, Mass.:
I claim a buckle composed of a frame shank, and grooved tongue that is jointed both to the frame and shank, in combination with the notches, i, l, and lugs, f, i, constructed and arranged as herein described.

38,794.—Machine for cleaning and opening Cotton, &c.—
John E. Van Winkle, Paterson, N. J.:
I claim, first, The combination of the apron, I, and fan, H, with the parallel toothed shafts, C C' a, grid or grating, D, and feed aperture, g, where the said parts are arranged as herein set forth to cause the cotton to traverse the beaters longitudinally of the shafts, C C', in passing from the feed aperture, g, to the apron, I.
Second, The combination of the oblique deflecting, ribs, w, with the feed aperture, g, longitudinally operating beaters, C C' a, carrying apron, I, and fan, H, all arranged in the manner and for the purposes herein set forth.
Third, The opening or openings, e, for the admission of air at the feeding end of the machine beneath the grid or grating, D, in the described combination with the said grid or grating and with longitudinally operating beaters, C C' a, carrying apron, I, and fan, H, all arranged and operating as set forth.
Fourth, The eccentric, Q, ratchet-wheel, c, and pawl, d, or their equivalents, employed in the described combination with the beaters C C' a, and grating, D, to adjust the latter in its distance from the former.
Fifth, The suction fan, H, communicating with the interior of the rotary screen, F, in the manner and for the purposes specified when used in combination with the toothed beaters, C C' a, and apron I, arranged and operating as set forth.
[This invention consists in the combination and arrangement of two series of rotary teeth or beaters, attached to parallel shafts above a suitable grating, a revolving cylindrical screen, a rotary suction fan, and an apron, whereby the opening and cleaning of cotton is effected in a very thorough manner, more expeditiously than by the machinery at present used for the purpose. It also consists in making the grating below the beaters adjustable, vertically nearer to or further from the teeth or beaters as may be desirable. We shall shortly publish an engraving of this improvement.]

38,795.—Grinding Mill.—Aushent H. Wagner (assignor to Charles Kaestner & August Kaestner), Chicago, Ill.:
I claim, first, The nut on the top of the hollow shaft, to hold down the running stone and prevent the stationary stone from lifting or raising it.
Second, In combination with the hollow stationary shaft I claim the metal bed-plate to which it is fastened.

38,796.—Rake for Harvesters.—George Hall, Baltimore, Md.:
I claim mounting the rake head on an arm provided with a telescopic slide, substantially in the manner described, in combination with a guide slot in the platform, for the purpose of controlling the movements of the rake as set forth.

38,797.—Concussion Fuse for Explosive Projectiles.—
J. L. Henry, late of the U. S. Army, assignor to Richard P. Henry, of Kentucky:
I claim, first, The employment of a conical plunger, B, as described, in combination with an enlarged chamber, Q, and suitable concave seat for the purpose of allowing a very wide lateral range of motion of the said plunger in case of an oblique impact of the shell.
Second, The method of holding the plunger safely in its seat by means of the rotating rod, u, with its catch or stop, r, and rear valve attachment, v, whereby it may be released only by the purpose of the discharge upon the said valve, in the base of the shell, substantially as described.
Third, The additional holding device of a hook or elbow stop, s, fixed in the cylindrical seat-piece, c, and a pin, i, in the plunger; or as an equivalent thereof, the use of the centrifugal balls, q, for the purpose of retaining the plunger securely, until released by the rotation of the projectile, due to the rifling of the gun, substantially as described.
Fourth, The employment of a friction tape, O, in connection with the conical plunger, in the manner and for the purpose set forth.
Fifth, The combination with the conical plunger and friction tape, the twine or check-string, t, to prevent the released plunger from straining and igniting the primer, before the shell impinges, substantially as described.
Sixth, In concussion shells, a chamber for the plunger, of such dimensions as that the plunger may move freely, not only directly forward as usual, but also sidewise, and perform its function even before reaching the sides of its chamber, in case of side impact, substantially as described.
Seventh, The use of two sets of "stops," the one rigid, the other to yield on impact, as and for the purposes set forth.

38,798.—Feed Ration for Army Use, &c.—William H. Page, New York City:
I claim the ration composed and prepared substantially as described.

38,799.—Corrugating Metal Plate.—Joseph Francis, New York City:
I claim forming a corrugation in a plate of metal which stops short of the edge of said plate, substantially of the same thickness as the flat straightedge, substantially as and for the purposes set forth.

38,365.—(Patented April 28, 1863.)—Mark-holder for Bales, &c.—Henry W. Goodrich, Chelsea, Mass., and Edward A. Locke, Boston, Mass.:
We claim as a new article of manufacture a device constructed substantially as described with bars, corners, or indentations, or otherwise so shaped and arranged as to render it easy of insertion in, and difficult of extraction from, packages of fibrous material, when said device is provided with means for securing thereunto or thereon an identifying mark or label or is itself impressed with an identifying mark.

RE-ISSUES.

1,488.—Lamp.—E. B. Requa, Jersey City. Patented May 6, 1862:
I claim, first, The tube, G, made of metal with its metal deflector, H, insulated by plaster of paris, or other good non-conducting cement, or made of glass with the deflector, H, fitted upon it without cement.
Second, The tube, J, made of glass with its deflector, I, of metal insulated by plaster of paris or other good non-conducting cement.
Third, The combination of the two tubes, G, J, one placed within the other and the inner one including the wick-tube, E, when said tubes are constructed with deflectors so as to admit of a space, e, between them, having a narrow passage, e', to increase the rapidity of the draught against the sides of the flame, substantially, as and for the purpose herein set forth.
Fourth, Providing the lower end of the wick-tube, E, with a cap, F, to serve as a top for the fountain, A, when said cap is used in connection with the tube, G, applied to the burner, D, the latter screwed into the jacket or case, B, and all arranged as shown to form a simple device to admit of the flame being supplied with a requisite quantity of air at its base and by a current which passes around the fountain, A, to keep its contents cool as herein described.
Fifth, The combination of the two tubes, G and J, cones, H, I, wick-tube, E, cap, F, burner, D, flange, g, jacket or case, B, and fountain, A, in short, the whole lamp all arranged and constructed as and for the purpose and in the manner represented and described.

1,489.—Inkstand.—William H. Towers, Boston, Mass., late of New York City. Patented Oct. 2, 1860:
I claim an inkstand the cap or cover of which consists of two concentric plates or disks, one above the other, and perforated by a correspondingly eccentric hole, the lower plate being provided with a flange or rim raised around its hole in such a manner as to avoid all leakage of ink between the plates, and made to operate substantially as above described.

1,490.—Alarm Whistle.—Noyes D. Lamb & Ansel Clark, (assignees of Noyes D. Lamb), Norwich, Conn. Patented Oct. 3, 1861:
We claim the combination of the mouth-piece, receiving cylinder, and sounding cup or bell, constructed and operating together substantially as herein described.

DESIGN.

1,762.—Brooch.—M. Austine Sneed, Louisville, Ky:

EXTENSIONS.

Direct and Counter-motion Winch.—Charles Perley, New York City. Patented May 29, 1849:
I claim the application of the female ratchet 13, conjointly with the mechanical arrangement of the head or cap, d, with the two reversing pawls, 9 and 10, and lever socket 7, to produce a winch, that shall be worked by a hand-spike or lever, moving in either direction on the winch center, for the purposes and substantially in the manner before described.

Bedstead Fastening.—Devolt Stollmeyer, Hancock, Md. Patented May 29, 1849:
I claim the construction of metallic fastenings for confining the rails and posts of bedsteads to each other, of such forms that when the portions of the fastenings secured in the ends of the rails are inserted into the portions of the fastenings attached to the posts, a blow or downward pressure upon the rails, will cause the ends of the rails to be closely drawn against and secured to the posts; when this is combined with the arrangement by which the elevation of the rails for a short distance will permit them to revolve and detach themselves from the cords or sacking that may be connected to them, and also disconnect the portions of the fastenings projecting from the extremities of the rails from their hold upon the fastenings made fast to the posts, without withdrawing one from the other, substantially in the manner and for the purpose herein set forth.

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