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50,888.—Vegetable Washer.—Francis Arnold, Haddam Neck, Conn.:-claim the arrangement of the grate, C, with the tub, A, and shaft, B, as and for the purpose saccified.

snart, B, as and for the purpose section.

50,889.—Potato Digger.—L. Augustus Aspinwall, Water-vliet, N. Y.:

I claire a vibrating screen of screens, suspended in the rear by hangers from the same line of axis as the plow arms, and in from upon rollers under the plow, the front end of the side bars, which traverse the rollers, being so formed as to give them an upward lifting movement as the screens move from the front to the rear, the screens, when two are used, vibrating alternately with each other.

other.

50,890.—Potato Planter.—L. Augustus Aspinwall, Watervliet, N. Y.:

First, I claim the construction and arrangement of the chambers attached to the revolving plates with their trap valves.

Second, The trip for opening the valves and discharging the

50,891.—Scythe Snaths.—S. B. Batchelor, Lowville, N. Y.:

N. Y.:

I claim a scythe snath constructed of two or more pieces of crooked timber, joined nogether substantially in the manner and for the purpose herein described.

50,892.—Coal-oil Lamp for Cooking Purposes.—Wm.
B. Billings, Brooklyn, N. Y. Antedated Sept. 11,

1865: First, I claim the water bath, B, constructed with the no-chimney armer, for cooking and heating purposes, substantially as described

brief, for the water bath, B, constructed with the hochmines burner, for cooking and heating purposes, substantially as described and set forth.

Second, The insulation of the water bath, B, from the oil vessel, A, substantially as described and for the purposes set ferth. Third, The wick tubes, c and d, rastened and attached to the water bath, B, the whole being separate from, yet adjusted to, oil vessel, A, substantially as described and for the purposes set forth. Fourth, The slots or notches, e e.e. in the wick tube, c, or their equivalent, when used with the slide water sinks, d. d, and water bath, B, arranged and connected substantially as described and set forth.

50,893.—Ejector for Deep Wells.—John Bleckie, Wash-

50,893.—Ejector for Deep Wells.—John Bieckie, wasnington, D. C.:
First, I claim a pump consisting of a series of chambers in combination with the sectional tubes, E. provided with valves, e, and one or more tubes constructed and arranged to operate substantially as and for the purpose herein set rorth.

Second, I claim the process or method herein described, of elevating liquids, by means of an alternate pressure in one set of chambers, in combination with a vacuum in the corresponding chambers, or by means of a pressure in one set of chambers alternating with the removal of the atmospheric pressure in the other

set of chambers.

Third, in combination with the pump herein described, I claim the use of heated air as and for the purpose set forth.

Fourth, In combination with the pump, constructed as described I claim the use of a steam jet for the purpose of exhausting the antherefrom substantially as set forth.

50,894.—Fruit or Step Ladder. -W. E. Bond, Cleveland

bu,894.—Fruit or Step Ladder. -W. E. Bond, Cleveland, Ohio:
I claim the chords, A, and arches, P, in combination with the steps, A', constructed and arranged in the manner and for the purpose set forth.

Second, I claim, in combination with the above, the making the steps narrowed in the rear than in front, in combination with the chords, substantially as and for the purpose set forth.

50,895.—Drying Apparatus.—Daniel K. Boswell, Corinth, Miss.:

inth, Miss.:

First, I claim a drying house or apartment comprising a central chamber, B, and one or more wings, A. C, hinged to said chamber and mounted on suitable wheels or casters, e, for the purpose of ready access to the apartment and easy removal from place to place.

Second, The suit of vertically separated chambers or compartments, A. B. C, capable of being readily unshipped from one another

ments, A'B C, capable of being 'readily unshipped from one another for the purpose set forth.

Third, 'Be arrangement of furnace, or heater, Q, T, R', R', P', placed centrally of the apartment and near the floor thereof, air inlets, K, and deflector, S, for the equal heating and venilation of every part of the apartment in the manner set forth.

Fourth, The arrangement of connected valves, J and L, for simultaneous floor and ridge ventilation.

Fitth, The arrangement of flexible rod, H, link, C, and hole, C', for the ready hanging and unhanging of the clothes, in the manner explained.

explanes.

50,896.—Tool for Removing Obstructions in Oil Wells.—
William Broowden, Whites Corners, N. Y.:
I claim a cylindrical tool, A. B., having a flaring mouth, a', and taper core, a', in combination with metallic balls, C, or equivalent for the purpose and substantially as described.

50,897.—Pen Holder.—Frederick Brackett, Calais, Maine.

Antedated, Nov. 5, 1835:
I claim the construction of the doubletube pen-holderattachment de and the adjustable spring guide rod, fg hi, combined with a ordinary pen handle, substantially as set forth, shown and described

50,898.—Adjusting the Packing of Pistons in Deep Wells.—Erasmus D. Brown, Buffalo, N. Y.:
I claim so constructing the lower end of the screw follower, D, and the upper end of the foot valve, E, as that they may be coupled together and the packing adjusted through the pump rod, in the manner and for the purposes substantially as described.

50,899.—Claw Bar.—George Brownell, Mitchell, Ind.: claim, First, The bar, A, in combination with the rib, C, and ckle. E F G, as and for the purposes set forth. cond. the combination of the snackle, E F G g, with the shouls, D, and bar, A, when constructed and arranged to operate as legied

explained.

50,900.—Shingle Machine.—John A. Burnap and James
H. Melick, Albany, N. Y.:
Weclaim, First, The apparatus for working the dogs, to wit: the
bars, b b d d, the slots, g, pins, p, springs, i, and the stops, M, constructed and operating together as described.

Second, The apparatus formoving the carriage, C, to and from the
saw, S, to wit the shaft, N, with the cog wheels, F, rack teeth, y,

of the carriage, the weight and cord or chain Z, the coupling clutch, Q, wheel, R, bell cranks, L and V, tripping arm, h, with its adjustable plate, W, springs, f and u, and tripping pln, w, constructed and operating together as described.

Third, The apparatus for canting the bolt bed, to wit: the bell cranks, J and k, with the pins, m and n, guide groove, p and tripping pin, Y, constructed and operating together as described. Fourth, The combination of the apparatus for working the dogs, that for moving the carriage to and from the saw, and that for canting the bolt bed, substantially as the same is described and set forthin the within specification.

50,901.—Hair Restorative.—R. Wilson Carr. Baltimore

Md.:
I claim combining the expressed juice of the onion with the alcoholic tincture of the residuum or pulp thereof, as above set forth, and flavoring the compound with the oils of rosemary, lemon, and bergamot, as herein described, and also using the same as a hair preserver and re torative, as herein specified.

50,902.—Mode of Operating Oil Wells.—Paul Casamajor, New York City:
I claim the within-described method of operating oil wells, by extending from the main well, A, a series of radiating drills or channels, d, in a horizontal or inclined direction, substantially as and for the purposes set forth.

50,903.—Mode of Operating Oil Wells.—Paul Casamajor, New York City.:

I claim an oil well composed of a main shaft, which terminates at a suitable distance above the rock containing the oil, and from which galleries extend in a horizontal or oblique direction, in combination with drills sunk from said galleries in a vertical or oblique direction, substantially in the manner and for the purpose set forth.

direction, substantially in the manner and for the purposeset forth.

50,904.—Boot Crimp.—Abram and George W. Caywood,
Ithaca, Ohio:
First, We claim the combination, substantially as described, of a
jointed or hinged form, operating in conjunction with a hinged and
yielding moid.

Second, A boot crimp, composed of a mold having the pair of
hinged cheeks, J and J, having a flexible and adjustable connection,
when combined with a hinged form, A B, in the manner set forth.
Third, The arrangement of rod, I, and hinged form, A B, as described.

-Apparatus for Carbureting Air .- John Chase,

50,905.—Apparatus for Carbureting Air.—John Chase, Windsor Locks, Conn.:
I claim the chambered wheel, B, constructed, arranged, and operating substantially as described, for the purpose specified.
50,906.—Drinking Cup for the Sick.—Martha P. Codman, Boston, Mass.:
I claim the application of a tube to a drinking vessel, constructed with a partial covering, as described, in the manner substantially as described.

50,907.—Betort for the Manufacture of Prussiate of Potash.—D. B. Coles and A. D. Coles, Newark, N. J.:
First, We claim the double V-shaped ribs, b, arranged in the interior of the retort, A, substantially in the manner and for the purpose described,
Second, The employment of a cylindrical retort with rounded. second. The employment of a cylindrical retort with rounded orners and tubular gudgeons, substantially as and for the purpose et forth.

[This invention relates to an improvement in that class of retorts which are generally constructed of cast iron or other suitable mate rial, cylindrical, with gudgeons on which it cav be rotated, and of which 's bored outso as to obtain an aperture for the purpose of introducing the charge, or removing the same, when ready.

50,908.—Machine for Attaching Teams to Farming Implements.—Henry A. Cook, Hillsdale, N. Y.:
I claim the combination of the rubber spring compressed between two transversebars, the temper screw for regulating the elasticity of said springs, and the attaching staples and hooks or rings, all arranged to operate as and for the putposes described.

arranged to operate as and for the purposes asserbed.

50,909.—Pocket-book, Port-monnaie, Etc.—B. F. Cowan, New York City:

I claim attaching to port-monnaies, pocket-books, memorandum books, etc., a serrated or roughened metallic strip or plate, or roughened remaing the frame of portemonnaies, etc., substantially as and for the purpose herein shown and described.

50,910.-Packing for Oil Wells.-John R. Cross, Chica-

50,310.—Packing for Oil Wells.—John R. Cross, Chicago, Ill.:
I claim the combination of the pawls, D.D., with or without the wires, a a, pivoted to the ring, A, to form a toggle joint fibrous packing, C. and ring, A, with suspension rods or wire ropes, f.f. arranged and operating substantially as and for the purposes shown and described.

and described.

50,911.—Pump.—William H. Culp, Hammondsville, Ohio:

I claim the piston head, C, in combination with bolts, F, and hollow piston rod, D, substantially in the manner described. Second, The piston head, C, constructed and operating substantially in the manner and for the purposes herein set fortb.

50,912.—Bellows.—George W. Dalbey, Wheeling, West Va:

Va.:

I claim the combination and arrangements of the parts, consisting of the box, A, with its perforated and valved partition, the valve plunger, D, weighted plunger, C, and springs, e, the motion being derived through the lever, H, and frame, E Fij, substantially as described and represented.

[This invention relates to certain improvements in the construction of that class of bellows used by smiths and in smelting houser etc., whereby the same can be easily operated, and will insure a continuous blast.l

50,913.—Grain Separator.—John Davis, Alleghany City, Pa. Antedated, Nov. 2, 1865:
I claim the arrangement of the fan. p, screens, u, and m. distributing cone, K. and hopper, b, furnished with lugs, n, screws, c, flange, i', and part, j, the waole being constructed, arranged, and operating in the manner and by the means described, and for the purpose set forth.

set forth.

50,914.—Grain Drill.—John Davis, Alleghany City, Pa.

Antedated Nov. 2, 1865:
I claim the arrangement of the supports, m, hangers, q, wheels, 65432 and I, used in connection with the rollers, A, sheath, B, and hoppers, h and h?, the whole being constructed, arranged, and operating substantially as herein described and for the purpose set forth.

50,915.—Corn Planter.—John Davis, Alleghany City, Pa. Antedated Nov. 9, 1865.

I claim the arrangement of the pieces, g.g, hoppers, h. h, teeth, ff, with extension, p., scrapers, 11, shaft, j. rollers, x.x., sheaths, y', y', wheels, q and r. and index, m, the whole being constructed and arranged substantially in the manner herein described and for the purpose set forth.

50,916.—Broadcast Seeder.—John Davis, Alleghany

So, Fig. — Broacasts Secter.—John Bavis, Allegni City, Pa. Antecated Nov. 5, 1865. 1 claim the use of gum or softleather strips placed in the groof seed rollers, used in connection with a hopper and driving a for operating sact rollers, substantially as herein described and the purpose set forth.

the purpose set forth.

50,917.—Thread-waxing Attachment for Sewing Machines.—Job S. Dawley and John Bloeher, Buffalo, N. Y:
We claim, First, Maintaining, by a proper feeding device, a supply of wax in a liquid or semi-liquid state, at or near the needle fireat, for the purpose and substantially as herein described.

Second, The combination with the wax-holding cylinder or reservoir of a movable piston or bottom, for the purpose and substantially as herein described.

Third, The combination with the cylinder and piston of automatic wax-feeding mechanism, operating in the manner and for the purpose described.

Fourth, The wax receptacle, (3, formed at or near the needle-throat, for the purpose set forth.

pose described.

Fourth, The wax receptacle, f3, formed at or near the needle-throat, for the purpose set forth.

Fifth, The wax receptacle, f3, in combination with the closed shuttle, D, for the purposes and substantially as described.

50,918.—Wagon Shaft Shackles.—Ferdinand Dickenson, Jr., Hartford, Conn.:
I claim a tapering bolt, c, having the screw cut the entire length, in combination with the hinge straps, a b, washers, e x, and nut, i, substantially as and for the purpose described.
50,919.—Tubular Apparatus for Deep Wells.—M. J. Dickerson, Titusville, Pa., and Jacob Stubor, Utica, N. Y.:
We claim, First. The formation of a surface-water chamber, separate from the eduction tuke, by means of the application and use of a packing tube, C. driving tube, A. and seed bag or other packing, D. for the purposes and substantially as described.
Second, The combination and arrangement of a steam pipe, J, stop cock, K, and packing tube, C, substantially as described.
50,920.—Bedistead.—J. P. Dorman. Galesburg. Ill.:

50,920.—Bedstead.—J. P. Dorman, Galesburg, Ill.: 50,920.—Beastead.—J. P. Dorman, Galesburg, Ill.:
I claim the c nstruction of a bed having a spiral spring, D, so arranged in companation with the arrangement of elastic india-rubber springs, C, head piece, A, pulley wheels, a, and a', cord, c, and framing, b', whereby a soft and easy motion is given to the bed, substantially in the manner and for the purpose set forth.

Second. The arrangement of the treadle, d, and cord, d', with the framing, b', in combination with the india-rubber springs', C, and solvent springs, D, substantially in the manner and for the purposes set forth.

set forth.

Third, The arrangement of the chair, H, chamber, h, and leg, f, in combination with the head or foot pieces. A and B, substantially in the manner and for the purposes set forth.

50,921.—Beefsteak Crusher.—James J. Doyle, Sharon, Conn.:
I claim a beefsteak crusher formed by combining the cylinders, E and H, constructed substantially as described, with each other, and with the frame, substantially as described, and for the purpose set forth.

(This invention consists in combining with each other two cylin ers covered with teeth, in the form of truncated square pyramids The teeth are arranged in rows, and are at a distance apart about equal to the base of the truncated pyramids or teeth. These teeth mesh into each other, and, as the beefsteak is passed between the cylinders, it is crushed and made tender without having its grain destroyed, its juices expelled, or being mangled and reduced to a shapeless and unsightly mass.]

50,922.—Washing Machine.—James K. Dugdale, Rich-

0,922.—Washing Machine.—James K. Duguale, Kich-mond, Ind.:

First, I claim the arrangement and combination of the frames, B and C, with the guides, D, and washboards, E and F, as and for he purposes set forth.

Second, I also claim the device, K, in combination with frames,

the purposes set forth.

Second. I also claim the device, K, in combination with frames,
A B and C, and washboards, E and F, as and for the purpose specified.

fied.

50,923.—Nut Machine.—George Dunham, Unionville, Conn. Antelated July 1, 1865:
I claim the yielding clamp, B, composed of jaws, a a, grasping the rod or mandrel, C, so arranged in a nut machine that when the mandrel shall fail, by the wrong presentation or fully shape of a nut, to enter the hole in the same, the clamp, B, shall recede in the stock, A, by the creapse of the springs, D D, and the mandrel be saved from fracture or deflection, the whole arranged as described and represented.

50,924.—Stovepipe Thimble.—Samuel Eddy, Brooklyn, N.Y. Antedated Nov. 2, 1865: I claim the horizontal annular flange, A, ring, B, passages, D, guards, E, and pipe, C, combined to form a ventilating stovepipe ring, made in the manner and for the purposes herein specified. ring, made in the manner and for the purposes nerem specimed. 50,925.—Bale Hoop Strainer.—Edward A. Field, Sidney,

50,929.—Bate Hoop because.

Me.:

I claim the bale hoop strainer, composed of the holding bar, B, the lever, A, the passage, b, and the law, c, arranced and applied to gether substantially as described.

I also claim the combination of the cushioning block, d, the lever, A, the passage, b, and the law, c, and the holding bar, B, the whole being arranged to operate substantially in manner and for the purpose as specified.

Fly Brush for Tables.—Henry Fisher, Canton.

Ohio:

I claim the arrangement of the upright, B. arm, C. pendant, D. cord, F. pulley, C. and treadle, G. the several parts being constructed as and for the purpose specified.

as and for the purpose specified.

50,927.—Buttons.—Henry Gerner, New York City:
First, In buttons having a spring to torce the detachable disk against its locking device, I claim the central fixed disk, B, constituting an abutument for the spring, and separating the latter from the button-hole portion of the garment, substantially as described.

Second, I claim the combination of the disks, AB, and shank, D, with the washers or springs, b, and detachable disk, C. the whole being arranged and employed in the manner and for the purpose specified.

50,928.-Water Wheel.-Uriah H. Goble, Dubuque,

I claim a horizontal water wheel provided with buckets, c, which are curved spirally in the manner shown so as to have a concave face side and an inclined surface, both longitudinally and transversely, and projecting below the rim, a', of the wheel into the space inclosed by the curb, in such a manner as to give the water a direction toward the outside of the wheel, substantially as and for the purpose herein set forth.

purpose nerein set forth.

50,929.—Puddling Furnace.—Daniel Hall and Joseph Hall. Wheeling, West Va.:

We claim, first, in furnaces for boiling and puddling iron and other metals, surmounting the iron chamber or basin with fire brick, substantially as above shown. Second, We also claim surrounding the basins of iron furnaces with a tube or tubes through which water is forced against the exteriors of the basins, substantially as and for the purpose above described.

riors of the basins, substantially as and for the purpose above described.

Third, We also claim placing the door frame of the furnace inwardly as above shown, whereby the iron chamber or basin is made to be in range with the fire chamber, substantially as described.
Fourth, We also claim placing ribs, vertical or otherwise, on the inside or the inclosing or outside plates of iron furnaces, so as to form air flues for the purpose of keeping the bricks and plates cool, and for strengthening the plates and for preserving the furnace, substantially as described.

{The object of this invention is the improvement of furnaces for coiling, puddling, and heating iron and other metals. It consists in several novel features, among which are surmounting the usual iron basin with fire brick; also surrounding the exterior of the ba-sin with a perforated water tube, from which water is ejected or thrown against the sides of the basin at the pleasure of the workman; also, forming air flues around a furnace between the outside plates and the brick walls, by making vertical ribs on the inside of the plates 1

50,930.—Cultivator.—Starkey Hall, Russellville, Ky.:
I claim the combination in a cultivator of laterally adjusts
plows, with a longitudinally adjustable harrow, having a rigid
tachment to the rear of the frame, when constructed, arraig
and opera ing substantially in the manner and for the purpose
forth

50,931.-Reversible Latch.-Edward Halley, Branford,

Conn.:

Claim constructing the latch bolt of the form substantially described, so as to be reversed without withdrawal from the case combination with the slide or key, a, or its equivalent, in the m ner and for the purpose specified.

50,932.—Deep-well Pump.—S. Emilius Hewes, Albany, N. Y.: N. Y.:
I claim, First, In pumps for deep wells, securing the pump cyliner at top and bottom to the well tube, substantially as above decribed

scribed. Second, I also claim extending the lower section of the well tube below the pump cylinder to the bottom of the well, and perforating its sides occasionally throughout its length, to admit gas and liquid to the pump, substantially a shown and described.

Third, I also claim bringing the lower part of the piston, below the seat of its valve, to a sharp edge, substantially as and for the purpose above described.

Fourth, I also claim the arrangement of the hollow piston rod piston valves, and cylinder, constructed and operating as described so that the upward and lifting and downward and discharging actions and operations are alternate and distinct.

50,933.—Cooking Range.—Maurice C. Hull, New York

10,933.—COOKING MARGO.

City:
I claim. First, In the plate, q. introduced in the air space around the sair plate and fire pot, in combination with the deflecting plates, is s, to cause the air to circulate through said space, in the manner and for the purposes set forth.

Second, I claim the openings, 3 and 4, at the bottom of and in combination with the flue, n, substantially as and for the purposes

set forth.

Third, I claim forming the water heater lower at the front portion, as seen at w, in combination with the feeding chute, x, as and for the purposes specified.

Frough 1 claim the flue pipe, u, passing from the ash pit up through the hot air space and plate, h, in combination with the regulating damper, v, at the upper end, for the purposes and as set footh.

forth.

Fifth, I claim the ascending flue, n, between the oven, i, and the firereceiving the products of combustion from the flue at the bottom of the oven and conveying the same away by the escape, n', at the back, as set forth.

Sixth, I claim the flue, n, in combination with the oven, i, and air space, o. around the fire pot, whereby the air to be heated is prevented from cooling the oven, as set forth.

vented from cooning the oven, as set forth.

50,934.—Device for Opening Artesian Wells.—Edgar
Huson, Ithaca, N. Y.:
I claim a tube, E, in combination with an opening point, A, to
which a grooved shank, F, is attached, provided with a slot, C, all
arranged and operating in the manner described.

50,935.—Apparatus for Evaporating Liquids.—James J Johnston, Alleghany City, Pa. Antedated Nov. 2

1865:
I claim, First, Applying heat by means of steam or heated air, separately or combined to the upper and lower surfaces of oil or other liquid, substantially in the manner and by the means herein described and for the purpose set forth.

Second, The use of the adjustable diaphragm, r, in combination with the still, e. and pipe, n. said diaphragm, still, and pipe being constructed, arranged and operating substantially as herein de scribed and for the purpose set forth.

scribed and for the purpose set forth.

50,936.—Process for Tanning.—John Jay Johnson, Kal amazoo, Mich., and E. J. Murray, Wyoming, N. Y. We claim the successive compositions of ingredients used in the liquors for soaking, removing the hair or wool when required bating, and the tanning ozes, in the proportions and manner substantially as herein specified, to compose one complete tanning

process.
We also claim specifically the use of oatmeal, or its equivalent starch, in the compositions and proportions of ingredients, substitutly as herein set forth.

tially as herein set forth.

50,937.—Puddling Furnace.—Philip Keenan, Chartier Township, Pa., and Edward O'Connor, West Pittsburgh, Pa. Antedated Aug. 26, 1865:

We claim the use of the ingredients herein named, when prepared and used in connection with puddling or boiling furnaces, for the manufacture of iron, substantially as described and for the purpose set forth.

50,938.—Burner for Gas Stoves.—Thomas J. Kelly, New York City:

York City:
I claim the combination of a vertically arranged diaphragm, d, with the external annular opening, h, as herein shown.

50,939.—Extension Sofa Bedstead.—John Kena, Brooklyn, N. Y.

1911, N. Y. I claim the arrangement of the hinged slats, H H, as a movable edstead, with the grooved bars, C C', when in combination with he sofa, substantially as described and for the purpose set forth.

50,940.—Fertilizer.—Orazio Lugo, New York City: I claim the fertilizer herein described, consisting of leather treated with sulphurio or other acids, boiled, ground and afterward treated with urate of ammonia, substantially as herein specified.

Natural authories substantiany as neven specified.
50,941.—Planking Clamp.—Joseph Macotter, Baltimore, Md.:

Ma.: I claim, in a clamp for planking vessels, the arrangement of the strain bat, A, hooks, B B, knee, C, and screw, D, when constructed and operating substantially as described.

50,942.—Plowshare.—Anton Maschka, Chicago, Ill.: I claim. in combination with the mold-board, O. stand, a, brace, d, the root-cutter, c, when constructed in the manner her set forth.

50,943.—Mechanical Movement.—Silas C. Matteson,
Osceola, Wis.
First, I claim the combination with the double rack bar, A, of the
lever, B, formed with the beveled opening, B', adapted for the purpose explained.

pose explained. Second, I claim the adjustable guides, E E, for steadying the rack bar, drawing its movement, substantially as described. Third, I claim graduating the lever, B, for the purposes herein

50.944.—Water Elevator.—H. H. May, Galesburg, Ill.:

I claim a conte water Eievator.—H. H. May, Galesburg. Ill.: I claim a conte water-tight wheel, p. casing, g. and outer casing, g. as constructed and arranged substantially in the manner and for the purpose herein described. Second, In combination therewith, the spiral position of paddles or buckets, as secured to the wheel by means of stays or plates, B and C, substantially in the manner and for the purpose herein set forth.

rth."
Thir4. The gate, f, lever, f', and pins, f'', and the holes, E'' E'', for fjusting the quantity of water in its passage to the wheel, substandily as described.
Fourth, The air passages, g'' g'', as arranged in relation to the pure wheel, substantially in the manner and for the purpose de-

come wheel, substantially in the manner and not the parpose scriped.

Fifth, Flume or tunnel, D, with its enlarged area for the gates, and the gates, E' E'', as constructed and arranged, substantially in the manner and for the purpose set forth.

Sixth, Cog gearing, D, F and g', in combination with the gate, f, and holes, E, for a better adjustment of the quantity or water in its pa-sage to the wheel, substantially in the manner as set forth. Seventh, Sprouts, a'' c'', and opening, from a' to a'', as constructed substantially in the manner and for the purpose set forth. Eighth, The hinged gate, c, hinged apron, c, and movable portion of casing, as constructed, arranged, and operating in the manner and for the purpose herein set forth.

Mass.:
First, I claim a tanning ooze which is made from the ingredient neeren mentioned, and combined in about the proportions set forth. Second, Subjecting stuffed or unstuffed skins, after they have seen tanned, to the action of steam, substantially as described.

50,946.—Signal.—Albert J. Myer, Washington, D. C.:
I claim the within-described system of signaling, which is c trolled by means of letters, numerals or other characters, up disks that are puttogether in such manner that the relative po-tions of such characters can be changed at pleasure, substantia

50,947.—Splint Plane.—Harrison Ogborn, Richmond,
_Ind.:

Ind.:

First, I claim the arrangement in a splint plane of the plate, K bit, D, and one or more splitting knives, and guide, C, all con gructed and combined substantially as and for the purposes set

forth.
Second, I claim the arrangement in a splint plane of the plate, K, bit, D, beveled guide, C, and one or more bent knives, I, all constructed and combined substantially as and for the purpose set

orth.
Third, The combination of the plane stock, A, and adjustable analde, B, so conscructed with the rod, M, and spring, G and G', as to be capable of being arranged perpendicularly to (wo faces of the plane, substantially as described.

50,948.—Journal Box for Land Carriages.—Ebenezer P. Palmer, Milton, Del.:
I claim constructing the box, A, with a number of partitions, C. so as to shorten the rollers and prevent their jamming when the

substantially as described and for the purposes set forth.

50,949.—Mode of Sinking and Tubing Wells.—G. D.

Pettingill and L. H. Mericle, Cortland, N. Y.:

I claim, First, The combination of the tube, A.C., with the boring tool, B, the operating rod, F, and the cap, D. in the manner and for the purpose substantially as shown and described.

Second, The combination of the strainer, E, with the boring tool, B, the operating rod, F, and the pipe, A.C., in the manner and for the purposes substantially as shown and described.

50,950.—Condensing Milk.—Julius R. Pond, New Hart-

10,950.—Condensing Milk.—Julius R. Fold, New Hairford, Conn.:

I claim employing oleine, or its equivalent, for the purpose of puting the interior surface of a vessel used for condensing milk
whether the milk is or is not heated preparatory to running it into
uch vessel, into the condition above described, so that after such
ound tion is attained, daily applications of oleine are not required,
substantially as and for the purposes set forth

50,951.—Knife Sharpener.—D'Arcy Porter, Cleveland,

Ohio:

I claim the arrangement of the plates or cutters, b b, in combination with the butten, D, and block, A, in the manner and for the purpose substantially as set forth.

50,952.—Horse-shoe Calks.—Isaac R. Potter, Dartmouth, Mass.:

mouth, Mass.:
Iclaim the wedge-shaped calks, in combination with the tapering sookets, in the auxiliary shoe, substantially as described.
50,953.—Coal Scuttle—Henry S. Pratt, Hartford, Conn.: I claim as a new improved article of manufacture, a coal scuttle, the combination of the base, D, rim, E, and body, A, constructed substantially as described.

substantially as described.

50,954.—Grain Planter.—Neal H. Purcell, Avon, N. Y.:
First, I claim the beam, e, or beams, e e, with their attached drill
plows and shares, and hole or orrifice for the passage of the tube, i,
when the said beam is adjustable laterally and vertically, substantially in the manner set forth.

Second, I claim the movable grain-box, K. K. in combination with
the diaphragms, m. m. and tubes or pipes, 11, when constructed and
arranged substantially as described.

Third, I claim the adjustability of these boxes transversely to the
line of motion of the machine or planter, in combination with the
lateral adjustability of the beams, e e, as set forth, forthe purpose
of regulating the width of the drills from each other.

50.955.—Machine for Making Chair Seats.—Ezra Ransom, Flint, Mich.:

In a machine for making chair seats, I claim the arrangement consisting of the parallel formers, N N, actuating vertically one side of the carriage, C, upon the axis formed in the slideway, B', the carriage motion being derived from a feed screw, M, traversing in the sectional nut, G, which is released by the contact of the lever, F, with the adjustable stop, I, as described and represented. 50,956.-Harvester.-Samuel Ray and Eli Grant, Alli-

50,956,—Harvester.—Samuel Ray and Eli Grant, Alliance, Ohio:
We claim the link, P. and lever, R., in combination with the rods, m., and shoe, G., substantially as and for the purpose set forth.
Second, We claim the adjustable brace, D, in combination with the shoe, constructed and arranged as and for the purpose set forth.
Third, W3 claim the sleeve, B, and brace, D, in combination with the shaft, C, and ara, F, constructed and arranged substantially as and for the purpose set forth.

50,957.-Mold for Enema Syringes.-Francis B. Rich-

I claim, in molds for making elastic bulbs of enema syringes, etc the use of a core or mandrel having a firm and permanent bearin the use of a core or mandrel having a firm and permanent bearing therein, so as to insure the formation of a true and symmetrical neck and orifice to the bulb, as set forth. 50,958.—Malting Apparatus.—Michael Riley, Morrow,

Ohio:

First, I claim the arrangement of vat, A, steam space, D, and gitator, J R R, or their equivalent, for the purpose set forth.

Second, The arrangement of adjustable feathwing blades, K K K, for the purpose set forth.

Second, the arrangement of adjustance reaching blades, it is K. K. for the purpose set forth.

50,959.—Harvester.—E. P. Russell, Manlius, N. Y.:
First, I claim the angular diagonal spring draw-bar, De, serving as a hinge for the cutting apparatus to turn on, as a flexible brace and support for said apparatus to rest and move upon boddy, and also as a draw bar, substantially as and for the purpose set forth. Second, The Vapring, E. E2, constructed and applied to the harvester frame and cutting apparatus, substantially as and for the purpose set forth. Third, The combination and arrangement of the spring, E. E2, angular hinging an bracing spring draw-bar, and the cutting apparatus of the harvester, substantially as and for the purpose set forth. Fourth, The combination of the bar, H, arranged and operating as described, with the cutting apparatus and devices upon which said apparatus is suspended, substantially as and for the purpose set forth.

forth. Fifth, The bar, H, attached to the hinge of the cytting apparatus by one of its ends and fitted to a slotted plake, J, by its other end, and operating in the manner described, all for theipurposeset forth 50,960.—Apparatus for Ventilating Railroad Cars.—Thomas H. B. Sanders, Pittsburgh, Pa.: I claim creating a current of air in railroad cars, for the purpose of ventilation, by means of a fan blaced in a case or box and operated by a vane, substantially in the manner hereinbefore described.

scribed.

Also the combination of a fan blower, operated by a vane in the manner substantially as hereinbefore described, with a stove, for the purpose of causing a circulation of warm air in railroad cars.

the purpose of causing a circulation of warm air in railroad cars. 50,961.—Wool Washing Machine.—Charles G. Sargent, Graniteville, Mass.:

I claim inconnection with the squeeze rollers of wool washing machines first, in combination with the top roll of the pair, a revolving beater for knocking off any wool that may adhere thereto, substantially as described.

I also claim the combination and connection of the beater and top yielding roll with the frame, and with the weighted levers, E, as and for the purpose substantially, as herein described.

I also claim in combination with the squeeze rolls and beater, arranged and operating substantially as herein described, the upward inclining apron, as and for the purpose described.

50,962.—Tobacco Pipe.—Frederick Shulte, Philadel phia, Pa.:

phia, Pa.:

I claim, First, The detachable corks or plugs, i, and i', combined the stem of a pipe and adapted to longitudinal openings, ee' and e', in the same, substantially as described.

Second, Corrugating the interior of a pipe stem, for the purpose

set forth.

50,963.—Churn.—R. L. Shute, Philadelphia, Pa.:

I claim the combination with the box, B. of the churn, of the beaters, C C, perforated near the outer edges, and the beater, A, loaded at its outer edge and perforated near its shaft, the sad beaters, C C and A, being arrange dradially upon a horizontal shaft, substantially as above described.

50,964.—Family Laundry.—Hamilton E. Smith, Cincinnati, Ohio:

cinnati, Ohio:

First, Ventilating a dry house or chamber from the bottom, substantially in the mann'er and for the purpose specified.

Second, The drying chamber, B, having a smoke fine, C, and a descending vapor duct or passage. E, which flue and duct discharge into common chimney, D.

Third, Heating the drying chamber and the wash water by a single Iurnace, A, in the manner substantially as set forth.

50,965.—Process for Preserving Animal and Vegetable Substances—Francis Stabler, Baltimore, Md.: Iclaim preserving animal or vegetable substances used for food when wholly or partially desicated by scaling it up in air tight vessels, and expelling the air by the substances of gas that will not support combustion, substantially as described.

50,966.—Valve Gear for Steam Engine.—Wm. H. Stanton and A. D. Spencer, Dunmore, Pa.: First, We claim the rocker arm, G. applied and operating in combination with the valve, substantially as and for the purposes set forth.

Also the combination of a supplementary graph.

This invention consists in the employment or use of a slotted rocker arm, being connected either to the main rod, parallel rod or crank, in combination with a rod which forms the connection between a slide moving in the slot of the rocker arm and between the volve rod, in such a manner that by adjusting said slide in the rocker arm the motion of the valve is regulated and that the valve at each end of its stroke remains stationary for a short space of time, giving a full head of steam as the crank passes the half

50,967.—Method of Sinking Wells.—R. H. St. John, Belletontaine, Ohio:
I claim the construction of the boring device, Bab, and tube, Ac, substantially as described, and also in such manner that the two parrs are permanently connected together, and the tube constitutes both the penstock and the stem, substantially in the manner and for the purpose sectorth.

50,968.—Clothes Dryer.—George F. Tilton, Salem, Mass. Antedated, Nov. 1, 1865:
I claim a clothes airer to be attached to the wall of a room, consting or a semicirce of radial arms, e, semicircular blocks, C and D braces, f, and upright, B, substantially as and for the purpose described.

scribed.

50,969.—Gearing for Harvester.—Alanson Warner,
Ontario, N. Y.:
I claim the separate or independent axles, C C, provided with
the bevel wheels, D D, in connection with the wheel, E, placed
loosely on said axles and provided with two or more bevel pinions,
F, jarto which the bevel wheels, D, gear, substantially as and for the
pose set forth.

50,970.—Tatting Shuttle.—Joel Sylvester Warner,

Ogdensburg, N. Y.: I claim the tathing shuttle, as described and represented, as an article of manufacture.

50,971.—Cotton Press.—Isaac J. Way, Memphis, Tenn.: I claim the cotton press constructed, arranged, and operating as and for the purposes set forth.

and for the purposes set torth.

50,972.—Railroad Switch.—Albert Watson and George W. Miller, Spring field, Mass.:

First, We clain the sliding piece, B, when used in combination with a chair, A, and the rails, m m'm", substantially in the manner and for the purpose set forth.

Second, The combination of the shaft, D, and pinion, C, with the block, A, and slide, B, substantially in the manner, and for the purpose set torth.

Third, The combination of the shaft, F, cam, G, pin, H, with the block, A, and slide, B, substantially in the manner and for the purpose described.

purpose described.

50,973.—Washing Machine.—John Weiting,
Ohilo:
I claim the swinging semicylindrical tub, A, hung eccentrically as a, and lawing journaled sightly within and concentre with its concavity a series of rollers, E, the same being combined with the stationary pendant rubber, C, covers, F F, and projections, I f, substantially as set forth.

Secretary for Buttons.—Elonzo S. Wheeler,

Westport, Conn.:
I claim a new composition of shellac and barytes, in such proportions as will produce huttons and other arricles with a high degree of polish, substantially as described.

degree of polish, substantially as described.

50,975.—Quartz Crusher.—James D. Whelpley, and Jacob J. Storer, Boston, Mass.:

We claim, First, The fixed disk, K, between the revolving part of the mill and the exit side of the case, substantially as set for h and for the purpose described.

second, the raunal partitions, L, in the space, W, between the disk, K, and the side of the mill, substantially as and for the purpose described, with or without the plate or disk named in the arst cann.

poss described, with or without the plate or disk named in the first cann.

50,976.—Process for Uniting Cast Steel or Cast Iron with Wrought or Cast Iron Surfaces.—James D. Whelpley and Jacob J. Storer, Boston, Mass.:

We claim, First, Covering with some meta, not easily oxidized, iron cores, either wrought or cast perforated dates, wire or brass, when it is desirable to coatsuch cores with or firmly attach them to castironor steel, previous to pouring upon the molten metal, and for the purpose or permanently and solidity co meeting wrought or cast iron cores with cast iron or cast steel, substantially as and for the purpose described.

S cond, The use or glycerine solutions of cyanide or chloride of copper or silver, rendered alkaline by alkaline cyanides and chorides and of enemically analagous solutions of on and other metals for the purpose of depositing the tim, not easily oxidizable metallic film required in this process.

Turd, The alloy of tranklinite metal, itself an alloy of zinc, manganese and iron, with common cast iron in the proportions of from ten to twenty per cent, or the latter, asso similar alloys of iron with zinc molybelenum rungsten, itanium, manganese and other metals when the proportions of manganese indicated in the above alloy, are placed by equivalent proportions of metals of like properties in their alloys with iron. Fourth, we claim the connecting or cast steel, semi steel and Bessemer steel, so called, to wrought iron surfaces, by use of the process described.

50,977.—Range.—Edward Whiteley, Cambridge, Mass.:

cess described.

50,977.—Range.—Edward Whiteley, Cambridge, Mass.:
1 claim an over flue of an undutating or wave-like torm, substantially as described for the purpose set forth.
1 also claim the arrangement and application of the fire pot, A, having a portion or that side contiguous to the oven left open for the reception of a lining of fire brick, or its equivalent, and constructed substantially as set forth.

50,978.—Cane Mill.—O. E. Woodbury, Madison, Wis.: 1 claim, First, The combination of the levers, J, stirrups, O, and links, N, connected to the standards, D, as and for the purpose described

scribed Second. The arrangement of the rollers, A B, with their respective Second. The arrangement of the rollers, A B, with their respective gear wheels, F G, and side levers, J J, forming by means of tension inks, N, and the improvement of the rollers, B C, a crushing weight apon the cane between the rollers. B C.

Third, I claim attaching the journals of the roller, B, by the stirrups, Q, to the levers, J, at a point between vertical lines passing through the axes of the rollers, B C.

Fourth, The arrangement of the rollers, A B, upon the levers, J, which are connected by links, N N, to the standards concentrically with the axes of the roller, C, permitting the revolution of the levers, J, and their attached rollers backwardly, as and for the purpose described.

Fifth, The combination of the roller, B, with a connecting stirrup rod or frame upon whose pivoted point it has a vibratory motion.

50,979.—Trace Buckle.—H. S. Woodruff, Janesville, Wis.:

Mis.:
I ciaim the trace buckle herein described, the same consisting of the circular unused plate or bar having a tongue or pin, and arranged with regard to the buckle frame attacked to the hame straguous substantially as and for the purposes specified.

50,980 .- Parallel Ruler .- W. L. Woods, Washington,

D. C.:

I claim as my invention, the box or frame, A, the cylinders or solers, F, and the index linger, I, with their constituent parts, combination substantially and for the uses and purpose as abordescribed.

50,981.—Photographic Bath.—Nelson Wright, New York

City:
I claim the rubber packing, D, constructed and operating subtantially as shown for the purpose specified.

50,966.—Valve Gear for Steam Engine.—Wm. H. Stanton and A. D. Spencer, Dunmore, Pa.:

First, We claim the rocker arm, G. applied and operating in combination with the valve, substantially as and for the purposes set forth.

Also the combination of a supplementary crank, a, with the rocker arm, G. main crank, F, and valve rod, e, substantially as and for the purpose set forth.

Stantiany as snown for the purpose specified.

50,982.—Railway Journal Box.—Ranson C. Wright,

Mead Township, Pa.:

1 Mead Township, Pa.:

1 Mead Township, Pa.:

3 All substantially as and for the purpose set forth.

5 All substantially as and for the purpose set forth.

5 On the purpose specified.

[This invention relates to a new and improved axle box which its believed possesses several advantages over those in common use.]

Engine.-George Yellott, Baltimore -Steam

County, Md.:

I claim, First, The cylinder constructed as above described, in two sections of unequal diameter, each section being one-half the whole length of the cylinder, with the end of the section of larger diameter open and the end of section of smaller diameter closed, with a pist on fitted air tight and steam tight in each section, and the two pistons connected by a piston rod; so that when steam is admitted into the smaller section and acts against the piston in that section, the other piston in the larger section may be driven out against the resistance of the atmosphere and the reactive pressure of the steam on the closed end of the smaller section of said cylinder occasioned by said resistance, may be used as the motive power of the engine in the manner and for the purposes set forth in this specification.

Second, I falso claim the cylinder as above described in combination with and placed horizontally on the platform, supported atits outward edge by the wheel resting on the circular rail, and attached to and revolving with the vertical shaft, with the upper and power portions of said shaft working steam tight in the section of seam of the excame of the exhaust steam; said cylinder being placed on said platform, with the closed end of the smaller section perpendicular to the center of motion of said vertical shaft, and brmily attached to said platform, so that it can be made to revolve with it in the manner and for the purpose set forth in this specification.

Third, I also claim said cylinder in combination with the said.

Printy attached to Saat volve with it in the manner and for the purpose set forth in this specification.

Third, I also claim said cylinder in combination with the said platform and vertical shaft with all their appendages as above described, but with said cylinder placed horizontally on said platform and firmly attached thereto with the closed end of the smaller section of said cylinder at a right angle with the radius of the circle made by said shaft in its revolution, in the manner and for the purposes set forth in the reference to drawing, E, in the drawings accompanying this specification.

Pourth, I also claim said cylinder, in combination with the two pistons connected by the piston rod, with the hollow tube in the center of said rod extending through the smaller piston, and connected with hollow spaces in the pistons, said hollow spaces in the pistons being open at the bottom and closed at the top in the manner and for the purposes set forth in the reference to drawing, F, in the drawings accompanying and making part of this specification.

tion.

50,984.—Meat Cutter.—David Bearly (assignor to James J. Hamilton), Newcastle, Ind.:
I claim, First, The combination of the case, A A, and vertical shaft, I, substantially as described and for the purpose specified. Second, The combination of the timnel shaped mouth, B, and propeller shaped screw, F, with its sharp cutting edges, K, substantially as described and for the purpose indicated.
Third, The combination of the propeller-shaped screw, F, the vertical screw shaped shaft, I, the washers, E, knives, G, projections, H, substantially as described and for the purposes indicated.
50,985.—Drilling Machine.—Jesse Button (assignor to himselfand R. F. Hawkins), Springfield, Mass.:
I claim, First, The lightener, consisting of the combination of the springs, A B, and beam, C, with the drill shaft, E, substantially in the manner and for the purpose described.

Second, The automatic teed motion, when constructed and applied to a drilling machine, in the manner and for the purpose herein set forth.

to a drilling machine, in the manner and for the purpose herein set forth.

50,986.—Deep-well Elevator.—Thomas Bryne (assignor to himself and S. S. Smoot), New York City:
I claim. First, The method, substantially as herein described, of accomplishig the two-fold function of elevating the oil and melting the parafin. by means of all, as set forth.

Second, Constructing the valve seat so that they answer the two-fold purpose of a seat for the valve, and also as a valve, substantially as and for the purpose described.

Third, The connection between the conical valve seats of the various valves and the discharge pipe, substantially as and for the purpose described.

Third, An elevator, constructed with one or more valved chambers, and with an outer and inner tube, substantially as described, in combination with a vacuum apparatus and a forcing apparatus, substantially as and for the purposes set forth.

Fitth, The combination of the compressed air chamber and the vacuum chamber, with the elevator, which has one or more working chambers, substantially in the manner herein described and for the purpose set forth.

Sixth. The arrangement of a series of elevators, acting within each other in such a manner that each can act independently of the other, and so that the fluid in each will be acted on by a vacuum and pressure at the same time, substantially as described.

Eighth, Applying pressure to the top of the column of oil within the outer or main tube of the elevator, and, at the same time, subjecting it to the lifting action of a vacuum, by means of an apparatus, constructed and operating substantially as described.

50,987.—Apparatus for Carbureting Air.—John Chase (1982)

status, constructed and operating substantially as described.

50,987.—Apparatus for Carbureting Air.—John Chase
(assignor to S. E. Horton), Windsor Locks, Conn.:
I claim, First, Entirely surrounding or covering the open ends of
the wheel chambers or compariments with a sheet or sheets of wire
gauze, or other suitable open and perforated or porous substance, or
material, for the purpose specified.

Sec on 4. Regulating the amount of gas or other vapor generated
or collected by the operation of the chambered wheel, B, as described, by means of any suitable arrangement of devices, connected
at one end with the driving shat of the said wheel, and at the other
with the reservoits or pipe containing such gas or vapor, and operation of the containing such gas or the containing such gas or vapor, and operation of the containing such gas or the containing such gas or

50,988.—Button Fastening.—Florian Dahis (assignor to himself and Francis Thill, assignor to said Dahis and H. B. Voss), Brooklyn, N. Y.:

I claim a fastening for garments, composed of the parts, a and d, held together by the spring, f, taking a notch in the perforater, b, as set forth.

50,989.—Sewing Machine for Working Button-holes,
Etc.—James Emerson, Lowell, Mass., assignor to
himself and C. D. McDonald, Ellsworth, Me.:
I claim, First, The arrangement of the screw, N, and half nut, P,
on the lever, M, when constructed substantially as described, for
the purpose of equalizing the movement of the arm, D, with the loss
of thread each stitch.
Second, I claim the looper, G, when constructed substantially as
described, for making a loop in the thread, so that by passing the
needle through it, as described, the hand button-hole stitch is produced.

needle through it, as described, the hand button-hole stitch is produced.

Third, I claim the method of feeding the work to the needle, by the irregular gear, g, made in the form of a button-hole, in combination with suitable device for passing the needle entirely through the cloth, and then through the button-hole, as in hand sewing.

Fourth, I claim the lateral motion of the table, B. in combination with the arrangement of the needle carrier, E and D, and looper, G, when constructed substantially as described.

Fith, I claim the segment, W, when made with a V-shaped groove, the sides of which are lined with cloth, to prevent the thread from kinking.

one suces or which are lined with cloth, to prevent the thread from kinking.

50,990.—Loom for Cross-weaving.—Conrad Roder (assignor to M. Landenberger), Philadelphia, Pa.:

First, The within-described combination of a shittle, the handle frame. 0, with its eye-pointed guides, n, which carry a portion of the warp threads, and the frame, N, with its eye-pointed guides, n, which carry the remainder of the warp threads, when both a vertical and lateral motion is imported to each trame by the devices herein described, or their equivalents for the purpose specified.

Second, The combination of the said treadle frames, the levers, L and M. and shaft. P, with its projection, i, the whole being arranged and operating substantially as and for the purpose herein described.

50,991.—Steam Gage.—Christian C. Schmidt (assignor to Schmidt and Brothers), New York City:

I claim the combination and arrangement of spring, E, with the intervening spring, F, connecting rod, C, and segment rack. K. substantially upon the principle and in the manner as hereinbefore set forth.

50,992.—Buckle.—C. S. Stearns and Thomas Corey (assignors to themselves and Samuel Boyd), Marlboro', Mass.:
We claim our improved buckle. made substantially as described; that is to say, with its body constructed with the recess and holding lip, and with the tongue formed as a bent lever, in manner and applied to the body, and arranged in such recess, and with respect to the holdinglip, in manner so as to operate as specified.

50,993.—Jacquard Apparatus for Looms.—L. D. Valetton (assignor to himself and H. W. Hensel), Philadelphia, Pa.:

I claim the adjustable arms, M M, with their projections, n n'. combined with the card shaft, G, substantially as and for the purpose specified.

specified.

50,994.—Car Coupling.—E. W. Wilson and J. E. Erwin, Springfield, Mass., assignor to E. W. Wilson:

Springfield, Mass., assignor to E. W. Wilson:

First, We claim a car coupling of one rigid, semi-bell shaped jaw, a a b b, provided with a cavity, C, and lip, d, combined with a vertically yielding semi-bell shaped Jaw, k. K., having an extended leverlike end, m, the said jaws, when together, forming an inclosed cavity, C, and bell-shaped entrance, C U. Figs. 1234 and 6, substantially as shown and described.

Second, We claim, in combination with the bell-shaped jaws, a a K. a movable detachab e bolt, g.g., inserted transversely through the upper law, a a, as shown in Fig. 4, substantially as and for the purpose set forth.

Third, We claim, in combination with the bell-shaped jaw coupling, a a K, the fork-like hooked lifting device, pp, and the link, r, having two hooking ends, s, substantially as set forth, shown, and describe:

50.995.—Sewing Machine.—John Keats and William Ste-

50,995.—Sewing Machine.—John Keats and William Stephens Clark, Street, Eng. Patented in England April 14, 1863:

We claim, First, the combination in a sewing machine of the following instrumentalities, viz., a table on which the material rests and is supported; a recuprocating feeding instrument, to move the material along said table, and a hook, rotating guide, and shuttle to produce a lock stitch with two threads, all operating in combination, substantially asset forth.

Scond, The combination in a machine for making a lo k-stitch of a shuttle and hook, both arranged on the jupper side of the table, substantially in the manner described,

Third, The arrangement of the shuttle and shuttle race of the sewing machine above the table or surface on which the material to be sewed rests.

Fourth, The arrangement of the apparatus herein described for operating a hook, a shuttle, and a feeder from eccentrics in one needle box, as above described.

Fifth, The arrangement of the apparatus herein described, for dividing the loop of thread that is drawn up by the hook, and for spreasing the loop over the shuttle.

Sixth. The arrangement of the apparatus herein described for shortening or lengthening the stitch, and for feeding the work in different directions, in the manner above described.

50,996.—Furnace Grate.—Eugene Langen, Cologne,

50,996.-Furnace Grate.-Eugene Langen, Cologne,

Prussia:
I claim a grate, composed of three or more tiers, in combination with a fire-box and trap grate, constructed and operating substantially as and for the purpose set forth.

[The grate which forms the subject matter of this present invention is so constructed that the fuel is introduced from behind or under the incondescent mass, already in the grate, and, consequent ly, the gases arising from the fresh fuel cannot escape uncon and the air requisite for the purpose of supporting combustion passes through the cold fuel to the incandescent mass, and no por

50,997.—Machinery for Making Fluted Rollers.—William Weild, Manchester, Eng.:
I claim so constructing and arranging the machine as to give the roller which is being fluted both a rotary and a vibratory motion, by the devices herein described and for the purpose described.

REISSUES.

REISSUES.

2,103.—Condensing Milk.—Gail Borden, America, N. Y. Patented, August 19, 1856. Reissued May 13, 1862. Again reissued Feb. 10, 1863:
I claim. First, The within-described process or method of operation for concentrating and preserving milk, by means of concentrating and rearranging the albuminous particles in combination with the evaporation of the fluid in vacuo.

Second, the preparatory coagulating and rearranging of the albuminous particles, when this is done as a part of the operation of making concentrate or condensed milk.

making concentrate or condensed milk.

2,104.—Self-centering Chuck.—George H. and John T. Clark, Meriden, Conn., assignees by mesne assignments of Edgar B. Beach. Dated Sept. 6, 1864:

We claim forming theguides for the longitudically sliding, laws in that part of the chuck by the turning of which the closing of the laws is produced, substantially in the manner herein set forth. Second. The inclined converging guide ways, c, in combination with the laws, C, head, D, and screw spindle, A, constructed and operating in the manner and for the purposes substantially as herein shown and described.

shown and described.

2,105.—Baling Press.—Charles H. Robinson, Bath, Me. Patented January 10, 1865:

I claim as my inventon and improvements in toggle lever presses, fixing the first of the three pivots of the toggle levers or Inks at. to, or near the platen; the second pivot to the follower, and moving the second pivot toward the first, and vibrating the third pivot so as to bring the toggle links or levers nearly or quite parallel in pressing the bale.

Second, I claim working or operating the follower of the press, at the beginning of the pressing operation, and while the cotton or hay is comparatively but little compressed by the direct action of the rope and pulleys, in combination with the subsequent working or operating of the follower, by the toggle links or levers to complete the pressing of the bale or bundle.

Third, I claim working the toggle links or levers by a rope or chain, aranged to run around pulleys at or in the opposite ends of thelevers or links which carry the follower. Boston. Mass.

thelevers of links which carry the follower.

2,106.—Flour Sitter.—Howard Tilden, Boston, Mass.

Patented, May 16, 1865:
I claim, First, A hemispherical or concave sieve, provided with a case frame or other proper support, for the purpose set forth.

Scoond, In contination with a concave sieve, I claim a rotating stirrer for agitating the flour and forcing it through the sieve.

Third, In combination with a concave sieve, I claim a rotaty stirrer, armed and provided with fexible edges or scrapers adapted to press the flour through the sieve of the sifter.

to press the flour through the sieve of the sifter.

2,107.—Shingle Machine.—W. P. Valentine, Fond du
Lac, Wis. Patented March 22, 1859:

First. I claim the carriages, P and P. connected by the spring, L,
and arranged to opere to as and for the purpose hereln set forth.

Scoond, I claim giving to the carriages of a shingle machine a variable feed, substantially as and for the purpose set forth.

Third, I claim the dogs, e. arranged to operate in connection
with the spring, i, and lever, s, or their equivalent, for the purpose
of automatically locking and unlocking the block, as described.

Fourth, I claim the tilting platform, f, in combination with the
shaft, r, provided with the projections, m, arranged to operate as
shown, for the purpose of presenting the block to the saw in such a
manner as to cut the but alternately from opposite ends of the
block.

manner as to cut the but alternately from opposite ends of the block. Fifth, I claim the ratchet wheel, N. arranged to operate in connection with the pawl, t, of the carriage, as shown and described, for the purpose of imparting motion to the shaft, r. and thereby tilt the platform or frame, i, as and for the purpose set forth. Sixth, I claim the double inclined ways, in combination with the carriages, I' and I', when the latter are arranged to operate alternately on opposite sides of a single saw, as herein shown and described.

DESIGN.

2,220,—Trade Mark.—Martin Leippe, Lancaster. Pa.



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CHAS MASON

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office he wrote to us as follows:

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