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4,586.—Ball Screw for Fire-arms.—John J. Aliscs, Washington, D. C.: I claim the nippers, A. A, and gouges, B. B, in combination with the orns, C. Substantially as and for the purpose set forth.

horns, C.C., substantially as and for the purpose set forth.
44,587.—Ejector for Oil Wells.—J. D. Angier & Frederick Crocker. Titusville, Pa.:
Weclaim the discharge pipe with its contraction and open lower end substantially as described, in combination with the blast pipe having its lower end turned up and provided with a nozzle, and inserted in the lower open end of the discharge pipe, and below the contraction thereof, substantially as and for the purpose specified.

44,588.—Fuse for Explosive Shells.—Clifford Arick, St. Clairsville, Ohio:
I claim, first, The formation of au annular fire-chamber within the radius of a Bormann or curved ruse, by combining a grooved head to its screw-pin or by combining the grooved head of a screw-ping with the inner wall of its soft metal case, substantially as described. Second, A packing disk, for an annular fuse having on one side of it the necessary wedge or wedges for packing it, and on the other a magazine, as described.

Third "the combination of an annular fire-chamber, situated."

Second, A packing disk, for an annular fuse having on one side of it the necessary wedge or wedges for packing it, and on the other, a magazine, as described.

Third, The combination of an annular fire-chamber, situated within the radius of a Bormann fuse with an independent primer, so that the flame generated by the primer is instantly injected into such fire-chamber, from whence escaping at the cut it will ignite the fuse, substantially as described.

Fourth, So combining with a soft metal fuse case, a fuse plug, or a concussion or percussion fuse case, as to securely hold the former in the projectile, by the combined action of the screw thread, and flanged head of the latter.

nanged nead of the latter.

44,589.—Composition for Pavements, etc.—Richard Atkinson, Mount Vernon, N. Y.:

I claim combining broken stone gravel, boiling coal tar and by draulic element, in about the proportions specified to form a composition for the paving of highways, carriage ways and sidewalks.

44,590,—Wire Toaster or Broiler.—Samuel Ayres & Henry J. Chamberlin, Worcester, Mass.:
We claim the combination of the collars, bars, and frame, when constructed and operating in the manner and for the purposes above set forth.

4,591.—Method of repairing Casks and Barrels.— Charles A. Baldwin, Boston, Moss.: I claim as a new article of manufacture the chine blank having a ormation, substantially as described.

44,592.—Petroleum Lamp.—Wm. B. Billings, Brooklyn,

N. Y.: claim the combination of all the parts of my burner, in the mner substantially as described and for the purposes represented a set forth.

44,593.—Water Elevator.—J. S. Brown, Washington

D. C.:
I claim the curved link, G. constructed and operating substantially as and for the purpose herein specified.
I also claim the chain, I, or its equivalent operating in combination with the curved link, G. or its equivalent, substantially as and for the purpose herein set forth.

4,594.—Device for transmitting Motion.—John W. Browning, Mattoon, Ill.:

I claim the combination of the cranks, C. F., eccentric, D. shafts, Br. and fly-wheel, G., one or more) constructed and operating in the manner and for the purpose set forth.

44,595.—Churn.—Ebenezer Buel, Sheridan, N. Y.:
I claim, first, In combination with the brackets, F, a rectangular shaped churn with a hollow journal, for the purpose of admitting air into the cavity of the churn, the churn having an inclination upon its axis, the several parts being constructed, arranged and operating as specified.

Second, I also claim in combination with the churn, A, and the frame, B, the brackets, F F, when constructed and used-for the purposes set forth.

poses set form.

41,596.—Faucet.—G. F. Burkhardt, Roxbury, Mass.:
I claim the sleever, B, with handle, C, fitting loosely into the tubu lar socket, A, and operating in combination with the same and with the tube, D, or its equivalent and plug, E, substantially in the man ner and for the purpose herein shown and described.

The object of this invention is a faucet which can be fastened to or unfastaned from the head of a barrel or cask without straining said head by blows and which will be closed, while the faucet is removed ag as to prevent the cask or barrel from getting musty.]

44,597.—Steam Generator.—George B. Brayton, Providence, R. L.:

44,991.—Steam Generalit.—George B. Brayton, Providence, R. I.:

I claim in an apparatus in which steam is generated in tubes having a constant supply of water in combination with said tubes the surrounding of the same with un best capable of being highly heater that complete combustion of the gases emanating from the fuel and while in contact therewith may be effected while its temperature is transmitted to the steam generating tubes, as herein set forth.

44,598,—Steam Generator.—George B. Brayton, Providence, R. I.:

dence, R. I.:

gialum the use of p'ates in the furnace of a steam generating ap aratus, substantially as and for the purpose specified.

44,599.—Steam Generator.—George B. Bravton, Providence, R. I.:

In combination with a steam generator I claim the employment of a vessel substantially as described operating as a steam drum and feed water reservoir, substantially as shown and described.

In combination with the above I claim forming an exhaust steam chamber under the body of the feed-water so that it shall be heated both from above and from below, substantially as set forth.

44,600,--Steam Generator.-George B. Brayton, Provi-

ex, out, --s. reall generator.—George B. Brayton, Providence, R. I.:
In a tubular steam generator substantially as described I claim controlling the supply of water and regulating its action by combining by means of a contracted tube the said generator with a reservoir the water in both being under like pressure, substantially as described.

14,601.—Steam Generator.—George B. Brayton, Providence. R. I.:

I claim the combination of a tubular steam generator with a water

reservoir under the arrangement described so that the water shall be maintained therein at a temperature less than 212° Fah., and be en tered the generator by tending to equilibrate hydrostatic pressure between the generator and the reservoir, substantially as set forth h., and atic pressure

44,602.—Curtain or Shade Fixture.—Wm. Campbell, New York City:
I claim the wedge, E, and pulley, D, in combination with the spring roller, A, all arranged substantially as and for the purpose herein set forth.

This invention relates to a new and useful improvement in that class of fixtures for window shades in which the roller on which the shade is wound is provided with a spiral spring to render the roller self-acting in winding up the shade. This invention consists in a new and improved stop mechanism for holding the roller or preventing it from winding up the shade so that the latter may be held or retained

44,603.-Horse Shoe .-- Morgan Chittenden, Danbury,

Conn.:
I claim as claim as a new improved article of manufacture an animal shoe, upper, a, band, e, sole, b, substantially as and for the purpose as cribed.

44,604.—Loom Shuttle.—Thomas Clark, Ware, Mass.
I claim the weight resting upon the filling yarn within the shu
constructed as herein described and for the purpose specified.

44,605.—Finishing Eaves Trough.—C. A. Codding, Battle Creek, Mich. Ante-dated Sept. 30, 1864:

1 claim the combination with the bed or platform, A, and concaves, B and C, of the adjustably pivoted levers, D, and hooks, E, the whole being constructed and arranged in the manner and for the purpose herein set forth.

the purpose herein set forth.

44,606.—Saw Mill.—Wm. S. Colwell, Pittsburg, Pa., and Utilles Baird, Alleghany, Pa.:

We claim, first. The arrangement of the cone pulley, 10, endless screw, l, wheels 161 23 45 and 6, leaders, 7 and 8, rollers, f and f' constructed, arranged, operating substantially as herein described and for the purpose set forth.

Second, The arrangement of the screw, s, swivel nut, y, disk, rysring, t, strip, g, screw, v, and spring, u, when used in connection with the rollers, f and f', as herein described and for the purpose set forth.

44,607.—Watch.—Simeon Coon, Havre de Grace, Md.: I claim, first, Placing the barrel wheel, A. on the center of the main 'watch-plate, G. and turning the barrel wheel to wind up the watch by means of the hinged stationary winder, B, as herein de-scribed.—

scribed.

Second, I also claim the flanged rim, E, for securing the barrel wheel, A, to the main plate, G, as described.

Third, I also claim attaching the main spring, I, to the center wheel, J, the outer end attached to the rim of the barrel wheel, A. Fourth, I also claim the arrangement and combination of the bar rel wheel, A, hinged winder, B, flanged rim, E, and center wheels, J and C, for winding a watch and setting the hands at the center of a watch.

4.608. —Hinge.— Joseph V. C. Crate, Waterbury, Conn.
I claim a stop composed of a separate metal plate bent or curved
at inserted ints space between the two eyes of the hinge and be
even the pintle and the inner edges of the leaves which abute
rainst said stop, and all constructed and arranged in the manner
bistantially as and for the purpose herein set forth.

This invention relates to a new and improved butt 'hinge and it consists in providing the hinge with a stop arranged in such a man ner as not to augment the cost of construction over the ordinar butt hinge, and still be equally as strong and durable as the ordinar butt hinges without stops.]

44,609.—Sawing Machine.—Jonathan Creager, Cincin

44,609,—Sawing Machine.—Jonathan Creager, Cincinnati, Ohio:
I claim, first, The rests, I, attached at their lower ends to the back of the feeding-table, G, and passing up in rear of the saw, the same being constructed and operating a set forth.
Second, The provision in rear of a circular saw, of the inclined gravitating apron or Tap, M, whose lower edge is connected by means of a hinge, m, to the chute, D, and whose upper edge is supported in mear proximity to without touching the saw blade, substantially as set forth.

44,610.—Lifting Pump.—Frederick Crocker, Titusville

Pa.:
I claim combining with a piston of a lifting pump a sustaining alve, when such valve is placed above, concentric and free to play in the rod of the piston and has its seat in the barrel of the pump ubstantially as and for the purpose specified.

substandary as and for the purpose specified.

44,611.—Weighing Apparatus.—Samuel Darling, Bangor, Maine:

1 claim the improved scale beam as made with a series of separate fulcra and scales of divisions arranged therewith, and to be used with one or more movable weights, and a hod or its equivalent, substantially as explained.

1 also claim the movable beam weight as made with the index arm and so as to straddle and be capable of sliding on the beam, as specified.

specified.

And with the scale beam as made with a series of separate fulcra
and scales of divisions as described, I claim the construction of the
saddle box, x, with the two notches, X S, the same be used in manner and for the purpose as specified.

44,612.—Cooking and Heating Stove.—Henry Decker,

of Duncansyille, Pa.:

First, I claim the combustion chamber, 6.6, formed in front of the fire chamber by the continuation and conjunction of the vertical flues, 4 and 5, with the flue, 6, so as to expose the smoke and gases to an intense heat, and thereby cause them to be consumed before they escape from the stove, substantially as described.

Second, The metallic caps, II and 12, in the front wall of the fire chamber, constructed and applied substantially as and for the purpose described.

oose described.

Third, The combination of the lime drawers, 3 and 8, or either of hem, with the flues of a heating or cooking stove, substantially as lescribed.

[This invention is designed for stoves wherein bituminous coal is ned, although it may also be fitted for other fuel. One of the ob cts of the invention is the consumption of the smoke, and another is the absorption of the carbonic acid gas evolved by the combustion

-Weather Strips .-- Abraham Dodder, of Wash-

44,613.— we show a:
ington, Iowa:
I claim the hinged or pivoted plate upon the door strip or bed of the frame of the door, in combination with the plates or strips attached to the door, the parts being constructed and arranged in relation to each other and operated as herein set forth.

44,614.—Churns.—Harrison Doolittle, of Aurora, Ind.:
First, I claim the arrangement of horizontal dash, B C b b', driving arbor, D d, flaring undercut and grooved recess, a J', and tapering dovetal key. E, the whole being arranged and operating substantially as set forth

stantially as set forth
Second, The arrangement of the removable horizontal brake, L 1,
cavity, M, ledge, N, and pin, O, as described.

44,615.—Folding Paper Collars.—Merriman P. Dorsch, of New York City:
I claim preparing paper collars for making the fold in a curved line, by subjecting the paper, while resting on a table or equivalent surface, to the action of a creasing wheel on a radial vibrating arm, substantially as described.

surrace, to the action of a creasing wheel on a radial vibrating arm, substantially as described. And I also claim comple ing the fdd of paper collars which are folded in a curved line, by drawing them between two rollers which are free to turn on independent studs, when one of the said rollers is shorter than the width of the outer or folded part, substantially as described.

44,616.—Leather-pressing Machine.—Gerhard F. Dresing, of Buffalo, N. Y.:
I claim the iron frame, A, having journal boxes formed in the tothereof, for the support of the upper roller, and slots, g, for grinding the lower roller, and forked fulcrum lever, D, in combination with

the convex and concave rollers, B C, pedal, E, and connecting rod, F, for the purposes and substantially as set forth.

14,617.—Camp Stove.—Jacob Dunton, of Philadelphia,

Fa.:
I claim the hood or casing, B, employed in connection with the boiler, A, to adapt the same to be heated by a fire built upon the ground, and to protect the fire in the manner and for the purposes explained.

44,618.—Machine for Shearing Sheep.—Wm. M. Eccles, of Oberlin, Ohio:

I claim the combination of the cam wheel, the ratchet, the pulley, the cutters and spring as above described and for the purpose set forth.

44,619.—Apparatus for Evaporating Saccharine Liquids.
—George E. Evans, of Boston, Mass.:
I claim, first, The combination of the perforated pipes or their equivalents for conveying steam equally to all parts of the heating clamber with a separate vessel or steam trap, so arranged and operating as to prevent the presence of water in the said heating chamber.

namber. Second, In combination with rotating disks or plates a revolving an or pans, operating substantially as described.

pan or pans, operating substantially as described.

44,620.—Reefing and Furling Sails.—George H. Felt, of New York City. Ante-dated Sept. 25, 1864:

I claim the combination of ropes in form and manner of lacings, for the purpose of reefing and furling sails, the said lacings remaining stationary and the sail being reefed by the yard being lowered, all arranged and combined as specified.

44,621.—Anchor Clutch.—Henry Fleming, of Chicago, Ill.: I claim the bed piece, A, the slide, B, and the prongs. D. when ar-

aim the bed piece, A, the slide, B, and the prongs, D, when are ed and operating substantially as and for the purpose set forth. 14,622.—Furnace-grate Bar.—Henry Gerner, of New

14,622.—Furnace-grate Bar.—Henry Gerner, of New York City:
I claim, first, The groove, a, extending in a longitudinal dection, hroughout the upper edge of the grate bar, A, in combination with he transverse holes, b, constructed and operating substantially as; and for the purpose set forth.
Second, In combination with the aforesaid groove, a, and holes, b, I claim the diamond-shaped corrugated projections. cc, contructed and operating as specified.

[This invention consists in the arrangement of a groove, extending as longitudinal direction through the online upper edge of a greater.

in a longitudinal direction through the entire upper edge of a grate bar, which is provided with holes passing transversely through the same near its uppergrooved edge in such a manner that by the ashes accumulating in said groove, and by the current of air passing through the transverse holes and through the ashes in the groove the upper edge of the grate bar is kept comparatively cool, and the urning out of the same is obviated or prevented.]

44,623.—Machines for Making Bolts.—Moore Hardaway, of St. Louls, Mo.:
I claim the combination of the die box, b, header, k, and clamp dies, dd', in a bolt or rivet-heading machine, when operating in the manner and for the purpose herein set forth.

44,624.—Curtain Fixture.—Stewart Hartshorn, of New

44,624.—Curtain Fixture.—Seeman Tyork City:
I claim a pawl, E, attached to the bracket or other fixture, near a shade roller, to engage with a notched hub, E, attached to one end of said roller, when said parts are used in connection or combination with a spiral spring, C, placed within the shade roller, and all arranged to operate substantially as and for the purpose herein set forth

44,625.—Grain Screen.—James Hatfield and John Wall,

44,625.—Grain Screen.—James Hatfield and John Wall, of Ogden, Ind.:
We claim the hopper, H, and reel, B, when constructed and arranged substantially as shown and described, and operating in the manner and for the purposes set forth.

44,626.—Bucket for Preserving Butter, Fruit, etc.—E. G. Hofman, of St. Louis, Mo.:
I claim the bucket, A B c f d, constructed substantially as herein described, and represented as a new article of manufacture and trade, for the purposes set forth. 44,627.—Pumps.—Benjamin J. C. Howe, of Syracuse,

N. Y.: 1 claim the construction and operation of the valve, c, within a hotow piston, as shown and described.

I also claim the extension of the valve, d, in combination with the liston, b b, and valve, c, substantially as shown and described.

44,628.—Mowing Machines.—M. G. Hubbard, of Syracuse. N. Y.:

I claim the curve, D, in the corner plate, substantially as and for m the curve, D, in the corner plate, substantially as and for pose set forth.

44,629.- Mowing Machines.-M. G. Hubbard, of Syra-

44,629.— Mowing Machines.—M. G. Hubbard, of Syracuse, N. Y.:
I claim the manner of conducting and strengthening the cutter bar, substantially as and for the purpose set forth.
44,630.—Percussion Locks for Discharging Mining Blasts.—E. Hughes, of McCartysville, Cal. Antedated Oct. 4, 1864:
First, I claim the barrel, A, "provided with a hammer, D, tip, B, nipple C, trigger, G, and dog, H, all constructed and operating substantially as herein shown and described.
Second, The combination of the trigger, G, catch, F, and hammer, D, with the prop, I, dog, H, and cord, J, substantially as and for the purpose set forth.

44,631.—Submarine Shot Conductor.—E. H. Hull, of Millersburgh, Ohio:

F.F., when arranged and operating in the manner and for the pursone described.

44,632.—Slide Valves for Steam Engines.—William Huston, of Wilmington, Del.:

I claim a valve, D, with channel d, and apertures, e e'f, arranged in combination with the seat, A, and ports, a a'b b'c, substantially as and for the purpose set forth.

Also, the exhaust, c, applied in combination with condenser exhaust, b'f, and valve, D, or its equivalent, in the manner and for the purpose substantially as described.

This invention consists in a valve with a double exhaust-one into the climney or open atmosphere and the other into a condenser, in such a manner that through the first or ordinary exhaust the pressure of the steam in the exhaust-end of the cylinder is reduced to that of the ordinary atmosphere, or nearly so, and the condensation of the remaining steam can be effected in the same manner and by

the same means as by a common low-pressure-condensing engine.]

44,633.—Machines for Cutting Files.—James Jervis, of Baltimore, Md.:
I claim, first, The combination of the regulator, Y, with the movable conical cam, whereby the thickness of the shape is made to regulate the force of the blow of the chisel.
Second, The combination of the regulator aforesaid with the levers, through the action of which as described in the specification the thickness of the shape is made to impart a lateral movement to the conical cam.

thickness of the shape is made to impart a lateral movement to the conical cam.

Third, The arrangement of the devices, whereby the shape is kept upon the snvil. as described, and the regulator is made to impart a longitudinal rocking motion to the shape, and is moved forward under the chisel, so as to secure a perfect resistance to the blow of the latter, notwithstanding the shape and the flatness of the anvil. Fourth, The combination of the saddle-shaped anvil proper, permitting the screw moving it to be placed beneath it with the rest on which it slides another clasp, if, on the endless screw, T.

Fifth, The combination of the endless screw on bolt, g. Fig. 4, and cogwheel, f, with the regulator, whereby the parallelism of the latter with the edge of the chisel may at all times be secured. Sixth, I also claim the combination of the chisel with the adjusta be clock, D, arranged as described, whereby the tooth of the file may be cut sharper or bluster, as required.

Seventh, I also claim the arrangement of the chisel frame with the

anvil frame, in the manner herein described, by which their distance from each other may be varied as described

44,634.—Working Oyster Tongs.—George Jury, of Baltimore, Md.:

I claim the method above described of combining a common strong barrel as an elevator, with cords and blocks to several pair of rakes, operating and geared as above described, for the purpose of raking oysters with but few hands.

44,635.—Distributing Fertilizers.—Horace M. Keith, of

Pontlice, Mich.:
I claim the cylinder, A, the forked rod, B, the bands, e, and bands, t, the whole arranged, constructed and operating substantially alterin set forth.

herein set forth.

44,636.—Rubbing Seams of Boots and Shoes.—William H. Kimball, of Lynn, Mass.:

I claim the combination of the convex and grooved rolls, when arranged substantially as described, for the purpose of rubbing or pressing down the seams at the heel end and front of a closed boot or shoe upper before the same is bottomed.

I also claim the combination of the cylindrical roller, r, with the hollow open roll, s, in the manner and for the purpose substantially as described.

I also claim the arrangement of the lower roll upon the top of a post (or any arm projecting therefrom) to allow said roll to extend into the inside of the upper, substantially as set forth.

Into the inside of the upper, substantially as set forth.

44,637.—Nail Machines.—Jacob B. Kingham, of East Bridgewater, Mass.:

I claim the combination of the stationary cutter and gripper, I, the movable cutter and gripper, G, the movable cutter, H, the two movable grippers, K N, and the header, R, arranged as set forth, and provided with mechanism for operating them, substantially as specified. And I also claim the combination of the same and the steadying strut, W, the object of the latter being as hereinbefore explained.

And raise calm the continuation of the same and the steadying strut, W, the object of the latter being as hereinbefore explained.

44,638.—Artificial Arms.—John H. Koeller, of New York City:

First, I claim the method or mode of constructing the artificial shoulder joint by means of the collier, A, the ring, B B, and the hoop, D D, sliding or moving on the same, by means of the brackets, E E, together ith the hinge motion of the shell, P, of the upper arm, eliceted by the movement of the stump, and by means of pivots, G G, as hereinbefore set forth and described.

Second, I claim the arrangement and mode of constructing the artificial elbow joint and the following-enumerated parts for effecting the flexion and extension of the forearm, and the alternating right-lined motion of the slide, T, for the flexion and extension of the thumb and fingers, to wit: the bracket, N, the curved hinge link, Q, the rod, R, the link, S, with its hinge, P, the segment of cogweed, II, the pinion wheel, L, the brace, W, the connecting rods, U U, and the slide, T, as hereinbefore fully specified and described.

the silide, T, as hereinbefore fully specified and described.

44,639.—Washing Machine.—C. W. Theo. Krausch, of St. Louis, Mo.:

Iclaim, first, A machine provided with a horizontal rotating shaft, F, having stirring wings on it, operating substantially as described.

Second, The bracket support, E, for the shaft, F, in combination with a vertical turning shaft, G substantially as described.

Third, The combination of a horizontal shaft, F, for the stirrers, a vertical shaft, C, circular rack, a, a bracket, E, and pinion spur wheel, g, arranged and operating substantially as described.

Fourth, The construction of the stirring wings, h, with teeth or other equivalent projection, substantially as secribed.

Sixth, Elevating, and at the same time giving a lateral motion to the matt during the washing process, by means substantially as herein described.

herein described.

44,640.—Apparatus for Bending and Folding Paper Collars.—Wim. E. Lockwood, of Philadelphia, Pa.: I claim, first, The use of two rollers, one having a concave and the other a convex surface, in combination with a reciprocating plate, of a form corresponding with that of the rollers, substantially as and for the purpose herein set forth. Second, Cutting away the circumference of one or both of the rollers at one point, in the manner and for the purpose described.

44,641.—Marine Propeller.—Thomas Mason, Boston, Mass.:
I claim the combination of the feathering fpaddle blades, a, and sprocket chains, b, when the links of the chains (and the blades at tached thereto) are so arranged as to have a horizontal movement between the sprocket wheels, c c, substantially as and for the purpose set forth.

44,642.-Horse-collar Block.-B. W. McClure, Wyoming,

Iowa:
I claim, first, The crossing of the hame cord, H, with its ends at tached to an adjustable bar, I, when said cord is used in connection with the mold-block, B, and rim-setter, C, substantially as and for the purpose herein set forth.
Second, The attaching of the rim-setter, C, to an elastic bar, E, by means of a hinge or joint, D, to admit of the ready manipulation of the rim-setter, as described.
Third, The bar, e, provided with a plurality of legs, f, at each side, when used in combination with the rim-setter, C, and mold-block, B, for the purpose specified.
Fourth, The enlarged stretcher, L, in combination with the nold-block, B, and rim-setter, C, all arranged substantially as and for the purpose set forth.

[This invention relates to certain improvements in a horse block, which was patented Aug. 24th, 1858. The within described invention consists in an improved arrangement of what is technically termed the "hame cord," by which the groove in the collar to re termed the name cord," by which the groovers the colar to re-ceive the hames is made in a more perfect manner than hitherto. The invention also relates to an improvement in the "rim-setter," and certain parts pertaining thereto, whereby the manipulation of the same is greatly facilitated. The invention further relates to an mprovement in the "stretcher," for varying the size of the collar on the block.]

44,643. Ambulance.—Edwin R. McKean, Washington. D. C.:

I claim, first, The false bottom, B, constructed substantially as escribed, and supported upon the rubber springs, a, or their equiv-

I claim first. The take become described, and supported upon the rubber springs, a, or end of described, and supported upon the rubber springs, a, or end of alents.

Second, I claim the roller, F, arranged to operate as described, whether the same may be attached to the false bottom, B, or to the bottom of the body, A.

Third, I claim the stretcher, D, provided with the roller, E, and hook, c, or its equivalent, when constructed and operating as and for the purpose herein set forth.

Fourth, I claim providing an ambulance with a water vessel, having tubes so arranged that the occupants can supply themselves at pleasure.

Fourth, I claim providing an amount of which a water vector ing tubes so arranged that the occupants can supply themselves at pleasure.

Fifth, I claim arranging a fan in connection with an ambulance in such a manner as to supply a current of air to the occupant.

Sixth, I also claim constructing the sides of the body of an ambulance with vertical slats having beveled edges, so that when said slats are closed they shall present a plane surface, both externally and internally, as shown and described.

44,644.—Artificial Leg.—Joshua Monroe, New York City: I claim the employment or use of raw hide in the manufacture of artificial limbs, substantially in the manner herein specified.

[This invention consists in the employment or use of raw hide for the manufacture of artificial limbs, in such a manner that a light, strong, and durable limb can be produced, which can be readily lengthened or shortened to suit patients of different stature, and which can be fastened to a stump with ease and facility.]

which can be takened to a stump with ease and tachty.]

44,645.—Soda Water Apparatus.—Andrew J. Morse,
Melrose, Mass.:

I claim in connection with one or more slrup vessels or jars, the
indicating tubes, arranged and operating substantially as described.

I also claim in combination with the sirup vessels and indicators,
the charging cups, g, arranged upon the top of the box and leading
into the sirup vessels, as and for the purpose set forth.

And with an apparatus constructed with the charging cups and indicators, I claim the construction of the top of the top of the box,
with the fixed part, f, and hinged cover, i.

44,646.

14,646.—Ejector for Oil Wells.—George M. Mowbray,
Titusville, Pa.:
I claim, first, The ejector composed of a pipe closed at the bottom
and perforated at the sides, in combination with the conical cup, D.
constructed and applied substantially as and for the purpose deceibed

ibed.

econd, The upper tube, e, or its equivalent, for the purpose of inasing or diminishing the annular space, b, at the upper edge of
ejector, substantially as described.

the ejector, substantially as described.

44,647.—Saw-filing Machine.—S. P. Ochiltree, W. S. Weir, Jr., and A. P. Baymonnt, Monmouth, Ill.:

We claim first. The adjustable guide, O, in connection with the silde, M. crank, F. and pitman, N. for giving motion and a proper direction to the file, T. substantially as and for the purpose set forth. Second, The slide, W. provided with the pin, c, in combination with the pin, a, of wheel, K, for the purpose of raising the file during the feed movement of the saw, as set forth.

[This invention relates to a new and improved machine for filing saws, whereby the work may be done in a very accurate manner by simply turning the driving shaft of the machine, all the parts operating automatically and in a perfect and efficient manner.]

ating automatically and in a perfect and efficient manner.]

44,648.—Apparatus for washing and drying Photographs.
—Adalbert Paersch, New Orleans, La.:
I claim, first, The washing, etc., between separate layers of textile material.
Second, I claim the combination of the whole apparatus as set forth in the specification and drawing, washing, centrifugal washing, and drying wheel for photographic prints, and other textile or fibrous articles, and for washing clothes, etc.

44,649.—Bellows Pump.—Ezra Parker, Beverly, Ohio: I claim the claim the combination and arrangement of the upper and lower plates, A, flat rings, B, alir chamber, C, leather or gum disks, cz, discharge pipe, D, lever, E, small plates or valve seats, f, supply and exhaust valves, h', the whole arranged substantially as specified for the purpose set forth.

A4,650.—Feed-cutter.—J. J. Parker, Marietta, Ohio:
I claim, first, Suspending the box. G, on the shaft, G. in combination with the rake head, M, or its equivalent, in the manner and for the purpose set forth.
Second, 1 claim also the V-iron, when combined and connected substantially in manner described.

44,551.—Cider Mill.—H. K. Parsons, Harrisburg, Pa.: I claim, first, The concave, C, in combination with the adjustable breast-board, D, constructed and operating as shown.

Second, I claim the elongated yoke, c, in combination with the concaves, C, and adjustable breast-board, D, when constructed and arranged to operate as and for the purpose herein set forth.

I claim securing the tapering sharks of the tines of a fork into a correspondingly tapered recess formed in a socket piece, a, by means of wedges or keys inserted between the shanks, substantially as described.

-Wrench.-John W. Penney, Mechanic Falls,

44,633.—Wrench.—John W. Penney, Mechanic Falls, Maine:
I claim the sliding aw, C, provided with a tenon, a, which is fitted in a slot, b, in the shank, A, of the stationary jaw, B, in combination with the rack, f, on the back of the shank, A, the spring, D, fitted on the tenon, a, and secured to jaw, C, by a screw, d, and having a lip, e, to engage with rack, f, all being arranged substantially as and for the purpose set forth.

(This invention relates to a new and improved wrench of that class which is provided with an adjustable jaw, and it consists in an improved arrangement of the latter whereby the wrench may be readily adapted or applied to nuts of different sizes.]

44,654.—Horse-cover.—E. L. Perry, New York City: I claim, first, A cover for horses and other animals, constructed so as to permit the circulation of air through the same, and between it and the body of the animal, substantially as and for the purpose above described

it and the body of the animal, substantially as and for the particular above described.

Second, Making a ventilating cover for horses and other animals by means of louvers, R and D, or either of them, constructed and applied substantially as above described.

Third, Supporting the roof of the louver over the openings in the cover, and clear from the cover, by means of rivets and elastic or other rings fast on the rivet bodies, or of other fastenings or modes of attachment, substantially as described.

44,655.—Mowing Machine.—James Pine, Troy, N. Y.:
1 claim, first, The movable or adjustable lever, L, arranged sub
stantially as shown for raising the cutter bar.
Second, Fribe brace, H, arranged and applied substantially as shown,
to serve as an efficient brace or stay for the cutter-bar, and at the
same time not interfere with the raising and lowering of the latter,
as set forth.

is set forth.

Third, The draught lever, P, applied to the draught pole and bar, 3, of the cutter-bar, M, to operate in the manner set forth.

Fourth, The track-clearer, S, applied to and made adjustable upon the outer end of the cutter-bar, M, by means substantially and for the purpose specified.

44,656.—Foot-rest for Blacking-boxes.—John H. Porter, New York City:

I claim the combination of the box, A, with the foot-rest, C, when the latter is attached to the former by means of a spring, B, to admit of the adjustment of the box or shoe, while on the foot of the wearer, to the brush, substantially as and for the purpose set forth.

[This invention consists in combining a convenient and portable ceptacle for a blacking-box and brush, with a foot-rest the boot or shoe is blacked and polished, all being arranged in such a manner as to afford a very desirable article for private use, one by which boots or shoes may be blacked by the wearer, while on his feet, with the greatest facility.]

44,657.—Skimmer for Sugar Evaporators.—Thomas J. Price, Industry, Ill.:
I claim, first, The rock shaft, J, and rods, O O, in combination with the skimmer frame, s, and skimmer, L, as shown and described for the purpose set forth.
Second, The arrangement of the sloping end, c, and gutter, i, in combination with the rock shaft, J, skimmer frame, s, and skimmer, L, substantially as and for the purpose set forth.
Third, The combined arrangement of the defecating apartment, R, the skimming apparatus and sloping end as shown and described, for the purpose specified.

44.658.—Cultivator and Seeder.—T. Louis Ray, Flora,

Ill.:
I claim, first, The application to cultivators of the rudder, A. for the purpose of steering the machine, and raising the front end of the machine from the ground.
Second, I also claim the arrangement of the wheels, Q and H, as set forth and for the purpose specified.

44,659.—Furrowing Device.—W. S. Riggs, Hightstown,

44,659.—Furrowing Device.—W. S. Riggs, Hightstown, N. J.:
I claim the adjustable shares, E, when constructed with mold boards, c. c. curved outward at the upper and rear ends of the shanks, a, which are secured in the rear ends of the runners, A. A, by pins, b, to form a new and improved furrowing device, for the purpose specified.

[his invention relates to a new and improved device for furrowing land for planting corn and other seed which are planted in hills or drills. The invention consists in the employment or use of two shares constructed in such a manner as to form furrows without dragging or raking up weeds, trash, etc., said shares being attached that spans or variety and the constant spans compared to the runners in such a manner that they may be capable of being adjusted higher or lower, according to the depth of furrow required.]

44,660.—Primed Metallic Cartridge.—E. K. Root, Hart-

ford, Conn.:

I claim the employment within the case of the cartridge of movable sections of solid material, having fulminate confined or arranged between their adjacent surfaces or edges, substantially as and for the purpose set forth.

44,661.—Nail Machine.—Marcus T. Rounds, Taunton,

Mass.:
I claim, first, The movable back piece, t, on the heading side of the dies, operated by means of a cane or other suitable device, substantially in the manner and for the purpose set forth.
Second, I claim extending the nipper, L, beyond the heading side of the dies, to grasp the head of the blank between said nipper and the movable back piece, t, substantially as set forth.
Third, I claim the nipper, L, working on the heading side of the dies, in combination with the movable back piece, t, and the gage, c, arranged and operating substantially in the manner and for the purpose described.

purpose described.

44,662.—Machine for charging Fireworks.—Theodore Scharfenberg, Brooklyn, N. Y.:
I claim, first, Combining with a series of spindles, a a, arranged upon a bed plate, the guide plate, F, to insure a proper position of the tubes, b b, during the process of charging with composition, substantially as described and specified.

Second, Combining with a series of spindles, a a, tubes, b b, guide plate, F, and runners, c c, the weight or driver, J, arranged to drive the composition into the tubes, b b, substantially as described.

Third, The construction and arrangement of the hopper having double slides and provided with two sets of tubes, m and n, for charging the tubes of fireworks with composition, substantially as described and for the purpose set forth.

44,663.—Refrigerator.—Jacob F. Schneider, Brooklyn,

N. Y.:

I claim the combination and arrangement of the cold water trough, air passages, and blower, when placed in the lower part of the retrigerator, so as to be suppled with the water from the liee tray above, substantially as described, for the purpose of changing the air in the lower part of the refrigerator without causing a current of air to come in contact with the liee above. I claim also the arrangement and combination of the valve and and outlet passages above with the blower, cold water trough, and induction air passages below, substantially as described.

And finally I claim the arrangement of thick pasteboard, or layers of thick paper, with the walls of refrigerators, substantially as described.

of times serving.

44,664.—Preserving Fruit, etc.—Nathaniel S. Sharet,
Newport, Ky.:
I claim the employment of carbonic acid gas, and a refrigerating temperature, together and relatively to such substance, substantially in manner as herein-before set forth.
I also claim the combination of a preserving chamber, a, a moist ure refrigerating apparatus, and a means of circulating the carbonic acid gas of such chamber through or so in contact with the surfaces of the refrigerating apparatus as to not only cover the gas, but cause such mixture to be frozen or condensed and abstracted from the gas, substantially as specified.

A last gas refrigerating apparatus, a constructed of one or more dumb also claim the preservor as constructed of one or more dumb.

A the gas refrigerating apparatus, E, and the gas circulating apparatus, the whole being arranged and combined substantially as and so as to operate in manner and for the purpose as specified.

44,665.—Apparatus for throwing Horses.—Silvester Shaw, Russelville, Ohio:
I claim the combination of the strap, E, the rope, P, the straps, A and F, the spancel, Bl and B2, and the strap, C, the whole constructed and arranged for the purpose substantially as herein specified.

44,666.—Tag-holder for Bags, etc.—Richard Shepard, Brooklyn, N. Y. Ante-dated March 17, 1861: I claim the blade, b, in combination with the thin slide, g i k, and the instrument, C, when operated as shown and described.

44,667.—Tree Protector.—Forrest Shepherd, New Ha-

4.4.61.—Tree Protector.—Forrest Shepherd, New Haven, Conn.:
I claim, as a new article of manufacture, an apparatus made by ttaching strips or plates of mica to a band, to be placed around the ody of the tree, to prevent the ascent of grubs, worms, and other ascets, when constructed and fitted to be attached, substantially as terein described.

44,668.—Spring for Carriages.—William Smith, Shrews-

bury, Pa.: I claim the frame composed of the longitudinal beams, A and A', and end beams, B and C, in combination with any desired number of slats, G II iI and I, passing through the said end beams, having oblong slats for the reception of pins, e, and being connected together by any desired number of cross bars, J K L, all substantially as and for the purpose herein described.

as and for the purpose herein described.

44,669.—Packing Projectiles for Rifled Ordnance.—W.

H. Smith, birmingham, Conn.:

I claim the combination of the expansible packing band with the projectile, when constructed and arranged to operate in the manner substantially as described for the purpose set forth.

44,670.—Jacket for Sub-caliber Projectiles.—W. H.

4,670.—Jacket for Suo-caliber Projectiles.—W. H. Smith, Birmingham, Conn.:
I claim making the metallic holder-case or centering jacket to fill he bore of the gun, at both its rear and forward ends, and its inermediate portion to filt to the both or body of the shot, substantially as and for the purposes set forth.

44,671.—Mode of securing Pure and Wholesome Air in Dwellings, etc.—Daniel E. Somes, Washington,

D. C.:

I claim the manufacture of articles of household furniture with sceptacles for containing charcoal, substantially as herein set forth and described.

I also claim the mode herein described of purifying the air in wellings, halls, hospitals, and other places, by means of a charcoal sceptacle, constructed substantially as herein specified.

14.672.—Mode of cooling the Air in Buildings.—Daniel E. Somes, Washington, D. C.:
I claim first, Lowering the temperature in buildings or excavations in the earth, by rarefying the atmosphere of the same, in the manner and for the purpose set forth.
Second, Ventilating the interior of buildings or rooms, in the manner described.

Second, Ventilating the interior of buildings or rooms, in the manner described.

44,673.—Hay Press.—Charles S. Stevens and Alonzo T. Boon, Galesburg, Ill.:

We claim, first, The combination of the endless carrier cloth, f, compression rollers, a'a', and band roller, a'', with the metallic knife edge plate, a, substantially in the manner and for the purpose herein set forth.

Second, We claim the swinz lever, C', and slotted cane wheel, c, in combination with the toggle-jointed levers, C C, and follower, D, substantially in the manner and for the purpose herein set forth.

44,674.—Piston for Steam Engines.—Nathan P. Stevens, Boston, Mass.:

I claim the improved piston or piston head, as made with the vibratory ring and its groove, and the steam tight chamber opening into the said groove, the whole being in manner and so:s to operate as described.

I also claim the combination of the annular projection, c, or its equivalent, with the vibratory ring and its groove, and the steam tight chamber and its opening.

44,675.—Mode of protecting and repairing Shingle

44,675.—Mode of protecting and repairing Shingle Roofs.—Isaac Straub, Cincinnati, Ohio:

1 claim the application of roofing cement on neked shingles, sustantially as above described, which makes a durable roof, and a complete protection against all weather, and nearly so against all outside free

44,676.—Attachment for Ladies' Shoes.—O. H. Taylor, San Francisco, Cal.:

I claim the clastic strap or band to be attached to and passed around the upper part of the shoe or gaiter provided with a suitable buckle, and adapted to fit over a stud, L, all as herein described and for the purposes set forth.

-Washboard .- O. H. Taylor, of San Francisco, 44,677 Cal.

Gall:

I claim, as a new article of manufacture, a separate and complete
and washboard, constructed with a rubbing surface of corrugated
no, straight at its upper end and concave at the lower end, all as
erein represented and described, and for the purposes specified.

4,678.—Apparatus for Drying Photographic Plates.— Julius Thompson, of Taunton, Mass.: I claim the chimney or flue, A B, with one or more plain surfaces, as described above, and for the purpose specified.

44,679.—Harvesters.—Julius Thompson, of New York

44,679.—Harvesters.—Julius Thompson, of New York City:

First, I claim a main frame of a harvesting machine, constructed with a tubular socket for the axle of the running wheels, in such a manner that the said socket performs the double function of sustaining the said axle and of stiffening the frame transversely, substantially as set forth.

Second, I also claim a main frame of a harvesting machine, constructed with a socket for the tongue in such manner that the said tongue socket performs the double function of sustaining the tongue upon all of its sides and stiffening the frame longitudinally, substantially as set forth.

Third, I also claim the combination of the cog wheels of a harvesting machine, with still or silent shafts, which are rigidly secured to the frame of the machine, substantially as set forth.

Fourth, I also claim the combination of two of the cogwheels that impart motion to the cutter with each other by means of a saw-toothed spring clutch, so that the cogwheel nearer the cutter remains stationary when the machine is backed, and that the clutch may be operated by a lever to stop the cutter, substantially as set forth.

Firth, I also claim the combination of the shafts of the cutter gear, in such manner that the said shat performs the double function of pinion, shaft and joint pin for the linger joint, substantially as set forth.

Sixth, I also claim the mechanism for raising and lovering the cut-

tion of philod, share and joint per said and share as set forth. Sixth, I also claim the mechanism for raising and lowering the cut ter bar, consisting substantially of a winch, vibrating lever and said toothed clutch, combined together and operating substantially as set.

toothed clutch, combined together and operating substantially as set forth.

Seventh, I also claim the combination of the bevelled wheels together, by means of flanges which engage with each other and prevent the separation of the teeth of the wheels by movement in the direction of the axis of the wheels, substantially as set forth.

Eighth, I also claim the combination of the driving pulley of the reel with the grain wheel, by means of a spring clutch, in such manner that the revolution of the reel stops whenever the said grain wheel runs backward, substantially as set forth.

Ninth, I also claim the combination of a hollow reel shaft with a rod that connects the upper ends of the reel standards, so that the reel turns upon the said rod.

44,680.—Apparatus for Handling Vicious Horses.—Owen Turner, of Clinton, Wis.:
I claim, first, A harness adapted for correcting vicious habits in animals, which consists of a fetlock strap, a, controlling rein, A, fetlock strap, d, and girth, B, applied and operating substantially as described.

Second. The elastic-supporting strap, C, in combination with the controlling strap, A, when the latter is arranged substantially as and for the purpose described.

Third, The combination of the controlling rein, A, fetlock straps, a and d, and looped girth, B, with a supporting strap, C, substantially as and for the purposes described.

Fourth, The construction of the fetlock strap, a, for the front foot, with a pulley, b, applied to it in such a manner as to allow the controlling straps to slip freely through it in managing the horse, substantially as described.

-Mechanical Movements.-Maximilian Wappich

44,681.—Mechanical Movements.—maximinal mappion, of Sacramento, Cal.:

I ciaim, first, A spiral thread, partaking closely of the character of a compound wedge, but in form lenticular, substantially as and for the purpose herein de-cribed.

Second, In combination with a pin wheel a spiral lenticular thread which will practically operate upon two or more of the pins of said wheel at the same time, substantially as set forth.

44,682.—Horse-hay Forks.—J. L. Wells, of Stockbridge

New York.

I claim, first, The curved or concave cast-fron head, A, provided with the arms, B B, to operate in connection with the, catches, G G, and beam, C, substantially as and for the purpose set forth.

Second, Attaching the tines, F, to the head, A, by means of the polts, c, and notches, f, as described.

Third, The straps, L L, attached to the beam, C, as shown, when used in combination with the arms, B, B, and beam, C, substantially as and for the purpose set forth.

[This invention relates to a new and improved mode of construct ing the fork generally, whereby great strength may be obtained, the load readily discharged, and device rendered capable of being easily managed by the operator.

44,683.—Apparatus for Preserving Provisions.—Charles Winship, of New Haven, Conn.:
I claim conducting cooled air to and causing the same to circulate through a chamber, substantially as specified.

through a chamber, substantially as specified.

44.684.—Method of Stopping Bottles.—Albert Albertson,
(assignor to J. N. McIntyre) of New York City:
I claim, itst, The employment in combination with a bottle having the interior of its neck suitably formed to receive it of a stopper constructed to operate in closing and unclosing the bottle, substantially as described.

Second, I claim so constructing the valve, c, and the mouth of the bottle that the former may be readily forced through the latter in one direction, and incapable of easy passage through it in the opposite direction, as hereinbefore described, for the purpose set forth.

Third, I claim making the entire stopper of such a length that it cannot turn over in the body of the bottle, as and for the purpose set forth.

44,685.—Apparatus for Filling Bottles.—Albert Albert son, (assignor to J. N. McIntire) of New York City: I claim filling and closing the filled or supplied bottles substantially as set forth, by the gravitation of the stopper.

as set forth, by the gravitation of the stopper.

44,686.—Running Stitch Sewing Machines.—John D. Dale, (assignor to himself and A. M. Badger) of New York City:

I claim, first The combination of the clamping levers, E and D, with the rolling needle stop, A A', operating substantially in the manner and for the purpose set forth.

Second, I claim the relief tooth wheel, in combination with yielding feed rollers, B B, and reciprocating cloth guide, C, substantially in the manner and for the purpose set forth.

Third, I claim the manner described, or its equivalent, for clamping and holding a common sewing needle firm enough to prevent its slipping while the cloth is being pulled off.

44,687.—Apparatus for Cutting and Crossing Boxes for

44,687.—Apparatus for Cutting and Creasing Paper for Envelopes, etc.—Martial Dimock, of Newark, N. J., assignor to Fitch, Estee & Co., of New York City: I claim the countersink, G. Fig. 4, with ekstic bed, and the die, F. Fig. 3, with projecting blades, H, to indentor partially sever the paper or other material used (for the purpose of facilitating the folding thereof), constructed and operated substantially as and for the purpose set forth.

pose set forth.

44,688.—Machine for Paring the Edging of Boots and Shoes.—Horatio Hodges, (assignor to himself and David Waldy) of Lynn, Mass.:

I claim the rotary or sole edge cutter or combination of the cannular bur and the guard or guide, arranged together and on a shaft, as peculed.

uded. also claim the combination of the tubular split, tapering shank i its screw and nuts, with the bur and the guide or guard, the ole being arranged together substantially as specified.

44,689.—Caster for Trunks.—Henry T. Lee, (assignor to himself and David Frost) of Jersey City, N. J.:
I claim the flanged rocket, D, in combination with the easter, E, spring, C, and cap, A, constructed and operating in the manner and for the purpose substantially as set forth.

[This invention consists in a yielding spring caster, applied in combination with a cap, forming a cavity to receive the spring and shank of the caster, in such a manner that by the cap the cover of the trunk or other article to which it may be attached is prevented from

uplifting, and at the same time the cap forms a guide for the shanl of the caster, and prevents the same being exposed to a latera

44,690.—Machines for Making Boxes.—Thomas C. Luther, of Lee, Mass., assignor to the American Flask and Cap Company, of Waterbury, Conn.:

I claim the Stationary rollers, O.G., in connection with the movable or adjustable roller, I, and belt, J, all arranged to operate substantially as and for the purpose herein set forth.

I further claim the box, D, and roller, E, in connection with the rum, C, and the rollers, I GC, all arranged to operate substantially s and for the purpose herein set forth.

as and for the purpose herein set forth. [This invention is more especially designed for putting the covering on external paper band or cylindrical paper boxes, for the purpose of securing the top and bottom to the body of the box. It may wever, be used for covering wooden or sheet-metal cylindrical

44,691.—Pegging Machine.—Joseph F. Sargent, (assignor to Elmer Townshend) of Boston, Mass.:

I claim in a pegging machine the employment of a jack, so constructed or mounted that it can turnfor be turned latterally, to hold the shoe properly to the action of the awl, throughout its varying lateral curvature.

I also claim so organizing the jack with the levers or system of levers supporting it that the jack is turned automatically, to bring the shoe latterally into position for the proper insertion of the awl and peg.

and peg.

I also claim operating the swing piece by the eccentric, to produce the feed and transfer of contact, substantially as set forth.

Also the combination of the eccentric for operating the swing piece with the cam and spring for operating the driver bar.

I also claim giving the swing piece, k, a simultaneous lateral and vertical motion, substantially as and for the purpose set forth. I also claim the employment of the swinging brake, e2, operating upon the wheel, c2, substantially as specified.

I also claim so constructing and applying the feed-foot, as to operate in the same vertical plane with the retainer (instead of through as set forth.

I also claim the construction by which the blow of the awl and peg driver bar is a presented at the between

as set forth.

I also claim the construction by which the blow of the awl and peg driver bar is arrested at the bottom of the swing plate, substantially

as described.

And in combination with an awl bar (or an awl and peg driver bar, having its downward movement imparted by a spring), I claim the method or regulating the force of the blow given to the bar by an adjusting screw, 02, substantially as shown and described.

an adjusting screw, o2, substantiany as shown and described.

44,692.—Priming Cartridges.—Charles Edward Snelder
(assignor to himself and Thomas Poultney), Baltimore, Md.:

I claim, first, In combination with a cartridge which is exploded by an end blow upon a pin reaching the fulminate or cap on the base of the ball, making the cartridge case extend out as far as the point of the ball, so as to abut against the rear end of the barrel and prevent the forward motion of the ball or its protrusion into the bore previous to firing.

Second; I claim the combination of the recessed end of the cartridge case and the central cartridge pin, which form a gas-tight joint by the contraction of the rear of the case around the pin, under the force of the uscharge.

44,693.—Buckle for Harness Tugs.—Richard Tattershall (assignor to himself and A. J. Battin), Belvit Wis.: I claim the frame, A, provided or cast with the plates, c c d, in commation with the clamp, B, fitted in the frame, A, as shown, and the ever plate, C, provided with the eccentric projection, D, litted to the pare, e, substantially as and for the purpose herein set forth.

This invention relates to a new and improved buckle for harnes tugs, wherein the use of a tongue is dispensed with and conse the perforating of the trace.]

44,694.—Car Truck.—Charles D. Tisdale, East Boston, Mass., assignor to himself and Joseph H. Clapp, Boston, Mass.:

Boston, Mass.:
I claim the new or improved wheel locking mechanism, or combination consisting of the double-catch, D, the elastic band, E, and either one or two grooves, c d, and applied to the wheel sleeve and axle, and so as to operate therewith substantially as herein specified 44,695.—Cigars.—S. Davis, Montreal, Canada:
I claim as a new article of manufacture a medicated segar composed of tobacco leaves mixed with the leaves of belladonna, in the manner and proportions herein specified.

[This invention consists of segars made of a composition of co leaves mixed with a small quantity of the leaves of bella digitalls, or other similar medical plants, in such a manner that the ecifics contained in said plants are introduced into the system of the human body together with the tobacco sn state, and thereby the healing qualities of said plants are enabled to exert a much more powerful effect than they can when introduced into the system in the ordinary manner.]

44,696.—Propeller and Steering Apps.—Henry Ressel, Vienna, Austria:

I claim, first, The studs, f, and segmental grooves, e, applied in combination with the socket, c, and globe, d, and with the shafts, C and F, in the manner and for the purpose substantially as set forth. Second, The use of the cap, h, in combination with the ball and socket joint, G, and shafts, C and F, applied and operating substantially as and for the purpose described.

Third, The grooves, i, and rings, j, applied in combination with the ball and socket-joint, G, propeller screw, A, shafts, C and F, and frame, B, in the manner and for the purpose substantially as set forth.

torth.

44.697.—Ventilating Sweat Leather for Hats and Caps.
—A. H. Taylor, San Francisco, Cal.:
I claim, first, The application to a hat or cap of a corrugated sweat lining, said corrugations running diagonally with the plane of the under side or rim as shown in the drawings, the corrugations running around the inside of the hat or cap with the exception of a portion in front, which is smooth to fit the forchead.

Second, I claim the smooth part or the lining in front in combination with the diagonal corrugating as weat lining, in the manner shown and specified (as occupying the complete inner circle of the hat or cap, with the exception of the portion in front, which is made smooth to fit the forehead of the wearer), substantially as shown and set forth herein.

RE-ISSUES

1.790. —Horse-shoe. -

1,790.—Horse-shoe.—O. A. Howe, New York City. Patented Sept. 15, 1863:
I claim a horse-shoe provided at its under or face side with a groove, having pendant projections or their equivalent within it to iold a filling of india-rubber or any other suitable material, substantially as herein set forth.

-James Leffel, Springfield, Ohio 1,791.—Water Wheel.—Jam Patented Jan. 14, 1862:

Patented Jan. 14, 1862:

I claim, first, The above described wheel, constructed with two independent sets of buckets, a and b, the former having a central, and the latter a vertical discharge, substantially as described.

Second, I claim constructing and arranging the annular diaphragm, D, to operate in the manner and for the purpose herein set forth. Third, In combination with the diaphragm, D, I claim the vertically discharging buckets, b, when constructed and arranged to operate as and for the purpose set forth.

Fourth, In combination with an upper plate, B, whose inner surface shall be slightly concave in that portion directly over the bnockets, I claim making the surface upon which the lower edge of said buckets rest, curved as shown and described.

1,992.—Case for Water Wheels.—James Leffel, Spring-field, Ohio. Patented Jan. 14, 1862:
I claim, first, The crown plate, A, provided with the horizontally projecting rim, c, and hub, A', as and for the purpose set forth.
Second, The cylindrical tube, R, provided with the horizontally projecting flange, e, when used in combination with plate, A, as the condition of the combination of the purpose of the cylindrical tube, T, provided with the horizontally projecting flange, e, when used in combination with plate, A, as the condition of the combination of the combination of the combination with plate, A, as the condition of the combination with plate, A, as the combination of the combination with plate, A, as the combination of the combination of the combination with plate and the combination of the combination with plate, A, as the combination of the combination with plate and the combinat

Third, I claim the gate, H, when constructed and operating as and for the purpose substantially as herein specified.

Fourth, In combination with the parts, A and R, I claim the use of a sories of gates, H, as and for the purpose set forth.

Fifth, In combination with the cylindrical casing of a turbine wheel, I claim a series of scrols shaped gates so huag that they shall be nearly balanced by the pressure of the water.

Sixth, I claim the combination and arrangement of the collar, L, rods, P, lever, M, provided with the rock-bar, O, and pinion, N, when constructed to operate in the manner and for the purpose herein set forth.

1,993.—Cider Mill.—H. K. Parsons (assignee by mesneof John Kranser), Harrisburgh, Pa.

assignments of John Kranser), Harrisburgh, Pa. Patented Aug. 30, 1853:
I claim, first, So locating the hopper, as that the substance to be ground shall be delivered upon that portion of the piston or crusher which shall be within the hopper when thrust forward, or into the space formed by the withdrawal of the same, when thrown backward

ward.
Second, I claim operating the pl-tons or concaves of a cider mill, by means of eccentrics, whether said pistons be arranged as in Figs. 1 and 2, to move in a straight line, or to be pivoted at top or bottom, as in Figs. 8 and 9.

Third, I claim the concave, k', arranged to operate in combination with the pistons, P, or with the concaves, d, as and for the purposes set forth.

EXTENSION.

Water Wheel.—Timothy Rose, Cortlandtville, N. Y.
Patented Sept. 24, 1850:
I claim the discharge aperture of the chutes movable relatively to the axis of the wheel, or the axis of the wheel movable relatively to the aperture of the chute, substantially as described, for the purpose of varying the effective diameter of the wheel and thereby increasing or decreasing the velocity thereof, substantially as described.



In connection with the publication of

the SCIENTIFIC AMERICAN, have actorneys for procuring "Letters Patent" for w inventions in the United States and in all foreign countries during the past seventeen years. Statistics show that nearly ONE-THIRD of al the past seconder years. Statistics show that hearly ONE-THEO it at the applications made for patents in the United States are solicited through this office; while nearly THREE-FOURTHS of all the patents taken in fereign countries are procured through the same source. It is almost needless to add that, after seventeen years' experience in pre-paring specifications and urawings for the United States Patent Office the proprietors of the SCIENTIFIC AMERICAN are perfectly conversant with the preparation of applications in the best manner, and the transaction of all business before the Patent Office; but they take pleasure in presenting the annexed testimonials from the three last ex.Commissioners of Patents:

MESSIS, MUNN & CO.—Hake pleasure in stating that, while I held the office of Commissioner of Patents, MORE THAN ONE-FOURTH OF ALL THE BUSINESS OF THE OFFICE CAME THROUGH YOUR HAND. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with the office, a marked degree of promptness, skill, and fidelity to the interests of your employers.

Yours very truly, Chas. MASON.

Judge Mason was succeeded by that eminent patriot and statesmar Hon. Joseph Holt, whose administration of the Patent Office was s distinguished that, upon the d-ath of Gov. Brown, he was appointe to the office of Postmaster-General of the United States. Soon afterntering upon his new duties, in March, 1859, he addressed to us the following very gratifying letter.

following very grathlying televis

MESSRS. MUNN & Co.:—It affords me much pleasure to bear tes
mony to the able and efficient manner in which you discharged yo
duties as Solicitors of Patents, while I had the honor of holding to
office of Commissioner. Your business was very large, and you s
tamed (and I doubt not justly deserved) the reputation of energ
marked ability, and uncompromising fidelity in performing your pr
fessional engagements.

Very respectfully, your obedient servant,
J. Holf

J. Hold Hon. Wm. D. Bishop, late Member of Congress from Connecticut, succeeded Mr. Holt as Commissioner of Patents. Upon reagaing the office he wrote to us as follows:

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Very respectfully, your obedient servant,

Win. D. Візнор.

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