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55.799.-Mode of cutting Boots.-John Adams.

55,799.—MODE OF CUTTING DOOTS.—John Adams, Kokomo, Ind.:
I claim as a new article of manufacture, a boot produced as follows, to wit, by cutting the foot and leg portion out of a single piece of leather, the counter or heel piece being left out, and then constructing the uppers of the boot from said foot and leg portion and a separate counter-piece, by having a seam extend down the back to the tops of the counter, then running the seam to the front eleges of the counter and from thence down to the shank of the boot, said horizontal and vertical side seams serving to fusite the separate outside counter-piece of leather over the opening which was left in enting the foot and leg of the boot, all substantially as and for the purpose described.

55,800.—Grain Separator and Cleaner.—William M. Arnall, Sperryville, Va., assignor to himself and W. II. Brownell, New York City:

claim, 1st, The arrangement of the cylinder, B, the roners, F, in the arc of a circle described by a radius from cyling, together with the adjustable brushes, a, a, a, and dividboard, P, substantially as and for the purpose herein set

n. I, The throat, G, with its gauge-board, f, rollers, F, cylinder, nd fan, D, arranged and used as and for the purpose speci-

55,801.—Device to prevent Boiler Explosions.

OJ,001.—DEVICE TO PREVENT BOILER EXPLOSIONS,
—Alfred Arnold, Tenaply, N. J.:
I claim, 1st, The mode of preventing steam boiler explosions, substantially as herein set forth.
2d, The construction and arrangement of the devices necessary to carry the mode into operation, substantially as described.

55,802.—Egg-beater.—Frederick Ashley, New

York City:

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

55,803.—WATER WHEEL.—Samuel W. Ayres, Mon-

ticello, Ind.:

In combination with the spiral scroll, A, 1 claim the double wheel, B, C, when so arranged that the water shall be discharged from the scroll through the upper section, towards the center, and thence passing into the lower section be discharged from the center through the periphery, substantially in the manner set forth.

od,804.—Horse Rake.—II. A. Bailey and A. R. Burdick, Racine, Wis.:

We claim, 1st, The metal heads, J. provided withlips, g, and grooves, i, and retained on the rake-head by the upper ends of the rake teeth, K. passing through them and the rake-head, substantially as and for the purpose herein set forth.

2d, The attaching of the rake-head, II, to clutches, D, D, fitted loosely on the axle, A. and operated by means of levers by the driver from his seat, G. for the purpose of automatically raising the rake to discharge its load, substantially as shown and described.

-Roof of Buildings.-William W. Beach,

New York City:
claim, 1st, The use of mica or mineral isinglass in sheets or
ites as a roofing material, transparent, translucent, opaque,
d ornamental, substantially in the manner and for the pur-

and ornamental, substantially in the manner and for the pur-pose herein set forth.

2d, Ornamenting upon or between the plates or thicknesses of the mica, substantially as set forth and described.

3d, Making an elastic rooting by cementing the plates of mica with flexible cement, substantially as set forth herein.

4th, The combination of mica with wood, slate, or other equivalent substances, substantially in the manner and for the purposes herein set forth.

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

I claim, 1st. The method herein described of creating an acending entrent of air to feed the fiame, by means of steam generated by the caloric emanating from the illuminating flame of the lamp.

of the lamp.
24, The combination of the boiler or heater, D, the steam
pipes, D', D', the anuniar chamber, C, and the fred-tube, B, with
the oil cup, A, perforated plate, g, and deflector, f, as and for
the purpose described.
3d, The hot watertank, C', in combination with the feed-tube,
B, and the boiler or heater, D, as and for the purposes described.

55,807.—GRATER AND EGG-BEATER.—William A. Bemis, Spencer, Mass.:
I claim, 1st, The combination with the lower halt. R. of the body of the heater, of the renovable frame, D, provided with the cutting wires, a, substantially as and for the purposes set forth.

the cutting wires, a, substantian, or forth.

2d, In combination with the egg-beater, I claim the grater moving in guides on the body of the egg-beater, the whole being constructed and arranged substantially as and for the purpose shown and described.

pose shown and described.

55.808.—Machine for framing Matches.—Jacob Bentz, Brooklyn, N. Y.:
I claim, 1st, In combination with the grooved bed and hopper, the loos e hopper-box or frame, constructed and operating sunstantially as described.

2d. The construction of the grooved bed in two parts; the front part being hinged to the rear fixed part for the purpose of being swung down below the plane of the fixed part when required to remov broken spilints, slivers, or other obstructions, substantially as described.

3d. In combination with the grooved bed, I claim the guides or stors in front of the grooved bed, substantially as described.

4th. In combination with the planeer frame and the front sliding frame which supports the spilint frame, I claim the rock-shaft and system of paws and levers, whereby the down-fred motion of the sliding frame is communicated thereto by the back motion of the plun; er frame.

55,809.—STUMP EXTRACTOR.—John W. Blodgett,

Plymouth, Ind.:
Iciaim, ist, The combination and arrangement of the posts, C, and foot-boards, E and N, substantially as and for the purposes act forth.
2d. Wheels, M and P, frame, L, windlass, W, chain, L, and lever, K, in combination with wheels, A, foot-boards, C, E, N, substantially as and for the purposes set forth.

55,810.—Utilizing Steam.—John M. Brosius, Lib-

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

55,811.—COTTON-SEED PLANTER.—Frederick H.

55,811.—COTTON-SEED PLANTER.—Frederick H. Brown, Chicago, Ill.:
I claim, 1st, In a cotton-seed planter the combination of the shaft, R, provided with arms, V, and the conveying belt, L, provided with teeth as described, arranged, and operating substantially in the manner and for the purposes herein specified.
24, In combination with the said conveying belt, L, I claim the shaft, U, provided with snitable wings or cleaners, arranged and operating substantially as specified and shown and for the purposes set forth.

3d, The combination of the shaft, R, provided with arrows or splices, the toothed belt, L, and the winged shaft, U, arranged and operating as and for the purposes described.

55,812.—Mode of constructing Vacuum Vessels

FOR EVAPORATING, ETC.—Duncan Bruce, Rossville, N. Y.:

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

55,813.—Hammer for bending Couplings.—John

55,813.—HAMMER FOR RENDING COUPLINGS.—John T. Bruen, New York City:
I claim, 1st, The anvil, the hammer, the connecting-rod, and the treadle, when constructed and arranged substantially as and for the purpose herein specified.
2d, The apparatus for throwing out the material after successive operations of the hammer, applied, arranged, and eperating substantially as herein specified.
3d, The annular spring or buffer, dd, applied at the lower end of the connecting-rod, substantially as described, and serving the two purposes of regulating the stroke of the hammer and of preventing destructive goneussion and noise.

55,814.—Lock.—Henry and Samuel W. Budd, Phil-

50,814.—Lour.—Item, and the state adelphia, Pa.:

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

55,815.—Brush for Boiler Flues.—Charles II.

Bush, Fall River, Mass.: I claim an expanding and contracting brush for clearing ob-structions from the flues of steam bollers, constructed and op-erating as herein set forthand described.

55,816. — RAILR●AD WATER-ELEVATOR.—William

II. Butler, Chicago, Ill.

I claim, 1st, A metal tank lined with wood which has been previously saturated with oil or other resistant to rapil conclusation of steam, or coated with such resistant on one or ooth sides, substantially as described and for the purpose mentanced.

tioned.
I also claim in combination with the follower and steam pipe the rubber packing, I, as described.

55,817.- STEP-LADDER.-E. P H Capron, Spring.

50,01.— Stell-Habbert.— L. I. Capton, appeared field, Ohio:

I claim, 1st, The ladders, A and B, platform, C, and the notched buy, L, all combined and arranged to operate as shown and described.

2d, The slotted bar, D, provided with the series of holes and pin, i, arranged to operate in combination with the ladders, A and B, and platform, C, as herein set forth.

55,818.—Treating Ores.—Charles F. Carpenter,

Louisville, Ky.:

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

55,819.—WATER-INDICATOR FOR STEAM GENERA-

, TORS.—Franklin Chalfant, Lancaster, Pa :
I claim, 1st, The vibrating column or cylinder, F, in connection with a steam boiler, A, when employed for the purpose specified.
I also claim the soapstone disks, K, when applied substantially in the manner and for the purpose set forth.

55 820.—ICE-CREAM FREEZER.—John R. Champlin,

55 820.—ICE-CREAM FREEZER.—John R. Champlin, Laconia, N. H.:
I claim, 1st. The side-scrapers, G, when made in the form and adjusted in the manner described, in combination with the horizontal arms, E, of the beater, substantially as and for the purpos' set forth.

24. The frame, K, and support, X, when constructed substantially as described, in combination with each other and with the shufts. T and L, as and for the purpose set forth.

34. The use of a combined joint and swivel for coupling the gearing to the beater and cream-holder of an ice-cream freezer, substantially as described.

4th, The coupling device herein described, in which the coupling is accomplished by dropping the clutch upon the shuft and cream-holder, substantially as described and for the purpose set forth.

55,821.—Pump.—Robert Cochran, Morrison, Ill.

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

55,822.—PUMP FOR DEEP WELLS.—Robert Cornelius, Philadelphia, Pa.:
I claim the combination of an outer case with apertures, an interior wire gauze or perforated screen, and a receptacle below for the debris, substantially as described.

55,823.—Door-bell, and Burglar-Alarm.—Elliot H. Crane, Burr Dak, Mich.:

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

55,824.—Horse Hay-fork.—Thomas C. Craven, Albany, N. Y.:

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

which are adapted to serve as a locking device, substantially as

described.

3d, The combination of the tripping lever or eccentric, f, or its equivalent, with locking toggic-levers and rod, C, for the purpose of unlocking said rods.

4th, Curving the upper portion of the rod, C, for the purpose substantially as described.

55,825.—Churn.—F. J. Crissey, Leesburg, Va.: I claim the arrangement and combination of the cent dasher with 1y-wheel at top and propelling cord on the shaft, that the shaft is operated swiftly with a forward and reverse a tion, as herein described and for the purposes set forth.

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

claim, 1st, The hinged cleaners, H, in combination with the crs. I, arranged to operate with the cutting rollers, D, in the macr and for the purpose herein specified.

manner and for the purpose herein specified.
2d, The combination of the cutting rollers, D, hinged cleaners,
H, frame, A, bar, K, and chain, J, arranged and operating as
described.

55,827.—MARINE COMPASS.—Samuel Custer, Salem,

Va.:
I claim, 1st, The combination of the lower battery magnet with the upper indicator magnet, substantially as and for the purpose described.
2d, The construction of the cruciform indicator-magnet with a pointer placed midway between the north and south poles of its two needles.

a pointer placed indway between the strong content in the strong collection and collection with the analic compass-card or its frame, for securing a longer radius to the pointer.

55,828.—Roller-feed for Carding and Picking Machines.—James Dempster, Nangatuck, Conn.: I claim as an improvement in roller-feed for cards and pickers the combination and arrangement of the rolls, B, C, D, E, E, G, and the gear-wheels, I, L, M, N, S, R, and the gear-wheels, I, K, O, P, T, U, with each other and with the frame, A, of the machine, substantially as described and for the purposes set forth.

55,829.—HAY-RACK FOR WAGONS.—Daniel Dennett,

Buxton, Me.:

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

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

- CAR FOR TRANSPORTING PETROLEUM. Densmore, Meadville, Pa., and G. W. N. Yost,

J. Densmore, Meadville, Pa., and G. W. N. 1056, Corry, Pa.:

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

55,832. — CAR FOR TRANSPORTING PETROLEU

James Densmore, Meadville, Pa., and Amos Densmore and G. W. N. Yost, Corry, Pa.:

We claim, 1st, The one tank, B, square or oblong square of wood planks, botted together and attached to an ordinary railway car, A, by means of the cleats, E, and the bolts, D, D, D, when the same are constructed and combined as herein-before described and for the purposes et for th.

2d, The two tanks, B, B, square or oblong square, directly over the trucks or abutting together in the middle of the car, of wood planks bolted together and attached to the car, A, by means of the cleats, E, E, and the bolts, D, D, D, N, hen the same are constructed and combined as herein-before described and for the purposes set for th.

same are constructed and combined as herein-before described and for the purposes set forth.

3d, The three tanks, B, B, B, square or oblong-square, of wood planks, botted together and attached to the car. A, by means of the cleats, E, E, E, E, and the bolts, D, D, D, D, when the same are constructed and combined as herein-before described and for the purposes set forth.

4th, The square or oblique-square tank or tanks of wood planks, attached to an ordinary car, when constructed and combined by any other mechanical contrivance, substantially the same, and which will produce the same results.

55,833.—MACHINE FOR PLANING MOLDINGS.—
Thomas Dickinson, Newark, N. J.:
I claim the arrangement described and represented for dressing two moldings simultaneously by one enter-head, consisting of the adjustable box-table, W. X., constructed and operated substantially as described.

55,834.—Apparatus for making Paper-pulp,

BLEACHING AND FOR OTHER PURPOSES.—John W. Dixon, Philadelphia, Pa.:

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

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

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

55,836.—Process of Making Paper-Pulp from Wood, Straw, and other wegetable substances with a solution of highly-heated aluminate of soda under pressure, substantially as described.

2d. I claim, the pulping of wood, straw, and other vegetable substances with a solution of highly-heated aluminate of soda under pressure, substantially as described.

55.837.--HARVESTER.-John A. Dodge, Auburn,

55,837.—HARVESTER.—John A. Dodge, Auburn N. Y.:
I claim, 1st, The combination of the cam, B', hed-piece, B, and frame, A. resting upon the platform, the said several parts being respectively constructed and arranged for use, substantially in thin manner and for the purpose set forth.

A. The plate, E, and ratchet, E', upon the outside of the chiving-wheel and pulley, D, upon the projecting extension of the axie, in combination with the best, M, pulley, C, and be vel generating, for actuating the rake with the forward motion of the hadding, substantially asset forth.

3d, The device for supporting the arm, H, by means of the bracket, L', attached to the socket, I, secured to the frame, substantially as set forth.

4th, The arrangement as herein set forth for supporting adjustably the finier end of the cutter-bar and pratorm by means of the arm, G, attached to the platform and connecting aim and projecting arm, H, secured to the main frame by the bracket, I', and socket, I.

55,838.—POCKET-BOOK PROTECTOR.—Alonzo Drummond, Newark, N. J.:

I claim, 1st, The combination of the spring, B, or springs, B, B, with the lever, D, and plece, C, camping, C, c', in the manner and for the purposes set forth.

2d, The plate, I, with its buttons or studs, K, in combination with the springs, B, B, when constructed in the manner and for the purpose described.

3d. The lever, D, the clasp or hinge, E, slot, e, and knob, d'',

with the springs, B. B, when constructed in the manner the purpose described.

3d, The lever, D, the clasp or hinge, E, slot, e, and knob, d'', constructed and operating substantially as set forth.

4th, The spur, F, dog, G, slide, t'', lever, D, and knob, g'', in combination for operating the spur, substantially as set forth.

55,839.—LANTERN.—A. M. Duburn, Chicago, Ill.: I claim, 1st, The part, Hy, secured by the hinge, K, when constructed as described, and used for the purpose set forth.

2d, The races, m, m', m, for the purpose set forth.

2d, The racess, m, m', m, for the purpose set forth.

55,840.—CORN HARVESTER.—Abraham Dyson and William N. Macqueen, St. Louis, Mo.:
I claim, ist, The rotary cutters, C', arranged at the front end of the machine, with the plates, U, gearing, and the racks and pinion, substantially as shown and described, to admit of the lateral adjustment of the cutters to suit the width of the spaces between the rows of stalks or plants, as set forth.

2d, The particular manner of constructing the rotary cutters, C', to wit by having blades, h, fitted between the two parts, 1 i', of a hub, D, which parts are secured in contact hy a crew-haut, i, one of the parts being not ched to receive the inner ends of the blades, h, substantially as shown and described.

3d, The arrangement of the racks, G, G, fenders, A*, frame, A, and cutters, C', relatively with each other, and operating in the manner and for the purposes herein specified.

4th, The lever, I, provided with the clamps, J, and arranged relatively with the upper edges of the racks, G, as shown and described, for the purpose of preventing the casual tilting of the racks, as described.

55,841.—BRICK MACHINE.—Josiah S. Elliott, East

Boston, Mass.:
Iclaim, ist, The operating of the carrier, N, by means of the levers, P, connected with the sleeve, K, to which the urm, O, of the carrier is attached, and actuated by the cam, Q, substantially as shown and described.
2d, The operating of the mold, G, by means of the bars, H, H, arms, c, c, and toothed segment, J, on shaft, I, toothed segment, K, and cam, L, all arranged substantially as and for the purpose specified.

inent, K, and cam, L, arraining of the purpose specified.

Purpose specified.

3d, The rods, r, arranged and operated substantially as shown and described, for insuring the proper filling of the carrier, as and described, for insuring the proper ming of the carrier, as set forth.

4th, The sweep, V, arranged and applied to operate substantially in the manner as and for the purpose set forth.

55,842.— DRESS-ELEVATOR.— Henry Essex, West Haverstraw, N. Y., and Job Johnson, Brooklyn,

N.Y.:
We claim the fastening for garments formed by the spring, a, eye, 3, and pusher, 2, combined with the sliding-ring or slide, b, as and for the purpeses set forth.

55,843.—Broom Head.—S. S. Evans, El Paso, Ill.: I claim an improved broom, formed by combining the ring, A, and handle, B, constructed as described, with each other, and with the clasp, D, and corn, C, substantially as described and for the purpose set forth.

55,844.—Hydraulic Spindle and Turning

55,844.—Hydraulic Spindle and Turning Apparatus for Draw-Bridges.—Philip · L. Fox and George P. Herthel, Jr., St. Louis, Mo.: We claim, 1st, The application of fluid pressure to the pivot of turning bodies, when used to raise the same and diminish the friction resistance to the turning motion, substantially as described and shown.

2d, The counter-balance, when operating in connection with such fluid pressure in raising the structure to be turned, substantially as shown and described.

3d, The combination and arrangement of the pivot, C, and cylinder, D, in conjunction with the counter-balancing apparatus, E, and the pump, F, all acting substantially as and for the purposes shown and described.

4th, The ring surface, M, the friction-rollers, N, the gearing, N, when used in combination substantially as and for the purposes set forth.

55,845.—MODE OF MAKING TIN FRUIT CANS.—John M. Francis, Walds, Ohio:

I claim the section, A, and wedge, B, connected by strips, a and b, arranged in the manner and used substantially as and for the purposes herein set forth

55,846.—TABLE-LEAF SUPPORT.—George Fyfe, Ottawa. Ill.:

tawa, III.:
I claim, in combination with the leaf of a table, the hinged arm, F, and the frame, C, the peculiar arrangement of the spring, G, operating upon said arm, F, as and or the purposes specified. 55.847.—FEEDING-WHEEL FOR SEWING MACHINES.

—Anton Galleth, New York City:
I claim the arrangement of the wheel, A, lever, B, with its ide, G, as described, block, E, spring, F, and friction spring, J, ombined and operating in the manner and for the purpose erein specified.

55,848.—Roller and Corn-Stalk Cutter.—Roland R. Gaskill, Mendota, Ill.:
I claim, 1st, The combination of the roller, A, and knife, II, the two being so connected by intermediate mechanism, as that the knife shall fall with the forward movement of the roller, substantially as and for the purpose set forth.

2d, The combination of the knife, II, rod, G and G', and levers, E, and arm, F, substantially as and for the purpose set forth.

3d, The roller, A, with pins, B, in combination with the levers. B and E, and knife, II, substantially as and for the purpose set forth.

55,849.—Baby-Jumper.—William Gibson, Fort

Vayne, Ind.:

I claim, 1st, The extensible post, A, A', in combination with step and cap pieces B, C, substantially as described.

2d, The combination of a spring, D, or its equivalent, with an extensible post, A, A', substantially as described.

3d, The combination of a strap or cord, G, a spring, D, and a post which will rotate where it is erected between two fixed objects, substantially as described.

55.850.—HAND CORN PLANTER.—William Gilbert.

Bardstown, Ky.: I claim the hand seed planter, constructed, arranged, and operating substantially in the manner described for the purpose set forth.

55,851.—FRUIT BASKET.—Isaac C. Gleason, Middle-

town, Conn.:

town, Conn.:

leaim a poly conal fruit basket having tapering sides formed
a single piececut partially through to form the angles of the
des, its ends being secured together by eyelets, and having a
realar bottom held in place by its edge fitting into slits formed
the said sides near their lower edge, substantially as deribed andfor the purpose set forth.

Booms AND SHOES.—Charles

55.852.—LACING FOR BOOTS AND SHOES.—Charles

And the substantially as herein shown and learner of the substantially as the substantially as the substantially as the substantial state of the substantial state of the substantial substantially as herein shown and the substantially as herein shown as the substantial substan

set forth.
2d The lacing-eyelet constructed substantially as herein shown and described, that is to say, forming the same of a single

piece of wire, the ends of which are bent into eyes standing at right angles to each other, substantially as herein set forth.

3d, In combination with eyelets constructed substantially as herein described, I claim the employment of rivets traversing one of the eyes of the lacer and either or both thicknesses of leather between which the said lacer is confined.

4th, The employment in combination with lacers and rivets, as herete'rer described, of a felicel leather welt, binding, or equivalent, the folded edge of which having at right angle to it incisions through which the lacing eyes protrude, substantially as herein shown and described.

55,853.—LACING FOR BOOTS AND SHOES.—Charles

55,853.—LACING FOR BOOTS AND SHOES.—Charles Goodyear, Jr., New York City:

I claim, 1st, The method herein described of applying lacine eyelets to beets or shoes by securing and holding a scriesof eyelet-rings in their proper positions, as set forth, by means of a single holding device which serves as the common support of saidrings, as and for the purposes herein shown and described. 2d, As lacing cyclets, I claim rings in combination with one or more fastening devices as set forth, holding the said rings to the edge or to the face of the well or upper, at right angles thereto, and transversely to the length of the shoe, as and for the purposes herein described.

3d, In combination with rings for forming the lacing eyes as described and for the purpose of holding the same in their proper positions a sect forth, I claim the wire inhedded between the folds of the well or two thicknesses of leather, so that the cyclets may be strung or held on a support common to all, as and fer the purposes herein shown and described.

4th, In combination with the eyelet-rings, as described, I claim the wire corrugated or bent at the points of support of the rings, substantially in the manner and for the purposes herein set forth.

55,854.—Buckle.—J. F. I. Gunning and Jees.

55,854.—BUCKLE.—J. F. J. Gunning and Isaac T.

Meyer, New York City:
Weclaim a buckle made of one piece of metal, wire, or other
uitable material, bent so as to form a shank, a, and twe spring
aws, b, c, substantially as and for the purposes set forth.

55,855. — DISTILLING PETROLEUM AND OTHER LIQUIDS.—C. II. Hall, New York City:
I claim, 1st, In the continuous distillation of petroleum or other liquids, the use of a retort, 18, in combination with furnace, D, and arch, C, substantially as shewn and described and forthepurpess set forth. C. 2d, The series of scrapers, h, h, h, or their equivalent, connected to the rod, m, in combination with retort. B, constructed and operating substantially as shown and described, or in any other manner whereby a scraper is used for the purpose specified.

ited.

3d. The device herein described for generating steam, consisting of the water-jacket, G, and water supply-pipe, Y, and steam tube, I, in combination with condensing tube, F, substantially as shown and described, or any other means whereby steam is generated by passing the vapors of oil or other liquids, being distilled, through a Vessel containing waters, or vice

being distilled, through a vesser containing waters, • **eccepts2.

4th, The method herein described of separating the condensible from the non-condensible gases, or any • ther method whereby the condensible gases are made to collect in the lower part of a receiver, while the non-condensible gases are made to pass off by the suction of a current of steam, substantially as herein set for tha and for the purpose specified.

5th, The water-jacket, G', connected with supply-pipe, H, and water-tank, R, in combination with tubular condenser, F, • per-ating as described, or in any other manner to accomplish the purpose specified.

6th, Thereceiver, L, in combination with tubular condenser, F, steam-pipe, K, and discharge-pipe, O, operating substantially

ating as described, or in any other manner to accomplish the purpose specified.

6th, Thereceiver, L, in combination with tubular condenser, F, steam-pipe, K, and discharge-pipe, O, operating substantially as and for the purpose shown and described.

7th, The annular chamber, E, composed by an inner and outer vessel, in combination with the condenser, F, constructed and operating substantially as and for the purpose specified.

8th, The method herein described of frecing the retort, B, from residuum, or any other equivalent means, whereby a retert or still is freed of its residuum by the force of a jet of steam, operating substantially as shown and described.

8th, The within-described process of cleaning the residuum by treating it with steam and water, substantially in the manner described and for the purpose set forth.

55,856. — Broom-HEAD. — Martin Haneline, Clear

Creek, Ind.:

I claim, 1st, The wooden frame, A, and the metallic plates, B, constructed and combined substantially as described and for the purpose set forth.

2d, The combination of the screw, C, and staple, D, with each other and with the wooden frame, A, substantially as described and for the purpose set forth.

55.857.—BUTTER-WORKER.—William H. Hart. Med-

55,857.—BUTTER-WORKER.—vv Illiam II. The consisting of the table, A, inclined table, e, slid ing-receiver, g, churn, h, and sait receptacle, a', when constructed and arranged substantially in manner and to operate as herein-before described.

And in connection with such a combination of parts, I claim the heater surrounding the churn, essentially as set forth.

55,858.—Boot on Shoe.—Gilbert Hawkes, Lynn,

Mass.: I claim, 1st, Δn inner sole, A, formed of a textile fabric, to be sed either with or without a stiffening preparation, as set forth

used either with or without a stiffening preparation, as section and described. 2d, A strip, B, of a textile or any other suitable material, when used as and for the purpose specified. 3d, The combination of an inner sole, A, formed of a textile material, with a strip, B, of any suitable material, as and for the purpose specified. 4th, The application to the lasting of boots and shoes sewed by machinery of an inner sole of textile material, substantially as described.

55,859.—Neck-tie Fastening.—John G. Hitchcock,

New York City:
I claim, 1st, The spring-snap, A, having the cross-stop, a2, on the sock ct, a, and the locking-enc, b2, on the catch, b, arranged as represented and having an opening, d, in the front other seeket, a, adapted to receive pressure as indicated, substantially in the mainer and for the purpose herein set forth. 2d, A neck-tie, one end of which is held by a clasp behind the bow, and the other is held adjustable by a hook and loops, all substantially as shown and described.

55,860.—Machine for cutting Fly-nets.—Austin

D. Hoffman, Detroit, Mich.:
I claim, 1st, The combination of two or more guillotine
alives with an intermittently moving entting-board for carryg the leather which moves in a direction transverse to the
worth of the knywe.

length of the knives.
2d. The combination with the said guillotine knives of the spring-block, T, arranged substantially as described, for detaching the leather from the knives.
3d. In combination with a pair of guillotine knives, I claim a vertically moving strip between the blades to disengage the leather therefrom.

55,861.—Machine for Fine-cutting Tobacco.—

Elijah Holmes, Lynn, Mass.:

I claim the knife, D, the bed-plate, G, and the gauge-plate, E, combined and arranged in the manner and for the purposes specified, substantially as above set fetth.

55,862.—LAMP CLEANER.—Benjamin F. Horn, Bos-

ton, Mass.:
I claim my improved lamp chimney-cleaner as made with the loop-spring, D, or its equivalent, and the trook, E, arranged and combined with the series of covered low-springs and the handle, arranged and applied together substantially as specified.

55,863.—BUTTON-HOLE SEWING MACHINE.—James A. and Henry A. House, Bridgeport, Conn.: We claim, 1st, Working a button-hole automatically and on both side without turning the cloth by the devices, substantially as described.

2d. The scroll cam ratchet-wheel to give a rectilinear reciprocatory motion to and govers the length of the button-hole, substantially as described.

3d. The combination of the scroll cam ratchet-wheel, sbifting pawl, and jog-bar, substantially as and for the purpose but forth.

pawl, and jog-bar, substantially as and for the purpose set forth.

4th, The combination of the scroll cam ratchet-wheel, the sweep bent-lever, and jog-bar, to space the stitching, substantially as set forth.

5th, The combination of the reciprocating vibrating clamping plate, the adjustable switch-wedge, and the jog-bar, for the purpose of varying the length of stitching for a button-hole, substantially as described.

6th, The combination of the jog-bar, clamping-plate, movable switch, and switch-block, to sew both sides of button-holes automatically, substantially as described.

7th, The combination of an adjustable stitching-plate with the fixed bed-plate, substantially as and forthe surpose set forth. Stil, The combination of the clamp to is in the cleath with an adjustable screw-pivot to render the bearing surface of the clamp parallel with cloth of varying thicknesses, substantially as set forth.

9th, The combination of the vibrating and reciprocating plate with the a justable clamp, when so arranged that both shall move together to hold the cloth smoothly between them.

55,864.—Button-hole Sewing Machine.—James

55,864.—BUTTON-HOLE SEWING MACHINE.—James

A. and Henry A. House, Bridgeport, Conn.:

We claim, 1st, Working button-holes automatically above or below the bed-plate of sewing machines, substantially as and fer the purpose set forth.

2d, Sewing button-holes automatically, giving the goods a progressive rotary and a vibrating movement from a center, to stitch the sides and ends of the button-hole with stitches of uniferm length.

3d, The combination of a jog-bar, a rack-bar, and a ratchetwheel with the cloth-holder, substantially in the manner and for the purpose set forth.

4th, The combination of a jog-bar, a pawl-lever, and toothed wheel with the cloth-holder, substantially as and for the purpose set forth.

5th, The combination of a jog-bar, a crank-lever, and supporting beam, L, with the cloth-holder, substantially in the manner and for the purpose set forth.

6th, The combination of an adjustable slide with the feed-device and cloth-holder, substantially in the manner and for the purpose set forth.

7th, The combination of a jog-bar, a pawl-sweep, and a ratchetwheel with the cloth-holder, substantially as andfor the purpose set forth.

8th, The jog-bar, when combined with the cloth-holder and pawl-sweep, substantially as described to give the cloth-holder all its required motions, to vary the spacing between the stitches, and to adapt the swing to button-holes of different lengths, substantially in the manner described.

55.865.—Button-Hole Sewing Machine.—James

-Button-hole Sewing Machine.-James

55,865.—Button-hole Sewing Machine.—James A. and Henry A. House, Bridgeport, Conn.:

We claim, 1st Operating the button-hole mechanism from the spooling-pin, substantially as and for the purpose of forth.

2d, The bed-plate, E, having a reciprocating motion and being laterally and longitudinally adjustable, substantially as and for the purpose estforth.

3d, The revolvable, reciprocating feeding-plate, combined with the vibrating bed-plate, substantially as and for the purpose described.

4th, The adjustable stitching-plate, combined withits eyelet guide, substantially as and for the purpose described.

4th, The combination of the center-plate and gibs, substantially as and or the purpose described.

6th, Thecombination of the center-plate and gibs, substantially as and or the purpose set forth.

6th, The dog-lever, combined with the center-plate, the block-craine, and the revolvable plate, substantially in thomanner and for the purpose described.

7th, The combination of the clamping-lever with the revolvable plate, substantially as described, to admit of the turning of the cloth, so that the button-hole can be worked at a right angle or less than a right angle to the selvage, or parallel therewith.

**The combination of the grooves in the rotating plate.

gle or less than a right angre to the stating plate with these in the clamping-lever, substantially as and for the purposeset forth.

3th, The feeding-screw to intermittently reciprocate the feeding-plate, or hold it at rest, substantially as and for the purpose described.

10th, The combination of the feeding-screw with the feeding-plate by spring half-nuts, substantially as and for the purpose setforth.

loss described.

10th The combination of the feeding-screw with the feedingplate by spring half-nuts, substantially as and for the purpose
setforth.

11th The combination of the feeding-screw with the bed-plate
and adjustable plate on the switch cam-plate, substantially as
and for the purpose set forth.

12th The combination of the switch, the jog-bar, and the slotted strap, substantially as and for the purpose set forth.

13th, The combination of the jog-bar with the adjustable slidebar, substantially as and for the purpose set forth.

14th, The combination of the bed-plate and shield-cap, substantially as and for the purpose set forth.

15th, The combination of the bed-plate and table with the adjustable lever and stitching plate, substantially as and for the
purpose described.

16th, The combination of the bed-plate, jog-bar, lever, and
stitching-plate, substantially as and for the purpose described.

17th, The combination of the friction-spring and adjustable
stops of the throw-lever y, with the jog-bar and its slop-pin,
substantially in the manner an for the purpose described.

18th, The combination of the plate and its adjustable screws
and pins with the switch-cam and jog-bar, substantially as and
for the purpose set forth.

55,866.—SEWING-MACHINE CLAMP.—James A. and Henry A. House, Bridgeport, Conn.:

Weelaim, 1st, Surrounding the opening in the table of sewing machines, through which the needle pusses, with a lining of india-rubber, substantially in the manner and for the purpose set forth.

d. The combination of the yielding presser with the rubbered opening, substantially as and for the purpose set forth.

55.867.—Knife and Scissors Sharpener.—M. V. B. Howe, Ashburnham, Mass.:

1. claim the combination of holder, A, having angular notches, and concave sharpener-plate, C, as and for the purposes de-

55,868.—TRUSS.—N. W. Hubbard, Fulton City, Ill. Iclaim atrossin which a pad of the form and arrangement substantially as set forth is connected in the manner set forth with a main spring of the form and rigid character, substantially as herein described.

55,869.—PUNCTURING MACHINE FOR MAKING PATTERNS.—Samuel Huffman, Carthage, Ill.:
I claim a machine, when so constructed with a puncturing point in combination with a spring, and when the machine entire is movable when in use, as is a pen or pencil tracing-point, substantially as herein described and forthe purposo herein set forth.

55,870.—CAR COUPLING.—Hiram Hughes, Savona,

N. Y.:
I claim the combination of the latch, B, with its catch, c, and pendants, d, d', of the form shown, and the pivoted bar, D, operating in combination with a snitable link, E, in the manner and for the purpose herein specified.

Losoph and Abraham Hursh,

55,871.—FERTILIZER.—Joseph and Abraham Hursh,

Philadelphia, Pa.: I claim the application of ocbre as a fertilizer, in either a raw or burntstate, substantially as described. 55,872.—GRINDING MILL.—John Hutchinson, Three

Rivers, Mich.:

I claim the slip coupling in combination with the central shaft having stirrers and the hopper, arranged and operating as described.

55,873.—Washing Machine.—Andrew Irion, Fem-

me Osage, Mo. Ante-dated May 14, 1866:
I claim the combination of the wheels, B, C, C', and crank-shatt, D, with the rubbers, F', and box, A, as and for the purpose set forth.

55,874.—FENCE.—Theodore E. King, Painesville,

Ohio:

I claim, 1st, The plate, A, constructed as shown in Figs.1 and 2 and herein particularly specified and used in series by overlapping or interlocking each other consecutively, for the purpose set forth.

2d, The plate as shown in Figs. 3 and 4, and constructed as specified, the same consisting of the addition to the foregoing plate of a vertical or upright part and arched braces. L, L, and used in series in like manner, as and for the purpose specified.

2d. The manner of plating or strapping the coaplings of the sections and covering their abutting ends, together with the mode of adjusting and bracing the panel, J, by means of the combined parts hereir described viz. plates Figs. 5, 6, 7, and 8, projecting places. J and M parts, O and T, and bolts, R and 5, arranged and operating as aerein set forth.

4th, The adjustable hinge constructed with the depressions, a, a, a, a, and slots, U. Substantially as shown in Figs. 10 and 1, in combination with the tooth, b, and screw-holes, c, of the lower plating of the Easte, as herein described and for the purpose specified.

pose specified.

5th. The adjustable catch as shown in Figs. 14 and 15, provided with the sere wholt, W, and projecting stud, X, in combination with the opening, Y, of the post, and constructed and arranged as and for the purpose set forth.

55,875.—WATER WHEEL.—Louis Kratzer, Baltimore, Md.:

I claim the arrangement of the wheels, A, B and C, so as to make use of the whole body of water in its descent to the level below, and its action in passing off, as herein set forth and described.

55,876.—FARM GATE.—Joel Lee, Galesburg, Ill.:
I claim, 1st, The friction rollers, A, A, when used as set forth
and described.
2d, The arrangement of rollers, A, A, with the roller, B, and
the roller support, C, all arranged as set forth and described.

Lexington, Va.:
I claim, 1st, Combining a rake with a revolving reel in such manner that the rake shall receive a rectilinear movement across the platform at every revolution of the reel, and without stopping the movement of the latter, substantially as described.
2d, Supporting and guiding a release 3.

across the platform it every revolution of the rect, and which controlled.

2d, Supporting and guiding a rake-staff, D, by means of a revelving reel in such manner that the rake shall revolve with the red after the termination of each raking stroke, and then move across the platform in a line which is at right angles or nearly so to the line of draught, substantially as described.

3d, Supporting and guiding the rake-staff by means of a slotted cross-place, by, applied to the ree, and arranged so that the rake, D, shall be helf a right angles to the finger-beam in its passage across the platform substantially as described.

3th, A rake which is applied to a red olving a beaution of the rake, by the rake of the path of the rake of the rake of the rake of the rect previously to the rake of the outer end of the standing grain, substantially as described.

3th, A rake which moves in a right or nearly right line across the platform, so pivoted to the reel that it is capable of swiveling and wibrating substantially as described.

4th, Providing for moving the rake to the outer end of the reel previously to the action of the guide-arm, bl, upon the standing grain, substantially as described.

3th, The rike pivotect to the reel so as to revolve with it, constructed and controlled substantially in the manner and for the purpose described.

55,878.—CAN-OPENER.—O. J. Livermore, assignor to himself and Clark, Lawyer & Co., Worcester, Mass.:

I claim a can-opener, constructed substantially as above described.

-TAG OR LABEL FOR EXPRESS COMPANIES, 55.879.-

59,879.—TAG OR LABEL FOR EXPRESS COMPANIES, ETC.—E. A. Locke and L. Heiiser, Boston, Mass.: We claim, 1st, the combination of the two parts of the tag, a and b, when united by the folding of the end of a over and with b, and perforated through the reinforcement of the folds for reception of the band.

Also, in combination with a tag and band a projecting unclinched cyclet secured to the band by the confinement of its head or flanch between the adjacent surfaces of the parts eyelet dogsther, to secure the tag to the band, the cyclet being thus held in position for application and securement of the opposite end of the band, substantially as set forth.

-Burning-fluid. - David Mansfield, Oshkosh. Wis. :

кови, vv is.: I claim a burning-fluid for illuminating purposes which is composed of the several ingredients mixed together in about the proportions herein mentioned.

55.881. CARDING MACHINE.—James McDonald, De

55,881. CARDING MACHINE.—James McDonald, Detroit, Mich.:
Iclaim, ist, The use of a thin shell in the place of the thick and wooden one heretofore used, which thin shell is set in combination with the roller for the purpose of taking the wool from the roll-toffer at once without comb-crank or intermediate roller, said shell being set closer up to the roller than heretofore, and made adjustable nearer to or far from the roller at will.
I also claim, as a component part of said improvement above described, the insertion of narrow lits of wool-cards (the teeth of which should be a trifle shorter than, and set contrariwise to, the ordinary card teeth of the roll-doffer in the spaces of the roll-doffer heretofore left suitable and unfurnished with cards or teeth, and the change above prescribed in the size of the pulleys, by means of which pulleys the band of the machine turns the roller and roll-doffer.

-GATE FOR FOREBAYS.-J. J. Meeker and Levi Cartright, Columbia, Pa.:
We claim the flexible gate, B, constructed and operating sub
stantially as and for the purposes set forth.

55,883.—FENCE.—S. H. Mitchell, El Paso, Ill.:

DO,005.—FENCE.—S. H. Mitchell, El Paso, Ill.:
I claim, 1st, The stakes, B. D. connected by bolts, C. in combination with the upright posts, A, of the panels with which posts the upper ends of the stakes, B. are connected by bolts, E, substantially as and for the purpose specified.
I also claim the covering of the notched ends of the slats, F, of the panels with sheet-metal or strap-iron,c, substantially as and for the purpose setforth.
I further claim the securing of the panels so as to prevent a vertical movement of the same by means of a screw, b, or its equivalent, applied as shown, when used in combination with the notched ends of the slats. F, of the panels, substantially as described.

-WELL-BORING APPARATUS.-David Morris,

55,884.—Well-Boring Apparatus.—David Morris, Bartlett, Ohio:
I claim, ist, A drill having two or more wings, W, with their cutting edges constructed and arranged as herein described and represented.

21, The toke, H', provided with a valve, h, and attached to, and moving with, the drill-rod, h, substantially as and for the parpose explained.

3d, The combination of the circular frame, A, coggedrim, C, connecting-rod, G, rope, L, and drill, H, the whole being constructed and arranged as herein described and represented.

4th, The combination of the coggedrim, C, and garring, S, S, with the beveled gear, R, windlass, Q, shifting-rod, S, rope, N

and adjustable block, L, the whole being arranged to operate in the manner and for the purpose set forth,

55.885.—FLOUR PACKER.—John Musser, Frizell-

burg, Md.:

I claim the movable evers, E, operating on the vertical stampers, G, with the upright revolving cylinder, J, when arranged, combined, and operated as herein described and for the purpose set forth.

55,886.—Apparatus for agitating and heating SUBSTANCES.—George Nebeker, Wilmington, Dl.: I claim a tube, A, in combination with an internal pipe, B, and with a tube, C, communicating with the said pipe, B, and with a steam boiler, substantially as and for the purpose described.

55,887.---Sugar-mold.-Frederick Nishwitz, Wil-

by,88%-SuGAR-MOLD.—Frederick Mishwitz, Williamsburg, N. Y.:
I claim, 1st, Combining a sugar-mold tip with a body of papler-mache, or other en alvalent material, the two purts being constructed and arranged substantially as described.
2d., Clamping the body of the mold to the tip, and holding the two parts I opineeply means of a wrapping of Who, substantially as described.
3d. Combining with the doverabled flange on the tip the shoulder out the body of the mold, when the latter acts as a stop to prevent the wrapping from slipping off the cone, substantially as described.

-Sugar-mold Tip.-Frederick Nishwitz,

Williamsburg, N. Y.:

I claim, 1st A separate and separable tip for sugar-molds, constructed and operating substantially as described.

2d, Clamping the body of the mold between an inner metallic tip and an outer metallic cap, substantially as described.

55,889.—EYE-WATER.—Michael Noll, New York

City: I claim the herein-described eye-water, composed of sulphate zinc and the white of an egg dissolved in distilled water, bestantially as set forth.

55,890.—MILL SIEVE.—E. D. Norton, Bradford, Pa.: I claim an improved screen or upper sieve for a fan-mill, formed of strips, B, of corrugated sheet-metal, attached at their ends to the side-bars of the frame, A, of the sieve, and so arranged that the for ward edge of each strip, B, shall overlap the rear e ge of the adjacent strip and that the concavities, b', of each strip shall be in the same vertical plane with the convexities, b2, of the adjacent strips, substantially as herein described and for the purposes set forth.

55,891. - ROOFING. - Rufus Norwood, Baltimore,

Ald,:
i claim, ist, A roof which is in part composed of several overlapping strips of fet, or its contralent, applied in counterdiagonal positions, substantially as described.
24. The combination of the several strips, c, c, and strips, d, with the feltion, as described, so that gatters or chancels at the junction of the roof with the free wall can be formed, neverthing thereby the connect covering from being detached from the roof and wall, substantially as described.

55,892.—CARBON BATTERY CONNECTION.—Aaron

S. Ogden, Newark, N. J.:

I claim surrounding the junction of the wire, A, with the platina, and a portion of the said wire, A, with the covering. B or its equivalent; also the combination of the carbon with the said covering, B, and platina, D, substantially as described and for the purposes set forth.

55,893.—HYDRANT.—James Old, Pittsburg, Pa.: I claim, let, Connecting the operative parts of the hydrant to the supply or acryice-pipe at a point below the working valve or cock by means of a joint, in such manner that the hydrant may be removed and separated from the supply or service-pipe without cutting any pipe or uncrewing any joint, substantially as herein before described.

cock by means of a joint, in such manner that the hydrant may be removed and separated from the supply or service-pipe without cutting any pipe or unscrewing any joint, substantially as herein-before described.

2d. So constructing the hydrant, substantially as herein-before described, as that all the operative parts above and including the working cock or valve are connected together as one piece, and may be attached to a removable silde, either placed in or forming part of the hydrant-box, substantially as and for the purposes herein-before set forth.

2d. The check-valve placed below the working-valve of a fire-plug or hydrant, so constructed and arranged as that the valve will shut whenever the hydrant or fre-plug is removed from the supply a service-pipe, and that it shall be opened to allow of the plassage of water from the supply-pipe either by the opening of the working valve whenever the fire-plug is used, or beken open by the ping or hydrant when it is placed in connection with the supply or service-plue, substantially as herein-before described.

55,894.—LIFTER FOR STOVE-COVERS AND CULINARY

VESSELS.—Joseph Old, Reading, Pa. .

I claim the described universal lifter, constructed with hooks, D, in combination with the fixed jaws, A, B, at one end, the ther being prolonged into a handle, E, in the manner and for its purpose specified, as a new article of manufacture in design

55.895.—Drill Coupling.—Edward E. and Charles

OU,ONO.—DRILL COUPLING.—Edward E. and Charles T. Packer, Philadelphia, Pa.:
We claim a section having an external screw-thread and a recess, in which is a spring-spine or feather, in combination with a section having a socket with an internal screw-thread and a slot adapted for the reception of the end of the said spline or feather, the whole being constructed substantially as and for the purpose specified.

55,896.—Sheep-rack and Holder.—Enos Page,

Streetsborough, Ohio:
I claim the adjustable sides, B, B, lips, b', b', and grooves, a, a', in combination with the cleat, D, and buttons, D', arranged as and for the purpose set forth.

55,897. - BOOK-HOLDER. - Owen B. Parker, Wood-

55,897. — BOOK-HOLDER. — OWEH B. 12.22, ville, Mass.;

I claim the combination as well as the arrangement of the two bars, A, B, their lips, a, a, b, b, and leaf-holders or arms, D, D, with the elastic ban s, C, C.

I also claim the combination and arrangement of the brace-hole and looped strap or fibbon, with the two bars, A, B, and their lips, a, a, b, b, the elastic connections, C, C, and arms, D, D.

I also claim the combination and arrangement of the brace or prop and the looped strap, with the two bars, A, B, their lips, a, a, b, b, elastic connections, C, C, and arms, D, D.

I also claim the combination of the fingers, g, g, with the arms, D, D, the hars, A, B, their lips, a, a, b, b, and elastic connections, C, C, the whole being as and for the purpose set forth.

55,898.—MEDICINE TO CURE CHOLERA, ETC.—Anna E. Parrott, Norfolk, Va.:

I claim the medicine prepared substantially as herein described.

55 899 -- Corn-sheller and Bean-thrasher.

59,899. — CORN-SHELLER AND BEAN-THRASHER. — Benjn. P. Pendexter, Mechanic's Falls, Me.: I claim combining the feeding-drum, C, having horizontal buckets, m, and hooks, n, on the outside, with the toothed beater, D, the clastic concave toothed bed, E, made in sections; the clastic bed-plates, F, supported and operated by the spiral springs, b, the fau, G, the sieve, II, and the clevator, I, the whole several parts being constructed, connected and arranged, substantially as and for the purposes herein described.

55 900 - WATER-CLOSET. - Barton Pickering, Mil-

50,900. — WATER-CLOSET. — Barton Pickering, Milton, Ohio:
I claim, 1st, The arrangement of the vessel, A, seat, B, and valve, C, the whole constructed substantially as described and for the purposes set forth.
2d, The arrangement of the spring, f, and bar, p, to hold the scat, B, in a vertical position, and the valve, C, in a nearly horizontal position, substantially as described and fort he purposes specified.

55,901.—SKATE.—J. M. Plimpton, New York City John John Jate 1988 A. Filmpton, New York Orly I claim, ist, The construction of the plates, B, and hangers, G, arranged and applied to the stock or foot-stand, to operate in the manner substantially as andfor the purpose set forth.

2d. The key. F, provided with the slots, j, l, and the button, G, and arranged in connection with the pin, K, substantially as and for the purpose set forth.

and arranged in connection with the pin, K, substantiany as and for the purpose set forth.

3d. The springs, p, applied to the screws, n, which secure the hangers, C, to the plates, P, for the purpose of preventing vertical or upward and downward play of the hangers, and controlling the turning, tliting, or canting of the stock or foot-stand, as set forth, 4th, The clamps, II, composed of two parts, g, r, for holding the suggestable numbers.

4th, The clamps, 11, composed a two parts, 3 s, 5 th, The reversible runners, 1, 5th, The reversible runners, arranged substantially as shown, for the purpose specified.

55.902.—Horse Hay-fork.—Isaac T. Price, Lees-

10,302.—HORSE HAY-FORK.—ISAAC I. Frice, Deesville, Ohio:
I claim, 1st, The combination and arrangement of link, C, hook, I, catch, G, and trigger, Q, substantially as and for the purpose et forth.
2d, The construction and arrangement of the handle, B, head, A, and prongs, p.

55.903.—LOCOMOTIVE LAMP.—James Radley, New

York City:

York City:

I claim the combination of the lamp with the oil-tank by means of one or more small oil-tubes incased with a non-conductor of caloric, arranged and constructed in the manner substantially as described.

described.

55,904. — ENGINE HEAD-LIGHT. — James Radley, New York City:

I claim, 1st, The foundation piece, with its recess and covering-plate, in combination with the inclosing tube and the wick so arranged and constructed that the parts may be conveniently brazed together instead of being soldered, thereby rendering the lamp more safe and permanent, substantially as herein shown and described.

2d, The wick-pinion and its spindle, in combination with the movable stuffers be and the substantially as herein shown and described.

2d, The wick-pinion and its spindle, in combination with there-movable stuffing-box, arranged and constructed substantially as described.

55,905.-Mowing Machine.-Amos Rank, Salem,

Ohio:

I claim, 1st. The construction of the hanger, E, with a depressed stirrup, E', which is open on all sides but one above the shart, e, and below the shart, b, substantially in the manner and for the purpose described.

2d, The combination of the hanger, E, constructed with the open stirrup, E, and the rear hanger, F, all constructed and arranged substantially as described.

3d, Constructing the front hanger, E, E', so that it can be attached to the top of the lon gitudinal beams, A, A, and at the same time will serve as a support for the two shafts, c, b, in the manner substantially as shown and described.

4th, The hanger, E, and open stirrup, E', cast in one piece, substantially as shown and described.

55,906.—FENCE-GATE.—F. Raymond and A. Miller,

Cleveland, Ohio:
We claim the cord, h, adjustable case, e', and sheave, e, in combination with the gate, A, arm, F, when arranged and operating substantially as and for the purpose set forth.

55,907.—WINDOW-SHADE.—Henry Read, Ypsilanti,

50,907.—WINDOW-SHADE.—Henry Read, Ipshanti, Mich. t.
I claim the combination of the staples or rings, C, C2, C3, or their equivalents, conts, E, E, secured to a tassel, D, either weighted or not, when arranged and connected together and to a window-curtain or shade so as to operate thereon, substantially as and for the purpose described.

55,908.—CORN-PLANTER.—W. E. Rich, New Provi-

55,908.—CORN-PLANTER.—W. E. Rich, New Providence, Iowa:
I claim, 1st, The hinged bars, D, D, provided with the rollers, i, and boxes, G, in connection with the wheels, II, having seed-cells, b, made in them and ro s, c, attached with weights, i, at their upper ends, all arranged to operate in the manner substantially as and for the purpose specified.
2d, The hoes, F, attached to the rear ends of the bars, D, in combination with the seed-dropping mechanism attached to said bars, D, for the purpose set forth.
3d, The rollers, II, I, in combination with the seed-dropping mechanism and covering-hoes, substantially as and for the purpose specified.
4th, The attaching of the rollers it a common and covering-hoes, substantially as and for the purpose

specified.

4th, The attaching of the rollers, i, to arms, g, pivoted to the bars, D, and retained in position by bars, i*, and bans, i, arranged substantially as shown and described for the purpose of adjusting the bars, D, as set forth.

55.909.—AUTOMATIC MACHINE FOR LIGHTING AND EXTINGUISHING GAS.—H. Stone Richardson, assignor to himself and E. P. Russell. Manlius,

N. Y.:

I claim, 1st, The setting-wheel, C, in combination with the hands, d and e, shafts, g and h, and cams, D, D', substantially as and for the purposes set forth.

2d, The match cylinder, G, constructed and operating substantially as and for the purposes set forth.

3d, The dogs, K, K', and K2, in combination with cylinder, G, and plate, J, substantially as and for the purposes set forth.

4th, The cams, D, D', cam-levers, N, N', connecting-levers, O, O dog-levers, L, L', and springs, P, P', constructed and arranged substantially as and for the purposes set forth.

5th, The setting-wheel, C, provided with cog-wheel, i, when so combined with cock cog-wheel, i, as to alternately turn the gas on or of, substantially as herein set forth and described.

6th, The 4raught-pipe, It, operating substantially as described and in combination with the match-tubes, K.

-REAPING MACHINE.-E. P. Russell, Man-

55,910.—REAPING MACHINE.—E. P. Russell, Manlius, N. Y.:
I claim, 1st, The "side-dumper," O, or its equivalent, substantially as and for the purposes set forth.
2d, The dumper-reel, II, in combination with the side-dumper, O, substantially as and for the purposes set forth.
3d, The combination of the dumper-reel, II, side-dumper, O, and track-ckearer, U, substantially as and for the purposes set forth.
4th, The device used for tripping the dumper-reel, substantially in the manner described.

55,911.—MEDICAL COMPOUND.—W. F. Salie, Bow-

doinham, Maine:
I claim a medical compound composed of the several ingredients rein named, and either with or without a flavoring material or ubstance, when mixed together in about the proportions described, and for the purposes specified.

55,912.—Machine for making Horse-shoe Nails.
—George W. Sargent, Fairhaven, Mass., and Benjamin P. Rider, Chelsea, Mass.:
We claim, 1st, Operating the hammers, C, C. C', C', by means of the sliding connecting pieces, D, and cam, F, substantially as and for the purpose specified,
Also, the adjustable boxes, G, in combination with the cam-shaft, E, connecting pieces, D, and the hammers, as and for the purpose specified,

55,913.—RAILWAY SWITCH.—Charles H. Sawyer,

Hollis, Maine:

I claim, 1st, The combination of the jointed levers, h, with he sliding bar, g, and curved arms, a, with the cross-bar, b, all claseribed.

I he arranged, and operating as herein set forth and tescribed.

I he arrangement of the springs, y, to lift the levers, i, as

described.

3d. The arrange ment of the arms, z, z, for the purpose of locking and unlocking the switch by hand, as described.

55,914 -AUTOMATIC GATE .- J. H. Schenck, Chica-

55,914.—AUTOMATIC GATE.—J. H. Schenck, Chicago, Ill.:
I claim, 1st, The gate, A, pivoted at the top of the post so as to swing like a pendulum, when the way is to be opened, substantially as described.
2d, In combination with the vibrating gate, A, the reciprocating platform, for the purpose set forth.
8d, In combination with the vibrating gate, A, the latch, substantially as and for the purpose set forth.
4th, The reciprocating platform, supported upon the lary bars, and connected to the gate by the rod, substantially as described.
5th, In combination with the reciprocating platform and the flanges, substantially as described and forthepurpose set forth.

55,915.—APPARA'IUS FOR PRODUCING EXTRACT OF HOPS, ETC. — John Schneider, Williamsburg, N. Y.;

N. I.;
I claim the siphon-tube, E in combination with the tightlyclosed vessel, A, which is provided with a horizontal partition
or spurger, D', false bottom, C, and discharge coil, F, substantially as and for the purpose described.

55.916.—MANUFACTURE OF CAR WHEELS.—J. Sco.

ville, Buffalo, N. Y.:

I claim the combination of spiegeleisen and iron in the manufacture of car wheels, in the manner herein described.

55,917.—PICTURE NAIL.—Frederick J. Seymour, Wolcottville, Conn.:
I claim an ornamental picture nail-head made with a screw for the nail, in the manner specified.

55,918.—DRILLING MACHINE.—Frederick Shaller.

Hudson, N. Y.:

I claim, 1st, The fixed feed-screw, E, the hand-wheel, F, containing the nut, x, and the arms, i, a land b, in combination with the drill-spindle and frame, B, of the machine, all arranged substantially as herein specified.

2d, The combination of the frame, f, f, the drill-spindle, C, the pulley, D, and rod, d, substantially as and for the purpose herein set forth.

55.919.—MACHINE FOR CUTTING WINDOW-SHADE

SLATS.—P. P. Simmons, Davenport, Iowa:
I claim, ist, The arrangement of the nearly horizontal rotary cutters, C, C, table, A, and the guides, a, a, substantially in the manner and for the purpose described.
2d, The arrangement of the "ocket bearings, D, cutter-arbor, b, cutter, C, adjustable devices, c and d, and table, A, substantially in the manner and for the purpose described.

55,920.—GARBAGE BOX.—James Joseph Slevin, New

York City:

I claim, ist, The garbage box, with its top constructed so as to form a part of the sidewalk of the street, and with a door or lid in said top, so that the said top with its door covers the garbage box, forms part of the sidewalk for pedestrians, and permits the contents to be readily thrown out, thus enabling the garbage box to be sunk below the level of the sidewalk, as de-

mits the contents to be readily thrown out, thus enabling the garbage box to be sunk below the level of the side walk, as described.

2d, The construction of the garbage box with two horizontal doors, to form parts of the sidewalk, the smaller within the larger as described.

3d. The garbage burb of the sidewalk, so that the box may be fet as garbage box burb of the sidewalk, so that the box may be fet as garbage burb of the sidewalk, so that the box may be fet as garbage possible to the carriage-way for convenience of throwing its contents into a cut.

4th, The combination of the garbage box with a drain grating extending up to or near its top, so that the liquid matter may drain from the surface of the garbage, wherever that may be, as described.

5th, The combination in a garbage box of the following parts, viz., the body of the box, the top constructed with a door to form part of the sidewalk of the street, and one side constructed to form part of the curb of the street, as described.

-GANG PLOW .- Joseph D. Smith, Peoria,

55,921.—GANG PLOW.—Joseph D. Smith, Peoria, Ill.:

I claim, 1st, Arranging the gang of plows between the forward and the rear points of support of the carriage frame, to which said plows are attached when they are free to rise or fall independently of each other, substantially as described.

2d, Pivoting the forward ends of the plow-beams, D. D. to the carriage frame, by means of rods, b, b, which are adjustable at their outer ends in slots, c, c, for the purpose of leveling the plows, substantially as described.

3d, The combination of the vibrating plow-beams, D. which are plvoted to a carriage frame at a point which is in front of the transporting wheels, with a device which will admit of the forward part of said frame being elevated or depressed at pleasure, substantially as described.

4th, in combination with plows which are arranged in advance of the axle-tree, B, and plvoted so as to be capable of rising or falling, I claim the gravitating catches, d, d, or their cquivalents, substantially as described.

5th, The arrangement of levers, F, E, vibrating plows, D, D, and catches, d, d, substantially as described.

6th, Providing for adjusting the forward end of the carriage frame, for regulating the pitch of the plows, by means of draught-pole, G, lever, H, substantially as described.

7th, Connecting the rear end of the pole, G, to the axle, B, by means of a pin, c, and a laterally adjustable plate, f, substantially as described.

8th, The adjustable draught-rod, K, arranged and applied to the plowe arrange so as to operate substantially as described.

9th, The combination of a pole, G, which is adjustable at its front end, substantially as described.

.55.922.—Top-sail Reefing Rig.—Wm. G. Smith

and Daniel Hooper, New York City:

We claim, 1st, In connection with a single top-sail, a flowing middle yard or reefing-boom, D, cliecking-line, g, g, bifurcated lifts, M, in, m, and preventer lifts, K, all arranged and operating as herein shown and explained.

2d, The combination of the binding-rope, f, f, and loops formed by stops, e, e, for securing the belly of a top-sail to a broom, D, or middle yard, substantially in the manner and for the purpose specified.

55,928.—LACING FOR BOOTS AND SHOES.-

55,U24.—LACING FOR BOOTS AND SHOES.—Leonard A. Sprague, New York City:

I claim, 1st, The lacing-eyelet in which the lacing-eye is formed in one piece with the fastening device, substantially as herein shown and described.

2d, I claim the combination of two or more lacing-eyes with intermediate links, when the same are formed of one piece of wire, substantially as herein shown and described.

3d, The method of fastening lacing-eyelets, substantially as described, by confining the shanks or links thereof in the folds or between two thicknesses of leather or other material, to which the lacing is attached.

55,924.—BOOK-HOLDER.—David J. Stagg, New York

I claim the arms, C, C, secured in the cleat or strip, B, by crews, b, b, and provided with pivoted fingers, D, at their outer nois in connection with the inclined frame or base, all arranged abstantially as and for the purpose specified.

55,925.—STAND, DESK, AND BOOK-HOLDER.—David J. Stagg, New York City:
I claim the stand, writing-desk and book-holder consisting of the bed-piece, D. hinged-frame, E. hinged-board, F. provided with the fingered arms, G. G. and him ed-bar, I. combined and operating in the manner and for the purpose herein specified.

-PORTABLE FENCE.-Jno. K. Staman, Mif-55.926.-

flin, Ohio: claim the braces, d, d', and counter-brace, d'', in combination tit the posts, B, and cross-rails, e, e', when constructed and ranged in the manner and for the purpose set forth.

55.927.—NEEDLE FOR SEWING MACHINES.—Monroe

Staimarl, New Britain, Conn.:

I claim the employment of the needle as described, in combination with a shuttle or its mechanical equivalent, substantially as and for the purpose described.

2d, As a new article of manufacture, I claim an eye-pointed sewing-machine needle, a, eccentric with reference to its shank, c, substantially as and for the purpose described.

55,928.—Washing Machine.—Henry H. Staples,

Woburn, Mass.:
I claim the arrangement and combination of the bar or lever, D, its handle or handles, d, d, and the standards and roller, c, with the rubber, the tub, and the series of rollers disposed in such tub, the whole being substantially as specified.

-Meansifor Fish to pass over, Dams.-55.929.-

Daniel Steck, Hughesville, Pa:
I claim an improved device for facilitating the passage of fish over dams, formed by combining a series of inclined planes, E, I, J, K, L, with each other, with the partition walls, G, O, P, R, with the side walls, F, N, and with the end walls, T and S, the whole being constructed and arranged in connection with the end of the dam and with the bank of the stream, substantially as described and for the purpose set forth.

55,930. — Horse, Rake.—Henry, Stimmel., Canton,

Oldo: I claim the combination of the peculiarly shaped iron, "G," having a slot, "K," therein, with the screw, "H," in connection with the lever, "F," substantially in the manner and for the purpose specified.

55,931.—Stop-cock.—Herman Strater, Jr., Roxbury,

I claim in a stop-cock providing its plug with elastic yielding filling, substantially as and for the purpose described.

55,932. — WRENCH.—George C. Taft, Worcester,

Mass.: Laim the arrangement of the nut, I, in combination with the handle, G, tang, A, and ferrule, H, with its shoulder, b, and sep, J, constructed and operating in the manner and for the purpose herein described.

55.933.—BUCKLE.—D. S. Thompson, West Haven,

Conn.:
I claim the combination of the frame, A, with the tongue, B, and bar, C, when the tongue and bar are hinged to therear bar of the frame, the whole constructed and arranged to operate substantially in the manner herein set forth.

55,934.—CHURN.—W. H. Tillou and S. Shumway,

Le Roy, N. Y.:
We claim the gear or cog-wheel, D, constructed with curved cogs or flanges on the side of its rim, substantially as herein described, in combination with the cog-wheel, C, of the dasherhandle, B, for the purpose of frequently reversing the motion of the dasher, A.

55,935. — CARPET-STRETCHER. — E. W. Twing, Springfield, Mass.:
I claim, 1st, The coupling consisting of the slides, D. E. pivot, b, socket, c, and set-screw, a, or its equivalent, in combination with the shafts, A, B, of a carpet-stretcher, substantially as

with the shafts, A, B, OI a carpet-stretcher, substantially associated.

2d, The rounded head, C, in combination with the levers, A, B, and shides, D, E, arranged and operating in the manner and for the purpose herein specified.

55,936.—Broom-HEAD.—James Wasson, Fairwater,

Wis.:

I claim, 1st, An improved broom-head, formed by combining with each other and with the socket, A, the two parts or halves, B and C, constructed substantially as herein described and for the purposes set forth, said halves being held together at the lower part of their side edges by the barbed spike-hooks, F. 2d, The combination of the two perforated or roughened plates, D and E, constructed as described, with the parts or halves, B and C, substantilly as and for the purpose set forth.

3d, The combination of the barbed spikes, F, with the halves or parts, B and C, substantially as described and for the purpose set forth.

-Tobacco-Press.-W. H. Watson, Yonkers, 55,937.-

N. Y.:
I claim, 1st, The inner or secondary box, constructed and opering, substantially as described, for the purposes set forth.
2d. In combination with the same, I claim the outer box topate and clamps, when the same shall be constructed, combined, deperated substantially as shown.

55,938 -Apparatus for Oiling Journals.—James

E. Weaver, Temperanceville, Va.:
I claim the combination of the vessel, c, and pipes, d and e, with a "plumber-block," or bearing of shafting, as herein described and for the purpose set forth.

55,939.—Stove-Pipe Drum.—Harvey G. Whittaker,

Do. 359.—STOVE-PIPE DRUM.—Harvey G. Whittaker, Brattleboro', Vt.:
I claim the combination of the internal drum, B, intermediate drum, A, and external drum, C, with the pipes, D, E, F, G, when the parts are constructed and arranged in the manner and for the purposes herein described.

55,940. - SASH-SUPPORTER. - Martin V. B. White, Troy, N. Y.:

Iroy, IN. 1.:
I claim the employment of the arm-piece or rod, c, having the humb-piece, I, thereon and the opposite end thereof so constructed as to receive the roller, D, and operate the same within the tringular recess, E, each being arranged and combined in the maner substantially as herein described and set forth.

55,941. — MEASURING-FUNNEL. — A. H. Whitney,

Portland, Me.:

I claim the combination in a funnel of the graduated scale, the op-cock, the flange and airvent, allas and for the purposes speci-

55,942. — HARNESS-HOOK. — J. J. Wilkins, Virdeu,

I claim the hook, A, provided with the transverse opening or hole, n, and the horizontally projecting cars, a, constructed and operating as shown and described.

55,943.—RAILROAD SWITCH.—John A. Williamson, Lafayette, Ind.:

I claim the combination of the bridge, A, tapered guide, B, and tapered bar, C, when the latter is securely pivoted to the guide, B, and all constructed and arranged in the manner and for the purpose herein specified. | 55,944.—DIE FOR CUPPING OR RAISING ARTICLES
OF METAL. — Samuel R. Wilmot, Bridgeport,

Conn.:
I claim the attachment of the blank-holder, B, directly to the bed-plate or fixed die, A, substantially as herein setforth for the purpose specified.

55,945.—Boring Machene.—Benjamin T. Young, Charlestown, Mass.: I claim a grooved cam constructed with inclined sides, in combi-nation with a cone-traveler.

55,946.—Weighing-car. - Joshua H. Zinn, King-

5,946.—WEIGHTMU-CALL ston, Tenn.:

I claim, 1st, The arrangement of the levers or frame, B and C, ithin the bottom portion of the frame of a car and connected to-ether, and with any suitable weighing-lever or beam in co-ubina-on with the inside box or casing resting at each end upon such ames, B and C, substantially as described and for the purpose

frames, B and C, substantially as described and for the purpose specified.

2d, The shaft, P, having cam-shaped disks, R, so arranged as to lift the inside box from the weighing-levers or frames, for the purpose set forth.

55.947.—MACHINE FOR HULLING COFFEE.—Robert

55, 447.—MACHINE FOR HULLING COFFEE.—Robert Anderson, Brooklyn, N. Y., assignor to S. O. Ryder, New York City: I claim the combination in a machine for hulling and polishing coffee of an obliquely ribbed wheel, E, rotating within a steplily conical toothed concave, A, constructed as described, and a series of wings, G, rotating within a horizontal tapering or conical case, A, the whole arranged to operate substantially as herein set forth for the purpose specified.

55,948.—Broom-HEAD.—J. D. M. Armbrust, assignor to himself and Jacob Freetly, Apolloborough, Pa.

Pa.
I claim the metailic band composed of thin metal and fursished with slots, in combination with the strengthening pieces
and boits and nuts as and for the purpose described; also the
combination of the movable cap piece and the handle slotted at
itslower end, for the passage of the boits constructed as described, and for the purposes set forth.

55,949.—APPARATUS FOR CARBURETING AIR.— Franklin H. Brown, assignor to himself and James

Franklin H. Brown, assignor to himself and James F. Griffin, Chicago, Ill.:
I claim, 1st, The combination of a series of revolving buckets, F. and a hollow stationary shaft, G. provided with the openings, a and b, arranged and operating subsuntially as and for the purposes specified.

2d. The combination of a series of revolving buckets, F. and a stationary hollowshaft, G. when provided with the partition, in, and the openings, a and b and c and, arranged and operating as and for the purposes shown and described.

3d. Incombination with a carbureter, A, arranged above the burners, I claim the employment of a device for compressing and forcing air into the same, substantially as and for the purposes herein specified and shown

4th, The employment of an automatically closing valve, V, in combination with a close carbureter, arranged above the burners and a device for compressing and forcing air into the same, substantially in the manner and for the purposes specified.

substantially in the manner and for the purposes specified.

55,950.—APPARATUS FOR CARBURETING AIR.—Franklin H. Brown, assignor to himself and Jas. F. Griffin, Chicago, Ill.:
Iclaim, 1st, The combination in one device of two or more siphons, arranged and operating substantially as and for the purposes specified and shown.

2d, The arrangement of the pans of a carbureter in two or more independent sets, in combination with devices for drawing off the contents of said sets separately, and of the pans in each set simultaneously, substantially as specified and shown.

3d, The arrangement of a deflector, V, with the inlet tube, N, substantially as and for the purposes described.

4th, Providing the inlet tube, N, with a cap, P, arranged as shown and for the purposes set forth.

5th, The combination and arrangement of the deflector, V, and cap, P, with the inlet-pipe, N, substantially as specified and shown.

55 951 -Composition of Matter -Lewis Francis assignor to himself and Cyrus H. Loutrel, New

York City:
I claim combining glue, gly cerine, and silicates, with or without saccharine matter, to form a new and useful composition of matter for various purposes.

Toba Green hasignor

55,952.—GRAIN SEPARATOR.—John Green, assignor to himself and James W. Barker, Norwalk, Ohio: I claim, 1st, The two fans, c, c, in combination with the two shoes, F, F, operated by mean of, the gearing, connecting rods, and levers from the driving-shaft of the machine, substantially as and for the purpose herein set for th.

2d, The double inclined ends of the upper screens, i, of the shoes, F, F, in combination with the side openings, m, in the shoe-boxes, substantially as and for the purpose set forth.

55,953.—FASTENING FOR FRUIT CANS.—George H. Hammer, Newville, Pa., assignor to himself, D. J. Brougher and Wm. A. Middleton, Harrisburg,

I claim securing the cover, a, by means of the bail, B, attached to ears, e, or lugs, c, substantially as shown and described.

55,954.—BUTT HINGE.—James C. Hyde, assignor to D. S. Thompson, West Haven, Conn.:

I claim a hinge, the two parts of which are formed and united, substantially in the manner herein set forth.

55.955.—METALLIC SEAL ENVELOPE.—Ralph S.

50,955.—METALLIC SEAL ENVELOPE.—Ralph S. Jennings, assignor to himself and Norman G. Kellogg, New York City:
I claim, 1st, The metallic seal applied to envelopes in their manufacture, substantially as and for the purpose described.
2d, The new article of manufacture herein described and shown, to wit, an envelope for letters furnished with a metallic seal, which envelope is ready for being sealed when on sale, as set forth.

55,956.—CLOTHES-SPRINKLER.—John L. Kendall, assignor to himself, R. H. Trested, and Lewis Hurst, New York City:
I claim a clothes-sprinkler, composed of a conical vessel, A, handle, B, neck, C, and nipple, D, az a new article of manufacture.

55,957.—FIRE-ALARM.—C. D. Kubach, assignor to himself and W. W. Clay, Philadelphia, Pa.: I claim the casing, E, with its piston, G, pin, w, and spring, t, n combination with the slotted plate, F, and the within-described alarm mechanism, or its equivalent, the whole being constructed and operating substantially as and for the purpose 55.957.-

55,958.—Mode of setting Stationary Steam Boilers.—Caleb S. Nelson, West Troy, N. Y., assignor to himself and Henry I. Seymour, Troy,

N.Y.:
I claim, 1st, The annular chamber or surrounding chamber, s, formed between the stationary boiler, B, and steam-dome, C, and the inner part or surface of the brick or mason work, A, in

manner and for the purpose substantially as herein described

and set forth.

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

55.959.—PICKER-ARM FOR LOOMS

ou, boy.—FICKER-ARM FOR LOOMS.—George W. Paterson, assignor to himself and H. M. Payne, Newburyport, Mass.:
I claim, 1st, The picker-arm, constructed and arranged for operation substantially as he rein shown and described.
21, In a picker-arm, I claim the combination of a friction-roller with a shell inclosing the same on top and sides, as herein described.
34. In a picker-arm, and in combination.

roller with a shell inclosing the same on top and in described.

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

55,960.—CHURN AND ICE-CREAM FREEZER.—Thom

30,000.—CHURN AND ICE-CREAM FREEZER.—Thomas W. Pomeroy, assignor to himself and Wm. J. Layman, East Hampton, Mass.:

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

55,961.—Mop-mead:—Louis C. Rodier, Springfield,

Mass, assignor to himself and Henry Hammond.
Ante-dated Dec. 26, 1865:

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

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

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

55,963.—Platform Scale.—F. M. Strong and Thomas Ross, assignors to Joan Howe, Jr., Bran-

don, Vt.:

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

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

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

-CAR-BRAKE.—James Temple, assignor to 55.964.binself, John Schock, and H. E. Miller, Selinsgrove, Pa.:

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

55,965.—Nut Tapping Machine.—Frederick Vot-55,005.—NUT TAPPING MACHINE.—Frederick Votteler, assignor to Jacob W. Holenshade, Cincinnati, Ohio:

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

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

55,966.—PENCIL-CASE.—D. T. Warren, assignor to himself and Amedee Spadone, New York City: I claim the arrangement of the lead-holder, a, shaft, b, tube, c, straight slot, d, sind or pin, h, loose sleeve, m, with its enlargement, o, spiral slot, l, tube, r, pen-holder, t, tube, v, straight slot, w, pin, x, spiral slot, y, and loose sleeve, z, as and for the purpose set forth.

55.967.—WATER-CLOSET.—Darius Wellington, asoo, you. —WATER-CLOSET. —Darius Wellington, assignor to Cornelius Wellington, Boston, Mass.: I claim, ist, The arrangement of the shaft, a slotted plate, farm, i, and rod, k, for supporting the pan by the connection between it and the operating rod, substantially as described.

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

Also, in combination with the supply-pige and pan the flexible air ball or chamber, operating to seal the pan, substantially as

set forth.

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

Also, the combination of the ring (serving as an elastic packing) with the flange, p, and stand, b, substantially as described. Also, connecting the supply-pipe to the hopper by means of the flanged coupling, t, the nutor screw in the supply-pipe, and the interposed packing, u, arranged and operating substantially as shown and described.

55,968.—Knitting Machine.—H. L. Williams, as-

signor to The National Knitting Machine Company, Seneca Falls, N. Y.:
I claim, 1st, The combination of the cogs, k, k, with the lags constituting the "form" and with the gear-wheel by which they are driven, substantially as specified.
21. The combination of the curved guide, G, with the form, B, and gear-wheel, C, substantially as described.

and gear-wheel, C, substantially as described.

55,069.—MANUFACTURE OF ARTIFICIAL STONE.—
William Kirrage, London, England:
I claim, 1st, The manufacture of artificial stone, bricks, and tiles, or other hard material, by mixing and using the sulphate of iron or other similar metallic bases, and the several materials herein-before described, in combination with cements and silica, and times and silica, contained in the materials such as I have mentioned for the purposes herein-before described, 2d, The application of the coloring matters before named in combination with the slica and other materials.

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

55,970.—PETROLEUM TANK.—Paul Jacovenco, Buch

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

55,971.—Hot-Air Engine.—William Reintein, Bar-

celona, Spain;
Iclaim, Ist, The arrangement of the support of an air engine so that the axis of the motor cylinder shall be vertical, in the manner and for the purposes set forth.
2d, The combination and arrangement of a tubular boiler in the place of the dome which serves as a furnace in the Ericeson machine, as and for the purposes described.

55,972.—Corset - E. Hambujer, Detroit, Mich. I claim, 1st, A corset made substantially as herein-described, with a continuous or connected back, forming a lap or gore when the lacings are drawn to tighten the garment around the

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

RE-ISSUES.

2,292. - LIQUID-COOLER. - Adalbert Fischer, New

York City. Patented May 15, 1866:
I claim the movable heads, 15, with annular recesses, a, in cation with one or more bolts, F, annular cylinder, A, and the constructed and operating substantially as and for rpose described.

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

I claim, 1st, The fixed pivot, F, on which the moving-knife works, provided with a finneh for fustening to the cutter-box, and made adjustable thereon by means of slots and botts, or their equilents, substantially as and for the purpose herein specified. I diso claim the arrangement of the adjustable gauge-plate, G, in front of the fixed knife in such a manner that it shall be raised above the said fixed knife in proportion to the increased distance at which it is adjusted away from the knife, to give a longer cut and vice versa, substantially as herein set forth.

2,294. — HARVESTER.—William K. Miller, Canton,

Ohio. Patented July 2, 1861:
I claim, Ist, The pulleys at or near the lower end of the inner red support, for the purpose specified.
I also claim the single endless belt or chain passing from the driving-pulley, g, on the main frame, to and over intermediate pulleys placed to one side of a vertical plane passing through said driving-pulley, and thence to and over the pulley on the inner end of the reel-shaft, substantially as and for the purpose described.

2,295.—Harvester. -William K. Miller, Canton,

Ohio. Patented July 2, 1861:

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

2,296.—HARVESTER.—William K. Miller, Canton,

Ohio. Patented July 2, 1831:
Iclaim the brace on the grain side of the machine extending from the Front, end of the frame to the axle of the driving wheel as a support for the tinger-beam and the reel-post, substantially as described.

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

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

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

3d, In case of warming the upper rooms by the waste heat of

pipes, mortar, etc., of the radiator, W, Fig. 6, all substantially as set forth.

3d. In case of warming the upper rooms by the waste heat of the fire in the lower story. I claim the arrangement of an inner smoke-fine within the brick flue or chimney. E, Fig. 3, and the diaphragm. F, Fig. 5, for turning the current of hot-dir rising between this inner smoke-fine and the sides of the chimney inwards under the hot of the upper divident device, substantially as set forth.

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

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

298.—WATER-PROOF GAITER SHOE AND BOOT.— The Goodyear Metallic Rubber Shoe Company, Naugatuck, Conn., assignees of Thomas C. Wales,

Dorchester, Mass. Patented February 2, 1858:
We claim a new or improved manufacture, or water-proovulcanized rubber and cloth gaiter shoe, made in manner and with its external layer of cloth and its lining of cloth arrange together and with respect to the remainder or rubber parts of foxing, substantially as specified.

DESIGNS.

2,340.—Envelope.—Samuel Rayner, New York

-Trade-mark.-Levi Sohl, A. J. Sohl, and David Gibson, Indianapolis, Ind.

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The common try-cock for steam boilers is similar in construction to the faucet, or is operated by a button in the line of the barrel, the pressure of steam or a spring returning the valve to place. The engraving illustrates an improved gage cock which is easily understood. A represents the front of the boiler into which the cock is screwed. B is a hollow screwplug to admit the steam or water, which, by the move-

ment of the lever, C, is discharged through the pipe, D. E is a stuffingbox, or cap, provided with projection, with rule joint, to receive the end of the lever. The plunger, F, fits the chamber, so that its movement forward closes the aperture in front of the delivery pipe, and obviates the necessity of close packing.

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

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

Scranton, Pa.

Improved Journal Box.

The waste of oil by the overflow of journal boxes, the annoyance of drippers, and the loss and inconvenience by the upsetting of the oil receptacles, comprise together a source of much trouble and vexa-

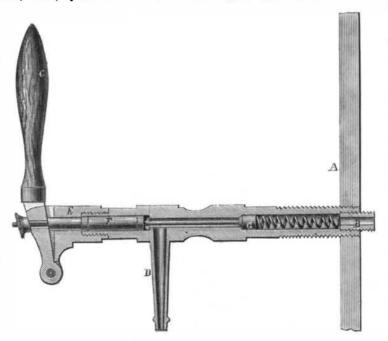
to this is the time required daily in proper attention to the journals of shafting. A self-lubricating box, therefore, which requires but little attention, and which obviates the necessity of using dripping tins, would be a valuable improvement.-Such is the design here illustrated.

A, Fig. 1, is the case of the box, and B, Fig. 2, is the lower half of the box proper. It will be noticed that the case or shell projects much further below the shaft than the cap, C, does above it. The space between the bottom of the shaft and the innel lowersurface of the shelr is an oil receptacle, i'u tended to receive the lubricator. The cap, C, is the top of the box proper and is lined, as is B, with Babbitt metal or other anti-friction material. The hox is not so long as the shell, leaving a space at either end, which is covered, at D D, with a hood held in place by a movable pin passing through the top of the bead, E.

reservoir.

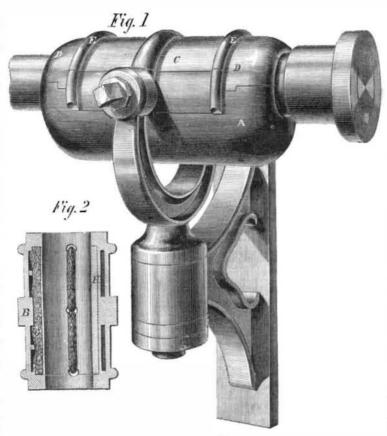
This is the general construction of the box and its parts. The means of lubricating are wicks, shown at F and G. Through the bottom of the box, B, are Patented March 14th and Aug. 22, 1865, by Rice &

three or more cylindrical holes, connected with a semi-cylindrical score, to receive round wicking, which passes through the holes, and, by capillary attraction, raises the oil. To further insure perfect lubrication, a piece of flat-braided wicking or other suitable material, is laid along on the ridge at G, and connects by cored ports, shown at G and H, following the contour of the box, with the reservoir. Any overflow of the oil passes out at the ends of the box



HENKE'S GAGE COCK.

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



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

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

University Law School.

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

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

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



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