

FOR THE WEEK ENDING APRIL 23, 1867. Reported Officially for the Scientific American

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:-

being a schedule of fees-On filing each Caveat. On filing each application for a Patent, except for a design.... On issuing each original Patent. On application for Reissue. On application for Reissue. On application for Extension of Patent. On filing a Disclaimer. On filing a Disclaimer. On filing application for Design (three aud a half years). On filing application for Design (fourteen years).

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & Co., Publishers of the SCIENTIFIC A MERICAN, New York.

63,980.-ATTACHING KNOBS TO DOOR LATCHES.-Wm. H. An

drews, New Haven, Conn. irst, I claim the combination of the plate, b, with the spindle, C, and knob, constructed and arranged in the manner and for the purpose substantially er forth

B, constructed shu sharpeter is to instructed in the manner described, in combination see for the constructed in the manner described, in combination with the plate, b, and the knob and spin die arranged so as to insert and cover the screw or pin, a, substantially as and for the purpose set forth.

63.981.-GOLD SEPARATOR.-Gideon Aughinbaugh, Portland,

65,951.—GOLD SEPARATOR.—Gildeon Augininoaugii, Fortiand, Oregon. Antedated April 29, 1867. I claim the principle of constructing series of selves provided with bars or ripples and placing the selves in an inclined shaker for the purpose of sepa-rating gold from earth, and the principle of operating said shaker upon plyots and the direct application of eccentrics to the shaker.

63.982.-MACHINE FOR GRINDING THE SURFACE OF MARBLE

OR STONE — John A. Bachman, Lambertville, N. J. I claim a metal plate with rim and openings, combined with a water vessel and han le, in the menner and for the purpose substantially as herein de-cribed and set forth.

63,983.—BROOM HEAD.—Hiram Barker, Aurora, Ind. I claim the cylinder, B. and binding wires or cords, E, arranged substan tially as described, in combination with the broom handle, A, and plug. C with their adjuncts, the holes, b b and a, substantially as and for the purpose

set forth. 63,984.—VALVE GEAR.—E. M. Bates, East Rochester, Ohio assignor to himself, J. H. and G. W. Sanor, Hanoverton,

Ohio. First, I claim the screw, F, shaft, D, cross head, C, and stay, J, as arranged a combination with the frame, A, for the purpose and in the manner setforth. Second, The frame, K, cross heads, L and C, when arranged and operated ioniointly by the eccentric rod, \bullet , valve rod, M, and adjusting screw, F, for he purpose and in the manner as substantially described. conjoint the purp

63,985.—Spring for BED BOTTOMS AND OTHER PURPOSES.— L. M. Bates, Newark, Ohio. I claim the tensile spring. A, composed of elastic gum and furnished with two heads, as and for the purpose described.

63,986.—ICE PITCHER.—Geo. H. Bechtel, Philadelphia, Pa. I claim in double, or ice pitchers, the making of the inner shell or jacket in one piece, and without a joint, so as to prevent its liability to leak, substan tally as described. I also claim in combination with double-jacketed or ice pitchers, the mak

Taily as described. I also claim in combination with double jacketed or ice pitchers, the mak ing of the inner area thereof greater above its central portion than below that point, when this is attained by carred or arched top, bottom, and sides and without angular joints, as and for the purpose described.

63,987.--MODE OF PREPARING COFFEE FOR TRANSPORTATION. --Thos. H. Berry, Lynn, MBSS. I claim the above described composition of matter, substantially as and for the purpose set forth.

63.988.-WINDOW LATCH.-Albert Bingham, Newtonville.

Mass. I claim the combination of the lever, D, the slotted plate, C, the springs, S and beveled catch, E, the whole forming an automatic window latch, applied and operating as above set for th. Brainerd, Rome, N. Y.

and operating as above setterth. 63,989.—CHURN.—A. H. Brainerd, Rome, N. Y. First, I claim the binged dasher or dashers, L. M. connected to the gate, K. and to the side or the churn respectively, and operating as described. Second, 1 claim the arrangement of the series of compartments, A B C, and the hinged dashers operating simultaneously by the three throw crank, sub-stantially as described. Third, 1 claim the hollow and slotted slidecovering theorifice through which the churn dasher reciprocates.

63,990.-BRICK PRESS.-Rufus Brunson, Chicago, Ill. I claim the construction and combination of the side plates, B, jointed plates, C, with the rack, V, and follower, G, as operated by the lever, T, ratchet, S, and rod, R, and forming a diamond-shaped press, as herein de-scribed and for the purposes set forth.

63,991.-TINNERS' FIRE POT.-James B. Cary, Millersburg, I claim the soldering iron tubes, f f, as secured to case, a, with catch, o, as set forth in the specifications.

63,992.-BORING TOOL.-John C. Chapman, Cambridgeport

Mass. I claim the combination of the tapering plug, A, arbor, B, and sliding cut-ter or cutters, a, with the nut, D, all arranged and operating substantially as herein set forth.

63,993.-BED BOTTOM.-Hezekiah M. Clark (assignor to himself and E. A. Kelsey), West Meriden, Conn. claim the combination of the frame, D half elliptic slotted springs, B, and to ends of transverse slats, A, as and for the purpose specified.

63,994.-BREWING ALE.-Carleton Clifford (assignor to him-

63,994.—BREWING ALE.—Carleton Uniform (assignor, so and self, A. W. Lake, and J. P. Saunders), Adams, N. Y. I claim, First, The close cask or tank, A, provided with the discharge tube, C, or its equivalent, and employed to contain ale or other liquor while undergoing fermentation, substantially as and for the purpose specified. Second, The combination with the above of the elevated receiving trough or box, B, and return tube, D, arranged substantially as and for the purpose contained. specified, Tbird, The water chamber, c, in combination with the receiving trough, B, endeantially as described.

substantially as described. Fourth, The combination of the cask, A, tubes, C D, trough, B, box, B', Fourth, The E and water cylinder, F, all arranged substantially as and for

such tube in course of its application and after the insertion of the cotton or filling being expanded as explained.

filling being expanded as explained. I also claim the lamp as constructed, with the tube-receiving recess as explained. I also claim the improved lamp as constructed with the expansible tube and the receiving recess therefore, and as having a mass of cotton or fibrous material arranged in its reservoir and about such tube, as set forth.

64,000.—Apparatus for Registering Games of Billiards.

64,000.—APPARATUS FOR REGISTERING GAMES OF BILLIARDS. —G. W. Earl and James H. Hawley, Kalamazoo, Mich. We claim, First, Combining the hand, A, the arbor, B, the cam, C and the draft ratchet, D, with each other and with the indicating face of the machine, in such a manner that while the points of a game from one to one hundred can be indicated by said hand, and a reversed movement be imparted thereto at a y portion of its revolution short of an entire game, yet the moment that that it passes said point a stop is interposed to prevent any backward move-ment of said hand, substantially as herein set forth. Second, The combination of the hand, A, the arbor, B, the cam, C, the draft ratchet, D, the ratchet wheel, E, the tubular arbor, i, and the indicating hand, j, with each other in such a manner that the said hand, j, will indicate upon the face of the machine the number of games and half gamesplayedfrom a half game to twelve games, substantially as herein set forth. Third, The combination of the hand, A, the arbor, B, the cam, C, the draft ratchet, D, the ratchet wheel, E, the tubular arbor, I, the pinion, k, the to tothed wheel, I, the pinion, m, the toothed wheel, n, and the tubular arbor, o, with each other and with the hand, p, in such a manner that the said hand, p, will indicate upon the face of the machine the number of games played from twelve to one hundred and forty-four, substantially as herein set forth.

64,001.-PLANE IRON.-Wm. H. Eckert, Syracuse, N. Y.

I claim the nut, n, in combination with the planing iron, A, the screw, a, and the cap, C, made and operated substantially as and for the purposes de-

scribed. I also claim the slot, h, in the cap, C, when made to fit upon the nut, n, and applied to planing irons substantially as described.

applied to planing irons substantially as described.
64,002.—GRAIN ELEVATOR AND DUMPING APPARATUS.—M. Eldridge and F. A. Reed, Alexandria, Va.
We claim, First, The platform whereby it assumes alternate inclined and borizont al positions, substantially as described.
Second, The guide bars, n, in combination with the spring, o', and stops, 0, as and for the purpose set forth. Third, The holating and dumping apparatus constructed as explained.

64,003.—HAY LOADER.—Wm. H. Elliot, New York City, assignor to John Kingdon, Washington, D. C. Iclaim, First, The employment of an adjustable cord, hetween the arm of the crane and the fork, p. substantially as herein shown. Second, The employment of pulleys, f and i, in combination with spring, k, and cord, i, for the purpose of taking up the latter after it has been arawn out, substantially as specified. Third, Connecting together pawl, h, and bolt, e, so that any motion given to the former will move the latter, substantially as and for the purpose specified.

fied. Fourth, So combining pawl, h, and bolt, e, with cord, I, that the latter shall operate the two former, substantially as set forth. opera ourth. Pivoting pawin, b, to movable arm, g, so that these devices may e a littlemotion around the center of the pulleys, substantially as herein wn. have a shown

64,004.—HAND CARD.—George J. Ells, Troy, N. Y. I claim a hand card having a wooden stock so formed with a rib or ribs, b, as to thereby cover or protect the edge or edges, c, of the leather or other sheet-like material, D, which holds the teeth of the card, substantially as herein described

64,005 .- WINDLASS .- Richard H. Emerson, Fond Du Lac, Wis.

YYN. I claim a windlass having shaft, a, wheel, b, drum pulley, c, wheel, d, drum pulley, t, pulleys, g g', elastic, m, spring bar, i, levers, h h', arranged, combined, constructed and operating substantially as described. 64,006.-Tool HANDLE.-Luther H. Farnsworth, Hudson,

Mass. Iolam the combination and arrangement of the metallic shouldered prongs and the head constituting the stock, A, with the metallic collar, C, and the heart piece, B, the whole being made an behantially as specified. Taiso claim the stock, A, made with the head, the series of prongs, and the houlders thereof, as described.

64,007.-LOW-WATER INDICATOR.-Lorenzo Fulton, Edin-

burg, Ind. l claim, First, The arrangement of the pipe, D, in connection with the chamber, C, substantially as shown and described for the purpose of con-vering a signal to a point at any desired distance, as set torth. Second, The combination of the pipes, B C and D, with the disk, E, and trigger, J, substantially as and for the purpose set forth. Third, The equalizing pipe, M, in combination with the boiler, A, and pipe, B, substantially as and for the purposes described.

64,008.—SHIFTING RAIL FOR CARRIAGE SEATS.—Frederick

Balungartner, Brooklyn, N. Y. I claim securing the shifting rail, D, to the stationary rail, B, of the carriage seat, A, by means of hooks, FG, and serve buttons or clamps, H, shifting faily in the manner here in shown and desoribed, and for the purpose 64.009.—SHEEP RACK AND SHELTER.—Dexter Gray, Upper

Bet John.
 64,009.—SHEEP RACK AND SHELTER.—Dexter Gray, Upper Sandusky, Ohio.
 First, Iclaim a portable stock shelter and feeding arrangement combining the arrangement of runners, a, troughe, K, grain boxes, I, hay tacks, E, moyaole doors, g, plates, c, and cross timbers, d, substantially as described and for the purposes set forth.
 Becond, In combination with a portable stock shelter, I claim the double troughs, K, with or without their separate chambers for each animal in combination with a grain box containing the bottom, o, slide, P, cut-off bottom, r, and lever, q, and partition, mail constructed and operated sub-stantially as described and for the purposes set forth.
 Third, In combination with a portable stock shelter I claim the movable and transferable doors, g, for the purposes named.
 Fourth, In combination with a portable stock shelter I claim the movable racks, E, for the purpose set forth.
 Fith, I claim in portable stock shelters the combination and arrangement of troughs, K K, K, and their grain boxes, 11 I, with the racks, E E, as and for the purposes set forth.
 Sith, I claim, in combination with a portable stock shelter, elevating the lay racks and center feed troughs so as oscure all the ground room for the purposes cet forth.

hay facks and center teeu trought so as a second purposes cet forth. Seventh, I claim a grain teeding box for stock combining the sides, bot-tom, o, silde, P, cut-off bottom, r, lever, q, and openings, n, in each, for the purpose of feeding grain in measured quantities, as set forth. 64,010,-Top Prop for Carriages.-R. S. Grummon, New-

ark, N. J. I claim the solid-headed screw, C, when used in combination with the socket, B, and thimble, D, constructed and operated substantially as de-scribed for the purpose specified.

64,011.—APPARATUS FOR BOILING, COOLING, AND FERMENT-ING MALT LIQUORS.—Thomas Haigh, Liverpool, England, and Robert Adam Robertson, Philadelphia, Pa., assignors

and Robert Adam Robertson, Philadelphia, Pa., assignors to E. F. Prentiss, Wm. D. Philbrick and Wm. J. Par-sons. Antedated April 9, 1867. First, We claim dividing the supply cistern into several compartments and arranging a zigzag air passage above the water communicating with the san pit of a steam bolic, or other furnace for generating a drat of air over the surface of the water in the supply cistern, substantially and in the manner hereinbefore described and set forth or any mere modification of the same. Second, The peculiar mode of constructing the double bottom of the wort boiling-pan. as hereinbefore described and set forth, or any mere modifica. Third, Forming the refrigerator columns with small elambers at the top and bottom of the same! Fourth, The peculiar form and arrangement of the foating over for the fermenting tun, as hereinbefore described and set forth, or any mere modifica-tion of the same. Furth, The peculiar construction and arrangement of the various parts of the same. Fifth, the peculiar construction and arrangement of the various parts of the self-acting temperature regulating apparatus and the mode of counteract-ing the incitations in the pressure of thm external stmosphere, as hereinbe-fore described or any mere modification of the same.

64,017.-STANCHION FOR CATTLE.-James Manley, Hope, Me. I claim all the parts of Fig. 1 except the top and bottom pieces, A and B, of the co muon tie-up, that is, all the parts, C M I D E F G, which are connected together, and the said grooves, and said cn tor mortise, H, and the thickened part of said top piece. B (to admit of said groove), and which make up the double swilging stanchion which swings both ways, which allows the animal fastened te turn the head either way, as before mentioned when standing or lying down and to lie on either side with ease and comfort.

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64,018.-FASTENING OF WIRE OR WIRE ROPE TOGETHER.

Matthew F. Maury, Liverpool, Great Britain. I claim the the herein described and shown upon the drawings when the same is used to connect the ends of wire or wire rope that is employed in baling cotton or other like material, substantially in the manner set forth. 64,019. - MANUFACTURE OF AERATED WATERS. - George

64,019. — MANUFACTURE OF AERATED WATERS. — George McCoy, New York City. First, I claim a vessel for the manufacture of soda water or other aerated liquids, or for holding the same atter being manufactured having its sides made of wood secured by Iron bands or hoops and its wo ends provided with metallic head plates joined together by stay rods or braces, and the whole constructed substantially as described. Second, in the manufacture of soda water and other aerated liquids, discharging the water or other liquid into the vessel containing the gas or gases with which its to be charged in the form of small jets or syn, or any other equivalent form, substantially as and for the purpose described.

64,020.—Toy.—John McMahel, Hamilton, Ohio. I claim the cup, A, and ball, E, in combination with the spiral recoiling wire or spring, D, for guiding the ball to the cup, in the manner and for the purpose substantially as described.

64,021.-STEAM GENERATOR.-Truman Merriam and A. G.

64,021.—STEAM GENERATOR.—Truman Merriam and A. G. Allen, Waterloo, Wis. Antedated April 19, 1867. First, We claim the combination of the cylinders, E F G, arranged in successive tiers above the furnace and connected by pipes formed in their end plates with a corresponding set of similar cylinders into which the steam is passed from the first set, and in which it is tempered by the introduction of water or oil, substantially in the manner and for the purpose set forth. Second, The perforsted or latited metalle walls of the furnace when constructed and arrangement of the tank. C. induction pipe, H, pump, I, eduction pipes, K, and the furnace walls, substantially asset forth.

64,022.—BUTTONHOLE FOR PAPER COLLARS.—Joseph Mer-win, New York City. Antedated April 8, 1867. I claim the construction in collars of a buttonhole formed by holes of circular shape or thereabouts, at opposite ends of a connecting cut or slit, the edges of which constitute faps or wings, substantially as specified.

63,023.-Excavator.-John Milroy, Edinburgh, Great Brit-

05,023.—EXCAVATOR.—JOHN JHITOY, Editoringh, Great Entrain. Rin. First, I claim the framework, 2, to the outer edges of which are hinged directly a series of spades, I, in combination with the within-described system of chains. A and B, the whole being arranged and operating substantially as and for the purpose herein set forth. Second, The combination of the above with the hook, 7, constructed and operating in combination with the chains attached to the frame and to the spades, as described (34,024.—JOINT FOR CARRIAGE-TOP BRACES.—F. B. Morse, Nor Horson Comp.

New Haven, Conn. I claim the herein-described stump joint as an improved article of manu-facture consisting in the combination of the two parts. A and B, when con-structed and arranged together by a conical joint, substantially in the manner and for the purpose described.

64,025. - STEAM GENERATOR WATER GAGE. - George T. Par y, Philadelphia, Pa. I claim the construction and arrangement of the plates, B C and D, where-by the water is shown in a thin sheet, substantially as set forth,

64,026.-Boiler FEEDER.-George T. Parry, Philadelpeia,

F3.
First, i claim, in combination with the generator, A, and feeder, B, thap pipe, C, with its orifice, C', and the pipe, D, when arranged to operate substantially as described.
Second, in combination with the generator, A, and feeder, B, I claim the pipes, J and C F, and float, G, and valve, arranged to operate substantially as described.

64,027.—SMUT MILL.—Dan Pease, Floyd, N. Y. I claim the spreader shown separately in Fig. 3 and as connected with the smutim ill shown in Figs. 2 and 3, and fully described in the specification, the whole being constructed, adapted and arranged substantially in the man-ner herein set forth.

64,029.—MACHINE FOR ROLLING DOUGH, CRUSHING SUGAR, ETC.—Gustavus Perkins, Burlington, Vt. Iclaim the combination of the metallic rollers, h Q or R, the gages, m m, the arms, i l, as applied to the above purpose. Also the constluction of the entire machine, all as herein substantially de-scribed and for the purposes set forth.

64,030.-WHIFFLETREE HOOK.-S. M. Perkins, Morrison,

111. I claim the chambered cap, B, and washer, C, the said several parts being respectively constructed and the whole combined and arranged for use sub-stantially in the manner and for the purpose set forth,

64,031.-WEATHER STRIP.-Jacob S. Peterson, Springdale,

I claim the strip or flap, E, adapted to close against the rebate of the car-pet sill by the impact of the cam, K, and roller, D, and to be retracted by means of a spring, M, substantially as set forth.

64,032.-METHOD OF REMOVING BUILDINGS.-Thomas W. Prather. Iowa City, Iowa. I claim the combination of the truck wheels, crank, cog wheels, shaft, latform and screw, substantially as and for the purpose set forth. 64,033.-FILE-CUTTING MACHINE.-Alexander N. Redman,

04,053.—FILE-CUTTING MACHINE.—Alexander N. Redman, Charlestown, Mass. First, I claim the combination of the guide frame, E, the pinion, C, and rotating rack gear, B, as described. Second, I claim the soliding block or bar, H, provided with the pawl. 1, the adjustable projection, h, and retracting spring, I, in combination with the rotating rack gear, B, substantially as and for the purpose specified. Third, I claim the combination of the yoke, P, adjustable block, N, or its equivalent, and the cutter, O, operating as described substantially as and for the purpose set forth. Fourth, I claim the combination of the springs, SS'. arranged as described with the cutter head, M, as and for the purpose specified.

64,034.-FARM GATE.-John H. Reinhart, McKay, Ohio.

I claim the arrangement construction and combination of the wheel, D, movable bolt, J, and projections, E E, so that the gate operates in the slots, G and H, of the post, F, as herein described and for the purposes set forth.

64,035.-MACHINE FOR MAKING NAILS.-Samuel G. Rey-

03,050.—MACHINE FOR MAKING NAILS.—Samuel G. Rey-nolds, Bristol, R. I. Antedated April 8, 1867. Iclaim making the heads of nails, bolis, rivers, etc., by a number of con-secutive upsets of a long piece of metal, by liberating or uncovering from the inclosure of the die more and more of the metal as the header advances to upset the same by means of successively receding sections of which the diele is in part composed, or their equivalents, substantially as described. I also claim the sliding block substantially as described in combination with the compound griping or molding, die, the springs, gi 22, and heading lever, or their equivalents, as described, for the purpose of operating the movable sections of said die, substantially in the manner and with the effect herein set forth and described.

First, I claim in a brack of cars the combination of the drum, I, having the spring, L, ratchet, K and J, and the sleeve, F, having the spring, I, attached to it, and the ratchet, G, with the sleeve, B, having the pawl, f, the whole ar-

64,036.-CAR BRAKE.-J. W. Rice, Springfield, Mass.

64.028.—COOLING MILK.—Watson Peck, York, Ill. I claim the combination and application, as herein described.

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Ohio.

fore described, or any mere modification of the same.	Second, In combination with the above arrangement the pawls, g and h,
and use of the apparatus hereinbefore described and set forth, or any mere	and dogs, O and P, to operate the pawls, the same constructed and operating substantially as described.
modification of the same, for the purpose of boiling, cooling and fermenting	Third, In combination with the drum, I, the device for turning the same
	consisting of the shaft, h, cog, M, and crank, z, substantially as shown and described.
York City.	Fourth, In combination with the sleeve, B, provided with the cog wheel, C, I claim the wheel, D, and shaft forming a windlassfor the brake chain.
I claim the arrangement of the boiler, A, hot-air tubes, d d, and hot-blast pines B1 B2 B3 B4 and atop cocks, c c, all substantially as described and	Fith, The equalizers for brakes herein shown, in which the chain passes around two or more pullies, 1234, arranged in a frame, S, having slots, 7, in
shown in the accompanying drawings.	it, into which works a pin, 8, substantially as shown and described.
64,013.—FAN.—Lucian Hill, North Brookfield, Mass.	64,037.— MACHINE FOR MAKING WOODEN PINS.— GCOrge
First, I claim a folding fan pivoted in the center, and operating as de-	Rowe, Worcester, Mass.
Second The combination of the fan part A with the branches BB of the	I claim in combination with the removable punch or cutter, E, of the hol- low stem or handle, A, slotted as described, so as to facilitate the withdraw-
handle, C, substantially as set forth.	al of the pins, and the removal of the punch, and otherwise constructed and
clasp. D, substantially as and for the purposes set forth.	arranged for operation as herein set forth.
described and cut or curved out to receive the fun part A as shown and de	
scribed.	Rumrell and Robert H. Rumrell, Brooklyn, N. Y. First, We claim the means herein described for taking up stiffening papers
	one by one, and securing the same to the inside of book covers, substantially
	as and for the purpose herein set forth. Second, The means herein described for cutting the cover at all the neces-
ranged and constructed substantially as set forth.	sary points at once, substantially and for the purposeherein set forth.
64.015.—SHOE.—George Houghton, Hudson, Mass.	Third, The means herein described of folding over the edges of the cover and securing the same firmly to the stiffening paper, substantially as and for
1 claim the staying or fastening of sewed seams in the upper leathers of	the purpose herein set forth.
on each side of the seam whether the same is folded or extends over the	64,039.—CHIMNEY HOLDER FOR LAMP BURNERS.—Thomas
edge and grasps both sides of the leather or other material, or not.	Ryder, Providence, R. I.
64,016Self-Acting Evelet BATTENSilas Land, Phila-	I claim the combined spring and clasp, in combination with the lamp burner, for the purpose all substantially as specified.
	64,040CAR BRAKEJames Sheward and George A. Stan-
	bery, Dunkirk, N. Y.
ner described and for the purposes specified.	We claim the application of the worm or endless screw to the axle of any
	 fore described, or any mere modification of the same. Sixth, And lastly the general arrangement, ornbination, construction and use of the apparatus bereinbefore described and set forth, or any mere modification of the same, for the purposes of boiling, cooling and fermenting mait liquors or other useful purposes. 64,012. — BLAST FURNACE. — David U. Hendrickson, New York City. I claim the arrangement of the boiler, A, hot-air tubes, d d, and hot-blast pipes, Bl B2 B3 B4, and stop cocks, c c, all substantially as described and set forth. 64,013. — FAN. — Lucian Hill, North Brookfield, Mass. First, I claim a folding fan pivoted in the center, and operating as described. 64,014. — OILER. — Gardiner L. Holt (assignor to himself and escion). Springfield, Mass. Touth, Making the handle, C. from two pieces, B3, on the asthwm in detartion with the fan part, A, and handle, C, of the loop or clasp. D. substantially as and for the purposes of the asthwm and described. 64,014. — OILER. — Gardiner L. Holt (assignor to himself and James M. Thompson). Springfield, Mass. I claim the combination of the the ring, B, and one or more bars, a b, arrange and constructed substantially as set forth. 64,015. — Shore. — George Houghton, Hudson, Mass. 1 claim the estaying or fastening of sewed seams in the upper leathers of bools and shore and other articles by means of a stribed.

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04,041.—SIDE BOARD FOR TRESHING MACHINES.—Ballard C. Smith, Ashland, Ind. First, I claim the jointed side board, constructed of light sheet metal or other material hinged at E E, with permanent end, D, and movable end, con-taily as and for the purposes set forth. Second, I claim the spring, F, and catch, G, for the purposes of keeping the gettions, A and B, in line, and for displacing the saldsections when operated by cords, H, substantially as and for the surposes set forth and shown when stacker is attached to machine in the usual manner, by rod, M.

64,042.-WEATHER STRIP.-George W. Smith, Strasburgh,

Ohio. Iclaim the bingedstrip, a.in combination with spring, K, and metalstrip, e, constructed as described, and the whole arranged as and for the purpose set forth.

64,043.—STEAM ENGINE PISTON.—J. Y. Smith, Pittsburgh, Penn.

Fenn. First, I claim the central groove, a, provided with the apertures, n, for ad-ititing the steam or other material to the under side of the rings, substan-ally as shown and described. Second, The combination of the ring, c and e, with the flanges, A', and late, B, or their equivalents, when arranged and operating as and for the urpose set forth.

64,044.—SEAT AND BACK.—Mortimer L. Smith (assignor to himself and J. W. Houghtelin), Detroit, Mich. I claim the combination of the surjys, C C, back, E E, B, seat, A G G, and frame, H D, all arranged as and for the purpose described.

64,045.-GUN HARPOON.-Robert E. Smith, Provincetown Mass.

I claim the head, A B, grooved to receive the p woted barb, C, and cast in one piece with the slotted shank, D, the latter be approvided with the elastic guard, g, and the wire link, E, all constructed and operating substantially as decoribed, and for the purpose set forth.

64,046.-KNOT INDICATOR FOR KNITTING MACHINE.-John F. Steward, Plano, Ill. I claim the arm, C. with the knot grasper, B, hammer, D, and the spring, E, in combination with the bell, A, constructed and operating as herein de-scribed.

64,047.—Composition for Preserving Eggs.—P. J. Stouffer, Uniontown, Penn., assignor to himself and Henry White. I claim the composition for preserving eggs, substantially as set forth.

64,048.-BEDSTEAD FASTENING.-George Sugg and W. Metz, Chicago, Ill.

 $C_{111CAEU}$, 111. We claim as a new article of manufacture the bed fastening, consisting of the plate, A, constructed as herein described, and used in combination with the plate, E, provided with the arms, O, with the enlarged heads, I, as herein set forth.

64,049.-MACHINE FOR FELTING HATS.-James Walber

Washington, D. C. First, I claim the combination and arrangement in a machine for felting hat bodies of two or niore pairs of rollers, having a rotatary movement, when each successive pair revolves with a diministed speed, all substantially in the manner and for the purpose as berein set forth. Second, The combination as above of two or more pairs of rollers, whose diameters so vary that the circumference of each successive pair shall re-volve with diminished speed, substantially in the manner and for the pur-poses herein set forth.

voive with diminished speed, substantially in the manner and for the pur-poses herein set forth. Third, The combination in a felting machine of a series of pairs of rollers, each pair of which has a lesser velocity than the preceding pair, with a series of pairs of rollers having an uniform velocity, as and for the purpose herein described.

escribed. Fourth, The combination in a felting machine of a series of rollers sup-orted in a fixed frame, but each having an independently lateral play in its earings in the line of its axis, substantially as and for the purpose herein

portecting in the line of its axis, substantially as and for the purpose herein described. Fifth, Imparting a lateral reciprocating movement to the rollers of a machine for feiting bat bodies by means of cames on the ends of said rollers, or their journals, bearing against suitable cam surfaces when each of said rollers has free playind ependently of the others in the line of its axis, all substantially in the manner and for the purpose herein set forth. Sixth, The use of a series of hollow rollers in a feiting machine with suit-able steam pipes for introducing steam into the same when said rollers re-volve successively with a diminished speed, substantially in the manner and for the purpose herein set forth. Seventh, The combination of a reversing roller, placed centrally in front of the last pair of rollers in a feiting machine, with an auxiliary roller placed over the same, to bear thereon, and operate conjointly therewith, substan-tially in the manner and for the purpose herein set forth. Righth, The combination of a single endless chain and toothed wheels, with two series of rollers in a feiting machine, substantially as and for the purpose herein described. Ninth, The combination of suitable springs, with the sliding journal boxes of the driving shaft, and with an endless chain working thereon, all substan-tially as and for the purpose herein set forth. 64,050.—HAY STACKER.—Samuel Jacob Wallace, Keokuk,

64,050.-HAY STACKER.-Samuel Jacob Wallace, Keokuk Iowa.

I claim a portable bay stacker having the several parts thereof constructed arranged and combined as and for the purpose set forth.

64,051.—Spool Holder for Sewing Machines.—William Wheaton (assignor to John F. Lee, Jr.), Brooklyn, N. Y.

I claim the cylinder. A A', spring, s, or its equivalent, screw, c, horizontal plates, d and e, combined and operated in the manner and for the purpose set forth, and shown in the accompanying drawings.

64,052.—STEAM ENGINE PISTON.—Jerome Wheelock, Wor cester, Mass.

First, I claim the combination of stay bolts, E E E , with a piston head, substantially in the manner herein described. Second A piston constructed with an obling hole or aparture through its manter, to receive the piston rod, substantially as and for the purpose de-

scribed. Third, The slot in the piston rod, B, when used for the purpose of relieving the nut in the manner substantially shown and described.

64,053.-NEEDLE WRAPPER.-John William Whitfield, New York City. I claim a needle wrapper, composed of a sheet of fabric, combined with a eries of thread loops to hold the needles to the fabric, substantially as set

64,054.—Self-Oiling Journal Box.—John Whitlock, Bir-

mingham, Conn. I claim in combination with a shaft or journal, having a wheel, disk or ring attached to that portion that revolves in the journal box, and with distribut-ors for carrying the oil over the shatt or journal the vertical end passages, and horizoital passages leading from said ends back to the recess or re-gervoir, for the purpose of making a self-olling device, substantially as described.

64,055.-ROTARY HARROW.-Albert H. Acken, Griggstown,

N. J. I claim the frame, A", when constructed as described, in combination with he jointed teeth, B', center pin C", and draft rod D, all arranged and perating as specified.

64,056.—LAMP BURNER.—J. B. Alexander, Washington, D. C. Iclaim the wick-holder, composed of the corrugared plates O and P, with their turned estres and metentations, K K K K K K K, and the slot, G, sub-stand for the purpose set forth. also claim, in combination with the above described wick-holder, the device for acting and lowering the wick, substantially as and for the purpose set forth

set forth. I also claim the device, L M, for filling the lamp fountain with oil, in com-bination with the burner, substantially as described, and for the purpose set forth.

Tenth, We claim the treatment with cider or equivalent vegetable acid solution at the termination of the process. Elevench, We claim the use of atmospheric air forced through the flax, in connection with an alkaline solution, saturating the flax, as a bleaching and disintegrating agent, substantially as herein specified.

64,059.—RANGE AND AIR HEATING FURNACE.—William H. Armstrong, New Brunswick, N. J. I claim the arrangement of the cooking range it appurtenances, A B C F G, fue, H, chambers, I M, air passages, E, water back, D, and auxiliary pipe, O, as herein described, and for the purpose specified. 64,060.-QUARTZ CRUSHER.-Robert Bailey, Idaho City

Idaho. Idano. First, I claim the construction of the rotary mortar bed enclosed within the case, A, made of blocks of rock, b b, forming inclined planes of ir-regular dimensions on their laids esurfaces combined with cast iron dies, c c c, fitted in and secured to them, arranged and applied as and for the pur-pose herein described. Second, I claim the cubical stamp, d, in combination with the revolving mortar bed constructed and operated together in the manner and for the purposes herein set forth.

64,061.—CULTIVATOR.—Jacob Bergen, Canton, Ohio. I claim, The arrangement of the crank axles. D D, with the levers, H, spring, d, and guides, I and J, substantially as and for the purpose specified.

64,062.-WINDOW SHADE.-Adoldh Binner (assignor to him-

self and John Leuzinger), Muscatine, Iowa. Iclaim a window curtain or shade composed of round sticks of wood con-nected together, substantially as described.

64,063.—CLOTHES LINE.—J. W. Bliss, Hartford, Conn. I claim a clothes line of cord, leather or wire coated with indiarubber, or gutta-percha to protect the same from the weather, all as and for the pur-pose specified.

64,064.—LUBRICATING JOURNAL BOX.—Samuel F. Bond,

Worcester, Mass. I claim a self-lubricating journal box constructed substantially as de scribed with a chamber or chambers forming oil reservoirs along either side of the journal also provided with lower supply apertures and their upper inner edges made to form scrapers or cleaners for removing surplus oil and to return it to the reservoirs essentially as herein set forth. 64,065.-FRUIT DRYER.-John K. Boswell, Richmond, Ind.

Antedated March 16, 1867.

Antedated March 16, 1867. I claim, First, The revolving triangular heater, D, arranged as and for the purpose set forth. Second, The shield, b, when provided with apertures and arranged sub-stantially in the manner and for the purposes specified. Third, The combination of the furnace, N, when provided with tube, I, or its equivalent, the revolving triangular heater, D, when provided with tube, J, or its equivalent, and the chimney, K. Fourth, The sidingpanel, C, substantially in the manner and for the pur-pose described.

64,066.—CHILD'S TOY.—Lucy Broad, St. Louis, Mo. Iclaim the combination of the figures, Ci C2, with the circular plate or race track, C, and with the actuating machinery as described and set forth. and set forth.

64,067.-CARRIAGE THILL COUPLING.-J. J. Brown, Madi-

Ut, UUI. — UARRIAGE THILL COUPLING, —J. J. Brown, Madison, Wis.
 I claim, First, The bar, A, provided with the vertical arm, B, for attaching the button independent of the clip or band substantially as and for the purpose set forth.
 Second, Making the socket for the reception of the packing and bolt between the front side of arm, B, and the front curved end of A, as shown and described.

64,068.—ROTARY STEAM ENGINE.—S. H. Brown, New York City.

I claim. First, The abutment or valve, E, constructed as described and pivoted so as to vibrate in either direction, substantially as and for the pur-pose specified. Second, The semi-cylindrical reversible stops, I, in combination with the hinged abutment, E, annular rims, a, and piston wheels, C, with pistons, D, all constructed and operating substantially as and for the purpose set forth.

64,069.—BRICK MACHINE.—John W. Burns, Henry, Ill. I claim operating the plungers, I I, through the medium of the shaft, F, connected by arms and links to vertical racks, G, pinions on segments, H, provided with arms, c, and the arm, E, on shaft, C, all being arranged sub-stantially as herein shown and described. Second. The arrangement of the mud mill, A, plungers, II, and molds, J, substantially as herein set forth. Third, The feeding of the empty molds to receive the clay, and the dis-charging of the filled molds from the press by means of the racks, N, and pinions, O, substantially as shown and described.

64,070.—STEAM SAFETY VALVE.—Thomas H. Burridge (as-signor to himself and G. C. Fabiam), St. Louis, Mo. I claim thelevers, E F, constructed and arranged in relation to each other and valve substantially as and for the purpose set forth.

64,071.- DRAW BAR FOR LOCOMOTIVES.- D. C. Cannell,

La Fayette, Ind. I claim a draw bar, A, provided at one end with V shaped recesses b, one at each side with a link, B, fitted in it and working within the recesses, sub-stantially in the manner and for the purpose set forth.

64,072.-VALVE FOR STEAM ENGINES.-Charles E. Case Xenia, Ohio.

I claim the valve, C, and spiral pin, H, constructed and arranged substantially upon the principle and in the manner herein set forth.

64,073.—SHOEING HORSES.—Pierre Charlier, Paris, France. I claim the method herein described or attaching the shoe to the hoof of a horse or other animal by letting said shoe into a recess cut into the edge of the hoof, substantially in the manner and for the purpose set forth.

64,074.-WINDOW SASH FRAME.-Edwin Clark, Lancaster Pa.

Pa. First, I claim the inclined tongue, d, and corresponding groove, c, on the pieces, b and b', respectively of a window sash, substantially as and for the purposes described. Second, The projections, d', on the inclined tongue, d, slots, cl, springs, d2, and eyres, c2 on the pieces, b and b' respectively, of a window sash, substan-tially as and for the purpose described. Thitd, The cycs, g' on the stripe, g, and pirs, l, passing through the same and the window rinne, substantially as described. Fourth, The tongue, g2, on the strip, g, and corresponding groove in the frame, A substantially as and for the purpose specified. Fifth, The above described mode of removing and replacing window sames from frames, substantially as and for the purpose specified. 64.075.—LANTERN.—P. J. Clark and Joseph Kintz (assignors

to Samuel S. Clark), Meriden, Ct.

to Samuel S. Clark), Meruen, ot. First, I claim the guards, D, any suitable number constructed each of one piece of wire bent or doubled, attached to the cap, B, and arranged so as to retain the glass globe, F, substantially asset forth. Second, The connecting of the lower end of one of the guards, D, to the base, A, to catch over the lower end of the guard which is in line with it, substantially as shown and described.

64,076.-CORN PLANTER.-John Clarridge, Pancoastburgh

Ohio. Onio. First, I claim the steel plow, H, when constructed and attached to the shank, I substantially as herein described and for the purpose set forth. Second, The combination of the slide bars, M, the inclines, F' or equiva-lent arms or levers, D' and valves, B' with each other and with the plow f ame, E, substantially as described and for the purpose set forth. Third, The combination of the circular valve, I'with the seed reservoir, T, hopper, S, and sliding bar, M, substantially as herein described and for the purpose set forth.

04,097.—POTATO DIGGER.—Manly Hall, LIVONIA, MICH. I claim, First, The scoop, E, grating, f, and bars, M, as arranged in combi-mation with the elevator, as constructed of the belts, L, and cross ties, L', armed with the teeth, a, and the rake, Q, for the purpose and in the manner substantially as set forth. Second, The sleve, N, conductors, PP', when arranged and operated con-jointly in combination with the elevator and rake, Q, and scoop, E, as and for the purpose substantially as herein described.

64,078.-Rolls for YARN DRESSING MACHINES.-Benjamin R. Cotten, Lewiston, Me. I claim a dresser roll having a metal coated surface, substantially as set

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-PAPER FILE.-Lewis B. Covert, Chicago, Ill. 64.079.

I claim the file or binder formed of the cover, a, and slides, b, in combina-tion with the perforated clasps, c, as and for the purpose specified.

64,080.—POTATO DRILL.—John Croco, Holmesville, Ohio. First, Iclaim the disks, F F', constructed and arranged in combination with the guide or tension pulley, J, and pulley, H, for the purpose and in the manner set forth. Succad, The disks, F F' hopper, L. In combination with the tube, E, and shovel, K, as and for the purpose described. 64,081.- EXERCISING CLUB.- John L. Dibble, New York

City.

City. I claim the metallic cylindrical shell, A A, and the central rod, D D D, as arranged and combined with the blocks, B B and C C, and adjustable weights, F F, the whole forming an exercising club, substantially as herein described and set forth. 64,082.—CARRIAGE FOR CHILDREN.—Alexander Dick, Buffa-

lo, N. Y. First. I claim a carriage body formed and constructed of wire, substan-tially as described. Second, in combination with a carriage, a seat made adjustable, substan-tially as described. Third, The arrangement in a carriage of the springs, W W, and D D, sub-stantially as described.

64,083.-HORSE HAY FORK.-L. M. Doudua, Elmira, N. Y.

I claim the tube, A, and sleeve, E, in combination with the spring, F, tines or teeth, C, lever, G, and link, H, all arranged to operate in the manner sub-stantially as and for the purpose specified.

64,084.-CARPET WADDING.-Thomas H. Dunham, Boston,

Mass. I claim a wadding or fabric, having an adherent border or selvedge formed of the sheets of paper that project beyond the edges of the batting, and at-tached to each other as herein specified without the use of gum or other ad-hesive substance, substantially as described.

64,085.—GAME REGISTER.—John Enright, Louisville, Ky. I claim the construction and arrangement of the arm, Lotisville, h.y. I claim the construction and arrangement of the arm, G, working loosely nshaft, d' having tooth, K, upon its inner end and provided with the louble pawing, H, spring, P, indicating finger, T, its lower end working through he slotted segment, R, attached to the Irane A, toothed wheel. D, toothed ector, J, bearing the indicating finger, L, springs, O O I, and indicatin ingers, F, substantially as berein shown and described. ac th

64,086.—CULTIVATOR.—Oliver Etnier, Mount Union, Pa. I claim the combination of the guide blade or rudder, D, placed on the rear of the projecting center beam, B, and the handles, C C, attached to the cross beams, a b, arranged and operating substantially as and for the purpose herein described.

64,087.-CAR SPRING.-James W. Evans, New York City. I claim the spiral surface grooves, c and c for the reception of the ter-minal colls of the spring cust in the bottom of the box, A, and head of its cover, C, or in any other cast metal bearings provided for the spring, sub-stantially as herein specified.

64,088.—TICKET FASTENER.—Samuel B. Fay, Franklin, Pa. Iclaim the loop wires, D, twisted and crossing each other for the purpose described, as a new article of manufacture. 64,089.-NICKING SCREW HEADS.-Edward B. Fish, Glen's Falls, N. Y. I claim and.ed screw provided with a cavity, b, in its head, substantially as specified.

64,090.—AIR HEATING APPARATUS FOR STEAM BOILER FUR-

Ut, USU.—AIR FIGATING APPARATUS FOR STEAM BOILER FUR-NACES, ETC.—Addison C. Fletcher, New York City. An-tedated April 18, 1867. I claim the air passage, E, extending transversely across and through the sincke plue, chimey fine or exhaust pine for the whole or nearly the whole long 3.1 of, and in combination with the jacket, D, surround-ing the said pipe, chimaey of flue, substantially as and for the purpose here-in specified.

64.091.-RIDDLE FOR SAND WASHER.-D. L. Furnier, Ros-

traver Pa.

Mass.

traver Pa. I claim a hollow screen or riddle, revolving on an axis, with one portion always immersed in a vessel through which a stream of water constantly flows, when said riddle receives the earthy sand into its interior at one end and discharges the coarser particles over a tail chute at the other end, as set forth and described. In combination with a hollow revolving riddle, constructed substantially as described, and revolving in a water trough, B, the chute, M, and stirrers, N, for the purposes set forth. In combination with a hollow revolving riddle, constructed substantially as described, the web, P, and tail spout, L, tor the purposes set forth. In combination with a hollow revolving riddle, constructed substantially a described, the wings, O. up on its outer side, to agitate and remove the sand from the trough, as set forth. The combination of the hollow revolving riddle and bed frame, A, provided with the trough, B, and waste chute, C, constructed and arranged as set forth and described.

64,092.-CARPET LINING.-William Fuzzard, Chelsea, Mass.

I claim as a new article of manufacture, a carpet lining constructed of still paper, pasteboard, or a sized textile, or other suitable fabric, benf, cor-rugated, or folded, to effect the result, substantially as herein set forth.

64,093.-HAY AND COTTON PRESS.-Joel Garfield, Groton,

MASS. I claim, in combination with the follower, the grooves or ways at the ends of the press and their sliding pins, the vertical ratchets and their double set or sets of pawls and the toggle levers, when so arranged that an intermittent progressive movement is imparted to the follower by their co-operative movements, substantially as set forth. Also, in combination with the follower, the hinged frame, d, by which the follower may be swung up to leave the press open, substantially as set forth.

64,094.—STREET PAVEMENT.—George W. Grader and Mat-

thias H. Baldwin, Memphis, Tenn. We claim interlocking the sections of the frame, A, by means of the protect-ing fianges, c, on every alternate corner of each section, fitting into a recess, b, under the corner of the opposite section, there by preventing the pave-ment from settling or getting out of line, as herein shown and described.

64,095.-COMBINED FENCE AND GATE.-C. S. S. Griffing, Ge-

neva, N. Y. I claim the pannel, G, arrange d as described, and in relation to the pannels, A A, and braces, B, when combined so as to form a gate and pannel, jointly, in the manner and relatively as specified.

64,096.-FRUIT GATHERER.-Jacob B. Haines, Millersville,

Pa. I claim the arrangement of the fingers, A, lever arms, E, in combination with the coiled springs, D, all surrounding a rigid shaft, B, centrally affixed to the top of the pipe, R, and also connected with the horizontal and verti-cal bows, I X, the latter connected by cross curves, L M N, operating jo ntly in the manner and for the purpose specified. In combination with the specific frame work, I also claim the use of a sleeve or bag, N, elastic bands, O, buttons, P, actuating wire, F, cord, H, and handle, S, a ll arranged and operating in the manner and for the purpose set forth.

forth. 64,097.—POTATO DIGGER.—Manly Hall, Livonia, Mich.

64,057.-MACHINE FOR CULTIVATING COTTON.-William Al

104,007.—MACHINE FOR CONTRATING COTTON.—WITHIN AI-tick, Dayton, Ohio.
First, I claim the arrangement of the shaft, C, with its clutch and bevel wheel, with the pinion, T, shaft, W, and wheel, N, provided with its adjust-able hoes, the several parts being constructing and used as and for the pur-pose specified.
Second, Adjusting the arms, O O, in the wheel, N, by means of their grooves and the pins, b b, substantially as and for the purpose specified.
Third. The bar, H, upon which the plows or cultivator teeth are secured, used in connection with the grooved plates, a a, rockshaft, k, with its arms and lever, J, substantially as and for the purpose specified.

64.058.-Mode of TREATING FLAX.-Albert F. and John

64,058.—MODE OF TREATING FLAX.—Albert F. and John H. Andrews, Avon, Conn. First, We claim treating it by the aid of the endless double network ar-ranged relatively to the rollers "G H", and to the tank substantially as and for the purpose herefu specified. Second, We claim, in combination with the above, subjecting it to the action of the pressure roller, J, arranged as represented. Third, We claim the alternate application of warm and cold water, sub-stantially in the manner and for the purpose herein described. Fourth, We claim the treatment in the soluble protein solution obtained from ground beams or other equivalent, substantially as specified. Fifth, We claim the treatment with the chlorife of sodium, or its equiva-lent, after the treatment with the alkali before the bleaching, substantially as herein specified. Sixth, We claim the employment of metallic chlorides in the bleaching bath substantially as and for the purpose herein apecified. Seven th, We claim blowing atmospheric air through the interstices, after the material to be bleached has been immersed in a solution containing chloride of lime, whether this solution is prepared in the ordinary manner, or as above described.

or as a bove described. Eighth, We claim the use of alkaline solutions after bleaching, substantially as and for the purpose herein specified. Ninth, We claim the treatment with urine, in connection with the treatment with soap, substantially as and for the purpose herein specified.

lent arms or levers, D' and valves, B' with each other and with the plow f ame, E, substantially as described and for the purpose set forth. Third, The combination of the eircular valve, I'with the seed reservoir, T, hopper, S, and sliding bar, M, substantially as herein described and for the purpose set forth. Fourth The combination of the upwardly projecting pins, J' with the valves, H' or I' and with the seed reservoir, T, substantially as herein de-scribed and for the purpose set forth. Fifth, The combination of the vertical stirring shaft, K' having horizontal arms with the seed reservoir, T, hollow shak, I, and with the siding bar, M, sub stantially as described and for the purpose set forth. Sixth, The combination at arrangement of the seed reservoir, T, hop-per, S, arms, V, levers, WI, W2, and connecting rods, A1 A2, with each other with the siling bar, M, and with the plow frame, E, substantially as herein described and for the purpose set forth. Bighth, The combination of the lever, O and P, and sliding bars, M, with the cach other, with the plow frames, E, and with the frame, A, of the planter, substantially as described and for the purpose set forth. Ninth, The combination of the lever, Y, pulley, B2, shaft, V' ratchet wheel, Y' pawl, Z' bevel wheel, U'and foot wheel, S', with each other, with the plow frames, E, and with the frame, A, of the planter, substantially as herein described, and for the purpose set forth. Then, the combination of the lever, Bide bar, N' and bent lever, M' or equivalents with each other with the frame A of the planter, substantially as herein described, and for the purpose set forth. Tenth, The combination of the shovel plow, I, and strengthening rods, S, with each other and with the flanged lever end of the hollow shank, I, end exting a described and for the purpose set forth. Eiventh, The combination of the shovel plow, I, and strengthening rods, S, with each other and with the flanged lever end of the hollow shank, I, end exting exer ide

64,077.-FEEDING MECHANISM FOR CARDING MACHINES.

William Clissold, Dudbridge Works near Stroud, Eng. First, I claim the combination with the inclined reciprocating bars, B, of thereciprocating comb bars, F, and rods or pressers, K, for the purpose of discharging the wool or other fibrous material from the feeding box. Second, The combination with the reciprocating comb bars of pressing rolls, P, for delivering the wool or other fibrous material to the preparing machine in the form of a bat or sheet.

101 the purpose substantianty as architecture described. 64,098.—VOLTAIC BRACELET.—Thomas Hall, Boston, Mass. I claim the series of plates, of different metals, attached to each other by double hooks, formed upon one side of each plate, and entering correspond-ing slots cut at the opposite edge of each plate, the hooks being passed through the leather or clothstrap, and clinched upon the side opposite to the plates, substantially as hereind described.

64,099.—Apparatus for the Manufacture of Soap.—Cyrus H. Hardy, Charlestown, assignor to himself and Geo. Jaques, Boston, Mass.

I claim placing the several soap-forming ingredients in separate and inde-pendent receptacles, D E F, with or without steam jackets, and provided with plpes, e fg, for conducting the ingredients to the receptacle, G, in which they are heated, the supply of the ingredients thereto being regulated by suitable valves or stop cocks, h i, substantially as and for the purposes

suitable values or stop cocks, h i j, substantially as and for the purposes specified. I also claim, in connection with the above, the employment of agitators, I J, operating substantially as set forth.

64,100.-Horse HAY FORKS.-Samuel and Daniel A. Harris,

Shippensburgh, Pa. We claim pivoting the lever, E, to the forked arm, F, of the bar, A, and to the lever, D, as herein described, in such a manner that the weight upon the inger, C, will cause the upper end of the lever, E, to be drawn toward said bar, A, thereby securing and retaining the finger, C, in a horizontal position, as herein shown and described.

64,101. - WINDOW SHADE ROLLER. - Stewart Hartshorn, New

Tork City. I claim the construction and arrangement of the short fax d shaft, E, above the shade roller, A, surrouns de by the spiral spring, D, one end of which is secured thereto at, b, the other end attached to the loose hub, F, of the gear wheel, C, meshing into the gear wheel, B, upon the end of the shade roller, substant failly as herein shown and described for the purpose specified.

64,102.-AUXILIARY AIR CHAMBER FOR STOVES.-Elizabeth

Hawks, Troy, N. Y. I claim the shield, λ , with the open horizontal slot, B, near its top, constructed and used as and for the purpose set forth.

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64,104.—HORSE HAY-FORKS.—Thos. N. Henderson, Jackson,

Mich., assignor to Henderson & Cooley. I claim the combination of the adjustable drop, c. rolling cross bar, C, and operating lever, E, with each other and with the handles, C', and teeth, I, of the rake, substantially as herein shown and described and for the purpose set forth.

64,105.—LUBRICATOR FOR MACHINERY.—Benj. Hilbert, Cin-

cinnati, Ohio. First, I claim the transparent reservoir consisting of a glass globe, A, in which the decrease of the labricating material may be observed without de-taching it from the bearing, and allowing of its insertion in an inclined posi-

which the decrease of the labricating material may be observed without de-taching it from the bearing, and allowing of its insertion in an inclined posi-tion. Second, A conducting pipe, E, with its end resting upon the journal or other moving metal, so that the surface of said metal closes the orifice when at rest and when in motion acts mechanically to draw out a sufficient quan-tity of oil, as hereins et forth. Third, A lubricating apparatus constructed n two portions, one perma-nently attached to the box or in other desired position, while the reservoir and conducting pipe are simply inserted in this outer pipes on sate be remov-able at ness the adjustment of screw-threaded outer pipe, G, and pinching nut, I, to enable the adjustment of the tubes, as shown and set forth.

64,106.—STUMP EXTRACTOR.—J. Dean Huffman, Springfield,

64,106.—STUMP EXTRACTOR.—J. Dean Huffman, Springfield, Ohio.
First, i claim the lever, A, of a stumppuller, in combination with the cyl-in drieal talerum, B, supporting the wheels, C, eccentrically attached thereto, substantially in themaher and for the purposes efforth.
Second, In combination with the slotted lever, A, eccentrically attached, the fixed cylindricalitulerum, B, adjustable extension hook, D, and stirrup, E, when constructed and arranged substantially as set forth.
Third, The arrangement of the slotted lever, A, with the plate, A2, and bite, A3, a ustable extension hook, D, and eccentrically at-tached fixed cylindrical fulcrum, B, substantially as set forth.
Fourth, In combination with the lever, A, eccentrically attached fixed cylindrical fulcrum, B, and stirtup, E, I claim the hook eclevis, x, substantially as and for the purpose set forth.

64,107 .- MACHINE FOR BLOCKING AND STRETCHING HAT

64,107.—MACHINE FOR BLOCKING AND STRETCHING HAT BODIES.—Wm. Humphreys, Jr., Cold Spring, N. Y.
First, I claim a series of stretchers, 0, in combination with the levers, F.
for the purpose of overstretching the brin, substantially as described.
Second, Making the said stretchers adjnemble vertically so as to regulate the extent of stretching, substantially as described.
Third, The combination of a series of levers, F, hinged to the base plate, D,
springs, i, and levers or clamps, G, rods, H, and plate, I, constructed and opierating substantially as described.
Fourth, The sleeve, J, while carries by means of its connections the wedge, M, for operating the levers, N, made adjustable in a vertical direc-tion, substantially as efforth.
Fifth, A series of levers, N, hinged to the stationary base plate, D, is some bination with the circular wedge, M, adjustable sieve, J, and its connec-tions, arranged and operating substantially as described.
Stati, The combination therewith the lever, a rods, d and c, wheel, U, and statistically as described.
Stati, The combination therewith the lever, a rods, d and c, wheel, U, and the pin, n, for governing the operation of the same, substantially as described.
Stati, The combination therewith the lever, a rods, d and c, wheel, U, and statistically as described.
Stati, The combination there with the lever, set on the ind, t, and the pin, n, on wheel, U, and the projection, q, on rod, f, constructed and operat-ing substantially as electric.
Stati, The cylindrical cap plate, D, in combination with the cylindrical cap plate, D, to which are hinged the levers, F, In combination Strut, The base plate, D, to which are hinged the levers, F, in combination with the cylindrical cap place, E, carrying the brim stretchers, O, the whole arranged and operate and for the purpose set forth.
Tenth, The lever, F, having its journal arranged to operate with base plate, D, s

64,108.—GATE.—A. B. Hurd, Watkins, N. Y. First, Iclim the bar, B. Hurd, Watkins, N. Y. First, Iclim the bar, B. pivoted on the cleat, n, and having its rear end engaging with the hook, p, as a support for the gate, A. substantially as shown and described. Second, I claim mounting the gate, A, on friction rollers arranged to r n on the bar, B, and having both gate and bar swing around, as set forth. Third, The staplics, d, with the friction rollers mounted thereon, and said staples arranged to embrace the bar, asshown and described.

64,109.—SASH-ROPE PLATE.—Anthony Iske, Lancaster, Pa. claim the specific arrangement of the plate, A, with its circular opening, lot, C, groove, D, and beveled convexity, E, on the back, all arranged in manner and for the purpose speci ed. B,

64,110.-BOAT-DETACHING TACKLE.-Peter H. Jackson, New

York City. I claim the cylinder, g, feather, i, lever, k, and fork, h, in combination with the bolts, e e, having right and left handed threads, said bolts taking eyes or rings on the ropes or chains passing to the davits, as set forth and for the pur-pose specified.

64,111.-HAY ELEVATOR.-Jacob L. Kintner, Harrison,

County, Ind. I claim the guide bars, F F. having their lower ends connected to a curved plate, in combination with the rake. G, and bars, A A, all constructed and operating in the manner and for the purpose set forth.

64,112.—SHOWER BATH.—D. P. Lacy, Orfordville, Wis. I claim, First, Constructing and operating the valve substantially as and for the purpose set forth. Second, The valve arrangement constructed as specified in combination with a vessel for containing water, substantially as set forth.

64,113.—COMBINING GENERATING AND SECONDARY OR ACCU-MULATING GALVANIC BATTERY .- Georges Lionel Le-

MULATING GALVANIC BATTERY.—Georges Lionel Le-clauche, Paris, France. I claim in combination the graphite plate or plates, the flask, and the porous vase, the flask and vase being charged and the whole apparatus be-ing arranged to operate substantially as set for th. I also claim the employment in electrical piles of peroxide of manganese moistened with a liquid containing a sait in solution which has no chemical action on the peroxide of manganese, the sait used being capable by its elec-trolytical decomposition of rendering soluble the oxides of manganese arising from the reduction operated by the hydrogen.

64,114.—POTATO DIGGER.—Edward S. Lenox and Edward

64,114.—POTATO DIGGER.—Edward S. Lenox and Edward Spaulding, New York City. We claim, First, The potato digger, consisting of theframe, A, secured to the axle, B, caster wheel, D, snapended scoop, E, with wings, G G, curved bars, h, riddle, F, vibrated by suitable gearing, N, cutter, H, mold board, I, toothed verifcal bar, i, chain, E, and lever, I, constructed and operating substantially as herein shown and described. Second, The scoop, E, when provided with a concave cutting edge to prevout the bursting of the Hill, in combination with the wings, G, as set forth. Third, The vibrating riddle, F, consisting of beat sheet metal bars, which are so arranged that the ends of the center bars drag on the ground, and those of the outer bars are elevated above the ground, substantially as and for the purpose herein shown and described, in combination with the mold boards, H and I, subtantially as herein set forth. Fourth, The indicative science herein and ecoribed, and operating substantially as and for the purpose herein shown and described, in combination with the mold boards, H and I, subtant and L, when arranged as herein described, in combination with the wings, G, and scoop, E, all made and operating substantially as and for the purpose herein herown and described.

64,115.-SEAT FOR LOUNGES AND CHAIRS .- M. Le Page and

F. Raymond, Woodhaven, N. Y. claim the strip, C, curved on its profile in the arc of an ellipse, in com-tion with the rebate, a corved in the arc of a circle for clamping the ends e spring, B, substantially as and operating in the manner set forth.

64,116.—SAD IRON.—Elliot Lewis, Lockport, N. Y. I claim the detachable handle, E, provided with feet, g, and slide bolt, h combination with the way, b, cross wifes, c, and bolt socket, d, arrang and operating substantially as set forth.

64,103.—PONTOON BOAT.—John Hegeman, Vischer's Ferry, N. Y. I claim the combination of the hinged parts consisting of the bottom, A B the end sections, C, central sections, F, and side end sections, H, when the sides and end sections are so constructed as to fold over on the bottom of the boat, in the manner described.

64,122.-WASHING MACHINE.-Andrew J. Mapes, Independ-

ence, Mo. effice, MO. First, I claim the buoyant or floating rubber hoard, B, constructed sub-stantially as herein shown and described and for the purpose set forth. Second, The combination of the large wheel, C, and small wheel, E, with each other and with the rubber board, B, box, A, and frame, D, of the ma-chine, substantially as herein shown and described and for the purpose set forth.

forth. Third, The combination of the long levers, I, pitmans, J, pulleys, K and L and bands, M, with each other and with the whoels. C and K, and frame, D, of the machine, substantially as herein shown and described, and forthe purpose set forth.

64.123 .- VESSEL FOR STORING AND TRANSPORTING OIL -

Thomas J. McGarry, Cleveland, Ohio. First, I claim the tank, A, with shell and lining, B, having a water ohamber it the sides and ends, in combination with inlets and outlets, arranged as and or the purpose substantially as set forth. Second, Hanging the tank upon journ als or bearings, as and for the purpose et forth.

forth. hird, The saddles, N, provided with spring bearings, in combination with tank, substantially as and for the purpose set forth.

64,124.—RAILWAY SWITCH.—James McLaughlin, Duncan non. Pa.

I cla m the movable elastic frog continuous with and forming part of the adjoining rails, C G, their converting slotted ends joined together in the slotted chair, G, by means of the bolt, F, their elastic or discngaged portion connected together by means of the cross rod, d, in combination with the main rails, A A, branch rails, B B, and operated by means of the crask, c, and sliding bar, I, substantially as herein shown and described and for the purpose specified.

64,125.—PAINT OIL.—Samuel Melsom, Erie, Pa

I claim the paint oil composed of linseed oil, benzine, rosin, and the pain dryer, in the proportions substantially as set forth, and prepared as described

64,126.—PAVEMENT.—Benjamin F. Miller, New York City. I claim a pavement formed of blocks laid at an inclination, so that on block lies partially upon the side of the next, substantially as set forth.

64,127.-Loom.-Charles Miller, St. Louis, Mo. Antedated

64,127.—Loom.—Charles Miller, St. Louis, Mo. Antedated April 10, 1867.
First, I claim the combination of the short shaft, B2, the crank, b, and rod, b', when the whole are arranged in connection with the lay frame, in the manner and for the gurpose described.
Second, I claim the combination and arrangement of theshifting bar, D, and its stops, d, and the picking sticks, C'.
Third, I claim the ratchet, E, and its star-shaped groove, e, for the purpose of giving the required motion to the shifting har.
Fourth, I claim the combination and arrangement of the ever, E3, substantially as described and for the purposes of the the twill governor, composed of the devices, F2 F3 F4, F5 F6 f3 f4 f3 f6 and f7, substantially as sciences and set forth.

64.128.—CHIMNEY OR VENTILATOR.—Joseph A. Miller, New

York City. I claim the smoke stack, A, provided with annular inclined planes, B C, having different inclinations, leaving a space divided into compartments by the radiating partitions, D, constructed and operating as and for the purpose specified.

64,129.-CLOTHES DRYER.-A. J. Mills and E. M. Hewett,

Scott, N. Y. We claim the within-described dryer composed of the plate, A', with its fanges, and the plyoted slats, B B, the same being used substantially as and for the purpose specified.

64,130.—OILING DEVICE FOR JOURNAL BOXES.—George M. Morris, Cohoes, N. Y.

First, I claim forming inclined shoulders, D, and the oil chamber or reser-vor, C, of the journal box, substantially as herein shown and described and for the purpose set forth. Second, The inclined removable slotted plate, E, in combination with the inclined shoulders, D, of the journal box, and with the oiling disk, F, substan-tially as herein shown and described and for the purpose set forth.

64,131.-APPARATUS FOR ROLLING CLEVICES AND PLOW

SHARES.—Felix Murray, Pittsburg, Pa. I claim the rolling of forming of levices and shares for plows by means of the rollers, B B', provided respectively with the grooves, a b c and d, and arranged with a stripping or guide roller, D, to operate substantially in the manner as and for the purpose set forth. 64,132.—STEAM-ENGINE SLIDE VALVE.—George H. Myers,

Diliadelphia, Pa. First, I claim the cavity, a, in the top of the valve, in combination with springs, d, packing piece, b, and a top rlate, c, constructing and operating substructurally as and for the purpose described. Second, the slide, C, working on the ontside of the steam chest, and pro-vided with a pin, f, to catch in a socket in the valve, in combination with the top plate, c, and packing piece, b, constructed and operating substantially as and for the purpose set for th.

64,133.—FARM GATE.—J. H. Nonamaker, Middletown, Pa. I claim the combination and arrangement of the grooved pulleys D and F, with the rear end of the gate A, and with the ralls E and G, of the panel of the fence adjacent to the rear end of said gate, substantially as herein shown and described.

64.134.—LAND CONVEYANCE.—R. J. Nunn, Sayannah, Ga. I claim the grooved rollers B, and ribbed band C, in combination with the curved end frame A, bearing the working parts which communicate motio to the band constructed and applied as described for the purpose specied. th the 64,135.—COPPER COATED IRON ROLLS FOR PRINTING AND

FINISHING.—Alfred Parof, Mulhouse, France. I claim a new manufacture marking printing or finishing rollers of cast ron and coating the same with copper.substantially in the manner and by he means herein specified.

64,136.—STOVEPIPE DAMPER.—Ephraim Parker, Marlow,

N. H. I claim a damper made of two parallel plates or disks whose edges are cut away at opposite sides and to one of which is pivoted linged or adjusted near the side thus cut away a valve or slide, the whole device constructed so as to operate substantially as described.

64.137.—QUILTING FRAME.—Benoni F. Partridge, Syracuse, N.Y

N. X. I claim the combination and arrangement of the axis, the rollers, the exten-sion bars, the legs, the set screws, the guides, the stay rods, the slot in the extension bars all constructed and operating substantially as and for the purpose shown and described. 64,138.-RAILROAD SWITCH.-H. E. Passmore and G. A

64,138.—RALIROAD SWITCH.—H. E. Passmore and G. A. Heckert, York, Pa. First, We claim the pointed spring rails CC, moving on the slide plates E, E, and lng plates FF, in combi ation with ralis X. Second, The double notched gurant rails DD, in connection with the point-ed spring rails CC, to gnard the wheels from striking the points of the said spring rails X. Third, The slight plates the value of G, which allows the pointed spring rails CC, to move back in combination with spring rails, etc. Fourth, The combination of the pointed sp ing rails CC, moving on the slide plates E E, the lug plates F F, and the single lipped switch rod G, in connection with the guard rails DD, in the manner and for the purpose here in substantially set forth.

64,145.-HAT.-Celius E. Richards, North Attleboro, Mass. J claim a hat fabricated of paper, thread or twine substantially as described as a new manufacture.

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64,146.-GAME FOR PASTIME.-Charles Richardson, Richmond, Va. laim the arrangement of certain devices as herein before described and

IIIOIO, va. I claim the arrangement of certain devices as herein before described and shown by the accompanying drawings for forming an instructive and amusing game, or pastime, for the house or field.

64,147.-LET-OFF FOR LOOMS.-George Richardson, Lowell,

94,147.—LET-OFF FOR LOOMS.—George Richardson, Lowell, Mass. First, I claim the combination and arrangement of the whip roll d, with its fingere, the lever f, tension spring h, friction pal m, and friction pulley g, of any form or shape, substantially as and for the purposcherel nest forth. Second, I claim the cam or pawl q, combination with the adjustable stand p r, and friction brake f, as and for the purpose herein destribed. Third, I claim the own or the whip roll and completely stopping the let-off at the time of heating up the woof by means independent of the whip roll substantially as herein specified.

64,148.-MUSICAL RACK OR DESK.-Francis Xavier, Rizy, Monroe. Mich.

Telaim the dross bars G, in combination with the clamping bars e, the in-lined plane h, thumb screw f, slots p, spurs o, enlargements n, and also in combination with the other common devices, such as the foot board d, rack , and instrument a.

64,149.-CHURN.-C. H. L. Roberts, Morrison, Ill.

04,149.—CHURN.—C. H. L. KOOPTS, MOTTISON, 111. First, Iclaim the arrangement of the shaft G, with its plates b b, and placed within the trough E, in the manner and for the purposes specified. Second, The box A, with 1d D1, having funnels 5 t, and covered opening x dasher shaft D, in combination with the trough E, all arranged and operating in the manner substantially as and for the purpose set forth.

64,150.-GATE.-Elias Roth and George Shane, New Oxford, Pa.

Pa. First, We claim the combination and arrangement of the bent levers H and I, and short bars K and L, with the gate B, ropes O and N, poet A, substan-tially as herein shown and described and for the purpose set forth . Second, Placing a roller D under the front cross bar b 3 of the gate B sub-stantially as herein shown and described and for the purpose set forth. Third, The catch G E, constructed and arranged substantially as herein described and for the purpose set forth. Fourth, Forming the horrizon tal bars b2 of the gate B, so that they may be oval in their cross section, and placing them with their longest diameter horizontal, substantially as herein shown and described and for the purpose set forth.

64,151.-Compound for Curing Foot-rot in Sheep.-W. Russell and B. Carpenter, Northfield, and Joseph Drake,

Boston, Ohio. We claim the herein described compound applied as and for the purpose described.

64,152.—GANG PLOW.—E. Sexton, Munson, Mass. First, I c.ain the adjustable bars, B, provided with the tubular guides or supports, F, for supporting the plows, substantially as shown. Second, in combination with the laterally adjustable bars, B, I claim the spring rods, I, and levers, L and m, arranged to operate as set forth.

64,153.—GATE FASTENING.—Charles Seymour, La Porte, Ind. I claim the bed plate, C, cap, A, sliding bar, B, thum b series, D D, and circular sock, E, constructed, ar ranged and operating substantially as herein set forth.

64,154.-Machine-Knitted Hosiery.-Benjamin F. Shaw, South Danvers, Mass.

I claim as a new article of manufacture, a machine-made stocking, hose, or sock, knit or formed in the manner set forth.

64,155.—SHOE FASTENING.—Gerard Sickels, Boston, Mass. Telaim a shoe fastening device constructed to operate substantially as set forth.

64,156.-APPARATUS FOR CARBURETTING GAS.-Warren A. 54,150.—APPARATUS FOR CARBURETTING GAS.— Warren A. Simonds, Boston, Mass. First, I claim the arrangement within the vaporizing vessel of complete disks, i, and partial partitions, g, when combined with tubes, h, connecting the respective cells of each chamber, alternately with a cell of the chamber above and with a cell of the chamber below, substantially as and for the pur-pose described. Second, I claim connecting the cellson different sides of the same disk by independent U-tubes exterior to the cylinder, adjusted, arranged, applied and operating substantially as described.

64,157.-Mounting Glaziers' Diamonds.-Philip Sinsz, Bal-

timore, Md. I claim the within described glaziers diamond the same having the breaker, B, jointed or pivoted to the handle, A, and the diamond block swiveled to the breaker, substantially as and for the purpose set forth.

64,158.-METALLIC BOBBIN.-Charles T. Smith, Utica, N. Y.

I claim the securing of the wooden heads or flanges, b, on the non-corrosive metal tubes, a, of bobbins by drawing up a shoulder, c, on the tubes for the upper surfaces of the heads or flanges, b, to abut against and turning up the endsof the tubes. a, within a concave, d, substantially as shown and de-scribed

64,159.—Coffin.—Henry Smith, Jr. Summit, N. Y. Fret, I claim the combination of the frame, C, prepared for the reception of a glass plate with the cover, B, of the coffin in such a manner that the upper side of said frame may be flush with the upper surface of the said cover, substantially as and for the purpose herein set forth.

64,160.—SASH FASTENER.—John R. Smith, Salem, assignor

ballou.—DASH TASTENER.—outh It. Uniter, Gaterin, Gazgiov to himself and A. S. Rogers, South Borough, Mass. First, Iclaim the combination with the shell, D, cast as described of the cam lever. E. and metal faced block, f, substantially as and for the purposes set forth. Second, The combination with the shell, D, of the pivot, a, cast upon the inside of the block of shell, D, for the purpose stated.

64,161-PANTALOON GUARDS.-S. B. Smith, and E. Lindsley,

Cleveland, Ohio. We claim the metallic guard, A, constructed substantially as described a combination with the hooked buttons, C, in the manner and for the pur-ose set forth.

64,162.—SKID.—Seabury Sowle, New Albany, Ind. I claim the skid herein described when composed and constructed as de-scribed, with its curved center, and connected by the hooks in the manner and for the purposes set forta.

64,163.—HORSE HAY FORK.—A. B. Sprout, Hughesville, Pa. I claim the conform points, f and g, provided with cutting edges, and shoulders or hooks. 6 and 7, constructes, atranged, and operating substan-tially as herein described and for the purpose set forth.

64,164.—HORSE HAY FORK.—Ole O. Storle, North Cape, assignor to himself and Percy B. Smith, Milwaukee,

Iclaim a horse hay fork when made with prongs, A, connecting rods, B, leeve, C, shaft, D, and lock, E, in combination substantially as and for the urpose described.

64,100.—CULTIVATOR.—J. L. 1416, Columbia, 16111. First, I claim the adjustable scrapers, F, constructed as herein shown and described in combination with the bars, G, and frame, A, of the cultivator, substantially as and for the purpose set forth. Second, The cotten coverer, L, constructed as herein shown and described in combination with the bars, F, and frame, A, of the cultivator, substantially as and for the purpose set forth.

64,166.—STEAM PUMP.—James Edward Thorpe (assignor to

64,165.—CULTIVATOR.—J. E. Tate, Columbia, Tenn.

Wis.

I claim the detachable handle, E, provided with feet, g, and slide bolt, h, in		himself and W. J. F. Liddell), Erie, Pa.
combination with the way, b, cross wifes, c c, and bolt socket, d, arranged and operating substantially as set forth.	64,139.—MANUFACTURE OF STARCH SUGAR.—Narcisse Pigeon	I claim the supply cylinder, D, constructed and operating substantially as
	Montreal, Canada.	described, in combination with the pumping engine and the oscillating valve
64,117ToyWilliam E. Lincoln, Providence, R. I., as-	First, I claim the within described process of manufacturing a crystalliza-	F, and champer, E.
signor to Milton Bradley & Co., Springfield, Mass.	ble syrup from iecula, free from dextrine or nearly so substantially as herein set forth.	I claim the arrangement substantially as described for moving the steam valve and the piston of the supply cylinder.
First, I claim the device herein described consisting of the revolving cyl-	Second, The within described process of manufacturing a hard crystalized	
inder, A, with any number of slits, a b c d e, and having figures uponits inside surface, and arranged and constructed substantially as set forth.	sugar from starch syrup prepared from fecula as above described substan-	64,167.—Horse Hay Forg.—William H. T. Tomlin, Mullica
Second, The plate, F, having any desired figures upon it, arranged n the	tially as herein sctforth.	Hill, N. J.
manner and for the purpose described.	64,140.—GATE LATCH.—George M. D. Pomeroy, Attica, Ind.	I claim a hay elevator consisting of the two forks, C, hinged to the cross
Third, The plate, B, upon the bottom of the cylinder, having any desired figure or figures upon it, formed substantially in the manner and for the pur-	I claim a gate latch consisting of the parts B C and D, constructed and arranged for use as described acting in combination with the pin Λ , substan-	bars, c, and connected by the toggle joint lever, fg, having the loop or
pose set forth.	tially in the manner and for the purpose set forth.	guide, o, working in the vertical groove, t, of the slotted standard, A, sub- stantially as shown and described.
64,118HAND SAWWilliam H. Livingston, Johnstown,		64,168.—Excavator.—Israel D. Vandecar, Chicago, Ill.
N. Y.	64,141.—LANTERN.—William Porter and William Porter, Jr.,	First. I claim the combination and arrangement of the shovels. B. provided
	New York, N. Y.	with the shanks, B', the levers, C, arms, a, and the post, A, when arranged
First, I claim connecting the metallic back of a framesaw to the handle, by passing the trame into a hole in the handle, substantially as specified.	We claim the lower guard ring c, when made of sheet metal as described,	and operating substantially as described.
Second, I claim attaching the metallic tightening buckle d to the lower	so as to permit of a prolongation of the guard wires substantially as herein shown and set forth.	Second, in combination with the shovels. B, provided with the shanks, B', the levers, C, arms, a, and post or center piece, A, I claim the connecting
edge of the wooden handle, a, in the manner set forth. Third, I claim a metallic tightening buckle, formed with a slot for the re-	64.142.—BOTTOM FOR CULINARY STEAMERS.—W. S. Potwin,	chains, D, hoisting rope, E', and dumping ropes, E, when all arranged and
ception of the end of the saw, a hole for the screw rod, i, and a nut to screw		operating substantially as and for the purposes set forth.
upon the rod, c. as set forth.	(assignor to Frank Sturges & Co.,) Chicago, Ill.	64,169.—DREDGING MACHINE.—Israel D. Vandecar, Chicago,
Fourth, I claim the stiffenerplate, c', and the rod, c, forming the irame of the saw, as and for the purposes set forth.	I claim the bottom of the steamer provided with the deep groove B, near its onter edge projecting downward and surrounding the raised centre which	In.
	is provided with the raised concentric ribs A, whereby perforated concen-	First, I claim the combination and arrangement of the scoops, C D, handles
64,119.—CULTIVATOR.—Michael F. Lowth and Thomas J.	tric channels are formed by the steam condensed within the steamer from	or levers, E F, connecting chains, B, rod, R, hoisting rope, H, and plate, A,
Howe, Owatonna, Minn.	the articles being steamed, as herein shown and described.	when constructed and operating substantially as and for the purposes speci- fied.
First, We claim the combination with the quadrant, J, of the adjustable	64,143.—CORN PLANTER.—John B. Raines, Fremont, Iowa.	Second, Incombination with said scoops, handles or levers, connecting
segment, M, for the purpose of changing the position of the lever, N, sub- stantially as and for the object specified.	the diag represented by the letter I and the better of the ber in which the	Chains, rod, hoisting rope and plate. I claim the ropes or chains. G when
Scoond, The combination of the quadrants, J.J. segments M. shaft K and	corn is placed represented by the letters A A.	operating substantially as and for the purposes set forth. Third, I claim the combination and arrangement of the plate, A, rod, R,
lever, N, with the chains or flexible connections. I, connecting bar, H, and shovel beams, D, all arranged and operating in the manner and for the pur-		provided with the shoulder, r, the catch plates, a, bent lever, d f, and cord
pose specified.	64,144.—VALVE GEAR FOR WATER METERS ANDOTHER PUR-	g, when constructed and operating substantially as herein speci ed.
64,120WAGON-SEAT SUPPORTERJohn Lunger, Waldo,	POSES.—John H. Rhodes, Brooklyn, N. Y. I claim in a valve gen substantially of the character described, the com-	64,170.—IRONING TABLE.—B. Van Gaasbeek, Mount Vernon,
Ohio.	bination with the rod H, and its roller d of the lever E, linked as described	
	I to said rod by a bin I, arranged to have through an oblong or oval slot in the	I claim the combination of the chamber d of the table, the pivoted from:
Claim the standard, B, constructed substantially in the manner set forth, d used as and for the purpose specified.	substantially as specified.	ing board and the folding leg, I, substantially as and for the purpose herein
the second statements	I wrwnews Marth we photorow	

64,171.—FENCE GATE.—W. F. Veber, Perrysburg, Ohio. I claim the gate, A, as constructed in combination with the joints o pivoted post, G, as and for the purposes et forth.

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64,172.-CORPSE PRESERVING CASE.-Joseph S. Waterman,

Boxbury, Mass. Iclaim providing the ice chamber, B, with a yielding top or cover for the purpose set forth. I also claim forming a passage from the corpse chamber to an ice chamber placed above it, substantially as and for the purpose specified.

64,173.-FOLDING CHAIR.-N. Waterman, Toledo, Ohio. I claim the combination of the seat, G, and legs, B D, whereby the back legs, D, fold on the front legs, B, and the seat. G, passing through bet week the side pieces, C, above the round, I, fold on the hind legs, D, of the c bair substantially as described for the purpose specified. hack

64,174.—CHECK HOOK REIN HOLDER—David C. Watson,

Manchester, N. H. I claim the mode herein described to secure check reins in the hook, as own by stem. C, pin, D, tube, B, tube, A, and spring, E, which may be made wire or rubber.

64,175.—SPRING BED BOTTOM.—Dexter P. Webster and Hermon W. Ladd, Philadelphia, Pa. First, We claim the detachable frame herein described, the same consisting of the side pieces, B, with dove all brackets, C, and the cross pieces, D, with dovetail ends constructed and operating, substantially as and for the purpose specified.

specified. Second, The plates, C, constructed as described, in combination with the cross pleces, D, substantially as and for the purpose specified. Third, The removable sectional tubular cushions. G, applied to the coils of the springs, substantially as described for the purpose specified. Fourth, The pendent hooks, a constructed as described, in connection with the bed stead frame, A, supporting the slat-bearing frame, substantially as described for the purpose specified.

64,176.-MACHINE FOR SHAPING METALS.-Morris Wells,

64,10.—MACHINE FOR Shint and American Williamsburg, N. Y. Williamsburg, N. Y. First, I claim the combination of springs, d. with the cross bar supporting the claup, G, substantially as and for the purpose described. Second, The link, K, fitted closely between the crossbead, J, and crank, L, and operating in combination with the die, F, and punch, I, substantially as and for the purpose set forth.

64,177.—SLEIGHS.—Nathaniel T. Whiting, Lawrence, Mass. First, I claim the combination of the hollow cross bar, A, the slotted slide, B, and pin, E, when constructed and arranged to operate substantially as and for the purpose set forth. Second, The combination of the slotted shaft irons, F, the springs, C, and slotted hooks, al, a?, when arranged to operate substantially as and for the purpose set forth.

64.178.—ORE WASHER.—John Wicks, Greenland, Mich. First, I claim the combination of the separator, B, slime pit, J, buddle, H and their connections, the sieves, c c c, and hutch, K, all for the purposes and substantially as described. Second, I also claim the walking heam, N, concetting rod, Spin combina-tion with the hutch, K, substantially as described. Third, I claim the buddle, **H**, in combination with the slime pit, J, for the purpose described

purposes described. Fourth, I also claim the buddle, G, in combination with the hutch, K, sub-stantially as described.

64,179.-ILLUSORY DECAPITATION.-James C. Withington, Brookline, Mass. I claim the effigy composed of figures 1 and 2, constructed and arranged ubstantially as herein shown and described for the purposes specified.

64,180.-CLOTHES WRINGER.-John Young, Amsterdam, N. Y.

First. I claim the gear, F, when applied to the upper shaft, P, of clothes vringers in the manner herein shown and described and operating as set

Jorna. Second, I claim, in combination with the gear. F, the cone or center, g, and pin, d, arranged as described, when used in connection with a gear, c, as specified. 64,181.-METHOD OF SPRINKLING LIQUIDS IN REFINING

SUGAR.—Helem Merrill, Brooklyn, N. Y. I claim diffusing the water or other cleansing or bleaching agent in a finely divided state by means of a current of air or other elastic fluid, substantially as described.

64,182.-DISCHARGE FOR CENTRIFUGAL MACHINES.-Helem Merrill, Brooklyn, N. Y. I claim the stationary and removal scrapers and receptacles. by which a centrifugal machine may be discharged when in motion, substantially as de-scribed.

64,183.—FEEDER FOR CENTRIFUGAL MACHINES.—Helem Merrill, Brooklyn, N. Y.

I claim a hopper constructed substantially as described for the purpose of delivering and distributing a uniform layer on the selve of a centringal ma-chine, while in motion.

64,184.—SEWING MACHINE. - Monroe Stannard, Hartford,

104,104.—SEWING MACHINE.—Montoe Stanlard, Haldord, Confi. First, I claim operating the feed wheel of a sewing machine by means sub-stantially such as described, so that whils it is nall always, when in action, at the option of the operator, a positive rising or falling motion for each pro-gressive action of the wheel, for the purpose set ford. Second, The employment in a sewing machine of the adjustable vibratine lever, N or its mechanical equivalent, with the rock shaft, P, arms, q s, con-necting bar, r, cam, t, or their mechanical equivalents, for holding the feed wheel, and for giving to it an alternaterising and falling movement, substan-tially as described.

RE-ISSUES.

2.—CARRIAGE WHEEL.—John Raddin, Lynn, and George W. Chipman, Boston, Mass., assignees of John Raddin. 2,572.

Patented June 13, 1865. We claim a wheelh aving combined directly with the spokes thereof elas-itic cushions or blocks of rub berso applied to or in the line of the spokes as to receive the strain exerted between the axle and the tire of the wheel, and having also means for relative adjustment of the spokes and cushions. Also, The specific constructions described, and shown in the several spokes represented in figs. 1, 2, 3, 4, 5, and 6.

2,573.—GRATE BARS.—Lorenzo B. Tupper, New York City, assignce of Daniel Lasher. Patented Sept. 11, 1860. First, I claim a furnace grate bar having a series of parallelogram openings running crosswise of the bar, substantially as set forth.

Second, A furnace grate har in which the cross bars are alternately con-nected at their ends, substantially as set forth, to strengthen said cross bars and prevent the scraper dropping in between said bars, as set forth. Third, A furnace grate bar in which the surface of the longitudinal bar is on the same level as the top of the cross bars, as set forth, so that said longi-tudinal bar will ad in supporting the scraper. Fourth, Furnace grate bars in which there are longitudinal air spaces be-tween the bars and parallelogram air, spaces transversely of the bars, sub-stantially as set forth.

2,574.—MACHINE FOR CUTTING HOOPS.—Martin Reed, Ro-chester, N. Y., assignce of John Thompson. Patented Nov. 17, 1863.

NOV. 17, 1503. I claim, First, The combination of the irregular-shaped knife, D, with the automatically adjusting rest, C, and adjustable gage, o, as and for the pur-pose set forth. Second, The employment of the knife, D, constructed with one or more offsets in its cutting edge, as described, and for the purpose set forth. Third, The combination or the wheel, E, the spring pawl, d, and clutch, r, or their equivalents, with the rest, C, as and for the purpose set forth. Fourth, I claim as an improvement in manufacture of hoops, the cutting of the hoop from the edge of the plank, or in alternately in a bevel line and in a right line to the side of the plank, or in alternate bevel lines.

2,575.—Composition for Roofing and other Purposes.— Rees B. Smith, Mount Pleasant, Ohio. Patented July 31, 1866.

claim the composition, for roofing and other purposes, consisting of the redients in about the proportions described.

2,576.— BRACE FOR BITS.—N. Spofford, Haverhill, Mass.

2,010.— DRACE FOR DITS.—IN. Spontoru, Haverhill, Ditss. Patented Nov. 1, 1859. Iclaim, First, A bit stock constructed with a tapered socket transverse to the arm or portion of the stock in which it is formed, and said arm slitted longits earner line, so as to divide said socket lengthwise into two equal parts to form an expanding socket, substantially as and for the purpose de-cepted

ability of form an expanding socket, substantially as and for the purpose de-soribed. Second, The slitted socket, A, constructed with the inward projections or lips, d a at its larger end to close over the shoulders of the bit shank for the purpose of retaining said shank with the socket when clamped substan-tially as set forth. Third, Arranging the socket, A, of a brace with a slot, a, as described in combination with a thumb screw, D, and slips or projections, d, or their equivalents, substantially as and for the purpose set forth.

DESIGNS.

2,626.-CLOCK CASE.-A. C. Felton, Boston, Mass.

2,627.-TRADE MARK.-Louis L. Arnold, New York City.

2,628.—TRADE MARK.—Eli. W. Bailey, Philadelphia, Pa.

2,629.-TRADE MARK.-John M. Batchelder, Cambridge,

Mass. 2,630.—TRADE MARK.—James P. Baxter, Portland, Me. 2,631.-TOBACCO BOX.-Charles J. Hauck, Brooklyn, N. Y.

2,632.-FENCE PANEL.-George Lovejoy, Deposit, N. Y.

foreign Latents.

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Improved Trap-door Attachment.

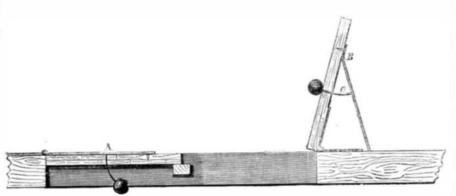
Severe bodily injury and even death not unfrequently occurs by the accidental falling through open trap doors in ilton, March 15th, the charges used were, first shot, 125 lbs. buildings and hatches in vessels. The engraving presents a simple contrivance designed to diminish the risks to such accidents and appears calculated to fully subserve that purpose. With this attachment the trap door is automatically braced firmly in a nearly upright position. At A, the trap is seen closed. It is hinged in the ordinary manner, but has, charge exceeds that of the fourth, although 25 lbs. less powder in addition, a bar pivoted to the door, as at B, which becomes a brace when the door is raised beyond a vertical position. The same irregularity may be observed between the second In opening the trap, soon as it has passed a vertical position and third shots. Future experiments may explain these va-

the weight of the pivoted brace swings it out from the door, aided by the rod, C, and stop or weight, D, which are firmly secured to the swinging bar. The rod, C, may be curved on a radius corresponding with its distance from the hinge of the bar so that but a small hole through the trap is necessary for its action. The weight may be arranged to slide on the rod to be secured at any point by a set screw, so that the door may be thrown back to any desired angle, or by pushing the bar in with the foot the trap may be laid flat on the floor or deck in the usual way.

It will be seen that this contrivance is convenient in all situations, but particularly in opening a trap, as a roof oiled. The dust from the parapet (recently made) will insinuscuttle, from a ladder. It will save the breaking of hinges so ate itself, and unless removed, soon form with the oil a mixcommon by throwing the trap door back, and its upright position will naturally attract attention and prevent accident.

It was patented through the Scientific American Patent of the top carriage. Weight of shot, 1,080 lbs. Agency by Samuel R. Bartlett, of Detroit, Mich., March 12, 1867. For particulars apply to Albert G. Boynton, Detroit, Mich.

second shot, 150 lbs.: third shot, 175 lbs.: fourth shot, 200 lbs.: mammoth powder. This gun was fired at a constant angle of 25°. Gen. Rodman's pressure plug was used in getting the pressures. An examination of the record will show that from some unknown cause the amount of pressure of the third diswas used. At the same time the range is 2,827 yards less.



BARTLETT'S TRAP-DOOR ATTACHMENT.

riations. It would undoubtedly have been more rapidly loaded had the running gear been free from dirt and properly ture which, on the axle, seriously retards the working of the gun. The mean recoil was 5' 10", or less than half the length

The following is the record of the firing :-

Calculated Ranges.—First shot, 6,110 yards, 347 miles; second shot, 6,302 yards, 386 miles; third shot, 6,770 yards, 385 miles; tourth shot, 7,953 yards, 455 miles. These ranges are obtained by computation.

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