OFFICIAL REPORT OF

ULAIMS FATENTS AND

Issued by the United States Patent Office,

BOR THE WHEE MNDING NOVEMBER 5, 1867. Exported Cilcially for the Sassaufic American

PATENIS ARE GRANTED FOR SEVENTEEN YEARS the following eing a schedule of fees:-

on filing a solution of rece.—
On filing each Gaveat.
On thing each original Patert, except for a design.
On thing each original Patert.
On appet to Commissioner of Patents.
On application for Ressue.
On application for Extension of Patent.
On granting the Extension.
On granting the Extension.
On granting the Causand and Causand On grammer the Extension.

On the mode Design (three and a half years).

On the application for Design (three and a half years).

So the sing application for Design (three and a half years).

On thing application for Design (fourteen Figure).

So in addition to which there are some small revenue-stamp taxes. Less walks

or chanada wed Neva Scotts pay \$750 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 MUNN & Co., Publishers of the Scientific American, New York.

70,384.—RAILROAD FREIGHT CAR.—J. H. Aldrich, Nashua, New Hampshire.

I claim the cattle-car, when substantially arranged as and for the purpose

40.385.—Tobacco-smoking Tube. — James M. Alexander

10,350.—10 BACCO-SMORING 1.0 BE.— sames at Treatment, Delbi, Ohio.
1 claim a tobacco-smoking tube, formed by combining an outer tube with an inner wire ganze, perforated or porous cylinder, in either of the forms above de-crined, so that the smoke will be drawn to the mouth without passing through the tobacco, substantially as set forth.
10,386.—Mode of Treating Tobacco.—Gustavus Arnd,

(3),386,.-MODE OF TREATING TOBACCO. — GUSTAVIS AFIND, New YORK city, I chim, 1st. Treating tobacco with acids, such as acetic acid, formic acid, malicacid, lactic acid, or any other acid of a similar nature, substantially as and for the purpose described.

2d, Treating footacco with vegetable substances, such as saccharine or other funces, and then succeeding the same to termentation, substantially as and as and for the purposes set forth.

70,587.—Elevator.—Edw'd H. Ashcroft, Lynn, Mass.
I claim the combination of the frame, H, with its friction rollers, h and g, and the serve V. E, constructed and operating in the manner substantially as shown and described, and for the purpose set forth.

70,388.—Method of Covering Steam Generators.—E. H.

70.38S.—METHOD OF COVERING STEAM GENERATORS.—E. H. Ashcroft, Lym., Mass.

I claim, 1st, The combination and arrangement of bands, A, hooks or points a, and cement layer, B, substantially as shown and described, and for the purpose set 10rff.

2d, The combination and arrangement of covering, F, alternate layers, E D C B, and bands, A, manufacture, and operating in the manner substantially as shown and described, and for the purpose set forth.

70,389.—CONDENSER.—E. H. Ashcroft, Lynn, Mass.

10,009.—CONDENSER.—E. H. ASHCYOII, LYHI, MASS.
I claim the combination and arrangement of the waste pipe, A., showering pans, B, reservoir, E, and supply pipe, C, operating in the manner substantially as shown and described, and for the purpose set forth.
70,390.—FIRE-PROOF SAFE.—E. H. ASHCYOII, LYNM, MASS.
I claim, I, In a fire-proof safe, a series of perforated water pipes, E. or their equivalents, arranged substantially as described and for the purpose set

orth in combination with said pipes, the inner perforated lining B, and cham ber, D, arranged and operating in the manner substantially as shown and described and tor the purpose set for the said operating in the manner substantially as shown and described and to the channer, D, and water pipes, F, constructed and operating in the manner substantially as shown and described, and for the purpose set forth.

70,331,—STEREOSCOPIC APPARATUS.—George Beigel, New

York city.

I claim, 1st, Introducing the pictures into the stereoscopic apparatus in medica or minutifica, national of singily or in pairs, as heretofore, substantially child. The plates of Singly or in pairs, as heretolore, substantiany in the purposes nearthed.
If the purposes nearthed is feel or propelling the pack of pictures, subsidered, in the pack of pictures.

stantially as set forth.

3d. The separating crew, F, provided with spiralsteps, substantially as and
for the purpose described.

4th, The tappet rod, e, bolt, d, and toofh, a. in combination with the propurpose deserrica. he tapper rod, e, bolt, d, and tooth, a. in combination with the pro-, e', shde, c, a. d leed screw, D, substantially as and for the purpose

set forth.

5th, The stop, f, in combination with the tooth, a, slide, C, feed screw, D, and case, A, constructed and operating substraining as and for the purpose

described.
6th, The trap, H, in combination with the feeding and separating mechanism, constructed and operating sub-tantially as and for the purpose set

forth.

Tett, The folding thap, K, hinged T-shaped brace, M, and hinged head, L, in combination with the eve-glasses, J, and case, A, constructed and operating substamially as and for the purpose described.

Stb, the oscillating finger, N, in combination with the trap, H, and with the feeding and separating mechanism, constructed and operating substantially as and for the purpose set forth.

Stb, the lower slide, O, in combination with the folding and separating mechanism, constructed and operating substantially as and for the purpose set f

meenant-m, constructed and operating substantian, and the first described.

10th, the method, herein described, of collecting the pictures in the lower part of the case, after they have been viewed, so that they can be removed in quantities or packs, as set forth.

11th, Giving to the lower slide, O, a faster motion than to the feed slide, C, substantially as and too the purpose describes.

12th, The winding mechanism, Q, in combination with the slides, O C, and cords, St, constructed and operating substantially as and for the purpose set forth.

70,392.—LAMP EXTINGUISHER.—Wm. P. Bennett (assignor to himself and Hanny Riske). East Penerrell, Miss.

70,392.—LAMP EXTINGUISHER.—Wm. P. Bennett (assignor to himself and Henry Blake), East Pepperell, Muss. I clima the apple cation of the two rollers, na, to the wick tube of the burner, so that the said tollers may operate with and be operated by the wick, substantally in manner and for the purpose set torth. I also claim the combination and arrangement of the stofled arms, b b, with the two rollers, 1 a, and the whick tube, or with an additional tube or collar. I, applied to such was rube, as specified.

I also claim the combination, as well as the arrangement, of the stops or guards, h h, with the rollers, a a, and the wick tube, applied and arranged logicities substantially as explained.

70,393.—EMERY WHERES FOR GRINDING AND POLISHING SAWS, &c. George L. Benton (assignor tollinsel and John Greenwood). Rochester, N. Y.

I claim the emery wheel for med with the narrow grinding rim, a, and central depression, b, and made of the conical ordon was shape herein described, the same operating in the manner and for the purpose specified.

70,394—Device for Holding Says-Burgers, —Julius Bevins,

ression, b. stud made of the conical or conventuation herein described, eoperating in the manner and for the purpose specified.

—Device for Hosaixas Syressivets,—Julius Bevins,

Unadilla Forks. N. Y.
I claim the bar, A, the hook, B, and the cutved hook, C, when they are aranged in the manner specified.

ranged in the manner specified.

70,395.—GAS STOVES.—John K. Birkey, Philadelphia, Pa.

1 claum, 1st, The tube, B, arranged in respect to the hollow cone, D, and wire gauze, or periorated aisk, E, substantially as and for the purpose set forth.

forth. 2d, Theplate, F, with its inclined inner edge arranged in respect to the per-turned plate, of wire gauze disk, E, substantially as and for the purpose de-

70,396.—Corn-Sheller.—Thomas W. Bishop, Austin, Ind. Iclaim, it, The combination with the shelling device, EE, of the gear, wheels, C and D, hub, DI, and central opening, D2, substantially as and for the purpose of the first opening, G, substantially as and for the purpose de-

scribed. 70,397.—Skelping-Dies. - Mildred Blakey, Pittsburg, Pa. I claim the const uction and use of the skelping dies, made either solid or separate, with a slot, or opening, b, extending longitudinally along their upper part, through or between them, alternately as and for the purpose here into fore set forth.

10.208. - Clas Chandelier Attachment.—Alfred Bliss, New

Yets city.
1 claim the configuration of a wheel, or reservoir, supplied with gas in any a star with a damer, with a flexible tube, for the purpose indicated.
10,300.—RAIL FOR RAILWAYS.—Jonathan L. Booth, Roches-

ter, N. Y. Let an the combination of the body, A, nicked and indented as described, the tag, B, substantially in the manner and for the purpose herein set

70,400.—Rails for Ramways.—Jonathan L. Booth, Rochesor, A. Y. I claim the cap. B. in combination with a base, A. having a longitudinal degree storing as upper suchace, substantially as and for the purpose specified.

70,401.—Stock and Poulity-Feeder.—George Bowerman,

Napoleon, Onto
I claim the ann or reservoir, C, valve, E, in combination with the rod, F, ever, G, and case, A, constructed and arranged as and for the purpose set

form. 70,402.—Spianing-Jacks.—Henry P. Briggs, Clarksburg,

Mass.
1 claim, 1st, The lever, G, having a cam, F, at a suitable point thereon, for acting analyst the bile-shipper, substantially as described.
2c. The adjustable standard, N, and lever, M, in combination and arranged to operate with the carriage of a spinning jack, substantially as described.
3d. The economication of the adjustable standard, N, lever, M, lever, G, and connecting, and, 1 or an equivalent connecting device, costantially as described. 4th, The levers, M and G, applied to the shipper, D, or the driving shaft of

a jack for the purpose of bringing the fast pulley, C, into partial engagement with the race-shaft belt, substantially as and for the purpose above set forth.

70,403—CLEANER FOR LAMP-CHIMNEYS.—Obidah B. Brown,

Maldisc, Mass.

1 chain a lau, p. chain o cleaner, expediting of no clastic cylinder, or tube, ttached to a handle, substaintially in the mainer described.

70,404.—STRAW-CUTTER.—Addison Buch, West Earl Town-

(0,404.—STR. W-CUTTER.—Addison Buch, West Eath Township, Fa.
Lelaim the construction and arrangement of the metallic plate, A, and spring board. B, in combination with the bottom plate, C, and arrangement spring doard. B, in combination with the obtain place, or and all approximations of the knife, D, and lever, H, in the manner and for the purpose specified. 70,405.—Illuminating Oils.—Asa W. Burrows, Cleveland,

Ohio.
I claim the above described compound, composed of the ingredients here in given, in the manner as and for the purpose set forth.
70,406.—Churns.—Philander Byrns and George Stannard,

Mindora, Wis.

We claim the churn, B, perforated board, F, handles, E E, chair, A, and connecting rods, C C, when all are constructed, arranged and operated as and for the purpose set forth.

70,407.—STRAM ENGINE—Charles W. Cahoon, Portland, Me.

10,407.—STEAM ENGINE—Charles W. Cahoon, Portland, Me. I claim, its, A carriage, baving a receptacle containing hot water under pressure, when the water has been heated at a place other thin in or on the carriage, substitutionally as and for the purpose described.

2d. Abstitute combination of a carriage, receptacle, and engine, substantially as and for the purpose described.

2d. Also the combination of a non-conducting material with the receptacle upon the carriage, containing water heated and transferred as described, substantially as set forth.

4th, Also a reserve tank, containing water heated and transferred as described, forthe purpose and substantially as set forth.

cribed, forthe purpose and substantially as set forth.

70,408.—BENT KNEF AND FRAME FOR SLEIGHS.—Daniel O.
Card, Rawsonville, Ohio.

I claim the herein-described bent knee and beant as a new article of manu-

70.409.—Rigister Padlock —J. L. Chambers, B'kiyn, N. Y.

1 Caim, 1st, Constructing a lock with two independ int bolts, which are so arranged as to act tog their, simultaneously locking both the hasp and bottom plate of the lock, said bolts being operated by a series of tumblers, which are worked by means of a flat key, substantially as described.

24. Securely locking the tablet in position by means of the bottom plate, I, substantially as described.

70.410.—TELEGRAPH CLOCK.—Js. Chandler, Syracuse, N. Y.

I claim the application of cords and wrest of the clock and weight, as here in described, for the purpose of indicating the time and striking the hour at 70,411.—Elastic Sash Elevator.—S. A. Chase, Boston,

Mass.
I claim the mode of elevating window-sashes by means of elastic cords, ubstantially in manner and for the purpose as described. substantially in manner and for the purpose as described. 70,412.—Hoisting Apparatus.—Henry Chatfield, Wolcott-

ville, Conn.

I claim, in combination with a hoisting machine, the toggle-arms, I, arrang d and operating in connection with the beh-shipper, H, brake lever F, and bruke, G, substantially as and forthe purpose herein specified.

70,413.—TONGS.—Samuel Collinson, Buffalo, N. Y.

I claim constructing tongs, with two or more tongues, b.c., for grusping several articles at the same time, arranged and operating substantially in the manner set forth.

manner set forth.

70,414.—LINING BARRELS WITH SHEET METAL.—Theodore R. Cook, Saratoga Springs, N. Y., assignor to Henry Lawrence, Norristown, Pa. I claim rubbing out or burnishing down the metal liming against the wood of the barrel to make the metal liming it the inside of the barrel closely, substantially as described.

I claim as a new article of manufacture a wooden barrel, lined with sheemetal, which is made to fit the wood closely on the inside by being rubbed or burnished against it.

70,415.—Fire-proof Safe.—Thomas Cook, London, Eng.

ournished against it.

70,415.—Fire-Proof Safe.—Thomas Cook, London, Eng., assignor to Chas. P. Button, New York City.

I claim the construction and application of ascrew fitting door to safes and depositories, substantially as above described.

I claim also the binged arm, H, and the screwed axis G, for supporting the weight of the door, C, and guiding the same in a true horizontal plane during the opening and closing of the sale door, as above described.

70,416.—DIFFERENTIAL WHEEL GEARING.—Chas. F. Cooke, York, and John Stanfield, Lambeth, Great Britain.

We claim, 1st, The novel combination and arrangement of differential what gearing, and its application to various pulposes, in the manner substantially as described.

2d., The combination of our said differential wheel gear well parts for the purpose of forming crabs and other hoisting apparatus into self acting weighing machines, in the manner substantially as described.

70,417.—MANUFACTURE OF BUTTER.—Joseph Sigler, Anderson, Ind., administrator of the estate of Jesse P. Crampton, deceased. I claim the method herein described of improving common butter by churings it over, incombination within eworsweet milk, white sugar, interest of potash, and hquad rennet, or their equivalents, substantially in the manner and in the proportions herein set forth.

70,418.—Verterrinary Narcotic Injector.—Ploritz Crohn (assignor to himsel), H. W. Volkers, and duide Doench, St. Louis, Mo. I claim the combination and arrangement of the bowl, A, the tube, B B', and the bellows, C c, substantially as and for the purpose set torth.

70,419.—Floa'ting Water Power.—Commodore Danlels, Fremont, Ohio.

I claim, 1st. The sliding frame, G, In combination with boats, D, and wheels

Fremont, Ohio.

I claim, 1st. The sliding frame, G, in combination with boats, D, and wheels f, the whole constructed and operating as herein described.

2d, The sliding frame, G, in combination with boats, D, wheels, F, apron, y, anichorpiece, g, the whole constructed and operating as and for the purpose subscentially as herein set forth.

pose substantially as herein set forth.
70,420.—Ct king Tobacco.—Benj. A. Davis Petersburg, Va.
I clain, 1-t, The openings, with their covers, hose under the root, both
front and rear, for the pripose of admitting air, ventilating and carrying off
the evaporation from tobacco while in the process of curing, as herein de-

the evaporation from totacco which is the evaporation from totacco which is stribed.

24. The process of drying or curing tobacco under a glass roof, substantially in the manner herein described.

70,421.—Composition For Packing Journal Boxes, Joints, Etc. John T. Davis, Jersey Cily, N.J., and Wm.C.Selden, Brooklyn, N.Y. We claim, is:, A composition of paper pulp, soapstone, and sulphate of zinc, or its equivalent, substantially as and for the purposes section.

24. A composition of paper pulp and sulphate of zinc, substantially as and for the purposes set forth.

for the purposes set forth.
70,422.—FASTENING FOR COACH LAMPS.—Marcus De Vours-

ney, Newark, N. J.
I claim, 1st, A bracket, A, provided with arms, a, and a socket, b, in combination with the standard, B, and with a coach lamp, substantially as and for the purpose described.

2d. Fastening the socket to the back of the lamp by means of the arms, a, substantially as and for the purpose set forth.

70.423.—DEVICE FOR SETTING SAW TEETH.—Henry Disston,

Phyladelphia, Pa. I caim the notched swage, F, in combination with adjustable rods, G and G, the lower ends of which are adopted to or arranged to embrace the collar and washer or the spindle of a circular saw, all sub-modules as and for the purpose herein set forth.

purpose herein set forth.
70.424.—Device for Sharpening Saw Teeth.—Henry

Disston, Philadelphia, Pa.

I claim, ist, the combination of a file or cutter. A, and a cross bar or guide, F, arranged in respect to the cutter as to determine the extent to which the litter shall penetrate the iront of the saw tooth, all substantially as described.

2d. The combination of the above and a bar, G, or its equivalent, so arranged as to determine the extent to which the cutter shall penetrate the saw blade.

ranged as to determine the extent to winds as blade.
Sd, The mole, substantially as described, of rendering the bar, F, adjusta ble to and from the file. A. 70,425.—SADDLE TREE.—D. A. Dixon, St. Louis, Mo.

I claim, 1st, The construction and arrangement of the loop, a', with the pommel, A. 2d, The construction of the cantle, C, substantially as described and set 70,426,—Ozone Generator.—Wm. Elmer and H. G. Hu-

bert, New York City.

We claim, is., The combination and arrangement of the vessel, A, with the porous cup, E, the one filled with the granulated porous substance, W, and the ether partly filled with the figure decin cal reagent, Z, in the manner substantially and for the purpose set forth.

The combination of the rod, E, cement stopper, e, and cap, T, with the viail D, and cup, B, arranged so as to operate substantially in the manner specific.

specified.

3d. The granulated porous substance, W, and the liquid chemical, Z, in combination with a porous cup, B, so that the reaction between the said chemical, Z, and substance, W, will take place as set forth and for the purpose specified of producing ezone.

70,427.—Construction of Sheet Metal Buckets.—James

70,437.—CONSTRUCTION OF SHEET METAL BUCKETS.—James Fallows(assignor to Porter & Booth). Philadelphia, Pa. I claim producing the flared or flanged base of a sheet metal vessel requiring such a base, by corrugating the sheet metal of the body of the vessel, substantially as described and set for the 70.438.—SHUTTER-HOWING BOLT.—Walter H. Fizzgerald (assignor to himself and W. H. Sexton), Philadelphia, Pa. I claim, 1st, In combination with a shutter bolt, the small friction bolt, dron the plate, C. and the notches, 3-3, in the bolt bar, c", the same being arranged to operate to other as a stop or lock for the bolt bar, substantially as set further and described.

on the plate, C., and the notches, 3-3, in the bolt bar, c", the same being arranged to operate to either as a stop or lock for the bolt bar, substantially as setforth and described.

24. Also in combination with the subject matter of the preceding clause of the claim, the small friction bolt, f, and the recess, e, in the plate, O, and the vertical hole in the forward end of the bolt bar, c", the same being arranged to operate together substantially as and for the purpose set forth and described. 70,429.—CATTLE-GUARD GATE.—Armstrong Freeman, Low-

ell, Mich. I claim, 1st. The side rail, H, lever, I, chains, L, and levers, K, as arranged, n combination with the gate, A, for the purpose and in the manner as set forth, 2d, The gate, A, and roller, D, as, arranged, in combination with the standard, M, links, N, and wei bited arm, N, in the minner and for the purpose herein described.

70,430.—CULTVATOR.—Hugh J. Graham, Monmouth, Ill. 1 claim, 1st, The slotted bar, C, in combination with the handles, F F,

upright bars, P.F., substanti thy as the critical and for the purpose set forth.
2d, The curved from 1, in combination with the notched bar, V, chitch, W, brace, Q, and sliding seat, D, arranged as set forth and for the purpose start, d.

brace, Q, and sidding seat, D, arranged as several and for the purpose claumed.

3d. The movable bar, N. in combination with the handles, for the purpose described and substantially as attained.

1th, The clutten or slide, W, and not sheet bar, Y, substantially as described, and combined for the purpose set forth.

5th, The hinge. C, in combination with the curve, T, for the purpose of giving vertical indilateral movement, and for vertical adjustment.

70.431.—CHERN.—Jas. J. Gruver and Ambrese D. Wiggins, New Market Onio.

New Market, Ohio.
We claim the slotted bed piece, E, churn, F, when provided with tennon, and adjustable guide board, m, all arranged in connection with dasher bars, b b, pitmen, e e, and double crank shaft, d, as and for the purpose set

torth. 70,452,—Gas Cooking Rance.—David G. Haskins, Cam-

bridge, Mass. I claim, ist. The combination of the base, A, and combustion chambers, a I claim, ist. The combination of the base, A, and the interposed incimed flue space, s, as and for the purpose space fled.

2d. The combination of the base, A, and complustion chambers a b, the ovens of apartments, E C, and the reservoir, D, as and for the purpose specifical.

entes.
3d. In combination with a gascooking range constructed substantially as described, a water back, E. as actionth.
70, 433.—Lighting Rooms.—David G. Hashins and Joseph

70, 433.—LIGHTING ROOMS.—David G. Bushins and Joseph Windows, Constrainty, Mass.

We claim the combination of a lamp, a, provided with an air purage as escribed, the screw, c, and air pipe, d, in combination with an air purage as escribed, the screw, c, and air pipe, d, in combination with an air purage as apparatus, as and for the purpose set forth.

70,434.—HARALSS.—Matham T. Healy, Medina, N. Y. Lebin forming the hip straps E, without intermediate buckles and passing said straps loosely through the bearing, C, and providing a suitable adjustment of the same on the back strap, as herein set forth.

70,435.—Preparing Fish For Food.—George H. Heron (assignor to himself and samuel E. Dav), Washington, D. C. I claim preparing ish for food by the application of heat and a suir the acid, substantially as described.

acts, substantially as described.

70,436.—BEEHIVE.—Jesse Hiestand, Palestine, Ill.

I claim the construction of the body or lower portion of the hive of three vertical noards. A A A, and one inclined or sloping board, terminating at the bottom in a narrow entrance, a, at the top in a honey chamber, E, said have being supported upon a frame, G, which is provided with protectors, 3, 20,426.

substantially as described.

70,437.—PREVENTING TIN WARE FROM RUSTING.—Portus M. Haman, Rochester, N. Y.

I claim the helesh described method of protecting common articles of tin ware from rusting, by providing them with a zine oottom or rim, substantially in the mainer set for th.

70,438.—Sect ring the Ends of F. Lleys.—Hiram Inman

and Horace Inman, Amsterdam, N. Y. We claim the device for securing the ends of fellys constructed substantially as described.
70,489.—Apparatus for Making Extracts from Bark

ANDOTHER MATERIALS.—James W. Jones, Conducting Marcial by up-varid hydraulic presence, when the same is applied to a vessel higher above, when with sliding valves and a false perforaged bottom, substantially as de-

pipe with sliding valves and a raise performed.
Sorbed.

21. The false bottom, C, and pipe, D, baying sliding valves, d2ds, when the same are combined and operated substantially as accombined and operated. 70,440.—Boot Crimp.—Franz Kali and Samuel Andrews,

Rochester, N. Y.

We claim the heel block, D, for varying the position of the seam of the boot, and the metal line a sockets, c.c., behauft the blocks, B. C, of the crimp, for the issection and adjustment of the volume, the whole arranged and operating as herein set forth.

70,441.—TABLE URN.—Ernest Kaufmann, Philadelphia, Pa I claim, ist, A table arm which can be revolved on its stand, and is provided with two or more compartments of chambers, c, and fancets, E, subsubstantially as and for the burpose set forth.

24. The arrangement and combination of an urn, A, with two or more compartments, c, annular lip, a, stand, B, ears, b, lamp, D, and fuccets, E, all constructed and operating substantially as and for the purpose shown and described.

70,442.—PICTURE ENVELOPE.—C. A. Kihlgren, Boston, Mass.

70,442.—PICTURE ENVELOPE.—C. A. Kinigren, Boston, Mass. I claim the Proposes picture envelope made substantially as described, that is, with us flap iolded, and of a length so as to be capable of being had over both faces of the pocket, the same being as and for the object or purposes as hereinbefore explained.

70,443.—Pump.—John T. Kimbel Vernon, Ind. 1 claim the combination and arrangement of the two solid pistons. H. H., ond the cylinders in which they work, with the wave and valves, L. I., and supplying and discharging pipes, all substantially as described.

70.444.—WINDOW FASTENING.—Geo. B. Kirkham, N. Y. city. I claim the fastening complete with its several parts, the body. A, the double pointed bolt, B, the slide, C, the catch, E, and the key, as escribed and represented.

andrepresented.

70,445.—Hot Am Furnace.—James A. Lawson, Troy, N.Y.
1 caim, 1st, The radiators, D. constructed and operating substantially as described, that is to say, in such manner as to receive the heat at their junction with the Brechamber, divide the currents, and than converge or reunite them at the upper end of the said radiator.

2d. The employment of two sets or series of radiators, arranged and operating substantially as described for the purposes at forth.

3d. The employment, in connection with the two sets of radiators, of two horizontal pipes or conduits, E.E., communicating with the upper ends of said radiators, and with the exit pipe, G, near their centers, substantially as described.

4th The dome or rock of the first state.

scribed.

4th, The dome or roof of the fire chamber, so constructed as to extend up between the sets of radiators, substantially as and for the purposes described.

70,445.—ELASTE SELINE FOR CARRIAGES.—Thomas Long,

10,410.—F.LANE STAINS FOR CARRIAGES.—Holling Long, Vudaila, III.

I claim an indiarubber spring constructed substantially as herein described.

Also, the combination of in India-rubber spring, constructed as described, with an elliptic spring, for the purpose set forth.

70,447.—BLAST FURNACE.—F. W. Lurmann, Osnabruck,

Prussia. I claim, 1st, The slag discharge piece, D, constructed and arranged substan

I claim, 1st. The slag discharge piece, D, constructed and arranged substantially as described.

2d, The slag discharge piece, D, in combination with the plate, C, to which it is inteed, substantially as described.

3d, The slape of the discharge opening or openings of the piece, D, being made figning at its ends, and or diminished diameter in the middle or central part, substantially as described.

4th, Combining with the slag discharge piece a series of Water channels or pips, sub-mattally as and for the purpose above set forth.

5th, Combining with the metallic plate, C, a series of water channels of pipes, substantially as and for the purpose above set forth.

6th, The method of controlling the discharge piece, substantially as described. 70,448.—Bed Bottom.—J. I. Mabbett, Titusville, Pa.

I claim the slats, a b, open at one end, and connected at the other, combined with cross pieces, c d, blocks, g h, and rubber springs, i1, connecting the bottom with the bedstead, when all are arranged as set forth and de-

70,449.—Machine for Cutting Stone.—James W. Maloy, Boston, Na: .

I claim, 1st, The combination of the spindle, which carries the cutting or inishing tool, with the adjustable block, g, substantially as and for the pur

pose described.

2d. The adjustable block, g, carrying the spindle, whether the latter is vertical or norizontal, in combination with the movable cross head, e, as set

tical or norizontal, in combination with the movable cross head, e, as set forth.

3d, The pointer, k, in combination with the adjustable block, g, and pittle, h, substantially as and for the purpose specified.

4th, The former, c, in combination with the cutting and polishing mechanism, substantially as set forth.

5th, The combination, with a sliding table, b, and rotating portion, c, of a former, c', as specified.

6th, The combination of the movable pointer, k, with the former, c', when operating substant ally as and for the purpose described.

70,450.—MITER CAN.—Hugh L. McAVOY, and Ezekiel Mills (assignors to E. Mills), B. lutture, Md.

We claim, 1st, The milk can, with spiral metallic strengthening stavious its cylindrical pertor.

2d. The combination of the solid metal neck, F G, with the screw cap, H J K, when constructed and arranged as and for the purpose-specified.

70,451.—EVAPORATOR FOR SORGHUM AND OTHER SIRUPS.—Solomon McWorter, Barry, Ill.

Solomon McWorter, Barry, III.

18, I claim the combination and arrangement of the evaporating pan, A, not the steam boiler, B, substantially as described and set forth.

2d. The condination of the pipe, D, with the boiler, B, as and for the purose set forth.

pose set forth.

3d. The employment of the stiffening-ribs. a. i.: combination with the fit crown sheet of the boder, as described and set both.

70,452 — COTTON BALE (TE.—Henry B. Merritt, St. Louis, Missouri, assignor to J. H. Merritt, Mengh., Ten.

1 claim atte piece, A, when constructed substantially as described and set.

70,453.—Fountain Pen.—George Rudolph Metten, St. Louis, Mo, assignor to Horace Baldwin, Painesville, Onc.
I claim, 1st. in combination with an air tight and flexible ank sack, which is applied within the handle or holder of a countril per, so as to be free to collapse as the ink flows from it. I claim a tible, each tight hereafth.

is applied within the handle or holder of a doint till per, so as to be the to collapse as the ink flows here it, I claim a tube, e, which extends beneath the pen, it, and is provided will a vilve, g, at the point of asciarge, so that the does to writing the ink shall be caused to flow to the pen with greater or less freedom, according to the force and raphers of the stackes, substantially as specified.

2d. A foundain pen, which is provided with a thin, are tong, dwithe sack, applied within the pen had de or holder by means of a rink, a, it combines from with a removable pen shouth, and supply there, examinately as decearibed.

sol, in combination with the flexible sack, b, and ink supply tube, e. I claim the confical valve or plug, g, acting as a regulator draing the act of writing, and serving to close the aperture when there is no present applied to the nib of the pen, substantially as described.

70,454.—Lubricating Off.—Cyrus Moore, East Saginaw, assignor to himself and Abel Blakeslee, Detroit, Mich.

I claim 1, t. The method of manufacturing a lab feating oil by the process described.

2d. The use of the ingredients, and in the proportions substantially as desirbed, for the purpose designed.
70.45 - Complensating Forge Chane.—Thomas Morris,

Knowless. Calaim the lever, P, adjusting weight, R, and chain, q, in combination with the weight, L, sheaves, J, chain, k, and carriage, F, arranged and operating substantially as and for the purpose set forth.
Also, in combination therewith, the lever, W, and its connecting rods or chains, yy, operating substantially in the manner and for the purpose specified.

ed. Also, the guid's, S.S., and step bolts, u.u, provided with elastic shields, v. r rauged and operating with the lever, r, for the purpose and in the manner escribed.

70,455.—Hose Coupling.—Andrew J. Morse, Boston, Mass.

I claim, in combination with the tail piece of the coupling, having a screw biread upon its outer surface, the encompassing ring having a screw threads, one for screwing upon the outer surface of the hose, and the other for ronnecting the ring to use tail piece, substantially as set forth.

Also, the recess, I, and tapering screw or surface, f in combination with the encompassing ring and tail piece, substantially as set forth.

Also, the screw threads at the respective ends of the encompassing ring, h, made to run in opposite directions, substantially as described.

70,457.—IMPLEMENT FOR TRANSPLANTING FLOWERS, ETC.—

70,497.—IMPLEMENT FOR TRANSPLANTING PLOWERS, ETC.—
Edgar G. Nichols, Beaufort, S. C.
I claim, 1-t, The making of a transplanter in two separate and similar parts which, when united, inclose the roots of the plant and the soil next to them, pr. venting the soil irom falling away from the roots in removing.

24. The so curving or bending, or manufacturing of the blades, as shown in this specification and the drawings annexed, or the making of then in any manner which is substantially the same, that while they inclose the necessary space, yet shall they enter the soil with the least possible disturbance thereof.

thereof.

3d The shaping of the lower end of the shan't to reach across the top of the blade, suffent, and allow thinner metal to be used for it.

4th, The making of a portion of the shank horizontal, forming a step for the foot to drive down the blade.

5th, The flattening of the handles on the sides approximating, to prevent slipping or rolling of the handles when clamped together.

6th, The making of a transplanter with handles so long that it can be used without anystooping at anypart of the process, saving thus the largest and most unhealthy part of the labor.

70,458.—Machine For Cutting Teeth of File Blanks.—Hram Bassett Nickerson, Boston, Mass., assignor to Stillman B, Allen

Hiram Bassett Nickerson, Boston, Mass., assignor to Stillman B. Allen Frank A. Allen, J. ff. Winsor, and George B. Almy. I claim the combination as well as the arrangement of the two cutters, A

Frank A. Allen, J. if. Winsor, and George B. Almy.
I claim the combination as well as the arrangement of the two cutters, A and B, provided with mechanisms for raising and depressing them, as specified, with the tile-supporting carriage, C, having mechanism for imparting to it an intermittent motion in one direction, substantially as and for the purpose herein, before explained.

And I also claim the combination of such mechanism substantially as described, or its equivalent, for arresting the operation of a cutter, and its depressing mechanism or hammer, and maintaining such out of action preparatory to and while the other cutter and its operative mechanism may be at work, to produce the balance of the cit, to be made by such cutter last neutioned, the said additional mechanism being the cambar, 72, the levers, 8' t', the rod, u', latch I ver, v', connecting rod, w', and springs, x' and y'.

Also, the combination with the file-supporting carriage, C, its operative mechanism, and the two cutters, A B, provided with mechanism for effecting their elevations and decreasions, I claim mechanism substantially as described, or its equivalent, for gradually increasing the force of the blow of a lammer while the cutter thereofmay be passing from the narrower to the wider parts of the file blanks, as explained, such last mentioned mechanism being the pattern guide, m', stud, n', forked lever, o', projection, p', wedge, q', and buffer, m, atranged as explained.

And in combination with the file-supporting carriage, C, its operative mephanect.

plained.

And in combination with the file-supporting carriage, C, its operative me chanisms, and the two cutters, AB, and their mechanisms for effecting their proper elevations and depressions, I claim the spring presser or its equivalent.

Also, the combination of the self-adjusting cutter head, with the carrier slide, b. and the force transmitter, c. applied to the carrier as set forth.

slide, b. and the force transmitter, c. applied to the carrier as set forth. Also, the combination or mechanism for operating the teeding screw, such consisting of the ratchet, x, the pawls, y z, rocker levers, a' b', levers, e'f', and rods, e'c', rod, k2, hoop, l', and eccentric, f, arranged, constructed, and appled together so as to operate as specified.

70,459 — Eyes for Pickaxes.—George Nimmo, Jersey City,

 ${
m ^{'}N.~J.}$ I claim the eye for pickaxes and other tools, formed in the manner and for the purposes specified. 70,460.— Propeller for Vessels.—Charles M. O'Hara,

London, England.

London, England.

I claim, 1st, A propeller, for vessels of navigation, made of sector form, and hung or suspended, so as to operate or oscillate in a vertical plane, substantially as shown and described.

2d. Priving or operating the propellers by means of engines, the cylinders or steam chambers of which are of curved form longitudinally, and provided

with circular piston rods substantially as shown and described.
3d, The plates, H, in combination with the oscillating propellers, CC, substantially as and for the purpose specified.
70,461.—COVER FOR TEA-KETTLES, ETC.—William W. Page

70,461.—COVER FOR TEA-INETTLES, ETC.—WITHAM W. I age (assignor to Arnold H. Holdridge and Danial E. Paris), Troy, N. Y. I claim a oai and cover combined to vessels or kettles constituted with a cam or bulge at o. near one end of the bail, so that it will operate on an arm, or one end of the cover, to raise it upward and let it down as the bail shifted from side to side, when constructed substantially as herein described and controlled. -Grate.-Peter A. Palmer, Troy, N. Y.

Tolam the alternate stationary bars, B, in combination with the shaft, C bars, E, and frame, A, or their equivalents, a sand for the burposes herein set

forth. 70,463.— Breech-Loading Fire-arms.— William R. Pape

Newcastle-on-Tyne, Great Britam.

I claim the vertical rotating spindle, carrying bevoled catches, I and 2, and pring, 6, operating in combination with the lumps, D, and horizontal slots, and C, in the rear of the breech, substantially as and for the purposes spe-

cine 70,464—TA4.—Robert Parks, Philadelphia, Pa. 1 claim the tag, A, constructed with cuts or incisions, a a, and parts, b c or b d, folded over and secured substantially as and for the purposes seconds. 70,465.—Watch-Key.—Eugene Paulus, Philadelphia, Pa.

70,465.—WATCH-KEY.—Eugene Paulus, I'mladelphia, I'a. I claim a combinedwatch-key and push-piece, which is made a steady part of the case, the head or winding crown being directly screwed in the pen dant, leaving the pipe free and movable, so as to act on the case spring to open the watch, and also to wind it up by taking it out, the whole constructed and operating substantially as described.

70,466.—Rope-Making Machine.—Howard Perkins, Mansfald Machine.

70,400.—TOPE-MARING STACHINE.—TOWART TERMS, France, field Mass.
I claim the relf-adjusting regulators, K, constructed as described, in combination with their clastic cords, N, as and for the purposes set forth.
70,467.—Frame for Suspending Maps.—Wm. F. Phelps,

Winena, Minn.
I claim, 1st, A horizontal bar, having longitudinally sliding arms, provided with hoors, sub-tantially as described and for the purpose set forth. with hooks, sub-tantially as described and for the purpose set forth.

24. The standard, E, having steps, K, in connection with the slident and To, D, and spring, I, when arranged to operate as shown and described.

34. The atjustable standard, E, and horizontal bar, A, provided with the sliding arms, C C, when arranged to operate as described for the purpose set

forth. 70,468.—Wine Press.—A. L. Rand, Peoria, Ill. I claim, 1st, the box, A, provided with the perforated plates, g, lifting plate, e, and dipping-board, m, and inclined chute, I, when constructed and arranged to operate substantially as described and for the purpose set forth. 2d, The screw-rod, F, in combination with the tubular column, G, lifting-plate, e, followers, ii i], lever H, and rod, E, when constructed and arranged to operate substantially as described, and for the purpose set forth. 70,469.—GAME TABLE.—Louis Raymond, Rockland, Del.

I claim the combination of the circular recessed and figured platform, the horizontal, circular, covered or enclosed way, and the abutment or deflecting surface, D, all arranged as and for the purpose herein described and represented

CHURNS.—Thomas Rettew, West Vincent Town

ship, Pa.

I claim, 1st, The churn, A, as a whole, when constructed, arranged, and operating as shown and described.

2d, Encasing the lower part of the churn to form a chamber for the circulaerating as shown and described.
2d, Encasing the lower part of the churn to form a chamber for the circulation of ar. as shown and described.
3d, The wheel, D, plate wheel, m, and the detent, n, as shown and de

sembed. 70,471.—Tempering Seeel.—Asa R. Reynolds and Napole-

on B. Reynolds, Anburn, N. Y.
We claim tempering articles made in whole or in part of steel, by means of a head of flowing water, and a guiding and holding hardening, or tempering head, substantially as herein described.
70,472.—HORSE-HOE.—T. Rice and LukeR. Hitchcock, Cane-

70,472.—HORSE-HOE.—1. KICE and LUKER. HICHCOCK, Callegalea, N.Y.
We claim the combination of the curved perforated braces and hoe, as shown by figs. I and 2, for the purpose of cultivating garden and field crops in the best and most desirable manner.
70,473.—HITCHING-BTRAP.—A. J. Ross, Rochester, N. Y., assignor to O.C. Ross, Penfield, N. Y.
I claim the strap or cord, B. provided with the length, 1, for passing over and around the horse's head and through therings of the bit, and the buckle, k, or equivalent, for tastening tightly under the chin, the whole arranged and operating in the manner and/or the purpose herein set forth.

70.474.—Pupparation of Paper-Pillp from Reeds, &c.—

70.474.—Preparation of Paper-Pulp from Reeds. &c.-Robert W. Russell, Brooklyn, and Thomas Howland, Stockport, N. Y. We etaim, 1st, The above mentioned process of making paper-pup, papler inche, and other articles, from vegetable fibrous substances, dismitegrated avadoresand by the said steam-blowing process, without maceration, boiling or chemicals.

or chemicals.

24, The method of treating vegetable fibrons substances which have been subjected to the said steam blowing process for the purposes aforesaid, by beating, grinding, or bruising, and washing the same, before the boiling of the same in any chemical solution, substantially as described.

3d, Thenew articles of manufacture above described, that isto say, pulp of different kinds, suitable for the manufacture of paper and papier mache, made either with or without the use of chemicals, substantially as above described. scribed.
70,475.—Carriage-Seat Springs.—Wm. Scott, Plymouth,

Mich.
I claim the arrangement and combination of the spiral spring, A, the sock-

et, B, and the plate, C, provided with the circular flange, D, substantially as described for the purpose designed. 70,476.—MANUFACTURE OF REFINED INCO'RS OF IRON AND

Oyaro.—MANDFACTURE OF TREFINED INNOTS OF IRON AND STEEL—Christian Shunk, Armstrong County, Pa.

I claim the employment and the application of certain metals, herein set on the form equivalent, or either of the same separate from the other), in the edining and converting molten clude iron into refined ingots of iron and teel, or semi-steel, by the pieumatic process, and of bar or wrought iron onverted into refined steel ingots by the "pot" or crucible mode for melting the iron.

70,477.—Portable Gas-Generating Furnace.—Wm. M.

70,477.—PORTABLE GAS-GENERATING FURNACE.—Wm. M. Sloane, Buffalo, N. Y.
I claim, 1st, the combination and arrangement of the vaporizing chamber, B, with a common heating furnace, or stove, A at a2, for the purpose and substantially as described.

2d, The combination and arrangement of the retorts, C C, with the fire-chamber of a common heating furnace, or stove, for the purpose and suostanti-illy as herein described.

3d, The combination and arrangement of the furnace, or stove, A at a2, vaporizing chamber B, r torts C C, and conducting pipe, d, in the manner and for the purpose substantially as set forth.

4th, The valve, G, for automically regulating the supply of the hydro-carbon fluid to the vaporizing chamber, B, substantially as described.

5th, The valve, H, for automatically removing or conducting the surplus gas into the smoke flue of the turnace, substantially as described.

6th, The combination of the gasometer, J, gas pipe, E, branch pipe, k', and waste valve, H, for operating in the man zer and for the purpose substantially as herein described.

70,478.—ROOFING COMPOUND.—George O. Smith and J. H. Smith, Chicago, Ill.

Smith, Chicago, Ill. We claim a roofing compound of the ingredients herein named, substantally as set forth. 70,479.—METAL PLANERR.—Jas. Hervey Sternbergh, Read-

ing, Pa.

Ling, Pa.

Word ther grinding or polishing wheel or stone, adjustable at various heights to suit the work, by means of the screw, C, in connection with movable table, TT, carrying the sitile rest, St, and vise, VV, or other suitable arrangement for holding the article to be planed or ground of, for the purpose mentioned, substantially as setforth and described.

70,480.—Mail Bass.—Edward Sevens and John A. Knight St. Louis, Mo. We claim the bar, B2 the loop, b1, and the partition, B1, combined and op erated as herein shown and described.
70,481.—Machine for Cutting Solles of Books and Shoes.

10,401.—MACHINE FOR CUTTING SOLES OF BOO'FS AND SHOES. Edgar M. Stevens, Boston, Mass.

I claim, 1st., The spindle, C. constructed with the spiral and straight grooves in combination with the adjustable spring rod, p, when operating in the manner and for the purpose set forth.

2d. The gauge, h, in combination with the lever, g g', and tripping device, i, sbystanially us and for the purpose described.

3d. The arm, F, attached to the cross-head, D, and provided with a dog, d, and trigger, G, in combination with the knife-head, E, as and for the purpose described.

described.
4th, The adjustable and detachable scrap cutter, K, as described.
5th, The combination of the cutter, K, the block or holder, 1, and the knite-head, E, as d scribed.
6th, The spinale, C, constructed with the spiral and straight slots or grooves, as described.
70,482.—MOLD FOR CASTING CAR WHEELS.—John Blake

70,482.—MOLD FOR UASTING CAR'YI RELEAS.

Tarr, Chicago, Ill,
I claim a lining of the form of a car-wheel, made of soapstone or other analsgoussolid refractory material, in combination with a strong sectional
metal casing, such lining being in sections and applied within the sectional
metal casing, so as to be adapted for giving form to a cast-steel car wheel,
and the casting and lining of suchstrength combined as to be capable of sustaining the pressure which is requisite to insure a condensation of the steel
of which the wheel is cast, all substantially as nervinest forth.

70,483.—LATHE-WAY SMOOTHERS.—Alfred Thomas, Worcestor Mass

ter, Mass.
I claim, lst, the combination with the frame, C, cross-bar, L, piece, K, and slide piece, E, of frame, F, shaft, H, and smoothing wheel, J, substantially as and for the purposes set forth.

2d, The combination of the smoothing wheel, J, shaft, H, and pulley, I, with the side-piece, E, substantially as and for the purposes set forth.

70,484.—Wire-Bells for Clocks.—Hiram C. Thompson,

Bristol, Conn.
I claim, ist, The coil or ring, A, when formed on a wire bell, substantially is and for the purpose set forth.
2d. The bell-stand, figs. 2 and 3, substantially as and for the purpose de-

scribed. 70,485.—Mode of Treating Vegetable Substances for

MAKING PAPER PULP.—Benj. C. Tüghman, Philadelphia, Pa. I claim the process of treating vegetable substances which contain fibres with a solution of sulphurous acid in water, either with or without the addition of sulphires, or other salts of equivalent chemical properties, as above explained, heated in a close vessel under pressure, to a temperature sufficient to cause it to dissolve the intercellular incrusing or cementing constituents of said vegetable substances, so as to leave the undissolved production a fibrous state, suitable for the manufacture of paper, paper pulp, cellulose, or fibres, or for other purposes, according to the nature of the material employed.

stituents of said vegetance substances, so as to care the analysis of a larger pulp, cellulose, or fibres, or for other purposes, according to the nature of the material employed.

I also claim as new articles of manufacture the two products obtained by treating vegetable substances which contain fibres with a solution of sulphurous acid in water, either with or without the addition of sulphurous acid in water, either with or without the addition of sulphurous acid in water, either with or without the addition of sulphurous acid in water, either with or without the addition of sulphurous acid in water, either with or without the addition of sulphurous acid in water, either with or without the addition of sulphurous acid in water pressure to a 'uniperature sufficient to cause it to also solve explain and the products being soluble in water, and containing the elements of the starchy, gummy, and saline constituents of the plants, and the other product being an insoluble fibrous material, applicable to the manufacture of paper, paper pulp, cellulose, or fibres, or to other purposes, according to the nature of the material employed.

I also claim the use and application, in the manufacture of paper, paper pulp, cellulose, and fibres, of the fibrous material produced by treating vegetables substances which contain fibres with a solution of sulphurous acid in water, either withor without the addition of sulphires, or othersalts of cquivalent chemical properties, as above explained, in combination with a solution of sulphurous acid in the use and application of sulphires or other salts of equivalent chemical properties, as above explained, in combination with a solution of sulphurous acid in water, as an agent in treating vegetable substances which contain fibres, when heated therewith in a close vessel under pressure to a temperature sufficient to cause said acid solution to aissolve the intercellular or incrusting constituents of said vegetable substances.

I also claim the recovery and re-use of sulphires or other

as set forth.

3d, The parts, A, B, C, D and E, forming a press for compressing the steel tre of a car wheel, while in a semi-fluid condition, as set forth.

70,487.—WINDOW SASH FASTENER.—Chester F. Wickwire.

70,487.—WINDOW SASH FASTENER.—Unester F. Wickwire. Cortland, N.Y. I claim, 1st, The slotted bent lever b, operating upon the pin, d, for the purpose of holding the sash in position when raised.

2d, The slotted lever, b, in combination with the slotted plate, g, for the purpose of locking or permanently fastening the sash when down, or locking it at any particular point.

70,488.—FASTENING EYELETS.—Wm. W. Wilcox, Middle-

town, Conn.
I claim, 1st, The arrangement of a rough surface ring, b, between the flange of an eyelet and the material to which the same is to be fastened, substantially as an't for the purpose described.

2d, Providing the rough surface ring, when used in combination with an eyelet, with oblique teeth, as and for the purpose set forth.

70,489.—BED BOTTOM.—H. W. Williams, Stowe, Vt.
I claim the flat steel springs, A, their sliding boards, B, with connecting rods, C, and horizontal levers, D, when arranged and combined as herein described, and for the purposes set forth.

70,490.—TIP FOR THE FEET OF CHAIR LEGS.—Edward S. relative the indiarubber tip constructed as described, that is, formed as a ferrule, to be placed upon the foot of the chair, the ferrule increasing in thickness from its center, B, to its open end, A; also increased from its center, B, to the closed end, or base thereof, on which the foot of the chair rest.

70.491.—Sleds.—A. T. Woolsey and A. F. Hubbell, San-

dusky, Ohio.

We claim the construction of a runner, A, and side rail, A', of one entire piece, in the manner and for the purpose set forth.

70,492.—CAR TRUCKS.—Walter Youmans, Lansinburg, N. Y. I claim connecting the body or platform of the car with the truck frame or frames, substantially as described, so that the former shall be free to move up and down on the latter with springs interposed, and so that the body, or platform shall not move longitudinally or laterally independently of the truck frame, or frames, when this is combined with the connection of the axies with the truck frame, so that the said axles shall be free to move under it, substantially as described, and by the means described, or the equivalents thereof

alents there are the contesting as described, and by the means described, or determined and also elampone that the ends of the under bolster with the wheel axies by means of clamping blocks, substantially as described, in combinition with the clamping blocks both above and below the horizontal plane of the axes of the white laxles, substantially as and for the purpose specified.

70,493.—HATS.—Daniel K. Albright, Philadelphia, Pa., and Leo H De Lange, Bordentown, N.J.

We claim, 1st, The band, D., connected to the body and brim of a hat, and arranged in respect to the same substantially as and for the purpose herein set forth.

set 101th.
2d. The holes, e, in the brim, and the holes, d, in the body of the hat, in combination with and arranged in respect to the band, D, as described.

70,494.—Gas Stoves.—Chas. E. Alden, Philadelphia, Pa. I claim, ist, The casing, B, wire gauze or perforated plate, F, and holes, in combination with the adjustable casing, F, the whole being construct and arranged substantially as and for the purpose herein set forth.

24. The combination of the above internal tube, m, and valve, n. 70,495.—HEATING AND VENTILATING APPARATUS FOR RAIL-

WAY CARS.—C. F. Allen and I. W. Campbell (assignors to themselves, A. T. Hall and A. I. Ambler), Aurora, Ill.
We claim, 1st, The combination of the grating, G, and sieve, D, with the bonnet, A, parintioned pipe, C Qg, pipe, L, water chamber, E or M, and register pipe, R x, substantially in the manner and for the purpose described.

reg ister pipe, R x, substantially in the manner and for the purpose described.

2d. The combination of the chamber, E, chamber, M, warming apparatus as described, and register pipe, R x, substantially in the manner and for the purpose described.

3d. The construction of the warming apparatus for a car or coach, in the manner substantially as described, and arranging the ventilator in such relation thereto that the portion of the air forced into the ventilating pipes will be employed for promoting combination, while the other or greater portion is heated and distributed in the car, all substantially as described.

4th, The register, F, applied to the ascending conduit, Q, above the water chamber, E, substantially as described.

70,496.—NAIL MACHINE.—John M. Allen, Cambridge, Mass. I claim a machine for cutting nails, without waste, from place or sheet metal, in which the dies are formed longitudinally on the surfaces of the rollers, in the manner and for the purpose described.

70,497.—RAILWAY CHAIR.—Peter Allen (assignor to himself, L. Valliquette and Cleophus Brodeur, Rutland, Vt. 1 claim the plate, E, in combination with the plate, E, with the tongue, b. Ited in a reg ss in the bed, a, constructed and secured with serve bolts and spikes, as herein described.

70,498.—Ancholes.—W. J. Armstrong and Charles Browne,

70,498.—Anchors.—W. J. Armstrong and Charles Browne,

70,498.—ANCHORS.—W. J. Athestong and Charles and Throoklyn, N. Y. We claim, 1st, Atlaching the crown, B, to the shank, A, by passing a tenon formed upon the lower end of said shank through a mortise formed in the said crown, and securing them in place by blocks, D, if mily attached to the said cont, and for the purpose set forth.

2d. Forming the stock, E, in two parts, and attaching them to the upper end of the slank, A, by passing tenons formed upon the inner ends of city parts through a nortise formed in the upper end of the slank, and securing them in place by means of blocks, F, firmly attached to the projecting ends of said tenons, substantially as herein shown and described, and for the purpose set forth.

pose set forth. 70,499.—Snap Hook.—C. H. Atwood, New Britain, Conn. 10,429.—SNAP 11001.—C. H. Atwoot, New Oritain, Conn. I claim, 1st, the snap hook constructed as described, consisting of the circular solid plate, A. having loop, B. and lugs, a. cast upon it, between the latter the straight bar, D, pivoted and held in place against the turn up end. C. by means of the spring, c, as herein setforth, for the purpose specified. 2d, The casting of the projection, C, with the plate, A, in the same plane with the same, and then bending C in hook form, substantially as and for the purpose specified.

purpose specificat.
70,500.—CARD RACKS.—E. D. Averell, New York city. I claim the arrangement on a curved or circuler surface of a stand or frame of a cooled wire or spring and forming in combination with said stand or support a card or paper holder, essentially as heren set forth.

70,501.—Whip Rolling Machine.—Henry Axtell, flunt-

70,501.—WHIP ROLLING MACHINE.—Henry Axtell, Huntington, Mass.

I claim, Ist, A device for roiling whips consisting of a frame, A, having a reciprocating bar. J. an adjustable bar, G, between which the wind is rolled the bar, J, being operated by power and the bar, G, by the levers, F and F, with their treadle attachment, the whole being an anged substantially as and for the purpose described.

24. The device for drawing the whip through the rolling machine consisting of the cord, k, having the weight, m, passing over the pulleys, g and g', m combination with the rest of my machine, substantially as described.

70,502.—Horse Yoke.—Thomas J. Barnes, Cambridge, Ill. I claim, 1st, An improved horse yoke made in two parts, A and E, at din substantially the form and manner herein shown and described.

24. The combination of the short chains, C, and equalizing bar, D, to which the draft chain is attached with the parts, A and B. of the yoke, substantially as herein shown and described and for the purpose set forth.

70,503.—COTTON-BALE THE.—J. W Barnuun, New Orleans, La I claim the device herein described and so shown upon the drawings when

70,503.—COTTON-BALE TIE.—J. W.Barnum, New Orleans, La I claim the device here in described and as shown upon the drawings when provided with the two overlapping semi-annular grooves or curved supporting points, A A', as described when constructed as described and used for fastening the ends of wire rope or of common untwisted wire that is employed for banding cotton bales, as ser forth.
70,504.—PNEUMATIC RAILWAY.—A. Ely Beach, Stratford, Ct. I claim, 1st, The enlargement of the tube at or near the stopping station, substantially as and for the purpose herein show and described.

2d, The method of preventing the leakage of air at the openings, substantially as herein shown and described.

3d, The method of supporting the cars and rails, substantially as herein shown and described.

4th. Therecess, F, for lighting the tube, substantially as herein shown and described.

described. 70,505.—Car Coupling.—G. M. Beardsley, Fenton, Mich.

70,309.—CAR COUPLING.—G. M. Beardsley, Fenton, Mich. I claim the double hooks, D. b, with operating arms and levers in combination with the arrow-headed coupling bar its frame and springs, all constructed and arranged as described in 1 for the purpose as set forth.

70,506.—CANE AND UMBRELLA COMBINED.—Henry Beebe, Hudson city, N. J. I claim, 1st, The two tubes, B.F., in combination with the handle, A, and body, E, of the cane or umbrella stick and locked together by the T shaped slots and the shaft, k, of the lamp purner, substantially as shown and de scribed.

2d. The sleeve, D, drawn over the tube, B, and provided with obsenue, e.e., and the mica or other transparent material, t, scoure between them 12 combination with a cane or umbrella stick, substantially as and for the purpose specified.

3d. The perforated tube, L, no emphysical, with the two capes. B.E. B.E.

poor specifical.
3d. The perforated tube, I, in combination with the two tubes, B F, pro-vided with the cross slots and the lamp, G, substantially as and for the burpose set forth.

4th, The conical wire cloth or perforated metal tube, C, secured within the tube, B, provided with openings, a, the tube, F, and lamp, G, in combination with a cane or umbrella stick, substantially as and for the purpose specified.

70,507.—Adjustable Calks for Horseshoe.—William Jones Berne, Cincinnati, Ohio.

I claim, ist, The mode of securing the sockets, A, by means of the set servers, A2, arranged to operate in combination therewith, substantially as set forth.

set for th.

2d. In combination with the sockets, A, the use of an elastic substance, A:
interposed between the heel of the shoe and the socket, substantially as set
forth.

interposed between the men of the shocking that shocking forth.

3d, The toe piece, B, rigidly attached to the cross piece, C, for attaching the same to the shoe, substantially as set forth.

4th, In combination with the toe piece, B, the front extension, B2, hinged thereto, and arranged to operate substantially in the manner set forth.

5th, The combination of the cross piece, C, the toe piece, B, hinged extension, B2, of the toe piece, rods, E, and straps, D, attached to the sockets, A, substantially as set forth.

70,508.—WASHING MACHINE.—Joseph Bevis, Putnam, Ohio.

1 claim 1st. The combination of the stationary washboard, B, moyable

70,508.—Washing Machine.—Joseph Bevis, Putnam, Ohio. 1 claim, 1st, The combination of the stationary washboard, B, movable washboard or presser, c, and cam, D, with each other and with the tub, A, substantially as herein shown and described and for the purpose set forth. 2d, Connecting the movable washboard, C to the cam, D, by means of the yoke, C, crossbeador bar, H, bolts, I, and spring, J, or by an equivalent adjustable and elastic device, substantially as herein shown and described and for the purpose set forth. 3d, The combination of the switiging frame. N, having a canvas or equivalent bottom, R, attached to it with the washboards, C and B, substantially as herein shown and described and for the purpose set forth. 70,509.—Solar Camera.—Lyman G. Bigelow, Albion, Mich. I claim, 1st, The universal jointed connection, K, c instructed and arranged substantially as described for the purpose set forth. 2d, I claim operating a solar printing camera from east to west and to and from the zenith (being a combination of two motions) by turning a single screw, substantially as shown and described.

70,510.—Preparing Cements From Slads—John James Bodmer, Newport, Great Britain.

Bodiner, Newport. Great Britain.
I claim the use of slag or scoria produced by blast or other furnaces (or one produced by other means, in combination with lime or with lime and limina in the formation of cement, substantially as asserbed. DEVICE FOR OPERATING FOLDING VALVES.—Eugene

70,511.—DEVICE FOR OPERATING FOLDING VALVES.—Eugene Bourden, Paris, France.

I claim the combination with the valve, and suitable orifice or orifices formed therein, of the membraseous or flexible valve, and lever for operating the same, substantially as and for the purposes herein set forth.

70,512.—Carbureting Gases and Air.—John F. Boynton,

Syracuse, N. Y.

I claim, 18s, 10 a apparatus for carbureting gas for illuminating purposes, be use of double perforated walls, B B, havin a suitable capillary substruce

confined between them, said walls being so arranged as toform a porous division through which the gas is forced, substantially as described.

2d. The forming of two compartments in a vessel, by means of an upright double walled partition, which is reniered sufficiently porous to allow of the absorption of the find in said vessel, and the passage of gas through it, substantially as described. 70,513.—ALLOY FOR THE MANUFACTURE OF METAL SHEETS.

70,513.—ALLOY FOR THE MANUFACTURE OF METAL SHEETS, FOIL, ETC—Leopold Brandeis, Brooklyn, N.Y.

I claim to produce metal sheets of any thickness, perfectly pliable, not easily acted upon oy weather and temperature, of great strength and durably, for rooding, plumbers', tunnens', and chemical use, for grocers, tobacconists, perfumers, and confectioners, by making an alloy of least and other metals in suitable proportions and shape by proceeting this alloy with a coar of tin surrounding it, and to produce from this alloy, so prepared, sheets or leaves of any size and weight, and for the device of application of hot water or steam between the rollings.

70,514.—WOOD PAVEMENT.—J. L. Brown, New York city. I claim the employment of arched formation timbers, laid cross-wise of the the street, in combination with any suitable earrhy foundation, and sections of wooden pavement resting upon such foundation, and overlapping the arched timbers, substantially as described.

70,515.—BLACKING BRUSH.—G. R. Buldon, Waltham, Mass

arched timbers, substantially as described.
70,515.—BLACKING BRUSH.—G. R. Burdon, Waltham, Mass.

70,515.—BLACKING BRUSH.—G. M. Burdon, Waltham, Mass. I claim the combination and arrangement of the brush, E. withthe grooved head, G. ring, I, spring, M. Joint, J. holder, A. and blacking box, L. substanting as described for the purpose specified.
70,516.—MILK CAN.—N. C. Burnap, Argusville, N. Y. I claim a milk can when provided with a rounded connection between sides, and bottom, and when combined with a similarly rounded protecting bottom. B. having a flange, a and with a ring. C. all made substantially as and for the purpose herein shown and described.
70,517.—CARRIAGE SEAT BACKS.—John Burt, Sturgis, Mich. I claim the within-described vehicle seat, in which the back and ends, with round corners, are formed from a single piece of wood of proper length and thickness, shaped and bent to the desired shape, as set forth and described.
70,518.—MASH COOLER.—Franklin P. Bush (assignor to himself and Jeptha Garrard), Cincinnati, Ohio.
I claim, 1st, The arrangement of tun, A, central annular waste way, D

© 1867 SCIENTIFIC AMERICAN, INC

Notary centrally discharging coils, J, central supply pipes, G I, stuffing box, M, and rake.L. for the purpose set forth.

2d, In the described combination the rotary coils, J, discharging into a central waste way, D, in the manner set forth.

70,519.—MACHINE FOR SHARPENING CALKS OF HORSESHOES.

—William M. Butler, Wankegan, Ill.

I claim, ist, A machine for sharpening horseshoes, made and operating substantially as herein shown and described.

2d, The device for moving the cutter, C. forward or backward consisting of the spring, g, nut, f, sndshaft, B, all made and operating substantially as berein shown and described.

3d, The device for moving the cutter laterally consisting of the slotted frame, A, screw, k, sleeve, l, and shaft, B, all made and operating substantially as herein shown and described.

4h. The trame, A, when provided at the corners with projections, a, and settscrews, b, so as to be easily fastened on any sized shoc and when provided with slotted flanges, h h, and bolts and nuts, i, for the same purpose, substantially as set forth.

70.520.—SHIPS' COMPASS.—James, Earl of Caithness, Middlesex county, England.

with slotted markes, it is, and solve and mate, that are same pair post, and restrict as the county, England.

I claim the combination of a mariner's compass and a weighted pendulum secured to the compass box and having near the upper end a ball which fits in a stationary socket, all substantially as and for the purpose described.

70,521.—PISTON PACKING.—Luther W. Campbell Aurora, Ill., assignor to himself, A. T. Hall, C. F. Allen and A. J. Ambler.

I claim, ist, So arranging a series of concentric clastic rings, K G and E. having alternately inch ned faces that acting in combination with the conical bub, A, and packing rings, H H, they shall maintain an uniform outward gresse rupon the latter by the action of the steam alternately entering each end of the cylinder, substantially as set forth.

2d, The combination of the periorated heads, B B', conical hub, A, and rings, E F G K and H, arranged to operate substantially as set forth.

70,522.—1') STON PACKING.—Luther W. Campbell, Aurora, Ill., assignor to himself, A. T. Hall, C. F. Allen and A. J. Ambler.

I claim, ist, So arranging adouble series of concentric clastic rings, F G and H, that acting in combination with the contral ring, E, having double inclined faces, E2, they may by the pressure of the steam, alternately admitted to the opposite ends of the cylinder, be alternately expanded, substantially in the manner and for the purpose set forth.

2d. The combination of the hin, A, perforated plates, B B', ring, E, having a central flange, E1, and couble inclined faces, E2, and the concentric rings, H G and F, constructed and arranged to operate substantially as set forth.

70,523.—APPARATUS FOR RAISING AND SECURING THE LEGS OF Horses to Shoe them safely, arranged and applied as he, ein shown and described.

70,524.—Cylinder Printing Press.—Henry C. Chandler, Indianapolis, and.

I claim the apparatus for raising and securing the legs of herses to shoe them safely, arranged and applied as he, ein shown and described.

Mass.

I claim as a new article of manufacture table cutlery having the blade obster, and handle forged or swaged from one solid piece of steel, substanially as herein described.

70.526.—Sleigh Bells.—Cyrus R. Clark. Cobalt. Conn.

70,526.—SLEIGH BELLS.—Cyrus R. Clark, Cobalt, Conn. I claim attaching sleigh bells to their straps by means of two or more sheet metal plates, b b, which are secured to a shank, a, that is cast with the bell, A, all made substantially as and for the purpose herein shown and described. 70,527.—HQRSE HAY FORK.—MARK COffin, Milton, Ky. I claim the arrangement of the rope, C, having the ring, F, knot, c', and trigger, E, with the bent tines, A D, pulley block, B, and rope, G, as herein described for the rurpose specified.
70,528.—METHOD OF STOPPING AND STARTING CARS.—Elisha T. Coiburn, Boston, Mass.
I claim the combination of the slide bar, D, and its locking pawls with the brake mechanism consisting of the levers, F, the blocks, G, the rope, I, and the wheel or wheels, H, the whole being substantially as specified.
I also claim, as an accelerating mechanism for a car, the combination of the slide bar, D, the rope, I, and the wheels, H, arranged and applied to the axie as set forth, the said bar, D, being connected to the draw bar or tongue of the car, as explaned.

70,529.—Combined Tooll.—B. W. Collier, Oxford Miss.

70,529.—Combined Tool.—B. W. Collier. Oxford Miss.

70,529.—COMBINED TOOL.—B. W. COMPT, OXIOTA MISS.
I claim the instrument above described having the parts combined and arranged substantially as and for the purposes specified.
70,530.—COMPSE PRESERVER.—C. W. Compton, Newark, N.J. I claim, I, Forming the bottom or cooling board, A, in two parts hinged to each other, substantially as herein shown and described and for the purpose

Forming an air chamber or chambers, a', in the bottom or coolins d, A, substantially as herein shown and described and for the purpose

set forth.

3d, The ice chamber, D, extending down upon the sides of the trunk to or pearly to the bottom board, A, and extending around the head of the corpse, substantially asherein shown and described and for the purpose set forth.

4th, Forming the corpse preserver in three parts, A B C, substantially as he rein shown and described and for the purpose set forth.

5th, Ferning the adjacent ends of the parts, B and C, inclined or wedge shaped, substantially as herein shown and described and for the purpose set

6th. The combination and arrangement of the body chamber, G, ice chamber, D, and air chambers, a E and F, substantially as herein shown and described and for the purpose set forth.

70,531.—WEIGHTS FOR SCALES.—H. W. Comstock, Lafayette,

Ind.
I claim the substitution of glass in place of other substances as weights for weighing scales, thereby producing an anti-corrosive and cheaper weight, as specified.

I also claim a filled glass weight when so constructed that the material user as filling shall be entirely surrounded by the glass, as specified and described 70,532.—ATTACHING WHEELS TO VEHICLES.—L. Crouch,

Barabno, Wis.

I claim the nut, E, provided with the screw thread upon its outer circumference and secured to theh ub, A, by means of screws, in combination with the axle box, C, nut, E, and cap, E. substantially as described for the purpose specified. 70,533.—Wagon Brake.—Ezra N. Curtice, Spring Water

N. Y. I claim, 1st, The brakeshaft, F, supported in the boxes, a a, on the w agon reach and hounds and the straps, c c, on the braces, b b attached to the axle, A', arranged and operating as and for the purpose described.

2d, The eccentric arms, e e, on the ends of the brake shaft, F in combination with the rubbsrs, d d, arranged and operating as described.

3d, The combination of the brake shaft, F, the rod, g, and the draft pole, E, arranged and operating as and for the purposes described.

50,534.—MANUFACTURE OF SUCTION BOXES FOR PAPER MAKTING. H rangis Curits Newton Mass.

ING.—t rancis Curtis, Newton, Mass.

I claim the improved manufacture of suction box as composed wholly or I part of hard rubber, substantially in manner and for the purpose as before

-Sleigh Knee.—Isaac Dan, Sanford, N. Y.

70,555.—SLEIGH KNEE.—Isaac Dan, Sanford, N. Y.

1 claim the blocks. B and C as constructed and used in combination with the knee and the bar, E, as and for the purpose set forth.

70,536.—SLEIGH KNEE.—Isaac Dan, Deposit, N. Y.

1 claim the knee constructed or wood and metaf in the manner herein set forthand used with the runner, for the purpose specified.

70,537.—GATE LATCH.—Alfred K. Davis, Carrey, Ohio.

1 cl-im the pivoted latch bars, D D', and connecting bar, E, and their respective equivalents, all as set forth in combination with the lever, F, operrating and arranged in manner substantially as and for the purposes become shown and described.

in shown and described. 70.538.—FEED-WATER HEATER FOR STEAM GENERATORS.-

70,538.—FEED-WATER HEATER FOR STEAM GENERATORS.—
John W. Doughty and Horstio B. Beckman, Newburg, N. V.
We claim the chamber, T, with pipe, Pl, in connection with the feed pump,
or any other instrument of supply, well, W, blow off pipe, P2, steam-connecting pipe, QL water-communication pipe, E G Q2, with the cap, F, and boiler,
B. as shown in the drawing, and for the purpose as set forth,
70,539.—STRAW CUTTER.—Stephen Elliott, Richmond, Ind.
I claim constructing a straw cutter, as above described, when the same is
composed of the spiral sprine, K, lever, B, cross piece, H, uprights, F and G,
cross piece, D, lever, E, rod, I, and frame, A, arranged and operated substantially as above described.
70,540.—SY GINGE.—Jas. J. Essex, Newport, R. I.
I claim, 1st. The employment or use, in connection with a syringe, of a re-

ceiver or reservoir, A, provided with a glass or other transparent plate, Ax, and with a screw cap, b, and tube. B, substantially as and for the purpose set

and with a screw cap, h and tube, B, substantially as and for the purpose set forth.

2d, The combinaton of a metallic and an elastic bulb, when the former are attached to opposite ends of the latter, and used either in connection with or without an air chamber, for the purpose specified.

3d, The rose zozzle, or douche, composed of the cup,1, and perforated plate, 1, when used in connection or combined with a syringe provided with an elastic bulb, substantially as and for the purpose specified.

4th, Providing the male screw of the connections or joints with a socket, g, to receive the packing and prevent its lateral expansion under pressure, where the two parts of the connections or joint are screwed together.

5th, The arrangement of the rigid discharging pipe and the flexible suction tabe and their valves at one end of the bulb, substantially as herein shown and described.

70,541.—SEED PLANTER.—H. C. Fairchild, Brooklyn, Pa.

I claim, ist, The slide, D, operated from the outside by the screw, a, and the arm, c, substantially as described.

2d, The hole, d, through the cylinder, substantially as and for the purposes herein set forth.

70,542.—Paint Brush.—Wm. H. Forker, Meadville, Pa. I claim the cap. E, and the ferrule, F, forming the cup, E F, in combination with the cylinder, D, with the staves, J J J J. the conical nut, C, and the screw, H, when the same are constructed as described in the aforesaid combination, for the purposes set forth.

10,045.—CONDENSER FOR CARDING ENGINES.—Geo. R. Gardiner (assignor to himself and Benjamin W. Bentley), Westerly, R. I. Iclaim, 1st, The roller, C. one or more, made either hollow or solid, and charged or covered with a composition, herein described, or its equivalent, and placed on a condenser, in relative position with the cylinders, B, thereof, substantially in the manner as and for the purpose set forth.

2d, The guards, G, attached to the guite bars, F, on frame, D, and arranged in relation with the ropings, a, substantially as and for the purpose specified.

70,544.—Scissors Sharpener and Cloth Ripper Combined —A. W. Gifford (assignor to William A. Bichardson and Henry D. Ward, Worcester, Mass. 70.543.—CONDENSER FOR CARDING ENGINES.—Geo. R. Gar

I claim a combined scissors sharpener and ripper, constructed for operation substantially as described.

70.545.—MACHINE FOR SPLITTING WHALEBONE.— Nathan Goddard, Boston, Mass.

I claim the arrangement and combination of the series of knives, A B C D, and adjustable rollers, F, or the same and the adjustable throat piece, G, the wholg being applied to a frame, E, substantially as and for the purpose specified. -Weighing and Measuring Cup.-E. A. Goodes,

(assignor to himself, E. L. Miller, and W. H. Morford), Philadelphia, Pa. I claim a cup provided with scales, a b and c d, whereby it may be used for yelching and measuring purposes, in the manner substantially as herein set orth, as a new article of manufacture.

70,547.—Level and Try-square.—J'n Graham, Ludlow, Vt. I claim, 1st, The indicator, composed of a T-shaped bar. F, connected by a toothed segment, d, and pinione, or their equivalents, with an index, f, which traverses over a graduated ring, g, all being arranged and applied to a square, to operate in the manner substantially as and for the purpose set forth.

form

2d, The combination of one or more supplemental movable or adjustable squares, GJ, with a Tor try-square, substantially as shown and described.

3d, The stide. I, provided with a bevelled or V-shaped notch, o, at one end, and a series of slots, p, at the opposite end, when said slide is applied to or used in connection with a Tor try-square, substantially as and for the purpose specified.

4th, The plate, H, provided with the ribs, I m, and slot, n, when said plate is used in comoination with a supplemental square applied to a Tor try-square, substantially as and for the purpose set forth.

76,548.—FARM GATE.—Orson Graham, Lima, N. Y.

Leleim ist. The coller C and coller D in combination with the gate E.

10,040.—FARM GATE.—OISON Granam, Lillia, N. I. I. I claim, 1st, The collar, C, and collar, D, in combination with the gate, E, and tolding part, F, when made and used substantially as specified. 2d, The folding part, F, when made as specified, and used in combination with the gate, E, substantially as specified.

70,549.—FENCE.—Isaiah M. Green, Sen., Minton, III.

I claim the groove, C, in the post, A, and rod, D, passing through eyes i the ends of the wires, c c, in combination with the key, b, and their seats i the rails, B, all arranged and operating substantially as and for the purpose of forth

set forth.

70,550.—HAY RAKE.—Albert J. Greene, Sterling, Mass.

I claim, ist, In a hand hay rake, the arrangement of the axie, B, teeth, C, blocks or hinges, L, rod. F, and shaft, E, with each other, substantially as herein shown and described.

2d, The combination of the spring or springs, G, with the rod. F, axie, B and shafts, E, substantially as herein shown and described, and for the pur pose set forth.

2d, The combination of the spring or springs, G, with the rod, F, axle, B and shafts, E, substantially as herein shown and described, and for the purpose set forth.

3d, Adjusting the tension of the spring, G, by means of a thumb screw, H, substantially as herein shown and described.

4th, In a handhayrake, the arrangement of the arm, K, and rod, L, with the axle, B, and shafts, E, substantially as herein shown and described, and for the purpose set forth.

70,551.—Photographic Process.— Manfred M. Griswold, Columbus, O.

1 claim, 1st, The black baked photographic plate, prepared substantially as hereinabove set forth, as a new article of manufacture.

2d, The composition of the enamel or collodion for producing the original wnite surface, substantially as described.

3d, Baking the plate subsequent to the application of the white collodion film, substantially as set forth.

4th, Restoring the white color to the surface of the plate, subsequent to its being baked, as set forth, or in any manner substantially the same.

70,552.—ANNUNCATOR.—Henry Gross and George S. Vingling, Tiffin, O.

We claim, 1st, The self-controlling figure drops, B, constructed substantially as described, in combination with the upright guides, C, upon which they slide, as and for the purpose set forth.

3d, The double springs, D, constructed substantially as herein shown and elescribed, in combination with the drops, B, and with the upright guides, C, as and for the purpose set forth.

3d, The levers, F constructed substantially in the form and manner herein shown and described, in combination with the connecting rods, E, and double springs, D, for the Durpose or releasing the drops, B, and with the tumbler, B, by means of which the bell hammer is operated, as and for the purpose set forth.

70,553.—Engraving Machine.—J. C. Guerrant and B. J.

70,553.—Engraving Machine.—J. C. Guerrant and B. J. 70,553.—ENGRAYING MACHINE.—J. C. Guerrant and B. J. Field, Leaksville, N. C.
We claim, 1st. The holder, A, adjustable in a horizontal plane upon a center colucident with the the axis of rotation of the post which carries the graver shaft, substantially as described.
2d, The arrangement of the extensible rod, G G', connecting the tracing arm, H, with the graver arm, D, substantially as described.
3d, The adjustment of the connecting rod, G G', at the point of attachment to the tracing arm, so as to vary the degree of penetration of the graver, substantially as described.
4th, The rotating graver, D, in combination with the vibrating and counterpoised graver arm, D'

th, The rotating graver, D, in combination with the vibrating and counterpoised graver arm, D'.

5th, The vibrating slotted guide plate, K, constructed and operating substantially as described and represented.

6th, The guide rod, L, planted in the adjustable sliderest, M, and affording a guide for operating the cutter on a given vertical line.

70,554.—MODE of ORNAMENTING GLASS SHADES and GLOBES.

—R. Guthrie and J. Shearer, New York city.

We claim the removable sectional glass, ornaments orbangings for lamp shades and globes, arranged substantially as and for the purpose hereinshown and described.

70,555.—HEAD REST.—Robert Hale, Chicago, Ill. 10,000.—HEAD REST.—ROBERT Hale, Chicago, Ill.
I claim the head rest, constructed as described, consisting of the cap, A, having the neck strap, C, the adjustable strap, D, secured at one end to the visor, B, and at the other by a hook, E, to the roof of a car, or an equivalent support within the car, as herein described for the purpose specified.

70,556.—REVERSIBLE CHAIR SEAT.—Mathias Hamburger, New York city.

70,556.—KEVERSIBLE CHAIR SEAT.—Resemble Takes All New York city.

Lelaim the reversible seat, B, when hinged, by means of pins, a a, in the chair frame, A, and when combined with the stop, b, and pin, C, all made and operating substantially as herein shown and described.

70,557.—FURNACE.—David Harger, Des Moines, Iowa.

70,557.—FURNACE.—David Harger, Des Moines, Iowa.

I claim the combination of the pipe, A, having the apertures, a a, and provided with the sliding cover, dt, with the iranace, CDF, the several parts being constructed, arranged, and operating together, substantially in the manner and for the perpose specified.

70,558.—MACHINE FOR STAMPING AND SHAPING LEATHER.—

Benjamin B. Harris (assignor to himself, F. G. Harris, and Seneca Sly), Lockport, Ill.

I claim, 1st, The combination of the toggle joint and levers, all as set forth, with the follower, C, hung from the trame, A, having the stage post, B, hung from it, and playing through a loose mortise, in manner substantially as herein shown and described.

2d, The die or knife plate, I, carrying the knife, k, sliding in the dovetailed groove, g, on stage, G, which is furnished with the hole, m, and bolted by the dovetailed pin, L, to the stage, G, all as set forth, in combination with the toggle joint, levers, and followers, substantially as herein shown and described.

scribed. 70,559.—Composition for Tempering Steel.—F. G. Harris, Willsborough, N. Y.
I claim the composition formed of the ingredientscombined with each other in the proportions here in described and for the purpose set forth.
70,560.—CAR WHEEL.—John Harris (assignor to John S. Vine)

70,300.—CAR WHEEL.—South Halls (assigned to the side of the rim, D, as herein shown and described for the purpose specified.
70,561.—CURB FOR WATER WHEELS—John H. Hartsuff, New Castle, Pa., assignor to himself, R. W. Cunningham, and R. C. Dunder.

lap.
I claim the tongues, D. D. provided with the hinged flaps, E. E., and used in ombination with the wheels, A and B, constructed and operating as and for

the purpose set forth. 70,562.—Barn Door or Gate Fastening.—L. B. Hayes and

William Morris, of Greene, N. Y.
We claim, i.t. The combination of the vertical bar, C, spring catch, E, and
catch, I. with each other, and with the door or gate, A, substantially as herein shown and described and for the purpose set forth.
2d, The combination of the band or collar, L, and block, K, having a pin, k',
attached to its edge, with the bar, C, substantially as herein shown and described and for the purpose set forth.

scribed and for the purpose set forth.
70,563.—Tool for Cutting Bolts.—J. E. Heath, Niles, Mich.
I claim, ist, The combination of the plate, A. cutters, C. C. levers, D. D., and
springs, a a, arranged as described.
2d, The slotted guide plate, B. projecting between the cam lever, D. D., from
the plate, A, as shown, in combination with the jointed arms, E. R., cam levers, D. D. and cutters, C. C. substantially as and for the purpose set forth. the plate, A, as shown, in combination with the jointed arms, E 2, compers, D D, and cutters, C C. substantially as and for the purpose set forth. 70,584.—Photographic Printing Frame.—John Heddon,

70,504.—FHOTOGRAFING FAMILY Elikhart, Ind.

Elikhart, Ind.

I claim the hinged back, of five pieces, more or less, so constructed that any or more may be fascened together, or an opening be effected at either of the joints, thus admitting the examination of the printing from either end of the

joints, thus admitting the examination of the printing from either end of the frame.

Also, the broad flanges, in connection with the adjustable grouping board, which movable perforated board, or any other material answering the same purpose. I also claim, this being equivalent to the movable or sliding frame for carrying the back up or down.

1 claim the adjustable and sliding back, also, the vignetting arrangement for excluding the light from the sensitive paper, by the use of two pleces of board, or other material, with a tube for conducting the rays of light to the

negative. Claim this invention, separately and as a whole, in combination one with the other, substantially as set set forth above.

70,5%5.—Hoisting Apparatus. — Philip Higdon, Lewis-

port, Ky.
I claim the combination of the frame, A A1 A2, shaft, B, pulleys, D F J K
pinion, G, cords or ropes, E I, rack, H, either jointed or inflexible, and movable sheave, L, all arranged and operating substantially as described. 70,566.—CHILDREN'S CARRIAGE AND CRADLE.—C. W. Hig-

rings, Waukesha, Wis.
I claim a children's carriage, when constructed substantially in the maker and for the purposeg described. 70,587.—Lamp Extinguisher.—F. B. Hill, Cleveland, O., and W. H. McCoy, Des Moines, Iowa,
We claim the combination of the cap, C, pendent bars, e, rod, B, crank, d, and spring, f, arranged to operate in the manner and for the purpose herein specified.

70,568. -Register Point for Printing Presses,—Nicholas Hopkins, N. Y.

I the hinged plate, B. having a metallic point, C, attached to its movable part, to be used in connection with a piece of furniture in making

up the form, substantially as herein shown and described, and for the purpose set forth. pose set forth.

2d, The combination of one or more rubber or other elastic bearers, D, with
the movable part, b2, of the hinged plate, B, substantially as herein shown
and described for the purpose set forth.

70,569.—Toy.—Kellis Horde, Washington, D. C.
I claim the plunger, B, combined with tube, A, and lever, a, for operating
toys, substantially as described.

toys, substantially as described.

70,570.—Bevel..—Leonard D. Howard, St. Johnsbury, Vt. I claim the applying of a blade screwand nut to a bevel, in the manner shown, or in an equivalent way, so that the head of the screw and the nut will be flush with the sides of the handle or stock, as set forth.

I also claim the cap, C, applied to the end of the handle or stock, and provided with the concave or countersink, d, at one side, and the socket, E, at the opposite side, to receive, respectively, the screw head and the screwn substantially as shown and described.

70,571.—BOOT BLACKING AND POLISHING MACHINE.—S. W.

70,571.—Boot Blacking and Polishing Machine.—S. W. Huntington, Augusta, Me.
I claim the combination in 2 machine, such as described, with one or more rotating brushes, of an adjustable trough or blacking receptacle, substantialy in the manner and for the purposes herein shown and set forth.

70,572.—Sadiron Heater.—George Hurdman (assignor to Chas. F. Clark), Wolverhampton, England.
I claim, as my invention, the improvements in charcoal-box sad irons, hereinbetore described, that is to say, the combination of the rod, pln, or guide, g, and eyes or brackets, if, with the body and lid or cover of charcal-box from for the purpose of permitting of the sliding of the lid or cover upon the body, substantially as described and illustrated.

Also, the combination with the said parts, if g, of the turn or button, hor fastening the lid or cover, and the knob or handle, hor holding the iron during the sliding of the fid or cover, substantially as described and illustrated.

70,573.—VAPOR-LAMP BURNER.—W. W. Jacobs, Hagerstown, Md.

town, Md. I town,

Montville, Conn., assignor to himself and Erskine A. Cole.

I claim, 1st, The composition of the box, A, with the corks, c c, and the handle, F, containing the knife sharpener, L, the cylindrical covered box, G, with the cylindrical coup, H, and polishing apparatus, I, substantivily asshown and described and for the purpose specified.

2d, The combination of the cylindrical polishing band, I, and cork, J, with the box, A, B, as shown and described and for the purpose specified.

70,575.—DRESS ELEVATOR.—George William Keller, Philadelphia, Pa.

delphia, Pa. ILEVATOR.—George William Keller, Phila-I claim the spiral spring girdle or belt, A, provided with openings, B, in combination with spring, C, cord, D, and strings, E, substantially as herein set forth.

70,576.—Door Lock.—Michael Knapp and John Knapp, 70,576.—Door Lock.—Michael Knapp and John Knapp, Hudson City, N. J. We claim, 1st, Guiding the secondary tumbler, D, through the slotted guides, d, and through the grooved tumblers, b, said secondary tumbler provided with the projections, g, as described, and connected with the spring, h, operating as and for the purpose specified.

2d, The combination and arrangement of the bolt, B, tumblers, b, b, secondary tumblers, D, g pines, d, and springs, a c h, all operating as described, for the purpose specified.

3d, So constructing a lock that the same can only be locked and unlocked by turning the key in one direction only, as set forth.

70,577.—PEGGING JACK.—John K. Krieg, New York City. I claim the construction of the hollow last holder, in combination with the purpose and asspecified.

70,578.—CULTIVATOR.—S. A. Kroner, New Britain, Pa. I claim, ist, The treate, H, in combination with the handles, B, and beam.

I claim, 1st, The trestle, H, in combination with the handles, B, and beam, A, for the purpose of shifting the handles, in the manner and for the purpose peculed.

A, for the purpose of shifting the handles, in the manner and for the purpose specified.

2d. I claim the movable sides, C and C', in combination with the plates, D and F, the slide, E, and pin, G, in the manner and for the purpose set forth.

3d, I claim the arrangement of the shares, K, in combination with the movable sides, C and C', plates, F and D slide, E, trestle, H, and clevis, I, in the manner and for the purpose set forth.

70,579.—UMBRELLA RUNNER.—Henry Kurth, Brooklyn, N.Y.

I claim an umbrellarunder provided with the locking device consisting of the supporting plece, f, locking ring, e, in combination with pins, C and d, in the handle, substantially as described,

70,580.—Clear Chock.—Amariah Lake, Smith's Landing, N.J.

I claim a cleat those mode and employed substantially as described,

described.
70,581.—Maching for Pegging Boots and Shoes.—Wm.

described.

70,581.—MACHING FOR PEGGING BOOTS AND SHOES.—Wm.

R. Landfear, Hartford, Conn., assignor by mesne assignments of David Whittemore.

I claim, 1st, Passing the pegs severed from the beg wood from the severing knife to the driving bar, through a slot in the axle of the feeding sleeve, substantially the manner and for the purpose described.

2d. The principal of the bar, 11, bolt, B', and set screw, C', arranged substantially as specified, securely bolding down the peg wood during its passage through the machine, as set forth.

3d. The application of an adjustable brake to control the movement of the feeding sleeve, in the manner described.

4th, The plates, F' and C', arranged as described, and forming grooves for the passage of the awl and driver in front of the feeding sleeve, as specified.

70,582.—CONSTRUCTION OF ICE PITCHERS.—Nathan Lawrence (assignor to Reed & Barton), Taunton. Mass.

I claim, 1st. An ice or double-walled pitcher having its inner wall or lining spun or swaged out of one piece of metal, or swaged out of a single piece, so that the bottom will be seam less or without a joint, substantially as and for the purpose specified.

2d, The securing of the ribs, b, to the bottom of the inner wall or lining, substantially as and for the purpose specified.

2d, The socuring the halds of the propose specified.

70,582.—BED BOTTOM.—Frederick Leadbetter, Plymouth, Mich.

of the bedstead by means of the ends of the bedstead by means of the vires, C, connected to the ends of the dats, as shown, and attached at their unter ends to bars, D, which are fitted loosed on V-shaped wires, E, driven a the ends of the bedstead, and having spiral springs, f, upon them, as herein et forth.

70,584.—Propagating Tank and Bed.—N. H. Lindley,

in the ends of the deutscau, and navingspire septimes, 1995.

70,584.—Propagating Tank and Bed.—N. H. Lindley, Bridgeport, Conn.
I claim the valves, E. E., as described, and their adjustability in combination with the hot water channels, C.D., propagating bed, a, hot air space, a x, and deflector, c, substantially as described for the purposes specified.

70,585.—Brick Machine.—Stephen W. Long, Louisville, Ky. I claim, ist, The arrangement in a brick machine of two plungers, I K, so as to form ameasure, and to exert upon the clay compressive forces in directions porpendicular to each other, substantially as described.

2d, The combination of the plungers, I K K', sliding molds, J J', chambers, oo'o', and pug mill. 6d, all arranged and operating substantially as and for the purpose herein specified,

70,586.—ICE TONGS.—R. M. Mansur, Augusta, Me.
I claim the ice tongs or hook provided with the elastic arms, A, and the angular, sharpened, or pointed prongs or teeth, C, constructed and operating in the manner and for the purpose set forth.

70,587.—Handle For Ships' Pumps.—Knud Markuson (assignor to himself and Leonard A. Burnham), Gloncester, Mass.
I claim the improved pump handle, as made in two paris, A B, connected together by two hinges, or by a binge and latching or locking devices, applied to their opposite sides, the whole heing substantially as specified.

1 also claim the arrangement and combination of the rotary rod, made as described, and the socket for the head of such rod, with the two handle picts, A B, connected substantially as explained.

70,588.—Manuele-CTURE and Papilication of liquid bisulphite of lime, prepared substantially as herein described.

2d. The improved mode of arresting fermentation in beer, ale, and other fermente d liquors, by the application of liquid bisulphite of lime, substantially as herein described.

2d. The improved mode of arresting fermentation in secharatic and other fermentable liquids.

3d. The application of liquid bisulphite of lime for preserving meat and fish, sub

fish, substantially as described.
70,589.—HARNESS SADDLES.—Godfrey Marshall, Indiana, Pa.
Telaim a harness saddle constructed with its cushion or pad substantially

m a harness saddle constructed with its for the purpose described. 70,590.—Steam Engine.—Emory McClintock, New Bruns-

70,590.—STEAM ENGINE.—
wick, N. J.
I claim the combination of the valve ports, S. S. E. E. U. U. L. L., in the cylinders, C. C., and the passages, a b c d and a' b' c' d', in the double-acting pistons, P. F., said pistons serving as four-way valves, all substantially as herein described, for the purposes specified.

Www. McMillen Milan, assignor to

70,591.—LIFTING JACK.—Wm. McMillen, Milan, assignor to himself and Z. King, Cleveland, Ohio.
I claim the arrangement of the legs, A A', in combination with the lever, C, and link, B, when pivoted or jointed in the manner

70,592.—Planing Machine.—Rufus N. Meriam, Worcester, Mass.
I claim the slides, F F*, carrying the shafts, C C*, and constructed with racks, d d*, in combination with the blocks, B B*, formed with standards, E E*, and the pinions, e e*, whereby the said shafts may be raised or lowered with reference to the bed, a, constructed and operating substantially as herein set forth.

70,593.—Sash Support and Fastener.—Fenwick R. Miller

and Edwin Prescott, Pittsburg, Pa.

We claim the upper cam, d, in combination with the lower cam, d, so constructed, arranged, and connected, substantially as described, as to press reainst the rail or frame of the window in opposite directions by means of the weight of the upper cam, and the lock and support the sash in any position in which it may be placed, while the depressing of the lower cam shall also raise the upper cam, and thus leave the sash free to be raised or lowered.

70,594.--Mode of Securing Wheels on Axles.-J. Miller, Jr., Baltimore, Md.

I claim the combination of the box, A. spring, B. plate, C. and the linchpin, O, or their equivalents, operating in the manner described and for the purboses substantially as set forth.

70.595.—CYLINDER OF STEAM HAMMERS.—Robert Mitchell.

Wolverhampton Great Britain. I claim the peculiar arrangement of steam ports and ways in the cylinders of double acting steam hammers and forging machines, substantially as and for the purpose hereinbefore described, and illustrated by Fig. 5 of my drawing.

70,596.—Apparatus for Moving Buildings.—John H.

Moore, Binghamton, N. Y. I claim the binsed latch, G, and the catch, H, in combination with the reach or sand board, C, and bolster, F, all constructed and arranged substantially as and for the purposes set torth. 70,597.—HINGE.—Anitonio L. Mora, New York City. I claim, ist, the pawl, D and the spring, E, constructed, arranged, and operating substantially as and for the purposes described, in combination with

erating substantially as and for the purposes described, in combination with a ratchet hinge.

2d. The pin f, by which the pawl is tripped, substantially as described, in combination with the pawl, D, I claim the ratchet, C, and the stop plate, F, substantially as described.

4th, In combination with a hinge, I claim the plates, A and B, substantially as and for the purposes described.

4th, In combination with a ninge, I ciaim the plates, A and D, successions as and for the purposes described.

70,598.—LUNCH Box.—Jonn F. Morgan, Boston, assignor to Cornelius S. Hurlbut, Springfield, Mass.
I Châm a luncht or dinner bok as an article of manufacture, the end plates and side plates or which are joined to each other and to the bottom plate of the box by hinges, and the end plates of which are made of two parts or pieces connected together one side plate of which as made or three parts or pieces connected together by hinges, so that the box can be folded flat without detaching any part of it, beside the top or cover, from the other parts, substantially as herein set forth.

70,599.—Permutation Lock for Doors, etc.—John H. Morse, Peoria, Ill.
I claim, 1st, The push pin, S, with its spiral spring, s, acting on click, K, in combination with hub plate, D, with its notches, d.
2d, I also claim therubberpad, o, or its equivalent, on lug, J.
3d, Also the bolt, K with its slot, H, and lug, G, on lug bar, E, all working in the manner and for the purpose specified.

ng in the manner and for the purpose specified.

70,600.—INSTRUMENT FOR ADMINISTERING BALLS TO HORSES.

—Chas. P. Moyer, Womelsdorf, Pa.

I claim, 1st, The india-rubber or pilable cup, E, the cup, A, and the plunger D, used substantially as and for the purpose set forth.

2d, The shield, C, in combination with the tube, B, and plunger, D, when used as and for the purpose specified.

Machine for Making Paper Bags.—E. B. Olm-

70,601.—MACHINE FOR MAKING PAPER BAGS.—E. B. Olmsted, Washington, D. C.
1 claim, 1st, The combination of the feed and printing roller, F, with the
finking roller, I, the cutting roller, F', and the gumming roller, G, substantially as and for the purpose described.

2d, The combination of the cutting edge, h, and knife, k, when used in an
apparatns for making paper bags or envelopes, and when the parts are constructed, combined, and operating in the manner and for the purpose herein
specified.

3d. The combination of the two folding devices. M and K, substantially as

specified.

3d. The combination of the two folding devices, M and K, substantially as and for the purpose shown.

4th, The combination of the roller, N'. andleaves, n n', when constructed and operating in the manner and for the purpose set forth.

70,602.—MEDICAL COMPOUND.—Bird Paine, McMinnville,

1 cun.

1 claim the combination of pulverized inecacuanha with the other remedies as described, above, whereby the well known deleterious effects of quinine in large doses are prevented, and the aggregate healing properties of the combination greatly enhanced. combination greatly ennanced.
70,603.—One Separator and Concentrator.—Thomas N.

combination greatly ennanced.

70,603.—ORE SEPARATOR AND CONCENTRATOR.—Thomas N.

Paine and Samuel Stephens, Grass Valley, Cal.

We claim, 1st, The pan constructed with the copper-lined recess, h, at its top to save the gold or amalgam, substantially as herein described,
2d, The adjustable distributing spouts, constructed with the parts, deand for the purpose herein described, sq. the round arms, E, with the separated brushes, rrr, for agitating the surface of the pulp, operating substantially as herein described.

4th, The ring resi gautom atteally, and the rod, b, together with the endless seriew. L, and the cone, pulleys, K and K', when used for raising the ring, H, substantially as therein described.

5th, The movable feed-trough, G, and the reservoir, M, supported by the rollers, k, and the plate, l, operating substantially as and for the purpose described the reservoir of the revolving belt, n, with its brushes and the perforated plate, p, when used in thefeed trough, G, substantially as herein described.

7th, The two-part shaft, constructed with a hollow stationary slotted shaft, C, and the hollow movable slotted shaft, D, when constructed with the balls and the grooves in their ends to preven if riction, operating substantially as and for the purpose herein described.

70,504.—VYNDOW-SASH SUPPORTER.—Joseph R. Payson, Chicago, Ill.

Chicago, fil.

I claim the friction plate, A, with its projection, B, in combination with the inclined surface, a, and the spring, E, all aranged as shown, or in an equivalent way, for the purpose specified.

70,605.—WRENCHES.—Edward Perry, Hopkinton, Mass. I claim the combination with the frame or stock, A, of the movable jaws, E, E, screws, D, D, and rosette, C, substantially as and for the purposes set forth.

70,606.—Rail-Clamp Joint.—Francis Pidgeon, Saugerties,

N. Y.

I claim, 1st, The combination of the dove-tailed rails, E, and dove-tailed clamps, G H, substantially as described, for the purpose specified.
24. In combination with the above, the outer section of the clamp flush with the head of the rail, substantially as described, for the purpose speci-

fied.

70,607.—WAGON REACHES.—Zenas Plumb, assignor to himself and John C. Polley, De Witt, Iowa.

I claim constructing a wagon-reach in two parts, connected by a swivel-joint, substantially as and for the purpose described.

70,608.—FERTILIZER.—Henry E. Pond, Franklin, Mass.

I claim the new fertilizer, substantially as before described.

70,609.—COMBINED DOOR FASTENER AND POCKET KNIFE.—
Benjamin F. Porter, assignor to himself and Timothy S. Mitchell, Manchester, N. H.

I claim the door fastener B. constructed and arranged to operate as de-

chester, N.H.

Charles, assignor to nimself and Timothy S. Mitchell, Man-I claim the doorfastener, B, constructed and arranged to operate as described, in combination with a pocket knife.

70,610.—Toy Humming Wheel.—W. D. Porter (assignor to himself and James H. Platt, Jr.,). Petersburg, Va.

I claim the toy wheel, E, formed by the union of two concave disks, united at their peripheries, and provided with one or more openings, D, and the loops, A, when said parts are constructed and arranged as herein shown and described.

and described. 70,611.—Sack Fastener.—Theodore Purse and Henry C. Draper, Ashley, Mo.
Weclaim the sack fastener, consisting of the two pieces of wire, A. B., ninged or pivotea at C, when bent and arranged to operate sabstantially as

described.
70,612.—PRIMING METALLIC CARTRIDGES.—Joseph Rider,
Newark, Ohio, assignor to himself and E. Remington and Sons, Ilion,

Newark, Onlo, assignor to nimself and E. Remington and Sons, 110n, N.Y.

I claim, 1st, A shell without an end piece, and a flange turned and projecting forward on its inside, substantially as and for the purpose described.

Add, I also claim, in combination with a shell having an inward flange, a pase, B having a recess for a cap, and holes extending from said recess to the charge in the cartridge, and removable and replaceable, substantially as and for the purpose described.

70,613.—DREDGING, SPICE, AND PEPPER BOX.—George W. Putnam, Peterboro, N.Y.

Iclaim a dredging or spice box, perforated upon its sides, substantially as herein shown and described.

herein shown and described. 70,614.—HARVESTER.—Amos Rank, Salem, Ohio.

ILIANVESTER.—ALMOS RAIRS, SAICH, UNIO. ILIANVESTER.—ALMOS RAIRS, SAICH, UNIO. ILIANVESTER, SCARCH, bringed to the outer divider, or its equivalent, so as to allow it to conform to the undulations of the ground, in combination with a grain platform or receiver, which is arranged behind the cutting apparatus of a harvester, and applied so as not to revolve, substantially as described.

2d, A slated tilting or hinged platform, D, arranged behind the finger beam of a harvester, in combination with a scraper, G, which operates as

shown, for the purpose set forth.

70,615.—Sulky Plough.—John H. Rankin, Versailles, Mo. I claim, 1st, The cultivators, C, constructed as above described and continued. The continued are successful to the continued and continued are successful.

Purpose set forth.

2d, The cultivators, C, screw, l, nut, l'. cords. e, drums, f, an axle, g, and handle, h, in combination with the frame, A, all arranged as above described and for the purpose set forth.

2d, The ploughs, D, constructed as above described and for the purpose specified.

specified.
4th, The cultivators, C, ploughs, D, adjusting bars, b, rail, d, screws, 1, A, as above described and for the purpose set for the

17 and a same of a searched and northe purpose set for the 70,616.—PESSARY.—M. J. Rhees, M. D., Mount Holly, N. J. Iclaim a pressary, made substantially as described.

70,617.—Well Tubes.—John W. Ricker, Chelsea, Mass. Iclaim a series of perforated conical shaped thimbles, a, applied to a well tube, constructed and operated substantially as and for the purpose described.

scribed.

I also claim a well tube provided with a series of perforated conical shaped thim bles, a, from which the sand is ejected by the employment of tubes, C. D, substantially in the manner set forth.

70,618.—SPRING BEDSTEADS.—Robert Roberts, St. Paul, Ind. I claim, 1st, in combination with the bedstead, A, support, B, and cleats, F, the frame, C, springs, D, slats, E, and webbing, I, arranged substantially as and for the purpose set forth.

and for the purpose set forth.

2d, The head piece, G, when attached by hinges to the inner and detached frame, C, subs band ally in the manner set forth.

3d, The combination of the sla's, E, springs, D, webbing I, and hinged head piece, G, arranged substantially as set forth.

piece, G, arranged sugstantially as set form.

70,619.—WAGON SEAT.—R. N. Rockwell, Glenwood, Iowa.

I claim the board or plank, A, with the springs, B B', attached, in combination with the pendent pins, E, attached to the bottom of the seat, C, all arranged substantially in the manner as and for the purpose set forth.

70,620.—Bag Fastener.—Ephraim Romans, La Porte, Ind.

1 Claim the combination of the frame, a, plate, b, and cord, f, substantially as and for the purpose described.

70,621.—CONFORMATORS.—E. Roseen, New York city.
I claim, 1st, 1he bar, n, constructed with joints, 5. and hinges, 6, so that its curvature can be preserved when the apparatus is flattened out, substantially as described.

24, 1he adjustable bars, v v, in combination with the curved bars, m and w, substantially as described.

3d. The combination and arrangement of the bar, i, provided with a hook

the bar, i, provided with a hook end, the bar, i, provided with a hook end, the bars, s and o, and the setscrew, 3, connecting the bars, s and t, 70,622.—Spinning Wheel.—Jonas H. Rowe, Hudson, N. Y.

I claim, 1st, The arrangement of the vibrating arm, F, carrying the adjustable spindle head, G, said arm supported from the adjustable bar, E, and resting upon the spring, e, with the adjustable bar, D, and connecting rod, L, pivoted in said arm, F, as herein described, for the purpose specified.

2d, The combination of the bent spring, e, with the vibrating arm, F, adjustable rod, C, and connecting rod, L, as herein described, for the purpose specified.

70,623.—Rotary Cam for Looms.—Ransom Sargent, Norwich, Vt.

wich, Vt.

I claim the rotary loom cam formed of a centre shaft, a, provided with heads, b', on the periphery of which are hung the truck shafts, c, in the adjustable boxes, d, for carrying the adjustable circular cams or trucks, E, to operate on the cam blocks, D, placed on the treadles, C, constructed, arranged and operating substantially as and for the purposes herein described.

70,624.—ANIMAL TRAP.—Jeremiah Schroy, Fort Ville, Ind. I claim the drop, o, in the removable chamber, C, when such drop is provided with the fixed hoe or prolongation, r, arrangedas described, whereby the weight of the animal upon said shoe prevents its being raised, as herein set forth.

70,625.—CAR COUPLING.—Lewis O. Schultz, Mattoon, Ill.

70,625.—CAR COUPLING.—Lewis O. Schultz, Mattoon, Ill.
Laim the catch, F, the coupling pin. C, the guides, D and E, and the lifting rod, d, constructed and arranged substantially as described, in combination with the oraw head of a railroad car, for the purpose set forth.
70,626.—GATES.—L. M. Scothorn, Findley, Ohio.
I claim, 1st, The double post, B, constructed as and for the purposes substantially as above set forth and described.
2d, The upright movable post, C, working in a groove in the post, B, and
provided with theiroller, c, substantially as above set forth and described.
3d, The main and extension gates, consisting of vertical and horizontal
bars, D d, F, G, H and H, or their respective equivalents, and provided with
rollers, D' D', g' g', in manner and for the purposes substantially as above set
forth and described,
70,627.—WHIP SOCKETS.—E. W. Scott. Wauregan. Conn.

70.627.—Whip Sockets.—E. W. Scott, Wauregan, Conn. I Claim a whip socket provided with a tastening composed of a lever arranged or applied substantially as shown and described to hold the whip steady of firm in its socket, as set forth.

steady or firm in its socket, as set forth.

70,628.—ADJUSTABLE PROP-JOINTS FOR CARRIAGES.—Anson

70,628.—ADJUSTABLE PROP-JOINTS FOR CARRIAGES.—Anson Sear: s, San Francisco. Cal. Iclaim. 1st, An adjustable or extension prop joint.
2d, A socket, pivoted, or center joint, all substantially as described, and for the purposes set forth.
70,629.—TRUSS.—Isaac B. Seeley, Philadelphia, Pa. Iclaim a supporter made of hard, vulcanized India rubber, substantially as and for the purpose described.
70,630.—WASHING MACHINE.—G. C. Selfridge, Saratoga. Springs, N. Y, claim the combination of the slotted cover, C, hinged lids, D D', sectional wash board, E, double oscillating plungers, I, arms, H, rock shaft, G, removable connecting rods, K, working above the lidof the suds box, pins, b, crank shaft, J, as herein described for the purpose specified.
70,631.—FOLDING UMBRELLAS.—A. B. Shaw, Holderness, N.H. Iclaim the combination of the auxillary runner, F, and its series of spread-

I claim the combination of the auxillary runner, F, and its series of spreaders, G, with the staff, the main runner, D, and its series of spreaders, E, and each of the ribs, formed in two parts, c d, and applied together, substantially as described.

as described.

Also, the connection of the ferrule to the staff by means of the spring, arranged within and applied to such ferrule and staff, substantially as set forth. Also, the connection of the ferrule to the staff by means of the screws and the spring applied to them, substantially as specified.

70,632.—FOLDING UMBRELLAS.—A. B.Smith, Holderness, N.H.

10,652.—FOLDING UMBRELLAS.—A. B. Smith, Holderness, N.H. I claim the combination of the rib-locking mechanism, with the braces and with the ribs, each made in two parts, ef, and applied together, so as to enable the lower ones, e, to be moved with respect to the upper ones, f, substantially in manner as specified.

Also, the rib locking mechanism, composed of the slide rod, o, the collar, n, the series of locking rods, l, the staples, k, and the arms, i, the whole being constructed and arranged together as explained and represented.

Also, the combination of the spring, r, with the stics, and the locking apparatus applied to the ribs, and arranged to operate substantially as described.

70.633.—Harness Pad Tree.—Palmer Shaw and Edward S.

70,633.—HARNESS PAD TREE.—Palmer Shaw and Edward S. Dawson. Syracuse, N. Y.

We claim the elastic plate, e, covering the joint between the cut-off end, a, and the pad, A, and connecting the two parts, substantially as described for the purpose specified.

70,634.—PUMP.—George Shield, Cincinnati, Ohio.

I claim, 1st, The combination and arrangement of the hollow plunger, C, valve rod, D, valve, d, solid or closed plunger, E, plate, e, and stuffing-boxes, a a, as herein described, for the purpose specified.

2d, The solid or closed plunger, E, in combination with the hollow plunger, C, valve, d, and discharge passage, A', as herein described, for the purpose specified.

2d. The solid or closed plunger, E, in combination with the hollow plunger, C, valve, d, and discharge passage, A', as herein described, for the purpose specified.

3d. The double-plunger pump, constructed as described, consisting of the barrel, A B, with branches, A' B', stuffing-boxes, aa, hollow plunger, C, solid or closed plunger, E, valve, d, plate, e, chamber, F, and pipes, G', as therein described, for the purpose specified.

70,635.—LAMP.—John B. Slawson, New Orleans, La.

I claim, ist. Arranging the burner, B, at or nearthe end of the reservoir, A, substantially as and for the purpose herein shown and described.

2d, Arranging a reflector, C, at or near the corner of the reservoir, the said reflector being made substantially as herein shown and described.

3d, A lamp, A, when provided with a burner, B, which is arranged at or near to its end, so that it will be at or near one corner of the fare box, in combination with the reflector, C, which is made and arranged substantially as and for the purpose herein shown and describeb.

70,636.—APPARATUS FOR CLEANING STOVE-PIPES.—A. W.

Smith, Pierpont, N. Y

I claim the scraper, formed by the combination of the semi-circular plate, D, handle, E, brace and guard wires, F', and spring, H, with each other, substantially as herein shown and described, and for the purpose set forth.

70,637.—PADDLE-WHEEL.—E. C. Smith (assignor to himself and A. G. Sommerfeldt), Old Ripley, III.

48. Arranged and for the purpose herein discribed.

70,638.—Grante Bar.—J. R. Smith, Salem, Mass.

I claim, its, The double-curved ribs, A, in combination with the finges, B, and connections, a, substantially as and for the purposes set forth.

2d, The combination with the double-curved ribs, A, of one or more projections, b, flanges, B B, and connections, a, a, as and for the purposes set forth.

2d, The combination with the side of the bar, of the peurlarly constructed filling piece, composed of the parts rettered B'B', CD, and E, for the purpose set forth.

2d, The combination with the s

I claim, 1st, The band, C, and bolt, D, constructed and secured to the brake-bar, A, substantially in the manner herein shown and described, and for the ournose set forth.

bar, A, substantially in the manner herein shown and described, and for the purpose set forth.

2d, The clamps, G, constructed as described, in combination with the rod or holt, D, and band, C, substantially as and for the purpose herein set forth.

70,640.—COVERING FOR WALLS OF PARLORS AND SALOONS.

—J. M. Soutrenon, New York city.

I claim as an improved article of manufacture, a covering for parlor walls, composed of ornamental silk gause combined with a backing of paper or other suitable material, as and for the purpose described.

70,641.—GASOLINE COOK-STOVE.—J. D. Spang, Dayton, O. I claim, 1st, The disk, c', with perforated rim, c'', substantially as described.

2d, The disk, c', perforated rim, c'', in combination with the ring, b', and burner. C, substantially as described.

ed. , The disk, c', perforated rim, c", in combination with the ring, b', and er, C, substantially as described.

To, fall assa, v., perior ateu rim, co., in combination with the ring, b', and burner, C, substantially as described.

70,642.—FINISHING BRAD.—Henry Stanton, Syracuse, N. Y. I claim as an improved article of manufacture, the finishing brad, made as herein snown and described, as and for the purpose set forth.

70,643.—HORSE-RAKE.—Henry K. Stoner, Lancaster, Pa. I claim the arrangement and construction of a cylinder, A, with an arm, B, extending from it atright angles, when the rake tooth, F, passes through a lug, G, not orated for its reception, and held by a headed bolt or itsequivalent, for construction of the control of the c

Problement of the construction and community of the construction of the construction of the construction of the construction of the partial one, the classic cord carranged in the eyelet holes, a and b, substantially as and for the purpose specified.

70,646.—Amalgamator.—Arthur Swazey, Chicago, Ill.

70,646.—AMALGAMATOR.—Arthur Swazey, Unicago, III.
Laim, ist, Providing the long arm, A, with the buoyant valve, F, and
stop-cock, G, arranged to operate as described, and for the purpose set forth.
2d, The movable blates, d, when arranged to operate sustantially as decribed and for the purposes set for the construction of the purpose set for the signal, c, when arranged to operate automatically by the movement of the liquid, substantially as described and for the purpose set forth.
4th. The construction of the tube in sections, so that portions of the same
may be removed as described and for the purposes set forth.
5th, Aninverted siphon-shaped tubular amalgamator of movable sections
with a buoyant valve, F, stop cock, G, movable plates, d, and self-acting
spiral, e, when arranged to operate within the tube; as described and with its
bent portion surrounded with a steam jacket, I, for the purposes set forth.
70,647.—REFRIGERATOR FOR BREWERS.—Augustus H. Tait
and Joseph W. Avis, New York city.

70,047.—REFRIGERATOR FOR 1312. Augustus H. Tait and Joseph W. Avis, New York city.
We claim, in combination with the fermenting vat, D, the arrangement of cooling apparatus substantially as described for the injection into the wort of jets of cooled air, for the purpose described.

70,648.—Last.—Ambrose Taylor, Osawatomie, Kansas.
1 claim the spring hook, E, secured by its straight snank, F, in the block, B, and engaging with the hook, C, in the recess, D, of the last, A, all constructed and arranged to operate as herein set forth for the purpose specified. 70,649.—Baling Press.—Joseph P. Taylor, Hudson city, N.

70,649.—BALING PRESS.—Joseph P. Taylor, Hudson city, N. J., and Jackson R. Baker, JerseyCity, N. J. We ciaim, 1st. The combination of the levers, F., yoke, C, levers, E, lifting pawis, H, and toothed racks, L, with each other and with the follower or platform, N, and bed plate or frame, B, substantially as herein shown and described and for the purpose set forth.

2d. The spring pawis, I, constructed as described having the lever, J, projecting through the side of the frame to be operated upon by the foot and the lower and projecting downard through the bottom of the press to act as a brake uga inst the smooth surface of the vertical bars, I., in their descent when the upper part of Said pawl is released from the rack, as herein shown and described

3d, The arrangement of the cover, T, constructed as described, ropes, W, eys, V, posts, U, catch bars, S, and box, O, as herein described for the pur -Lubricating Carriage Axles.—Edrick Thomas,

Kickapoo, Ill.
I claim the Babbit-metal tube, F, with the bolt or screw plug, E, and the hole, a, in the metallic box, C, all arranged in the manner substantially as and for the purpose set forth.
70,651.—RETAINING LINK FOR SHUTTLES.—Martha Thomas,

Lower Merion. Pa.

I claim the within-described retaining link composed of a strip. e, of metal rith books, a and b, arranged at each end. as and for the purpose herein set

70,652.—Machine for Cutting Tubes.—Nicholas Thomas,

70,652.—MACHINE FOR CUTTING TUBES.—Nicholas Thomas, Chicago, Ill.
1 claim the construction and arrangement of the stock, A and A', socket screw, B, screw, D, having its lower end inclined below its square shank, b. inclined horizontal cutter, E, spring, F, blocks, G H, and horizontal spring kaobs, dl. as herein set forth for the purpose specified.
70,653.—MEANS OF SUSPENDING GASOLIERS AND DROP LIGHTS.—Samuel B. H. Vance (assignor to Mitchell, Vance & Co.). New York city.
1 claim, 1st, The apparatus composed of a system of lazy tongs the arms and pivots of which are constructed with an internal gas passage communicating with a suitable burner, substantially as and for the purpase specified.
2d, The parallel guides, g, attached to the stem, f, and arranged and operating in relation with the system of lazytongs, substantially as and for the purpose specified.
70,654.—BOTTLE STOPPER.—William Von Hote, N. Y. city.
1 claim the nut, b, and headed screw, d, entering each other and with the intervening follower, c, clamping the elastic plug, a, whereby the parts operate uniformly oneach other and form a stopper of nearly uniform diameter throughout, substantially as described.
70,655.—PROCESS OF PRESERVING EGGS.—Arthur Wadgymar, St. Louis, Mo., assignor to himself, Byron Sloper and W. C. Gould.

70,005.—PROCESS OF PRESERVING EGGS.—Arthur Wagymar, St. Louis, Mo., assignor to himself, Byron Sloper and W. C. Gould.
I claim, 1st, The process of killing the animal life of the egg by the use of the substances above described, or their equivalents.
2d, The process of toughening the membrane next the shell of the egg by the use of the substances above specified; or their equivalents.
3d, The process of closing the pores of the egg shell by the use of the substances above specified, or thair equivalents, 4th, The process of preserving eggs by the combination of the abovenamed substances, or their equivalents, when used substantially in the manner set forth.

10,656.—Device for Scouring Marble.—William Weaver, Nashua, N. H.

I claim, 1st, The box, A, provided with a movable bottom constructed substantially as and forthe purpose setforth and of any suitable material. 2d, The use of a water tank, E, in combination with the sand box, A, substantially as and for the purpose set forth.

3d, Confining the bottom, B, to the box by means of bolts, and nuts, said muts being constructed so as to answer as handles for the scourer, substantially as represented.

70,657.—COMBINATION BENCH.—William W. N. H.

N. H.
I claim, 1st, The fixed and movable portions, A and C, of the top when rranged for adjustment substantially in the manner and for the purposes

I claim, 184, 710: 11333 arranged for adjustment substantially in the manner and for the purpose setforth.

2d, The movable sliding upper portion of the bench composed of the fixed and movable top and transverse sliding pieces, BB, when arranged substantially and for the purpose specified.

3d, The movable and adjustable rising skids, F, arranged in the manner and for the purpose specified.

4th, The diffilling mechanism constructed as shown and described combined with a bench, substantially in the manner and for the purpose set forth 5th, The movable and reversible block, D, constructed in the manner and for the purposes specified.

The movable and reversible block, D, constructed in the manner and for the purpose specified.

6th, The movable and adjustable step, E, arranged for operation substantially in the movable and adjustable step, E, arranged for operation substantially in the manner and for the purpose set forth.

7th. The employment of the adjusting screws, a and g, or the equivalent thereof, substantially in the manner and for separate purposes as set forth. 8th, The edging notch, e, in the end of the portion G, of the bench, for the purpose specified.

9th, The combination of the movable sliding upper portion, as described the skids, F, nlock, D, step, E, screws, a and g, or the equivalent, with or without the drilling mechanism, the whole constructed and arranced for adjustment and operation substantially as and for the purposes set forth.

70,658—STEAM-CYLINDER FOR FINISHING CLOTH.—Alexan der Webster, Seneca Falls, N. Y.

I claim the combination and arrangement of the perforated cylinder, A perforated steam pipe, B, water pipe, E, and plate, D, substantially as described for the purpose specified.

scribed for the purpose specified.
70,659.—Stove-Pipe Drum.—Eben Webster, Holland, Mich. I claim ist, The construction of the inverted, conical, slotted cone, B, secured at its base to the inner circumference of the drum, A, and containing the inverted, conical slotted cone, C, whose apex extends slightly through the apex of the outer cone, B, and to whose base the short cylinder is secured bavings an outer ring resting and supported upon the flattened base of the cone, B, sliding freily there on, all arranged and operating as described for the purpose specified.

having an outer the cone, B, sliding freely thereon, all arranged and operating as a cone, B, sliding freely thereon, all arranged and operating as a cone, C, by the ring around its base turning freely thereon, the inner conextending above and below the outer cone, as herein shown and described.

70,660.—HORSESHOE.—Jacob Wheeler, Huntington, Ind.

I claim the combination of the hinged tie or brace, D, with the hinged quarters, B.

70,661.—PITMAN-HEAD AND CRANK-WRIST CONNECTION.—Wm. N. Whiteley, Springfield, Ohio.

To,661.—PITMAN-HEAD AND CRANK-WRIST CONNECTION.—

Wm. N. Whiteley, Springfield, Ohio.

I claim list The pitman-head box, F, constructed with two bearings, whose axes are at right angles to and cross each other, substantially as and for the purpose set forth.

22. In combination with the pitman-head box, F, the hollow wrist-pin, fig. 5. provided with the escape hole, D, so at to form a reservoir for a liquid lubricant within the journal, substantially as settorth and described.

70,662.—MACHINE FOR PEGGING BOOTS AND SHOES.—David Whittemore, North Bridgewater, Mass.

I claim 1st, The laver, V, with its bent slot, U, and pawl, a, in combination with the bar, T, and the ratchet on the surface of the feed-sleeve, all constructed and operating substantially as described.

2d, The slide, S', operating as described, and worked by lever, L', substantially in the manner and for the purpose specified.

3d, The supplemental pawl, 1, engaging the ratchet wheel, m, when the pawl, c, is disengaged from it, for the purpose of preveneing the peg-wood from slipping backward while the feed rell is freed from the action of pawl, c, and the knife is severing the peg, thus aiding in imparting steadiness and precision to the movements of the peg-wood, as set forth.

4th, The knife, g, constructed arranged and operating in the manner described.

70,663.—BED-BOTTOM.—J. W. Wilder, (assignor to himself

4th, The knife, g, constructed arranged and operating in the manner described.

70,663.—BED-BOTTOM.—J. W. Wilder, (assignor to himself and E. Butterick), New York city.

I claim the spring-bed bottom, constructed as described, consisting of the rectangular frame. A, the slats, a b, which are provided with metallic tubes c, enclosing springs, d, which support the plungers, e, having rounsed heads upon which the flexiole slats of the rectangular frame, D, rest, substantially as described for the purpose specified.

70,664.—Shrinking Tire.—Levi Wilkinson, New Haven, Ct. I claim the combination of the block, A, and brackets, B and C, with the screws, c and d and g and h, when the whole are constructed and fitted to produce the result, substantially as herein described and set forth.

70,665.—CLOTHES-LINE HOLDER.—J. L. Wilcox, Preble, N.Y. I claim the endless clothes-line, M, in combination with the pulleys, d, lever, i, and ratchet, e, and pawl, g, as describer, and for the purpose set orth.

70,666.—ELEVATED RAILROAD.—Wm. H. Williams, Little

70,666.— ELEVATED KAILROAD.— WIII. II. WIREHIS, ELEVATED Falls, N. Y.
I claim ist, The elevated railroal consisting of a track or tracks suspended over a street by means of towers, A, and cables, H, substantially as described, arches, E, and the compound diagonal arches, F, said arches all springing from the columns, B.

34. The hollow connecting beams, G, which tie the archesto each other in combination with the supporting cables, H, which pass through said beams, so that they are protected and also held in place by the beams, substantially as shown.

70,667.—Washing Machine.—Geo. L. Witsil, (assignor to

Thomas E. Hauberger), Philadelphia, Pa.
I claim the stelliform case, with radiate sides, C, and door, D, turning upon atubular journal, G, andh aving diagonal internal ribs, I, the several parts being constructed and arranged in relation to one another substantially as 70.668.—Extension Table.—F. R. Wolfinger, Chicago, Ill.

I claim 1st, The end rails, C, formed in three or four parts, c1 c2 c3 c4, in ombination with the central folds, D, substantially as herein shown and de-

combination with the central folds. D, substantially as not enclosed and acsorbed.

2d, The combination of the narrow strips or leaves, I, with the central parts, c2.3, of the end rails, C, substantially as herein shown and described.

3d, The central strips, J, having the legs, K, in combination with the central parts, c2 and c3, end folds, E, and central folds, D, substantially as described for the purpose specified.

4th, The narrow leaves, I, resting upon the parts, c2 c3, in combination with the leaves, G2 G3 d4, as herein set forth for the purpose specified.

5th, The arrangement of leaves, G1 G2 G3 G4, and narrow strips, I, whereby the leaves, G2 G3, are folded upon the end rails, G, having the leaves, G2 Ga and strip, I, in the same horizontal plane to form the top of the table, and the leaf, G1, folding down over the ends of the said leaves, G3 G4, as herein shown and described.

wn and described.

h, The leaf, 62, hinged in an elevated position upon the side rail, B, and porting the leaves, GI and 62, the outer end of the leaf, GI, adjusted by spring catch, H, as and for the purposes specified.

Sel.—Machine for Haking Brick.—Daniel Woodbury,

Minneapolis, Minnesota.
I claim a machine for haking brick, constructed and operating substan-ially as herein shown and described. rein snown and described.

- Wheel Hub-Box. — Elbridge G. Woodside, San

70,670. — W HEEL HUB-Box. — Elbridge G. Woodside, San Francisco, Cal.

Fra

70,672.—Fire-alarm Telegraph.—J. M. Fairchild (assign- 2,830.—Oil Cloths.--Wisner H. Townsend, New York city or to himself, J. K. Buney, and J. M. Tauchiniq dassign-or to himself, J. K. Buney, and J. M. Townsend), New Haven, Conn. I claim, 1st, The arrangement of the sliding partition, F, the platform, C, and partition, D, with the box, A, and combined with a signalling apparatus, substantially in the manner herein set forth. 2d. Operating the key of telegraphic instruments by means of a mechanism connected therewith, but perfectly insulated therefrom, substantially in the manner herein setforth. 2d. The arrangement described of the pins or projections, a b c, etc., upon the wheel, I, when constructed so as to be adjustable to different signals, substantially asset forth.

Pearson, New York city.

Pearson, New York city.

Calm the employment of a perforated or openwork shelf for the reception of letters, packages, etc. as and for the purposes designed.

I also claim the same when applied as to be reachly removable, as and for the purpose described.

REISSUES

2,794.—FIRE-PROOF CEILINGS AND ROOFS.—Joseph Gilbert,
Phitadelphia, Pa.
I claim, 1st, A ceiling composed of girders, corrugated plates and socket
beargradapted to the soid plates, and supported by the girders, all substantially as a sericed.
26. In combination with the above I claim the bricks or blocks, X X, applied
substantially in the manner and for the purpose described.
2,795.—Differing Machine—Henry U. Ingraham, Tecumseh,
Mich.

2, 199.—DITCHING MACHINE.—Henry U. Ingraham, Tecumseh, Mich.
Iclaim, 1st. The combination of the double flanged wheel, A, and belt, Q, which, revolving in the same direction, will carry the carth loosened by the plow over the wheel, substantially as set forth.

2d, Attaching the draught and also the plow frame to the axis of the wheel, A, substantially as and for the purpose set forth.

3d, The combination of the double mold board plow. H, and single mold board, J J, with the belt, Q, and double flanged wheel, B, substantially as set forth.

set forth.

Ath, Hinging the main frame, C. to the tongue irons, substantially in the insuner and for the purpose set forth.

5th, The arrangement of the double flanged wheel, A, and clute, F, when the latter is so constructed as to serve also as a scraper for clearing the earth from the wheel, substantially as set forth.

6th, The arrangement of the segments, M and N, frame, V, and lever and catch, H, substantially as set forth.

7th, The combination of the lever, R, rod, T, bent arm, K, and wheel, L, for the nurpose of adjusting the depth of the plow, H, substantially as set forth.

forth.
Sth. The combination of the lever, O, and pawl attached to the frame, C, and segment, U, for raising the wheel, A, and the other mechanism, substantially as set forth.
9th, The combination of the double flanged wheel, A, endless belt, Q, tightening pulley, x, and pulley, I, arranged to operate substantially as set forth.

2.79%,—METHOD OF OBSTRUCTING ICE IN RIVERS AND HARBORS. Face Very New York city. I claim the observator of removable ice obstructors, arranged to operate substantially as set forth.

DESIGNS.

2.813.—BURIAI. CASKET.—Benj. R. Bacon, Philadelphia, Pa. 2.819.—Trade Mark.—John T. Bailey (assignor to himself and James Cascaden), Philadelphia, Pa. 2.820.—Cans.—Christian Barry, Philadelphia, Pa. 2.820.—Cans.—Christian Barry, Philadelphia, Pa.

2,821.—Reflector.—Elizabeth Himes, New Albany, Ind. 2,822.—Melodeon-Case.—John R. Lomis, New Haven, Ct. 2,823.—Mouldings.—Edward Martin, Burlington, Vt. 2,824.—Smoking Pipe.—Wm. Masters, New York city.

ORNAMENTAL TABLE GLASSWARE.--IT. Schlers McKee,

Pittsburg, Pa. 2,826.—Coffin Handle.—James S. Ray, East Haddam, Ct

2,827.—TRADE MARK.—Jas. N. Schoonmaker, Pittsburg, Pa. 2,828.—Band Slide.—Edward Sealy, Newark, N. J. 2,829.—Pendant for Hat Band.—Edward Sealy, Newark, N.J.

NOTE .- Nothing is more indicative of the progress of inventions than the long list of patents reported in these columns from week to week. The increase in the number of applications for patents this year, over any previous one, is very great. Through the agency of this office alone, SEVENTY-FIVE At The arrangement described of the pins or projections, a uctor, apon the wheel, It, when constructed so as to be adjustable to different signals, substantially asset forth.

4th. The arrangement of the lever, W, so as to arrest the movement of the wheel, E, a teach revolution, as and orthe purpose described.

70.673.—VECHANISM FOR OPENING AND CLOSING TELE-BEHILD CIRCUITS.—J.M. Fatrehild (assignor to bimself, J. K., Bundy and J. M. Townsend). New Haven, Conn.

1clam, 1st. The arrangement of the two spindles, J. K. in connection with their respective wires, upon the non-conducting plate, G, so as to open and close the circuit, substantially as set forth.

2d, The arrangement of the lever, W, so as to arrest the movement of the respective wires, upon the non-conducting plate, G, so as to open and close the circuit, substantially as set forth.

70.674.—PIGEON-HOLES FOR POST-OFFICES, ETC.—Henry G. Pearson, New York city.

PENDING APPLICATIONS FOR REISSUES. PATENTS were issued last weeks, and are reported above. During the month of October, we had the pleasure offorwarding official circulars of allowance

PENDING APPLICATIONS FOR REISSUES.

Application has been made to the Commissioner of Patents for the Reissue of the following Patents, with new claims as subjoined. Parties who desire to oppose the grant of any of these reissues should immediately address MUNN & Co., 37 Park Row, N. Y.

23,703.—Machine for Making Drain Pipe.—Bradford S.

23,703.—MACHINE FOR MANING DRAIN PIPE.—Bradford S. Pierce, New Bedford, Mass., and Mason R. Pierce, Woodstock, N. Y. Dated Pol. 13, 1859. Reissue No. 1,857. Dated Pol. 28, 1865. Application for Reissite received and filed Oct. 24, 1867.

1st, We claim a mold consisting of a case capable of being properly secured round the material while the pipe is being molded, and of being frees from he pipe when the molding is completed, in combination with a core and also vith a core socket, having a provision for freeing the socket or pipe, or both, rom the core, the whole operating substantially as set forth.

2d, A mold in which the core socket is made separate and distinct from the therparts, and so formed and so combined with such other parts that is apable of being connected with them when the mold is ready for use, and of eing continuously kept connected with them during the entire process of iolaing and inishing the pipe, substantially as and for the purposes decribed.

3d. The arrangement of the mixing apparatus and of the core-relieving de-vices above the platform which conveys the molds in the manner and for the

serred.

3d. The arrangement of the mixing apparatus and of the core-relieving devices above the platform which conveys the modes in the manner and for the purpose substantially a; specificed.

4th, The combination of the core socket with the revolving disk, which receives the core and themold, when the disk contains a provision forenabling the socket or pipe, or both to befreed from the core, the whole operating substantially as described.

9.531.—SCYTHE FASTENING.—Pinckney Frost, Springfield, Vt. Direction of the policy of the plantially as described.

9.531.—SCYTHE FASTENING.—Pinckney Frost, Springfield, Vt. Direction of the policy of the plantially as described.

9.531.—SCYTHE FASTENING.—Pinckney Frost, Springfield, Vt. Direction of the plantially as the plantially as an arranged with a groove, d. all constructed and arranged substantially as and for the purpose set forth.

40.695.—Thrasher.—David Lippy and Jas. Bradley, Mansfield Sept. 19, 1867.

We cafin the cranks, c. c., of shafts, F, and bars, b b, all arranged and operating substantially in the manner and for the purpose set forth.

60,755.—COMB.—Jas. H. Briggs, Brooklyn, N. Y. Dated Oct. 25, 1867. Application for Reissuereceived and filed Oct. 23, 1867.

I claim the longitudinal flanges, b, on the metallic part, B, constructed as described, and fitting over longitudinal shoulders, a, in the part or parts, A, as herein set forth for the purpose secified.

57,132.—Washer For Rollforts.—Gibbons G, Hickman, Frank Hickman, and R, L. Baldwin, Coatsville, Pa. O, P. Baldwin, Brooklyn, N. Y., and J. C. Sharpless, bownington, Pa., as signess of Gibbons G, Hickman, and R, L. Baldwin, Coatsville, Pa. O, P. Baldwin, and said J. C. Sharpless, sassyn their right to Hamilton Graham. Application for reissue received and filed Oct. 16, 1867.

15t, I claim a bolt having a groove, furrow, depression, or other equivalent provision, to receive or hold a projection or lip on the washer, so asto prevent the latter from turning on the bolt, substantially as and for the purpo

set forth.

2d. Providing the washer with a lip or lips to be bent into a groove in the bolt, either with or without the lip, to be bent against the side of the nut according to the circumstances of the case, substantially as and for the purpose described.

Weston Pack Bahonek's Grove

64.028.—COOLING MILK.—Watson Peck, Babcock's Grove, Il. Dated April 23, 1867. Application for reissue received and filed July I claim the combination of a pipe, B, provided with a receiver, C, or its

equivalent, with a cooling vat, A, arranged to operate substantially in the manner and for the purposes herein setforth.

69,746.—WINDOW-SASH FASTENER.—Hobert G. Arnold, Rochester, N. Y. Dated Oct. 15, 1867. Application for reissue received and filed Oct. 1, 1867.

I claim a sash lock composed of bolt, H, tumbler, G, and notched plate, the whole combined and arranged substantially as and for the purposes set forth.

1,770.—METHOD OF SETTING THE LOGS IN SAW MILLS.—Dennis Lane, Montpeller, Vt. Dated July 9, 1861. Application for reissue received and filed Oct. 21, 1867.

ceived and filed Oct. 21, 1857.

1st. I claim the employment or use of the ratchets, H I J K, having teeth at different distances apart, in connection with the adjustable dog, P, placed on the rod, O, which is provided with retaming pins, h, the ratchet being placed on the shaft, F, having pinions, G G, at its ends, which gear into racks, D D, attached to bar, C, all being arranged as and for the purpose set forth. Second, The bar, C, when provided with projecting uprights or side supports or re. ts, h h, for the log, substantially as described and for the purposes set forth.

D. D. attached to bar, C. all being arranged as and for the purpose set forth. Second, The bar, C. when provided wich projecting uprights or side supports or re.ts, h. for the log, substantially as described and for the purposes set forth.

3d, The dogs, 11, arranged imposts, K. K., of the bar, C. substantially as described and for the purpose set forth.

4th, The side supporters or resis for the log on the setting-up bar or slide, when such rests, either one or more, are provided with a means of setting of ling are, either more or less therefrom substantially as described for the purpose escribed.

5th, The pendant, A1, attached to setting up lever, N, in combination with an incline plane, substantially as and for the purpose described.

22,310.—NUT MACHINE.—The Union Nut Machine Company, Unionville, Comp., assignees of Julius B. Savage. Dated Dec. 14, 1858. Application for reissue received and filed Oct. 18, 1867.

1st, We claim the combination of a shears with a table transferer and edge swages, substantially as described.

2d. The combination of a shears with both face and edge swages, by means of a supporting table and transferer, substantially as described.

3d. The combination of edge swages with ace swages by means of a table and transferer, substantially as described.

5th, The combination of a shears with both face and edge swages, by means of a supporting table and transferer, substantially as described.

6th, The combination of a combination being substantially such as escribed.

6th, The combination of a shears, a punch supporting table, edge swages, and third, a punch, substantially as described.

7th, The arrangement, in succession, of, first, a shears, second, swages, and third, a punch, substantially as herein described, so that a blank is first cut off, then swaged, and finally punched, as set forth.

8th, In combination with a punch, I claim edge swages acting to center the blank to be punched while resting upon a table, the combination being as described.

10th, I claim, in combination with

19,408.—Wheel and Axle Attachment of Horse-Power, 13,405.—WHEEL AND AXLE ATTACHMENT OF HORSE-TOWER, ETC.—Abram Wright and George F. Wright, Clinton, Mass, assignees by mesne assignments of George E. Burt and George F. Wright. Application for reissue received and filed Aug. 23, 1867.
We claim the use of chill-hardened cast iron axlesw hen applied to the moving platform of treadmill or encless chain horse-power and secured either by a bolt and nut to the link or cast solid upon it, constituting a member of the same

-Coffee Hullers.-Albert Angell, Newburgh, N.

159,538.—Coffee Hullers.—Albert Angell, Newburgh, N. Y. Dated Nov.13,1866. Application for reissue received and filed Oct. 19,1867.

19,1867. In the application to use without strippers or rubbers for hulling or cleaning coffee or other articles, of springs, or heir equivalents, for pressing the strippers or rubbers against the coffee or other articles, substantially as described.

2d, The combination with the roughened or serrated cylinder, B, of independent spring strippers, D, arranged within a hollow segment or case that partly incircles the cylinder, substantially as specified.

3d, The divided spring strippers, D, constructed with roughened or serrated parts, arranged side by side, and also in a series one in advance of the other within a case, C, for operation in combination with a serrated or roughtened cylinder, B, substantially as described.

65,018.—STEAM-GENERATOR GAGE COCK.—Thomas Shaw, Philadelphia, Pa. Dated May 21, 1867. Application for reissue received and fled Oct. 11, 1867.

I claim the construction and arrangement of the valve whereby to control the pressure, substantially as set forth.

NOTE .-- The above claims for Reissue are now pending before the Patent Office and will not be officially passed upon until the expiration of 30

days from the date of filing the application. All persons who desire to oppose the grant of any of these claims should make immediate appli-MUNN & CO., Solicitors of Patents, 37 Park Row, N. Y.

PATENT CLAIMS.—Persons desiring the claim of any invention, patented within thirty years, can obtain a copy by addressing a note to this office, giving name of patentee and date of patent, when known, and inclosing \$1 as a fee for copying. We can also furnish a sketch of anypatented machine to accompanythe claim, at a reasonable additional cost. Address MUNN & CO.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will be given; but when subscribers remit their money by mail, they may confider the arrival of the first paper a bona-fide acknowledgment of their funds.

Patent Solicitors, No. 37 Park Row, New York

CITY SUBSCRIBERS.—The SCIENTIFIC AMER-ICAN will be delivered in every part of the city at \$4 a year. Single copies for sale at all the News Stands in this city, Brooklyn, Jersey City, and Williamsburg, and to woost of the News Dealers in the United States

Adrertisements.

The value of the Scientific American as an advertising medium cannot be over-estimated, Its circulation is ten times greater than that of any similar journal now published. It goes into all the States and Territories, and is read in all the principal libraries and reading rooms of the scorld. We invite the attention of those into wish to make their business known to the annexed rates. A business man wants semething more than to see his advertisement in a printed newspaper. He wants circulation. If it is worth 25 cents per line to advertise in a paper of three thousand circulation, it is worth \$2.50 per line to advertise in one of thirty thousand.

RATES OF ADVERTISING.

Back lage, for engravings......\$1.00 a line. Inside Pege......40 cents a line. Inside Fage, for engravings.....60 cents a line

DOILER FELTING SAVES TWENTYfive per cent of Fuel.

JOHN ASHCROFT,
50 John st., New York.

AINTER, GILDER, and VARNISH-FR'S COMPANION.—Tenth Edition, with important additions, just ready, price \$1.50 by mail, free of postage. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut st., Philadelphia, Pa.

NABIRICATION OF VINEGAR.

Prof. H. DUSSAUCE, Chemist, is ready to furnish the most recent methods of manufacturing Vinegar by the slow and quick processes, with and without alcohol, directly from corn. Also, process to manufacture vinegarand acetic acid by distillation of wood. Methods of assaying vinegars. Address

New Lebanon, N. Y.

CUALE IN STEAM BOILERS.—
The Ironton Kolling Mills, Ohio, say:—"We are well pleased with your Powder, and think it fully answers the purpose intended "—Oct. 28, 1867.

H. N. WINANS' Anti-incrustation Powder.
Wall street, New York.

SHCROFT'S LOW WATER DETECT-The or will insure your Boiler against explosion. JOHN ASHCROFT, 50 John st., New York. 2112

TOUSEKEEPERS DO YOUR OWN Painting. Full directions for mixing and applying Paints and Varnishes will be found in Painter, Glider, and Varnisher's Companion, price \$1 50 by mail, free of postage. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut st., Philadelphia.

THE SUBSCRIBER WISHES TO CORrespond with some manufacturers who can make wood and from work for he Patent Dish Washer and er-iron work mostly light gearing. Size and deption furnished on application to

1*

J. LOMAS, Fishkill Landing, N. Y.

DEATH ON BURGLARS, E. F. Mallory's Improved Burglar Alarm patented Sept. 3, 1867. Something everybody needs and will buy, works like a charm, is simple, ornamental, durable and effective. Sent pestpaid on receipt of 75 cents. State and County Rights for sale, can be obtained almost for a "song" a good chance for a live man who wishes to make money. Full particularsfree. Address E. F. Mallory, Springfield, Pa., sole proprietor and manufacturer.

VALUABLE PATENT RIGHT FOR SALE.—The weighing and measuring cup, patented Nov. 1867. An article long needed by every family in the land. Thoroughly practical, extremely simple, yet very accurate, and so cheap as to be within the reach of all; by means of which housekeepers can prepare the ingredients for pastry, preserves, etc., etc., and that too by a utensil useful for many other purposes, simply a dinner.

by a utensil useful for many other purposes, simple to be a utensil useful for many other purposes, simple to the first states, leghts for the Eastern, Southern, and Western States, I'ghts for the Sample from the Sample for Suppled of any extent required. Samples furnished for 50 cents. For further particular samples furnished for 50 cents. For interpretational states and Manufacturers, Easternees and Manufacturers, 21 2*]

No. 658 Franklin street, Philadelphia.

OACH PAINTERS will find Practical OACH FAIN LERS WIII find Practical Directions for Coach Painting and Varnisher's Companion, now ready, price \$1.50 by mail, free of postage. HERRY CAREY BAIRD, industrial Publisher, 406 Walnut street, Philadelphia.

WILL SELL ENTIRE OR STATE Rights for my Hay Gatherer, illustrated in No. 19, ic American. Every farmer needs one. Accre JAS. SWINNERTON, Marion, O.

DUNHAM'S Improved Nut-Forging Machine is unequaled in simplicity and durability, and the most perfect working machine in use. Rights for sale. Address [15.8*] GEO. DUNHAM, Umonville, Conn.

DUBLIC SALE OF VALUABLE FOUNdery, Machine, and Stove Works, Nov. 21, 1867, with water power, situated in Frederick, Md. For plat description and list of patterns, apply to 194-R.] M. C. YOUNG, Frederick, Md.

PORTABLE RAILROAD.—The advantages of the patented Portable Railroad are manifold. It saves both time and money, it is particularly adapted for excavating and filling, constructing railroad beels, milldams, levees, etc., for working in mines, quarries, brick yards, and jeat bogs. Sold of retuded in 20-foot sections, from one to a thousand. Also, Cars suitable for the work to be done. Contracts for excavations, etc., promptly attended to. For particulars or pamphlet address box 222, Mechanics Exchange, et A. Pei Fleer & CO., New Brighton, Richmond county, N. Y. 20 3*

THE REPEATING VEST-POCKET Light, or Match, without any brimstone, in riggant silvered cases, about the size of a Lady's' watch. Will last a life time; are self lighting, giving instantly a clear, beautiful fiame; will light fly times in succession without replenishing. The material is cheap and perfectly sare. Sample case, filled with lights, sent by mail to any address on receipt of 65 cents. Liberal inducements to agents. Address

L. F. STANDISH,
Springfield, Mass.

DAINTER, GILDER, AND VARNISH-BER'S COMPANION, Tenth Edition, contains the best practical directions for Glass Staining, Sign Pannting, Imitation of Woods, Marhles, Tortoise Stell etc., price \$150 by mail, free of postace. HENRY CAREY BAIRD, Industrial Publisher, 406 Walnut st., Philadelphia.

The very highest prize, THE CROSS OF THE LEGION OF HONOR, was conferred on the representative of the Grover & Baker Sewing Machines, at the Exposition Universelle, Paris, 1867, thus attesting their great superiority over all other Sewing Machines. Salesrooms 495 Broadway, New York.

PATENT FUSABLE SAFETY VALVE or Plug is a protective against the explosion of Steam Boilers, by either I low water or high steam, and has been extensively introduced in England, with the most satisfactory results. For further information apply to C. W. COPELAND.

20 21 No. 171 Fronce way, New York. TO OWNERS OF STEAM BOILERS.-

DATENT IMPROVED ENDLESS OR
BAND SAW MACHINES, where saw breaking is
entirely prevented; they run one-third laster than any
other band saw. Also, a narrowersaw, thanusual, can be
used and produce from three to five times morework than
any of the best up-and down saws in use; savemuch powerand stock. Refer nees can be given from almost any part
of the country. Machines for cutting boards are in process of building. We also manufacture well designed oval
and other wood turning lathes, couble adjustable spindleboring machines, circular saw inandrils, snafting pulleys,
flass & PRYIBIL.

2061 175 and 177 Rester st, New York city.

LOT OF MACHINERY FOR SALE

DEADLES FOR THE SALE OR
Lease of the PROPERTY OF THE BALTIMORE
WROUGHT IRON P!PE AND TUBE COMPANY, are
invited until November 20th, 1867.
The works are large and fitted up with the most approved machinery for the manufacture of Gas Pipe and
and Boiler Flues, Flues with Foundery, Machine Shop,
and Galvanizing Shop attached.
Its reputation is established, and the demand larger
than the supply.
Plans of the premises, and full particulars, may be had
on application to the Scoretary, at No. 31 Holliday St.
Boilthnore, Md., or to
Pinkiy J. DAVISON,
No. 200 Water st., New York.

OLLING MILL

MACHINERY AND CASTINGS.

Address [19 4*] GREENLEAF & CO, Indianapolis.Ind.

Toutes

Agents Wanted Immediately to sell Richmond & Hoster's celebrated Sliver Plating

Finid. Our Agents are-making \$5 to \$15 collars per day.

Address RICHMOND & HOSTER, Seneca Falls, N.Y.185* Scientific American Office, No. 37 Park Row, New York

OR SALE--Mineral Land-Missouri Pine I OR SALE—Mineral Land—Missouri i inc and Mineral Land. For sale, my one-third interest in a tract of 4,000 acres, with two Steam Saw Mills and Lead Mines now in course of development. Send for descrip-tion and map. THOS. ALLEN, 722 South Fourth street, St. Louis, Missouri.

ABORATORY OF INDUSTRIAL CHEmistry, directed by Prof. H. Dussauce, Chemist. Adverses and consultations on chemistry applied to arts and manufactures, metallurgy agriculture etc. Plans of factories, drawings of apparatus, informations on chemical abrications, Analyses of every kind; New Lebanon, N. Y. 1* ABORATORY OF INDUSTRIAL CHE-

WANTED.—PERSONS OUT OF EMploy, Male or Female, to sell an article that is wanted in houses, stores, offices, factories vessels, steamboats, etc. In fact, wherever there is Paint to clean or Grease and oil to be extracted, there THE MAGIC CLEANSING CREAM

is wanted. It does the work so quickly and nicely that it looks to a stranger like a sleight-of-hand operation. Send a red stamp and receyet "THE ECHO" free for one year. Address J.J. PIKE & CO., Chelsea, Mass.

PACTORY AND MACHINERY FOR SALE.—A three-story Factory, built in 1878, on the Mangaturic Railroud, 5 hours from New York, suited for any instress, one brushed and rifty yands from the depot, one of the best water powers in the States. Also, one Prant & Waitney Engine Lathe, Scient swing, taper actachment. One 3-foot Planer, same make. One Silies, No. 3, frowth Planeting Press. One brides Machine, this opening the Machines, Brill Lathes, Four-Sanada Drill Chocks, Centers, Small Tools, Portable Forth Planeks, Chicks, Small Tools, Portable Forth Blacks "ibe" Tools, Polishing Wheels, etc., etc., have been used but a few months, and must be sold. , and must be sold. J. M. HOPKINS. Burrville, Cour.

FOR SAIE CHEAP—A Fifty-six inch inserted tooth Circular Saw, made by Woodrough & McParlin, Cincinnatt, Ohio. Address 20 3*1 H. A. & S. G. Wishit, Detroit, Mich.

ENGINE LATHES, Hand Lathes, Foot Lathes, and Tapping Machines, of the best design and first-class workmanship. Also, special machinery, small tools, etc. Patent articles made to order.

18 5*] FLATHER & CO., No. 11 River st., Nashua, N. H.

WANTED—A few experienced salesmen on commission, or to take an interest in four new inventions, and sell the rights or find manufacturers on royalty for the same. For particulars address JOHN H. BARRINGER, Jr., Hillsboro, Montgomery canny, II.

PLANER AND MATCHER for \$350, a. good, new machine. S. C. HILLS, 12 Platt st. N. Y.

UST PUBLISHED—THE IN VENTOR'S
and MECHANIC'S GUIDE.—A new book upon Mechanics, Patents, and New Inventions. Containing the U.S. Patent Laws, Rules and Directions for doing units mess at the Fatent Office; 112 diagrams of the best mechanical movements, with descriptions; the Condensing Steam Engine, with engraving and description; the Movement, How to Obtain Patents; Hints upon the Value of Invent; How too Obtain Patents; Hints upon the Value of Invent; How too Hatches Forms for assignments; Information, upon the Hights of Inventors, Assignees and John Owners; Instructions as to Interferences, Ressues Extensions, Caveats, together with a greatvariety of use Extensions, Caveats, together with a greatvariety of use Extensions of the Condensian Control of the Condensian Control of the Condensian Control of the Condensian Control of Condensian Control

MESSIEURS LES INVENTEURS—Avis important. Les inventeurs non famillers avec la langue Anglalse, et qui pidiferen aeu nous communquer leurs inventions en Français peuvent nous addresser dans leur langue natale. Enveyez nous un dessen de tine description concise pour notre exsuaca. Toutes communications serous reçus en confidence. MESSIEURS LES INVENTEURS-