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- teing a schedule of fees:-On filing each Caveat On filing each application for a l'atent, except for a design... On sissing each original Patent. On application for Reissue. On application for Reissue. On filing a Disclaimer... On filing a Disclaimer... On filing application for Design (three and a balfyears). On filing application for Design (curteen years). On filing application for Design (curteen years). In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

m Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, specifying size of model required, and much other information useful to Inventors, may be had gratis by addressing MUNN & CO., Publishers of the Scientific American, New York.

70,933.—STEP-LADDER.—M. E. Abbott, Bethlehem, Pa I claim a step-lader, with thebraces, B B', and the stay rods, C C', and D D', attached to the ladder, A, substantially as described, that is to say, by the pivot joints, d d, and the long staples, a a, and c c, as and for the purposes set

bombination with a step-ladder, I claim the pivot joints, a a, and the staples, a a, and c c, or their equivalents, substantially as and for the gese described. long star

For starting starting, and the construction of the requirements substantially as and for the purposes described.
70,934.—AppARATUS FOR CONDENSING AIR.—Onofrio A bruzzo, New York city.
I claim the arrangement of a series of vessels, A A', when the same are connected with cylinders, B B', the same being provided with values, C', and with perforsible pistons, D b', having values, substantially as and for the purpose herein shown and described.
F. D. Addison, Wheeling, W. Maching, W. Maching, W. Maching, W. Maching, W. Maching, M. Maching, W. Maching, M. Maching, M. Maching, W. Maching, M. M

purpose herein shown and described. 70,935.—LAMP CHIMNEY.—E. R. Addison, Wheeling, W. Va. I claim the combination with the glass bulb, A, of the metallic or mica chimney. D, secured by tight joints, a and e, to the upper edge of the bulb, substantially as described and represented. 70,936.—TYPE CASE.—Charles Aldrich, Marshalltown, Iowa.

claim a cabinet or case, made in sections or parts, hung so as to open an ose, and each provided with shelves, substantially as and for the purpos scribed.

70,937.—Joiners' GAGE.—Mason C. Ames (assignor to him-

self and Jeremy W. Bliss), Hartford, Conn. I claim, as a new improved article of manufacture, a carpenter's gage, ombosed of the bar, A, head, B, clamp screw, C, and constructed to operate ubstantially as and for the purpose described. 70,938.—HOOK FOR HOLD-BACK STRAP.—William A. Bagley

Ansonia, Conn. I claim a hook for hold-backstraps, made in two parts, B, and pivoted part substantially as described.

C, substantially as described. 70,939.—BOLT MACHINE.—Albert R. Bailey, New Haven, and Wilson W. Knowles. Plantsville, Conn. We claim, 1st, The fixed jaw, O, and the sliding jaw, O', in combination with the supplemental die, Q, and die, M, all constructed and arranged to operate substantially in the mancer as and for thepurpose set forth. 2d, The cross head, E, slide, J, attached thereto, and independent slide, K, arranged substantially as shown. for operating the heading die, M, sliding jaw, O', and supplemental die, Q, asset forth. 70, 940... LANENES, BICCHE, C, ANDRO, E, Boilow, and Hongeise Jaw, O, and supplemental die, Q, as set forth. 70,940.—HARNESS BUCKLE.—Alonzo E. Bailey, and Horatic

jaw, O, and supplemential die, Q, as set forth. 70,940.—If AINBES BUCKLE.—Alonzo E. Bailey, and Horatio Nichols, Middleville, N. Y. We claim, itd, The trace buckle, constructed as described, consisting of the frame, D, with curved forward end, and provided on each side with stop, F., which serves as a limit to the forward movement of the eliding clasp, E, em-bracing the frame as here in set forth, for the purpose specified. 2d, in combination with the above, we claim the trace strap, R, when pro-vited with the enlarged part. II, secured to the frame, D, by means of the slide, E, substantially as described, for the purpose specified. 70,941.—ELEVATOR.—Cyrus W. Baldwin, Boston, Mass. I claim, in an elevator or hoisting apparatus, as described, the combination with the elevator carriage and rope, or other device for supporting or sus-pending the same, of the words for the purpose as before. 70,942.—ScaLES.—Issac Benham (assignor to himself and Allen B. Renham), McLean, N.Y. I claim a proportioning scale for association, in compounds of ingredients in fixed proportions, the quentity of any one ingredient, by the use of any other ingredient as a weight or measure, in the manner and by the device above set forth, as a new article of manufacture. 70,942.—Craktarus FOR THE MANUFACTURE OF SALT.— Henry Beschkee, Albary, N.Y. I claim the cormement and combination of the soaking pan, K, drving

Algorithmetric and the second secon

to the frame in the manner set forth. 70,945.—Door CATCH.—Asa Blood, Jr., Independence, Iowa. 1 claim the adjustable spring. C, head, E, as arranged in combination with the arms. B, tor the purpose and in the manner set forth. 70,946.—WIRE WORK —Wannibald R. Boerner (assignor to himself and Carl R. Boerner), Chicago, Ill. 1 claim wire work to be used for any purpose, when constructed substan-tially as herein described. 70,947.—PADDU R. WURK

70,947.—PADDLE-WHEEL.—Edward T. Bostrom, Newnan,

Ga. I claim the construction of four buckets, C, upon the revolving shaft, D rranged upon the ends of the radial revolving arms, B, substantially as de-cribed for the nurnose snecified. scribed, for the purpose specified. 70,948.—STEAM ENGINE.—Eugene Bourson, Brussels, Bel

70,943.—STEAM ENGINE.—Eugene Dourson, Drusson, Dor rium. I claim, lat, Connecting both ends of a steam cylinder by means of a pipe, C. having one or more stop cocks, a, substantially as described, so as to en able the engineer to stop or retard the motion of the piston, by conducting steam or water, or both, into the ends of the cylinder, substantially as here in shown and described. 2d. The pipe, C, cound when combined with the blow-off pipes, cc, all made and operating substantially as here in shown and described. 3d, Connecting the two cylinders of a locomotive engine with each other by means of a pipe. F, whereby stram, water, or both, can be conducted into the ends of the cylinders, substantially as and for the purpose here in shown and described. 70,949 — CHILD'S TOY.—George W. Boynton, Auburn, N. Y. I claim the hollow wheel, A, loop, h, weight, g, and image, B, all combined

70,955.—ToweL.—John Cash, and Joseph Cash, Jr., Coventry, England.
We claim, as a new article of manufacture, bath or friction towels, manufactured of tape, substantially as described.
70,956.—APPARATUS FOR DISTILLING SPIRITS OF TURPENTINS.—David Cashwell, Faretteville, N. C.
I claim. iet, The application of steam to the distillation of spirits of turpentine, as her clin described.
20, The induction steam pipe. a, the steam heating coils, b, b', and the diaphragms, c c, combined with the still, A, the steam generator, D, and the worm. B, arranged and operating substantially as and for the purposes shown and described.
20, 957.—Tre W acon _Stonben Chamberlin Boston Mass

worm, B. artanged and operating succession, Mass. 70,957.—TIP WAGON.—Stephen Chamberlin. Boston, Mass. I claim the combination and arrangement of the body, a, rocker springs, n, journals.r and soc ret bearings, s. together and relatively to the spring, 1, and ront and rear axles, substantially as described. 70,958.—IRONING TABLE.—Albert A. Chittenden, Boston,

Mass. I claim the movable table, A, in combination with the rod, B, and frame. O, or their respective equivalents, substantially as and for the purpose de-

70,959.-CHURN.-Charles Colby (assignor to himself and

70,959.—CHURN.—Charles Colby (assignor to himself and Michael O'Neil), San Francisco, Cal.
1 claim the combination and arrangement of the driving shaft, B. gears, C and E. with gears, D and F. at the opposite end of the churn, with the dashers, H and K, and barrel, L, all as described, for the purpose set forth.
70,960.—DITCHING MACHINE.—Robert Conarroe (assignor to himself and Howard Young), Camden, Ohio.
1 claim, ist, The shovels of the elevating apparatus, the plates, r, of which automavically clean the plates, o, substantially asset forth.
3d, The notches.u. and ping, v, in combination, when applied to a wheel and axle, substantially as described.
3d, The plow, G, trough, F, clevating apparatus, H, e e, h, cutters, C, and lever, w, when combined and arranged substantially as described.
70,961.—STOVE-PIPE DRUM.—Jesse Conver, Philadelphia, Pa.

lever, w, when combined and arranged substantiany as described.
70,961.—STOVE-PIPE DRUM.—Jesse Conver, Philadelphia, Pa.
I claim cylinder, c c, damper, D, holes, H H, and H' H', and K K', constructed and combined with plates, A A, B B, A' A', B' B', A'', and cone plate, B'' B'', in the manner and tor the purpose setforth and described.
70,962.—HORSE HAY FORK.—A. J. Cook, Guilford, Conn.
I claim the combination of the slotted rod, A, the bar, D, the lever, E, and prongs, C, when the said bar, D, extends from the shid lever upon one slide of the rod, through the rod to be prong upon the opposite slide, substantial yas and for the purpose herein setforth.
70,963.—GATE.—William Cooley, Tafton, Wis.
I claim, ist. The lever. R, made to rest on the top of hinge, G, in combination of the sliding post, K, with grate, F H OV C D, hinges G d, lever, R, and catch, n, substantial yas herein specified.
70,964.—LooM.—H. M. Cooper, Lindley, Mo.
I claim, ist, The combination of the lay, C, the treadle-cam shaft, H, the treadles, G, the combination of the lay, C, the treadle-cam shaft, H, the treadles, G, the combination of the lay, C, the treadle-cam shaft, H, the treadles, G, the combination and arrangement of the lever, m, pivoted near its lower end to the frame of the loom. and provided at its upper end with the serve thread by means of which the highed pawl, k, is raised or lowerd, with the courseting rod. n, sword, C, cloth beam, D, gear wheels, g 2, 2, and ratcher wheel, i, as herein described.
3d, The arrangement of the ployted hand, p, the levers, r, the combined with the baser of the prose specified.
3d, The arrangement of the ployted hand, p, the levers, r, the combined with the play the short of the purpose sheet set or box of the purpose set or base.
3d, The arrangement of the ployted hand, p, the lever, r, the combined with the server thread by means of white the play pose sheet red.
3d, The arrangem

purposes set forth. 70,965.—Mold For Making Cores for Casting Globe

VALUES -John M. Cooper. Pittsburg, Pa. I claim the core boxes, x and x', with their respective plugs, g and g', con-structed substantially as hereinbefore described, for the purpose of forming cores for casting globe valves with diaminatin valve seat.

lead to a surrent of carbonic acid gas, substantially as an i for the purpose herein described.
2d, Applying steam in connection with a current of carbonic acid gas to a strong and hot solution of basic acetate of lead, substantially as and for the purpose specified.
3i, Correcting defective precipitate of neutral carbonate of lead formed by the current of carbonic acid gas when the solution of basic acetate of lead amay be too weak, by boiling it in a stronger solution of basic acetate of lead may be too weak, by boiling it in a stronger solution of basic acetate of lead may be too weak, by boiling it in a stronger solution of basic acetate of lead as herein set forth.
4th, The manufacture of pure amorphous white lead by the method substantially as herein described.
70,991. — VIOLINS AND OTHER BOW INSTRUMENTS. —George Gemünder, New York city
Iclaim, ist, Arranging an additional sound post, D, within the case of a bow in strument, substantially sa and for the purpose herein shown and described.
3d, Combining the additional sound post, D, with a string, E, which passes over it, substantially as and for the purpose herein shown and described. cores for casting globe valves with diaphragm valve seat. 70,936.—TRy SQUARE.—J. E. Cowdery (assignor to himself and A.S. Benson), Wheatland, Iowa. I claim the circular rack, E, and spring pawl, e, when combined with a pivot-ed blade, to a try-square, in manner substantially as and for the purposes de-

70,967.-WASHING MACHINE.-William W.Cox, Carbondale,

11. I claim, ist, The corrugated roller, C, in combination with the roller, F, apron. G. dovetail blocks, h, springs, k, and nuts, 1, all made and operating substantially as and for the purpose herein shown and described. 2d. The above, in combination with the treadle, E, when the same is made as set forth.

70,958.-Tool Supporter or RACK.-Zenas M. Crane, Dal-

10,900. I tool for route a construction of the set lever, A, the adjustable tooth, e, and the law, g, applied to the plate, B, and arranged substantially as described. I also claim the combination and arrangement of the projection, h, with the bent lever, A, the adjustable tooth, e, and the jaw, g, applied to the plate B, and arranged substantially as specified. B, and arranged substantially as specified. 70,969.—MANUFACTURING BRICKS.—E. W. Crittenden, Pitts-

70,969.—MANUFACTURING BRICKS.—E. W. Crittenden, Pittsburg, Pa.
Iclaim, 1st, The fluted or corrugated rollers, B B'B", a rotary screen, D, and endless carrier or apron, F, arranged substantially as and for the purpose set forth.
2d, The tempering or moistening of the pulverized clay by jets of low pressure steam fromta steam box, H, substantially as shown and described.
3d, The evener, G, the rotary screen, D, and endless carrier or apron F, arranged substantially as and for the purpose specified.
4th, The molds, N, in the wheel, L, in combination with the plungers, 0, and the arms, Q, operated in the manner substantially as here in shown and described.
5th, The elevator, I, and endless carrier, V, when used in combination with

b) subsetuting a biotecture of the subsetution of subsetution of subsetution of the subsetution of the subsetution of the subsetution of the subsetution of subsetution of subsetution of the subsetution of the subsetution of the subsetution of the subsetution of the subsetution of subsetution of subsetution of the subsetution of the subsetution of subsetution of subsetution of the subsetution of subsetution o

described. 5th, The elevator, I, and endless carrier, V, when used in combination with a rotary mold wheel, substantially as and for the purpose specified. 70,970,—MILL GEARING.—Joshua C. Cunningham, Ogle-

thore, Ga. I claim the pinion wheels, C, each composed of two sets of cogs and of un-equal diameters, in combination with the base, A, crown gear wheel, B, and shafts, F, all arranged and operating as described, for the purpose specified. 70,971.—LOAF BREAD MACHINE.—John D'Arcy, San Fran-

70,971.—LOAF-BREAD MACHINE.—John D'Arcy, San Francesco, Cal.
I claim the combination and arrangement of the kneading rollers, C C', endless apron. a, carried by the rollers, D and D', and the rotating knife, F, all as set forth.
70,972.—PLOW.—Jonathan R. Davis, McKay, Ohio.
I claim, 1st, Forming the beams, A & standards, E, brace bars, G. and handles, H, and adjustably connecting them to each other, substantially in the form and manner herein shown and described and for the purpose set forth.
20, The combination of the jointee or pivoted bars, C and I, with the beams. A and handles, H, substantially in the manner herein shown and described and for the purpose set forth.
70,973.—BOTTLE WASHER.—Henry B. Davison, San Francisco, Cal.

cisco, Cal. I claim a bench or support provided with a series of holes, B B, to hold the bottles, in combination with a series of jet pipes, D D, extending into the nozzles of the bottles, and conducting water to wask them, substantially as described. -TRUNDLING HOOP.-John G. De Coursey, Phila 70.974.-

10,874.— IRUNDLING HOLL, COLL delphia, Pa. I clam the hoop, A, with its hub, b, and spokes, a, in combination with an arm or bandle, C, connected to the said hub, substantially as and for the pur-pose described. 70,975.—BOUT TREE.—Peter De Vries, Adrian, Mich. 70,975. 70,975.—BOOT TREE.—Fetter De Vries, Aurian, mich. I claim the combination of the front and foot, A B, made in one piece, the back, C, the spreading key, K, the lever, I, elastic plate, i, vertical screw, G, and horzontal screw, H, all arranged and employed in the manner and for the purposes set forth. 70,976.—HARVESTER RAKE.—Wm. P. Dillman, Joliet, III.

I claim the levers, A A, or their equivalents, in combination with the primas, e.c., carches, E E, and knob, G, substantially as specified and for the urnose named.

-SAFETY ATTACHMENT FOR POCKETBOORS.-Wm. H. Ferguson (assignor to himself and Gark D, Page), Rochester, N. Y. I claim, 1st. The combination and arangement with the parts, A B c, of the fastening, of the spring, E, provided with the reverse bends, f h, forming respectively the funger rest and the eye, the whole operating in the manner and for the purpose specified

respectively the finger rest and the eye, the whole operating in each linear and for the purpose specified, 2d, As a new article of manufacture, the fastening for bocket books con-sisting of the pietes, A B, provided with the points, as, and attached to the leather disk, b, the whole arranged as described, and operating in the man-ner and for the purpose herein set forth. 70,983.—PEAT AND BRICK MACHINE.—George B. Fisher,

70,985.—FEAT AND DRIVE PROVIDENCE. Chicago, Ill. I claim in combination with a cylinder provided with a series of molds and plungers, operating as described, the arrangement of a chain of blocks, D. for covering said molds, substantially as specified and described. 70,984.—MEAT SPIT.—Paul Fisher, Williamsburg, N. Y. I claim the skewer plates, B. provided with the skewer, C or D, in combina-tion with the body, A, of the spit, substantially as described for the purpose specificati.

bion with the body, A, of the spit, substantially as described for the purpose spicified.
70,985.—RoyARY SWING.—I. N. Forrester, Bridgeport, Conn. I claim, 1st. Rotating a swing or swips at once around horizontal and verticeal axies, substantially as herein shown and described.
24. The revolving platform, C, arranged around the post, B, and provided with uprights, D L, in combination with the swing frames, E, and their axies, b, all made as set forth.
70,985.—BOTTLE STOPPER.—Howard B. Fox, Oxton, and James T. Hall, Liverpool, Eng.
We claim, 1st, A stopper formed or wood and cork in combination, forming a cheap and durable stopper, substantially as and for the purposes herein set.

ng a cheap and durable stopper, substantianty as a latter or provided for the rigid parts, a 26 or the within described construction and arrangement of the rigid parts, at a 28, hving three different diameter, and fitted within and upon the clastic part, b, in the manner and for the purpose herein set forth. 70,987.—MACHINE FOR PICKING HAIR.—Franklin Frey, Lib-

2d. The ward of the second state of the purpose nerver and the second state of the second state o

Specified. 4th, inclined plane, B, sash, g g D D, cap piece, e, and glass frame, k and B, all arranged as and for the purpose set forth. 70,990.—MANUFACTURE OF WHITE LEAD.—Isaac M. Gatt-

man, New York city. I claim, 1st, Subjecting a strong and hot solution of the basic acetate of lead to a current of carbonic acid gas, substantially as an i for the purpose herein described.

bow in striment, substantially as and for the purpose inclusions of which passes over it, substantially as and for the purpose hereins hown and described. 3d, Connecting the sound posts of a bow instrument by means of a string. E, and the tail piece, F, with the main strings of the instrument, substantially as herein shown and described. 4th, The bridge, C, for connecting the post. D, with the main sound post, B, substantially as and for the purpose hereinshown and described. 70,992.—iSOOT HEEL CUTTER.—Benj k¹. Goddard, Charlton Denot. Masa.

Storted Cap of the propose efforth. 70,994.—Ice CUTTING MACHINE.—Wm. F. Gordon, Detroit, Mich. I claim the combination and arrangement of the rauner, A. the traction wheels, B. the gear wheels, C D, pinions, E F, the ratchets, H H, the shafts, K L M N, the circular saw, O, the shaft ender, P, the silpping collar, S, the guide lever T, the seat, V, the shafts, W, the frames, X X, and 4, 4, the driv-ing wheel Y, bet Z, pulley 3, and the marking rod, and 1, a

70,995.—FURNACES FOR ROASTING ORES.—Henry Goulding

Silver City, Nevada. I claim, 1st, The roasting of ores in molds or chambers, substantially as

Silver City, Nevada. I claim, 1st, The roasting of ores in molds or chambers, substantially as described. 2d, The arrangement of molds containing ores to be roasted, so that they can be gradually brought nearer the fire or removed from it, substantially as described. 3d, Removing the molds containing ores from the fire while undergoing the process so that the decomposition may be conducted without additional heat, substantially as described. 4th, The placing of a 'really filled mold containing unroasted ore upon the top of a mold hut has been removed from the fire, for the purpose of units-ing the excess of heat, substantially as described. 5th, The earrangement of furnace, cooler, and crane, as described, for the purpose described. 6th, The conducting of the flue through water, or its equivalent, for the purpose of condensing the volatile matter, when used in connection with ores roasted in molds, substantially as described. Gray, Boston, Mass.

Gray, Boston, Mass. I claim a combined gage and mold or former forplacing and shaping paper collars, constructed and operating, substantially as described. 70,997.—DIE FOR SWAGING HAMMERS.—Henry Hammond,

Hartford, Con. Leiaim the peculiar manner of constructing hammers herein set forth, by means of diesand punches of theform described. 70,998.—DIE FOR FOMING THE CLAWS OF HAMMERS.—Henry

and described.	back, C, the spreading key, K, the lever, I, elastic plate, i, vertical screw, G,	70,998.—Die for Foming the Claws of Hammers.—Henry
70,949 — Child's Toy.—George W. Boynton, Auburn, N. Y.	and horzontal screw, H, all arranged and employed in the manner and for	Hammond, Hartford, Com.
	the purposes set forth.	I claim, 1st, The combination of the dies, a and b, and cutter, c, all con-
I claim the hollow wheel, A, loop, h, weight, g, and image, B, all combined and arranged as and for the purpose set forth.	70,976.—HARVESTER RAKE.—Wm. P. Dillman, Joliet, Ill.	structed and arranged substantially as described.
	I claim, 1st, The arrester, c, attached to the outer grain guard of the plat-	_2d, In combination with the dies, a and b, and cutter, c, I claim the cam,
70,950.—HEAD BLOCK FOR SAW MILL.—Charles H. Brook-	form, and inclined toward the inner end of said platform.	K, arranged and operating substantially as described.
bank, Connersville, Ind.	2d, A grain arrester so constructed that the revolving rake passes under its	70,999.—Concrete Brick Machine.—Mortimer S. Harsha,
I claim, 1st, The rod, E, provided with the adjustable toothed slides, n, and	outer end.	Batavia, Ill., assignor to himself and Lavias F. Dow, Cortland, N. Y.
operated by means of the lever, F, pivoted to the carriage, and connected to	3d, The arrester, c, constructed as described, in combination with the rake	I claim, 1st. The combination of the mold composed of the slides, D. C. and
said rod by means of the sliding sleeve, h, and bar, g, all arranged as de- scribed, for the purpose specified.	b, or its equivalent.	thebottom, X, the plunger, E, and the jointed lover. 1. all arranged substan-
9d The pins k and sliding sleave h regulating the stroke of the lever	70,977.—CENTER BOARD.—Felix Dominy, Penataquit, N. Y.	tially in the manner and for the purposes set forth.
2d, The pins, k k, and sliding sleeve, h, regulating the stroke of the lever F, whereby the movement of the head block is determined, as herein shown	I claim the center board, A, constructed as described, when provided at	2d, The combination of the mold constructed of the bottom, X, and the
and described.	its forward upper end with the sliding bar, E. by which it is raised or low-	slides, C and D, with the jointed arm, I, shaft, M, cord. r, and spring, L. or its
3d. The pinion, b, having formed upon its inner side the ratchet wheel, c,	ered, substantially as herein shown and described.	equivalent, arranged and operating as and for the purposes specified. 3d, The combination of the mold, siddes, D and C, spring. N, plunger, E, and
turning loosely upon the screw shaft, C. and connected to the wheel, d, by	70,978.—Rock-drilling Machine.—George Downing (as-	lever, F, arranged and operating as and for the purposes set forth.
the pawi. e, and spring, f as her in described, and operated to move the head	signor to himself and Robert Hermance), Schuylerville, N. Y.	71,000.—STRAW CUTTER.—Jas. T. Harvey, Murrysville, Pa.
block forward by the ratchet bar, E, and to withdraw said head block by	I claim, 1st, The grank wheels, I, in combination with the shaft, H. double	1,000.—SIRAW CUITER.—Jas. 1. Haivey, Muliysvine, 1a.
means of the crank, I, independent of the ratchet rod, all arranged as de-	cams, G, drill spindle, B, sliding plate, C, and upright part, D, as herein set	I claim the double edged knife, d, attached by a sash or otherwise to the
scribed, for the purpose specified. 4th, The arrangement of the pivoted lever, F, connected by the bar, g, and	forth, for the purpose specified.	inclined guide rods, i i. In combination with the metallic plates or edges, c c' and bifurcated ratchet bar, m, with adjustable arms, n n', constructed and
and the arrangement of the protect level, r, connected by the bar, g, and	2 d. The combination and arrangement of the lever, N. spring, B', arm, L.	operated substantially as and for the purposes above set forth.
slide, h to theratchetrod, E the screw rod. C, pinion, b. ratchet, c, crank wheel, d. pawl,g, spring, f, and head block, D, as herein set forth for the pur-	pawls, K and C', and ratchet wheel, J, with each other and with the drill spindle, B, with its drill point, A, sliding plate, C, and crank wheel, I, sub	71,001.—Freder for Carding Machines.—George S. Har-
pose specified.	spindle, B, with its drill point, A, sliding plate, C, and crank wheel, I, sub	11,001.—Theber For CARDING MACHINES.—George 5. Hai-
5th, Feeding the log ro the saw the required distance at one stroke of the	stantially as herein shown and described and for the purpose set forth.	wood, Woonsocket, R. I.
lever, F, through the medium of the ratchet bar, E, pinion, b, ratchet, c,	3d, The combination of the shaft, O, to other wheels, P, pawls, S and V, arm, T, and racks, R, with each other and with the sliding plate, C, and up-	I claim, 1st, In a card feeding machine such as described, the plate for car rying the traversing rolls, constructed as herein specified, that is to say,
wheel, d, and screw rod, C, as herein shown and described.	right part, D, of the frame of the machine, substantially as herein shown	countersunk, or provided with recesses, so as to form a cap or covering for
70,951.—MACHINE FOR GRINDING SAW TEETH.—Ira S. Brown	and described and for the purpose set forth.	the said rolls, substantially as and for the purposes set forth.
and Charles N. Brown (assignors to themselves and J. Mason Gross) Pro	4th, The upright part, D, of the frame, connected to the horizontal part by	2d, The guide or ring attached to the traverse plate, provided with a lip
vidence, R. I.	means of the hinges, X, and adjustable hooks, v, substantially as herein	or guard extending between and partly around the rollers, as and for the
We claim the combination of a grinding wheel, A, with an apparatus for hold	shown and described and for the purpose set forth.	purposes specified.
ing the saw-tooth, or other article to be ground, which apparatus for hold-	70.979.—AUTOMATIC VENTILATING STOVE.—Richard Eaton.	71,002.—GAS HEATING APPARATUS.—David Greene, Haskins,
ing the tooth or other article consists of the standard, E, the hinged	London, Eng.	Cambridge, Mass.
frame, II, and the vise, F. combined therewith as described, all arranged so	I claim. 1st. The combination with a ventilating stove of an automatic ap-	I claim, 1st. The combination of an air chamber, A, constructed as de-
as to effect the presentation of the article to be ground to the wheel, sub- stantially as described.	paratus for operating the direct draft register or damper, and the ventilator	scribed, with the ring, r, the perforated tube, B, and the air supplying appa-
	damper, so as to transfer the draft from the one to the other, and regulate	ratus, R S S, or its equivalent, substantially as and for the purpose described.
70,952.—FAN.—Otto Bruck, New York city.	the same, substantially as and for the purpose set forth.	2d, I claim the combination of the chamber, A, and the tube, D, provided
I claim the tubular handle, a, into which slides the tube, b, which is adapted	2d. The combination with the ventilating stove, A B D E F, of the damper	with deflectors, and a plate or button, o, with a gas or vapor burner, sub-
to receive the fao, d, in its folded state, in combination with the tube, b, head, e, fan, d, and draw strings, f and g, the whole arranged and combined	or register, C, damper, G, rod, L, lever, i, and connections, I J K, or their equivalents, arranged and operating substantially as and for the purpose de-	stantially as and for the purpose specified.
substantially as herein set forth.	cribed.	71,003.—SHANK SPRINGS FOR BOOTS AND SHOES.—Edward
70,953.—MARKER FOR PLANTING CORN.—John Burnham (as-		
	3d, The weight. M, applied and ope ating in connection with an automatic ventilating stove, substantially as and for the purpose specified.	I claim as a new article of manufacture the herein described shank spring
signor to himself and David L. Hough), La Salle, Ill.	70,980.—RUNNING GEAR FOR VEHICLES.—Solomon J. Ed-	consisting of a wood spring, A, combined with a tempered metallic spring
I claim a two wheelmarker, which is constructed so as to operate substantially in the manner herein described.	wards, New Berlin, N. Y.	B, united in the manner substantially as set forth.
	I claim in combination with cleave C and set screws d d arms BB hoxes	71,004.—METHOD OF DRYING GUNPOWDER.—E. E. Hendrick,
70,954.—HORSE SHOE.—Irvine Carman, Schoolcraft, Mich.	g and rollers e e when all are constructed and arranged as and for the	11,004.—METHOD OF DRYING GUNPOWDER.—E. E. Hellurick,
I claim, 1st, The spring, B, fitting into the walls of the shoe, substantially as	g, and rollers, e e, when all are constructed and arranged as and for the purpose set forth.	Carbondale, Pa.
shown and described. 2d, The combination of the rnbber, C, with the spring, B, substantially as	70,981.—Lock FOR TRAVELING BAGS.—Hermann Fautz (as-	
shown and described.		a removal of the atmospheric pressure for the purpose and in the manner substantially as described.
Sio w I and described.	agnor to minsen and goseph H. Fellera), Newark, N. g.	bubbianiaily as ubbilibut.

71,005.-LIGHTING GAS BY ELECTRICITY.-John M. Higgins

(W, B. Culbertson, administrator), St. Louis, Mo. I claim, ist, The switch, S. vibrated by the rotation of the wheel on the gas ock, substantially as described.

1 clain, 1st, The switch, S. vibrated by the rotation of the wheel on the gas cock, substantially as described.
2d, The combination of the wheel, D, with cams, d d, and the vibrating switch, S, as 4 escribed.
3d. The arrangement of the clock graving, the fan, K, the wheel, D, the escapement, L 11, and the notched wheel, Q, substantially as described.
4tb, The arrangement of the spring, E, and gearing, the fan, K, cam-faced wheel, D, armature, O, escapement, L, and switch, S, substantially as described.
71,006.—FiBROUS MATERIAL.—Theophilus Higginbothams/ Hernando, Fla. assignor to himself, John Parsons and Eberhard Faber, New York city.
1 claim producing from the plant known as the atthea prutex, or cockleburr, fibres fit for ropes, textle labrics, or paper, substantially asset forth.
71,007.—AIR CHAMBERS OF FUMPE.—Richard H. Hilton (assign to thitself, Alor Pumpes, C, conical valve-seat, D, and the sediment chamber, F, arrange desubstantial values described, in combination with the air chamber, A, for the purpose set forth.
71,008.—SHAFT COUPLING.—George P. Hodson and James L. Hodson, Philadelphia, Pa.
We claim the within described coupling, composed of the outer portion. A, with its internal inclued ribbs, h, and the incluse average portion, B, with its inclined ribbs, f; the two portions being adapted to each other and to the shaft, and for the purpose herelm set forth.
71,009.—WINDOW BLIND FASTENER.—Edward A, Holbrook, J

set forth. 71.009.--WINDOW BLIND FASTENER.-Edward A, Holbrook,

John E. Dodge and G. H. Marshall, Watertown, N. Y. We claim the combination, with a hinge constructed as described, of the slidiog shaft, and pinion, and locking stud, under the arrangement herein described, so that the said pinion may be locked, and its motion prevented, while it remains in gear with the crown wheel or circular rack of the said hinge.

71.010.—PANTOGRAPHIC ENGRAVER.—John Hope (assignor

71,010.—PANTOGRAPHIC ENGRAVER.—John Hope (assignor to Hope and Company, Providence, R. I.
Ielsim, Ist., Combining the carriage of the tracer, or stylus, in a pantographic engraving machine with the object table, by means of the levers. I. and O. and the stud pins, h and I. operated respectively by the levers. K and N. through the rocking standards, K' and N', substantially as described for the purposes set forth.
2d, Making the index-plate, S, adjustable with reference to the surface of the roller, to be engraved by the means substantially as described.
71,011.—AMALGAMATOR.—Alfred Horn, Silver City, Nevada.
I claim, 1st, The application of a scraper or distributor, C, to an amalgamating machine or pan, for the purpose of distributing the mercary through the pull, substantially as described.
2d, Arranging the said distributor to an amalgamating machine, so that it may be easily adjusted to the wear of shoes and dies, substantially as described.
71,012.—BOLT MACHINE —Wm W Hubbard Philadelphic

71,012.-Bolt MACHINE.-Wm. W. Hubbard, Philadelphia,

Pa. Pa. I claim, 1st, The two hammers, F and F', one having a head and anyll for forging, and the other a head and anyll for heading bolts, in combination with a kouble cranked shaft for operating the hammer, substantially in the manner set forth. 2d, The connecting rods, D and D', such composed of two parts, with inter-vening spiral springs, all constructed substantially as and for the purpose described. 3d, The combination of plate, a, having the -L-shaped slots, e, of the crank rods, with the plue, d, of the wibrating arms, E and E'. 4th, The epring levers, J and J', spindles, s and s', notched arms, v', springs, q', and the rods and chains herein described in combination with the con-necting rods, D and D', and vibrating arms, E and E', for the purpose speci-fied.

and the set of the set o

71,014.—SPRING BED BOTTOM.—Heman L. Huntington, Chicago, Ill. I Gago, Ill. I Vialum, 1st, The combination of the frames, A. B., springs, S. metallic strips, D. V. shaped springs, E., arranged as and for the purposes specified. 2d. The combination of the irranes, A. B. (springs, S. strigt, D. and straps and buckles, F. G., substantially as and for the purposes described. 71,015.—GOVERNOR FOR STEAM ENGINE.—Reuben K. Hun-toon (assignor to bimself and J. Angustas Lynch), Boston, Mass. I claim the combination and arrangement of the close oil vessel, I, and the open head or partition, H, with the case, A, the propeller, its shaft, and driving gears, arranged within the vessel and case, substantially as de-scribed.

I also claim the combination as well as the arrangement of the arm, M, its shaft, N, wheel, U, chain, V, and weight, W, or the mechanical equivalent of such wheel, chain and weight, with the propeller, its shaft, and the case or cases containing such propeller and shaft. I also claim the combination of the guide wheels, X X, or their equivalent with the weight, W, its chain, V, and supporting wheel, U, the shaft, N, arm, M, the propellor, its shaft, oil reservoir or case, and operate mechanism, sub-stantially as described. I also claim the combination of the insulator, E, with the steam-valvecase, and the governor made and applied thereto, substantially as set forth. 71,016.—VALVE FOR STEAM ENGINE.—Archibald Hutton, St.

71,016. ALVE FOR STEAM ENGINE.-Archibald Hutton, St.

Louis, Mo. I claim the valve, A, when constructed with one or two port-openings, a3, and combined with the ports, a a1, a2, and the condenser passage, B, as de-scribed and set forth. 71,017.—SASH STOP.—Charles R. Jenkins, Philadelphia, Pa.

(1)(17.—SASH STOP.—Charles R. Jenkins, I minder pink ratio and the combination with a window sash of a set of metallic or inelastic rollers, D, applied to one side, and a set of soft rubber rollers, C, applied to the other side, as and for the purpose set forth.
 (1)(18.—SASH SUPPORTER.—Charles Kane (assignor to himself and John Gribben), Alleghany City, Pa. I claim the polygonal shaped classic friction roller, C, in combination with the box, H, alors, G G, and serews, F F, arranged in the manner and for the purpose spotted.

71.019. -ESCAPEMENT FOR TIME-PIECES.-Wm. C. Kellum,

and box, it would be the border of the transformation of the detent lever, H, sortings, J and K, lock lever, n, and adjusting serew, I, substantially as and for the purpose set forth.
71,020.—SLITTING MACHINE.—John J. Kents, Newtown, Pa. I claim the combination of a series of knives or cutters with a segmental hinged press frame, cowared with leadher, a bearing plate, stationery and movale wides, distance pleces and screw, when combined and arranged in the manner and for the purpose described and set forth.
71,020.—CAR W HEEL.—Chas. E. Kleinschmidt, Cleveland, O. I claim the plates, B B, having flanges, c 29, on their outer and inner earlies and sorter, when combined and arranged in the manner described and set forth.
71,022.—TOILET TABLE.—F. Kleinschmidt, Cleveland, O. I claim the plates, B B, having flanges, c c 29, on their outer and inner earlies and combined in the rings, E K?, and the bolts, fr, all constructed, arranged and combined in the manner described and for the purpose stoft.
71,022.—TOILET TABLE.—F. KOpper, New York city. I olaim the combination of the hinged parts, B, bars, D, binged legs C, spring catch, E, and adjustable towel frame, F, constructed and and anglets to befolded together, as herein set forth for the purpose segcified.
71,023.—GRAIN BINDER.—Israel Lancaster, Baltimore, Md. I claim, 1st, The combined action of the band carrier, 50, and wing, C, substantially as described, and for the purpose mentioned.
24, The application to the band carrier, 50, to the chain, 0, constructed and operated and set for the purpose mentioned.
24, The application to the band carrier, 50, to the chain, 0, constructed and operated and state the data of the purpose mentioned.
24, The application to the band carrier, 50, to the chain, 0, constructed and operated by structured at a short distance from each other, between which bars the knot is formed, substantially as described.
36, The method of bolding the two ends of

71,029.—CHURN.—Romualdus Mahr, New York city.
I claim the arrangement of the driving wheel, H, bulleys, L and M, belt, g, double crank shaft, K, connecting rods, If, and sleeve rods, E E, for working the reciprocating dasbers, the whole constructed and operating substan, tially as described and specified.
71,030.—FirkE ESCAPE.—John Marx, Rochester, N. Y.
I claim the arrangement with the flexible tube, A, of the cord, a, sharppointed hooks, c, and the flap, B, operating in the manner and for the purpose herein set forth.
71,031.—WINDOW BLIND FASTENING.—Benson Mayo, Chatham.

71,031.—WINDOW BLIND FASTENING.—BENSON Mayo, Onatham, Mass.
I claim the combination of the spur, a, the latch springs, b b, the guard, e, the bracket rest, d, and the window blind, A, arranged and operating substantially as and for the purpose herein described.
71,032.—CONSTRUCTION OF SHEET METAL, COAL HODS.—John McCoy (assignor to himself and Wm. T. Snell), Philadelphia, Pa. I claim manufacturing sheetmetal coal hods, by making the toot, C D, and the upper part, A, of the body, of galvanized or zinced sheet iron, substantially as and for the purpose described.
71,033.—HOOP SKIRT.—John McKeever, New York city.
I claim a woven skirt, a portion of which is made of single close texture, and a portion of open guaze net work, the pockets being made of double close texture, and a portion CLOTH AND CARPETING.—John B. Meldrum,

Close texture, as a new article of manufacture.
71,034.—FLOOR CLOTH AND CARPETING.—John B. Meldrum, Paterson, N. J.
I claim a jute floor cloth, or carpet printed with aniline colors, substan-tially as and for the purpose described.
71,035.—HAND LOOM.—A. Meredith and P. P. Meredith, Meritarbase Law.

Maxintuckee, Ind. We claim the cam viate, I, in combination with the three-pronged dog, b, the levers, h, the springs, m, and the shuttle-drivers, IL I, constructed, ar ranged and operating substantially in the manner and for the purpose herein shown and described.

71,036.—APPARATUS FOR DYEING HAIR.—Charles Merritt,

(1),030.—APPARATUS FOR DYEING HAIR.—CHARICS METTIL, South Weymouth, Mass.
 I claim as my invention the apparatus substantially as described, that is, as composed of the jointed on rved levers, and the cone, sponge, and jaw, ar-ranged together substantially as set torth,
 (1),037.—BRUSH HOLDER.—John Messinger, Springfield, Vt. I claim, ist, The socket, C, in which the handle, D, is fitted, when secured to the clamp of a serub brank, as shown, or in an equivalent way, to admit of the socket or handle being adjusted in different positions relatively with the brank as herein set forth.

2d, The combination of the clamp, A, and sucket, C, constructed substantially inche manner as and for the purpose specified. 71,038.—ELASTIC GUSSETS FOR WEARING APPAREL.—James

Miller and James Miller, Jr., Peckham, Eng. We claim elastic guasets or springs, formed by stitching through two fab-rics several rows in parallel lines, and inserting between the same India rub-ber thread or cord, inon e continuouslength, substantially as berein described and for the purposes specified. and for the purposes specified. 71,039.—KNITTING MACHINE NEEDLE.—Job Miller, Warren,

R.I. I claim a knitting machine needle, constructed of sheet metal, and formed as described, in combination with a stitch caster, constructed as described, to fit said needle, as and for the purpose set forth. 71,040.—DRAIN TILE MACHINE.—James W. Milroy, Galves-

ton, I.d. I claim the construction of a machine for molding tiles for drains by means of a table and treadles, dd, operating the roller, C, through slides, b b, work-ing in grooved standards, a s, and the combination of the mold, E, with the roller in a machine as thus constructed, substantially in the manner and for the purpose as herein set forth.

91,041.—SPRING BUCKLE.—J. Ferguson Morsell, Stamford,

Conn. I claim, 1st, The combination of the bed plate, A, and spring, C, carrying a I claim, 1st, The combination of a loop, E, with the bed plate, A, and spring, C D substantially as and for the purpose herein specified. 71,042.—MACHINE FOR MAKING BALL-CHAIN.—D. T. Mun-

71,042.—MACHINE FOR MAKING BALL-CHAIN.—D. T. Munger, Waterbury, Com.
Iclain, lat, The die E, combined with the dies, F F, so as to operate to elose the bail upon the rivets, substantially as herein set fortb.
2d, The arrangement of the plate, I, in combination with the dies, E and F F, as and for the purpose specified.
71,043.—HOISTING MACHINE.—Wm. Murray, Chicago, III. Iclaim, lat, The combination of the shaft, I, the disk, K, and har. J, in a hoisting machine, when arranged and operating substantially as add for the purpose storet.
2d, The combination of the platform, A, provided with the blocks, M, and frame, B, when constructed and operatedsubstantially as described.
3d, In combination with the above, the places, N, for the purpose of keeping the platform horizontal, substantially as specified.
4th, I claim in combination with the platform. A, and racks, Q, the plates, O, rods, R, and levers, S, when arrangent and operating substantially as and for the purposes herein set fortb and described.
71,044.—CUMBINED PUMP AND RESERVOIR.—Enoch Nickerson, Provincetown, Mass.

Son, Province town, Mass. I carr AND INESERVOIR.—Enoch NICKEr-son, Provincetown, Mass. I claim a tank or reservoir, A, made air tight at its sides and too, and pro-vided with a perforated bottom, in combination with a pnmp, D, as and for the purpose specified.

the purpose specified. 71,045.—FOLDI G CHAIR.—J. Nicolai, Boston, Mass. I claim the combination of the legs, A and B, pivoted at H, the handles, D, and C', the seat hinged at the rear end, and supported in front upon the rung, M, substantially as described and for the purpose set forth.

71,046.—LEVER FOR RAILROAD CARS.—Jay Noble, Rochester,

N.Y. I claim the lever, 1. jack 2, and fulcra, 3 and 4, constructed and arranged as and for the purposes mentioned and set forth. 71,047.—SHOW STAND.—John G. Oonk, Owensville, Ohio. I claim a show stand constructed substantially as and for the purpose de-

71.048.—MACHINE FOR CUTTING PASTEBOARD, ETC.—Samuel

71,048.—MACHINE FOR UUTTING PASTEBOARD, ETC.—Samuel Orth, Philadelphia, Pa,
I claim the shafts, D and E, with their adjustable disks, m and n, in combi-nation with the shafts, F, and its adjustable disks, q, and the roller, D, the whole being constructed and arranged for the simultaneous cutting and scoring of straw and other boards substantially as set forth.
71,049.—STAIRS.—Wm. W. Page, Troy, N. Y.
I claim the combination of two or more parallel flights or sections in one staircase, or ascent of steeps, assigning a separateflight to each foot, substant 'tally in the manner and for the purposes set forth.
71,050.—APPARATUS FOR RAISING FLUIDS.—James Parker, Camberwell, Great Britain, assignor to W. W. Wood and R. H. Lam-⁸⁶⁰.

een. I claim the combination of the steam pipe, A, and its perforations, and the pipe, B, and its nozzles, b, with the tanks, C, their valves, D, or their equiva-lents, and pipe, E, for the purpose specified. 71,051.—LABEL HOLDER FOR RAILROAD CAR.—John H. Par-

I Jouds -- CHANGT LOW. -- HOFACE L. FEITY, AUTORS, N. 1. I Celaim, het, In a gang plow having a main frame, A, and a plow frame, C, substantially as herein described, hinging the main frame, A, at one side up on the axie, so that it may be levelled in the manner and for the purpose set

20, The rib or flange, O, formed upon the supporting wheels, substantially as and for purpose set forth. 71,004.—BRAKE FOR VEHICLES.—Cyrus Phelon, West Gran-

ville. Ma

2d, The said combined horse block and hitching post, in combination with the hand r ill, C, substantially as described. 3d, The said combined horse block and hitching post, in combination with the scraper, E, substantially as described. 71,060, — BELLOWS.— C. W. English, Cincinnati, Ohio. I claim a bellows having a pipe with a tapering or flaring butt, B1 and shoulder or collar, B2, applied and operating in the manner and for the pur-pose set forth.

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pose set forth. 71,0%1.--CHILDREN'S CARRIAGE.--HoraceH. Prindle and John W. Prindle, Sandusky, Ohio. We claim, 1st, Attaching the body of the carriage to the running gear by means of joints, one of which is adjustable, and so applied that the carriage can be converted into a cradle, substantially as described. 2d. The combination of the spring, f, or its equivalent, with an adjustable font. a, and front joint, i, substantially as and for the purposes described. 71,0%2.-SHAPING DIES OF GROOVED ROLLS.-Abraham Reese, Pittaburgh Pa

Pittsburgh, Pa. I claim the die, formed by the face of the roll, a, the collar, i, and the spring collar, d, substantially as and for the purposes hereinbefore described. 71,063.—RAII.WAY CHAIR AND SLEEPER.—Leonard Repsher,

(1)005.—RAILIWAL CHART INC. _____ Camben, N. J. I claim, Jist, The combined sleeper and chair, consisting of the coupling bar, B. and clamps, D. the whole being constructed and arranged substan-tally as and for the purpose herein set forth. 2d, The recesses, i, in the coupling bar, is, for the purpose set forth. 71,064.—NAIL-PLATE HOLDER.—J. C. Rhodes, South Abing-ton Mass.

71,003.—INALFFLATE HOLDBA.—O. C. LEMOND, 2010, 100, Mass. I claim for employment, in a nail or tack machine, the combination of plate hold er and noge plece, when constructed and arranged to operate substantially as described.
71,065.—CHURN DASHER.—R. W. Robinson, Clinton, Ill.

I claim a churn dasher having floats, with the planes of their blades set ba rallel with the axis of the spindle. A, and obliquely to the planes of a ra-line passing through their axes and through the axis of the spindle, substan-ially as and for the purpose set forth. dins passing through tially as and for the p

1. A second s

I clab fatening or securing the overlapping ends of the strips of thene work of chair bottoms passed over and under the frame, by means of staples, as above set forth and described. 71,068.—BRANDING IRON.—Chas. Rundquist, Mankato, Minn. I claim, 1st, The combination of the types having tapering shanks, I, and plates, H, the pins, J, side bars, E, end pleces, F, set screw, M, blocks, L, arms, C, and handle, B, all constructed as described, for the purpose speci-fied.

fied. 2d, The types, constructed as described, provided with the back plates, H, and tapering shanks, I, secured in the holder by means of the transvers pins, J, and blocks, L, the latter secured in position between the types by means of the central curved arms, C, as herein shown and described. 71,069,—FRUIT SEEDER.—S. A. RUSSell, Huntington, Conn.

71,069.—FRUIT SEEDER.—S. A. Russell, Huntington, Conn.
Iclaim the arrangement of a cutter, E, having its edge formed in the manner substantially as described, with the follower, a, and combined with the seat, D, so as to operate in the manner set forth.
71,070.—CORN PLANTER.—J. M. Sampson, Waynesville, Ill.
I claim the plungers, E, fitted in openings, c, in the posts or standards, D, and provided with endpers, E, fitted in combination with the openings, c, in the posts or standards, D, and provided with endpers, E, fitted in combination with the openings, c, in the posts or standards, D, and provided with endpers, E, and the elastic plates, i, all arranged to operate in connection with the hoppers, K, and coverers 0, substantially in the manner as and for the purpose set forth.
71.071.—PRESS.—Ulrich Schegg, Nauvoo, Ill.
I claim, 1st, The combination and arrangement of the levers, F, the ratchets, E', and the weights, w, substantially in the manner and for the purpose set forth.
3d, The combination of the roller, E, the ratchets, E', and the tackle, H h, substantially in the manner of the follower, D, the cords, I, and the roller, I', substantially in the scheribed and set forth.
71,072.—ALLOY TO IMITATE SILVER.—Achille Schmitte and

3d, The combination and arrangement of the follower, D, the cords, I, and the roller, I, substantially as described and set forth. 71,072.—ALLOY TO IMITATE SILVER.—Achille Schmitte and Hilaire André Levallois, Paris, France. We claim, 1st, The new alloy, so called mock silver (minargent), somposed of different metals, as described. 2d, Introducing in our so-called mock silver unalloyed tungsten, unalloyed aluminum, and a considerable proportion of nickel, the anti-affinity of which for aluminam is well known, and which we have made alloyable. 3d, And we claim not only the abovementioned typic proportions, but also any proportions which will answer the purposes. 71,073.—BURGLAR ALARM.—D. B. Skelly, Lockport N. Y. Iclaim, 1st, The combination of the bell spring, C, the plate, E, the hook, r, and the pln, a, the springs. G and H, thehook, F, and the trigger, J, arrang-ed and operating substantially as chown and described for the purposes set torth. 3d, The combination of the stud, O, the arm, P, the hook, P', and the ham-mer, N, arranged substantially as described tor the purposes of 1.2. 3d, The combination of the spring, G and H, and plate, E, substantially as and for the purpose set forth. 4th, The combination of the spring, G and H, and the trigger, J, as and for 'the purposes described.

4th, The combination of the spirites, o and, and the states, but the purposes described. 71,074 — MACHINE FOR CUTTING PAPER COLLARS.—David M.

71,074 — MACHINE FOR CUTTING FAPER COLLARS. — David M. Smyth, Orange.N. J., assignorto O. P. Dorman, New York city. I claim the combination of the two pairs of hinsed shears for shaping the ends of paper collars, with the pair of shears for cniting off the collars from a strip or sheet of paper, and the feeding mechanism, or the equivalent there-of, substantially as described. And I also claim the toothed wheel with its holding pawl, and connected with the sliding reciprocating frame by a spring arm, or equivalent, in com-bination with the holding clamp, substantially as and for the purpose de-scribed.

71,075.-BULLET MACHINE.-W. Spillman, Marion Station,

Miss. I claim, ist, The combination and arrangement of the forming roller, C, the stationary die, D, and the eccentric, F, constructed and operating substan-tially as and for the purpose herein described. 2d, The shear knife, b, operated by the eccentric, F, combined with the catch, d, operated by the tappet, e, and the spring, g, as and for the purpose specified.

3d, The forming roller, C, combined with the rollers, G G', the bent lever, H, the cam, I, and the spring, a, constructed and operating substantially as and for the purpose set forth.

71,076.—Adjustable Die for Cutting Paper Collars and other articles.-Charles Spofford (assignor to himself and Sam'l T. Lamb) Boston, Mass. I claim the within-described adjustable die, constructed substantially as

1 claim the within-described adjustable die, constructed substantially as and for the purposesset forth. 71,077.—DAMPER.—J. F. Stafford, North Granville, N. Y. I claim the damper, B, suspended upon a pivot, a, and weighted at E so as to assume a vertical position by gravity, and employed in connection with the elevating and sustaining apparatus, D F G H I J, as and for the purpose set forth

set forth. 71,078.—ATTACHING THILLS TO CARRIAGES.—Wm. Starkey, Bridgeport, assignor to himself and E. L. Reeves, Paulshoro, N. J. Iclaim the block, B, with its projections, d., their openings, e.e., and re-cess, c. in combination with the bar, A, and its pins, b, the whole being con-structed, arranged, and operating as described. 71,079.—SHENNKING AND PUNCHING MACHINE.—C. V. Statler, Woodbull III.

71,079.— SHRINKING AND I CARDING AND I CARDI

purposes set forth. 2d, In combination with the upsetting device set forth in the preceding claim, Iclaim the arrangement, as described, of the punch and punch block,

71,080.—DROP PRESS.—Norman C. Stiles, Meriden, Conn.,

band, by means of pinching bars placed at a short distance from each other,	ville. Mass.	71,080.—DROP PRESS.—Norman C. Stiles, Meriden, Conn.,
between which bars the knot is formed, substantially as described.	I claim a brake for vehicles in which the brake bar, B. having the shoes, H.	and John S. Miller, Springfield. Mass., assignors to Norman C. Stiles.
4th, The plate 16, and the pinching bar mechanism operated by it, con-	arranged behind the wheels upon the body of the vehicle, is connected with	We claim, 1st, The endless belt, D, of leather, or analogous material of uni- form character, in combination with the bammer, E, and ith the weige, G,
structed and operating substantially as described and for the purpose men-	the lower end of a lever, A, pivoted through the pole, the other end ot said	or its equivalent, for directly connecting and disconnecting the hammer, the
tioned. 5th, The adjusting lever, B, and slotted plate, w, acting in combination,	lever being operated by the holding back of the animals, the whole being ar-	whole being combined and arranged substantially as and for the purposes
constructed entetentially as described, and for the nurnose mentioned.	ranged substantially as shown.	herein set forth.
6th. The removing of friction from the spools, E. during the rapid move-	71,055.—QUARTZ MILL.—Loring Pickering and Chauncey St.	2d, The tripper, I', and suspending stop, J, mounted together on the mov-
ments of the lever, B, substantially as described, and to prevent breakage of	John, New York city.	able block, I, so that both the tripper and the stop may be adjusted at the va-
the hand materia.	We claim, 1st, In a quartz mill the pan, A, having an annular trough, the	rious hights required by a single operation, substantially as and for the pur-
7th. The operation of the bar, 20, by cam segments on the shaft, 22, in the	mullers, B, propelled by arms, C, having fans, S, and agitators, F, construct-	pose herein specified
manner and for the purpose substantially as described.	ed and operating substantially as described.	3d, The provision for dropping the hammer at will at any desired lower
8th, The construction and operation of the knife,? 7". in the manner and		pointthan the tripper, 1', the same consisting of the piece, L, standing al-
for the purpose substantially as described.	used in combination with the parts of the above-described quartz mill, sub-	ways parallel with the motion of the hammer, and moved against the wedge,
9th, Preventing slack in the sheaf band on releasing the sheaf, by forming	stantially in the manner and for the purpose specified.	G, or its equivalent, at the desired moment, irrespective of the elevation of the hammer at that moment, substantially as and for the purpose herein set
the pinching bars, in the manner substantially as described.	71,056.—Rock-Drilling Machine.—Walter Pierce, Onion	forth.
71,024.—TASSEL FASTENING.—Charles P. Lang, Chicopee,	Valley, Cal.	4th, The weighted stem, R, or its equivalent, operating as specified, in com-
	I claim.1st, The adjustable ways, C, having the drill, D, and the slotted	bination with the wedge, G, or equivalent device, operated by the said stem,
Mass. I claim, 1st, The cam fastening, a, when constructed as described, and for	hammer, F, moving upon them, substantially as and for the purpose de-	and with the hammer. E, and belt, D, causing the hammer to be firmly con-
the parpose specified.	scribed. 2d, The levers, J I and G, operating upon each other and upon the hammer,	nected to the belt by the act of striking on the object below, so that when the
Ed, The cam, a, in combination with the core-block, e, and cord, b, sub-	F, substantially as and for the purpose described.	object struck is high, the belt will be seized at a corresponding level, and as
stantially as and for the purpose specified.	3d. In connection, as an improved drilling machine, the levers, J I and G.	the object is hammered down or turned over, so as to cover the upper sur-
71,025.—SLEIGH KNEE.—Gunder Larson, Lake Mills, Wis.	the hammer, F, operating upon the drill, D, together with the adjustable	face, the belt will be seized at a corresponding lower level, all substantially as and for the purpose herein set forth.
I claim a cast iron sled kn ee, having separate supports, in one casting, as	ways, C C, the whole constructed substantially as and for the purposes here-	5tb, The adjustable front piece, A3, in combination with the guides, A1 A2,
shown and described, and for the purpose specified.	in described.	having grooves of the form specified, and with the holding means, A4, and
71,026 — Hose GUARD. — David P. Lewis, Huntsville, Ala.	71,057.—Roller Wheel for Plows.—Leman B. Pitcher,	adjusting means, A5, all arranged for joint operation, in connection with the
I claim a guard for hose or tubing, made substantially as described, for the	Salina, N. Y.	hammer, E, or its equivalent, substantially as and for the purposes herein
purpose specified.	I claim, 1st. The segment frames, B B, and the cups, C C, when applied to a	specified.
71,027.—PAINTERS' WINDOW-JACK.—S. P. Loomis, Philadel-	roller wheel for plows and cultivators, each separately and in combination	71,081.—DOOR AND GRATE SPRING.—Enos Stimson, Mont-
11,027.—PAINTERS WINDOW-JACK.—S. 1. Doomis, 1 mader	with each other, substantially as and for the purposes described.	pelier, Vt.
phia, Pa. I claim the improved window jack, constructed and arranged substantially	2d, 1 also claim the same parts, in combination with the roller wheel, A,	I claim, 1st, The springs, D, and rock shaft, C, in combination with the slot-
as and for the purpose herein shown and described.	operated upon the shafts, a a, substantially as and for the purposes described.	ted main castings, B, substantially as described, in combination with the
71,028.—APPARATUS FOR CHARGING SODA WATER.—John	71.058.—Apparatus for Printing Tin Foil.—John Polhe-	clasps, F, in manner and for the purposes substantially as herein shown and
	mus, Jersev City, N. J., and Christian H. Lilienthal (assignors to C. H. Li-	described. 2d, The loose pulleys, E, in combination with the springs, D, and rock shaft
D. Lynde, Philadelphia, Pa.	lienthal), Yonkers, N. Y.	C. substantially as herein shown and described.
I claim, let, Constructing the acid-chamber, K, in such form that when combined with the body of the generator, and charged for use, and tilted	We claim, 1st, In combination with a continuous sheet of tin foil and shell,	3d, The stop, g, in combination with the main castings, B, and rock shafts,
back, the acid in the chamber will recede or flow back irom the valve, sub-	J, the intermittent shear cutter, P, or equivalent therefor, operating as here	C, substantially as herein set forth and described.
stantially as set forth.	inbefore set forth, and for the purposes described.	71,082.—MODE OF CHURNING BUTTER.—Jacob Strobeck,
2d, Supplying strainers to the inside of acid chambers or gas generators for	2d, We also claim, in a printing press for printing on a continuous sheet of tin foll, the combination of the intermittent shear cutter with the series of	Parishville. N. Y.
the purpose described.	rollers, U, and bands, T, for the purposes hereinbefore set forth.	I claim the construction and application of the scraper, H, the arrangement
3d. The application of enamel or porcelain lining to the alkali chamber or	Toners, O, and bands, 1, for the purposes accemberore sectoren.	of the breakers, 1 iii, with the means of adjustment and form of the dasher
body of gas generators.	71,059.—Horse Block and Hitching Post.—Geo. W. Pres-	blades and mode of attachment to the shaft, F, in combination, as shown and
4th, Theapplication of the rockers, F2, to gas generators, as described. 5th, Tilting gas generator for the purpose set forth.	ton Company N V	described.
6th, Providing gas generators, or fountains, constructed of cast iron, with	I claim, 1st, The combined horse block and hitching post, substantially as	71,083.—GATE SPRING.—W. W. Sutliff, Town Line, Pa.
be braces, 0 0, to strengthen the flange, substantially as described,	above set forth and described.	I claim the flatcurvedspring, a, hinged to the gate, A. and secured at one

end in the motched block, b, arranged and operating as and for the purpose specified. 71,084.-WRITING APPARATUS FOR THE BLIND.-John Syn-

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not, San Francisco, Cal. I claim, ist, The table: with pins, b b, and the hinged frame. B, with notch-cs or slots, a s, substantially as described for the purposess forth. 2d, The bars, E F, and the measuring block, H, with the pin, I, together with the following block, G, with its projections, c, and lug, d, substantially as and for the purposes described.

71,085.-BRONZING MACHINE.-J. F. Tapley, Springfield,

71,083.—BRONZING MACHINE.—s. r. rappey, oprimitions, Mass. I claim, ist, In combination with a drum for carrying the paper, one or more reciprocating pack or braness for spreading the bronze or color. 2d. Arranging a revolving brash within the feed box for the purpose of feeding the bronze on the sheet through openings in the bottom of the box. 3d, The feed box, C, with revolving brash, having the roll, G, operated by the cam, E, noon the cylinder or drum, A, arranged as described. 5th, The gate, K, operated by the cam, B, upon the drum, A, as and for the purpose described. 5th, The springs, o, in combination with the reciprocating pads, a a, etc., as and for the purpose described.

71.086.-MACHINE FOR DIGGING POST HOLES.-J. Thompson

71,086.—MACHINE FOR DIGGING FOST HOLES.—J. Thompson and B. B. Herrick, Edgewood, Ill. We claim, ist, The shovel, U, hung to roller, V, by means of levers, W, and operated by means of lever, Z, rod, X, and crank, y, for the purpose of catch-ing the dirt drawn on tby auger, E, substantially as herein specified 2d, The combination of the standards, B, having a slot, L, with sash. C, shovel, U, and auger, E, arranged and operating as herein described. 3d, The combination of the capstan, N, pawi, T, sash, C, standards, B. shovel E, levers, W Z, rod, X, and crank, y, substantially as and for the purpose setforth.

71,087.-HAND LOOM.-T. Henry Tibbles (assignor to himself

(1,087.— HAND LOOM.— 1. HERRY THORES (Assignor to Infinsen and F. L. McHenry), Kanasa City, Mo. I claim, 1st, The single apright picker staff, a, the sliding weight, g, and the straps, b and h. in combination with the lay, C, the breast beam, D, and the drivers, d d, constructed, arranged, and operating substantially as and for the purpose described. 2d, The cam rollers, k k, operated by the bent lever, q, as described, in com-lared on with the heddles B, and the lay, C, operating as and for the purpose berein specified.

herein specified. 71,088.—STUMP EXTRACTOR.—John Turner, Grand Haven,

(1)083.—DTOMF EXTRACTOR: Comparison of the frame, A, with the working beam, B, the levers, CC, hunc upon the bearings, D D, the braces, E E, the links, F F, the double rack, G, the chains or roves, H H, the blocks, I I, and the hook, K, all arranged substantially as described, for the purpose designed.
(7),089.—CONFECTIONERY.—F. Walter, St. Louis, MO. Iclaim the egg, A, when combined and arranged with the ornaments, B B', and the tagnifying glass, b, as described and set forth.
(7),090.—WASHING ACHINE.—Horace Warner, Lake City, Minn

Minn.

Minn. I claim the hanger driving-shaft, K, with arms, L, attached, the quadran-gular sliding framework, E, with the spring catches, H, and pressure spring, S, the improved mainer of constructing ribs, c, and rollers, m, by cutting transverse notches upon their elevations, and the combination and arrange-ment of the whole for the uses and purposes herein specified. 71,091. — MACHINE FOR CUTTING AND FORMING WIRE.—J.

Wasson, Elyria, Ohio. I claim a machine for forming and cutting wire for tinners' and other pur-poses, constructed mainly of the guide marked, B, the rollers, B, the gearlog, D, the shaft, D, the kmie, C, and the stand, G, or their equivalents, arranged substantially as described. 71,092.—FASTENING FOR CORSETS.—A. W. Webster, Ansonia,

Con. I claim a corset-fastening, composed of the wire, A. attached to the busk by its own ends, substantially as described and for the purpose set forth, 71,093.—THRASHING MACHINE.—Stanton D. Warner, Rich-mond, II., assignor to himself, Jonathan S. Roberson, John Black, and E.

mond, Ill, assignor to himself, Jonathan S. Roberson, John Black, and E. B. Brewster. I claim ist, The adjustable plates, A A, of straight or curved shape, con-structed as described, provided on their inner sides with graduated teeth of the described shape, and operated in a reciprocuting or viorating man ner by means as described, or other equivalent means, substantially as herein set forth.

forth. 2d, The endless apron cylinder, G, provided with flat triangular prongs, L, L, for the purpose described, and operating in combination with the adjusta-ble vibrating plates, A A, as a section of and specified. 8d. The notched flexible bars or rods, H H, attached to the rear end of and combined with the vibrating plates, A A, arranged and operating substanti-ally as herein set forth. 4th, The wire bg sleve, N, or sleves, constructed and operating as de-scribed, in combination with the vibrating plates, A A.

stn. The wire log steve, N. or sieves, constructed and operating as described, in combination with the vibrating plates, A.
 71,094.—Fountain BRUSH.—Joseph B. Warren, South Danvers, assignor to Geo. B. Melcher, Salem, Mass.
 I claim my improved foundain brash, having not only a duplex padded valve, as described, but two perforated bearing plates or seats thereto, and the valve, or a projection from it to turn on a center between such seats, and extend through an opening or slot in the side of the case substantially in manner and so as to operate as specified.
 Also the brush formatin, as made m⁻⁻ only with a socket to receive the brush in manner as described, but with the two valve seats, and a valve arranged between and so as to operate with them in manner substantially as explained.

71,095.—RUBBER SHOES.—J. Weidenman, Hartford, Conn.

explained.
71,095. — RUBBER SHOES. — J. Weidenman, Hartford, Conn.
I claim ist, The bar, A, having a strap, a', formed upon its lower end, and attached at its upper end to the rear part of the rubber shoe, substantially as herein shown and described, and for the purpose set forth.
2d, The combination of the curved arms, B, with the bar, A, substantially as herein shown and described and for the purpose set forth.
71,096. — BROADCAST SEEDING MACHINE. — Augustus Weitman, West Union, Iowa.
1 claim ist, Providing the harrows, L M M, any or all of them, with cleaning bars, k N, arrayged or applied in the manner substantially as and for the purpose set forth.
2d, The combination of the seed-box, D, with its perforated bottom and silde E, adjustable bar, K, discharze board, J, and roller, C. all arranged substantially in the manner as and for the purpose set torth.
3d, The reciprocating k noticed rope, I, or its equivalent, operated by the frame, G, from the roller, C, in combination with the adjustable bar K, and the divalent of purpose set forth.
71,097. — HARVESTER. — Peleg Werni, Chicago, III.
1 claim the combination and arrangement of an endicas revolving sickle, L, shaves, J K, gear wheels, G H, shafts, F B, wheels, C E, and then and purpose set forth.
71,098. — HARVESTER RAKE. — Peleg Werni, Chicago, III.

pose set forth. 71,098.—HARVESTER RAKE.—Peleg Werni, Chicago, Ill.

I claim 1st, The plate or disk, A, in combination with the bars, B and C, and te arm, H, of the rake, when constructed and operating substantially as and it the purposed described

the arm, H, of the rake, when constructed and operating substantially as and for the purposes dearchied. 2d, in combination with the arm, H, of the rake, the supporting arm, M, pivoted at h, about which point it has a vertical movement, carrying the rake in both the effective and non-effective stroke, substantially as and for the purpose set forth. 3d, The combination of the said rake arm, H, and swinging supporting arm M, pivoted as atoreadd, with the rollers, I J, and their connection, K, ar-ranged in the manner set forth, and operating as described. 4th, The combination of the revolving plate, A, provided with projections, a b, the arms, B C, the rake arm, H, provided with adouble; joint, as described and the movable supporting arm, M, arranged and operating as and for the purposes specified. 71.099.—CORIEUGATED IRON REVOLVING COAL SCREEN.—E.

phrpuses spec 71,099.—C CORREGATED IRON REVOLVING COAL SCREEN.-E.

W. Weston, Providence, Pa. I claim constructing a revolving iron coal screen with corrugated sides besantially in the manner and for the purpose herein described. 71,100.— MACHINE FOR BENDING TIRES.— Dennis Wetzel

11,100.— MACHINE FOR DENDING TIRES.— Definits Wetzet, Springfeld, Mo. I claim ist, The double rimmed wheel, B, and double rimmed, roller, E, lisposed in frame, A, substantially as above set forth and described. 2d, The wheel, B, and roller, E, in combination with the spirng, F, arranged and operating as and for the purposes substantially as above set forth and described.

Emerson, Hartford, Conn. I claim a holder for lamp and gas shades formed with the ring, a, wires, b , and spring ends e, over which the ring, f, of the shade, g, is passed and icld, as set forth. 71,102.—CAR-BRAKE AND STARTER.—John Wiley, 2d, South 71,102.—CAR-BRAKE AND STARTER.—John Wiley, 2d, South Reading, Mass.
Ichain ist, The combination and arrangement of the toothed bar, S, arms, gl g2 of the brake bar. G, toothed firltion wheel, F, lever, O, connectingrods N, yokes, L, roller, M, frame, E, axie, D, and shaft, I substantially as described for the purpose specified.
2d, The combination and arrangement of the treadle pin, V, treadle lever, U, sprin, X, roller, W, arms, gl, of brakebar, G, toothed bar, S, and Rame, S, and S, The combination of the draft bar, J, connecting strap, K, spring, H, brake bar and rateets, G, with each other and with the frame, E, of the car substantially as here in shown and described and for the purpose set of the. CARRIAGE TOP.-Sidney Emmones and Elnathan 8. Simpson, Geneva, N. Y. We claim one or more auxiliary bows hinged to the main bows, and ar-anged to operate substantially as described for the purpose set forth. And in combination with the auxiliary bows we claim the T-plates to which bey are hinged. 71,152.—Adjustable Cultivator.—John W. Ernst, Heidelberg, Pa. I ciaim the diamond-shaped cultivator jointed and adjusted as herein de-scribed when combined with the teeth, shovels and regulating clevis, for the purposes set forth. 71,103.-PRINTING APPARATUS.-J. M. Wilbur, Cleveland, 71,131.—SEWING MACHINE.—Caleb Cadwell, Waukegan, Ill. purposes set forth. 71,153.—PROPELLER.—William Fields, Wilmington, Del. Iclaim a propeller for vessels consisting of a wheel, F, having from three-fourths to seven-eighths of its circumference bucketed and the balance solid or box ed set in a casing of sheet from covered by a wheel house in combina-tion with a weighted driving wheel, D, working upon a crank saile, C, con-nected with propeller shafts, E, by means of the links or arms, D D, con-structed and arranged as above described and shown by the drawings. Ohio. I claim ist, The governor-device, k, constructed in the manner described to operate as an dior the purpose set forth. 2d, The cylindrical ink holder, F, constructed in the manner described, to operate in the manner shown, as and for the purpose set forth. 3d, The driving mechanism, when regulated by the governor-derice, k, constructed as described, and combined with a printing machine, substanti-ally as and for the purposeset for h. 4th, The cylindrical removable stereotype, D, provided with the changea-ble dating type, X, and permanent inscription, W, when used in combination with the automatic printing machine described, as and forthe purpose set forth. I claim, let, The combination of the shaft, J, crank, W, and crooked con-necting rod, R, the cam or projection, c, arms, as a7, and rod, a8, and the link, K, rod, M, and annular lever, said parts being arran ed arbstantially sade-crihed and employed to operate the needle slide, thread tightener, and shuttle. we explained. K. roof, M. and annular lever, said parts being arrand d substantially asde-crited and employed to oper ste the needle slide, thread tightener, and shuttle, se explained. 2d, The combination of he needle bar, T. collar, a, connecting rod, U, and arm, V, for operating the feeding foot, Hi, substantially as described. 3d, The feeding stachment composed of the bent forked lever, V, the per-pendicular bar, B. operated by the short lever, S', and the spring, S'', the pivoted bar, O'', bearing the feeding foot, HI, the gage screw, Z', and the spring, X', all arrang ed and combined in their operation substantially as and for the purpose described. 4th, The ring, G', supported in the outer ring, D', in which its position is regulated by the clamping key, g'', the thumb piece, g''', and the spring, e'', having the arm, H2, to support the upper ring, G'', and the done arm, H3 H4, to guide the feed foot, Hi, and hearing the feeding attachment. all con-structed and arranged aubstantially as and for the purpose specified. 5th, A thread-tightener device consisting of the parts, sc ar 35 c c3 and X', stratege and operatial substantially as described. 5th, A shuttle constructed as harein d setting an internal ign-start sc and operating substantially as duscribed. 71.154.-POCKET BOOK CLASP.-D. E. Fisk, Springfield, Mass. I claim a wallet clasp consisting of the tongue, A, attached to the on taide of the wallet and the eye, F, attached to the flap of the same, the parts being arranged to operate substantially as shown. forth. 71,104.—Stereotype Casting.—J. M. Wilbur, Cleveland, 71,155.—GROUT CONDUCTOR.—W. S. Follensbee, Janesville, uno. I claim the stereotype-pan, A, provided with the ledges, a s, in combination with the plates, B B, constructed substantially as and for the purpose set prth. Wis. Iclaim a grout conductor composed of sections connected as described and arranged to operate substantially asset forth. 71,156, -- APPARATUS FOR DISTILLING. -- André Foubert, New York city. Iclaim the arrangement of the pipes and cocis as specified in combination with two sulls, for the pipeses and set forth. 71,105.-HAND STAMP.-J. M. Wilbur, Cleveland, Ohio. Iclain forming the printing surface, A, of a hand-stamp in the manner de settled and/or the purpess set forth.

71,105.-SAFETY ATTACHMENT FOR POCKETS.-Edward Wil-

1,105.—SAFETY ATTACHMENT FOR FOCKETS.—Edward will-hams, New York city. I claim the safety-attachment for watch pockets herein descr bed, the same consisting of the holder, B, having two jaws, F and G, the one swinging upon a hinge jount and held in proper position by a spring, and the other moving in a sleeve in part, D, and actuated by a spring is pring, the whole ar-ranged and combined to operate substantially as specified and for the pur-pose set forth.

The set and combined to operate statistical process of the set of

parpose heroio specifica. 71,108.—PAPER-MARING MACHINE.—Edwin Wilmot, Laona,

11,105.—I APER-MARING MACHINE.—Edwin Willindt, Londia, N. Y. Iclaim ist, The employment of two or more rubberrollers, in combination with the endess apron, C, substantially as and for the purpose set forth. 2d, The rubber rollers, F F, in combination with the metallic or wooden roller, i, for the purpose set forth. 3d, The employment of the rollers, H H' and L, substantially as and for the purpose described, 4th, in combination the rubber rollers, F, and metallic or wooden roller, i, substantially as and for the purpose described, 71,109.—BOILER CLEANER.—G. W. Wiswell, Pilot Knob.Mo. I claim the construction and arrangement of the place, B, when applied to the boller, A, as described and shown.

HIGH SQUEED ART AND A STREET AN

ribed. The arrangement of the inclined planes, A A, forming a ridge in the lighthe vertical cutters, ss, and the movable cutter, p, substantially as

and operating as specified.
 and operating as and operating as and for the purpose set iorth.
 The spring, s, in co milination with the pin, i, and lever, h, arranged and operating as specified.
 The solution of the stophotch, n, on lever, h, operating as and for the purpose described.

ectiona. 71,113.—Cotton and Hay-Press.—B. B, Alfred, La Grange.

Ga. I claim 1st, The combination of the slotted levers, LL, with the bnx, D, locks, e e, and follower, F, substantially as and for the purposes specified. 2d, The combination of the parts referred to in the foregoing claim, with the double acting compound screw, C C', substantially as and for the pur-poses set forth. 71,114.—Apparatus for Raising and Lowering Window

71,114.—APPARATUS FOR RAISING AND LOWERING WINDOW-BLINDS AND CURTAINS.—Geo. Allix, St. Helier's, Island of Jersey.
Iciaim 1st, The combination of the slit, guide, and chain, arranged with reference to each other and a window blind. curtain, etc., so as to operate substantially in the manner set forth, the combination being substantially ⁸¹ and The combination of the slit, guide and chain with the lever. which, when litted moves the chain out of the slit, the combination being substantially such as herein set forth.
71,115.—DINNER PLATE.—J. K. Andrews, Ant m, Ohio.
Iclaim a plate provided with partitions in the center and with a rim in the aualform, for the purposes set forth.
71.116.—BUCKLE.—J. K. Andrews, Antrim, Ohio.
I claim theplate, A, formed substantially in the manner herein represent-ing, as herein house of confining together straps without stitching or rivet-ing, as herein house of confining together straps without stitching or rivet-ing, as herein house or KILN.—Wm.Appleton, Albany, N.Y.
I claim ist, The induction of a current or currents of air _over the

ing, as herein fully set forth.
71,117.—MALT HOUSE OR KILN.—Wm.Appleton, Albany, N. Y.
I claim 1st, The induction of a current or currents of air over the malt floor, by means of draft pipes or tubes, G, connecting said floor or comberwith the heating-chamber of the kin and in drying the malt substantially as and for the purposes specified.
2d, The combination of the flag, S, with the flue, G, to the malt floor, C, and beating chamber, F, for operation together as herein set forth.
3d. Theflue, N, in combination with the heating chamber, F, mait floor, C, and flues, G and S, for action in concert as specified.
71,118.—CARRIAGE SPRING.—J. B. Ashley, (assignor to himself and J. A. Brownell), New Bedford, Mass.
I claim the spring, C2, and linking plate, E2, and citp-iron, D2, in combination with the packing, Al A2, and bolts, JB B2, all arranged and applied substantially as and for the purpose described.
71,119.—ARTIFICIAL FUEL.—J. E. Atwood. Trenton, N. J.
I claim artificial fiel composed of coal tar, coal dust, peat and lime, such as the sping. The combination of the rotating impression cylinder, the rotating pattern cylinder, and the eating apparatus, or the equivalent thereof, as specified.
71,120.—APPARATUS FOR MAKING STAMP-GILT PAPER Hang-INGS — William Balley, New York city.
I claim 1st, The combination of the rotating impression cylinder, the rotating pattern cylinder with the devices. or the equivalent thereof, substantially as described for securing and adjusting the pattern cylinder with the states on the pattern cylinder with the attern cylinder with the devices. or the equivalent thereof, substantially as described for securing and adjusting the pattern cylinder with the devices or the equivalent thereof, substantially as described for securing and adjusting the pattern cylinder constant cylinder, and the states on the pattern cylinder with the devices.

der. 3d, The combination with the impression and pattern cylinders of a regis tering belt, constructed and used substantially as and for the purposes here in specified.

tering beit, constructed and doct data the second s

the cylinder. 71,121.—PISTON PACKING FOR STEAM ENGINE.--James Bar-wick, and Samuel Tindall, Silvertown, Eng., assignors to themselves and Chas. T. De Forest, Stamford, Conn. We claim the application and use, for the purposes hereinbefore described, of hard indis-rubber or its equivalent, mixed with oil or grease, substantial by ashereinset forth.

71,122.—PUMP.—John Bean, Hudson, Mich.

I claim the pump constructed with the cylinder, D, formed of staves held together by india-rubber bands, and the tube, E, in the chamber of the pump stock, and with the diaphragm, G, and the rod, B, as and for the purpose herein set forn. 71,123.--Latch for Carriage Door.-Norbert Belvallette

11,125. - Lia ton Fou Cantanana L Paris, France. I claim appendant handle or tassel, of any material, acting upon a carriage lock with a lever or other apparatusin place of the fixed handles at present in use inside of carriages. 71,124. - METALLIC CAPSULES FOR BOTTLES, - Wm. Betts,

71,124.—METALLIC CAPSULES FOR BOTTLES, —Wm. Betts, Wharf Road, Eng. I claim a metalliccapsule, constructed for application to the neck of a bot-tle, as described and on which a trade mark or thic isstamped or otherwise permanently imprinted, for the purpose specified. 71,125.—AXLE BOX.—William A. Boyden, Altoona, Pa. I claim the two semicircular packing plates, C, constructed with rebated ends and furnished with wrings, g, in combination with the annular washer, D, the journal, a, and the nearing, b, of the axleb ox, substantially as and for the purpose herein set forth. 71, 196. CAPPENDER WORDERSON Lamos Bragdon Boo 71,126.—CARPENTERS' WORKBENCH.—James Bragdon, Bos

71,126.—CARPENTERS' WORKBENCH.—James Draguon, Docton, Mass.
I claim the combination of legs, c, and slotted and notched braces, f, when coastructed, arranged, and operating substantially as specified.
71,127.—SPINDLE BOLSTER.—John E. Brown (assignor to himseltand John Q. Wright), Fitchburg, Mass.
I claim, 1st, So constructing a bolsterspindle that the oil for lubricating the latter is automatically suppled at a point above the level of the oil in the bolster cup, substantially as described.
2d, Constructing the bobbin holder, D, with a chamber in its lower end for receiving the sleeve which is formed upon the oil cup, E, said holder being secured to the spinal groove, c, formed in the chambered bobbin holder, D, in combination with the sleeve, b, formed on the oil cup, E, substantially as described.

Soribed. 4th, The outlets, d d, through a chambered bobbin holder, D, or the equiv-alent thereof, in cambination with a device which allows oil to rise from cup, E, substantially as and for the purpose described. 71,128.—HOP VINE SUPPORT.—C. T. Bush, Rensselaerville,

described. 71,101.—LUBRICATOR FOR CARRIAGE WHEEL BEARINGS.— W. P. White, Orland, Me. I claim the wheel greasleg or lubricating apparatus as described, that is as composed of the cylindrical cup, A, the cover, B, and the plunger, C, with their connection screws, cd, and discharge passage, b, or the same and the screw, a, the whole being arranged substantially as explained. set forth. 24, The combination of the solid breech block, B, when constructed as de-scribed, the hinged barrel, A, the projection, E, and the hinged screw rod, b, as and for the purpose specific. 71,150.—Holder For LAMP AND GAS SHADES.—Charles W. 71,128.—Hop VINE SUPPORT.—U. T. BUSH, INCRESSENTION, N.Y.
I claim, 1st, The cap, s, provided with one or more sockets, constructed substantially as and for the purpose set forth.
2d, The arrangement and combination of the short poles, pp p, caps, ss s, and branches, a a, substantially as described.
71,129.—CoAL STOVE.—William M. Bush and Thomas B. Richards, Cincinnati, Onio.
We claim, 1st, The combination of the annular horizontal plate, H, and annular converging plate, B, forming a close flue for the admission of air with the chimney, C, substantially as shown.
2d, The concentrating flange or ring, E, in connection with the chimney, C, and plate, B, substantially as described.
71,130.—WooDEN BUILDING.—Joscph Busser, Troy, Ohio. I claim the construction of the outer, or both the inner and outer, surfaces of the outer walls of wooden buildings and the walls themselvesof planks shaped and arranged substantially as here in described as shown.
71 121.—SEWING MACHINE.—Caleb Cadwell, Waukegan, Ill.

7th, The bracket, K, with its bearings, tu, in combination with pivoted ever, L', spring, 12, adjusting nut, v, and spool, constructed and arranged as account described.

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erein described. 8th, The spring, x, applied to the spools, M1 M2, in the manner and for the urpose specified. 8th, The spring, x, applied to the spools, M1 M2, in the manner and for the purpose specified. 9th, The bobbin or spool winder, n', with the shaft, z, pulley, a', adjustable bearings, y', hinged at b', and spring, c', when constructed and operating as herein described. 71,132.—HARNESS ROSETTE.—G. S. Caldwell, Syracuse, N. Y.

as herein described. 71,132.—HARNESS ROSETTE.—G. S. Caldwell, Syracuse, N. Y. I claim a glass rosette, A, provided with an ornamental lining or backing, c, and secured to the plate, B, from the button, D. substantially in the man-ner and for the purpose set forth.

ner and for the purpose set forth. 71,133.—TRANSPLANTER FOR GARDER USE.—Hiram Car-michael, Rochester, N. Y. I claim as an im provement in transplanter making the two blades, B, de-tachable by means of the screw joint, substantially in the manner shown and described, whereby either blade may be used as a garden trowel. 71,134.—COMBINED PLANTER AND CULTIVATOR.—Isaac H.

[71,134.—COMBINED PLANTER AND CULTIVATOR.—Isaac H. Cappell Decator III.
1 claim, 1st The wide tires, R R, when attached substantially as described, for the purpose specified.
2 d. The links and books, B B, with the connecting rods, C C, and steadying as the croiched status as described for the purpose designed.
2 d. The ranged substantially as described for the purpose designed.
3 d. The croiched stakes, E and levers, F, arranged substantially as set forth for the purpose specified.
3 th, The clotted bar, G, and lever, H, for the purpose designed.
3 th, The combination of the cultivator and planter when ballt substantially as hereinbefore set forth and for the purposes specified.
3 th, J., assignor to Altred Chavantre, New York city.
1 claim the bolt, n, taking the notches of the hub of the hinge in combination with the latch bar, r, jointed to the stank, m, of said bolt, n, as and for the purposes set forth.
3 the Chaward Support Support Chavard A. Chavantre, New 17, 136.—GARMENT SUPPORTER.—H. M. Clemence, Worcester,

71,136.—GARMENT SUPPORTER.—H. M. Clemence, Worcester,

Mass. Iclaim the movable metal arms, B and C, in connection with the hanger, A, and thumb screw, D, by means of which the supporter is adjustable to garments of any size, 71,137,—Horse HAY Fork.—Abraham Coates, Watertown, 71,137.—HORRE HAY FORK.—Abraham Coates, Watertown, N.Y.
I claim, 1st, In hay forks such as described the combination of a center bark pivoted to the sheath of the fork and provided with correspondingly inclined or bevelled ends under such an arrangement that when the said claws are projected from the sheath of the fork and provided of the said provide do the sheath of the fork and provided with correspondingly inclined or bevelled ends under such an arrangement that when the said claws are projected from the sheath the lucined sides of the center bar will be held between the said ends of the claws, in the manner and for the pur-poses hereinbefore stated.
2d, The combination with the slotted center bar and wedges formed there in of the elaws or barbspivoted to sheath of the fork and constructed and arranged for over stion as here in described.
3d, The combination with the center bar and claws¹ and the detent or locking device, under the arrangement and for operation as here in shown and setforth.
4tb, The combination with the lever for operating the center bar and claws of the detent or locking device; and its appling under the arrangement speci-fied so that both thesaid lever and the detent by which t is held in position may be actuated simultaneously and at one operation, as set forth.
71,138.—Toy Hoor.—John M. Crawford and Morace L. Her-wey, Philadelphia, Pa.

vey, Fhiladelphia, Pa. we claim a toy hoop in which hoop, A, handle, D, wire, E, animal, G, and bells, I, are combined, substantially as and for the purposes set forth. 71,139.—BUILDING SCAFFOLD.—N. B. Crawford, Bennington,

 v_{t} . I claim the scaffold poles, c, fitted to be extended in largth as set forth in combination with the winch barrels, f, trames, m, and platform, n, as and for

combination with the winch barrens, i, frames, m, and platform, n, as and for the purposes specified. I also claim the platform, n, formed of sections hooked together, in the manner set forth. manner set forth. 71,140.—Scaffold for Roofs,—N. B. Crawford, Benning-

ton, Vt. I claim the platform, b, sustained on the skids, c c, in combination with the which barrels, d, ropes, r, pulleys, g, and claws, i, as and for the purposes set

forth. And in combination therewith, I claim the ladder, h, applied as and for the

purposes specified. 71,141.—FURNACE FOR SOLDERING.—Lewis Cutting, San Francisco, Cal. I claim a soldering furnace having heaters, G G, provided with plates, H H, for utilizing the heat of the furnace substantially as described and in combi-

for utilizing the heat of the furnace substantially as described and in combi-nation with the heatere provided with plates, H. H. I claim filling the center of the heater with gypsum, fire brick, or some slow conductor of heat. I also claim, in combination with the heaters, G. G. the top cover of the furnace tormed of gypsum, fire brick, or other slow conductor of heat, sub-stantially as described and for the purposes set torth. 71,142.—TOOTH POWDER BOTTLE.—J. B. Da Camarah, Jr., Nowmal, N. J.

Newark, N. J. I Chim tune, C, substantially as and for the purpose specified. 71,143.—PAPER BAG.—George Dare and Diana Dare, Au-Veclaim the manner of folding a piece of paper upon each side of its center for the purpose of forming a bottom the superficial measurement of which shall be the same as the m outh of the bag, substantially for the purpose set forth.

1 claim a the well is lower section consisting of two concentric periorated to be and a the well is lower section consisting of two concentric periorated to be one wire gauza tabe surrounding the interior periorated tabe and another lining the exterior periorated tabe, a body of filtering material being placed between the two tubes of gauze, all substantially as shown and de-scribed.

(1) [40.—DELF-LUBRICATING GIB.— W. A. DEVOII, FOR FROM-mond, N. Y.
I claim, let, A glh constructed in two parts, as shown by A B, and fastened as seen at a a, or their enurvalents, substantially as herein set forth.
2d, The self-olling device as shown in D and C, with the wick, b b, or their equivalents, substantially as and for the purpose herein set forth.
71,146.—FENCE.—Ben jamin K. Dorwart and George F. Rote, Jr., Lancaster, Pa.
We claim the braces, B B, pivoted at their upper ends to the blocks which connect the panels or to the posts, substantially as and for the purpose set forth.

forth. 71,147.—FENCE.—Benjamin K. Dorwart and George F. Rote,

1, 147. — TENUE. — DELIGATION A. A Second and used with the Jr., Lancaster, Pa. We claim, 1st, The keys, E E, constructed as described and used with the iraces, G, pins or wedges, a a, and panels, A B C D, as and for the purpose et forth. 2d, The swivel block, H, as constructed and used with the permanent post and panel as and for the purpose set forth.

and panel, as and for the purpose set forth. 71,148.—NAIL PLATE FEEDING DEVICE.—Daniel Drawbaugh,

71,148.—NAIL PLATE FEDING DEVICE.—Daniel Drawbaugh, Eberty's Mill, Fa.
I claim, ist, The combination of the spring fingers on the vibrating yoke arm, E, and the sprind flanges upon the tabular bearing, c, through which the nail plate feeding red passes, for the purpose and in the manner substantially as described.
2d, The combination of the tubular bearing, c, nail feeder, F, and universal joint, CS, arranged substantially as and for the purpose described.
3d, The combination of the loaded lever, k, arranged upon the outer end of the nail-feeding rod passes, for the outry selection.

rod with the nail plate up to the cutters, substantiatly as and to two purpose described. Ath, The hooked plate, S', and spring, S, applied to the bracket, A', sub-stantially as described. Sth, Providing for automatically stopping the rotary motion of the nail rod and at the same time releasing this rod from the hooked plate, S', by means substantially as described. 6th, The com institution of brake rod, I, on lever, H, with a triction wheel on the shaft, I, of one pulley, J, substantially as described. 7th, The adjustable post, G b, in combination with the laterally adjustable bracket, A', substantially as described. 714.00 Despendent Longer Repair Longer ABM — Julius Elson, Boston.

71,149.—BREECH-LOADING FIRE-ARM.—Julius Elson, Boston, Mass. I claim, 1st, The lever, C, provided with the grooved nut, d, in combination with the projection, e, and the hinged screw rod, b, as and for the purpose

-SELF-LUBRICATING GIB.-W. A. Devon, Port Rich-

71.144.—TUBE WELL.—T. J. Dean. St. Louis. Mo.

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71,157.—THREAD CUTTER.—W. L. Gallaudet, New York city.

York city. I claim, 1, The shaft, A, and arm, E, constituting an electric switch held to 0 its bearing by a spring, C, to insure metallic connection, substantially as leacribed.

to its bearing by a spring, C, to insure metallic connection, substantially as described. 2d, The cam collar, H, employed to withdraw the switch from its bearing in the act of rotation, as explained. 3d, The conducting plate, L, employed in combination with the rotary switch, A \in and cam collar, H, to impart a given number of impulses by a simple rotation of the switch, as set forth. 4th, The lighting key, M, in combination with the gas-turning device, A E CH L, for the purposes set forth. 5th, Thefeombination of the indicating dial, J, and index, K, with the rotary switch, A \in , as and for the purposes set forth. 71,159.—STEAM ENGINE — Edwin Garfield, Hartford, Conn. I claim the valve, b, in combination with the double exhaust bassage, a a', and the steam exhaust part, d, substantially as and for the purpose

-REGULATOR FOR MOTIVE POWER.-James E. Gil-

1,100.—REAGUATOR FOR MOTIVE TOWER.—Salles E. Girles E. Calles E. Boston, Mass.
I claim, ist, The mode of operation whereby a compound action is given to the shield. T c, by means of the levers, K and M N, or their equivalents, thereby causing it to be replaced in its normal position by the action of the pawle, S. S. without in any degree preventing it from being moved as usual by a governing device.
24. The cam, H, and lever, K, or their equivalents, in combination with a power regulator, substantially as specified and for the purpose set forth.
71,161.—PORTABLE CANDLESTICK.—Charles P. Gorely, Boston March 2014.

power regulator, substantially as specified and for the part of the store of the store

MACHINE FOR PRESSING PEAT, CLAY, ETC.-EZRA

(1)105.—MACHINE FOR TRESSING TEAT, CDAY, ETC.—Diff M. Hamilton, Minnneapolis, Minn. I claim the combination and arrangement of the pulverizing roller, D, stampers, N, operated by the tappets, Q, and shaft, H', with the shaft, G', and crank, S', working the lever, S, with spring, V, and block, V', to push the cakes of peat out of the molds, M', all for joint operation as herein described. 71,164.—HARVESTER.—David S. Harner Xenia, Ohio, assignor to himself and Whitely, Fassier, and Kelly, Springfield, Ohio. I claim, 1st, The combination of the lever, k, and rake head, I, when said lever and rake head are both pivoted to the platei, or its equivalent and are capable of independent vertical movements, substantially as and for the

are capable of independent vertical movements, substantially as and for the purpose set forth. 2d, The combination of the pitman, m, pivoted lever, k, and curved guides, 1), as and for the purpose set forth. 3d, The braces, j), arranged on either side of the rake head, I, as shown so as to prevent any lateral movement of said rake head upon its bearing on the joint bolt, g.

or, nuc uraces, j, arranged on either side of the rake head, I, as shown so as to prevent any lateral movement of said rake head upon its bearing on the joint bolt, g. 4th, The rake head, I, moving upon a pin, e, which is about in line with the axis of the crank shaft. Said rake head usbetween said pin and the main frame, as set forth. 5th, The adjusting bar, W, connected to the main frameand coupling arm or its equivalent, for the purpose of adjusting the angle of the cutters and the position of cutter bar and platform. 6th, The following instrumentalities, conbined and arranged substantially as set forth, in a harvesting machine having a floating platform and two driving wheels, to wit, the sweep rake, I, pivoted lever, k, pitman, m, crak, n, and geared wheel, p, meshing with a driving platform and two driving wheels, to wit, the sweep rake, I, pivoted lever, k, pitman, m, crak, n, and geared wheel, p, meshing with a driving platform and two driving wheels, to wit, the sweep rake, I, pivoted lever, k, pitman, m, crak, n, and geared wheel, p, meshing with a driving platform and two driving wheels, to wit, the sweep rake, I, and the same and platform shaft between the two driving wheels. 7th, The spring latch, b, constructeds that the latch and spring are formed of one plece in combination with the rake head, I, and arch, a, substantially as and for the purpose set forth. 8th, The combination of the pivoted arm, k, plate, I, and guides, I, con-necting rod, m, and erank, n, or their equivalents, so that the methanism which add rake moves, substantially as shown. 9th, The arrangement of the rake head, i, in relation to its center upon which add rake moves, substantially when is toward the main frame and cutting apparatus so as to reduce the necessary length of the platform, as set forth.

rth. Well, The loose or rolling joint between the compling arm, S, and bracket , shown in Figs. 1 and 4, in connection with the curved drag bar, R, as and r the purpose set forth. 71.165.—CIDER PRESS.—John H. Harper, Pittsburg, Pa.

claim the rubber faced disks, G G, upon the lower platform of the frame s set forth, and used in combination with the disks, D D, for the purposes set

71,166.--Screw NAILS.- Hayward A. Harvey, New York

city. I clum a screw nall, composed of a proper head, and a body surrounded by nicks, which are diagonal to the axis of the nall, and at their ends extend into other nicks, so as to constitute a continuous irregular spiral nicking around the body of the nall, the nall, as a whole, beingsubstantially the same us hereinbefore de.cribed.

71,167.-HORSE HAY-FORK.- Isaac J. Hattabough, Santa

(1),10%.— HORSE HAY-FORK.— ISAAC J. HATLADOUGN, SANLA Chura County, Cal. I claim the slotted ring thinge, B'd, or its equivalent, and the claw-shaped texth, c' c' c' c' c' c', in combination with the rake heads, C C, and levers, E E, all arranged and operating substantially as above set forth. 71,168.—LAMP SHADE.—E, K. Haynes, Hanover, N. H. I claim a segmental lamp shade, supported upon a frame of wires, construc-ted substantially as above set forth. 71,169.—SPRING FOR BED.—E. S. Hayward, Roxbury, Mass. I claup a string neither the lawrest claup formers at some point be.

1 claim a spiral spiring with the largest circumference at some point be-tween the ends, substantially as and for the purpose described. 70,170.— MODE OF CLEANING WOOL.—Henry Hayward,

70,170.— MODE OF CLEANING WOOL.— Henry Hayward, Brooklyn, and John M. Pendleton, New Brighton, N. Y. We claim, 1st, in connection with the within described method of destroy-ing burrs and other vegetable fiber found mixed with wool, by means of acid, the employment of carbonate of soda or carbonate of potash, as a neutral-izer for the acid in the yolk or grease on the surface of the wool, so as to form a sail in the substance of the woody fiber, fand to agitate the mass by the gas liberated, substantially as herein specified. 2d, in connection with the destruction of the woody fiber in wool by chem ical agents, as specified, the recovery of the partially saponified grease by treating it with caustic soda, and atterwards with sait or sulphate of soda, or both, and allowing it to rest, all substantially in the manner and for the pur-mers berein act forth.

se herein set forth. ,1/71.—Hot AIR STOVE.—Thomas Henney, Dubuque, Iowa. telaim, Ist, The chamber, C, arranged between the base, A, and top sec-n, D, and provides with communications, E, F and F', in combination with e dwision, o, and a damper, c, substantially as and for the purposes de-

Scientific American.

Pa. 1 claim, 1st, the use of the stirrups, g, and the stirrups, h, when performing the double purpose of affording bearings for the floor beams, K k, and the hooks or links, e, and of clasping the sharts, A, in connection with the biplates, 1, all arranged substantially as described, and for the purposes set forth. 2d, The slotted arms, m, on the ends of the floor timbers, F, when used in platform weighing scales, substantially as shown and described. 71,180.—BURGLAR ALARM.—E. C. C. Kellogg (assignor to himself and Theodore Hoyt). Hartford, Conn. I claim the toggle brace, in combination with the arm, d, connected with the striking mechanism of a burglar alarm, substantially as and for the pur-pose herein set forth. 71,181.—COMPOUND TOOL FOR CUTTING, PUNCHING AND UP-SETTING.—A.K. KentyLyons, Iowa.

pose set forth. 2d, The combination of lever, I, plate, J, and wheel, W, with the lever, H. all constructed and arranged as and for the purposes specified. 3d, The combination of the standard, B, with bar, L, lever, D, connecting rod, G, lever, H, wheel, W, plate, J, and lever, I, all constructed and arranged suits in tail; y as herein specified. 71,182.—CHURN.—M. W. Kilgore, Baltimore, Md.

11.152.—URURN.—M. W. Kilgore, Baltimore, Md. Iclaim, 1st, a churn, each and every feature of which being made of gal-vanized iron, substantially as described and for the purpose specified. 2d, Constructing the blades or paddles of the dasher with their edges ser-rated, substantially as described and for the clpur pose set forth 2d, So arranging the plbe, B, entirely independent of the dasher, that a con-tinuous current of air is fed to the cream, and introduced at a point which is near the bottom of the churn, substantially as described and for the purpose specified. vertical. 4th, The combination of the pipes, B and d', when the same are arranged ibstantially as described.

71,183.—LEVER JACK.—T. J. Kindleberger, Eaton, Ohio.
71,183.—LEVER JACK.—T. J. Kindleberger, Eaton, Ohio.
I claim's lever jack consisting of the wheel, C. and the lever, D, when said parts are arranged to operate as herein shown and described.
71,184.—ATTACHING PICKS TO HANDLES.—Henry W. Knight,

Columbus, Ohio. I claim the combination of the blade, the handle, the overlap ping straps, fastening bolt, and the wedge, when all these parts are constructed and ar-ranged as described for the purposes set forth. 71,185.—CONSTRUCTION OF BUILDINGS.—Bernard Joachim La

71,185.—CONSTRUCTION OF BUILDINGS.—Bernard Joachim La Mothe, New York city.
I claim, ist, the blocks, c, applied at the intersections of the rods or tubes that form the frame of the structure, and having holes passing into or through them in different directions for the reception of the rods or tubes, substan-tially as set forth.
2d, The d onbie fold atjone edge of the plate, k, as atm. fig. 4, and the bent or turned edge, 1, for receiving the edge of the structure, respectively, substantially as set forth.

the plate with the role of who a set of the set of the

sides of window sashes and window casings. 71,186.—DEVICE FOR SUSPENDING AND DETACHING ARTICLES.

71,186.—DEVICE FOR SUSPENDING AND DETACHING ARTICLES. Wm. C. Lane, Greenpoint, N. Y. I claim, 1st, A hooking-rod, or device, having a hook receiving socket, C, for the elevation of the hook to its place of suspension and clearance there from when suspended, substantially as specified. 2d, in combination with the hook receiving socket, C, the hook-detaching hom, E, both carried by a rod or handle, essentially as described. 3d, The combination with a hook suspending device of a hook keeper, F, substantially as specified. 4th, An matrument or device consisting of a hook receiving or carrying socket, hook detaching horn, and hook keeper, all formed of one and the same piece, and attached to a commonstock or handle, essentially as herein set forth.

71,187.—WINDOW SHADE.—Philip Lindemeyer, Hoboken, N.

11,181.—W INDOW SHADE.—Philip Lindemeyer, Hoboken, N. J., and Louis Lindemeyer, New York city.
 We claim, 1st, The within described method of producing window shades, by preparing the fabric as recited, printing with thick size, powerfull v compressing the gold lead, or other equivalent material thereon; afterward warnishing again, all substantially in the manner and for the purpose herein specified.
 24, Ancographcliwindow shades, produced substantially as herein specified.

nea. 71,188.—ANIMAL TRAP.—Nathan M. Linton, Wilmington, O. 1 claim the combination of the hinged door, C, with the parts, B, D, E, F, and G, as and for the purposeset forth. 71,189.—WATER PROOF FRICTION MATCHES.—L. T. Luther,

71,189.— WATER FROOF FRICTION MATCHES.—L. I. LULLET, Oak Grove, Pa. I claim the variabiling of the igniting ends of the matches, and the satura-tion of their lower parts with the saturating mixture composed of the speci-fied ingredients or their equivalents, substantially as described. 71,190.—APPARATUS FOR ILLUSTRATING WAVES.—Chester S.

(1) 130.—APPARATUS FOR ILLUSIRATING TRAVES.—OROSTOL O, Lyman, New Haven, Conn. I claim a combination of one or more flexible wires, D E, one or more se-rics of cranks, ef, and mechanism for revolving such cranks synchronously, the whole being stranged and applied together, and to a board oror its equi-valent, substantially in manner and so as to operate as and for the purpose

valor, substantially in manner and so as to operate as and for the purpose as specified. Also, the arrangement and combination of the series of flexile wires. F, with one or more flexile wires, D E, one or more series of cranks, ef and mechanism for revolving such cranks synchronously, the whole being ap-plied substantially in manner and so as to operate as specified. Also, the combination and arrangement of the pendulum or wire, r, with the flexile wire, D, and its series of cranks, arranged and applied in manner and to operate together substantially as hereinbefore explained. Also, the arrangement and combination of horizontal and vertical lines going through the axes of the cranks, substantially as represented in the drawings, with the system of movable wires, or mechanism for producing the wavemotion, as set forth. Also, the combination and arrangement of the circle, p, with the system of movable wires, or mechanism for producing wavemotion, as specified.

71,191.—PROCESS OF SCOURING AND CLEANSING WOOL AND WOOLENFARRICS.—Osborne Macdaniel, New York city. I claim, ist. An improved process for scouring wool and woollen fabrics, and removing the oil therefrom, substandally as herein described. 2d, An apparatus, employing steam indirectly, ior scouring and drying wool, combined with a still, substantially as and for the purpose herein de-scribed.

wool, combined with a still, substantially as and for the purpose herein de-scribed. 3d, Grushing the tag locks and lumps of dirt, when saturated with naphtha, preparatory to scouring the wool, substantially as and for the purpose de-scribed.

71,192.—System of Measuring and Cutting out Dresses

is which it is astached by the devices herein described, or user mechanical equivalents, for the purpose herein set forth. 71,213.—EMBOSSING CLOTH.—James E. Pollard (assignor to the Elliott Feiting Mills), Franklin, Mass. I claim the above described improved process of embossing and metalizing cloth or other material, such consisting in the employment of the gum, noi, and paste, or their equivalents, with the embossing plate and metalizing the above equivalents, with the embossing plate and metalizing for the guivalents, with the embossing plate and metalizing for the guivalents, with the embossing plate and metalizing a terial under circumstances and in the manner, substantially as specified. 71,214.—HOTEL ANNUNCIATOR.—H. B. Porter, Chicago, III. I claim, 1st, The sliding plates, B, provided with the projections, n and n.' in combination with the front plate A, the standards, D, and the horizontal rods, r, all arranged as and to operate in the manner substantially as specified. John Malnight, Grass Lake, Mich. I claim the within-described system of cutting dresses, as set forth. 71,193.—CARRIAGE WHEEL.—William H. Marshall, Sutton, assignor to himself and Hosea B. Spaulding, Merrimack, N. H. I claim the do bble round tenons, cc. in combination with the mortises, ff, for the purposes as described and set forth. 71,194.—ATTACHING THILLS TO VEHICLES.—O. L. Mather, Wedler U. N.

5th. The inclined plate, i. through which the smoke flues pass, substantially as and for the purposes specified.
71,177.—POTATO DIGGER.—Wm. H. Hutchins, Lockport, III. Iclaim the combination of the concave share or blade, d, and the progs. b, rigidly fixed thereto, and of the purposes set forth.
71,178.—CALIPERS OR DIVIDERS.—M. G. Imbach, Hartford, Con...
1 claim the fixed plvot, F, and movable shank, O, extending through the purpose specified.
71,179.—PLATFORM SCALE.—George W. Jackson, Wyalusing, the double purpose of affording bearings for the floor beams, K and the proroming the double purpose of affording bearings for the floor beams, K and the proroming the stantially as described.
71,179.—CALIPERS OR DIVIDERS.—M. G. Imbach, Hartford, Con...
1 claim the fixed plvot, F, and movable shank, O, extending through the purpose of affording bearings for the floor beams, K and the proroming the double purpose of affording bearings for the floor beams, K and the proroming the double purpose of affording bearings for the floor beams, K and the prometation with the blade or pawl, and for the purpose specified.
71,179.—PLATFORM SCALE.—George W. Jackson, Wyalusing, the double purpose of affording bearings for the floor beams, K and the prometation with the blade or pawl, b, arranged and working in a slot the the out of the base that slot, A, in connection with the blates.
71,202.—CAR COUPLING.—George R. Moore. Lvons. Iowa.

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herein described. 71,202.—CAR COUPLING.—George R. Moore, Lyons, Iowa. I claim the diverging levers, or clasps, when held and operated by the ar-rangement of springs and catches, as and for the purpose set forth. 71,203.—CAR COUPLING.—George R. Moore, Lyons, Iowa. I claim the double hooks, or self-tightening clamps or claws, constructed as described, and pivoted in such a manner as to gripe the pin by the draught of the cars. 71,204.-FLUTINA-MELODEON.-Joseph Müller and Freder-

as described, and protect in such a mainler as to gripe the pin by the draught of the cars.
71,204.—FLUTINA-MELODEON.—Joseph Müller and Frederick Kaiser, Philadelphia, Pa.
We claim, 1st, The musical instrument herein described, adapted to be played either as an endocon or as an accordeon, substantially as described.
2d, Supplying fresh air to the continuous current of air in the instrument through the holes, in the front of the upper part of the double chamber, B, substantially as described.
3d, Theconstruction of the body of the flutina-melodeon with a lid, L, closing on the upper bellows, and lid, K, closing the keyboard, forming one side.
and the botom board. i', of the bellows, I, automatically closing the opposite side, whereby the body of the instrument is closed on all sides, and forms a portable case, substantially as described.
4h, The treadle, P, the detachable cord, M, and folding-stand, N, when combined and adapted for the purpose, substantially as described.
71,205.—PHOTOGRAPHIC APPARTUS.—Octave Nicour, Paris, Frace.
I claim, ist, The apparatus or instrument as a whole, for photographing purposes, substantially as apecified.
2d, The combination of the sense, C C C', C', of qualifocal distance, and forming rungers, substantially as specified.
3d, The combination of the lenses, the onfor holding the ground glass from the substant ally as specified.
3d, The combination with a photographing sense, the ond the same supparatus, and serving, the one set for finding the for the projection of the lines are to roll as from the ground glass from the disting screw, D, tubes, B
with their dark and light chambers, the one of holding the ground glass from the opening, for receiven the these, B B, and lenses as described, the adjusting screw, G.
5th, The combination with a photographing device, made up of tubes, lenses, and larks and light chambers, esterin set forth.
sthe combinat

ure to the light, substantially as herein setforth, or in any other equivalent manner. 71,206.—ANIMAL TRAP.—Harrison Ogborn, Richmond, Ind. Iclaim, 1st, The movable disk, G, operating in combination with the tilt-ing bar, 1, substantially as and for the purpose apecified. 2 d, in combination with the above, the pivored platform, J, arm, K, con-necting roa, L, lever, M, and door, F, arranged in relation to the apartments A and C, as and for the purpose explained. 3 d, The retaining wires, H, substantially as and for the purposes described. 71,207.— WATER BOILER FOR COOKING STOVE.— Clement Olhaber (assignor to Woodrow, Mears & Co.), Cincinnati, Ohio. I claim, 1st, The horizon tally-flued reservoir, J, and extension plate, B, ar ranged, combined, and adapted to operate as set forth. 2 d, The arrangement in a stove reservoir with a smoke pipe collar, formed berein expleined.

herein expleined. 71,208. — ROTARY ENGINE. — Frederick Ortlieb, Williams-bnrg, assignor to the Metropolitan Rotary Engine Company, N. Y. T claim, 1st, The combination, with a rotating platon made up of radial sildes, and occupying an eccentric position relatively to the outer case, of exparate inners and outersteam cylinders or chambers, when the one of said cylinders serves to use the steam expansively from the other in such manner as that thoradial sildes, which form a platon or platons, common to both, are acted upon by high pressure star at a short leverage, and by the expanded steam at a longer leverage, and lateral pressure on the main shaft, reduced or countracted by the live or high pressure stare and expanded steam conjointly, substantially as specified. 3d, The arrangement, relatively to the inner and outer steam cylinders or chambers and rotating piston, common to both, of the several inlets and out-lets for, without extra mechanism, and by the action of the radial sildes com-posing the platon, the admission of high pressure steam to the inner cylin-der or cylinders and passage therefrom, after performance of its duty, to the outer cylinder or chamber, to work expansively in the latter on said platon and in due course discharge therefrom, steam there in set forth. 3f. The arrangement, substantially as herein set for the explored cylinders and croadenser, for preventing the high pressure cyl-inder and greater portion of the low pressure one from being cooled by the condenser, essentially as specified. 4d. The steam bilanceplates, I and O, or I'O', the one of them (O or O') being stationary and connected with the outer cylinder, and the other (I or 1') rotating with the platon and both serving to pack the edges of the radial sides, and to relieve the platon of friction, essentially as berein set forth. 3f. Pit 2PS, and recesses, m p, communicating with the high and low pres-sure cylinders of the engine, substantaling us described. 71,209.—HAMES FASTENER.—Alonzo Palmer, herein expleined. 71,208.—ROTARY ENGINE. — Frederick Ortlieb, Williams-

71,209.—HAMES FASTENER.—Alonzo Palmer, Hudson, Mich. I claim the bars, AB and C, and spring, D, constructed and arranged to operate in the manner and for the purposes set forth.

71,210.-Composition for Coating Wood, Iron, Paper,

71,210.—COMPOSITION FOR COATING WOOD, IRON, PAPER, ETC.—Antonio Pelleticr, Washington, D. C.
I claim, ist, The compound consisting of vegetable fiber, silicate of soda, and soapstone, substantially as described, and for the purposes set forth.
2d, The compound consisting of vegetable fiber, soapstone, silicate of soda or its equivaient, when made into sheets or coated on fibrous, porous, or solid substances, and treated with coal tar and steatite, substantially as herein described and for the purposes set forth.
3d, As new article of manufacture, the compositionsubstantially as herein described and for the uses and purposes set forth.
71,211.—POCKET CUTLERY.—F. B. Perry.Northampton, Mass.

I claim the making of s knife in which the cheeks or sides of the handle through which therivet is placed which holds the blade are united together by means of a barsecured to them in the manner and at the same position as obvio decembed

above described. 71,212—BALANCE WHEEL—Elijah S. Pierce, Hartford, Conn. I claim an improved balance wheel in which the outer rim or wheel is sep-rate from the hub or axis, upon which it can turn when disconnected, and which it is attached by the devices herein described, or their mechanical unvalents, for the purpose herein set forth.

tion, D, and provided with communications, E, F and F', in combination with the division, b, and a damper, c, substantially as and for the purposes de-	71,194.—ATTACHING THILLS TO VEHICLES.—O. L. Mather, Wellsville, N. Y.	rods, r, all arranged as and to operate in the manner substantially as spe-
in the manner and for the purpose described.	I that the portion, B, provided with the concave bed, a, to the sides, c.c. i of which the central pin, b, is attached, and part, D, with the concave convex end fitting into the said concave bed, a, when all are constructed and are	2d, The combination and arrangement of the pivoted catches, i, and the place, B, as and for the purposes set forth. 3d, The arrangement of the levers, I. in relation to the trip, k, substantially
71,172.—CORN PLANTER.—J. Warren Hitchcock and James	ranged as herein set forth, for the purpose specified.	as represented, and to operate the same in the manner specified. 71,215.—AIR-TIGHT JAR.—Geo. M. Ramsay, New York city.
K. Deyo, Morrisville, N. Y. We claim a corn planter having drill plows, B, coverers, C, sliding bars,	71,195.—GATE FASTENING.—George McCoy, Antioch, Cal.	I claim contracting the inlet of a jar at three or more portions of its cross
F F and G G, springs, M, plus, Y Y, and hoisting apparatus, described, con- structed and arranged and stantially as herein specified.	I claim a gate fastening, having the bolt, a, operated by the lever, B, and spring, c, together with the securing lock, g, or its equivalent, constructed and operated substantially as and for the pu, pose described.	diameter, so as to hold the lid near the center, substantial, y as and for the purpose herein set forth.
71,173.—VENTILATING APPARATUS.—Leonard Hoszek, New	71.196.—INVALIDAND FRACTURE BEDSTEAD.—Thomas Mc-	71,216.—GLASS MOLD.—J. H. Reighard (assignor to J. H. Hobbs, Brockunier & Co.), Wheeling, W, Va.
York city. I claim, ist, The combination, with the yessel and revolving wheel, of the	Ilroy, New York city.	I claim, 1st, Cooling the molds used in the manufacture of glassware, by
air chamber and entrance and exit pipes, all these parts being constructed	I claim, 1st, The rods, E E, cords or other connections, D D', and shafts, C	means of water introduced into a chamber within the walls of the mold, sub- stantially as above set forth.
and arranged as shown in Fig. 1, for joint operation.		2d, The use of the reservoir, K, pipe, L, spring valve, m, and arm, n, in com-
the purpose described.	the bed, in the manner and for the purpose set forth. 2d, The sectional bed bottom, G GI G2 G3, in combination with the seg-	bination with the mold, G, having the chamber, H, substantially as de- scribed.
3d, The combination, substantially as shown in Fig. III, of the oscillating cups and discharge pipes, (or the purpose set forth.	ments, H H', cog wheels, I 11, shafts, 12 I3, pawls, i', notched bars, J J, and rod, J', all arranged and employed in the manner and for the purpose set	3d, The use of the above described apparatus in combination with the press
4th. The combination, substantially as shown in Fig. IV, of the pipes, I g,	forth	plate, P, having the guides, on, substantially as and for the purpose set forth.
with the vessels, a c,for the purpose described. 71,174.—PASTE.—Joseph E. Hoover, Philadelphia, Pa.	3d, The device, M m m m, or any substantial equivalent thereof, to enable the employment of threeor a plurality of extension weights, as and for the	71,217.—BRAND FOR MARKING ANIMALS.—Frank H. Richards, Troy, N. Y.
I claim a paste consisting of the within named ingredients, combined sub-	object set for the	I claim the stock or frame consisting of the several parts, the plate, a, the
stantially as specified.	4th, The foot rest, L, provided with legs and braces, L1 L2, and adapted to be used as a table, as explained.	rib, b, the arch, d, and the handle, b, combined and forming a single piece, the hooks, m m, at the backs of the letters, and the double wedge, u, the
71,175.—HARVESTER.—James Howard and Edward Tenney	5th, The arms, K K', arrranged so as to be detached from and united to each	whole constructed substantially in the manner and for the purpose above
Bousi eld, Bedford, England. We claim, 1st, The arrangement of the short shaft, a e, the former radial to	other, by mortise and tenon, and employed substantially as and for the pur- pose explained.	described. 71,218.—AIR PUMP.—Edward S. Ritchie, Brookline, Mass.
the drive wheel and the latter parallel to and in the same vertical plane.	71,197.— ARTIFICIAL LEG.—Abner McOmber, Schenectady,	I claim the combination as well as the arrangement of the lever. F. the rod
with the former, both supported in one and the same frame, which moves about the main axle as a center, and both shafts carrying gears at their for-	Ń. Y.	q, and the stuffing box, p, with the valve, o, the piston. B, and the harrel, A. Also the application of the valve rod, q, to the valve. o, so as to be movable
ward ends, by which the motion to drive the cutter is transmitted, as set	I claim, 1st, In an artificial leg, naving a ball and socket joint such as de- scribed and shown, the central eye bolt, D, arranged as shown, in combina-	also the application of the valve rod, q, to the valve, o, so as to be movable laterally relatively thereto, in manner substantially as and for the purpose
forth. 2d, Thearrangement of the rake and reel arms in the radial sockets of the	tion with the pin, j, bar, e, flexible strap, m, rod, k, and spring, l, all substan- tially in the manner and for the purpose described.	described.
same reel hoss, so that they shall all revolve with the boss around a common	2d, in an artificial leg, having a ball and socket joint such as described and	Also the combination and arrangement of the annular flap or auxiliary valve, w, with the valve, o, and its seat, k.
center, and the rake have, in addition to that motion, another motion around its long shank, which is supported by and turns in as well as with said boss,	shown, the arrangement of the bolt, D, strap, m, and rod, k, in recesses, g h h', which allow a lateral as well as a vertical articulation of the ankle, as	Also the combination of the prismatic guide, n, or its equivient, with the
by gears, one fixed and the other movable, as set forth. 3d, Glying a differential speed to the reels of reaping machines, in the man-	herein described.	valve, o, and the passage, l_i and with the rod, q_i applied to u.e. valve, o, so as to be movable laterally therein, or with respect to it, a_{i} pecified.
ner and for the purpose above described.	71,198.—HAY RAKER AND LOADER.—Gideon C. Mead, Guil-	71,219.—TRUNK.—Samuel S. Ritter, Philadelphia, Pa.
71.176-HEATING STOVEMaurice C. Hull, New York city.	ford, N. Y. I claim, 1st, The combination with the hingepiece, a, and spring, b, of the	I claim, 1st, As an article of manufacture, the trunk above described, hav- ing the end pieces, E E clamped into the shape described and shown, and at-
I claim, 1st, The flue, g, around, or pariially around, the outside of the fire chamber, susbtantially as set for th.	roller, c, substantially as and for the purpose specified.	tached to the trunk by the rivets, r r, at a distance from the corners or an-
2d. The inclined place, f, forming the top of the flue, g, for preventing the	2d, The combination with the slide, S, of the supplementary slide or piece, V , substantially as and for the purpose set forth.	gles of the trunk, so as to leave the latter perfectly smooth, substantially as and for the purpose specified.
lodging of ashes or fuel, as set forth. 3d, I claim the pipes, i, applied in substantially the manner specified, to	30, The combination with the rake heads, C. and guide, I, of the spring, J, substantially as and for the purpose described.	2d, The process or method of constructing trunks, valises, etc., substan-
cause the products of computation to ascend toward the top of the furnace or	71,199.—SAFETY HATCH FOR WAREHOUSE.—Arthur D. Med-	tially as above described. 71,220.—BABY WALKER.—Joseph Rohr, Batesville, Ind.
stove, and then descend toward the base, for the purpose specified. 4th, The flue, n, and pipes, i, in combination with the flue, g, as and for the	licott, Windsor Locks, Conn.	I claim a baby walker baying nlatform. A, standards, B and C, set screw.
urposes set forth.	I claim the employment of the opening and closing rolling slat platform,	D, swinging bar, F, supporter, H, toy table, K, and ratchets and pawl, as de

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co, Cal I claim a co, Cal. I claim a lamp extinguisher constructed and arranged substantially as de-scribed, as a new article of manufacture. 71,222.—CONSTRUCTION OF CONDUCTOR PIPES.—John C.

71,222.—CONSTRUCTION OF CONDUCTOR PIPES.—John C. Rohrman. Pfi adelphia, Pa.
Iclaim a waste water pipe having alongitudinal recess or groove, a, made substantially as described, by bending, läpping, and soldering the edges of the plates of which the pipe is composed, for the purpose specified.
71,223.—TRUNK.—E. A. G. HOUISTONE, ROXDURY, Mass. I claim the employment of leather or equivalent flexible material, having its surface formed into alternate parallel 'Ibs and furrows, substantially as shown and described.
Also forming the metal corner of a bag or trunk frame, or molding, of separate pieces of ackle metal, united as set forth.
Also forming the strap to the trunk body by means of a loop, connected with and held by a fastering plate or projections within the trunk, substantially as shown and described.
71,224.—FIRE FENDER OR GUARD.—Charles H. S. Schultz, Cincinnati, Ohio.

71,224. — FIKE FERTER OF SOUTH OF SOUTH Cincinnati, Ohio. I claim, 1st, The provision in a fireguard of the door or flap, B, as and for the purpose set forth. 2c, The arrangement of adjustable hooks, D, with the nuts, E, and clips, F, for the object explained.

for the object explained. 71,225.—BED BO'FTOM.—David A. Scott and Jonathan E.

Burdge. Cincinnati, Ohio. We claim passing the rods, E E, transverse ly through a series of longitudi nal slats, as and under the arms, c c. of a like series of springs, for the pur pose of securing the slats in their places, substantially and for the purpose set forth. -Construction of Coal Scuttles.—Joseph Scott. 71.226

71,226.—CONSTRUCTION OF COAL SCUTTLES.—Joseph Scott, John Scott, and Wm. Miller, Brooklyn. N. Y.
We claim, 1st, A coal scuttle constructed as described, that is, by forming the joint between the body and bottom by flaring the bottom cdge of the body out wardly, and turning or striking up a corresponding flange on the body out wardly, and turning or striking up a corresponding flange on the bottom plate, and then forming a bead with the two together, substautially as shown and described.
2d, in combination with the above joint, we claim the beaded upper edge of the base (), for attachment in the manner specified.
3d, A coalscuttle constructed subtainially as described, whereby the body and base may be packed in separate nests, to be connected at pleasure, as and tor the purposes set forth.
71,227.—Choes-cut SAW.—Alfred M. Seabury, Johnstown, assignor to Charles W. Du Bols, Brooklyn, N. Y.
I claim a cross-cut saw formed with groups of diamond or scoring teeth, c, and chisel teeth, as and for the purposes specified.
71,228.—CARRIAGE TOP PROP.—Anson Searls, San Francis-co, Cal.

Cal. co. I clai

co. Cal. I claim, 1st, The tubular joint bar standard, B. 2d, The clamp or claw, or equivalent. 3d, The serew bolt, C, that passes through the joint bar standard, B, and a part of the clamp, holding them firmly together and in position. 4th, The combination of the joint bar standard, B, with the clamp, A, in combination with the screw, C, for the purposes substantially as described. 71,229.—MANUFACTURE OF BRICKS, RETORTS, MUFFLES, CBUCKBLES, BTC.-Edward L. Seymour, New York city. I claim the employment of pulverized emery in combination with any one or more of the materials aforenamed, for the purpose specified. 71,230.—MANUFACTURE OF CAST STEEL.—Edward L. Sey-mour, New York city.

(1)230.—MANUTAUTURE OF CASI SIEBL.—Latrate and an operation of the non-magnetic peroxides and carbonates into magnetic oxides of iron, in the manner and for the purposes specified. 2d, The metallization of iron ores at a red heat, without fusion of the particles, and for the purposes stated. 3d, The fusion of the metallized matter as described and for the purposes explained in the specification. 71,231.—AppairATUS FOR MIXING MORTAR FOR MAKING BUTTURE BROCKS. ETC.—Join Shelley_Harlem, N.Y.

71.231.—APPARATUS FOR MIXING MORTAR FOR MAKING BUILDING BLOCKS, ETC.—Join Shelley, Harlem, N. Y.
I claim, ist, The stationary hollow pipe, E, passing through the trunnions, bb, and extending longitudinally through the center of the cylinder, A, to which the water and steam pipes are both connected, the same being pro-vided with holes or outlets on the under side, as herein described.
2d, In combination with the stationary pipe, E, the arms, i 1 1, and scrap-ers or blades, I, the revolving cylinder, A, operating in the manner as here, in described, for the purpose set forth.
3d The arrangement of the water tanks, G G, the connecting water and steam pipes, H H, with tyler stop cocks, h b, placed at one or at both ends of the deviation to the mixture, substantially in the manner as here in set forth.
71,232.—KITE FRAME.—Josiah thepard, New Britain, Conn. I claim, 1st, A kite frame formed of ribs of tempered steel or metal wires, as get forth.

I claim, let, A kite frame formed of ribs of tempered steel or metal wires, as set forth. 2d, be saddle piece, a made in the manner as set forth, for receiving the wire ribs, as specified. 3d, The tips mais with holes for the cord forming the border of the kite and with holes for receiving the ends of the ribs, as set forth. 71,233.—APPARATUS FOR MANUFACTURING GAS AND OIL

71,333.—APPARATUS FOR MANUFACTURING GAS AND OIL FROM COAL.—John Shoemaker, Putneyville, Pa.
1 claim, 1st. A retor for desilling bituminous coal, adapted for application to an ordinary stove, in combination with a recetifier, B, pipes, G and L, receiver. H, vessel 1. and condenser, K, straned substantially as set forth.
2d, The combination and arrangement of the retort, A, safety valve, E, rectifier, D, constructed as described, with the pipe, G, receiver. H, vessels 1.
2d, The combination and arrangement of the retort, A, safety valve, E, rectifier, D, constructed as described, with the pipe, G, receiver, H, vessels 1.
2d, The construction of land sides of plows with flanges in the form herein described, and for the purpose; herein mentioned.
2d, The construction of plow colters with an mentioned.
2d, The construction of plow colters with an inward curve above that part which cleaves the ground, in the form herem described and for the purposes herein mentioned.
71,232.—KEY-HOLE GUARD FOR DOOR LOCKS.—Simon Shloss,

71,235.—KEY-HOLE GUARD FOR DOOR LOCKS.—Simon Shloss, 71,235.—KEY-HOLE GUARD FOR DOOR LOCKS.—Simon Shloss, Florence Veerkam, and Chas. F. Leopold, friindelphia Pa.
We claim, Ist, A case, A, with its projection, a. cap, B, segmental plate, D, and plece, e. the whole being constructed for attachment to a lock, and for operating substantially as and for the purpose herein set forth.
2d, The combination of the silouiders or stops, e and f, of the case, A, with the bugs, i an i', of the cap, B, for the purpose herein set forth.
3d, The combination, supstantially as described, of the case, A, with the bugs, i an i', of the cap, B, for guiding the key, F. as set forth.
4th, The luxs, i and i', of the cap, B, for guiding the key, F. as set forth.
71,236.—COFFEE-POT.—J. B. Smith, Milwaukee, W is.
1 claim a coffee-pot, consisting of the inner vessel, B, and the ourer vessel, A, with a water space between them, united at their top by an annular plate, having an opening, G, at the rear side only for the introduction of water, substantially as described.
71,237.—UopFEE-POT.—J. B. Smith Milwaukee Wis

substantially as described. 71,237.—UOFFEE-POT.—J. B. Smith, Milwaukee, Wis. Iclaim, 1si, Shield, H. in combination with double coffee-poi. A and B, and handle, F., nbstantially as and for the purpose described. 2d, Double coffee-poi. A and B, with opening, G, shielu, H, and covers, C and E. combined and ar anged as described. 71,238.—BROOM HEAD.—Levi S. Smith (assignor to himself

5th, The sliding dead plate or front bearer to the grate, in combination with the grate and downward passage, substantially as described. 6th. The combination of the corrugated bottom plate of the flue passage from the fre-pot to the chimney, with the air heating tubes, which project up into the flue passage, which tubes are arranged in rows, and joined to the corrugated plate upon the ridges or V-parts of said plate, which project up into the flue passage, where by the sakes or other solid matter coming from the fre-pot is prevented from accumulating between the tables of each row, and forced to accumulate in the grooves or depressed portion of the corru-gated bottom plate. Detween the geveral rows of tubes, thus affording facility for cleaning the bottom plate and increasing the heating surface, substan-tially as described. 7th, in combination with the flue passage, p, and vertical air heating tubes, the cleaning passage leading from the rear of saldflue passage, of the substantially as and for the purposes described. 8th, the combination of the flue passage, increasing in depth, with air heating tubes increasing in length, in proportion to their distance from the flre pot, whereby greater upviller are breater surface is obtained to compen-sate for diminished heat, substantially as described. 9th, incombination with the flue passage and vertical air heating tubes, the two connecting flueswhich connects ald flue passage with the main flue, leading from the ch meay, said two flues connecting with the flue passage on opposite sides, and near the bottom chereof, substantially as described. 71,245.—ORGAN BELLOWS.—Elihu H, Thormas, Jr. (assignor to J. Estey & Co.), Brattleboro, Vt. claim the combination and arrangement of the sector and its hinge, with the strap, the pedal, the bellows, and its operative spring, the whole being substantially as specified.

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71.250.—HAY LOADER.—Albert Vose, Pittsfield, Vt. I claim, ist, The combination of the sliding shaft, a, and spring, g, substan-tially as and for the purposes set forth. 2d, Also, the combination of the sliding shaft, a, provided with a toothed segment, u, cogged wheel, A, spring, g, and lever, f, substantially as and for the purposes s.t forth. 3d, Also, the lifting arm, h, or its equivalent, when the same is adjustable laterally, substantially as and for the purpose set forth. 4th, Also, the lifting arm, h, protect to the elevating shaft, a, substantially as and for the purpose set forth. 5th, Also, the combination of the pivoted lifting-arm, M pivoted brace, 1, and shaft, a, substantially as and for the purpose set forth. 7th, Also, the combination of the slaft, a, smn, x, and cord, w, substantially as and for the purposes set forth. 7th, Also, the combination of the lifting-arm, h, or its equivalent, and an elevated fork, n, pivoted thereto, substantially as and for the purposes set forth. 8th, Also, a comtination of a laterally adjustable lifting-arm, h, and an elevated tork w, n pivoted thereto, substantially as and for the purposes set forth. 8th, Also, the combination of a laterally adjustable lifting-arm, h, and an

elevated fork, n, pivoted thereto, substantially as and for the purposes set forth.
9th, Also, the combination of a laterally adjustable lifting-arm, h, and a vertically adjusting arm, i, attached thereto, and supporting thefork, n, substantially as and for the purposes set forth.
10th, Also, an elevating f'nk, n, as connected to its lifting-arm, h, that it may be readily detached therefrom, for the purpose of unloading the hay, substantially as asserbled.
11th, Also, the combination of the forked arm, 5, block or plate, o, and nuts, 7, substantially as asserbled.
12th, Also, the combination of the notched sliding bar, r, tines, n, guides and pavi, s, substantially as adscribed.
13th, Also, the automatic r iping device, v, consisting of the arm, v, on the lifting-arm, h, and the pivoted pawi-lever, s, on the pivoted fork, n arranged and operated substantially as described.
71,251.-WATER GRATE FOR FURNACES.-Robert L. Walker, Globe Village, Mass. 21,576.—LAMP.—Rufus Spaulding Merrill and William Carleton. Boston. Mass assignees of Christian Reichmann. Philadelphia, Pa., atta September 21,1856. Application for ressue received and filed Oct. 11, 1867.
1877. We claim a lamp burner in which the parts are arranged substantially as described so as to allow the light to pass out or be reflected from beneath or from the under side of dome or reflector and other parts configuous to or adjustify the flame are sized above and removed from contact with the base of the barneare sized above and removed from contact with the base of the barneare sized above and removed from contact with the base of the barneare sized above and removed from contact with the base of the barneare sized above and removed from the endpose berein specified.
36. It combination with the lamp the slotted open dome or deflector when sconstructed as a to allow the light to be deflected do the barneare and for the purpose aerein set forth.
37. The combination of the deflector and other parts contact with the base of the barneare such an arrangement that the said sleeve mounted upon slid the under such an arrangement that the said sleeve and from or appled to the wick tube, as and for the purpose aeries of from or appled to the deflector of as herein described, that is to say, provided at its base with a series of peripheral springs for steadying and supporting the lampler of such deflector of a different described from the periphery of standial gas as forth.
66, 498.—Free Annihietta Associated ad and here the light of a mes prohering by which the said deflector and a side of the lamp child of the set of the lamp child of a supervised as the said deflector of a series of arms project of the same and the set or rest for the lamp child exercise and the spring for the applied of the set of the set or rest of the lamp child exercise did deflector and a supervised as the said deflector of as areles of arms project in the periphery of steadid and held in posi

71,252.—EnvELOPE MACHINE.—Thomas V. Waymoth, New York city.
1 claim, 1st, Attaching the wing used for folding the seal flap of envelopes to the machine or frome at a lower level than the npper surface of the bottom of the folding press, for the purpose set forth.
2d, No arranging the front wing a, called the scal-flap wing, in combination with folding press, by means of the adjustable stop, for any suitable device, thatsuch wing can be turned upon the press at different angles, or can stand vertical v, as desired.
3d, The arrangement and combination, substantially as described, with the plunger, B, and folding press, C, of the projecting lines, m, and grooves, to, for the purpose setforts.
4th, The combination with the plunger, B, and folding press, C, substantially as described, of the ronghened surface, p, and yielding cnshion, q, for the parces set forth.
71,253.—GrATE.—Marshall D. Wellman, Allegheny City, Pa. I claim the agistator, C, constructed as described, and for the parces in the grate, B, with its projections, e, c, the whole being constructed as generic and for the purpose set forth. -TRUNK HINGE.-Lucius Wheaton, Auburn, N. Y.

I claim the upper part, A, provided with slot, e, in combination with lower part, B, when both are constructed and hinged, substantially in the manner

part, B, when both are constructed and hinged, substantially in the manner specified. 71,255.—HARVESTER.—Wm. N. Whiteley, Springfield, O. I claim, lat, A projecting stop-pin, H, or its equivalent, on the bitman, which, when folding the cutterbar, will come in contact with a stationary part of the guide-bar or shoe, and prevent the knife from running out of the shoe, as set forth. 2d, A plate, J, secured at one end to the pitman, and placed between the under and jam-nuts on a clamping bolt, as and for the purposes described and set forth. 3d, In combination with the pitman, A, of a harvesting machine, the solid ring head, L, as and for the purpose described. 71,255.—HARUFACTUBF. OF PHOSPHATE OF SODA AND OTHER PROPUTS.—Chailes P. Williams (assignor to himself and George T. Lew-is), Philadelphia, Pa. I claim the art or manufacture of the phosphate of soda and other phos-phates by the process or method herein shown and described. 71,257.—HARVESTER GUARD FINGER.—William A. Wood, 4000sick Falls, N. Y.

3d, Also, the arrangement and combination of bars, K and L, fulcrum-piece 1', connecting rod, M, for holding propelling rope firmly against groove of

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wheel. 4th, Also, a succession of endless ropes for propelling street cars. 5th, Also, the combination gear apparatus, O P Q Q Q, as a described, for attaching and detaching cars trom the propelling ropes. 6th, The arrangement and combination of wheel, S, and band, T, as described and for the purposes set forth. 7th, Also, supporting the rails of the track by means of truss rods, X, sub-stantially as set forth, but I do not claim the trass rods except as a support for the rails of an elevated railway.

tor the rails of an elevated railway. 2,800.—HARVESTER RAKE.—Chas. F. Davis, A uburn, N. Y. I claim the combination of a stop lever, L, controlled by the driver, with the hinged rake head, and so arranged that the driver can, at pleasure, by moving the stop lever out or in, change the heads from rakes to beaters, and from beaters to rakes, for the purpose of controlling the size of the gavels, substantially as set forth. Also, in combination with the rake head of a combined rake and reel that is thrown out of action by the operator riding on the machine, a mechanism by which it is automatically thrown again into action, substantially as de-scribed and represented.

-Sealing Preser e Cans.-Henry S. Fisher, New-2,801.

(2,801.—SEALING PRESER E CANS.—Henry S. FISher, Newburg, Pa. I clasm, ist, A self-adhesive seal which is prepared either in the form of a sheet, ring, disk, or piece of any required size or shape, and composed of paper which is thoroughly saturated and coated on its surface with a clement composed of the within-described and for the purpose specified. 2d, A self-adhesive seal, which is composed of paper thoroughly saturated and coated with a rosin cement, and afterward subjected to considerable pressure, so as to adapt the seal for hermetically closing preserving vessels, substantially as described. 3d, A seal which is composed of paper and cement, in combination with a compressing and reatining device, C, or its equivalent, substantially as and tor the purposes described. 38, A seal which is composed of paper and cement, in combination with a compressing and reatining device, C, or its equivalent, substantially as and tor the purposes described.

2.802

2802.—STUMP EXTRACTOR.—Isaac Hicks, Hartford, Wis. 1 claim, lat, Shaft, B, pulley, C, bar, E, with its hanging fulcrum, ropes, or hains, D D, strap, F, and band, I, in combination, substantially as described. 2d, frames, J, and wheels, o, in combination, substantially as described. 2,803.—MACHINE FOR CUTTING PAPER.—Hervey Law, Chat-

ham, N. J. I claim the combination of the rising and falling platform. C, and clamp frame, E, operating to clamp the paper or book as the platform fries, and to unclamp tho came as the platform descends, by means of single or double came or toggles, F F, having crank., G G, connected with them, the pintles of which work in curved grooves, or otherwise actnated by any well-known and mechanical device, substantially as and for the purpose hereinshown and mecorihed. and mee

described. 2,804.—HAND TRUCK.—P. H. Humes, Watson's Salt Creek, 10., assignor to William C. Rentgen, Keokuk, Iowa. I claim the curved parts or ends, as, of the truck, with or without the aux-iliary wheels, b, in combination with the curved removable holding and stop bar, D, made either of a sing lepiece or divided at its extremity, substan-tially as and for the purpose set forth.

DESIGNS.

2,831.—PRINTER'S TYPE.—David Bruce, Brooklyn, assignor to David Wolfe Bruce, New York city.

2,832.—PRINTEER'S TYPE.—Julius Herriet (assignor to David Wolfe Bruce), New York City.

2,833.-ORNAMENTAL TYPE.-Edwin Charles Ruthven, Phil-delphia, Pa.

2,834.—TRDE MARK.—Joseph Scholfield, Constantine, Mich. 2.835.—SATCHEL.—R. M. Seldis, New York city.

2,836.—SEWING MACHINE.—W. G. Wilson, Cleveland, Ohio. 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.

21,576 -LAMP.-Rufus Spaulding Merrill and William Carle-

19 as set forth. 498.—FIRE ANNIHILATOR.—Charles T. Jerome, Minneap-olis, Minn. Dated July 9, 1867. Application for reissue received and filed

olis, Minn. Dated July 9, 1801. Application for ressource of the application of a quick match, or its equivalent, which will take fire at a low temperature to an apparatus for extinguishing fires by the infection upon the same of a gaseous or a liquid non-supporter of combustion, substantially as described. 2d, Preparing the ends of the quick matches with a composition composed of the within-described ingredients mixed together in about the proportions set forth. 45 990 — HEATING APPARATUS.—Thomas S. Clogston, Boston,

set forth. 45,389.—HEATING APPARATUS.—Thomas S. Clogston, Boston, Mass. Dated Dec. 13, 1864. Application for reissue received and filed Oct 31 1867.

Mass. Dated Dec. 15, 1562. Application for relaste received and nea Oct. 31, 1867. I claim the application and use for heating purposes of one ormore tubes having a corregated for annular ribbed surface in combination with a boller or other suitable steam generator and pipes for conducting the steam or hot water from said generator to the corrugated tubes, essentially as herein shown and described.

66.498.

2d, Double coffee pot, A and B, with opening, G, shield, H, and covers, C and E. combined and arranged as described.	part of the guide-bar or shoe, and prevent the knifefrom running out of the	water from said generator to the corrugated tubes, essentially as herein shown and described.
71 238 — BROOM HEAD.— Levi S. Smith (assignor to himself	shoe, as set forth. 2d, A plate, J, secured at one end to the pitman, and placed between the	18,175.—Type Setting and Distributing Machine.—The
and Joseph V. Winemiller), Gorsuch's Mills, Md. I claim the cap or socket, A, in combination with the links, G G, cross head, H, and screw, B, substantially as described for the purpose set forth.	under and jam-nuts on a clamping bolt, as and ior the purposes described and set forth.	Alden Type Setting and Distributing Company (assignces by meane as- signments of Timothy Alden), New York city. Dated Sept. 13, 1837. Ap- pheation for relissue received and filed Nov. 8, 1857.
head, H, and screw, B, substantially as described for the purpose set forth.	3d, in combination with the pitman, A, of a harvesting machine, the solid ring head, L, as and for the purpose described.	plication for relasue received and filed Nov. 8, 1867.
And, in combination with the links, the clamping blocks and screws. 71,239.—SEALING FRUIT CANS.—Charles F. Spencer, Roches-	71,253.—MANUFACTURE OF PHOSPHATE OF SODA AND OTHER	1st, We slaim the revolving carrier wheel, J, provided with suitable con- veyors or gripping devices capable of taking hold of a type and carrying
ter N.Y.	PRODUCTS.—Chailes P. Williams (assignor to himself and George T. Lew-	the same from one channel to another, substantially as set for th.
I claim the combination of the lead or equivalent seal with the counter- sunk or depressed seat as and for the purpose set forth.	is), Philadelphia, Pa.	2d, The method substantially as described for conveying the type to and from the type cases and the composing and setting tables consisting of a type
71 240VEHICLESStephen J. Spencer, Yorkshire, N. Y.	I claim the art or manufacture of the phosphate of soda and other phos- phates by the process or method herein shown and described.	carrier in combination with a series of conveyors which are capable of re-
I claim plates DD secured to the bottom of the box or body, and the	71,257.—HARVESTER GUARD FINGER.—William A. Wood, Hoosick Falls, N. Y.	active to be a seried of the series of conveyors which are capable of re- ceiving any type indiscriminately and also of receiving an indication repre- senting the type sor received or that required whereby that type may be de-
rods, E. E. connected to the upper portion of the springs, when used sub- stantially as and for the purpose set forth.	Logistic Fails, M. I. I claim, Rt. Inserting in the main body of a guard finger for a harvesting	bosited into or taken from the type cases, substantially as set forth. 3d, The ring, f4, supported by suitable bearers or friction rollers in combi-
71.241 — CAB AXLE Box — T. B Stewart Wetherstield Conn.	machine a piece of metal, harder than the main body of the guard-finger.	nation with the carrier wheel I and stationary shaft by enherantially as
I claim, 1st, The combination of the tubes, B and C, with flanges, a and b, arringed upon the box and wheel, substantially as herein shown. 2d, The crescent shaped saddles, f, having tenons, g g, upon their outer surfaces, and cavities, h h, on their inner surfaces, arranged substantially	plete lining to the cutting cavity through which the cutters vibrate.	and for the purposes described. 4th, The Herch-described or any equivalent method of attaching the con- veyors to the carrier wheel by which they are permitted to stop while de- livering or receiving type without arresting the motion of said carrier, sub-
2d, The crescent shaped saddles, f, having tenons, g g g, upon their outer	2d, Constructing a guard finger with lips, h h, in combination with the har- dened piece, B, or their equivalents, substantially as and for the purpose set	veyors to the carrier wheel by which they are permitted to stop while de- livering or receiving type without arresting the motion of said carrier, sub-
38 8DOWD.		
71,242.—LAMP.—Cornelius St. John, Charlestown, Mass.	I claim, 1st, A double couch or berth for the upper tier in a sleeping car.	5th, Giving to the gripping end of the conveyer a motion from and toward the center of the carrier wheel whereby said gripping and is made to closely apprnach the place at which the conveyer it to receive or deposits type for
I claim the combination, with the base and wick tube of a lamp burner, of the cyhudrical chimney-rest and supporter, A , of wood, or other snitable material which is a non-conductor of heat, substantially in the manner and	consisting of two leaves so hinged together that the outer leat folds upward,	approach the place at which the conveyer is to receive or deposit a type for the purboses and in the manner substantially as described.
material which is a non-conductor of heat, substantially in the manner and for the purpose herein shown and specified.	and the inner leat, being attached to the side of the car by hangers, cc, so that the couch thus formed may be folded and swung up toward the roor of	6th, The mechanism for gripping the type consisting of the projection or
A so, the combination, with the wick tube and base of the burner, of the	the car, substantially as hereinbefore described. 2d, A detached and removable partition, m, when so constructed as to di-	the purposes and in the manner substantially as described. When the purposes and in the manner substantially as described. But, The mechanism for rripping the type consisting of the projection or hp.gs, and bole, o, substantially as set forth.
chim hey-rest, A, deflector, e, and perforated plates, by which said chimney- rest and deflector are supported and held in position with relation to the	vide the space occupied by the berths of a sleeping carinto separate com-	
wick type, substantially as hereip shown and set forth.	partments at night, and to be removable by dayso as to permit the tree pass- age of air through the car, substantially as and for the purposes hereinbefore	8th, The cam, u5, and lever, t5, whereby the gripping bolt, o, is withdrawn and made to release the type, substantially as described. 9th, The latch, v5, and notch, x5, in the bolt, o, to retain said bolt open,
Also, the adjustable spring, app.led to the side of the burner, for sustaining the chimney in place, essentially as set forth.	set forth. 71,259.—Machine for Cutting and Punching Flynet	su dstantially as set to rtb.
Also, the peculiar arrangement and application of the wick elevating shafts, i k, essentially as herein shown and described, and productive of ad-	STRAPS.—Josiah Yeager, Berrysburg, Pa.	10th, The pin, y6, on the carrying wheel to throw back the latch and re- lease the boit, o, substantially as described.
vantages as explained.	I claim. 1st. The construction of the knives or cutters e, with the inclined	11th, The pusher, b6, on the conveyer to discharge the type from the grippers, substantially as set forth.
71,243MAC INE FOR HEADING BOLTSWilber Swathel	cutting edge, substantially as described. 2d, The adjustment of the cutter bit or stock, by means of the lever, as de-	12th. The cam, d6, on the carrier wheel, J. to give motion to the pusher.
(assignor to W. J. Clark, H. H. Clark, and C. H. Clark), Southington, Conn.	scribed. Sd, The manner of securing the knives and spacing keys by means of set screws and wedges, as described.	b6, on the conveyers, substantially as described. 18th, The lever, u6, secured to a stationary fulcrum to give motion to the
I claim, 1st, In bolt machines, the two independent clappers G and L, and the two separate projections, B1 B2, on the shaft, B, and the wedge piece, E,	screws and wedges, as described. 4th, The two punches, f f, arranged in the bit or stock. and secure., therein	13th, The lever, u6, secured to a stationary fulcrum to give motion to the pusher, z5, of the setting conveyers, substantially as set forth. 14, The springs, 15, having the dou ble function of thrusting the conveyers out and forcing them in, substantially as described.
arranged as represented, so as to operate relatively to each other and to the	by set screw, as described, for punching the holes in the strap in pairs, as set	out and forcing them in, substantially as described.
header and moving die, substantially as and for the purposes herein set forth.	5th. The metal bed plate. F. adapted to receive the perforated guides for	15, The projecting piece, g6, on the conveyers and the stationary hooks, x x, for the purpose of arresting the conveyors at proper places, substantially
2d, Holding the header and slide, K, forward, while the clapper, L, rises, by the catch, M, or its equivalent, arranged and operating substantially in	varioussized straps, substantially as and for the purpose set forth.	as set forth. 16th, The adjustable indicator points, 05, on the conveyers, substantially
the manner and for the purpose herein specified.	71,260.—GRATE, FIREPLACE, AND FURNACE.—Wm. Young, London, England.	as and for the nurnose described
71,244.—AIR HEATING FURNACE.—John M. Thatcher, Ber-	I claim the application to grates, fireplaces, and furnaces, of spiral bars,	17th, The bar, n6, came, 16, and spring, 06, for carrying the conveyers to the forward co ds of their slots, substantially as described. 18th, The type cases or channels, R, arranged both to receive type from
gen, N. J. I claim, 1st. In combination with the fire-pot, a central feeding funnel, in	I claim the application to grates, fireplaces, and furnaces, of spiral bars, adapted for the double purpose of feeding and raising the fuel to the fire, and admitting air to the fuel, as described.	and discharge it to the conveyers, substantially as described.
theform of two hollow irustra, of cones, united together at their smallest		19th, in combination with the devices or mechanism for receiving the types into and for delivering them from the type cases, we claim arranging
20, The clinker clean ing passa::e, from and through the furnace front, to and into the fire-pot, inclosed by the plate connected with the fire-pot, fur-	REISSUES.	the types edgewise in said cases whereby for all the types of a font an uni- form throw or action may be given to said mechanism.
nace front, and ash DIL so as to prevent communication with the not an		20th, In combination with the type channels or cases the mechanism for
chamber, surrounding the fire pot, substantially as described. 3d. In combination with the clinker cleaning passage, the downward pas-	I claim, lat The construction and arrangement of a quadruple track upon a single row of pillars, provided with cross arms for suspending and support	20th, in combination with the type channels or cases the mechanism for pushing out the type consisting of the rack, pendulum lever, and properlime rod, and the pusher upon the conveyers, or any equivalent thereof, as de
care leading therefrom to the set nit substantially as described.		scribed. 21st, 1n combination with the type channels the mechanism for preventing
the in combination with the ash pit, grate, and down word passage, leading from the clucker cleaning passage way, and sitting Grater by Mug a perfo-	2d, Also, the arrangement of the guide rails, E E, to obviate the necessity	the stopping of a setting conveyor at a type channel when it is empty or a distributing conveyer at a channel when full of type consisting of the tilting
rated bottom, extending for ward of the grate pars, and across underneath	of using hanges on the car wheels, and to prevent the cars being thrown irom	bar, s7, the pendulum lever and rack, or equivalents, as described.
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