OFFICIAL REPORT OF Patents AND CLAINS

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402

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Pamphlets containing the Patent Laws and full particulars of the mod 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.

71,836.-MACHINE FOR NOTCHING KNITTING NEEDLES. _W

71,836.—MACHINE FOR NOTCHING KNITTING NEEDLES.—W. Alken, Franklin, N. H.
¹ claim 1st, The improved machine, enbsrantially as described. for effecting the several operations of notching, slotting, horized, and burring a knitting machine needle blank, in the order and manner sie explained.
23, Also, the combination of one or nor vibratory clamps, Y, the cam, E, and the two burrs or noise and an enclose in the needle blank.
34, Also, the combination of one or more vibratory clamps, Y, the cam, E, and the two burrs or one of a set of the set o

71,839.—MODE OF PREVENTING THE UNTWITING OF THE ENDS OF WIRE ROPE BANDS.—Artaur Barbarin, New Orleans, La. I claim a wire rope band, in which the ends of the several wires compos-ing the same are soldered to rether, substantially as herein described and shown in the accompanying arawings, and for the purposes set forth. 71,840.—SPRING-BED BOTTOM.—Alonzo B. Baty, Bingham-

ton, N, \overline{X} Letain the construction and application of the bracket, B, in combination with the bail or pendant, C, the springs, DD, transverse pieces, F F, and slats, A, all being constructed substantially asher in described and represented, for the purpose set for the

Tor the purpose set forth. 71,841.—HORSE-RAKE.—H. L. Beach, Montrose. Pa., assignor to Beach Wheel Horse-Rake Manufacturing Company, N.Y. I claim 1st, The teeth heads, N, constructed and operating substantially as

, In combination with the teeth heads, N, the teeth, Q, substantially as describe

ribed. The arms, K, and teeth heads, N, combined and operating substantially t forth. , The cleaners, M, teeth heads, N, and teeth, Q, when combined for the as se 4th

as set to react the cleaners, M. teeth heads, N, and teeth, Q, when combined for the purposes indicated.
5th, The blocks. i, pins, c, sliding bar, E, and lever, G, when combined for the purposes set forch.
sth, The blocks. i, i, and pins. J, secured in the axle for the purpose shown.
7th, The washers, P, combined with the teeth and teeth heads, substantially as and for the purpose described.
71,842.— APPARATUS FOR LIGHTING STREET GAS-LAMPS.—J.
w. Beard, St. Johns, New Brunswick.
I claim the combination of the book, P, and the perforated cap. E, with the lamp, D', to be affixed on a pole or staff, as set for fl.
Also, the combination of the socket tube, e, with the lamp, D, its hook, F, and perforated cap. E.
Also the combination of the receiving tube, f, and bayonet connection, g, with the socket tube, e, the lamp, D, its hook, F, and perforated tube, e, the lamp, D, its hook, F, and perforated cap. E.

71,843.-CALIPER AND T-SQUARE.-Joseph Bennor, Philadel-

11,000.—Online Bartanov, and a stand, c, slide, m, legs, p and q, marker, u, cutter, w, I claim the rule, a, stand, c, slide, m, legs, p and q, marker, u, cutter, w, it the there server al described appendages, all combined in the manner and or the purpose subs. autially as shown and described. 71,844. — REFRIGERATOR. — Ferdinand Borchard, Detroit, W, with the server all described.

Mich. Mich. I claim 1st, A refrigerator which is provided with movable racks, H, with-in cooling chambers which are arranged beneath an ice chamber, B, con-structed with inclined walls, a s a, a drip pan, D, and an ice-supporting rack, c, substantially as and for the purposes described. 2d, Providing the movable racks, with sliding brackets, I, which are so ap-plied as to serve as supports for the outer ends of the racks when drawn par-tially out of their respective apartments, substantially as described. 71,845.—CONSTRUCTION OF METAL SALVERS.—George Bra-brock, (assignor to Reed and Barton), Taunton, Mass.

71.345.—CONSTRUCTION OF METAL SALVERS.—George Bra-brook, (assignor to Reed and Barton), Tannton, Mass. I claim the arrangement and combination of the metallic ring and cap molding together, and with the waiter or salver, in manner substantially as and for the purpose specified. Also, as a new or improved manufacture, a waiter or salver of britannia metal, having a metallic strengthening-ring and cap molding combined and arranged with its body in manner as specified. 71.846.—MANUFACTURE OF SHOES, ETC.—M. L. Brett, War-ren, Oblo.

ren, Oblo. 1 claim the construction of a seamlessshoe, etc., by felting, in the manner set forth, as a new article of manufacture. 71,847.—CONSTRUCTION OF SCOOPS.—Theo. C. Bromley, Fort

Boward, Wis. I claim the concessinged back and the circular raised brace. 1,848.—WATER-RESERVOIR FOR EXTENSION-TOP STOVE.-

71.848.-

71,848.—WATER-RESERVOIR FOR EXTENSION-IOF STOVE.— Chas. H. Buck, St. Louis, Mo. I claim ist, the bolier, D, constructed with a depression in its rear side, in combination with a stove made with the extended top, A. and with, a stove-pipe, C, which is sentrely independent of the bolier, but still is partly enclosed by the bolier, in the manner and for the purpose described. 2d, The bolier, D, with its depression in its rear side made wholly independ-ent of the pipe, C, but capable of enclosing a portion of said pipe, and of be-ing removed without disturbing the pipe, as herein described and shown. 71, 240. Terrupt, Roy......TF Rurgess Lowell Mass.

ing removed without disturbing the pipe, as nervin described and shown. 71,849.—JOURNAL-BOX.—T. F. Burgess, Lowell, Mass. 1 claim the drips, e e, and conducting holes. d d, in combination with the re-cesses, b b, when arranged to operate substantially as described and tor the purposes faily set forth. 71,850.—HAY ELEVATOR.—E. H. Carpenter, Dexter, Mich.

18th, The combination with the arm, 70, and notched bar, w, of the sping-pawil, is substantially as and for the purposes set forth. If the accompanying drawings a described, and as shown in ferror of the accompanying drawings and for the purposes set forth. If the combination with a loom or weaving palm-leaf and other cloth, of a puch-finger, 41, substantially as and for the purposes set forth. If the combination with the stem of the putposes set forth. If the combination with the stem of the putposes set forth. If the combination with the stem of the putposes set forth. If the combination with the stem of the putposes set forth. If the combination with the stem of the putposes set forth. If the combination with the side and the putposes set forth. If the combination with the side are of the putposes set forth. If the combination with the side are of the putposes set forth. If the combination with the side are of the putposes set forth. If the combination with the big details of the putposes set forth. If the combination with the big details of the putposes set forth. If the combination with the stationary bed, L', and stand, 72, of the hinged table, L, and teach o, substantially as set forth. 20th, The combination are also and the set bownand set forth. 20th, The combination with the bridge-piece, 50, of the binzed dog, 52, and bell spring, 53, substantially as and for the purposes set forth. 23d, The combination and relative arrangement with the table, L, bed, L'', 23d, The combination with a loom for weaving palm-leaf of mechanism substantially such as shown and described for stopping the loom, as set forth. 71, 853.—PITMAN COUPLING.—G. W. Clark, Manchester, Ind.

71,853.—PITMAN COUPLING.—G. W. Clark. Manchester, Ind. . 1 claim the arrangement of forked pitman, A G G', bolt, II, screw shanked hook, D, and nuts, F F', or their equivalents, substantially as audior the pur-pose set forth.

pose set forth. 71,854.—MACHINE FOR MAKING LEVEES.—Ernest Comeaux, Rayou Goula, La. I claim ist, The endless abron in combination with the hinged adjustable frame. K. operating as described for elevating the earth used in making lev-es, in the manner and for the purpose set forth 2d, The combination of the endless apr., F, chains, H, slats, J, and adjust-able supporting-frame, K, and elsuadards, L, as herein described for the pur-pose set forth. 3d, The above in combination with the tangungha Cond Musical State of the combination with the tangungha cond Musical

pose set forth. 3d, The above in combination with the spur-wheels, C and B, and the end-tess chain, D, as herein described for the purpose set forth. 72,855 — CONSTRUCTION OF ROOF.—M. De K. Cutts, Rich-

72,855 — CONSTRUCTION OF ROOF. — M. De K. Cutts, Richmond, Va.
claim lst., A tobacco drying house which is provided with a sectional linged roof in combination with trances A, which apport the tobacco leaves while being dried and cured substantially as described.
24, The supporting posts, G, in combination with hinged sections, B B', el-eveng drives, and supp rivit Transes, construct-d and arranged in such manner that the leaves of tobacco upon said frames can be exposed to the action of the even ad air at pleasure substantially sector the tobacco.
71,856.—CAR BEAKE.—Shadrach Davis, Dartmouth, Mass.
1 claim a car brake, consisting of the broad connecting bar, Cl, which rests on pivots, Fl, working in slots, and has the brake-shoes movable fixed to it, the whole combined as described, operated by the bar, 12, and screw rod, H2, and by coutact with the wheels as and for the parposes set forth. 71 857 -FEEDER FOR GRAIN MILL.-Michael Decamp, South

Bend, Ind. I claim ist, The combination of the device, D, bridge ring-bearing, a b, feeder, c, and collar, e, substantially as described, 2d, The toolhed eccentric, J, in combination with lever, G, and collar, e, substantially as described.

-PAINTER'S EASEL.-Paul Deschause, New York city. 11.000.—PAINTER'S EASEL.—Paul Deschause, New York City. I claim ist, The extensible legs, consisting of the hinged legs, a, and their extension sliding parts, b, made and arrangic is abstantially as described. 2d, Also the combination of the legs with the toggle-brace, c c, substantial-ly as described. 2d, Also, the extensible rest, composed of the fixed part, e, and the sliding part, d, in combination with the fixed and movable clamps, f g, substantial-ing ageoribed.

71,859.—Guide For Saw in Saw Milla.—Hiram P. Dilling-

ham, Norwolk, Ohio. I claim the plates. A and A', grides. B B', and C and C', the whole con-structed substantially as described, and operating as and for the purposes sot 71,850.—Producing Calcium Magnesium Light.—Chas. A.

Dresser, New York city, George A. Dresser. Trustee; I claim the preparation of dolomite, native or artificial substantially as and for the purpose described. 71,861.—CALENDAR ATTACHMENT TO INKSTAND.—Sam'l. R. Drummer New York city.

71,861.—CALENDAR ATTACHMENT TO INTERNATION Dummer, New York city. I claim 1st, An inkstand, etc., constructed with a series of shoulders or rests, B, whether one or more and one shore another, in combination with therings, C, and plate or frame, D, or their respective equivalents substanti-ally as and for the purpose described. 2d, In combination with the above, the two tubes, H M, and plunger, O, as herein set forth for the purpose specified. 71,862.—PLANING MACHINE FOR WOOD.—G. B. Durkee and W. W. Marser (essigned to themselves and I. T. Safford), Chicago, 11 herein

71,862.—PLANING MACHINE FOR WOOD.—G. B. Durkee and W. H. Murrav, (assignor to themselves and I. T. Safford), Chicago, 111 We claim ist, The employment of two'separately adjustable cutter heads in a sinzle machine, so that the axis of one cutter inay be at the angle of the other at a different angle, and both cutters operating at the same time upon the same board, substantially as specified. 2d, The crossheads, C, cutter-heads, E, screws, D and G, in combination with the staudards, B, constructed and operating substantially as specified 71,863.—SELF-ADJUSFING RELAY M AGNET.—J. M. Fairchild, constructed by Murdy and L a TOWwend New Ware Child.

(assignor to himselt, J. K. Bundy, and J. a. Townsend). New HAven, Ct. I claim the arrangement of the head, C, combined with the magnet. so as to be self-adjusting in relation to the armature, substantially as herein set orth.

71,854.—CORN CAKE CUTTER.—Leonard Felker, Tewksbury

Mass. I claim the rotating cylinder, i, with its cutters, i'i', in combination with the rotating cylinder, ', with the Stationary nives f' i', and adjustable fin-isbers, g g, when arranged to operate substantially as described and set 2d, The vressure rotating cylinder, f, with stationary knives, i' i', and ad-justable finishers, g g, substantially as described and set forth. 3d, The clearer, m, in combination with the rotating cutters, i'i, as de-cented.

so, The clearer, in, it combination while the rotating cutters, 1', as de-scribed. 4th, The adjustable stands, d d, and lever, p, in combination with the table, b', asd weight, o, when arranged to operate substantially as described. 71,865.—MEASURING FAUCET.—Elisha Fitzgerald, N. Y. City. I claim the combination of a four way cock with a receptacle having a mov-able partition operated by the water, substantially as described, for the pur-pose of limiting and determining the amount of water to be discharged, as specified.

pose of finiting and determining the above, the dial and pointer, to be discharged, as Specified. Also, in combination with the above, the dial and pointer, to indicate the amount of water discharged, as describe 1. 71,866.—TWEER.—Charles C. Forncrook, Hermitage, N.Y. I claim the combination of the valve, d, edjustable bridze, g, chamber, B, and tweer, A, arranged and operating substantially in the manner and for the purpose set forth. Comparent Lobert Learly New Orthogen Lobert L

purpose set forth. 71,847.—COTTON TIE.—John H. Fralev, New Orleans, La. Iclaim the combination of the buckles, A and B, when they are constructed and united as described, with the ends of hoop iron, when bent into the form of hooks, as and for the Durpose set forth. 71,858.—BRIDGE.—John Glass, George P. Schneider, and

[7],858.—BRIDGE.—John Glass, George P. Schneider, and William B. Regner, Cleveland, Ohio.
 We claim, ist, The thoular flaged sections, A B, as arranged in combina-tion with the diaphragm, C, for the purpose and in the manner substantiality as sec.forth.
 24. The thoular arch, as constructed, with sections, A B C, in combination with the footblock, I, provided with a flange or bos, K, when arranged in the manner as and for the purpose set forth.
 71,869.—OIL CUP.—John H. Gomer, New York city. I claim the combination of the cap, B, with its serve flange, b, and case, A, provided with suitable tube, C, in the manner and for the purpose herein specified.
 71 Program Magnutur, Georgen D, Gondrich, Chicago, III

71 870.—PEAT MACHINE.—George D. Goodrich, Chicago, Ill.

11.510.-1 EAT INACHINE. - George D. Gooth feit, Chicago, III. I claim, fat, The adjustable bearing for the shaft, B, compased of two or more segments, r, constructed and operating substantially as described. 2d, The separate troughs, I, located below the tempering mill, when more than one expelling screw is employed, so as to give each screw a separate and independent action, substantially as specified. 3d, The euter or knife, F, for cutting the material into suitable lengths in a peat machine having a continuous discharge from the expelling mill, suo-stantially vs specified.

With the slotted lever, D, and the rohers, F F, and the call, H, as and the rohe purpose set forth.
71,892.—PROCESS FOR RENDERING PAPER, CLOTH, AND THE LIKE, FIRE AND WATEB PROOF.—Robert O. Lowrey, Sslem, N. Y. I claim the process, substantially as horein described, of treating fibrous and other materials for readering them fire and water proof.
71,893.—COMPOSITION OF MATTER FOR THE MANUFACTURE OF WATER PROOF PAPER AND OTHER ARTICLES.—Robert O. Lowrey, Salem, N. Y. I claim, ist, The new compound or composition of matter, produced by the treatment of vegetable fiber, substantially as described.
2d, The process here in described of treating vegetable fiber for producing a new compound, substantially as set forth. A pleamaching in the mouth of the die by an adjustable intermittent stop or 4th, Closing the mouth of the die by an adjustable intermittent stop or thing, when so arringed that the movements can be varied with respect to the movements of the other operating parts of the machine, substantially as 71,894.-STREET SWEEPER.-Robert Y. McConnell and Geo.

2d, An axially turning rake-shaft, so jointed that its outer sections can be folded inwards without detaching any of its parts. 2d, An axially turning rake-shaft, so jointed that its outer sections can be folded inwards without detaching any of its parts. 3d, The combination of the inner fixed section of the rake shaft with the outer vertically following sections, projecting beyond the wheels, substanti-ally as and for the purpose described. 4th The normbination, substantially as described, with a jointed rike shaft. of hinges allowing the sections to fold vertically, and a locking device to hold them rikidly when nniolded. 5th, Thearrangement as described, of the top pins, m, on the folding sec-tions, to secure them in position when folded un. 6th, The combination in a herse rake, of an axially turning tolding rake ghait, with a rock shaft controlled by a handle on the driver's platform to relies and lower the teech. ich, The arrangement, in a horse rake, of an axially turning jointed rake shaft, mouted on the rear end of the thills, and supported on two wheels mounted on independent axles. 71.876.—AppaRatus FOR DRAINING SUGAR.—James B. Hill.

mounted on independent axles.
71,876.—APPARATUS FOR DRAINING SUGAR.—James B. Hill, Allegheny City, Pa.
relative d. case. B. screen, R. distributing drum, P. distributor, f. provided with valve, d. case. B. screen, R. distributing drum, P. distributor, f. provided with valve, d. case. B. screen, R. distributing drum, P. distributor, f. provided with valve, d. scraper, S. chute, h. and pipe, the whole being constructed. granged, and operating substantially in the manner herein described, and for the putpose set forth.
71,877.—CENTRIFUGAL MACHINE FOR DRAINING SUGAR.— James B. Hill, Allegheny City, Pa.
relative the use of a faw when used in combination with the shield, m. dis-tributor, f. screen, R. case. B. hopper, C. and scraper, S. constructed, ar-ranged, and operating, substantially in the manner herein described, and franged, and operating, substantially in the manner herein described, artification of the purpose set forth.
71,878.—CARD HOLDER _Samual I. Hill Procham. M. M.

ranged, and operating, substantially in the manner herein described, and i the purpose set forth. 71,878.—CARD HOLDER —Samuel L. Hill, Brooklyn, N. Y.

I claim, in combination with a back or support, the use or employment of avy number of strps when the same shall be constructed and combined sub-stantially as shown for the purpose specified. 71,879 — FISHING LINE SWIVEL. — Martin Hiltz, Glouces-

HORCH INTERMENT FOR LIGHTING GAS. — Thomas W. Honchin, Morrisania, N. Y. I claim, 186, Placing a receiver, A, at the lower end of a tube, B, for the purposes fully described. 24, The combination of a receiver, A, tubes, B, and wick chamber, C, when he same shall be constructed substantially as described, for the purposes set orth.

and estant suall be constructed substantially as described, for the purposes set forth.
71,881.—CORN-POPPER.—J. W. Howe, and J. K. Barton, Woregeter, Mass.
We claim, ist, The combination of the twisted wires, a a 'a', with the handle, B, and receptacle, A, substantially as and for the purposes described.
2d, The combination of the wires, a' a', with handle, B, receptacle, A, and cover of the same, as and for the purposes described.
3d, The combination of the wires, a' a', with each other, receptacle, A, and cover of the same, as shown and described.
71,882.—UOPY BOOK.—Eenj. G. Howes, Worcester, Mass. I claim the copy book, constructed substantially as described.
71,883.—PETROLEUM GAS BURNER.—G. A Hyver, New Orleane, La.
71,883.—PETROLEUM GAS BURNER.—G. A Hyver, New Orleane, La, ecombination of the pipe, D, when filled with finely broken charced, with the concentric or annular chamber, F, the latter being provided with the purpose substantially as set forth.
2d, The combination of the pipe, D, when filled with finely broken charced, the combination of the pipe, D, when filled with finely broken charced.
2d, The combination of the pipe, D, when filled with finely broken charced, the combination of the pipe, D, when filled with finely broken charced at the concentric or annular chamber, F, pipes, b, and pipe, d, with the storth.
2d, The combination of the pipe, D, when filled with finely broken charced at the combination of the pipes, b, as described.
3d, The gas pipe, c, when the parpose described.
3d, the earb pipe, b, as described.
3d, the earb pipe, b, and ear retort, H, when the latter is constructed as described, in combination with the valve, J, for the purpose set forth.
3d. The gas pipe, d, in combination with one of the pipes, b, for the purpose of affording a listic for the parpose, sa here in described.
3d. The eombination of the bar, bar, or the eare described 71,881.-CORN-POPPER.-J. W. Howe, and J. K. Barton,

the fraumous, 1, so as to be combined and physical set of the purpose described.
71,883. — MACHINE FOR BENDING WOOD. — Joseph Klahr, Bernville, assignor to himself, W. E. Woand, C. H. Zink, and James J. Wagenhorst, Philadelphia, Pa.
I claim, 1st, The formers, F x', with their arms, p p', levers, k k', and catches, q, or their equivalents, in combination with the clamps, G, the whole being constructed and operating substantially as and for the purpose described.

2d The combination of the above, the weighted levers, D D', and the links, l.

sq. The adjustable plates B B', with their shoulders, c, operating in comhi-nation with the formers, and their projections, q, substantially as and for the purpose described. 71,887.—OIL CAN.—George Alvan Knowlton, Natick, Mass. I claim, 1st. The stoppers, D and I, retracted from their respective orfices by a single trigger, B' b', and provided with two springs, G J, to insure the effective cloure of both said ornices, substantially a described. 2d, In a valved oil can, constructed as above specified, the arrangement of the trigger, H', obliquely on the upper side of the handle, A', as and for the purpose set forth.

the trigger, Ha', obliquely on the upper side of the handle, A', as and for the purpose set forth. 71,888.—FENCE.—Ira Lackey, Lebanon, Ohio. I claim the combination of the sills, A, braces, C, and hooks or loops, ij, with the grooved posts, a c, of the panels, when the parts are constructed and arranged to form a detachable and portable fence, in the manner and forthe purpose specified. 71,889.—BUTTER DISH.— Nathan Lawrence (assignor to Reed and Barton), Taunton, Mass. I claim the arrangement and combination of the friction spring with the said journal, as specified. 71,890.—HARVESTER RAKE.—Edward J. Leyburn, Lexing-

71,890.—HARVESTER RAKE.—Edward J. Leyburn, Lexing-

71,890.—HARVESTER KAKE.—Ediwaru J. Leyoura, Leonary ton, Va. Iciaim, ist, Connecting the rake arm, E', to a loose collar, c, on real shaft, B, by means of a pivot, a', carrying an arm, f, in combination with the lointed connecting rod, h, substantially as described.
2d, The arresting plate, G2, in combination with the rake pivot, d', arm, f, and collar, c, and connecting rod, h, substantially as described.
3d, The cam plate, G2, in combination with the rake pivot, d', arm, f, and collar, c, and connecting rod, h, substantially as described.
3d, The cam plate, G4, in combination with the rake pivot, d', loose collar, c, and connecting rod, h, substantially as described.
4th, The anti-friction roller, i, applied to the arm, f, of the rake pivot, in combination with the arresting plate, G2, substantially as described.
5th, Connecting the arm, f, which is in the rake pivot, d, to the reel shaft or reel arm thereof, by means of a rod, h, and universal joint, h', substantial rake plate, and substantial as described.

as described. Sch, he application of a weight, g, to an arm. f, of the rake pivot, when said arm is upon a loose collar, c, and arranged to operate substantially as

aescrined. 71.891 — Washing Machine.— Reuben Lighthall, Brooklyn, N.Y. I claim the detachable hold (r, A, with the set screw, B, in combination with the slotted lever, D, and the rollers, F F', and the cam, H, as and for the jurpose set forth.

Pringle Rochester N V

| I claim 1st, In combination with a cable, A, frame, F, wheels, G, sheave, E and rope, C, the disengaging device, consisting of a collar, M, stop, L, an vertical catch, K, inclosing the cable, A, and rope, C, and operated inbstar taily as described 2d, The combination of the frame, F, rope, C, co lar, M, stop, L, catch, E and valves, H, cams, I, and lever, 1', said parts being constructed and th who e arranged substantially as set forth. | and pins, for the purpose of adjusting the movements of the cutter stop or knife, F, substantially as described. 6th, The combination of the separate troughs, I, expelling screws, H, and cutter stop, F, with a tempering mill, substantially as specified. | shown, being heid by means of the adjustable rigid straps, y, for the purposes |
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| 71,851 STEAM GENERATOR.—C. E. Case, Xenia, Ohio. I claim the metal cup, G, constructed and arranged substantially upon th principle and in the manner inset for the. | article of manufacture. | Sd, The spring clutches, c, governed by means of the hand lever, D, con necting rod, f, lever, k, and the counter inclined planes, m, all arranged and operating substantially in the manner and for the purposes set forth. |
| 71,852.—LOOM FOR WEAVING PALM-LEAF, ETC.—Geo. W (handler, (assignor to himself and Lysander F. Thompson), Fitchburg Mass. I claim 1st, The hinged holder, G, substantially as and for the purposes se for th. 2d, The combination of the hinged fingers, c c, with the ribs, b b b, sub | Cyrus P. Grosvenor, McGrawville, N. Y. I claim the application to lamps or heaters, using coal oils, alcohol, or other explosive substances, of such a burner as will supply the vacuum made in the reservoir by the combustion with nitrogen gas, the burner being con- structed as hortiu described, or in any other foria substantially the same, | mola, Miss. I claim the combination, as described, of the spring, E, composed of copper or other soft metal, with the pessary for the pnrposes set forth. Also, the combination, substantially as described, of the pelvic spring, the vertically adjustable bar and set sorew, the soft metal spring, E, the pessary |
| stantially as and for the purposes set forth. 3d, The combination of the adjustable weight, G', with the bottom of the holder, for the purposes set forth. 4th, The combination with the hinged fingers, c. c. of the hinged holding piece, G", substantially as and for the purposes set forth. 5th, The fingered stop or guard piece, h', with the holder, G, substantially set and for the purposes set iorth. 6tb, The combination, with the stand or plate, h, of the guide piece, s, a and for the purposes set forth. The combination with the ribbed holder, G, of the guide piece, s, a and for the purposes set forth. The combination with the ribbed holder, G, of the guide piece, s, a and for the purposes set forth. The combination of the feed arm, m, with the slide-piece, n, and lever, 28 substantially as and for the purpose set forth. 9th, The combination with slide-piece, n, and table, L, of the connecting piece, 21, substantially as and for the purposes set forth. 10, The combination with slide-piece, n, and table, L, of the connecting piece, 21, of the double-shouldered bolts, 1818, substantially as and for the purposes set forth. 12th, The combination with the slotted slide piece, M", and connecting piece, 21, of the double-shouldered bolts, 1818, substantially as and for th. | 71,875.—UAR-AXLE BOX.—JOSEDN HAITIS, DOTCHESTET, MASS. 1 claim, isr, The roller guides, i, with detached radial joints, substantially as described. 2d, In combination with the system of rollers and box, g, the construction of the axle, with its extension, e, and shoulder, d, as and for the purpose set forth. 71,874.—WASHING MACHINE.—JOB H. Haskell (assignor to bimself and Horace Taplin), Lowell, Mass. 1 claim the general construction and complantion of all the parts, consisting of the cylinder, G, series of yielding rollers, a, roller stands, k, spring bars, f, levers or arms, m, spring bars, f, roler stands, k, spring bars, f, levers or arms, m, spring bar, b, roasyerse bar, R, rod, O, and the box, the whole arranged to operate substantially as and for the purpose set forth. 71,875.—HORSE RAKE.—JOhn V. Hawkey (assignor to himselt and Israel T. Sheffer), Greensburg, Pa. I claim, ist, A rake shaft or head, arranged outside of the periphary of the wheels, projecting laterally browd them and so jouriee that is sections can be and the spring the provide the mathematical sections can be and so head and the actions can be and so both the periphary of the stands. | nons position, substantially as described. 2d, ihe arrangement of the trigger, E, rock shaft, F f, arm, H, link, I, lever, G, wire, J, eccentric lever, L, catch, M, and shaft, B, siznal, A, and weight, B', or its equivalent (P P1 2Q), substantially as and iorthe purpose specified. 3d, The arrangement of the trigger, E', rock shaft, F' f', arm, H', and rod or other suitable connection, N, all arranged and operating substantially as and for the purpose set forth. 4th, The combination, with the disk or signal, A, of the reflecting plate, a substantially as and for the object stated. 71,897.—SPINNING WHEEL.—Henry Miller, Ronald Town- |

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hinged spindle arm, so that the operator, by the foot, may move the spindle arm out or in at pleasure, as set forth and represented.
 71.898.—Boorts AND SHDES.—Charles Miole, Pembroke Terrace, Rezent's Park, London, England.
 I claim the manufacture of a morable boot heel in two parts, to be adjusted in different positions by means or a Single sentral projection taking into a single slot hole or countersamk part, and secured in hole or countersamk part, and secured in hole or countersamk part, and secured in bole or countersamk part, and secured in a barge of three slides, so that the shape of the projection and that of the hole which is to receive it be identical. the whole substantially as hereinbefore described and illustrated on the anexed sheet of drawing.
 71,899.—WATER COOLER AND REFILIGERATOR.—Alfred Murdu and Henry L. Cooper (assignors to themselves and Francis Warner), New Hayen, Cono.
 We claim the arrangement of the cylinder, A, and outer cylinder, C, so as to form a water space, D, and combined with covers. E and G, so as to form a chamber, F, above the water space, D, and ice cylinder, A, so that the cover, E, forms the bottom of and the cover, G, the top of the said chamber, in the manner and for the purpose berein set forth.
 71,900.—CONSTRUCTION OF STAMPED SHEFT METAL KETTLES.—Frederic G. Niedringhaus and William F. Niedringhaus, St. Louis, Mo.

Mo. 7 c claim the spout of a ketile when formed by pressure from the bottom i top plate of the ketile, when constructed substantially as shown and cified.

71,901.—BREAST STRAP SLIDE.—O. B. North (assignor to O.

71,901.—BREAST STRAP SLIDE.—U. B. North (assignor to U. B. North & co.), New Haven, Conn.
Iclaim, 1st, The ar angement of the hinged tongne, E. upon the plate, A. so ast or over the ring, substantially in the manner herein set forth.
2d, Constructing the hook or projection, D. upon the plate, by forming an opening, d, through the plate, substantially as and for the purpose herein set forth.
71,902.—SNOW PLOW.—Abel Nutting, Quincy, Mass I claim the rotary plow arranged to operate substantially as set forth.

71,903.—STEAM GENERATOR.—Isaac R. Oakford, Philadel

11,905.—STEAN GENERATORY THE PLAN OF THE PLAN OF THE PARTY AND A STATE OF THE PARTY AND A STATE

vertical and inclined position, in the manner and for the purpose above set forth and described. 71,904 — CASTER FOR FURNITURE.—P. B. O'Brien and Wm. E. Sparks, New Haven, Conn, assignors to P. B. O'Brien. We clium the arrangement of the spring, a, in the spindle, B. and combined with the socket, C, so as to operate in the manner substantially as described. 71,905.—RAILWAY FROG.—Staats N. Park, Bloomsbury, N. J. I claim, ist, So constructing the frogs of railways that the trog plate and the rail of track sections, an ard rails and frog point are separa efform each other, and so that the railsections and guard rails and frog plate, that the track and guard the railsections of railways or the frog plate, that the track rails of any railway can be extended upon and combined with such frog plate to form the track or rail section of the frog, substantially as and for the purposes set forth.

the purposes set forth. 71,906.—HARVESTER.—Henry W. Pell, Rome, N. Y. Iclaim. Ist, The carriage, C. supported at both ends on wheels or rollers c.running on a guide way, s, substantially-as and for the purposes speci-fied. At The rib or groove joint between the friction rollers and guide-way. to

, The rib or groove joint between the friction rollers and guide-way. to ain the lateral pressure, as set forth. The clevispinor whiffletree bolt, B, attached to the center of the car-

4th. The independent attachment of the draught clevis to the whifiletree bolt opermit the independent oscillation of the whifiletree without affect ing the clevis.

ing the clevis. 71,907.—MEDICAL COMPOUND.—M. Perl, New Orleans, La. I claim the medical compound herein described, when made or y the process and composed of the ingredients herein specified, in the proportions stated, for the purpose set forth, 71,908.—MACHINERY FOR SHAVING AND SLOTTING SOREWS

rate composed of the infreduction of the end of the proportions stated, for the purpose set forth, 71,908.—MACHINERY FOR SHAVING AND SLOTTING SCREWS.— Elijah S. Pierce, Hartford, Conn. I clam, 1st, The combination of the cam, M, the sliding frame, T, the spin-dle, A, the pulley, P, the clamp, C, the spring, S, and the rest, R, or their equivilents, with a shaving tool, and one or more hicking saws, substantially as herein specified. 2d, The combination of the sliding frame, T, the spin-ing device, ', with a shaving tool and one or more saws, substantially seribed, for the purpose of shaving, nicking, and turning serew blanks or other similar articles, while held in the same jaws. 71,909.—DOUBLE SCREW.—Elijah S. Pierce, Hartford, Ct. I claim the double serew herein described and shown, as a new article of manufacture.

71,910 - ATPARATUS FOR PRESERVING MEATS, FISH, POUL-TRY, AND OTHER PERIBHABLE ABTICLES. - Charles F. Pike, Providence, R. I.

"The state of the second s

or tibes, BCDL, jun, EH, room, F, substantially as described and set forth, with their appendages. 71,911. — MULTIPLYING REFLECTORS FOR PHOTOGRAPHIC CAMERA.—D. W. S. Rawson, Peru, 111. I ciaim, ist, The reflector box, A, the soors and shade wings, B B, the bars, C C, the non-reflecting division, D D, surrounding and between the several mirrors, the base board, F, and the slide board, G, and the double pivot, H, when need for the purposes herein described. 2d, The use of this lever for the purpose of adjusting the reflectors. 3d, The moving of the reflectors with the shide, G, to produce more than one set of impressions on the same plate, or an equivalent movement. 71,912.—CAR SFRING.—Wm. F. Ray, Fort Wayne, Ind. I claim a series of reflexed springs, so constructed that the bows slide into each other, the whole being adjustable so as to regulate the smount of elas-ticity, as described. 71,912.—LAMP BURNER.—Henry Read. Providence, B. I.

ticity, as described. 71,913.—LAMP BURNER.—Henry Read, Providence, R. I. 1 claim the skeleton bottom. B, in combination with the perforated cylin-der, C, and conce. D, when constructed and arranged substantially as de-scribed and for the purpose specifics.

71,914.—Apparatus for Taming Wild Animals.—Peter R.

71,914.— APPARATUS FOR TAMING WILD ANIMALS.—Peter R. Sanderson, Caledonia, N. Y. I ciaim the construction and use of a circingle strap, as described, with the sheaves. A A A. and their attachments to said circingle, and the slipping straps, B B B, and rope, C, when arranged substantially as described for the purpose specified. Also, the combination of the above parts, A A, etc., B B, etc., and C, with ny hanness, arranged embstantially as described for the purpose designed. 14,915.—JOURNAL BOX.—Wm. Sherburne, Charlestown, Mass. I claim, 1st, The boit, E, constructed as and for the purpose above de-scribed.

20, The bolt, E, in combination with the jaw, m, and oil box, B, substantial-2d, The bolt, E, in combination with the jaw, m, and oil box, B, substantial-y and for the purpose above specified. 71,916.—HORSE AND CATTLE PORE.—Nelson Sylvester, Weyly and ro 71.916.-

mouth Ohio. I cleim, ist, The head, B, cross bar, E, in combination with the springs, F, and spikes, a, for the purpose and in the manner substantially as set for the

I claim the combination of the endless wire rope or ropes, A A, pulleys, T T T', and piers, B is B', b', with the suspended carriages, H H H H, ar-ranged and oberating as specified. 71,922.—AERIAL CARRIAGE AND WAY.—Daniel Towse, Pitts-

burg, 1 I cleim bure, Pa. Dure, Pa. I claim the combination of the wire ropes, A A, piers, B B B, reel. F, and rope, P, with the carriage. H, arranged and operating in the manner set forth. 71,928.—AERIAL CARRIAGE AND WAY.—Daniel 'Towse, Pitts-burg, Pa. I claim the combination of the two aerial ways, A A' A'' A''', the drum, C, with the carriages, H H, and ropes. 1 f, constructed and operating as speci-fied. 71 928 -

fied. 71,924.—ATTACHMENT TO THE REGULATORS OF WATCHES.— Wm. B. Tucker, Hilboro, Obio. I claim the combination of the screw-arbor, c, and the toothed segment. e, with the regulating lever, d. and the scale base plate, a b, substantially in the manner and for the purpose herein set forth. 71,925.— BILLIARD UUE TIP.—Joseph A. Veazie, Boston, Mass

Mass. I claim the new or 'improved composition, substantially as described, in which ground leather is an important constituent. Also, the combination of a layer of such composition and one or more lay-ers or strata of leather or caoutenoue, or both, such being for the formation of ene tips, as explained.

Also, the componentiation is a second provided and the second provided prov

N.Y. I claim the tines, b b, ball, ff, curved holding tine, I, spring, J, pulley, I, rope, k, all constructed and operated substantially as herein set forth. 91,929.—MACHINE FOR ROLLING LEATHER.—J. H. Walker,

Worcester, Mass. I claim, ist. The combination of the horizontal way, G. slide, H. and roll, b, ith tables, K and M. and treadle operating device, substantially as and for hepurposes set forth.

Worcester, Mass.
I claim, 1st. The combination of the horizontal way, G. silde, H. and roll, b. with tables, K and M. and treadle operating device, substantially as and for the purposes set forth.
2d, The combination, with the pieces, C. G of the truss rolls. E. bridge, F. way, G. and silde, H. substantially as and for the purposes set forth.
71,930. — FERTILIZER AND CORN PLANTER COMBINED. — Samuell. Walliz, Washingtonville, Pa.
1 claim, 1 wallize, Washingtonville, Pa.
2 claim, 2 washingtonville, 2 washingtonville, P

71,934.—INSTRUMENT FOR ADMINISTRATION OF ANÆSTHET

71,934.— INSTRUMENT FOR ADMINISTITATION OF ANÆSTHET-rcs.—Osborn Wilson, Aurora, Ill.
claim, jost, The construction of an instrument with inhaling and exhaling tubes, provided with valves, working antomatically and alternately in open-ing and closing the tabes by the regulariton of the patient, substantially in the manner and for the surposes as berein specified.
2d, Providing the instrument with a spring valve and air tube for regulat-ing the administration of the nitrous oxide and other amaschetics, substan-tially in the manner and for the nurposes as herein specified.
3d, The construction and arrangement of stock, A. mouth piece, B. inhal-ing and exhaling tubes, C'C, plate, D, air tube, E', valve, E, sourel spring, b, valves, e o, rods, d d, fuitcra, e o, arm, f, and rod, g, substantally in the man-ner and for the burloses as herein specified.
71,935.—CIDER MILL AND PRESS.—Martin Winger, Ephrata, Pa.

11,900.—UDER MILL AND PRESS.—Martin Winger, Ephrata, Pa. I claim, 1st, A series of press boxes, D, with perforated sides and au exter-nal cogged flange, d, all connected in the form of a wheel revolving horizon-tally, with its orco-sarms, N, secured centrally to a verticulant at, L, in com-bination with the bearing, M, and step, O, sustained on a framework, A B^B, all arranged substantially in the manner and for the purpose specified. ²d, With the revolving press boxes, D, the press block and central upright, K, E, pulley, G, guides, F, arms, e, in combination with the inclined plance. H and R, all arranged and operating substantially in the manner and for the purpose specified. ³d, in combination with the revolving box wheel, D D N N, and pressing arrangement. the binged drop bottom. Q, in combination with a series of rollers or pulleys, P, of their equivalents, for the purpose and in the manner allown and. described. ³d, in combination with my horizontal box-wheel, the arrangement of the gearing and mill hopper, X, and creakers, W, pinions, Y S, on shaft, all combined substantially in the manner specified. ³th, in combination with an apple mill, a cider press, with a series of presses in a horizontal revolving wheel, ubstantially as and for the purpose specified. ³tl,936.—CURB FOR WATER WHEEL. — A lbest Winster Cherrice

(1)907.—DUFA DEDDIEAD. Charles and the seat, b, and head, d, mass.
I claim the combination of the lower portion, a, the seat, b, and head, d, and the hinzed or movable panel, e, in a soft of lowinge, substantially as and for the purpose described.
71,958.—UHURN.—Thomas Bisbing, Buckstown, Pa.
1 claim the combination of the removable irane, B, sliding frame, C, ratchet ber, G, and pinion wheel, H, with each oher, with the body, A, of the churn, and with the dasher shaft, I, substantially as herein shown and described and for the purpose set forth.
23,050.—Hambergeron Machine.—Job W. Blackham, Brook-

71,936.-CURB FOR WATER WHEEL.-Albert Winton, Cham-

71,936.—CUIBB FOR WATER WHEEL.—Albert Winton, Cham-bersburg, Pa. I claim, ist, The screentine or double curved chute rates. O, whenformed with surfaces tapering or sjoping from their centers towards their ends, and so arranged, relative to intermediately situated diaphragma or plates, rr. that one of the tapering ends of said chute gates, O. Shall project beyond the circumforences of the rims, a see, and extend so as to enter slots, or be-tween the proops of fork like arms, K L K L, to be operated in the manner and for the purpose anbstantially as described. 2d, The annular adjustable rim, or ring, i I, provided with the fork like arms, K L K L, and with the moving lever or crank, m, and the fulcrum pin, sliar rated to operate the chute gates, i O, substantially as show a and described.

71,937.—HARVESTER-—James Wintersand Charles C. Gapen

Lacon, RL, Where RA, and Sty Interstant Onaries C. Capen, Lacon, RL, Weerlaim the skeleton frame, A, or its equivalent, provided with an adjust-able clevis, and attached to the end of the tongue, or reaping and mowing machines, substantially in the manner and for the purpose herein described and represented

71,938.—SASH TOP.—Orson E. Woodbury, Madison, Wis.

I claim, 1st, The cam, slottedat H D I, forming bearings at either extremit twfor the screw or other support, when the cam is operating against the catch, C, at the rolnis, F or O, all as described and for the purpose specified 2c, The farch, C, with the spikes, G G, constructed and used as and for the purpose here the before named. 71,939.—PEAT AND BRICK MACHINE.—Charles D. Wrighting-

• 1,000.- FIRE LADDER.-Johan Blomgren, Galesburg, Ill. I claim, 1st, The stuffing call, 0, inserted into the lower part of the tube H H', and foreed up or down in the tube by the cog wheel, M, substantially as and for the purpose specified. 2d, The basket, R, in combination with a fire escape having the hinged scieder, T, and the adjusting rod, S, substantially as and for the purpose de-scribed.

71,939.—PEAT AND BRICK MACHINE.—Unaries D. Winghuing-ton, Fairb see, and Benjamin P. Rider, Doston, Mass. We claim, 1st, is combination with the mold wheel having the secres or sets of molds in it, a series of plungers revolving with said wheel and operat-ed in succession by the eccentric journal and frame, Q, substantially as and for the plur pose doscribed. 2d, Also in combination with a mold wheel having a series of core inter-posed by a series of concrve storp, blanks or abut meats upon its periphery, arive wheel having cogs and a blank surface on its perimeter so that the mold wheel may be moved, stopped and lockerd by said drive wheel which has a continuous movement, substantially as and nor the purpose described. 3d. Also the location and arrangement of the cam over and around the blank on the perimeter of the drive wheel so that while the mold wheel is of the while the mold wheel is of the while the mold wheel have perimeter of the case of the case of the purpose doscribed.

position with relation to the cross sectional form of each that each piece will be carried into the shed or web flatwise . Also the mechanism for effecting the elevation and release of the weft, substantially as described. Also the plate, d, with its rectangular perforations and the gate or slide for clamping a single piece of weit projecting through the plate. Substan-tially as shown and described.

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tially as shown and described. Also a mechanism substantially as set forth for "knocking off "the weft raising mechanism when a piece of weft is presented. 71,945.—BLACKBOARD FOR SCHOOLS.—William Arroquuier,

71,945.—DLACKBOARD FOR SCHOOLS.—William Afroquuler, Worcester, Mass. I claim covering the plaster, B, with a coating, C, composid of the ingre-dients named and applied in the manner above described whereby the proper color and roughness are obtained, as set forth. 71,947.—MODE OF OPERATING SWELL IN MELODEONS.—C. E. Bacon [assignor to himself, George A. Prince and Calvin F. S. Thomas], Buffalo, N. Y. I claim the arrangement of the swell pedals side by side with the bellows pedals and contiguous to and parallel therewith, for the purpose and sub-stantially as described.

541,048.—MATERIALS FOR TRANSMITTING HEAT.—William C.

71,948.—MATERIALS FOR TRANSMITTING HEAT.— William U. Baker, New York city. Iclaim the employment of salted water, giveerin, or their equivalents, to prevent freezing in transmitting and wentilating Tailroad cars, public vehicles and buildings, substantially as herein described. 71,949.—LAMP BURNEL.—(+corge E. Baldwin (assignor to E. atilier & Co.], West Meriden, Conn. I claim the arrangement of the auxiliary or ventilating tube, E, with the wick tube. B, combined with a solid partition, F, in the base of the burner so as to form aclose channos around the tubes and wick adjuster, gubstan-tially in the manner and for the purpose herein set forth. 71,950.—A UTOMATIC TOOTH PLUGGER.—Burr Bannister and George F. Green, Kalamazoo, Mich.

71,950.—A UTOMATIC TOOTH PLUGGER.—Burr Bannister and George F, Green, Kalamazoo, Mich.
We claim, ist, The combination of an engine operated by means of com-pressed air with a tooth plugger. for the purpose set forth aud described.
24, The lock, F, in connection with spring, i, operated by cross head o pliston rod, in the manner and for the purpose specified.
71,951.—CAR COUPLING.—William F. Barlow (assignor to himself, James Bower and W. A. Jackson], Monmouth, ill.
I clam, let, The catch, C, slotted draw head, A, and weight, X, combined as described and for the purpose set forth.
2d, Therods, M N and H, and elbow, K, combined as described and oper-nting in combination with the elements of the first claim arranged substan-tially as described and for the purpose set forth.
71, 952.—HARVESTER KAKE.—J don Barnes, Rockford. Ill.

71,952.—HARVESTER KAKE.—John Barnes, Rockford, Ill.

71,952.—HARVESTER KAKE.—John Barnes, Rockford, III. I claim, ist, The inclined serrations, h h, on the face of the rake head for the purpose of computing ting avel. 2d, A compresser or supplemen ary rake pivoted to the rake headle and moving parallel to the rk e head, substantially as described. 3d, The combination substantially as described of a rationatic rake, a compresser and an interposed spring, for the purpose set forth. 4th, The combination substantially as described of a retirevolving contin-nously on a horizontal shaft ark in mount of the stroke in the rake arranged diagonally to the shaft, and a shipping device by which the rake may be thrown i ato gear between may two of the batters of the trath and y which it may automatically be thrown out of gear at the end of its stroke. 5th, The combination substantially as described of the rake handle for the stroke on trunhous of pivots revolving on the real shaft; and arranged diag-onally therets. 6th, The combination substantially as described of the rake handle pivoted on trunhous diagonal to the rake and deficient on the rake land is guide vertical below the axis, as and for the purposes forth. 7th, The combination substantially as described of the rake handle and shipping lever whereby the rake throws itself out of gear after discharging the rayel.

Shipping level whereby whereby the rake where tests to be a set of a rake mounted on 8th, The combination substantially as described of a rake mounted on trunnions revolving on a horizontai axis in a fixed relation to the guide which controls the movements of the rake with a revolving reel having an endwise movement on the same axis whereby the rake can be thrown out of gear by moving the reel endwise without stopping the reel. 71,953.—TRY SQUARE AND BEVEL.—Samuel N. Batchelder, Prairie du Chien. Wis. characterized to the sense axis where up the Take can be thrown out of gear by moving the receind wise without stopping the reel.
71,953.—TRY SQUARE AND BEVEL.—Samuel N. Batchelder, P. rairie du Chien, Wis.
I claim, ist, The blast, B. pivoted within the stock, A, and provided with a hook side projection, e, by meas of whice and the hook side. D, the black, B, may be set and held at any desired angle, substantially as described and for the purpose specified.
2d, The book side, D, with the thumb screw, E, arranged and operating substantially as shown and described for the purpose set forth.
3d, The solital spring, F, in combination with a combined try square and berel, substantially as identified.
71,954.—PLATE LIFTER.—David B. Beaty, Anrora, Ind., assignor to himself and James Lamb.
I claim the convert wres, B B, having hooks at their lower ends and connected to a haudle, A, said haudle being provided with a wire loop formet into a spring which connects to the wires, E, so that by pressing upon this spring, C, the wires, B, arrangement of one or more yielding.
71,955.—SUSPENSION BRIDGE.—Charles Bender, N. Y. city.
I claim lat, The construction and arrangement of one or more yielding joints connecting the leads of the cables or chains at or wear the first or shore plers to the longitudual beams or trusses of stiffened suspension bridges are scentred to the shore piers by vertical anchor age and method by which the ends of the beams or trusses of stiffened suspension bridges to the entry or plers so the arm of the substantially as set forth.
3d, The means and method by which the ends of the scenes of substantially for the purpose described.
3d, The means and method by which the ends of the scenes of stiffened suspension bridges to the control plers site and method by which at the other pleres by tracking the learning on the scenes of stiffened suspension bridges to the contres pleres by and the scene plere site and t

71,959.-HAT-FELI'ING MACHINE.-Job W. Blackham, Brook-

71,959.—HAT-FELITING MACHINE.—Job W. Blackham, Brook-lyn, N. Y. I claim, 1st, The duplicateseries of rolls, b and bn', and rubbers, C and Cn' or their equivalent, with their water pans, N. and jets of hol water or steam, as represented, arranged to operate together in line manner and for the purpose herein specified. 2d, Monting the receptocating rubber over the bed of rolls so as to allow of its ascent and descent by means of springs, substantially as and for the purpose herein specified. 71,960.—BUILDERS' SCAFFOLD.—John E. Bliss, Oxford, Ind. I claim the combination of the right-angled pivoted frame, A, and sajusta-ble siding bars, B and D, with each other, substantially as herein shown and described and for the purpose set forth. 71,961.—SUBSTITUTE FOR MILK FOR CATTLE.—Rufus K. Blodgett, ngar Fulton II.

Ch. SUB-ITIOID
 Biodgett, near Fulton III.
 I claim, 1st, The use of white or blue clay, when used for the purpose bove specified.
 This combination of flour, extechu and clay, when mixed and used for

scribed. Sd, The construction of the stu**#**g coil, O, substantially as and for the pur-pose specified. 71,963.—SAFETY GUN LOCK.—Charles Bowlen, Milwaukee,

Wis.

the purposes above set forth. 71,982.—FIRE LADDER.—Johan Blomgren, Galesburg, Ill.

| 2.1, The cross bar, E, as arranged in relation to the yoke, U, and in comblemation with the poke, A, in the manner as and for the purpose specified. | blank on the perimeter of the drive wheel so that while the moll wheel is stopped and locked by said drive wheel which continues its movement said drive wheel shall operate the pushers to discharge the pressed bricks or | I claim tumbler, F, with its pin, G, in combinatian with dog, H, with its slot, I, substantially as and for the purpose described. |
|--|---|--|
| '71,917CORN PLANTER-Frank J. Smiley, Marshall, Mich. | blocks from the molds, substantially as described. | 71,964 VENTILATOR FOR BUILDINGSThomas Boyd, Cam. |
| I claim, 1st, In combination with a wneeled machine for planting corn or other seed at regular intervals, a "perambulator," substantially as described, when hung concentrically to urevolving seed cylinder. C, and operated in 1 | 71,940 Toy Derrick Adams, Lansingburg, N. Y. I claim an automatic toy having the legs of the horse and the head and arm of the driver actuated by mechanical devices, in manner substantially as | bridgeport, Mass. I claim, 1st, The combination of the chamber. A. with or without the lenses, B, cone, C, androds, D, constructed and arranged to operate substan- |
| connection therewith, substantially in the manner and for the purpose nerein in specified. | herein described and for the purposes as set forth. | tially as and for the purpose s.t forth. 2d. The combination of the oscillating cap, K, and elastic pads, I, substan- |
| 2d, When operated in connect in with a revolving seed cylinder, the arrange- ment and combination of the dropping to bes, t, and their attachments with | 71,941.—EAVES TROUGH FASTENING.—Philip Ahn, Brandon, | tially as and for the purpose set forth. 3d, The arrangement of the chamber, A, cone, C, pipes, E and H, and cones, |
| the tappet plus. T. and receiving basins, K. for dropping and conveying the seed to the furrowers, substantially as set forth. | I claim the bolt, c, combined with the elastic strap, e, substantially as and for the purpose described. | G and K, substantially as set forth. 71,965 — DOOR LA.TCH.—Purmort Bradford (assignor to Sar |
| 3d, The pendant gage-cars, h, in combination with the gage-plates, g, sub- stantially as and for the purpose described. | 71,942 —INFLATING RUBBER BALLS.—Henry A. Alden, Fish kill, N. Y., assignor to the New York Rubber Company. | gent & Co.), New Haven, Conn. I claim the coast ruction of the latch bolt with the plyot bearings, a and b. |
| 71,918 — WHIP RACK.—Charles A. Smith, Philadelphia, Pa. I claim a whip rack composed of metal or other inelastic material, and fur- | I claim the application to rubberballs or other hollow articles requiring to be distended by inflation of the combined bulb and tube, substantially in the | upon opposite sides combined with a single central pivot upon the plate so as to be adjustable for a right or left h and door and tae said plate construct ed with a slot through which the latch is operated, in the manner herein set |
| nished with a series of divisions or apartments, with a hinged tongue or flap in each, and suitable openings in e on apartment for the insertion and reten- tion of a wip, substantially as described. | manner and for the purposes herein shown and set forth. 71943.—REAMER.—Charles Allardice, Cohoes, N. Y. | 71,968.—PLOW.—Harvey Briggs, Smithland, Ky. |
| 71,919.—METHOD OF HARDENING AND BLEACHING ARTICLES | I alwing last A shape A Commod substantially as described in combination | I claim, 1st, Forming the land side, mold board frame and upper and lower strengthening floors, hi and b2, solid in one piece B, supstanually as herein |
| MADE OF SOAPSTONE, TALC, ETC Henry Julius Smith, Boston, Mass., as- signorto Joseph C. Wightman Newtonville, N. Y. | forth. 2d, In combination with the shank. A, cutters, B, and nut, C, the nut, c, | shown and describe d'and for the purpose set forth. 2d, The combination of the conical rollers, D, and their boxing frame. R. |
| l claim, 1st, The heating in a closed vessel, and in contact with carbon, the above described substances, or articles formed therefrom, for the purpose of hardening and toughening the same, substantially as above described. | bolt, g, and washer, g', formed as described and employed for the purposes specified. | with the mold board frame, B, substantially as herein shown and described and or the purpose set forth. |
| 23, The removal, either before or after the bardening process, of impurities producing discoloration, by the action of a bath of melted chloride of sodi- | 71,944.—BOLT ATTACHMENT TO DOOR LOCK.—William H. Andrews [assigner to Burton Mallory], New Haven, Conn. | 3d, Forming ine boxing frame. H. in two parts, substantially as herein shown and described and for the purpose set forth. 4th, forming an oil trench or channel, J, in the boxing frame, H, substan- |
| 71,920.—HANDLE FOR TRA AND COFFEE POTS.—Enos E. | I claim the bolt, E, constructed and arranged within the lock case in com- bination with the follower, F, constructed with a can, i, and spring, H, so as | taily as herein shown and described and for the purposes at forth. 5th. The combination of the elastic washers or packing, I, with the journals |
| Stow, Plantsville, G. I claim a usualle, as made hollow or tubular, and provided with openings | to hold the bolt securely in both its locked and unlocked position, substan- tially in the manner berein set forth. | and bearings of the rollers and wheels, substantially as herein shown and describe land for the purpose set for the |
| in or through it, that when applied to a pos or vessel warm or beated air may be caused to pass into and, through and out of such boudle, substantially as | 71.945.—MECHANISM FOR PRESENTING PALM LEAF TO LOOMS. | 6th, the combination of the adjustible friction wheel, F, and state onry grietion wheel, E, with the solid hard side and mold bound frame 14, substantially as here in shown and described and for the Burgosst cont. |
| and for the purpose specified. 71,991 Azental Carriage and Way-Daniel Towse, Pitts. | I claim for work a grant of bases. legtor, sha lar work a grant to connection with a loora for weaving with paim legtor, sha lar work a grant a substantially do set forth which anomati- | 1 This is the condition of the verticel funger inferior call of G with the land the posterior of the privation of the vertication of the privation of the priva |
| burg (Pa | vally present in ancession the entering ends of single pieces of well in shoh- | the pd:pose set form, |

I claim, in combination with the pillar and feet, the socket block, m, hav-ing recesses format with aide lips or flauges, o to lit info grooves, d, in the feet and bottom sets, p, between which and the shoulder oa the pillar the feet are securely conduct, substantially as described. Also the center picce, w, futing upon and covering the screw bolt and nuc which confine the pillar to the base, substantial y as shown and de-arrhed.

scribed. Also constructing the socket block, m, with a centersocket.t, into which the tail piece of the pillar fits and is confined, substantially as described. A so making the screw spingle removable from the seat, substantially as set forth

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A so making the screw spinite removable from the seat, substantially as set forth. 71,963 — PLOW — T. E. C. Brinly, Louisville, Ky. I claim, ist, The mode of attaching the beam, D, to the plows by a socket, c. connected with the land side by braces, B, substantially as set forth. 2d, The combination of the socket, C, constructed with diagonal flanges, C, the bandles, and the beam, substantially as set forth. 71,969.—COMBINED SHOVELAND SFFERE.—Stephen P, Brooks (as iron to himself and Benized Wodward). Somerville, dasa

(as igno to himself and Benjamin Woodward), Somerville, Mass. I claim the within-described combined shovel and sifter, constructed and perating substantially as set forh.

1 claim the within-described comined shovel and sitter, constructed and operating substantially as set forth.
71,970.—SEAT AND DESK.—A.H. Brown, May's Landing, N. J. I claim the hinged brace, J. passing thro git to critics. M. upon the inside of the ensist.—A.H. Brown, May's Landing, N. J. I claim the hinged brace, J. passing thro git to critics. M. upon the inside of the ensist.—A.H. Brown, May's Landing, N. J. I claim the hinged brace, J. passing through the brace, J. passing through the brace, J. passing through the brace, J. as the desk is raised causes the L-shaped noted, L to fit and catch in the guide, M. to hold the said .esk raised, for the purpose specified.
71,971.—GRAIN FORK.—E. G. Bullis, Manchester, Iowa, assignor to Charles J. Kiggs, same place, and said Riggs assignor to D. E. Lyon, Dubuque, Iowa.
1 claim, 1st, The combination of a band-cutting device with a pitching fork, substantially as and for the purpose described.
2d, The combination of the rearwardly-extended parts of the tines, C, the cross head, B, grooved bars, E, slding cutter, F, and aprings, L, with each other, substantially as herein shown and described and for the purposes set forth.

other, substantially as herein shown and described and for the purpose set forth. The combination of the pivoted or jointed bars, G H I. with the silding cuttor, F, shank, J. of the fork head and handle, A, substantially as herein shown and described and for the purpose set forth. 71,972.—SEED PLANTER —Matthew S. Burdick. Milton, Wis., assignor 'o time if and John M. May. I claim, 1st, Thumb screw. I, in combination with part, H, and seed cup bar, D, when constructed, connected together and used substantially as and for the purposes described. 2d, Seed-Cup bar, E, or its equivalent, when combined with seed-cup bar, D, in the same planting machine so that corn and numpkin seed and other flat seeds, as quash and melon seeds, may be planted at one operation, sub-stantially as described. 3d, Seed-cup bar, E, or its equivalent, attached to and combined with seed-cup bar, E, substantially as and for the purposes described. 4th, Jaws or points, F and G, provided with partitions, h and h, for the purpose of dividing the seed, when used in combination with par s, A and A' hoppers, B and C, science and combination of legs or bars, A and A' hoppers, B and C, science bars, D and E, Covering, N, and Jaw, F and A', hoppers, B and C, science bars, D and E, covering, N, and Jaw, F and A', hoppers, B and C, science bars, D and E, covering, N, and Jaw, F and A', hoppers, B and C, science bars, D and E, covering, N, and Jaw, F and A', hoppers, B and C, science bars, D and E, covering, N, and Jaw, F and A', hoppers, B and C, science bars, D and E, science bars, A and A' hoppers, B and C, science bars, D and C, science N, and Jaw, F and G, when constructed, connected together and used substantially as add for the purposes described.

when constructed, connected together and used substantially as and for the purpose described. 71,973.—PULLEY BLOCK.—John A. Burnap, Albany, N. Y. I claim the arrangement of the frame, E, and pulley, F, through the eye of which is loserted the frame, A, laving a series of rollers, a a, the whole con-structed and used substantially as specified. 71,974.—SADIRON.—Jesse S. Butterfield and Joseph A. Reed, Philade phia, Fa. We claim, 1st. The steadying, pin, d", in combination with the sectors, d" "on the graart-plate, d', the said pare being constructed and arranged to op-eraie in connection with the planes, a" a", on the projection, a', substat-tially as and for the purpose described. 2d, The projection, a', on the base, A B, with its two opposite sectors or in-clined planes, a" a'', on the base, A B, with its two opposite sectors or in-clined planes, a" c'', of the feet of the haudle. C D, substantially as described an destorth. 3d, the projecting ends, c'' c'', of the bandle, C D, constructed and arrang-et to operate in combination with the spaces, b' b', and planes, a" a'', sub-stantially as and for the purpose described.

ed to operate in combination with the spaces, b' b', and planes, a" a", sub stantially as and for the purpose described. 71,975.— PRWNING SHEAR.— Seth P. Carpenter, Milford, Mass I claim the new or improved manufacture of pruning shears, as bereinbe fore described, that is, as composed o the blades, a b, the lever, C, the long shank, B, the lever, O, the open handles, CC, the arm, f, and therod, g, ar ranged and combined in manner, and for the purpose, and t o operate sub

stantially as specified. 71,976.— WASHSTAND AND CLOTHES DRYER.—Frances H. Car-71.976.

71,975. — WASHSTAND AND CLOTHES DRYER. — FTANCES H. UArrier, Bridg*port, Conn.
1 claim, lat, the combination of the clothes drybig apparatus with the washbash, when they are constructed, arranged, and fitted for use substantially as her-in described and set forth.
2d, The combination of the cups, b c d, or their equivalents, with the washbash, when they are constructed, arranged, and fitted for use substantially as her-in described and set forth.
71,977.—SPICE CASE.—John T. Carter and John Park. Lowell Mass.
We claun, lat, The cups or boxes, c c, when arranged to operate substantially as described, and for the purposes fully set forth.
2d, The aprings, k k, in combination with the cups or boxes, c c, for the number, described and set forth.
3d, The aprings, k k, and for the purposes fully set forth.
3d, The combination and arrangement of the case, a, with its feet, d d handle f, loop, f, and shelves, b b D, cups or boxes, c, c, and gpring, k k, all all for the purposes substantially as described and set forth.
71,976.—APPARATUS FOR PAINING OR GRAINING PAILS, ETC.
Jonathan Carter, Winchendon, Mass.

with the supplying roller, for painting, graining, ornamenting pains, or other tapexing articles. 2d, The mecuanism for holding and revolving the bail, when mounted on a bench or table, in combination with the movable printing or dic roll, operat-ing substantially in the manner as and for the purposes set forth 3d. Casting graining or other ornametal con figurations on conteal rolls so as to form a continuous body, for the purposes herein described. 4th. Making die or pri-fing Coulcal rolls is sections, and securing them to the staves so as to change their position for making a greater variety of or-namental designs for graining and ornamenting hollow ware, substantially as and for the purposes set forth. 5th, Appling a sino in coast or body of paint or varnish with a flexible roll-er to pails, tu s, or other articles of hollow ware, substantially in the man-ner herein set forth. ing a

Std. Applying a smooth coat co body of paint or varnigh with a flexible roll-er to pails, tu.g. or other articles of hollow ware, substantially in the man-ner herein set forth. 71,979 — SA WYERS' RULE. — Thos. Carter, Louisville, Ky. Iclaim, 1st, A seale so constructed and adjusted that any two of the three quant was of the thickness of the plank, the diameter of the log, and the number of the planks cut or to be cut from the log being given, the third of said quantities is read off from the scale in the manner substantially as above set for the and described. 2d, A scale exhibiting the numbir of turns to be given to the screws of the log carriage for cuting plank or boards of any desired thickness. 71,930 — CAST METAL CASE FOR SPRING BALANCE. — John Chattion, New York city, I claim a cash metal case for spring balances, when provided with a per-forated or lotted upper head for the preceive of the pin, b, and when made substantially as and for the purpose herein shown and described. 71,931 — VACUUM GRAIN DIVYER — Geo. Clark, Buffalo, N. Y. I claim, 1st, he trage essential features or parks: the sir tight grain cham-

71,981 --VACUUM GRAIN DRYFE --Geo. Clark, Buffalo, N. Y. Iclaim, 1st, he three essectial features or parts: the air tight grain chamber, the radiating heating pipes or itoors, and the vacuum-producing apparatus, com bined and operating substimility as herein set forth.
2d, The arrangement of 5. escam heating pipes within the grain chamber, substantially as set forth.
3d, The gr duated gage vessel, H, arranged as and for the purpose set forth.
71,982. --Doow LATCH. --Francis Coymer, Galion, Uhio. Iclaim the mode of attaching a combined latch and haso, B, and staple, F, to doors, by means of lots, I and H, so as to permit the adjustment of the same substantially as set forth.
71,983. --ULAMP.--Geo. H. Coe and Geo. H. Snow, New Hay an. Conp.

Havin, Conn. We claim the herein described clamp, consi ting of the head, C, upon one arm of the body, ..., the opposite arm, provided with a corresponding loot and the said head having arranged therein levers, D, and combined with a screw, B, s as to operate to clamp between thescrew and thefod, substan-tivily as set forth.

-BOAT DETACHING TACKLE.-David L. Cohen, Pen-

Airon, Ohio. I claim a cell picet carriage spring composed of a single piece, F, or two separate pieces, E E, of steel, united by means of blocks and bolts, substan-taliy as herein shown and specified. 72,036.—HATCH-LINING DRAWINGS.—E. K. Haynes, Hano-ver, N.H. I claim a straight-edge or scale having a mechauism for effecting au inter-mittent movement of the same, substat tially as described. Also in combination therewit. the tongue, q, for anguly: lining, substan-tially as iescribed. Also in combination with the feed mechauism, a mechanism for presenting the straight edge in positions radiating from a cent.r, substantially as set forth, i lever, F, mare of any firm or firet of total, integrated of round in orders. B, on the inside, mare of any firm or firet to the mare rain, a series o, holders, B, being attached to each flap, G, in front, and the flaps buttoning to the sides of the box, A, as herein described and for the purpose set forth. 72,012.—DRVICE FOR HITCHING HORSES.—Samuel Galbraith, for the purpose described 71,985. -APPARATUS FOR ELEVATING WATER.-J. R. Cole, 71,985.—APPARATUS FOR ELEVATING WATER.—J. R. Cole, Kenton Station, Tenn.
I dalam, let, The com ination of the chamber, F, provided with the short plens, p 7, and the pipes, p^{*}, with the pumps, G H, and the chambers, C D E, substantially as and for the purposes das-ribed.
2d, The combination and "Fraugement, for the purpose described, of the chambers, C D E F, pes, p 7", P P", and pumps, G H, the latter work-ing a ternately, so at to maintain a constant pressure upon the water in the chambers, substantially in the manner specified.
71,983.—TACK HAMME 3.—Thomas A. Conklin, New Brit-et Day New Orlears, La. I claim the device above described, consisting of the rings, A and B, and the pivoted curved/saws, C, mosting at one extremity at e'e. a 'd connect-ed at the otber by means of the rods, r, and springs, s, working in the tube, substantially as and for the purpose specified. 72,013.—CAPPING SCREWS J. GARdner, New Haven, Const. 1. Claim, S. Cutting away or depressing the cap at the point where it meets the nick in the sorew head, substantially a described, so that such cut away or depressed bortion, while connected with and iterating part of the cap shall lie within o ince the nick in the screw head, as set iterit. 2d, A capp'd screw in which the slot or depression in the cap correspond-ing to the nick in the screw head is formed, substantially in the manner and for the numpose herein shown and described. 72,014 — TIGHT AND LOOSE PULLEY.—Joseph P. Gates, Lin-coln, III. ata. Conn. I claim, as a new article of manufacture, a tack hammer, constructed in the manner and with the characteristics herein specified, for the purposes set for h. 72,037.—PLATFORM SCALE.—D. Hazzard, Milton, Del. I claim the hollow stand, A. the spind. . . . , the spings, D. the elastic rod, G, and the graduated plate, H, in combination and arranged substantially as shown and described for the purposes set forth. for h. 71.987.—FLOOR CLAMP.—Wm. Conner and C. W. Mitchell, Wolmington, Del. We claim the combination of the frame, a, with the sorews, b and d, with the wedge blocks. e., wedges ff, and plates, i i, coust ucted and arranged, as herein described to operate as a clamp for clamping ship timber, flooring, and other c rpent, rs' work. 31.00 Hand described for the purposes get form.
72,038 — PIANO LOCK. — Adam Helmstaedter, Newark, N. J I claim the pin, a, secured in the oscillating hook, C, and catching in a slot in the hook, C', substantially as and for the purpose discribed.
72,039 — TWEER. — John B. Himberg, Frederick City, Md. I claim a tweer consisting of the box, A, annular cover, C, with a convex under side, and of the removable ring, E. from which the concave plate, F, is suspended, all made and operating substantially as herein shown and december. coln, ill. I claim the construction of the pulley, e. in two socials, with the arrange-ment and combination of the ram spring, F. the rebound guard, G. the Sch fange, I, the c-sedog, J, and spring, K, the c-sedog ram, L, the shuthe key P, and stancis, Z, and arran, b. with cam, a, when constructed, arranged, and operated as herein described, and for the purposes set forth. 71,988.—BUTTON —Geo. Cooke, Winchester, Mass. I claim a button or stud, its shank attacaed by means of a cisk formed con-cave, and subsequently compressed, substantially as described. 72.015. 72.015. — BRICK MACHINE. — Sallitter GISFILGET, Integration, City, PA. City, PA. I claira, 1st, The device for moving the mold on to the roller way, G, con-sisting of the arm, 1, held by aspring, m', lever, m, pin, n. on the gear wheel o, and Block, 1, moving in the solid, h, substantially as described. 2d, The device for moving in the molds under the hopper, consisting of the gear wheel, p, operated by the gear wheel, o, arm, k', and block, k, moving the slot, 1, substantially a described. Sd, In combination with the above, the gear wheel, o, shaft, B, wr nding k ives, C, stationary knives, D, and fillers, F, in the hopper, A, substantially as and for the purpose described. "th. The roller way, G, provided with openings and rollers, gandg', gulf -BRICK MACHINE.-Samuel Gissinger, Allegheny 72,040.-LAMP FOR BURNING PETROLEUM.-James Hinks and Joseph Hinks, Birmingham, England. We claim, ist, Constructing the burners of the said lamps substantilally in the manuer hereinbefore described and illustrated in Fils. 1, 2, 3, 4, 5, and 6, of the secompanying drawings, that is to say the combination of the said lamps of the 71,989.-HANVESTER.-Francis C. Coppage. Terre Haute, Ind. 71,989.— HANVESTER.—Francis C. Coppage. Terre Haute, Ind. I c'aim, ist, The combination of the double or alternate step wheel, E, bav-ing the inclined steps. Be B, with the two stepping-dorg. D i ', and the springs, x x, when the said parts are constructed and arranged substantially in the manner and for the purposes described. 2d, The combination and arrangement of the adjusting rod, n o", with the cylindircal sleeve, 0, the sleeve or slide, O", the post, P, and the reel, O", in Such a manner that while the post, P, supports the reel, the oldrarion of the latter is an justed by the compound rod, n o", substantially as and for the pur-pues. Specified. the manuer hereinbefore described and illustrated in Fi.s. I. 2.3, 4.5, and 6, of the accompanying drawings, that is to say, the coubination in the same burner of two or more flat or curved were cases or holders, in which two or more flat wicks are placed, so as to produce therapy two or more flat flames, or elliptical or nearly circular flames. 24, Constructing and arranging the shade bolders or galleries of the said lamps, for the purpose of admitting air to the flames, substantially in the manner hereinbefore described, and illustrated in figs. 7, 11, 12, 18. and 11 of the accompanying drawings. as and for the purposes (lesaribed, 4tb, Theroller way, G, provided with openings and reliers, gandg', sub-manually as and for the purposes described. pusee specified. Bd; The rod, H, having the crank, h, and the worm, h in combination with

the worm segment, i, the shaft, I, the winding arm or segment, i', and the chain, K, substantially as and for the purpose specified. **1**,990.—MACHINE FOR STRETCHING CLOTH.—A. C. Corpe, 'S. of rod Conn.

soot - MACHINE FOR STREETCHING CLOTH. A. C. Corpe, Stafford, Conn. Le aim, Sit, The two gear clawps, B B, composed each of two wheels, a a', one plac d above the other, and the upper wheels arranged so as to be capa-ble of adjuitment, both vertically and laterally, substantially as shown and described.

described. 24. The arrangement of gesting, as shown. In connection with the gear clamps, B B, sod roller, C. whereby an equal movement of the clamps is in-sured, substantially as shown and described. 34. The supplemental frame, E. provided with the voller, D. ubon which the cloth is wound, in connection with the gearing, ku, clatch, o, driving pulley, m, and shaft, I, all arranged substantially as snown and described. 71,991.—RULLER FOR DRESSING.—Benjamin R. Cotton, Lew-iston. Me.

71,991.—ItOLLER FOR DRESSING. — Dongamme and iston, Me.
1 claim as a unimproved dresser roll, a stoue roll covered with the surfacing met al, or metal composition, substantially as set forth.
Also, the method of surfacing a roll by placing around or over a central roll a metal frame as a base up in which to cement the surface metal, and the surfacing such f ame, substantially as set forth.
71,992.—WAGON LOCK. — James A. Counts, Indianapolis, lowa.

I own. I claim the catch, g, the bands, h h, the spring, f the bar, e, lever, k, for the pur pses set forth and described.

1. Claim the catch, g, the bands, h h, the spring, I the par, e, iever, a, iever, a, iever, see set forth and describes.
71, 93.— HAME TUG.—Jas. C. Covert, Townsendville, N. Y. I claim, 1st, The metallic hames ing, A, provided with the V-shaped opening, of having inclined sides, and the tongues, D, adapted to receive the V-shaped block. O, formed upon the block, N, of the trace strap and block, O, the groups of the spring lever stop. Q, fitting in the groove, P, in the end of tongue, D, of the hame tug, as herein described for the purpole specified.
3d. The block, N. upon the trace strap, when provided with the V-shaped block, O, and the spring lever, Q, as herein described for the block, N, of the trace strap, septended.
3d. The block, N. upon the trace strap, when provided with the Y-shaped block, C, and the spring lever, Q, as herein described for the purpose specified.
3d. The block, N. apon the trace strap. When provided with the Y-shaped block, C, and the spring lever, Q, as herein described for the purpose specified.
3d. The block, N. apon the trace strap. When provided with the Y-shaped block, C, and the spring lever, Q, as herein described for the purpose specified.
3d. The block, N. apon the trace strap. When provided with the Y-shaped block, C, and the spring lever, Q, as herein described for the purpose specified.
3d.—HARVESTER RAKE.—James. S. Crump, Williamsburg, Mo.

71,994.—HARVESTER RAKE.—James. S. Urump, Williamsburg, Mo.
Iclaim, Ist, The curved eccentric arm, I. applied to the rock shaft, E, and operated in the manner and for the purpose described.
2d. The swilging lever, Morit is quivalent, in combination with the curved e centric arm for operating the platform, as described.
3d. The arrangement of one or more springs in combination with the carved eccentric arm, for the purpose set forth.
4th. The manuer of adjusting the hight of the swinging platform upon the supporting arms and uprights, as described.
5th, The adjustable cant or deflecting boards, C, in combination with the swinging platform, as described.
71.995.—WASHING MACHINE.—S. W. Curtiss, Sugar Grove, Pa.
1 claim an improved washing machine, consisting box, A, provided with

71.995. — WASHING MACHINE, — N. W. Curtiss, Sugar Grove, Pa. I claim an improved washing machine, consisting box, A, provided with blockr, H, and roller, E, the hunged frame, B, having, olters, CD, and handle, G, all construited, atranged avid operating as and for the purpose set forth. 71,998. — MACHINE FOR FORMING HAT BODIES. — Francis De-gen, Newark, N. J. I claim, ist, A bat body tormed partly of common and partly of flue stock, by first blowing on the cone a belt of fine stock, then over the whole cone a quantity of common stock, and finally a quantity of fine stock, substantially as a torth. 2., The close fitting cap, B, in combination with the perforated cone, A, of a machine forforming hat bodies, substantially as and for the purpose de-scilled.

scribed. 3d. The slide, D. in combination with the trunk, C, cap, B, and perforated cone, A, substantially as and for the purpose set for th. 71,997.—MAIL-BAG FASTENER.—S. Denison, Portlandville,

1, 391. — BARLE DAG LABY EACH AND A LABY EACH

Los, Mass.
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12,000. - KALWAY CHAIR. - Jonn H. Downing, Salem, Mass.
 Iclim the single-headed citr, A, in combination with a sectional railroad rail, arranged as and for the purpose shown and described.
 72,001. - ROTARY PUMP. - John Doyle, Hoboken, N. J., and Timothy A. Martin, New York city.
 We claim the two drums, AC placed concentrically one within the other, the chamber, D, air passages, E E', valves, F G, and tubular Journals, B E', all arranged and combined to operate in connection with water or other tight in the manner as and for the purpose spectrud.
 72,002. - GRINDING MILL. - James F'. Drummond, New York city.

72,002.—GRINDING MILL.—James F. Drummond, New York city.
1c.aim the tubular inle -journal, b, having its interior contracted around the feed pice at one point, and thence faring toward the cylinder and the blast pice, substantially as and for the purpose spectfuld.
72,003.—PIVOT GEARING.—JOSEPH J. Duchesnic, Lacon, Ill.
1 claim the circular bed plate, A.in combination with the pinion plate, B, and coupling plate, Q, secured by the sec screw, S, the whole arranged and operating substantially as and for the purpose spectra.
72,003.—CULTIVATOR.—William Duffner, Pictorsburg, Ind.
1 claim the circular the depting of the sec screw, A, the whole arranged and operating substantially as and for the spowes, as B'C D E'F qI J N, and the device for regulating the depting the sec forth.
72,005.—WOVEN FABRIC.—J. Renshaw, East Green which, R.I. I claim the fabric, herein described, as a new article of manufacture.
72,003.—HORSE RAKE.—Edward A. Field, Sidney, Me.
1 claim, 1st, ihe application of each to .th. E to its aria. D, by means of a round tenon arranged at an obtuse angle with the axis of the tooth, and going into the arm, the same being substantially as and for the purpose decompleted.
2d, Also, the combination ne well as the arrangement of the adjustable.

Ing into the arm, the same being substantially as and for the purpose de-scribed. 2d. Also, the combination as well as the arrangement of the adjustable brace d, and the staple or classing wire, f, with the arm and the tooth, when and the staple or classing wire, f, with the arm and the tooth, when a stapped at an obtained with the axis of the tooth, and going into a corresponding the brace d, and the staple of the clamping screw, h, with the arm, and the off applied to sub arm by a tenon arranged at an obtain and the tooth at a noble substantially as the clamping screw, h, with the arm, and the off applied to sub arm by a tenon arranged at an obtain and the tend arms and their test, and the braces thereof, the said rope being to operate as and for the arrangement of the rope, or its equivalent, with the several arms and their test, and the braces thereof, the said rope being to operate as and for the purpose specified. .72,007.— L'UNCH FOR FORMING CLASP.—Charles D. Flesche, New York city. I claim the sliding punch, B, in combination with the plates, A. A', cutters, b, and spring, e, substantially as and for the purpose herein shown and ecrified.

72,008 - SELF-FASTENING SPRING FOR WEBBING. - John Finn, Philadelphia, Pa., assignor to Archer Steel, same place. I claim a spiral sortiag, for webbing, having the wire at one end of the spi-al cells, A A, bent in the manner described and shown by B C D E, for the

72.009.-- CARVING KNIFE AND FORK HOLDER.-Alden T.

Foster, Alb ny, N. Y. I claim, as an article of manufacture, the dish or stand, A, constructed sub-antially as described, with notches, a a and c c, as and for the purpose set

72,010 -LAMP CHIMNEY.-Sam'l W. Fowler, Brooklyn, N.Y.

suitable or similar maturial, confined within a suitable chamber, substantially as set forth.
72,033.—REGISTER FOR ODOMETERS.—Henry F. Hart, New York city.
I claim the arrangement in an inclined position of the counting wheels, 1, 2, 3, 4, 5, and 6, upon shafts of equal lengths, in combination with the notiched and performed lid, B, as herein shown and described.
72,034.—NECKTIE.—Wm. H. Hart, Jr., Philadelphia, Pa. I claim a bow or tie, A, having an elastic loop or cord, B, arranged horizontally at its rear, with both of its ends free, for the purpose substantially as described.
72,032.—External C ANDRIG C SUPPOMENTIC — Hornee R. Hawking and the substantially as described. 12010 — LAMP CHIMNEY. — Sain I W. FOWIET, DIOURIYE, A. I. I claim the construction of the glassobinney, with its concave and convex deflectors, J and E., on each side, and collar, B, beneath, with its projections, CC, scherein de cribed and for the purposes set torth. 72,011. — UARTRIDGE BOX. — William Freeborn, Tivoli, N. Y. I claim the equare box, A, made of leather or any suitable material, when constructed with a series of round, fluted, or roffird ho ders. B, on the indice 71.984 sacola, Fa. I claim the combination of the nothed bars, a a, with the grooved blocks, 72.035.—ELLIPTIC CARRIAGE SPRING.—Horace R. Hawkins.

72,016.-HARVESTER RAKE.-James H. Glass and Albert J Glass, McGregor, Iowa. We claim, ist, The combination of the wheel, L, with the rake wheel, A and arms, C, substantially as herein shown and described and for the purpose

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set forth. 24. The combination of the cam, O, and bent or crooked lever, M, with the shat N, of the gear wheel, L, and with the arm, I, 'gidly connected with the switch, F, substantially as herein shown and described and for the purpose set forth.

72,017.-METHOD OF MOLDING PLASTIC MATERIAL.-Wm. B. Gleason, Boston, Mass. I claim the process substantially as and for the purposes specified. 72,018.—HAND CULTIVATOR.—Wm. C. Goodwin, Hampden,

Con. Con. I claim, 1st, The combination of the frame, C, with frame, G, and the set screws, X and y, and binding screw, f, when they are constructed, arranged, and fittedfor adjusting the blades, substantially as herein described and set

and fittedfor adjusting the blades, substantially as herein distributions of the blade with the foot and shank, when the foot is made with a keel, like v, to guide the blade and strengthen the shank, substantially as herein desc loed and set forth. 3d, The combination of the handle, D, with the frame, G, when the handle is made adjustable by means of the tongue, h, and set servey. J, and the whole is constructed, combined, and fitted for use substantially as herein discribed and set forth. 79.010 — A DDAPATHA FOR MAKING DIPPED CANDLES.—Peter

-APPARATUS FOR MAKING DIPPED CANDLES.-Peter 72.019

72,019.—APPARATUS FOR MAKING DIPPED CANDLES.—I Cours R. Gottstein, Henghton, Mich. I claim, 1st, The combination and arrangement, substantially as described, of the weighted clatern, ..., car, A, and straps, C, for the purpose set forta. 2d, Thecombination of the clatern, B, car, A, and track, I, substantially as and for the purpose described. 3d, Thecombination aud arrangement of the slab or board, J, with the weighted clatern, B, substantially as and for the purpose described. 4th, The new process of producing dipped candles by raising the molten tallow or other riquid to the wicks, substantially alsestrationally as candidated and the purpose described. 72,020.—CORN SHELLERL—Joseph Gould, Grinnell, Iowa. I claim the roller, C, having its teeth placed upon its face in the manuer herein described, and placed within the box between the statouary board, b, and adjustable board, F, by means of its curved springs or oblong slot, when tase bottorn, as herein set forth.

and all deal basis of the first of the first of the first of block with table for the first of the first of the first of the first of block with table bottom, as herein set forth. 72,021.— KNIFF CLEANER.—Lewis Goulding, Medfield, as-signor to himself and James E. Carpenter, Foxborougu, Mass, I claim, 1st, The combination in an implement tor scouring knives, of the bar, B, with its adjustable pad, g, arranged for operation as and for the pur-poses herein shown and descripted. 2d, Also incombination with the board or tablet, A, the bar, B, provided with the scouring pad, g, and plotted to such board, and ope sting with its upper surface, or upon an inclined bed formed thereon, essentially as herein set orth and explained. 2d, Also the combination with the bar, B, and its pad, of the knife bed and the inclosure for holding and receiving the scouring matterial, arranged rela-tively to each other and to the bar, J, as herein shown and set forth. 72,022.—FENCE POST.—David M. Graham, Evansville, Ind. I claim, isc, The construction of double portable frac, postra, alta.hed by metallic bevel clasps, with flanges, slots, and tongues, aud secured by keys, substantially in the manner and for the purposes as herein described and shown. 2d. The adjustable anchors or braces attached by metallic eves and key.

shown. 2d, The adjustable anchors or braces attached by metallic eyes and key, and the combination of the feet of the posts and base, substantially in the manner and for the purposes as herein described. abown. The adjustable anchors or braces stached by metalliceyes and key, and the combination of the feet of the posts and base, substantially in the manner and for the purposes as herein described.
72,023. —STEAM GAGE. — Albert S. Greene (assignor to John F. Olmsted), Washington, D. C.
I claim, Ist, The constitution of of a steam gage with two columns of mercury, and F, communicating with each other at their lower extremitles by means of the faxible diaphragms, c and d. and the solid an othel-headed lifter C, substantially in the manner and for the purpose as herein set forth.
2d, The solid double headed lifter, C, in combination with the faxible diaphragms, c and d, and the primary and secondary reservoirs, substantially in the manner and for the purpose as herein set forth.
2d, The transmission of the pressure of steam from one column to the other by means of a solid double headed lifter, in combination with the faxible diaphragms, c and d, substantial y in the manner and for the purpose as herein set forth.
2d, The transmission of the pressure of steam from one column to the other by means of a solid double headed lifter, in combination with the faxible diaphragms, c and d, substantial y in the manner and for the purpose as herein set forth.
72,024. — MACHINE FOR WALL BUILDING AND STUMP EXTRAOTING. — Thomas S Greenman, Mystic Bridge, assignor to George W, Packer, Jr., Mystic Kiver, Goan.
Iclaun, 1st, The within dsc ibed novel construction of a truss for a wall building machine. the same coussiting in the pyramidal framing, A B s, the horiz intel structure of the holding-down holts G, at the front or mytruss, the same being arranged relatively to the timpes, at the forts of the adjustitiatily as the diagonsi arra gement of the holding-down bolts, G, at the front or mytruss, the same being arranged relatively to the timbers, D, triangular framing, A B b, by enlarging and bolting, or equinvalent taxienings, at the fourts of the purpose here

pose specified. 72,020. — FERTLIZER. — Wm. C. Grimes, Ladiesburg, Md. I claim forming a fertilizer in the manner beroin described, of the ingredi-ents and proportions substant: ally as specified. 72,027. — CULTIVATOR. — John Gross and John C. Tunison, Description

72,027.—CULTIVATOR.—John Gross and John C. Lumson, Decatur, Ill. We clain, ist, the arrangement and combined action of the two frames. so that when any permanent obstraction comes acai at any of the plows the frames will iscumerct, and the back frameride or move up on the bloront one, and thus avoid breakage, substantially as described. 2d, Also a intetoanal spring book upon the tongue or tongue frame, for catcaing or holding upon scross barot the rear fram: so that we two frames will not disconned tould the preasure upon the plow or plows exceeds that for which the hock has been adjusted, substantially as constructed. 72,0.3.—Hose SHIEDD.—John A Hausse, Philadelphia, Pa. I claim the combination of the foor or footway, C, with the side pleces, b, of a sectional hose bridge, oon tructed substantially as described. 72,0.9.—DKY ROCKET.—John W. Hadfield, Newtown, N. Y. I claim the application of cascabable wings to a skyrocket, turing the medium of a collar or band, arranged so that the wings may be detached for the collar or band, or the latter detached from the rocket, substantially as shown and described.

72,030.—Sky Rocket.—John W. Hadfield, East Williams-

72,030. —SKY ROCKET.—JOhn W. Haquetu, East without burg, N. Y.
 1 cl.in the attachment to a skyrocket of three or more sticks, at equal distances apart, substantially in the manner and for the purpose set fordin.
 72,031. —MACHINE FOR REFITTING CONICAL VALVE.—Chas. F. Hall, Brooklyn, N. Y.
 1 claim, isk, A mill ng tool with one or more cutters attached to one or more series on longitue and sections of a cone, whether strangitt or of lue. Whereby conical values of different sizes may redited, constructed substantial as shown and desoribed.
 2d, in combination therewith the yielding conter, C, substantially as desorted.

72,032.-Collecting Omde of Zinc.-Geo. C. Hall, Brook-12,052.—COLLECTING OSIDE OF ZINC.—GEO. C. Hall, DFOR-lyn, N. T. I clam, 1st, A building, st neture, or compariment, A, provided with open-ings, a, covered by screens, B, subsist fially as and for the purpose set for A, 2d, A s ocen for separating the oxide of zine from the times and gases of burning zinc ore, composed of ground cork, hair, wool, sponge, or other suitable or similar matrixi, confined within a suitable chamber, substantially 3d, Supporting the shade holders or galleries in a vase or cup on the top of the pillar of the lamp, and supplying al. to the lamp through the sail pillar or vase, or supporting them in a cnp or vase without a pillar, the air in this case being supplied through the vase, substantially in the manner hereinbe-fore described, and illustrated in fig. 7 of the accompanying draw mgs 4th, The improvement described and illustrated in figs. 11, 12.13, and 14, of theaccompanying drawings, for isolating the shade from the shade holder or gallery.

The account of the starting of the start of the start of purkah protectors of 5th, The arrang-ment or combination of the parts of punkah protectors of med estactors substartivily in the manner bereinbefore described, and il wind protectors, substantially in the manner bereinbefore described, and il lustrated in figs. 7, 8, 9, 10, 11, 15, and 16, of the accompanying drawings. 72,041.—DEVICE FOR LASHING AND BINDING.—John M. Hir

linger, Red Beck, Pa. Idam the cord, A, provided with the links, B and C, hooked lever, D. and slide, B, with its ing, a, arranged and used as and for the purpose set forth 72,042 — TOOL FOR OPENING FRUIT CANS.—Horace Holt,

72,042 — TOOL FOR OPENING FRUIT CANE.—Horace Holt, New York city.
1 claim, ist, A tool foropening sheet metal cans, composed of a hand lever, B, carrying a tooth, c, and connected to tongs. A, or other equivalent means, capable of clamping said tooth-carrying lever to the can, as set forth.
20, Placing the tooth, c, in an oblique direction, when the same is used in combination with the hand lever, B, and clamping device A, substantially as and for the purpose described.
30, The raisedbear.ng, d, in combination with the lever, B, and clamping device, A, substantially a and for the parpose set forth.
72,043.—MOP WF INGER — Zadok Howe. Lowell, Mich. I claim the treadle, G, and spring bail, E, in combination with the rollers, B and c, the same being used as and for the purposespecified.
72,044.—MACHING FOR MAKING EYELETS.—David K. Hoxsie, Providence, R I.

12.044. — MACHINE FOR MAINE DIMENSION DEFINITION DEF

(2)040.—Italium all builts into the second secon substantially as described. 046. — HARVESTER. — George M. Jackson, North Hec-tor, N.Y. 72,046.

tor, N. Y I claim the ar'angement and combination of the toothed wheels, S and T, c:ank, U,box, W, of the hinged irame, V, adjustable finger bar, J, hoisting rope or chan, Y, and level; Z, when constructed and operated as herein de-scribed and for the purposes set forth. 72,047 — REVERSIBLE SADIRON. — S. M. Johnson, Lock-

N

port, N. Y. I divid, 1st, The combination, with a reversible sadiron, A, of the hollów handle, C, forming a reservoir, i, the pipe, D, leg, I, a d set screw, H, or or equivalent, arranged and operating substantially in the manner and for the purpose set forth. 2d, Also, in (om bination therewith, the pipe, E, provided with burner, e, cone, G, and stop-cock, F, arranged and operating substantially as specified. 72,048.—BOOT AND SHOE.—W illiam Keats, and John Keats, attest England

treet. England We claim the construction of coverings for the teet, substantially herein-before set forth-that is so say, with the sole cut at the edge, and sewed to the

before set in the order is so say, with the sole out at the edge, and sewed to the edge of the upper while turned outward, substantially as described. 72,049.—MUFFF—M. A. King, New York city. I claim a mult provided with the skeleton spring frame B, made in sections for the purper of claim standard is critical altorn and adapting it for use as a relignite or pocket, substantially as shown and described. 72,050.-HORSE HAY FORK.-Alfred Knapp, North Fair-

field Ohlo. I claim the bioged chisel, c, in combination with the main piece, A, rod, B, Frace piece, G, and holder, D, constructed substantially as described, and for the purposes set forth. 72,051.—FIFTH WHEEL FOR CARRIAGES.—Joshua Lawrence,

Palarys, N Y. claim the combination of the housings, a a, inclosing the rollers, b b, with b bows, 6 H, the whole conducted and wranged as described, and operat-bows the manner and for the purpose set forth.

the bows, G H, the whole conducted and stranged is described, and operating in the manner and for the purpose, set forth. 72,052.—WASHING MACHINE.—J. Q. Leffingwell, Nevada,

Lows. I claim the combination of the semi-cylindrica' box, D, segment, W, pinion 12, parts, m m', lever, H, and ribs, r, as herein described, for the purpose spe-

72,053.-Door-FASTENER.-Francis C. Levalley, Warner

vile, N. T. I clam the sliding wedge bolt, F. in combination with the sliding spring catch, K. at i case, E. J. as herein described, for the purpose pecified. 72,054.—CONDENSING ENGINE.—William A. Lighthall, New

York city. I clim the arrangement of the ordinary jet condenser, B, air pamp, D, and hot well, E, with the surface condenser, F, and the valves, H K, and L asshown and described, so that the change from the use of the jet conden ser can be made at will, and vice versa, 72,055.—MACHINIS FOR FORMING AND TEMPERING ELLIPTIC

12,003.—MACHINE FOR FORGING AND TEMPERING ELLIPTIC SPRINGS.—Geo S. Long, Bridgeport, Ct. Ichim, Isr, a steel spring former, substantially as shown and described, and for the purposes set for th. 2d, The vibrating rod, B, and shoe, f', and any former, F, in combination with the slotted wheel, W, and roller, W', substantially as shown and de-scribed, and for the purpose set for it. 3d, The hollow substr., s', and roller, W', in combination with the binder or presser. D, substantially as shown and described, and fo the purposes set forth.

press forth

forth. 4th, The sliding crank pin, p, in combination with the slotted wheel, W, and slotted vibrating rod, B, substantially as shown and described, and for the purposes set forth. 72,056.—FURNACE FOR HOT AIR BLAST.—Richard Long,

Chillicothe Ohno. 1 claim, 1st, Constructing the air pipe of a furnace-blastheater of fire clay,

I chain, ist, constructing the air pipe of a furnace-olast heater of hre clay, substantially as described. 2d, 'onstructing the air pipe of a noval or other equivalent form, and unit-ing the sections of which it is composed by socket joints, with clumps and keys, substantially as shown and described. 3d, Fornirs the supporting walls, B, of fire brick, with iron plates between the courses, substantially as shown and described. 4th, Placing an open or a solid plate beneath the air pipe, substantially as and for the purposes the supporting walls.

and for the purpless herein described. 72 057.—CLOTHES RACK.—Eugene F. Lyman, Indianapolis,

Ind. Icaim the combination and arrangement of the semi-circular racks, G and I claum the combination and arrangement of the semi-circular racks, G and I, the arms, fand c, the sockets sud staples for the arms, and the box, A B C D, all oper thing substantially as and for the purpose, specified. 72,058.—CENTER BOARD FOR VESSELS.—E. J. McFarlin, San

Fractory all the blocks of the center boards, or other equivalent devices for I claum the location of the center boards, or other equivalent devices for the same specific quipole, in three stituene bow and stera. I vessels, that is to say, the placing of the said boards forward of the foremast or all or the mainmast, in two mested vessels, substantially as shown and described, and for the objects and purposes specified. 72,059.—ReGISTER POINTS FOR PRINTING PRESS.—R. W. Mc-Gowan, New York city.

Gowan, New York city. Gowan, New York city. I claim, Ist, The pivoted or jointed pointer. B, having a spring or equiva-lent weight attached, and arranzed to operate in the manner substantially as and f r the surpose set forth. 2d, The tube, A, provided with the slotted cap plate, b, and the unt, C, when used in connection with the pointer, for the purpose specified.

Lotaim, ist, arouf composed of tiles, a and b, having spaces, S, between them for a water tight cement, substantially as shown and described, and for the purposes set forth. 20, The saturated tiles, a, and the saturated tiles b entrance in the and described over

3d, The supports. D, provided with screws, a. and altached to the frame, B as shown, in connection with the levels, b, in platform, C, for the purpose of leveling the device, substantially as described. 4th, The annular platform. C, applied to the wagon, A, when used in combi-nation with a revolving detrick traine, J, substantially as and for the purpose specified.

aperified. 72.045.—Augusts.—John A. McGee (assignor to Theodore

Mace, New York city. I chaim the boring instrument formed with a cutting edge extending out-wardly irow the base of the tapering screw. and euryed backwards and lywnwards until it in ersects the periphery of the tool, as and for the pur-bases set forth.

72.066 -DRY DOCK-Israel J. Merritt, New York city.

72,085 - DRY DOCK - Israel J. Merritt, New York city. Iclaim, 1st, The arrangement and combination with a floating section or dock, A, of one or more wells, through which a lifting chain or chains are passed down to the vessel or object to be raised, an bitantially as described. 24, The arrangement and combination of the lever, J, with the floating dock or section, A, and chain or chains, C, substantially as described. 3d. The shap: of the well, B, the same being made flaring from its top downwards, so as to allow the chains to go or be conducted from the month of the well directly towards the vessel or object to be raised, substantially as shown.

72,067.—Knife and Fork Cleaner.—John Meritt, New

York civ. I claim, ist. The combination of the circular disks, D, leather or equivalent rubbers, K., shaft, A, holding plates, E F., adjusting nut. G, and adjusting screw, I. with each other and with the box, B, substantially as herein shown and described, and tor the purpose set forth. 21, The combination of the Friction wheel, O. brush, N, and shaft, L, with each other, and with the disk, D, and box, B, substantially as herein shown and described, and if or the purpose set forth. 30, The combination of the fever, M, spring, P, and hook, R, with the brush shaft, L, and box, B, substantially as herein shown and described, and for the purpose set forth.

purpose set forth. 72,038.—MANUFACTURE CF LAMPBLACK.—A.Millochan, New

12,058.—MANUFACTURE CF LAMPBLACK.—A.Millochan, New York city, assignor to R. N. Perlee, Jorsey City, N. J. I clau the method herein specified of manufacturing: lamp black by con-densing the carbonacrons vapors upon a surface directly over the flame, that is constantly kept sufficiently cool by artificial means. 72,069.—CAR BRAKE.—James Mitchell. La Porte, Ind. I claim, Isr, The combination of the lever, A, rod, B, lever, C, pawls, D and Dispring, D2, and ratchet wheel, E, substantially as and for the purpose set forth.

. The combination of the shaft, E3, collar, R, arm, R', collar, S, and shaft,

2d, The combination of the shaft, E3, collar, K, arm, K', collar, S, and shart, I, subs antially as set forth. Sd, Th: combination of the shaft, I, spiral collar, U, lever, T, and arm, R, for disenga zing the brakes, substantially as set forth. Ath, The combination of the ratchet bar, P, with the inclined face, P1, and catch lever, G, substantially as and for the purpose set forth. 5th, The continuation of the ratchet bar, P, with its shoulder, P2, and the lever, T, substantially as and for the purpose set forth. 72,070.—A UTOMA'ITC TABLE FOR TEACHING.—Hannah Mun-const Repertord III administrative of the estate of Wm. C, Munson, de-

son, Rocktord, III., administratrix of the setate of Wm. C. Munson, de-ceased I c kin the combination of the frame, A, with its pivoted pointers.C C, and hooks, e e, and movable hars, B B, with pointers and charts, D, as constr ed, the whols being arranged and used substantially as and for the purp modeled.

cu, new wools using arranged and used substantially as and for the purpose specified. 72,071.—HYDRANT.—John G. Murdock, Cincinnati, Ohio. 1 claim, 1st. The hollow plunger, E, having the interity valve, I, and sleeve plocking, F, which respectively clove and encircle the supply and waste ploc, B. as and for the purpose set forth. 2d, in combination with the supply and waste ploe, B, and valve, I, the vertically adjustable shoulder or lock nut, J, in combination and arrange-ment with the elements, B, D, I and E. Ath, The arrangement of internally packed plunger, E, which surrounds and packa vertical upply pipe, B, having one or more waste ways; D, and being enclosed within and guided by a cap, C, substantially as described. 72,072.—CLEANER FOR LAMP CHIMNEYS.— K. B. Musson, Champaign, Ill

Champaig n, Ill I chaim a cleauer for lamp chimneys, bottles, and other articles of a similar character, consisting of stribe of rubber, or other soft elastic substance, se-ure. to a holder, and arranged in manner and for the purposes substantial-y as above set forth and described.

y as above set forth and described. 72,073 — BOOT AND SHOE HEREL.—Frastus Newhall, Lynn, assigner to himself and John R. Mofilt, Chelsea, Mass. I claim a heel made with a circular tread and a corresponding seat, when ne or both of the two parts are or ade of elastic material, and are united sab-tentially as described.

stantiallyas de

stantially as descr. bed. 72,074. — PORTABLE HOT AIR CONDUCTOR. — John B. Older-shaw. Balimore, Md. Iclaim a portable hot air receiver and conductor, constructed, arranged and operating in connection with a store, for the purpose of heating apart-ments above it, substantially as described.

ments above it, substantially as described. 72,075.-VINE HolDist.-Garret J. Olendorf and Albert O. Parshall, Middl-frid, N. Y. We claim, 1st, the frame, A, constructed as described and set forth, for the

We draim, 184, inclusion, in contrast, in co

and set forth, for the purpose specified. 72,076.—BHEECH-LOADING FIRE ARMS.—Henry O. Peabody

(assignor to the Providence Tool Jompauy), Providence, R. I. I ciam combining the breech block, A, hinged at its posterior extremity, and operating as described, with the hammer. D, by means of the protuber-ant inclined plaue, C, or its equivalent, substantially as described for the preposes specified. 72,077 — Itailway Crossings.—Stanhope Perkins, Fairfield,

While is by metas of the clutches, a' a', substantially as and for the purposes set forth. 2d, Ia combination with the above, the plough, P. racks. r r, and plnion, a, when the latter is fixed to the ax's, and operates to raise the plo gh by power derived from the ax, bubstantially as and for the purpose specified. 3d, The combination of the rocking carl, C, gear, e e' e'', apron, B, and plough, P, when the parts are so constructed and arranged that by the rais of gear, and the apron put in motion or stopped, substantially as and for the purpose specified. 4th, The combination of the looped rods, w w w, with the arms, v v, doors, m m' m', and lever, l'', substantially as and for the purpose specified. 5th, The lips or projections, o o, of the doors, m m' m', substantially as and for the purpose set forth. 6th, The combination of the rod, u, lever, l', spring, s, trigger, n, doors, m m'', having the lips, o c o, rod, y', and hook, y, substantially as and for the purpose specified. 72,099. — A UG4: R HANDLE. — Daniel Y. Smith, Joliet, Ill. I claim the combination of the frule, a, with the annular nut, c, and fast spring, c, when constructed and arrungedas and for the purposes set forth. 72,100. — MACHINE FOR SHARPENING SAWS. — J. B. Smith, Milwaukee, Wis. 12,011.—tuhuwar Ontosstator. Commerce Learning between the second second

sey City, N. J. I claim the method herein specified of manufacturing lamp black, by intro-ducing atmospheric air to the flame, by artificial means, for the purposes set

firth. 72,079.—AXLE BOX.—Henry B. Pitner, La Porte, Ind. I claim. Ist, An axle box, substantially asshown and described, and for the purpose set forth. 2d. The sleeve or thimble, A, in combination with the end pieces, B, sub-sta tialy as shown and described, and for the purposes set forth. 3d. The shoulder, al, and the shoulder, a2, in combination with the sleeve, A, and end pieces, B, substantially us shown and described, and for the pur-nesses of oth. essectorth

73,080.—RAILWAY CHAIR.— Leander Pollock, (assignor to

himself and John P. Schenck, Jr.), Matteawan, N. Y. I claum Ist, A Tailread-chair which is divided by in inclined line drawn through the buse, into two parts, A and B, each part carrying one of the checks, and all made and operating substantially as herein shown and de-scribed

scribed. 24. interposing an elastic plate, g, between the edge of the upper base, d, and the stationary check, a, substantially as and for the purpose herem shows and described. 72.051--- VENTILATING HAX-MOWS.-- Geo. Race, Norwich,

S Y. I claim making vertical perforated pipes, having lateral branches extend-ing outfrom the main pipe for the purpose of ventilating hav-mows, and stacks of hay or grain, substantially as herein set forth.

72,082.--PNEUMATIC CAR.-Louis Ransom, Lansinghurg, N.Y. 12.052.--FARUM ATIC CAR.-LOUIS KANSOM_LABSINGOUTGS, N. I. I chain In combination with a picumatic car, a series of metal cylinders, for containing compressed air, the said cylinders weing connected by pipes, so as to form one common reservor substantially as describe. 2d, I also claim the combination, with a stove for warming the car, or other heating apparatus, a conducting pipe, for the compressed air, so locat-ed with reference to the stove or other heating apparatus that the com-pressed air in passing through it will become heated, and have its expan-sive power increased thereny, substantially as described.

described. described. 4th, I also claim the muffler, D, for the purpose of deadening the sound of the escaping air as described.

8d, The arrangement of the tabas. E and H, the tube, H, being mounted upon the floating part, substantially as herein specified. 72039.--DOOR SPRING.--Rudolph Schrader, Indianapolis, Ind.

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72.030. - DOAR SPRING. - Rudolph Schrader, Indianapolis, Ind. I claim 1sr, The door-spring, constructed as described, consisting of the hollow socket, F, placed over the squares hank of the door arm: and provid-ed with the right sngular arm, J, sheve, E, to which the inner end of the colled spring. D is securely fastished, fitting at or alternating up to not the sock-et, F, and provided with the right angular arm, L rearing against the opposite side of said post. all operating as described for the purpose specified. 24, The spring, D, oper at d by means of the right angular arm, J, of the hollow shank, F, engaging with the outer end, G, of the spring, when the door moves in one direction, and when moving in the opposite direction en-gaging with the arm, I, of the sheave, E, to which the mar end of the spring 30, The combination and arrangement within the case, A, of the spring p, hollow socked, F, having arm, J, sheave, E, having arm, 1, post, H, and hook. G, operating as described for the purpose specified. 72,090. - POLE COUPLING FOR VEHICLES. - Anson Searls, N. Y. city.

72,090. — POLE COUPLING FOR VEHICLES. — Anson Searls, N. Y. city. I claim the circular joints, B. B. and the arrangement of the ratchet teeth, K. Springs, D. B. and bol's, E. Lin c. onbination with Lie arm, A. substan-tially as described and for the purposes setforth. 72,091. — CAIKRIAGE. — Anson Searls, San Francisco, Cal. I claim, ist, The axle composed of the steel bars, d and g, attached, as herein described. 21, The cl p. b, passing around under the axle, with its ends fastened to the plate, a, on therocker, both before and behind the axle, substantially as de-soribed.

STEAM ENGINE. — George Shale, Taunton, Mass.
I claim, 1st, The steam-chest, B, constructed with the chambers, g h, and partition, p, in combination with the steam and exhaust pipes, and cylinder, a, substantially as desorthed.
2d. The valve-rods, 1i', provided with the recesses or chambers, k k', in combination with the partition, p, constructed as described, and operated by the lever, I, as and for the purpose set forth.
72,093. — FERRULE — Archibald Straw. Philadelphia, Pa.
Leism e ferrue norded intervalue or at its inear either with obligue.

12.095. — FERRULE — Archibald Staw. Philadelphia, Pa. I claim a ferrule, provided internally, or at its inner side, with oblique spurs or projeculons, substautially as and for the purpose specified 72.094. — FENCE P_{OST} . — Warren H. Shay, Sylvania, Ohio. I claim the plank standards, BE, joined by the plus, a a, the braces, AA, and the cross-piece. C, combined and secured by the dove-tail tenons, b, b, the gib and key, c d, and the keys, g g, substantially as and for the purpose herein shown and described.

herein shown and described. 72,095.—TUBULAR HEATER.—C. J. Shepard, Brooklyn, N.Y. 72,095.—TUBULAR HEATER.—C. J. Shepard, Brooklyn, N. Y. Iclaim, ist, The combination of the grate, E, ssh-pit, D, and combustion-clamber, C, with the slide-valve, I, for the purposes indicated. 2d, The slide-valve at the junction of the upper and under front flue, for the purposes described. 3d, The upper front flue covered externally with a non-conducting lining, as a portion of the cumbustion-chamber. 4th, The c-rrugatel tubular externally-fanged chamber, provided with an incombustible termination, constructed and operating substantially as shown, for the purposes pointed out. 5th, A semi-cylindrical reverberating chamber of combustion, when com-bled with a flue and a series of tubes, for the purposes specified. 6th, A feeding-chamber in combination with an arched chamber of com-bustion and the abutments for properly distributing the feel upon the grate. 7th, Constructing the bed-plate or grate-plate in such a manner that the same shall form a support for the grate and brick-work of the chamber of combustion, as well as the bed of the front flue. 8th, The division-plate, in combination with a series of tubes, for the pur-poses fully described.

72,096.—WINDOW-SASH SUPPORTER.—J. W. Simpson, New-ark, N. J. I claim the lever. d, and wedge, b, constructed, combined, and operated substantially in the manner and for the purpose hereinabove set forth. Also, the socket, m, with its ratch, n, and the catch, i on the lever, d, in combination with the lever and wedge, in the manner and for the purpose possible.

specified. 72,097.—STAKE-HOLDER FOR RAILROAD CARS.—Thomas A.

Slack, Peoria county, Ill. I claim the combination of revolving staple, stakes, and divisional "coal sides." as described and for the purpose set forth.

suces. as described and for the purpose set forth. 72,098.—ExcAVATOR.—Benjamin Slusser, Sidney, Ohio, as-signor to bimselt and Elias M. Gluck, same place. I claim, 1st, The method of ele ating or adjusting the plough of an exca-vator by the rotary mot on of the forward axie, derived from the forward where's by meass of the clutches, a' a', substantially as and for the purposes set forth.

72,100.—MACHINE FOR SHARPENING SAWS.—J. B. Smith, Milwaukee, Wis I clamonter, B. gange, E. and adjustable cone-mandrel, D. in combina-tion. substantially as and for the purpose described. 72,101.—RAISING OLLS AND BURNING-FLUIDS BY PNEUMATIC PRESSURE.—John Henry Smith, Allegheny city, Pa. I claim rai-ing, by pueumatic pressure, oils or burning-fluids from an oil or fluid to gas generated therefrom, as here i described and set forth. Also, the combination and arrangement of the pipes, A BC f and f, when used in connection with an oil or fluid compartment. It of a ship or other vessel, the whole being constructed, arranged, and operating substantially in the manner increm described and for the purpose set forth. Also, in connection with the above, ejecung nne jets of water into the fame, cused by the burning of the oil oriluidand other mattermixed there-with, as brein described and set forth. 72.102.—SHIP FOR TRANSPORTING PETROLEUM.—John H.

with, as herein described and setforth. 72,102.—SHIP FOR TRANSPORTING PETROLEUM.—John H. Smith, Allegheny city, Pa. I claim, providing the hulls of ships and other vessels with a compartment for oils and burning fluids, said compartment being protected with water, and furnished with supply and discharge pipes, substantially as herein de-scribed and for the purpose set forth. 72,103.—iDEVICE FOR SHEARING AND CLIPPING WOOL.—R. T. Smith and J. K. Priest. Nashua. N. H.

72,103.— IDEVICE FOR SHEARING AND CLIPPING WOOL.—R. T. Smith and J. K. Priest, Nashua, N. H.
Icaim, 1st, The revolving spring cutter or cutters, O, in connection with a cutter-plate.
31, The shield, N, in connection with the cylinder, C, covering shaft, M, and extending into groove, g, substantially in the manner and for the pur-pose herein described.
72.104 — CORN PLOUGH.—John Snyder, Williamsfield, Ohio. I claim the combination of the tongue, H, strap, L, and upright, K, with the forward end of the central beam, A, substantially as herein shown and described, and for the purpose set forth.
72,105.—BOOT-HISEL POLISHER.—V. K. Spear, Lynn, Mass. I claim, ist, The reciprocating polisher, moving in the line of an arc of a

72,103.—BOOT-HISEL POLISHER.—V. K. Spear, Lynn, Mass, I claim, lst, The reciprocating polisher, moving in the line of an arc of a circle, by means of mechanism substantially as kerein described, and having an elastic bearing, as and for the purpose set forth. 24, in combination with a reciprocating polisher, substantially as de-scribed, I claim the pivoted sliding frame to support the boot or shoe, con-structed, arranged, and operating substantially as set forth, 72,106.—MEANS FOR PROPELLING VESSELS.—Robt, R. Sped-denced David B 245 for d storie Orace

| them for a water tight cement, substantially as shown and described, and for | 4th. I also claim the muffler. D. for the purpose of deadening the sound of | 72,106.—MEANS FOR PROPELLING VESSELS.—Robt, R. Sped- |
|---|--|---|
| the purposes set forth. 20, The saturated tiles, a, and the saturated tiles, b, substantially as shown | | den and Daniel F. Staff vrd, Astoria, Oregon. |
| and described, and for the purposes set forth. | 72.083MACHINE FOR SHARPENING SAWS-E. B. Rich. (as- | We claim, 1st, The combination of the racz-frame, K, racks, I and J, and |
| 3d, The lower or suter row of thes, b, when laid together, forming an eaves | signor to himself and Andre Cashin 3), Boston, Mass. | ratchet-wheel, H, with each other and with a haft, D, for the purpose of ap- |
| trough, substantially as shown and described, and for the purpose set forth | | plying power to said shaft, substantially as herein shown and described. |
| | the submind wheel D countriestal and amongood to opprate as hencer de | and adjusting side, L, with each other, with the rack frame, K, and with the |
| 72,061 REFINING CAST IRON AND CONVERTING IT INTO | scribed, to the purpose spectured, | hinged parts of a vessel or other structure, one or both of said hinged parts |
| STEEL -Emile Marcin and PierreE. Martin, Paris, France. | 199 684 - A TWO NAMER REGISTER I T Bucklow Ottoms III | floating in the water, so as to be acted upon by the motion of the waves, sub- |
| We claim the method and means for refining and converting cast iron into | administrator of the estate of Stephen Rigler, deceased. | s antially as herein shown and described. |
| cast s eel and other metals, substantially as herein shown and described. | | 72.107.—CULTIVATOR.—C. E. Steller, Chicago, Ill. |
| 72,053 - STRAW UUTTER - John W. Mauzy, Richmond, and | anartments, by means of a column of mercury within a tube, which is ar- | Lelaim 1st The hinged runners I W substantially as and for the purpose |
| James Hughes, ambridge, ind., assignor to James Hughes. | ranged within the register itself and acts upon said slide through the means | set forth. |
| We claim, 1st, The combination of the side pieces, D D, constructed as de- | substantially as described. | 2d The slotted sides A A and B B in combination with the shanks, C D E |
| scriber, containing the bearings for the cutting mechanism, the shearingbar, B, with square faces, and thespirally bladed knife, C, arranged substantially | 2d, The combination of an index hand, S, with a register arranged and op- | arranged to be set at different angles, and fastened by set-screws, ZZ, as de- |
| as described. | | scr.bed. |
| 2d, The combination of the perforated rollers, E, ratchet wheels, F, pawls, | register itself, substantially as itescribed. | 3d, The combination of the guide-bar, E, arranged to be raised and low- |
| H1, 1 add R, adjustable oscillating arm, G1 eccentric rod, L, and eccentric | pipe, G' pist in rod, gl, cross head, g, too bed lever, F, spur wheel, d and | ered, with rearstandards, H H, and sides, A A B B, as described. 4th, The combination of standards, G G, hinged runners, J W, and sides, A |
| M, respectively, constructed and arranged substantially as set forth. | shaft b, arranged, constructed and onerating substantially as described. | A B B, as set forth. |
| 3d, The arrangement of the cap, G, rollers, E E, covers, Q, sides pieces, D | 172 095 STOURT DLOUT OUT THAT DOD THE U A DOG | 5th, The shanks, U, of shovel, T, arranged to fit in a socket, V, and bar, S, |
| D, knife, C, and the driving and the feed mechanism, constructed and com- | Harveys, Pa. | in combination with standards, G G, and cross-bar, 1, as and for the purpose |
| bined substantially as set forth. 4tb, The feed rollers, E, when constructed from sheet metal, and punched | | set forth. |
| from the inside, forming projections as shown, for feeding the straw to the | | 6th, The double evener, L, arranged su batantia lly as set forth. |
| knife. | ally as herein shown and described and for the purpose set forth. | 7th, The double evener, L. in combination with braces, OO and PP, with |
| 5th. The metallic side pieces. D D, constructed as described, in combina- | 2d, Connecting the forward ends of the handles, D, to the beam. A, by | or without braces, Y, substantially as set forth. |
| tion with the bar, B, knife, C, feed rollers, E E, arranged substantially as set | means of the hook or eve-bolts. G and pivoted bar or plate. H, when used in | 72,108.—EYE CUP.—Benj. F. Stephens, Brooklyn, N. Y. |
| forth. | connection with the pivoted or rocking cross bar, C, and pin, F, substantial- | I claim a pair of bowls, united by tubes of necks to an exhaustion bag or |
| 6th, The combination of the eccentric, M, on the kaile shaft, eccentric rod, | ly asherein shown and described and for the purpose set forth. | ball, as and for the purposes set forth. |
| L, and oscillating arm, G1, when the latter are so arranged as to regulate the | | 72,109 HARVESTER RAKEEdward Stewart, Fort Madi- |
| cut by adjusting the point of attachment, substantially in the manner set forth. | | son, Iowa. |
| | I claim the fence-post, P P' P", having dove tail gains at its lower end, in | I claim the arrangement of the shafts, D E and G, with their respective |
| 72,063.—CONVERTIBLE SHOT GUN AND RIFLE.—Samuel Mc- | combination with the parallel sills, A A', and the kays, e e e e, substantially in the manner and for the purpose set forth. | wheels, crank, I, and pitman, J, with its dividing end, J', connecting the |
| Culloch, Yellow Springs, Obio. | 72.087.—CHUBN.—J. A. Rowley, Vanceburg, Ky. | arms, e.e. upon the box, K', at the end of shaft, K, the whole constructed and operating substantially as and for the purposes specified. |
| I claim, let, The removable barrel, C, constructed with external collars, c, | 12.001OHUGN -J. A. howley, vanceourg, ky. | |
| and secured within a shot gun bar el, A. by a screw, D, substantially as and for the purposes set forth. | I claim the arrangement substantially as described of the driving wheel, C, shafts, c c', spring, D, not hed bracket, E e, and friction pulley, F G, for the | 72,110.—STREET PAVEMENT.—H. M. Stow, San Francisco, |
| 2d, Also the plug, F, for the purposes set forth. | purpose of imparting a rotary motion to the dasser shaft, f, in the manner | Cal. |
| 72,064 DEBRICK D. J. McDonald, Gold Hill, Nevada. | h reia described and set forth. | I claim, 1st, A wooden payement, composed of alternate tiers of square- ended and wedge-shaped blocks, the wedge-shaped ends of the latter being |
| 1 claim. 1st. The derrick standard. L. and frame. K. fitted in the derrick | | driven down into a foundation bed of sand or earth, substantially as and for |
| frame, J, and arranged as shown, for the ready adjustment of the standard, | signor to Jos. Nason & Co., New York city | the purpose described. |
| L. · · · · · · · · · · · · · · · · · · · | I clyim 1st The arrangement of the central part (of the cover and main | 2d, A wooden payement, composed of blocks with lower ends wedge- |
| 2d, The fitting of the derrick frame, J, on the wagon frame, as shown, tow it. | cover B enhetantially as herein set forth | formed, and all driven down into a foundation-bed of sand or earth, substan- |
| by means of the circular place. D, frame, F, and c rcular plate, G, with the | 2d, The arrangement of the stop-joint between the floating part and the | tially as shown and de cribed. |
| wheel, E, and pinion, Y, to admit of the ready turning of the derrick, as set torth. | i fixed part of the apparatus, whereby to avoid the clogging by accumulations | 72,111.—STREET PAVEMENT.—H. M. Stow, San Francisco |
| 247 MI1 | of dirt as specified. | Oal. |

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1 claim, 1st, The cast ir on plates, with projecting wedge-shaped flanges, to be driven into the sand or earth, substantially as and for the purpose set forth. 3d, Also, a pavement composed of alternate titers of cast ir on plates, with projecting wedge-shaped flanges and wedge-shaped wooden blocks, driven into the sand and earth, substantially as described.
72, 112. —WASHING MACHINE, —John D. Swartz, Milton, Pa. I claim, 1st, The slotted arms, g, bearing the shaft, D, and rubber, C, when such arms are connected at their lower ends by the slotted arms, g, bearing the shaft. D, and rubber, C, when such arms are connected at their lower ends by the slotted arms, g, bearing the shaft. D, and rubber, C, when such arms are consected at their lower ends by the slotted arms, g, bearing the shaft. D, and rubber, C, when such arms are consected at their lower ends by the slotted arms, g, shaft. D, and rubber, C, slotted arms, g, shaft. D, and rubber, C, slotted arms, g, shaft. D, and rubber, C, slotted arms, g, shaft. D, and rubber, E, spirally grooved rollers, d, in the combination of the semi-circular rubber, C, slotted arms, g, shaft. D, and the combination of the semi-circular arbord. A the environg environment of the purpose specified.
72, 113. —PORTABLIS F'ENCE.—G. D. Sweigert, Martic town-slip. Fa. assignor to himself, John Sweigert and Fellx W. Sweigert.
1 claim a purfable fence, combined of round wrought-iron posts, C, bed-plate, A, ralls, B, scarfed, and apolied with intervening ferrules, D, head and bettom washers, F, all arranged in the manner and for the purpose specified.
72, 114. —VARIABLE CRANK FOR BORING-MACHINE.—G. C. Taft, Worcester, Mass., assignor to Theodore Mace, Sing Sing, N. Y. I claim the two variable cranks, constructed as specified, and applied in the manner shown, to the slatt or axis of the boring-machine, as and for the purpose sectiorth.

12,115.—Ro'fary Take-Up for Knitting Machine.—James

• 2011-10. — INFART TARE-UP FOR INITTING MACHINE. — James Teachou, Waterford, N. Y. I claim, ist, The statuonary scroll-p ate, C, placed over the center of mo-tion of take-up of Knitting machines, for the purpose described. 2d, Also, in conbutation with the scroll-plate, C, the toothed gear, D, for the purpose herein set forth. 3d, Also, the toothed wheel, D, or its equivalent, ether separately, or combined with the described appendages, e r g i K, arranged as shown and described as operating substantially 1 the manner and for the purpose speci-ied.

th, Also, in combination with the above, the adjustable gear, s, and con-centric gears, s', for the purpose describes. 73,110,—KNITTING MACHINE.—James Teachout, Waterford,

N.Y. 1 claim. Ist, Forming the "jacks" or loop-lifters, B, with a projecting are, f, and depressed arc, g, for the purposes set forth. 2d, In combination with the arc, f, and arch, g, the rounded end, as shown and described.

and described. 3d, In combination with the described knitting jacks, a retaining hub or device, constructed and arranged as shown and described. 72,117—KNITTING MACHINE.—James Teachout, Waterford,

N.Y. 1 claim, 1st, The vertically adjustable collars or rings, G and H, for the pur-oses described.

poses described. 23d, in combination with the collars, G and H, the partitions or wings, k, and groove, I, as set forth. 23, in combination with the adjustable collars, G and H, wings, k, and groove, I, the "jacks" or lifters, A, formed as shown and described, for the purpose specified. 72, 118.— MANUFACTURING ILLUMINATING GAS.—J. B. Terry, Hawford Conn

12,118.— MANUFACTURING ILLUMINATING GAME.
Hartford, Conn.
L ciaim, ist, The method herein described of heating air charged with hydrocarbon vapor, so as to render it non condensable previous to its delivery as an illuminating gas, for the purposes set forth.
2a, The employment of a refort or other heating medium interposed between the carbureter and gas holder or other gas-delivering or gas-burning uevice, substantially as and for the purposes set forth.
3d. The employment of one or more burners under the refort or vessel, for the purpose of heating the same under the array gement berein shown and the set of the difference.

vescribed. 4th, The combination, with the carbureting-vessel and intermediate heater, of a jacket under or around the said carbureter, and a fine connect ing the jacket with said heater, substantially in the manner and for the pur-pusses set forth.

12,119.—Looms.—S. T. Thomas and J. H. Dolley, Guildford, . н

N.H. We claim, in combination with the lever, g, arranged to operate as set forth, thei icline, n, or its equivalent, for relieving the picker from the ac-tion of the spiring, l, to permit iree movement of the shutle-boxes, substan-ually as set forth. ition of the spring, i, to permit free movement of the shuttle-boxes, su taily as set forth. '72,120.—GATE.—John W. Thompson, Greenfield, Mass.

I claim a gate, made of metallic tubing and connections, substantially herein set forth and described. -TAIL-PIECE FOR VIOLINS .- James Thoms, South 72.121.-

72,122.—FOLD NG BEDSTEAD AND UKIB.—IX. D. ALCOLL, Gloversville, N.Y. I claim, ist, A folding bedstead or crib, substantially as shown and de-scribed, and for the purpose set forth. 2d, A rotating bedding-box, A, in combination with the bead and foot-boards of a bedstead or crib, substantially as shown and described, and for the purpose set forth. 3d, Folding head and foot-boards, composed of the parts, F and C, substan-tially as shown and described, and for the purposes set forth. 4th, The swinging sides, A', in combination with the box, A, and the head and foot-boards, F C, substantially as shown and described, and for the pur-poses set forth.

72,123.—STEAM ENGINE.—J. F. Troxel, Bloomsville, Ohio.

I. ciaim a convertible wardrobe, closet, or book case, with swinging or folding sides, C, and swinging or toiding top, A, and bottom, B, substantially as desr. bed and for the purpose set forth.
[72, 125, — A.P.PARATUS FOR DISTILLING OILS.—Herbert W. C. Twedle, Pittsburg, Pa I claim, Ist, A troug or trongins, having perforations for the parsasge of the oil in small quantities, and furnished with points near to such peforations, so as to cauce the oil to pass thereform in drops, or fine streams, or 'lin dims or layer, over bestel pipes or those placed it greunder, when used within a vacuum still for distilling oil, the use of a series or coil of steam pipe, placed horizontally, one under another, as a series or coil of steam pipe, placed horizontally, one under another, as a series or coil of steam pipe, and for the purposes above set forth.
3d, In a vacuum still for distilling oil, a series or coil of steam pipe, and for the purposes of coil of a vacuum still set of a solve set forth.
3d, In a vacuum still set or coil of a vacuum still containing a coil of steam pipe, as ubstantially as and for the purposes above set forth.
3d, In a vacuum still set or coil of a vacuum still containing a coil of steam pipe as evaporating surfaces, and troughs for the gradual distillation of pteroleum.
3d, the vacuum still, or abstrey of such stills, substantially in the manner and for the purpose increase thore set forth.
3t, A vacuum still, or abattery of such stills, substantially in the manner and for the purpose above set forth.
32, 125, —DISTILLING HYDROCARBON OILS.—Herbert W. C. Tweddle, Pittsburg, Pa.
3d, a vacuum still, or abattery of such stills, substantially in the manner and for the purpose above set forth.
32, 126, —DISTILLING HYDROCARBON OILS.—Herbert W. C. Tweddle, Pittsburg, Pa.
34, a boil as distillation of the proces above set forth.
34, a such as the abattery of such stills, substantially in the manner 72,127.—GRAIN DRILL.—Joseph G. Vale, Cumberland Co.

 $P_{2,}$ l claim the quarti-elliptical showel, B, with its base, E E', coming to a point at E, the rod, C, the rod, H, with thereon the balls, D and D', together with the fannel, A, all constructed and operating in the manner and for the purpose described. 72,128 - WINDOW-SASH STOP.-George R. Vanderbilt (as-

signor to himself, J. J. Lindstrom, and D. W. Stidolph). Mount Vernon

 \tilde{X} , \tilde{Y} . 1 claim, 1st, The two damping plates, and the tightening bolt, combined a domarks substantially as and for the purpose specified. 2d, The springs, arranged in relation to the plates, c d, substantially as and or the normose specified.

described, in combition with the arms, g, for releasing thesame as described, 9th. The extension, x, of the pivited fork bars, b, in combination with cords or chains, 5, operating as described 10th. The curved or semicircular rake head, or its equivalent, arranged in rear of build operated in connection with the litting fork, substantially as de-scribed. tion with the ring, c, and pistous acting in the steam spaces, y and z, sub-stantially as specified. 2,821 (whole Fio. 33,825).—LAMP.—Charles W. Caboon, Port-land, Me. Dated Dec. 3, 1861. Application for reissue received and filed Nov. 22, 1867. 2,821 (whole fio. 33,825).—LAMP.—Charles W. Caboon, Portland, Me. Dated Dec. 3, 1851. Application for reissue received and filed Nov. 22, 1867.
1st, A lever with chimney fastenings having that part off to ny bich the chimney rest extended so as to form a deflector, substantially as described. 2d, The deflector board of flat shaped or nearly so when made not nl/ as a deflector but partly as a chimney holder, substantially as described. 2d, The combination of the said deflector with the coincal forminous piece of metal and the cylindrical tubular air screen for the purpose of forming the air chamber, A, protecting the flat metal and admitting the air from below the same, substantially as described.
4th, The combination with the lever for raising the chimney of the deflector is screen and foraminous piece of metal, substantially as and for the purposes specified.
5th, The combination with the lever for manipulating the same.
6th, A chimney holder having a projection for manipulating the same.
6th, The combination of the ring, f, supports, s.s, and air screen, c, substantially as and for the purpose set forth.
7th, The combination of the glass body of a lamp with a metallic handle, substantially as and for the purpose set forth.
8th, The combination of the glass body of a lamp with a metallic handle, why and for the purpose set forth.
8th, The combination of the fuel door way or aperture, B, and the freb. 2, 487.
8th, I claim constructing a heatling store with its fuel door way or aperture, B, and the fire box, A, in manner substantially as and for the purposes berein set forth.
8th, I claim, in combination of the fuel door way or aperture, B, and the fire box, A, extended contiguously threander substantially as and for the purposes set forth.
8th, it claim, in a beating stove, in combination with a free box, back lining plates and its fuel bor way or aperture, B, and the fire box, A, extended contiguously th

72,134.-WASHING MACHINE.-George E. Wade, Jefferson

12,102. It addites in a second mon wash t shown and

shown and specified. \$2,135.-BOLT AND RIVET MACHINE.-John Wakefield, Bir-mingham, England, assignor to Isaac Smith and William Fothergill Bar-tho.

integram, England, assignor to Isaac Smith and William Fothergill Bartho, I claim, lat, the arrangement or combination, substantially as hereinbefore described, and ilmstrated in the accompanying drawings. of the vertical dies, b, for outling off and carrying the cut-off length of rod, and for shap-ing the head of the divector bolt, with the horizontal platch or die, m, for shaping the shank of the rivet or bolt, and upsetting the end of the rivet or bolt into a head in the vertical dies. dt, The arrangement or combination of parts hereinbefore described, and ilmstrated in the accompanying drawings, for giving motion to the said ver-diation, the arrangement or combination of parts hereinbefore described and ilmstrated in the accompanying drawings, for removing the finished rivet or bolt from the horizontal punch or die. 72,136. — Edge Barters. — Dudley Webster, Washington, D. C. I claim as a new article of manufacture an erg-beater spoon, constructed as described, viz., with its circumference and the edges of an inner central opening serrated as and for the purpose described. 73,137. — BitIOK MACHINE. — Y. Westfall, Kalamazoo, Mich. I claim, ist, the combination of the two molding cyunders, C. o, when the

Licham, 1st, the combination of the two molding cylinders, C. C. when the molding recesses, 1 I, in said cylinders, and their intermediate islowers. J J, are so proportioned with each other that the faces of the said followers cannot be brought in contact with each other, and when the said islower pieres have substantially the degree of curvature herein represented and described.

24, In connection with the molding cylinders, C C, I also claim the central shaft, b. and its operating levers. L L, in combination with the jointed rods

for thed.
at. in connection with the molding cylinders, C C, I also claim the central shaft, b, and its operating levers, L L, iu combination with the jointed rods, n, and the crank arms, m m, on the resenctive cam shafts, for operating all the came simultane neity, substantially m the manner herein set forth.
ad, Also the vibrating spring scraper, I, iu combination with the vibre cloth belt, w, when arranged with the molding cylinders, C C, and operated substantially in the manner herein set forth.
ad, Also the vibrating spring scraper, I, iu combination with the wire cloth belt, w, when arranged with the molding cylinders, C C, and operated substantially in the manner and for the purpose neclinest forth.
72,138. — APPARATUS FOR ENAMELING PHOTOGRAPHIC PICTURES.—Nathaniel Weston. San Francisco, Cal.
I claim the rest, A, for the glass, or its equivalent, the use of the glasses, B B, the weight G, the fastenlings, H, the clamps, E E; or their equivalents, in combination, for the purposes herein set forth.
72,139.—VALVE GEAR FOR STEAM ENGINES.—NoIMAN W. Wheeler, Brooklyn, N.Y.
I claim, ist, Openling the ports, as 'i''s oas to suspend the operation of the moving force upon the valve or valves at the period when the steam is cut off, and before the exhaust is opened, substantially as and for the purpose here in set forth.
2d, Also the closure of certain ports, as 'i'' and k'k'', so as to cause the valve or valves to resume the movement toward its or their full throw at the proper period, substantially as and for the purposes herein set forth.
3d, Also opening the proper ports, as to 'h'', so as to suppend the moving force operating upon the valve or valves, at variable periods, substantially in the manner and for the purpose herein set forth.
3d, Also opening the proper period, substantially as and for the purpose herein set forth.
3d, Also regulating the times of closing passages, so as to induce the cutting tion for reissue received and field Nov. 30, 1867.
1st, As a new article of manufacture a kets or can with a series of corrug - tions representing hoops which give combined strength and timsh.
29, Casting the female screw for the stopper on a tap or mandrel, as set forth.
30, The extra ring or boss, D, and head, C, as set forth.
62, 693.—MACHINE FOR CUTTING THREADS ON BOLTS.—
8chweitzer Patcht Bolt Co. (assignees of Franzis Schweizer), New York city. Dated March 5, 1867. Application for reissue received and filed Nov. 30, 1867.
1st, The sliding or movable heads, N O, in combination with the lever, F, and cutter or dues, a b, substantially as and for the purpose described.
2d, The elastic rest, Z, constructed and operating substantially as and for the purpose shown and described.
1st, The combination of the type wheel, A, inking roller, C, and handle, B, substantially as and for the purpose shown and described.
2d, The solving, and for the purpose described.
2d, The regroup, c, in combination with the roller, C, type wheel, A and wandle, B, substantially as and for the purpose test orth.
3', The projecting flanges, b, on the type wheel, A, constructed and operat in projecting flanges, b, on the type wheel, A, constructed and operat in projecting flanges, b, on the type wheel, A, and handle, B, substantially as and for the purpose described.
3', The stop, h, in combination with the stop, h, type wheel, A, and handle, B, substantially as and for the purpose described.
8', The solve, h, in combination with the stop. A, and handle, B, substantially as and for the purpose described.
2', The solve, D, in combination with the stop. A, and handle, B, substantially as and for the purpose described.
3', The solve, D, in combination with the stop. A, and handle, B, substantially as and for the purpose described.
2', The stop M, A, and MACHINE.—A. W y CKGI (fassignee by mes

72,140. — DITCHING MACHINE. — A. H. WINITACTE ANU I. S. Whitacre, Morrow, Ohio.
We claim, 1st, The combination of the sled, A, and the frame, B, connected by the racks and pinions, c a, at the cornors, arranged and operating substantially as and for the purpose described.
2d, The pulleys, D and E, carrying the endles chain, r, with the scoops, h, in combination with the drum, C, the plungers, n n, operating by the double iscline, p, around the wheel, K, and the sweep, F, constructed and operating substantially as and for the purpose herein described.
72,141. — FARM FENCE. — Samuel P. Williams, Sheridan, N.Y. I claim the application and use of the triangular brace posts, B B, and terod, C, in the construction of farm fences, in the manner substantially as described. 72,142.—VENTILATING TUNNEL.—Hugh B. Wilson, N.Y. city.

^{BCTHODG.} **72,142.**—VENTILATING TUNNEL.—Hugh B. Wilson, N.Y. city. I claim, let, The method of applying street lamp posts, and awning and other useful or ornamental posts, pillars, or structures, ot the purposes of venti ating underground railway tunnels, substantially as within described.
2d. Also the combination of street lamp posts, and awning and other posts, pillars, or structures, whether for ornament posts, and awning and other posts, pillars, or structures, whether for ornament or use, with the connecting undescribed. **72.143.**—MEDICAL COMPOUND.—J. T. Wilson, Brooklyn,N.Y. Tclaim the combination of the above named ingredients in the manner as and for the purpose described. **72.144.**—SHOE LIFFER.—Wm. H. Winans, Newark, N. J. I claim, 1st, The combination of the lever plate, A, gruping plate, B, spring, b, and holding lever, C, substantially as and for the purpose specified. **72,145.**—STOVE.—T. W. Wisner, Howell, Mich.
1 claim the portable hop-drying stove, constructed as described, of the corregated side and ed of the groys, A, supported upon wheels, the adultable grave barded side and ed of the sore, and mounted upon wheels, the adultable grave barded side and ed of the core, and holding it a purpose specified. **72,145.**—PAPER File.—John Wolfe, Washington, D. C.

described for the purpose specified. 72,146.--PAPER FILE.-John Wolfe, Washington, D. C. I claim the paper file or holder constructed and operated as herein recited. 72,147.--LATHE BOX AND JOURNAL.-Aurin Wood, Worces-

and specified. The combination of the journal, C, having the occuliarly shaped grooves, at d, ont in its surface, with the journal box, D, provided in it; lower part with the oil box, inclined oil passage, and groove, a, under the arrangement sub-stantially as herein shown and set forth.

-LATHE FOR TURNING SHAFTING .- Aurin Wood, 72,148.

72,148.—LATHE FOR TURNING SHAFTING.—Aurin room, Worcester, Mass.
I cleim, ist, The combination with the bed of the lathe, provided with a reservoir or receptacle, as described, of the sliding tool carriage and the pump, attached to and moving with said carriage, substantially as and for the purposes shown and set forth.
2d, The combination with the sliding tool carriage and pump, mounted non said carriage, of the cup. C, and tube connecting said cup with the purp, substantially in the manner and for the purposes herein shown and described.
3d, The method of operating the pump by connecting the piston rod of the same with a friction wheel, actuated by the rotation of the shaft which is be-in girned in the machine, in the manner herein shown and specified.
72,149.—FINGER BAR FOR HARVESTER.—Walter A. Wood, Hoosick Falls, N.Y.
I claim, berelling off the front upper carner of the finger bar, to 'afford a seat for the side of the finger bar, to rate reception of the guard finger.
70,150.—CUPPTAIN FINTURE.—William H. Woods, Philadel-

72,150.—CURTAIN FIXTURE.—William H. Woods, Philadel-

(12,100.—UURTAIN FIXTURE.— WIIIIam H. WOODS, Philadel-phia, Pa. Iclaim the lever dog, e, with the cross foot, e, engaging and disengaging the teeth of the rack, b, b, in combination with the swivelled knob, d, having a cross bar, g, and working in the slot, a a, of the racket crse, A, substan-tially as and for the purpose herein described. 72,151.—CHIMNEY.—Eblenezer S. Phelps, Jr., Wyanet, Ill. I claim the device above described, consisting of theiron box, A, and draw-er, B, constructed and arranged as show n, when used in combination with the chimney, D, substantially in the manner and for the purposes specified.

REISSUES.

35.6, The employment in combination with the berth, A, as described, of a connerpose to facilitate the handling of the same, substantially as described.
6th, Constructing a car seat with the back and seat cushions hinged together and disconnected from the seat frame so that the back cushion may be placed on the seat frame and the seat of a source data of the seat cushion of the opposite chair, substantially as described.
48,555.—Door BOLT.—The Stanley Works (ass,gnees of William H. Hart), New Britain, Conn. Dated July 4,1865. Application for reissue received and filed Oct. 29, 1857.
18, Making the barrel of a door or shutter bolt of sheet metal, substantially as shown and described.
29, 490.—INDEX DOOR PLATE.—E. M. Montague, Boston, Mass, assignee of Nathan Ames, Saugus Center, Mass. Dated July 3, 1866.
1st, the use in adoor plate of a tablet or slate and an adjustable plate or disk having ing are received and filed Oct 15, 1866.
29, 430.—INDEX DOOR PLATE.—E. M. Montague, Boston, Mass, assignee of Nathan Ames, Saugus Center, Mass. Dated July 3, 1800.
1st, the use in adoor plate of a tablet or slate and an adjustable plate or disk having figures or readable signs or characters, for the purposes specified and set forth.
20, the combination with the above door plate a rotating disk, C, marked with the conter to a spindle, D, which passes througe the door, substantial for ensure the state and substantial bar and substantial bars.

forth for the purposes specified. 16,944. – GuN POWDER KEG. – Henry E. Irenee L. and Eugene Du Pont(assignees of James Wilson and William Wilson, J. and Guarles Green forthemselves) Wilmington, Del. Daved March 31, 1857. Applica-tion for reissue received and filed Nov. 30, 1867. 184, As a new article of manufacture a key or con with a series of corrug-tions representing hoops which give combined strength and finish. 23, Casting the female screw for the stopper on a tap or mandrel, as set forth.

Mo. Dated July 9, 1867. Application for reissue received and filed Nov. 81, 1867.
The adjustable dredging frame, C, when such adjustment is produced by a derrick. ii, and fal, when constructed and operated substantially as shown and specified.
2d. The secons, d, of a dredging machine laying circular vertical cutting edges in advance of the usual lateral cutting edge. W, Fig. 1, when constructed and operating substantially as shown and specified.
3d. in combination with the dredging vessel the pins, L. for the purpose of moving the same, substantially as described.
4th, The dredgr. the receiving and discharging apron and the derrick of a dredging machine all in combination, when constructed and operated sub-stantially as shown and specified.
49,992.—SLEEPING CAR.—George M. Pullman, Chicago, Ill., assignee of Ben. Field, Albion, N. Y., and George M. Pullman, Chicago, Ill. Dated Sept, 19, 1865. Application for reissue received and filed Nov. 26, 1867.
186, The berth, A, permanently connected with the side of the car by

120, 80°, in combination with the cort the same substantially as described. 21, 80°, and a substantially as described. 21, The employment in combination with the berth, A, as described of pointed suspenders to support the inner side of the berth that will fold to-scriber to permit the berth to be turned up, substantially as described. 31, The employment in combination with the berth, A, as described. 31, The employment in combination with the berth, A, as described. 31, The employment in combination with the berth, A, as described. 31, The employment in combination with the berth, A, as described. 40, The employment in combination with the berth, A, as described, of the movable head board, J, substantially as described. 51, The employment in combination with the berth, A, as described, of a connterpose to facilitate the handling of the same, substantially as de-scribed.