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52,657.—Head Block for Holding Boots and Shoes.—
Isaac E. Allen, Windham, Me.:
First, I chan the combination a the rest, A, the inclined plane, P, the piece, N, having the projection, m, the lever, L, bar, t, and spring, r. arranged and constructed substitutially as and for the purpos seek tortch.

spring, r. arranged and constructed substitution, of the block to reat upon the construction of the block to reat upon the construction of the inched plane, P, and of the strap, Q, sanstantally as not for the purpose herein described.

Bed Bottom — Joshua Barnes, New

strat, Q, stateta, and to the purpose herein described.

52,653.—Spring Bed Bottom.—Joshua Barnes, New York City. Antedated Feb. 5, 1866:

First, I chain the complication of the classic cord passed through the rings with the rols, and tube for the purpose of making an elastic suspension of the slas suponanextensible frame in the manner substantially as above described.

Second, I claim the combination of the movable st anchion with and resting upon the enastice or 4 colled around a tran sverse our in the manner substantially as above described.

the in liner substantiary as above described.

52,659.—Paper and Cloth Collars.—Joseph Barton, Battle Creek, Mich.:

I claim a paper colar with a waven sweat band lining and fexible connection applied between the two pieces of paper forming the exposed part of the collar, and to the inner surface of the band of the collar, the same being an improved new article of manufacture and claimed as such as set forth.

52,660.—Pump.—John Bean, Huds on, Mich.:
I claim the combination of the valve plates, F and G, with the wedge-shaped block. H, the rods, m and n, the arms, k, and the bars, O, the whole constructed and arranged as and for the purpose herein set forth.

52,661.—Press and Strainer for Cream Paste, Etc.—Lu-man Bishop, Cortlandville, N. Y.:
First, I claim the cylindrical formed strainer, G, or its equivalent, with screw attachment, in combination with the tube, F, as described.

escribed.
Second, I claim the lateral apertures, H H, or their equivalents, in sombination with the tube and piston, as described.

52,662.—Printers' Chase.—Allen M. Blanchard, St

52,662.—ITHINGS
LOUIS, MO.:
I claim a printer's chase formed of four straight bars, A, fitted together, so they may be adjusted to a uy ste of form required, without the use of quoins, substantially as set forth.

P. Powie Portland, Me.:

claim the combination of the levers, b and c, the plate, c, e, and pulleys, d, substantially as and for the purposes

specined.

Second, The combination of the parts, n b and c, with the device shown in Fig. 3, substantially as described and for the purposes set forth.

52,664.—Churn.—William Boynton, Auburn, N. Y.: I dam the combination of the frame, B, the shaft, C, the a G, the level wheels, mand n, the drawing wheel, P, and air tu I, the whole arranged substantially as and for the purp ose he described.

52,665.—Skirt Hoop.—J. W. Bradley. New York City: I chain hoop skirtsprings composed or two or more thickness of metal combined together substantially as described.

52,666.—Hand Stamp.—Stephen B. Bragne, New York City:
I claim the attachment of the propared ribbon directly to the face of the stamp by means of a band or other fastening applied around the stamp substantially as herein set forth.

-Sponge Cup.-Stephen B. Bragne, New York 52,667.

City:
I claim the combination of the sponge, C, the spring, B, and th cup, A, substantially as herein specified.

cup, A, substantiany as nerent specines.

52,663.—Hand Stamp.—Stephen B. Bragne and William S. Starr, New York City:

"We claim the rotating ring, r, provided with types, and passing through the stationary die Beneach the plunger, substantially as set forth for the purpose specified.

52,669. - Pocket Toilet Case. - Francis F. Braillard, New

York City:

I claim a pocket toilet case constructed and having a mirror, a pocket for a co-ub and elastic loops for the reception of scissors, tweezers, and knife, arranged within it, substantially as herein described

-Well-Boring Machine.-C. N. Briggs, Phila

oz. of claphia, Pa.:

I clam the combination of the shaft, C, with its cam. G, and the adjustable shaft, D, with its arms, H, and, I, the whole being constructed and operating as and for the purpose described.

52,671.—Hot-air Furnace.—Lorenzo W. Brown and Isaac L. Frankem, Indianapolis, Ind.: We casim to snoke cuamoer, D. parditions, O. and air pipes, II. when arranged in combination with the reservoir, B. grate, C, and smoke pipes, G. G., substantially in the manner and for the purpose set forth.

52,672.—Lens.—Charles B. Boyle, New York City. Antedated Feb. 16, 1866:
I claim the use of a giass surnea, in front of the objective lens of a microscope or telescope.

a microscope or telescope.

52,673.—Process for Gilding and Ornamenting Surfaces.

—Morgan W. Brown, New York City:

First, I dam the mode or process of preparing an alkaline sillicats preparatory to its use and application, and for the purposes of gilding torouzing, erc., substantially as here in described.

Second, I cuain the mode or process of applying the solution of prepared alkalme sliticate, and the girt, broaze and other metallic powdere substances is surfaces in the manner and for purposes substantially as described.

The rd, I claim the use and application of certain specified degrees of heat for the purposes substantially as described.

Fourth, I claim the use and application to my mode or process of varnishes and lactors for purposes substantially as described.

52,674.—Brick Machine.—Henry C. Bull. Louisville, Kv.

52,674.—Brick Machine.—Henry C. Bull, Louisville, Ky.
First, I caim the feed wneel, F. armed with a series of movable
blades, F'', opera mu as and for the purpose described.
8. cond, The mold wheel, H. provided with the radical compart
ments, H', and revolving a fixed central cylinder, substantially as
set torth.

Third, The arrangement of plungers, J, and their described accessories or equivalents in combination with keys, N, and cross heads, N, or their cquivalent devices, for the purposes specified. Fourth, The fingers, S 3', or their equivalents for shifting the movable blad's of the feel wheel, in the manner described. Fifth, The arringement of exterior plungers, O' O' O'', o'', for imparting an additional process to the clay, as set forth. Sixth, The frame braces, q side bars, Q'Q', cross shead, R, and their accessories, for operating their exterior plungers, O' O'' O''', substantially as set forth.

Seventh The arrangement of racks, L'L', pinions, Y, spring carch, Z, shaft, Y, and cam Y'', for the purpose described. Eighth, The mold, X, having a movable bottom, X', as described.

52,675.—Hen's Nest.—Charles Campbell, Yellow Head, Ill.:

Ill.:
I claim the wires or rods, i P, or their equivalents, attached to pivoted bar, g, provided with a weightorcounterpoise. B, and fitted in the box, A, and all arranged to operate substantially in the manner as and for the purpose herein setforth. This invention consists in providing a hen's nest with a pivoted

or suspended door, counterpoised and arranged in such a manner that but one hen can enter and sit upon the nest, at once. The object of the invention is to prevent hens laying eggs in the nests setting liens, and also to prevent one hen troin driving the other off

52,676.—Track Rope Hay Elevator and Carrier.—E. H. Carpenter, Dexter, Mich.:
First. I claim the use of the track and draughtropes, A1 A2, combined with the stops, St S2, as and for the purposes specified.
Se cond, The employment of said ropes and stops, in combination with a hay-elevating and conveying carriage, constructed, arranged and operated substantially as herein described.

and operator substantially as herein described.

52,677.—Valve Gearfor Oscillating Engines.—Henry T. Carter, Fortland, Me.:

First, I claim the arrangement of the sletted link, K, the valve stem, I, and the oscillating cylinder, A, all as and let the purposes specified.

Scond, The manner of reversing an oscillating engine by means of the slotted link, the valvestem, I, the lever, L, and the oscillating cylinder, A, as specified.

52,678.—Machine for Mixing Dough.—George Clark, Jr., Dorchester, Mass., and Lemuel P. Jenks, Bos-ton, Mass.:

First, We claim the arrangement of two vertical rollers, rotating on their own centers, and at the same time rotating round the center of the containing pan, substantially as and for the purpose specified.

center of the containing pan, substantially as and for the purpose specified.

Second, We claim the arrangement of rotating rollers, not touching the oottom of the pan, and the removable pan, substantially as and for the purpose described.

Third, We claim the arrangement of a rotating shaft or shafts romovable from the dough-containing pan, by means of the turning of the shaft bar which sustains them upon a hinge, substantially as and for the purpose described.

Fourth, We claim the combination of a vertical stirrer or stirrers with a scrape or scrapers, to clean them, substantially as and for the purpose described.

Fourth, we claim the arrangement of a vertical stirrer or stirrers, when the same is or are removable from their respective shafts, when the same is or are removable from their respective shafts, and for the purpose described.

Sixth, We claim the bent plate above ment loned, to prevent the dough reaching the tops of the rollers, used substantially as and for the purpose described.

Sevent, We claim the general combination and arrangement of the whole machine, substantially as and for the purpose described.

52,679.—Cartridge Retractor for Breech-loading Fire Arms.—J. w. Cochran, New York City:
First, I claim the spring, j. in combination with the lever, F. and retracting tooth, i, substantially as herein set forth, whereby it is made to serve as the connection between the said lever and tooth, and as the means of returning them to their proper places on the beheation of the lever after the retraction of a cartridge shell.

Second, The arrangement of the lever, F, and its connection with the retracting tooth, in relation to the breech receiver, stock and breech operating lever, substantially as herein specified.

52,680.—Horse Rake Teeth.—Columbus Coleman, Alleghany City, Pa.:
I claim the use or header, c, movable forms, B and C, and lever, D, when used in connection with the table, A, constructed, arranged and operating substantially in the manner herein described and for the purpose set forth.

52.681.—Counting Machine.—Samuel Comfort, Morris-

52,681.—Counting Machine.—Samuel Comfort, Morrisville, Pt.:

First. I claim the combination of a registeriag bar, or its equivalent, with the numbering wheels of a machine for indicating or printing numbers for the purpose of securing the correct alignment of the burses during a purnon of the operation of the machine.

Second, The combination of the bir, L, with the bar, N, when arranged for join to operation substantially in the manner described, and for the purposes set fortu.

Third, The combination of the notches, k, with the notch, k', when arranged in relation to the digital numbers on the numbering wheels k, thaving notches, k and k', differing in size, for the purpose described.

Fourth, The combination of the bar, N, baving a projection, n, with the numbering wheels, k, having notches, k and k', differing in size, for the purpose described.

Filth, The combination of the oscillating frame, H, having a groove, I, and thanges, m and m', with the crank pin, i, substantially as described, for the purpose of giving the required intermittent oscillating motion to the bar, N.

Sixth, The Combination of the crank, C, the frame, F, and the slotted bar, E, and the spiral spring, G, or their equivalents, with the oscillating frame, H, when arranged to operate suostantially as described, for the purpose of giving the longitudinally reciprocating motion to the bars, L and N.

52,682.—Self-operating Gate.—Norman Comstock. West-

52,682.—Self-operating Gate.—Norman Comstock, Westfield, III.:

I claim the combination and arrangement of the gate, B, arms C D E, catches, h, androds, J, as and for the purpose specified.

IThis gate belongs to that class designed for opening and closing without the trouble of getting out of a vehicle or without dismount ing from a horse)

52,683.—Car Wheel.—John L. Constable, New York 12,000.—Car wheel.—John D. Constable, New York
City:
I claim the combination of the wheels and independent flanges,
ubstantially as described.

I claim the combination of the wheels and independent flanges, substantially as described.

52,684.—Cupola or Blast Furnace.—Anson G. Cook, Burlington, Vt.:
First, Cana countracting the lining of the cupola from the inner surface of the hearth at a cuthient distace above the mou hof tweers and low linecoal or tucitof ill the space between the top of tweers and waist, which prevents the melted from metal from coming in contace, with the blastair, except as it passes metal from grounding to contact. With the blastair, except as it passes of our food. Second, I claim in combination with the waist the receding form and construction of the lining by offsets, which forms the brace for supporting more than an other, substantially as hereinbefore described on the deal of fuel, for the purcose of using bitumenous coal or coke, by allowing a free and even circulation of blast through every portion of the contained mass of rule and metal, substantially for the reasons hereinbefore described.

Thirz, I claim the form of tweers, the manner of reducing the size of mouth of tweets, for the greatment of very hard iron, the manner of applying or introducing the blast of air into the cupola, through tweers of the size and dimensions described and the relative boastion of tweers the waist, in combination as substantially herein effore specified.

Fourth, I claim the mode of operating the cupola in combination with the other reatures of my invention, by which I melt the iron or meanly such a degree of heat as I desire, by using the bed of call or fuel of such depth as will produce, with all kindson rouncations.

52,685.—Stovepipe Drum.—Henry Cook, Bluffton, Ind.:
I claim a sove urum having a series of cylinders with loops and
rojections thereon, constructed, combined and arranged substantially as berein specified, as a new article of manufacture.

52,686.—Watch Key and Toggle Combined.—Richard Cross, Providence, R. 1.:
I claim a watch key and toggle combined in such manner that the key shall be concealed within the toggle, substantially as spe-

2,687.—Watch Key, Toothpick, and Toggle Combined.

—Richard Cross, Providence, R. I.:

I claim the combination of a watch key, toggle and toothpick, ubstantially as shown and described.

52,688.—Mill Mick.—Charles Crossley, Philadelphia,

Pa.: I claim the combination of the recessed plate. A, w the its flanges, a a', the wedge-plate, C, secure d to a handle ×, and the bit, B, with its lug. C, the whole being constructed substantially as and for the purpose described.

52,689.—Vise for Carpenters' Benches.—W. H. Cutter, St. Louis, Mo.: I'claim a parallel vise for work benches, constructed and arranged substantially as above described.

52,690.—Corn Sheller.—Jacob Davis, Oaks, Wis.:
I claim a corn sheller formed by combining the jawa, I and M, the bar, G. and the spring, E, with each other and with the box and frame in which they are placed, substantially as described and for the purpose set forth.

e object of tuls invention is to furnish a simple and durable machineforshelling corn. And it consists of a machine by which the corn is shelled from the cob by rolling the ear between a pair of jaws, the corn passing down through the bottom of the sheller, and the cob being ejected at its top.

52,631.—Milk Can.—John Q. Davis, Salem, N. J.; I claim the flange. E, in the bottom of the can, A B, and the annular band, F, in the mouth of the same, when they are used in combination with a removable ice vessel, C D, provided with he catch springs, g g, or their equivalents, the whole operating together, substantially as and for the purpose described.

52,692.—Skirt Wire.—Theodore D. Day, New York

Gity:
claim skirt wire or springs wrapped with a compound covering posed of fine wire and strands of cotton or similar fibrous mall, substantially as and for the purposs set for h.

terial, substantially as and for the purpos. s set for h.

52,693.—Spice Sifter.—Wm. Devines, Brooklyn, N. Y.:
First, I claim the combination of the blocks, W and X, with the sieve, E. cap. S, and box, substantially as described and for the purpose set for th.

Second. The combination of the roller, C' with the plane, D', blocks. E', spring, F', and with the hopper, substantially as described and for the purpose set forth.

(The object of this invention is the first interior in the combination of the suppose set forth.)

[The object of this invention is to furnish a sifter by means of which powdered drugs, spices, flour, etc., may be sitted readily, rap ldly, and wi thout dust or waste. And it consists, especially, in the combination with the hopper of an apparatus for crushing any lumps that may be in the material sifted; and, second, in the con-struction of the stirrer, by means of which the material is agitated

while in contact with the sieve.

52,694.—Apparatus for the Manufacture of Paper Pulp.
—Jonn W. Dixon, Philadelphia, Pat.:
I claim the combination of the two boders, A and B, the cod, P P, and toe circulating pump, the tubes connecting them together for the purpose of throwing the digesting liquid, while heated and under pressure, from one boiler to another, substantially as above described.

52,695.—Furnace-door Regulator.—Onvi Λ. Dodge, Bur-

ost, 995.—It interested the guarantee and the pivot. E. opening, H. balls, A and B.p. ple, C., with the chains, F.F. and furnace doors, G.K. whereby to automatically regulate the quantity or air admitted to the furnaces of steam generators, substantially in the manner and for the purpose as herein set forth.

-Elastic Mallet .- Aibert C. Eddy, Providence,

12.696.—Distance and the first property of the property of the

52,697.—Liniment.—David Edwards, St. Anthony,

Minn.:
I claim a liniment composed of the ingredients, in the proportions herein described.

tions herein described.

52,693.—Sewing Machine for Sewing in Sweat Linings of Hats, Etc.—Rudolph Eickemeyer, Yonkers, N.Y.:
First, I claim the angular guiding plate, I, so appied in relation to and operating in combination with the angular supporting plate. H. as to enable it to move toward and from the latter plate in a direction parallel or ne.rlv so with a line bisecting. Le angle thereof, substantially as herein specified.

Second, The plate K., for guiding and hoding the sweat lining, and the pressing lever. M, and spring, L, in coan plate in with catcher and with the angular plates, H and I, substantially as and for the purpose herein described.

Third. Civing the feeding device, beside its forward and backward the pile es, H I, and of the band of the hat, substantially as and for the purpose herein specified.

the purpose herein specified.

52,699.—Method of Desulphurizing Coal for Welding Iron, Etc.—John H. Edward, Polo, Ill.:

I claim the use of niter, either crude or in solution, for desul hurrang mineral coal in blacksmiths lires, substantially in the manner described.

52,700.—Harvester's Rake.—Elias T. Ford, Stillwater,

N. Y.:
I claim the combination, as described, forming a contracting and expanding harvesting rake, the said combination consisting of the pivoted centers, d. d. inks. m. m. rake arms b. b. and rakes, y. arranged on shaft, t. and operated by bevel pinio. E. on shaft, I, and bevel gear, D, in the manner as set forth and for the purpose speci-

fied.

52,701.—Harvesting Machine.—Ellas T. Ford, Stillwater, N. Y.:

I claim, Fir t, The tube, D, provided with end boxes, h v h v. and seat sleeve, W i in combination with the arm, L, lert hound, D a, arm, V, with adjusting bar, V F, catches, L, and cross bar, in t, of hounds D a, substantially as described.

Second, I also claim hinging the pole section, B, to the rear extension of the left and right hounds, D a, D a, formed upon and arranged in relation to the tube, D, and main axie, P Y, as seen in Fig. 1.

Third Lalso claim the lack. P h, as composed of lever, P, flanges

tension of the leit and right houses, a main axie, P Y, as seen in ranged in relation to the tube, D, and main axie, P Y, as seen in Fig. 1.

Third, I also claim the lack. P h, as composed of lever, P, flanges i, hinge bolt, V, guide, J arm, e, shank, X e, in combination with the caser standard, X and wheel, T S, hinged upon the lower extremity of arm, V, by the p-vot or hinge bolt, V, at the orifice, V Q. Fourth, I also claim 'helever, M, provided with the cavides O's, formed within the lever or arm, M, tor the reception or flange, i, and the steel center bar, and as connected to rear and front bar, in and depressing the cutter bar pivoted upon the jack, P h, by the bolt, o t.

Fifth, in combination with the arm, L, supporting the pillow block, L S, secured to the tube, D, I claim the arrangement of the hand lever, T, pivoted below the multiplying shat, Y, to the pillow block, L S, and provid with the halde, U, in the manner and for the jurposespecined, substantially as set forth in the foregoing specification.

52,702.—Pocket Book.—Wm. T. Fry. New York, City:
1 claim the elastic band, with its barbed promes or their equivalents. In combination with the plate, G, secured to the pocket books and having a projection with an inclined opening, adapted tothe reception of the said baroed prongs or their equivalents, almostantially as described.

52,703.—Wagon Brake.—C. W. Gage, Homer, N. Y.: First, I claim connecting the yoke pins of thepole to and with the brakes by means of the connecting rod, r,made in two or more sections, substantially as herein described and for the purposes specified.

Second, In combination with the above the weighted lever arm m', arranged and operating substantially as and for the purpos specified.

This invention consists in so arranging and connecting the brake of a wagon, to and with the yoke pins on the outer end of the Pole, that as the horses pull back upon the same, the brakes are caused to bear upon the wheels; and also in a new and peculiar arrange of parts, whereby the brakes are prevented when so desired from operating or bearing upon the wheels.]

52,704.—Railroad Station Indicator.—C. C. Gale, Co-

lumbus, Ohio:

The string story of the reversible rotating disk, B, spring story, and spring, spring story, and spring, spring story, and ratchet, F, arranged and operating substantially as and for the purpose set forth.

105.—Mop and Scourer.—W. T. Grant, Jackson ville, III.:
1saim an implement consisting of a mop, a mop wringer and bbing-brush constructed, combined and operated substantially erein specified.

as herein specified.

52,706. – Grain Huller.—William C. Grimes, Philadelphia, Pat.:

First, i claim the mode as herein described, of hulling corn or other grain by means of a fixed or adjustable plow acting upon it while held by centrifugal force, to the interior surface of a specified or other formed shell, as bereinbedre described.

Second I claim the combination or the revolving speriodal, or other formed shell, A with the adjustable plow, E, for hulling corn or other formed shell, A with the adjustable plow, E, for hulling corn or other grain as hereinbefore specified and se forth.

Third, I caim in combination the shell, A, and the plates, F F, to act a semi-plows or gatherers as herein efore described.

Fourth, I claim the curved and movable tube, H, in combination with the shell as hereinbefore described.

52,707.—Steam and Cut-off Valve.

52,707.:-Steam and Cut-off Valve.-Elbert E. Groom.

52,707.—Steam and Cut-on varye.—Steam N. Y. City:

N. Y. City:

First, I ctaim the cavities, g, and the shallow recesses, g', in the piston valves, D. adapted to oper te in conjunction with the ports, a a' b b' in the manner and ior the purpose specified.

Second, the channel, h, in the steam chest cover in combination with the double pision valves. D. E, constructed and operating substantially as and for the purpose specified.

Third, The tapper, p, suspended from the adjustable lever, q, in combination with the blinged latches, S. S., touched rack, K, disk, t, and spring, O, or its quivalent constructed and operating substantially as and for the purpose set forth.

Third invention refers to the use of a double piston valve, each

piston being provided with a cavity between its ends to operate in combination with steam supply and exhaust ports in the same manner as an ordinary D valve, steam being admitted through the cavities in the piston to the steam ports, while said cavities serve also to form the communication between the steam and ex haust ports, and small recesses extending from said cavities allow the steam to pass clear round the central portion of the piston valves rendering the same equally balanced and independent of the pressure of steam in which they act.]

52,708.

52,708.—Hanging Center Boards of Vessels.—J. F. Hall, R. I.:
I claim the swivel yoke, C. in combination with the center board of a vessel, substantially as and for the purpose described.

52,709.—Pump.—H. A. M. Harris, Philadelphia, Pa.:
kirst, I claim the described arrangement in the cylinder, A, of
the lower inlet valve, D, hollow piston rod, B, hollow piston, Id
double acting valve, C, annul r valve, E e, and openings, a, the
whole being applied and combined to operate in the manner set

forth. Second, The arrangement within the hollow piston, H, of the double acting valve. C, when said valve is fitted to the bore of the piston and formed with annular recesses at its upper and under sides as represented.

Initial, the arrangement of the annular valve, E, hollow piston rod, B, head, J, cap, G, and openings, a, and for the purpose set forth.

504.11.—Railroad Alarm Signal.—Jabez H. Harris, Point Isabel, Ohio: First, I claim the mode of automatically raising and releasing a signal board by means of an approaching train, substantially as

gual to the arrangement of compound levers, C, bell cranks, D and E, rods and chains F and G, triggers, H and I, and spring. L, or the automatio raising and lowering of the signal board, K, by the impact of the spproaching train in the manner substantially

the impact of the spproaching tram in the manner substantially as describes.

Third, I claim the lever, r, slotted lever, m, in combination with the compound levers, for the ringing of a bell, O, simultaneously with the elevating of the signal board, K, as and for the purpose herein described.

52,711.—Lamp.—Alexander Harroun, Jr., Onondaga, N. Y.:
 I claim the regulator. A A in combination with the mica cap,

52,712.—Molasses Faucet.—W. H. Hartman, Fostoria.

52,712.—Monasce a new Ohio:
Ohio:
I claim the trough or spout, B, and head, d, in combination with the barrel, A, and cut-off, E, when arranged and operating as and for the purpose set forth.

Coto William G. Hermann, Albany.

52.713.—Farm Gate.—William G. Hermann, Albany, N. Y.:
First. I claim the construction of the roller, D, with flanged guards for the rail, a, of a gate which operates substantially as described.
Second The lates 1.

scribed.
Second, The latch, I, and supporting catch, g, said latch being feromen on the rail of the gate se as to enter between the posts, A A, and support the gate mon said catch, substantially as described.
Third, The combination of a swiveling roller, D. for sustaining the gate at one call with a caster, h, for sustaining the paste substantially as described.

52,711.—Shears for Cutting Bolts.—D. H. Hitchcock, Rockford, Inl.: I claim the shoulders, a a, on the outerends of the blades of the shears, for the purposes herein described.

52,715.—Tool for Cutting Gas Pipes, Etc.—William S.
Howarth, New Haven, Conn.:
I claim the use of the two flexible cutters a and b, m combination with the adjustal cutter, 9, when the whole is constructed and fitted for use, substantially as herein described and set forth.

52,716. Quartz Crushing.—Daniel Hughes, Rochester,

N. Y:
First, I claim placing the ends of the piston rods, d, loosely into the sockets of the stamper rods, D, substantially as and for the purpose set forth.
Second, The combination of the leather disks, f, with the rotary stamp rods, D, and loose piston rods, d, as and for the purposes specified.

52,717. - Fence. - C. B. Hunting, Clinton, Ill.:
I claim the combination with the rulls, a, and battens, b. of the stakes, D E, and adjustable iron bands, c', as and for the objects specified.

This invention relates to a new and improved nortable fence and the consists in a novel construction of the same, whereby the fence may be very readily put up and taken down, and when erected firmly secured in position so as to effectually resist the action of the wind and the effects of stock to prostrate it.]

52,718.—Machine for Weaving Covering for Whip Handles.—Liveras Hull, Charlestown, Mass.:
Iclaim a mechanical combination comprised not only of machinery for sustaining a whip stock or other article and moving it lengthwise and mechanism for winding one or more threads in a

helix about the whip stock or article while coing so moved, but also of mechanism for laying binding or connecting threads about the belix coils, the whole being substantially as hereinbefore described, and in combination therewith, I claim mechanism for revolving the winp stocks so as to cause the binding or connecting thread to be laid in a belix therein set forth.

52,719.—Carpenters' Shooting Boards.—Joseph Jones,

Newark, N. J.:
I claim the shooting board constructed and arranged substanially as hereinabove specified, as an improved implement or tool. 52,720.-Journal Box.-Edward F. Light, Worcester,

Miss.:

It claim a journal box or bearing composed of a base piece, A, ored out as seen at D, and baving inclined grooves, I, in combilation with a cap. C, having oil cups, a a, chambers, b b, alkeloides, e, the parts being all constructed and arranged for joint operation as set forth.

eration as set forth.

52,721.—Pump for Railroad Stations.—Henry S. Lansdell, New York:

First, I claim the swivel head, g. in combination with the steam ripe a, and ascension pine d. constructed and operating substantially as and for the purpose set forth.

Second, The swivel spout e, in combination with the ascension pipe d, and steam pipe, a, constructed and operating substantially as and for the purpose described.

Third, The supporting globe, i, in combination with the swivel spout, e, ascension pipe, c, and steam pipe, a, constructed and operating substantially as and for the purpose set forth.

rading substantially as and for the purpose set forth.

22,722.—Reel for Grain Binders.—Sylvanus D. Locke,
Janesville, Wis.:

I claim an adjus able reel constructed with extensile arms, subtantially as and for the purposes set forth.

Second, The combination of nut. D. and movable head or end, E,

with the adjustable arms, b, and body of reel, G.

52,723.-Sluice for Quartz Mills.-Hugh Logan, Washoe

52,723.—Sluice for Quartz Mills.—Hugh Logan, wasnou City, Nevada:
I claim the grooved false bottoms, m, in the compartments, c, of the sections of the sluice, in combination with the longitudinal partitions, b, and pockets, q, constructed and operating substantially as and for the purpose set forth.

Second. The triangular abutments, e f, in combination with the compart ments, c d, of the sluice, substantially as and for the purpose described.

Third. The yokes, g, with suitable wedges or keys, in combination with the longitudinal partitions b. of the sluice, constructed and operating substan ially as and for the purpose specified.

22.724—Harvester.—Alpheus Lowmiller, Jewett, Ohio: Iclaim the arranging and applying of a sickle to a grain r grass harvest r, in the manner as herein shown and described, or in any equivalent way so that the sickle may be moved forward or backward on the finger bar, substantially as and for the purpose set feeth.

(This invention consists in arranging and applying the recipro cating sickle to a grain and grass harvester in such a manner that in case the sickle becomes choked or clogged by grass, grain, or rubbish of any kind, the operator or driver may, while in his seat and by manipulating a single lever, draw the sickle back out from the fingers or guards and thereby relieve them from the obstruc tion, and then throw the sickle forward again to its proper working

52,725.—Iron Frames for Piano Fortes.—August Lu-dolff, New York City: The arrangement of the plate, AA' A', with flanges, B and C, on the undersale, incombination with the wrest planks. L and L', against the same, constructed substantially as described.

52,726.-Window Screen.-Abner B. Magoun, West

Annover, Mass.:

Hanover, Mass.:

I claim an adjustable screen as made of two frames, their guides, not two separate coverings, arranged and combined substantially and so as to operate as described.

be adulto as to operate as described.

52,727.—Boit-heading Mechine.—Merrick D. Marcy, Worcester, Mass.:

First, I claim the slotted bolster or buttress attached to the sliding platform for hidding the heading die, substandally as set forth, Second, In comb mation with the above I claim the closed heading die, as shown, whereby it can be easily removed to disengage the finished bolt.

52,728.-Machine for Rolling Leather.-Wm. P. Martin Salem, Mass .:

Silicin, mass..

I claim the imployment of a reciprocating carriage in it is the imployment of a suitable mechanism fine described motion of the hand or tool stock, substant

the described motion of the same of the forth.

I also claim the employment of the screw shaft, v. in combination with the stationary stand, i. and sliding adjusting bar, h, the whole arranged to operate as set forth.

I also claim the combination of the springs, p, and regulating nuts, O, with their screw rods, the whole arranged to operate with the bed, substantially as hereinbefore described.

10 bet, substantially as determent west need.

1 daim the combination of the stationary case, A, wings, H, the revolving conical seive, G, socke: cover, I, and shaft, F, substantially as and for the purpose specified.

52,730.—Mode of Working a Capstan by Steam.—John S. McMillen, Pittsburgh, Pa.:
I claim the arrangement of the wheels, 1 m n o k 1 h and d, thats, 65 43 and B, capstan barrel, p. heads, g and r, and pins, 2, the whole being constructed, stranged, and occrating substantially as berein described and for the purpose setforth.

52,731.—Wagon Brake.—Joseph McQuead, Mount Stir-

52,731.— Wagon Brance.

ling, Ill.:
I claim the sliding brake or the bar, B. connected to the shaft, F, by links, E, or their equivalents, in combination with the eccentrics, G on said shaft, and the lever, J, connected with the sbatt, and all arranged and applied to operate substantially as and for the purpose herein set forth.

Chao Predorick Merkle, New York City:

52,732.—Shoe.—Frederick Merkle, New York City: I claim as a new article of manu acture a leather shoe having its uppers crimped and formed of a single piece at the rear, as hereinbefore specified.

52,733.—Washing Machine.—James M. Meschutt, New York City. Antedated Feb. 9, 1866:

I claim in combination with the box. B, constructed as shown, the use or employme t of the shuing washboard, K, and beater, G, when the same shall be constructed and operated substantially as shown, for the purposes hereintuly described.

52,734.—Breech-loading Fire-arm.—Isaac M. Milbank, Greenfield Hill, Conn.:
First, I claim, in combination with the swinging breech pin, f, and bolt, g, fit ed as specified, the lever, h, jointed to the upper end of the bolt g, and acting to withdraw the same, as specified.
Second, I claim the swinging spring claw, n, in combination with the swinging breech block, f, substantially as and for the purposes settorth.

52,735.—Fire Place.—Allen Moon, Bethlehem, Ind.: I claim the movable grate, 9', the movable extra back, 10, the regulator with its throat valve, 7. and the sliding front with its pulleys, all operating substantially as set forth and described, for the purpose aforesaid.

the purpose aforesaid.

52,736.—Car Coupling.—William L. Newell and Jacob S. Simmerman, Millville, N. J.:
First, We claim the inclined and hooked arms, B.B., combined with the springs, E.E., or their equivalents, the whole being constructed and applied to the cars, substantially as and for the parpose specified.

8. cond. The combination of the inclined and hooked arms, B.B., with the laterlocking l-ver. F.F. thewhole being constructed, applied to the cars, and operating substantially as and for the purpose herein set forth.

Third, The combination of the above with the levers, D.D., the whole being arranged and operating substantially as d. scribed.

52,737.—Inner Sole.—Isaac Newhall. Lvnn Mage.

or fillings, coated or covered either upon one or both of its sides with a covering of paper or other similar material, substantially as herein described.

This invention relates to a new and improved inner sole, espeially intended for use in boots and shoesthe soles of which are attached to the uppers by means of sewing or stitching, and it consists in forming the body or main portion of the inner sole of leather scraps or fillings, so called, over which, upon either one or both of its sides a covering or coating of paper, cardboard, or other similar material is placed, and secured (thereto by any suitable cement, whereby an extremely cheap, light, and strong inner sole is obtained.)

52,738. -Hot-air Furnace.-S. W. Norton, Lemont, Ill.: I claim the sleeve, E, so arranged with Terard to the feed spout, D. of the furnace, and the air blast forced through and across the same, as to be susceptible of being raised or lowered, sub-tantially in the mauner described and for the purpose specified.

[This invention relates particularly to a hot-air furnace to be used in connection with grain-drying apparatuses, and it consists in passing an air blast through the products of combustion contained in the fire pot of the furnace in a novel and peculiar manner whereby it is caused to act upon a greater or less quantity of the ombustible product; therein.

52,739.—Apparatus for Pouncing Hats.—Emile Nouga-

ret, Newark, N. J.:

First, I claim the pressing cones, C.C., in combination with the putching jaws, D.D., and guide piece. I, constructed and operating substantially as and for the purpose described.

Second, The swivel bar, i, covered with sand paper or other suitable material, and applied in comb nation with the revolving block, E. substantially as and for the purpose set forth.

52,740.—Apple Corer and Slicer.—Robert Onderdonk, New York City:
First, I claim the arranging of the shicing cutters, b so as to form a hollow semishherical socket to receive and hold the apple while being cut and to obtain a drawing or oblique cut, sucstantially as set forth.

Second, The combination of the coring cutter, E, slicing cutters, b, semisph encal plunger, G, lever, F, arranged to operate in the manner and for the purpose berein specified.

This invention relates to a new and improved machine for slicing ters arranged so as to form the half of a hollow sphere, with a tubular coring cutter at the lower end, the above cutting device being used in connection with a semi-spherical plunger to force the apple through the cutting device.

52,741.—Detachable Rocker for Chairs.—Wm. Pinkerman, Bridgeport, Conn. Antedated Feb. 16, 1866: I claim the adjustable socket for the rockers of rocking chairs, constructed and arranged substantially as herein described and for the purpose set forth.

52,742.—Piston-rod Packing.—George S. Prindle, Au-

52,742.—Piston-roat Packing.—George S. Prindle, Au-rora, Ill.:
I claim constructing stuffing-box packing of hollow divided or slitted cones, as herein set forth, so that the steam or other pres-sure shalled ose the posk ing cones around the rod, making a tack joint while allowing the rod to move freely, and shall open and re-lieve the rod from friction when the steam or other pressure is re-moved.

Solutivator.—George W. Prugh and William H. Beard, Armington, Ill.:

First, We claim can ofning and uniting in one machine the shaft, J, fitted with a lever and pulley and connected to the cutivator beams, NN and SS, for the purpose of raising and lowering them, and the bell cranks, BP, and stirrups. tr, connected at the top to the two inside cultivator shafts, V. for the purpose of moving them laterally, substantially as described.

Second, We claim to neacting and arranging the cultivat or beams, NS and NS, in relation teach other substantially as sat forth.

Third, We claim the adjust-ble connection between the front ends of the cultivator beams, NN, and the hangers, EE, when sad hangers and beams are arranged in respect to 'cach other and to the closs tie, Z, and the main frame, ABC, substantially as set forth.

52.744.—Stereoscope.—Antonio Quirolo, New York City:
First. I caaim hinging the lens holder to the bed plate of a stereoscopic instrument, in combination with a diaphragm. in, hinged to the said be plate, the two being arranged together so as to be operated and adjusted subsyantially in: the manner described.
Second, In cembination with the above the adjustable picture holder. L. arranged upon the bed plate, as and for the purpose specified.

52.745.—Manacles.—Andrew Rankin, Philadelphia, Pa.: First, I claim a manacle composed of the portions, c and c', constructed and combined substantially as and for the purpose specified.

ned.

52,746.—Flour Sifter.—Henry F. Read, Brooklyn, N.Y.:
First, I claim the combination of the tox, hopper, and os illating
sieve.
Second, The packing, ff, at the lower edges of the hopper, in
combination with said hopper and the oscillating sieve.
Third. The stationary partition, g, in the hopper, in combination
with said hopper and oscillating saw, 52.746.

52,747.—Tobacco-cutting Machine.—F. W. Kitterhoff,

New York City:

First, I claim a device for taking up the wear of the shaft, opertting substantially as and for the purpose herein shown and de-

scribed,
Second, The combination and arrangement of the follower with the hand wheel and screw, arch piece and cheeks of the tobacco box, operating substantially as and for the purpose herein shown and described.

and described.

52,748.—Developing Stick.—Thos. C. Roche, Williamsburg, N. Y.:

First, I claim adeveloping stick composed of a handle, A, and suction pad, B, as a new article of manufacture,

Second, The guard, C, incombination with the stick, A, and pad,
B, substantially as and 1 or the purpose set 1 orth.

[This invention relates to a stock or handle provided at one end

with a suction pad of india-ruboer or other suitable material, in such a manner that, by the application of such suction pad, a plate of glass or other material can be conveniently raised and held in the proper position for applying the developing solution, and all necessicy of handling the plate and of soiling the fingers is avoided. The stick is also provided with a guard at about the middle of its length or at a convenient distance from the end carrying the pad in sucl. a manner that the han'l of the operator is protected against the liquids which may run down on the stick.

52,749.—Guide for Folding and Uniting the Edges of Two Pieces of Cloth, Etc.—Israel M. Rose, New York (Str.)

York City:

I claim the employment of the spiral-shaped pieces, B and D and, in combination with the spring piece. C. Separately constructed, he whole unived with the bed plate. A, in the namer subsantially and for the purposes herein described and set forth,

52,750.—Door Latch.—A. H. Rowe, Harword, Conn. Anteduted Sept. 2, 1865:
I claim as a new article of manufacture the latch constructed as described.

This invention relates to a door latch, the bolt of which is placed

in an upwardly-inclined position, and has its point curved so that when the door is slammed or closed, without raising the jatch, the point of the bolt, in coming in contact with the cap, rises sponta-52,737.—Inner Sole.—Isaac Newhall, Lynn, Mass.: point of the bolt, in coming in contact with the cap, rises sponta-Iclaim an inner sole for boots and shoesformed of leather scraps neously, and as soon as theldoor is fully closed it drops down by its inherent gravity and catched behind the cap. The use of springs can thus be dispensed with, and a larch can be produced which sur sses in simplicity and cheapness everything heretofore made.]

passes in simplicity and cheapness everything heretofore made.]

52,751.—Apparatus for the Manufacture of Illuminating
Gas.—Tyler Sabbaton, New York City:
I claim the combination in a gas apparatus, of several distillatory retorts, with one regenerating retort, substantially as set forth.
I also claim the combination of several retorts of a bench, with the hydraulic main by means of one dip pipe fitted with a cup seal, substantially as set forth.
I also claim the combination of the retorts of a bench with a double-chambered superheating retort by pipes in such manner that the steam to be superheated passes through both chambers of the superheating retort to provide the superheating retort before it passes to a distillatory or decomposing retort, substantially as set forth.

52,752.-Wool Packer.-Absalom Saeger, Meadville

02,152.—W001 Packer.—Absaiom Saeger, Meadvi Pa.: I claim the tubes, A and E, in combination with the racks, and the levers. F F, with the follower, X k, and the roller, H, o ated by the wheel, C, and the crank, M, when the same are structed as described and in the aforesaid combination and for purposes set forth.

purposes set torth.

52,753.—Horse-power.—G. W. Sanor, Hanoverston, Ohio, and Jacob Stoffer, New Chambersburg, Ohio: First, We claim the arrangement of the crown (wheel, E. master wheel, B. and shaft, F. in combination with the shafts, a' and E. and pinions, a gh. operating in the manner and for the purpose substantially as described.

Second, The shaft, E. having its upper journal within and operating conjointly with the shaft, F, in combination with the disk, D', and shaft, I, loose within said disk, arranged and operating conjointly as and for the purpose substantially as set forth.

Third, The gear wheel, L, and rinions, H, in combination with the disk, D', shaft, I, and bevel pinions, m, ar ranged and operating conjointly, as and for the purpose substantially as specified.

52.754.—Cultivator.—John Savill, Monmouth, Ill.: 52, 634.—Cultivator.—John Savill, Monmouth, Ill.:

First, I claim the bent axie, A, provided with arms, a a, in combination with the brackets, C C, containing the wheels, D, and fitted on the arms, a, substantially as and for the purpose set forth.

Second, Connecting the front ends of the plow beams, E, to the upper ends of the brackets, C C, by pivot botts, b, arranged with circle plates, C, substantially as and lar the purpose specified.

Third, The evener or draught regulator, composed of the sylinter bars, I K, councted by the rods, J, and arranged substantially as described.

This invention relates to a cultivator of that class in which the beams arorendered adjustable so that they may penetrate greater or less depth into the earth, be raised out of the ground when the device is to be turned or moved from place to place, and the plows placed at a greater or less distance apart, as may be de

52,755.—Bottle Stopper.—Augustus Scarlett, Newark,

N. J.:
I claim making use of the tube by which air is supplied to the essel for the additional purpose of conveying the dippings back not the vessel.

53,756.—Burial Case.—Geo. W. Scollay, Washington,

D. C.:
First, I chaim, in combination with the coffins and a plastic cement, the metallic lining being applied thereto for the purpose specified.
Second, In combination with the coffin a metallic sheet lining made to cover the bottom of the coffin and only a portion of the sides and ends thereor and applied thereto, so as to form a tight joint at the junction of the edge of the lining and the inside of the coffin, thus preventing the fluids or gases from passing down between the lining and the coffin.

52,757.—Clamp for Stages.—William H. Seymour, Liverpool, N. Y.:

erpool, N. 1...
I claim the arrangement of the parts, a b c d e g and f, substantially as above described, constructed and made to operate substantially as and for the purpose herein shown and described.

52,758.—Apparatus for Teaching Spelling.—Halcyon Skinner, Yonkers, N. Y.:
First, I claim holding the wheels, b b, stationary when required, by means of the plos, g g, and catches, f f, and releasing them in any required number by the keys, b, and rocking bar, k, substantially as described and for the purpose set orth.

set forth.

Second, In combination with the other parts described mounting a series of pictures upon one or more rollers, substantially as specified.

52,759.

ed. 2,759.—Farm Gate.—A. L. Smith and G. S. Hudson, Ellisburgh, N. Y.:
First, We claim the combination of the swinging bar, E. and unde, F. with the rais, C and G. and with the post, B, in a tarm or nirance gate, substantially as described and for the purpose set or the purpose set of the combination of the swinging bar.

forth.
Second, The combination of the separators, I, with the pickets
II, and rails, C&G, in a farm or entrance gate, substantially as described, and for the purpose set forth.

52,760.—Medical Compound.—William C. Smith, La-fargeville, N. Y.: I claim a medical compound made as herein set forth for the purposes et forth.

(This invention relates to a compound intended to cure ch and all chronic diseases of the bowels.)

52,761.—Telegraph Insulator.—W. W. Smith, Cincinnati, Ohio:

nati, Ohio:

I claim forming the insulating block with the reflexed, convolued or measuring chamber, H, which incloses, without touching the netallic stem or shank of hoo, substantially as and for the object

set torth 52,762.—Water Wheel.—Henry Soggs, of Columbus.

Pa.:

First. I claim the combination and arrangement of the screw wheel, C, and over-shot wheels. D D', including the gearing thereof, with the shaft, B so as to admit of a double use of the water, substantially as described.

Second, The combination of the wedges, II H', with the paws, J, and cap, G, for the purpose of raising and lowering the milt stone, substantially as set forth.

Third, The adjustable gate composed of the half circles, L L', and operated by the shaft, S, and arrangement of levers, substantially as described.

52,763.—Machine for Separating Bristles.—Nathan H. Spafford, Baltimore, Md.:
First, We claim the grooved bulleys, SS, the round belt thereon, constructed and operated substantially as and for the purposes specified.
Second. The endless traveling platform. W. with the anti-friction

constructed and operated substantiany as and for the purposes specified.

Second, The endless traveling platform, W, with the anti-iriction rollers thereon on the inside, and the small guiding strips on the outside combined with the large pulley, R, and the drums, a a, substantially as and for the purpose set forth.

Third, The three bolts, Y Y Y, in combination with the traveling platform, W, and rollers, a a, when constructed and operated substantially as and for the purpose herein sectified.

Fourth, The shaft, E, and worm gear thereon, in combination with the cog wheels, D D, and pulleys, C C and F, substantially as and for the purpose set forth.

Fifth, Thearms I, oscillating shaft, V, with the small rollers on the underside thereof, the boxes, O O, nuts, n n, and these tserews connected therewith, combined and arranged substantially as and for the purpose described.

connected therewith, combined and arranged substantially as and for the purpose described.
Sixth, The variable boxes u u, combined with the shafts, P and T, and the pivot boxes, z z, and set screws therein, substantially as and for the purpose set lorth.
Seventh. The entire machine, with its described devices constructed and operated substantially as and for the purposes speciarracted and operated substantially as and for the purposes speciarracted and operated substantially

52,664.—Machine for Extracting Essential Oils.—Vincent Squarza, San Francisco, Cal.:
I claim the compartments, C D E F, having one or more perforated fixed covers, L, atjustable cover, K, with points, tt, or their

equivalents, arranged as herein described and for the purpose set

-Quartz 'Crusher.-Charles W. Stafford, New 52,765

York City:

rst, I claim the reciprocating roller, H, in combination with
segmental surface or floor, I, substantially as and for the purset forth. First

pose set form.

Second, I claim the combination of the vibrating lever, C2, jaws, B B' C C', and roller, II, as and for the objects specified.

52,766.—Link Motion for Steam Engines.—N. P. Ste-

vens, Lowell, Mass.:

I claim the arrangement and combination of the rocker, I, the two kers, K II, with the link, A, and the litter, II, thereof, the whole being constructed substantially in the manner and so as to operate

52,767.—Churn.—J. L. Stewart, Homer, N. Y.:
I claim the arrangement of the shaft, L, wheels, k J I H, pit.
man. M, with the tube, D, and revolving churn, provided with dashers, the several parts being constructed and used as and for the
purpose herein set forth.

-Lamp Shade .- Mathew Stewart, Philadelphia,

Pa.:

First, I claim a circular shade having the vertical sides, B. consisting of the two grooved rims, b1 b2, an + a picture-holding frame, b5, between them, the same being constructed and arranged substant-ally as and tor the purpose described.

Second, in combination with the said vertical sides, B. I claim bending the ends of the arms. C. into the vertical positions shown, tog-ther with their re-pective shoulders, c', and screw nuts. c2, as and for the purpose described.

Third, I claim making the picture or transparency-holding frame, b5, in one entire piece, and irrespective of the number or form of its openings for receiving or holding the said pictures or transparencies.

encies.

Fourth, also claim, in combination with the vertical sides, B, of the shade the detached reflector, A, the same being supported by simply resting on the upper 11m, b', as and for the purpose specified.

field.

52,769.—Graver.—F. R. Stockton, New York City:
I claim a graver formed by combining two blades, B and C, wit each other and with the handle, A, the distance apart of t e point of the blades being regulated by the screw, D, the whole being cor struct d substantially as described and for the purpose set forth.

52,770.—Cultivator.—D. C. Teller, Terre Haute, Ind.;
I claim the arrangement of the vibrating beams, R. in combination with the spring-shding draw bars, E. and crooked arms, r with the stop, o, substantially as specified for the purpose set forth

52,771.—Mechanism for Operating the Swell of Reed Organs.—Artemus E. Thompson, Brooklyn, N. Y.: I claim the combination of the pedals with the oscillating lever board. A atranged substantially as shown and described for the purpose set forth.

52,772.—Barrel Head Machine.—John S. Thompson, Glens Falls. N. Y.: I claim the circular dish-shaped saw, E. and cutter head, F. provided with cutters, a, in combination with a rotary clamp. I. fifted to a swinging yoke, H, substantially as and for the purpose herein set forth.

vided with curear, a., to which the supports or bearset forth.

I further claim having the bar, B, to which the supports or bearing, C, of the saw arbor, D, are attached arranged so as to be capable of being adjusted longitudinally, in combination with the adjustable yoke, H, in which the clamp, I, is fitted; all being arranged substantially as shown and described for the purpose of adapting the machine to cut heads of different sizes or diameter.

Whool Henry C. Thrall, Springfield,

52,773.—Wind Wheel.—Henry C. Thrall, Springfield, Mass.:

First, I claim the combination of one or more wings, b, with one or more arms, a, piece, F, and shaft, B, when arranged substantially in the manner and for the purpose herein set forth.

Second, In combination with the combination named in the first clause of this claim the regulator or governor, D, when arranged substantially in the manner and for the purpose herein set forth.

52,774.—Grain Huller.—R. W. Van Peyma, Lancaster, N. Y.:

N.Y.:

First, I claim a stone with the periphery corrugated at right angles with the plane of the stone, and grooves, o o, for the purposes substantially as set forth.

kecond, I also claim the stone as described in combination with the curb. C, and hooks, bolts, a a, substantially as and for the purposes described.

52,775.—Sluice Box.—R. E. Washburn, San Francisco,

Cal.:
First, I claim the adjustable amalgam box, D, quick silver vat, E, riffles, H H H, or their equivalents, substantially as described for the Furpose set forth.
Second, I claim the peculiar shaped tapering gratingor bars, B B, arranged as described, for the purpose of allowing the coarser material to pass off without choking, substantially as set forth.

terial to pass off without choking, substantially as set forth.

'libird, I claim the manner of introducing the water so that it may pass through the amalgam box, D. dividing it by means of the shoots, C and G, the coarser passing down the shoot, G, while the finer material and water passes down G, uniting again at F, so that the box can be used in any part of the flume, substantially as described and for the purposes set forth.

52,376.—Countersink.—A. Williams, Wellsville, Ohio:. I claim the bur, A. stem, B. provided with a screw at each end, in combination with the nut, C. arranged and operating conjointly as and for the purpose set forth.

52,777.—Derrick.—D. D. Winant, Brooklyn, N. Y.:

First, I claim the arrangement of the grooved barrels, ef, and gear wheels, g h 1 k 1 and m, in combination with the shaft and clutch, n, for the purposes and substantially as specified.

Second, In combination with the barrels, ef, and gear wheels, g h i k l and in, shaft n, and clutch n', I claim the friction reel orreels fitted in the manner and for the purposes specified.

52,778.-Liniment.-John W. Woodring, Greensburg, Ky.:

I claim the medicine aforesaid composed of the constituent parts and prepared as aforesaid.

52,779.—Prepared Paste for Book Binders, Etc.—Joseph Woodward, Springfield, Mass.:
I claim as a new article of manufacture the substance herein described

-Let-off for Looms.-Edward Wright, Worces

ter, Mass.:
I claim the construction and arrangement of the let-off mechanism consisting of the pawl ratchet guard lever having loose connection with the whip roll and the friction device, all constructed and operating substantially as described.

52,781.—Head for Picture Nails, Etc.—Heman P. Brooks (assignor to Turner & Clark, Manufacturers, Ftc.), Wolcottville, Conn.:

I claim the head for picture nails, knobs, or tassel hooks, formed with a wooden body or nut, and an ornamental metallic covering or surface in the manner specified.

surface in the manner specimed.
52,782.—FancyDoll.—Dominco Chickini, Marion, Conn..
assignor to himself and L. R. Thompson, New

52,82.—FancyDoil.—Doillated Chickin, Marion, Conn...

assignor to himself and L. R. Thompson, New
Haven, Conn.:

I claim making hed oll'shead with four faces, and suspending it
in the wig frame in such a manner that the head may be revolved
vertically, so as to bring either or the four faces in iront at pleasure, when the whole is constructed and fitted to operate substantially as herein described.

52,783. -- Screen-cutting Die. -- Christopher G. Cross (assignorto himself and Charles S. Crane), Chicago

(assignor to himself and Charles S. Crane), Unicago, Ill.:
I claim a screw-cutting die, constructed of steel and cast iron or other suitable metal, substantially asset for thand specified.

52,784.—Paper Shirt Bosom.—Theodore A. Curtis (assignor to George W. Ray and Varnum N. Taylor), Springfield, Mass.:

First, I claim a paper bosom, made in two parts, substantially as described.

described. Second, enameling said bosom, substantially as described.

52,785.—Apparatus for Pressing Paper Collars.-

Darlington, New York City, assignor to Joseph and Frederick A. Blossom, Brooklyn, N. Y. I claim the combination of two or more rollers with a centr mam roller and with a guard through which the collar is entered the rollers, substantially as and for the purposesspecified.

the rollers, substantially as and for the purposes specified.

52,786.—Hay and Cotton Press.—Erastus M. Day and John T. Noel (assignors to H. Winchester and E. M. Day), Lower lake, Cal.:

First, We claim the arrangement in a ratchet press of the invented ratchet bur, rock shaft, eccentries and pawls, substantially as and for the purpose herein st ecitied, whereby the ratchet bar smade to serve as a shield for the protection of the atchet bar is made to serve as a shield for the protection of the atchet teeth pawls and eccentries from waste and other. Second, In a ratchet press having the ratchet pawls worked by eccentrics on a rock shaft, we claim the pawls, two for each eccentric, arranged in relation to the ratchet teeth, substantially as herein described, whereby the operation of the ratchet kint, by a longer or shorter stroke of the lever, by which the rock shaft is worked is provided for.

Third, We claim the disengaging cam and its supporting shaft, arranged in relation to the bed of the press, the ratchet bar and pawls, substantially as and for the purpo e herein specified.

Fourth, We claim the arrangement of the follower, its attached atchet bar, the rock shaft eccentrics, pawls, operating lever and disengaging cam in relation to each otherand to the bed or foundation of the press, substantially as herein specified.

52,787.—Blacking Brush and Boot Jack.—Samuel Gessinger, Alleghany City, Pa., assignor to himself and Peter Kolbecker, Pittsburgh, Pa.: I claim the combination of blacking brush and a boot jack, said blacking brush and boot jack being constructed, combined and operating substantially as herein described and set forth.

ratmg substantially as herein described and set forth.

52,788.—Process for Saturating Wood, Cloth, Paper, Etc., with Parafine.—Stuart Gwynn, of New York City, assignor to Alfred B. Ely, Newton, Mass.:

I cla m the u e of orafine melted and heared to a high decree for saturating cloth and wood in the manner and for the purpowes substantially as described.

Second, Its use for saturating paper when it is used for roofing and other similar outside covering, and for linings for boxes and such like, when durability, imperviousness to moisture and resistance to the action of the elements are desired, as also for linings for hats, shoes, garments and other articles of fibrous materials.

ance tothe action of the elements are desired, as also for hinings for hats, shoes, garments and other articles of fibrous materials.

52,789.—Steam Engine.—Alvin Lawrence (assignor to himself, Ambrose Lawrence and John T. Crane), Lowell, Mass.:

I claim the combination and arrangement of the valve, D, with the cylinder. A, or its equivalent, when the said valve is connected with and operated by the governor, substantially as andfor the purpose specified.

Second, And in conjunction with the cylinder, A, or its equivalent, the valve hest, E, and valve, D, said valve being connected with and operated by the governor, the use and application of fluid under pressure, for the purpose of operating the throttles, valves or cut-off gear of steam engines, substantially as specified.

Third, And in combination with the valve, D, the same being connected with and operated by the governor, the employment of the spring, H, or its equivalent, for the purpose set forth.

Fourth, And in combination with the cylinder, A, valve chest, E, and valve, D, said valve being connected with and operated by the governor, as above stated, the supply pipe, F, and regulating cock, G, substantially as and for the purpose specified.

Fitth, I claim the general construction and combination of the apparatus. consisting of the cylinder, A, piston head, B, piston rod C, and lever, M, or its equivalent, the valve, D, valve chest, E, supply pipe, F, regulating cock, G, and the governor, the whole arranged substantially as and for the purpose set forth.

52,790.—Mold for Casting Heads Upon Screws, Tacks, Etc.—Duncan McArthur (assignor to Sargent and Company), New Haven, Conn.:

1 claim a mold consisting of the parts, A and B, when binged together upon a plate, C, so as to be operated substantially in the manner as herein set forth.

52,791.—Bottle Stopper.—Eli Morris Jr., (assignor to himself and Edward Heaton). New Haven. Conn.:

männer as herein set forth.

52,791.—Bottle Stopper.—Eli Morris Jr., (asssgnor to himself and Edward Heaton), New Haven, Conn.:

I claim the lever, C, and stopper, D, when combined and arranged so btantially in the manner and for the purpose herein set forth.

subtantially in the manner and for the purpose herein set forth.

52,792.—Method of Sinking Well Tubing.—R. F. Osgood
Rochester, N. Y., assignor to Charles W. Kinne,
Cortland, N. Y.:

I claim the cylinder or short section of tube, B, in combination
with the tubing, A, arranged in such a manner that in the act
of driving, the earth is excluded, but when driven, the water
may be admitted by simply turning the cylinder, and without raising the tubing, substantially as described.

I also claim the vire cloth, d, covering the parts, in combination
with the cylinder, B, and tubing, A, substantially as specified.

I also claim the valve, F, in combination with the cylinder, B
substantially as described.

substantially as described.

52,793.—Pipe Coupling.—H. D. Parker, Genesce, N. Y., assignor to C. L. Burtis, Thomas A. Barrows and Eli S. Hart:

I claim coupling the ends. A A, of two sections of rod, by means of the wedging sockets, B B. connecting bolt, D. or equivalent, and wed.es, C C, operating substantially in the manner and for the purpose herein described.

52,794.—Fly Trap.—Nicholas Pike (assignor to Emma Taylor), Brooklyn, N. Y:
I claim a box for containing the fly composition with a string, wire or rod, or the box, the former may be drawn or passed through the composition and the files at the same time stripped from the string, wire or rod, substantially as and for the purpose set forth.

from the string, wire or rod, substantially as and for the purpose set forth.

I also claim in connection with the string, wire or rod, constructing the lid or cover, B, of the box with a flange, a, to form a fly receptacle as set forth.

I further claim the box, A, cover, B, tubes, E, bar, C, and string or wire, D, all arranged and combined substantially as and for the purpose specified.

52,795.—Fence.—Russel Pronty, (assignor to J. Elder and J. B. Wilson), Springfield, Iowa:
I claim the combination and arrangement herein described of the post. A A, wires, B, and pickets or slats are provided with oblique notches, a and a, made at different distances apart in the successive or adjacent pickets was to force the wires into a zigzag shape, and cause the two wires to strain in opposition upon each picket, as and for the purposes specified.

pecified.

2,796.—Process for Converting Iron Into Steel.—Eliot Savage, West Meriden, Conn., assignor to himself George S. Harwood, and George H. Quincy:

First, I claim the improved method of hardening and tempering teel by heating the same in cyanide of potassium previous to its mmersion in a cooling liquid.

Second, The improved mode of treating Iron for the purpose of roducing upon it the effects of case hardening by heating the same na bath of cyanide of potassium, and by submerging it in cooling riquid.

in a bath of cyanide of potassium, and by submerging in a bath of cyanide mode of treating cast from for the purpose of converting it into steel, or a substance resembling steel, by heating the same in a bath of cyanide of potassium and submerging in a cooking liquid.

Fourth, In the method of treating from, steel and other metals by means of cyanide of potassium as and for the purpose hereinbefore set forth, I claim the use of metallic solutions as the cooling liquid.

The stream of the

set forth, I claim the use of metallic Solutions as the cooling liquid 52,797.—Hydrant.—Edward Stocker (assignor to himself and Emanuel Shober), Loncaster, Pa.:

I claim the stop cock, A, with its curved screw ends, E, D, and conic turn point, UB, in combination with the fixed base. Fig.N, with or without the stop-oft key, h, all arranged and operating substantially in the manner and for the purpose specified.

52,798.—Boot and Shoe.—Charles H. Trask and J. B. Johnson, Lynn, Mass. assignors to themselves and G. L. Thayer, Boston, Mass.:
We claim our improved channel, C, as made with two lips, ik, arranged so as when closed to meet together directly over the char-

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nel substantially as herembefore described and represented in the remaining figures of the said drawings.

renaining figures of the said drawings.

52,799.—Driving Apparatus of Metal or Wood into the Ground.—William W. Winter (assignor to himself and Stephen Brower), Corllandville, N. Y.:

I claim a driving apparatus constructed in a manner that the weight or draver is supported and guided by the roll, a, or tube to be driven, and also the application of the pulley thereto, substantially as herein shown and described.

tially as herein shown and described.

52,800.—Fastening for Paper Boxes.—George, F. Wright, Clinton, Mass., assignor to himself and William Orr. Jr.:

I claim the applicamon of metallic class upon the joints of the pasteboard in paper boxes, substantially as and for the purpose specified.

52,801.-Brick Machine.-Thomas Matthew Gisborne,

52,801.—Brick Machine.—Thomas Matthew Gisborne, Lymington, Eng.:
First, I claim arranging a series of kilns, burning on the principle of the New Castle kiln, side by side in such a manner that the front or combustion end of the one kiln is continuous to and can communicate with the back or chimney end of the next kiln, while the chimney common to all, or with a separate chimney.

Second, Constructing a series of kilns burning on the principle of the New castle kiln, placed side by side and made to taper from the combustion end to the chimney end, the chimney end of one kiln being made capable of communicating either with the combustion end of the kiln or with a common or separate flue or chimney.

Third, Constructing a series of kilns, burning on the principle of the Newcastle kiln, nade to taper from the combustion end of the kiln or with a decimal of the combustion end of the chimney end, and arranged sile by side alternately in reversed positions, the chimney end of the one kiln being made capable of communication either with the combustion end of the next kiln or with a common or separate flue or chimney.

52,802.—Machine for Making Boots and Shoes.—Charles Henry Southall, and Robert Heap, Staleybridge.

52,802.—Machine for Making Boots and Shoes.—Charles Henry Southall, and Robert Heap, Staleybridge, Eng.:
First, we claim the brake, i, lever, 13, and lever, J, tor instantly stopping the drum, e when the driving power is taken off.
Second, The improved vises for holding the boots and shoes so firmly that they can be operated upon with case and certainty.
Third, The bearings or brackets, y, on the tables, for enabling the vises, and consequently the boots or shoes, to move up and down, according to the shapes of the bottom of soles.
Fourth, The system of employing under each a rack round at one end and straight at the sides, so as to be adapted to all sorts and sizes of boots and shoes.
Fifth, The cam or pattern plates for determining the aforesaid up and down movement with certainty.
Sixth, The cam or pattern plates for determining the aforesaid up and down movement with certainty.
Sixth, The employment of the long shaft, o', plates, n' and e', the casting, k', the long pedestal shaft, c', and the shaft, g', for enabling the table to move to and fro and up and down easily.
Seventh, The deep whicel, a2, or an ordinary wheel which rises up are down with the wheel, l', for maintaining the wheel, l', constantly in gear.
Eighth, The cam's haped hammer, s', raised by the chain, z', and weight, y', for forcibly pressing the sole of the boot or shoe against the note of the shears.
Tenth, The cam, v', on the shaft, k, the lever, u', and the chain, x, for taking off the weight of the hammer when the boot or shoe bas to be moved for a tresh screw, and allowing the weight to be put on immediately the eam has passed the tail of the lever.
Eleventh, The system of making the holders, gnards, and cutters, as shown in Fies, I 21 and 14, for paring and shaping the soles and heels arter they have been screwed on, and also the levers, m3 and n3, for enabling the tools to follow the surface and sides of sole nd heel.
Thirteenth, The movable arm or lever, 13, Fig. 1, for carrying the holders with the pairing and finishing, as all su

52,803.—Mode of Printing Photographs.—W. Bentley Woodbury, Manchester. Eng.:
I claim the use, in connection with the plates herein described, or with any engraved plate, of semi-transparent or partially transparent inks, substantially in the manner and for the purpose specified

52,801.-Machine for Cutting Files.-James C. Cooke,

52,801.—Machine for Cutting Flies.—James C. Cooke, Middletown, Conn.:
I claim, First, The securing of the cutter stock, F, to the reciprocating head, F., in the manner shown, or in any equivalent way, so that said cutter stock may be turned and adjusted at any point within the scope of its movement, to give the cutter a proper oblique position with the file blank, and the cutter always have its cutting edge in a horizontal plane.
Second, Flacing the reciprocating head, E, between inclined guides, a a, so that said head will work in an inclined direction when said head, thus arranged, is used in combination with a cutter stock, F, applied in the matiner substantially as described.
Third, The securing of the file blank, L, to the bed, K, by means of the plans, in 'a arranged substantially as set forth.
Fourth, The raising and lowering of the bed, I, to compensate for the varying thickness of the tile blank, L, by means substantially as described.
Fifth, The means employed for communicating from shaft, B, motion intermittingly, and in either direction to the shaft, Y, which turns the central screw, T, to wit the two ratchets. Z Z, pawls, A A', operated from the shaft, B, as shown and described.
Which turns the central screw, T, to wit the two ratchets. Z Z, pawls, A A', operated from the shaft, B, as shown and described.
Seventh, The bar, P', connected with the arm, M' having the too: harmance substantially as set forth.
Sixto, The bar, P', connected with catter stock, P', and all arranged to operate substantially as set forth.
Seventh, The bar or feeler, Q*, connected with the cutter stock, F, in the manner substantially as set forth.

52,805.-Horse Hay Fork.-B. F. Hisert, Norton Hill

N. 1.:

First I claim the bar. A, provided with the pivoted tine, H, combination with the slide, C. connected to the tine by a rod, the catch, D attached to the spring, E, and the bar, c, in the slide, C, all arranged to operate substantially as and for the purpose.

C, an arranged to operate substanting as and on the purpose set forth.

Second, The bar, A, with i splvoted tine, H, in combination with the rod, i, pivoted to the tine, II, near its center of motion, the locking bar, c, and spring catch for the purpose described.

Third, The combination or the catch, D, the tripping lever, F, and the sliding locking bar, c, with the bar, A, and pivoted tine, H, substantially as and for the purpose described.

Fourth, The combination and arrangement of the catch, D, tripping lever, F, bar, A, loop, f, and cord, G, as and for the purpose lescribed.

2,806.—Guard Plate for Bollers.—Andrew O'Neill,
Portsmouth, Ohio.:
First, I claim a cast-metal guard plate or shield for attachment to
be bottoms of bollers, either with or without the openings, feet or
aarginal flange, substantially as described and represented.
Second, the cust-metal guard plate in combination, with the feet,
for the purpose described.
Third, In combination with the cast-metal guard plate, I further
aim the rim or marginal elevation, B, embracing the shoulder of
e pit or drop of a sheet-metal boiling vessel.
Fourth, In combination with the guard plate I claim the slot, E,
r the passage of the rivets in case of the unequal expansion of the
issel and plate.

1,807.—Plow.—Thomas J. Cornell, Decatur, Ill.: First, I claim the plate or cover, G, placed between the upper

edges of the land side and mold board when used in connection with the wheel, F. forthe purpose specified.

Second, The wheel, I. constructed and arranged substantially as shown, journlace on a horizonral axis set obliquely to the line of draught, and rotated by contact with the furrow slice.

52,808.— Perating Horse Hay Forks.—Henry Maycock,

(08.—Defauling noise may remained and solid, which the arringement of the guard rope, D, weight, F, pulley, the arringement of the guard rope, D, weight, F, pulley, the arringement of the purpose herein specified. combination with the above, I claim the arrangement of the erope, G, ring, d, and rope, C, constructed and operating in the arrangement of the erope, G, ring, d, and rope, C, constructed and operating in the arrangement.

REISSUES.

REISSUES.

2,176.—Eyelet for Lacing Shoes.—Charles Goodyear, Jr., New York City, assignor of Jacob Autenrieth, Philadelphia, Pa. Patented Jan. 6, 1863:
First, I claim astoe lacing with its eyelets and cords, constructed and arranged substantially as described.
Second, The metallic lacing, eyelet or loop constructed and arranged substantially as herein described, so that the lacing cord shall run through the same without trav-rising the leather or material of the shoe or other article of wearing apparel to be laced. Third, The arrangement of the metallic eyelet or loop transversely in relation to the lastening device, as herein described, so that the said evelets or loops, when fastened on to the leather or material shall be situate in vertical planes relatively to the surface of the leather or material, as set forth.

the leather or material, as set forth.

2,177.—Apparatus for Drawing Soda Water.—William Gee, New York City. Patented May 19, 1863. Reissued Feb. 2, 1864:

First, I claim the valve, D. and its parts, e G H H', and passage or aperture, g, in combination with the valve, B, and its parts, e E F', and passage or aperture, h, forming a cock, for the purpose set ferth.

FF, and passage or aperture, h, forming a cock, for the purpose set forth.

Second, I claim the means of drawing soda or mincral water from a small and a large outlet passage or aperture having one connection with a draft tube or soda-water apparatus, substantially as mad for the purpose herein specified.

Third, I claim the small passage or aperture, a, for the purpose of sompressing the soda water while being admitted into the large passage or outlet ape ture, g, for the purpose set forth.

Fourth, I claim dr wing soda water in a large stream passing list through a smaller passage into a larger passage or space from which proceeds the larger stream.

Fifth, I claim drawing soda or mineral water in a large and small stream from one nozzle or opening in connection with a fountain or other apparatus, substantially as herein described. 2,178.—Distributing Grain to Different Bins.—Charles S. Hamilton, Fond du Lac, Wis. Patented June

S. Hamilton, Fond du Lac, Wis. Patented June 21, 1864:

First, I claim the combination, with a revo.ving spout for delivering grain or similar material to different bins, of the shait, M. or any equivalent device, to enable the attendant to move or adjust said spout, substantially as and for the purpose set forth.

Second, I claim the combination with a revolving spout, of an indicator, arranged to show the position of said spout, and to enable the attendant to properly adjust the same, substantially as and for the purposes set forth.

2179 — Manufacture, of White, Pubbor. F. Manufacture, and the purpose of the pu

the attendant to properly adjust the same, substantially as and for the purposes set forth.

2,179.—Manufacture of White Rubber.—F. Marquard, Rahway, N. J. Patented Dec. 5, 1865:
First, I claim the method or process of treating india-rubber gutta-percha, or other similar gums, with hot water, for the purpose of washing them, after they have been previously bleached with chlorine gas, substantially asherein before set forth.

Second, I also claim the method or process of treating india-rubber, gutta-percha, or other similar gums, by distillation, after the gum has been bleached with chlorine gas, for the purpose herein before set forth.

Third, I also claim the method or process of treating india-rubber, gutta-percha or other similar gums, that has been previously bleached with chlorine gas, and washed and distilled as hereinbefore set forth by redissolving it in chloroform or other solvent, and mixing with its hosphate of lime, and subjecting the compound to pressure in hot molds to harden and solidity it for the purposes described.

compound to pressure in hot molds to harden and solidity it for the purposes described.

2,180.—Manufacture of White Rubber.—F. Marquard, Rahway, N. J. Patented Dec. 5, 1865:
First, I claim the method or process of treating india-rubber, or other similargun; when dissolved in chloroform or other solvent with caustic ammonia gas, chloride of ammonia for the purposes substantially as hereinbefore set forth.

Second, I also claim the method or process of washing the dissolved and bleached gum as hereinbefore set forth withhot water, for the purpose described.

Third, I also claim the method or process of distilling the dissolved and bleached gum, while in the washing process, or by a subsequent process, for the purposes hereinbefore set forth.

Fourth, I also claim the method or process of re-dissolving the water or gum obtained by the foregoing operations, and combining the same phosphare of lime or a carbonate of zinc, by means of pressure in hot molds to harden the compound for the purpose set forth.

DESIGNS.

2,265.—Coffin.—Thomas Devins, Cambridgeport, Mass.:



S. C. D.. of Tenn.-The object glasses of the best com pound microscopes are usually made by the combination of three lenses; the distance from the object glass to the eye piece is 10% inches, that being the distance of most distinct vision. The reflecting mirror is generally made plane on one side and concave on the other. Carpenter on the Microscope is a standard work For a practical treatise on optics write to Henry Carey Baird, of Philadelphia, or to John Wiley, of this city. Compound microscopes range in price from \$15 to \$600. You can get a very good one for \$20 or \$30.

H. B., of Wis .- Your plan of suspending a rod of iron without material support in a coil of wirethrough which a current of electricity is passing, and then giving the rod a rotary motion, would not be called "perpetual motion," as there would be an expenditure of power in the battery. Professor Page made an engine several years ago in which an iron rod was alternately drawn mand out of a hollow helix by changing the poles of the battery. This engine would drive machinery, but as the power was obtained by consumption of zinc, it was more costly than steam power.

R. C. B., of Mich.—That the ascent of liquids in capillary tubes is due to atmospheric pressure has been suggested; but the fact that the liquids will rise vertically more than 34 feet is fatal to this theory,

A. H., of Pa.-No substance will dissolve lampblack. B. Q., of Mass.—"The ingredients which supply the motive power of Ericsson's caloric engine" is hot air, and it is adapted to doing any kind of light work where one or two horse power 18 needed.

W. B. G., of N. Y .- If you will read W. J. Macquorne Rankine's treatise on shipbuilding you will get a different idea of the attainments of the builders.

H. S. W., of Conn.-You can take steam from your heater in the manner proposed, but the heat you derive from it will be in proportion to the pressure in the heater; as your engine cuts off short, it will probably not be very great. Why do you dry your wet substance over the top of your boiler, not in contact with it? There is heatenough radiated from most boilers to do a great deal of work.

A. S .- If an inventor applies for a patent, and the Patent Office erroneously rejects the case and for many years maintains its refusal, but finally corrects its error and grants a ratent, we know of no reason why the patent is not valid. The factthat the thing has come into general public use during there years of delay does not prejudice the rights of the inventor

H. B. S.—There is no more pressure in the steam drum of your boilers than in the boilers themselves; there is less, it anything

R. O., of Ohio, -We cannot give you the information desire about the latest method of getting ice out of the water into the house.

W. V. V., of N. Y.-You will see by the files of the Scientific Americanthat your question has been asked several times, without any satisfactory answer.

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10 2° Consulting Engineer, No. 57 Broadway, N. Y.

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