

# ISSUED FROM THE U. S. PATENT OFFICE

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

53,389.—Hinge.—John W. Allen, Newark, N. J.:
1 daim the construction and arrangement of the notched hinge
buth, 1, 1 to hever, r, with its knob or handle, u. and the guide or
clasp, to of the swinging leaf when combined and operating as and
nor the purpose specified.

or the purpose specified.

53,300.—Stopper for Ink Bottles.—Martin Ames, New Ipswich, N. H.:

I claim the fixed catch, B, connected with the collar, a, in combination with the hor cap. C, provided with an internal flange, c, having a hole, d, in it, or any other equivalent means for the catch, B, to emage with, and also provided with a pressurestopper, c, and lid or cap being connected with the collar, a, by a hing, b, carranged with a spring, b, to admit of a lateral movement or adjustment of the lid or cap, substantially as and for the purpose set forth.

\_Door Spring.\_B. F. Barker, San Francisco

Cal.:
I claim the combination of the spiral spring, C, pivoted arm, E, bracket, F, groove, b, and recess c, when constructed, arranged and employed in the manner and for the purposes specified.

53,391.—Vegetable Cutter.—C. F. A. Bander, Newark, N. J.:

N. J.: I claim a vegetable cutter made of a piece of sheet metal, A, which is glotted so as to form a series of strips, b, with double cutting dges, substantially in the manner herein set forth.

edges, substantially in the manner netering to the same significant of the same significant same

53,394.-Fence Gate.-Julius S. Benedict, Bedford

Ollio:
I claim the strip, B', hinge or center pin, E, and roller, b, in combination with the gate when arranged in the manner and for the purposes set forth.

53, 395.—Filter.—Benjamin Best, Dayton, Ohio:
I claim the combination of the sand box, D, and filtering box, G, rovined with sponge tubes, a and c, with the vessels, A and E, substantially as described.

sabstantially as described.

53.396.—Valve for Pumps.—Henry P. M. Birkinbine, Philadelphia, Pa.:
First, I claim the valves and valve seats of a pump so constructed, as to form a water cushion, substantially in the manner and for risp purpose set forth.
Second The combination of the double-faced valve, F. P., with the raive, G. have it cups for forming a water cushion, the whole being constructed and arranged substantially as and for the purpose set forth.
Third, The arrangement of the valve, G. seats, F. stems, H. H., and 76 %, I, all constructed and combined, substantially as and for the purpose set forth.

53,397.—Protracting Bevel.—W. W. Branch Jr., Madison. Ohio:

son. Ohio:

I claim t e combination of the protractor, a, margin edges, h b, xtension blades, C, stock, D, and index, E, arranged and operating a the manner and for the purpose herein specified. 53.398.—Hand Loom.—James L. Branson, Cincinnati

Ohio.

First, I claim the combination of sleeve, II. provided with the inclines or cams on its end, ratchet wheel, i, pinion, •, and wheel, c?, provided with the pawl, h, arranged to operate as and for the purpose set forth.

Second, The sleeve, H, provided with the cams on its end as described, in combination with the sliding rod. K, and cam, I, arranged to operate substantially as herein shown and described. Third, The cam. I. constructed as shown and described. Third, the cam. I. constructed as shown and described, and arranged to move laierally on the shatt, C. in combination with the treadles, k, whereby one cam is made to operate all the treadles, and also to keep the treadled depressed during nearly the entire revolution of the cam, as and for the purpose set forth.

Fourth, I claim the combination and arrangement of shaft, n, provided with the wheels b and e, when arranged to operate in connection with wheel, f, on the shaft, C, as shown and described for the purpose of enabling the attendant to stand facing her work.

53.300, Steam Generator.—Geo. B. Brayton, Boston

53,399.—Steam Generating apparatus composed of compartments of the properties of the properties of the properties of the generation of steam made with openings, a al., and partitions surrounding the same, substantially as described for the purpose specified.

Desired While D. C. Breed.

substantially as described for the purpose specified.

53,400.—Machine for Boring Hubs.—D. C. Breed,
Lyndonville, N. Y.:

I claim the combination and arrangement of title annular plate,
L admissable connecting plates, n. n. supporting arms, J.P. and
admissable someting plates, n. n. supporting arms, J.P. and
admissable someting plates, n. n. supporting arms, J.P. and
admissable someting plates, n. n. substantially at herein specified,
whereby the centralizing tongitudinal and ann lar adjustments of
the hub are effected together, as yet left.

As the longitudinal and and and and adjustment of the 'cross bar,
As the longitudinal and and and and adjustment of the constantially as the transfer adjustment of the constantially and the transfer adjustment of the chuck blace, K. L. to suit bubs of different length, for the purpose of
lifectly determining the required taper of the holesto be bored in
the hubs, substantially as herein described.

53,401.—Machine for Ironing Hats.—William Rest.

the hubs, substantially as herein described.

53,401.—Machine for Ironing Hats.--William Best, Newark, N. J.:

I claim, First, The vartically sliding frame, D, carrying the smoothing irons, E F G, the said smoothing from having a sliding movement with regard to the said frame and being arranged with reference to a rotary hat block, substantially as herein set forth for the purpose specified.

Second The many sloed smoothing from arranged in relation with a rotating hat block, substantially as set forth for the purpose specified.

with a rotating nat block, substantially as see to the or the papers specified. The inverted conical or taper blocks, H, acting upon the bars, n', and sliding blocks, n, to spread apart the smoothing round substantially as set forth. Fourth, the stiding blocks, n, and the bars, n', arranged with reference to the partitions, m', with their oblong vertical holes in such a way as to allow the smoothing irons a limited rocking our nutsibitantially as herein set forth for the purpose specifie

Fifth, The arrangement of the staples, v', and slide, v, for securing the hat block upon the table, substantially as herein set forth.

Sixth, The catch, b, belt slipper, d'', and table, B, arranged with reference to each other and to the hat block and smoothing irons, substantially as set forth for the purpose specified.

Seventh, The clamp compose of of two halves, q, slidir in the base, t, and operated by a screw, t', when provided with a flange, m3, and used in connection with a rotating table and suitable smoothing irons, substantially as herem set forth for the purpose specified.

Eighth, The annular plate, m4, clock great the for the purpose

smoothing irons, substantially as herem set forth for the purpose specified.

Eighth, The annular plate, m4, placed upon the flange, m3, of the clamp underneath the hat brim, when used in connection with sultable smoothing irons, substantially as herein set forth for the purpose specified.

Ninth, The elliptical plate or guide, S3, secured upon the hat block and uniding the iron, F, when smoothing the underside of the brim, substantially as herein set orth.

Tenth, The horizontal bars, m, adjustable in the lower ends of vertical bars, m, arranged in relation to smoothing irons, substantially as herein set forth for the purpose specified.

Eleventh, The arrangement of the luting cloth on the end of au elastic bar or spring attached to the same shaft as one of the smoothing irons, substantially as set forth for the purpose specified.

53,402.—Wooden Pin Machine,—Nelson W, Brewer,

smoothing irons, Substantially as section to the provided and the provided

53,403.—Wick Trimmer.—William B. Brooks, Boston

MRSS.:
I claim the combination of the frame, a b, lever, c g, spring, o, and knife, b, when said knife is attached directly to the lever and allarranged to operate as and for the purposes herein specified.

all arranged to operate as and for the purposes herein specified.

53,404.—Burner for Gas Stoves.—T. H. Brymer, New York City.:

I claim the box. B, perforated at its sides as ishown at b, and provided with the vertical tubes, C. in combination with the button or deflector, D, air opening, as in the top of the box. B, and the tube, A, with or without the perforated disk. G, all arranged substantially as and for the purpose herein set forth.

53,405.—Lathe Chuck.—James A. Bunce. East Berlin,

Conn.: • Define Combination of the sliding bars, C, with the jaws, B heath, D, and store, A, substantially in the manner as and for he purpose described.

the purpose described.

53,406.—Ventilator for Hats.—Benajah J. Burnett, Mount Vernon, N. Y.:

I claim, First. A hat provided with a ventilator consisting of the series of air defecting and conducting passages. a'g, arranged with reference to each other, and projecting outwirdly from and inwardly through the crown of the hat, substantially as set forth for the purpose specified.

Second, The ventilator consisting of plates, am h, and flanges d'b, united by a screw c, whereby they are secured in the hat, substantially as herein specified.

53,407.—Method of Treating Cholera.—Alexander Collins Campbell, Mount Morris, N. Y.:

Iclaim, First, The preventive medicine composed of the several ingredients, and in substantially the proportions as described, under the head of the first part of my method of treatment.

Second, I claim the same compound with the addition of laudanum, tincture of cayenne pepper, and pepperine, in substantially the proportions described, as a remedy in the diarrhead stages of cholera, as set forth.

Thire, I also claim the external application, composed of unguentum hydrargyrum and bodine, in combination with the internal remedies above named, in the diarrhead stage of cholera, as described.

Fourth, I claim injecting oxygen gas into the tissues of the body, through perforations made in the skin, for the purpose of vitalizing the sub-oxydized blood in the capillary vessels and small arteries and velus and producing warmth of the surface, whetantially and escribed.

Firth, I claim injecting oxygen gas into the tissues of the body in combination with the injection of artificial serum into the velus, not restricted the purposes set forth.

Sixth, I claim as a whole, the within described method of treating cholera, substantially as set forth.

Sixth, I claim as a whole, the within described method of treating cholera, substantially as set forth.

Sholera, substantially as set forth.

53,408.—-Cultivator.—-James Canfield, Washington, Icwa, and Charles Hess, Lyons, Iowa.:
First, We claim the combination and arrangement of the inner beams, Fr. the slotted hangers, H h, pivoted to the cross bar, C, and the regrating bar, I operating as and for the purposes specified. Second, We claim the combination and arrangement of the plow beams, E f, the hangers, G H, the levers, L L. cross bar, C, chains, a b, arranged and operating as and for thepurposes described, 53,409.—Harvester.—J. M. Canfield., A. T. Still and E. P. Wheeler, Lawrence, Kansas.

We claim the arrangement of the grain receptacle, D, the handle, E, and standard, F, when constructed and operated substantially as and for the purposes specified and shown.

as and for the purposes specified and shown.

53,410.—Balance Valve for Steam Engines.—John W. Carhart, Troy, N. Y.:

I claim, First, Therecess, i, in their end of the plug valve, A, constructed and operating substantially as and for the purpose described.

Second, The strangement of the screw, m, yoke, n, set screw, r, and cross bar, q, with the plug valve, A, and shell, B, constructed and operating substantially as and for the purpose set forth.

and operating substantially as and for the purpose set forth.

3,411.—Water Drawer.—H. P. Castle, Ashtabula,
Ohio:
I claim the clamp, E, provided with an arm, H, and lug, I, in
combination with the shaft, B, and forked crank, constructed and
arranged as and for the purpose set forth.

Statistics are superpose set forth. Statistics and for the purpose set forth. I claim the arrangement of the handle, I single strip, G, and crank arms, h, in combination with the stats, b, and tenons, c, operating in the manner and for the purpose herein specified.

I also claim the combination of the latch, in, and strip, g, in the manner and for the purpose herein specified.

53,413.—Apparatus for Crimping Hair.—H. Christian, New York City:

I claim a crimping apparatus adapted for use in connection with not water as a medium of supplying heat to the surface or surfaces beautiful content of the surface or surfaces. I claim a crimping apparatus adapted for use in connection with not water as a medium of supplying heat to the surface or surface brought into contact with the hair, substantially as hereinbefor set forth.

53,414.—Skate.—Hiram Clark, Jordan, N. Y.:

I claim the post, p. having a stud, d, at the top to enter the foo plate, B, and an opening at the bottom in combination with diagona brace bars, b, which are secured to the foot plate by screw or other wise, substantially as and for the purpose set forth.

53,415.—Floor Attachment for Furniture.—Harrison Cole, Cincinnati, Ohio:

I claim the furniture floor fastening, consisting of the dovetailed t-nons, C.C., and rockets, E.E., having one or more binding or locking tongues, F. substantially as herein set forth.

53,416.—Straw Cutter.—Munson Cole, Colebrook, Conn.: I claim the Vor concave bottom of the receiving box and my method of arranging the operating parts of the straw cutting machine, as herein set forth.

machine, as herein set forth.

53,417.—Apparatus for Receiving and Delivering Mail Bags.—John J. Cooper, Olmsted Ohio.:

First, I claim the arms, A', pivoted to the frame, A, in combination with the catch, B', and 'spring, c'', in the manner and for the purpose substantially as set forth.

Second, Tho arms, A', and hanger. C, in combination with the springs, c and b, substantially as and for the purpose described.

53,418.—Fence.—Elias Cozad, East Cleveland, Ohio: I claim the arrangement of wires or rods. C, with the spiral turns, B', in combination with the pots, A, slofs, a, and keys, c, in the manner and for the purpose set forth.

53,419.—Carriage Curtain Fastener.—Elmer Crawford and James H. Birch, Burlington, N. J.:

We claim the binding of the eyelets of carriage window curtain by neans of metallic plates rivered together, held fast to the traine by hooking on revolving knob screws applied to and in combination with carriage window curtains, in the manner and for the purpose above set forth, using, to obtain the said effect, any metal, as brass, silver, galvanized iron, or any suitable material substantially equivalent or which will produce the intended effect.

53,420.—Instrument for Measuring Distances.—John

J. Daly, New Orleans, La.:
I claim the arrangement of the scale, A, index, B, thumb screw, D, and clamp screw, E, in combination with the rod, F, and eyelee, G.

piece, 6.
53,421.—Boiler for Culinary Purposes.—F. W. Dembois,
East Saginaw. Mich.:
I claim the combination with any vessel suitable for containing
liquid to be boiled, of a cover, B, consisting of the parts substantially as herein described.

standy as never described.

3,422.—Adjuster for Evaporators.—J. A. DeTar, Lanesfield, Kansas:
I claim the frame. or its equivalent, with an adjusting screw depending therefrom and attached to the end of the rocker pan, substantially as and for the purpose described.

stanting as and for the purpose described.

53,423.—Roller Temple for Looms.—Warren W. Dutcher. Milford, Mass.:
I claim my improved application or arrangement of the headed spindle and its fastening screw, with reference to the cap extension and the standards. E, for supporting the cap, C. the spindle under such application being screw and into one, and being free to move length wise in the act of being set up, the whole being so that there may be no such force exerted by the spindle on the extension of the cap as will operate to draw the cup and spindle out of parallelism with the trough.

with the trough.

53,424.—Gang Plow.—John H. Eckert, Lebanon, Ill.:
First, I claim the arrangement of the plow beams, E. E. lever, M. adjustable bars, G\*, adjustable guide, II. rol, F. screw rows, & G., in combination with the sandards, J. rods, K., sockests, f. plows, I, and braces, L., constructed and operating in the manner and for the burpose herein specified.

Second, The combination of the lever, N, cross bar, o, notched plate, p. and frame, C, constructed and arranged to operate in the manner and for the purpose herein specified.

53,425.—Sheep Shearing Table .—W. R. Elder and O. T. Baker, Huntington, Ohio:
I claim the arrangement of the braces, C' C', and D' D', in combination with the adjustable pivoted legs, \$\Lambda\$ B, straps, c, and elastic holder, D, constructed in the manner and for the purpose substantially as set forth.

53,426.—Telegraph Insulator.—Alfred B. Ely, Newton,

53,426.—Telegraph insulator.—A...

Mass.:
I claim the rubber belt and disk, attached to the shank, in combination with the pin hook, when constructed and arranged substantially as described.
I also claim as articles of manufacture the rubber belt chambered pin hooks as described.

Telegraph Insulators.—A. B. Ely, Newton,

In claim as an article of manufacture, the rubber screw covered in book with rubber disk attached, as described,

pln book with rubber disk attached, as described,

53,428.—Cravat.—Otto Ernst, New York City. Antedated March 23, 1866:

First, I claim a sheet metal frame for a cravat, formed with an
opening or openings for attaching the bow at the front portion
and retaining it in place, as specified.

Second, I claim a loop or fastening on the inside of the sheet
metal trame of the cravat at the front part thereof, to connect the
same to the shirt collar, as specified.

Third, I claim forming the sheet metal for the cravat frame
with a curved edge at the port which comes below the chin, as and
for the purpose specified port which comes below the chin, as and
for the purpose specified.

Fourth, I claim a cravat frame enameled, or coated with a
color to imitate a woven fabric on those portions of the frame that
are visible when in use, as set forth.

are visible when in use, as set forth.

53,429.—Egg Beater.—Henry D. Felthouse and John H. Felthouse, Philadelphia, Pa.:
I claim constructing a series of beaters, c. substantially as described, and combining them with a closed vessel, A, so that the eggs shall be cut up, shaking the vesse back and forth, the apparatus being constructed and operating substantially in the manner hereinbefore described and for the purposes s pecified.

53,430.—Tetlegraph Cable,—Samuel T. Field, St. Louis, Mo.:

MO.:

First, I claim an elastic cable cord, A, conducting medium wires, C, substan tially as described and for the purposes set forth Second, The elastic cable composed of parts, A and B, combine with the non-conducting and yielding cover, D.

53,431.—Artificial Fuel.—Randall Fish, Washington, D. C.:
I caam a composition of matter for use as a fuel, compounded and prepared substintially in the manner set forth, from the Ingredients named or their equivalents.

Statements named or their equivalents.

3.432.—Churn.—D. A. Fiske, Delavan, Wis.:

I claim a churn dash croylded with hinged or jointed flaps when the same are hung as shown, so as to have an inclined position when closed against the frame of the dash, and one flap having a reverse inclined position to that of the other, substantially as and for the purpose set forth.

I also claim the chamber, H, applied to the under side of the lid or cover of the churn, substantially as and for the purpose set forth.

53,433.—Scraper and Knife and Fork Cleaner.—Nathan-iel W. Foye, Cambridge, Mass.:
I ctalm the with H. if ribed implement, consistin—H. aper having one or more flexible edges, combined with a knife and fork cleaner, operating substantially as described.

53,431.—Balance Beam for Boring Oil Wells.—John Bodine Frazier and Homer Wickes, Conneantville, Pa.:

Pa.:

Pa.:

Pa.:

Pa.:

Parallers, 1 and 2, in combination with the beam, B C, constructed as lescribed, and forthe purposes set forth.

described, and for the purposes set forth.

53,435.—Amalgamator.—Henry A. Gaston, Austin, Nevada:
First, I claim the rotating serew, C. operating within a cylinder or case, D. situated within the amalgamating pan, B, substantially as herein described for the purpose specified.

Second, The inclined partitions, n. arranged between the case, D. and the amalgamating pan, B, and with reference to the openings, S, substantially as herein set for the for the purpose specified.

Second, The inclined partitions of the purpose specified.

Second the malgamating pan, B, and with reference to the openings, S, substantially as herein set for the for the purpose specified.

Whiffittee Arrington Chicago Purpose specified.

S, substantially as herein set forthfor the purpose specified.

53,436.—Whiffltree.—Arrington Gibson, Riverfalls, and William M. Newcomb, Cliiton, Wis.:

We claim the bands. P, with the lips. C, bent lever, D, in combination with the pin. H, spring, f, or its equivaient rod, K, and strap. N, constructed substantially as and for the purpose specified

strap, N, constructed substantially as and for the purpose specified 53,437.—Crate for Carrying Fruit.—William Gilbert, Catskill, N. Y.:

I claim the combination of front, rear, end, and bottom frames, formed and arranged as described with a solid or frame work top or lid, to form trates, for the holding and carrying of fruits or vesetables or similar articles, in the manner as set forth in the within specification.

within specification.

53,438.—Evaporator,—L. R. Gleason.—Dundee, N. Y.:
First, I claim the channeling of tables, which allows of using
broad tables.

second, The use of faucets to feed the brine upon the first table,
and to reg late the feeding according to the condition of the

and to reg late the feeding according to the condition of the tmosphere. Third, The depending points in combination with projecting

53,467.—Sulkey Plow.—Samuel M. Lockwood, Chicago, may be attached to its own desk and yet have a free movement, as substantially set forth.

ends of tables for directing the drip from one table to another correctly.

Fourth, The movable ping or their equivalent for the purposeptential.

53,439.—Garden Roller for Destroying Insects.—Har-man Gray, Sugar Creek, Wis.: I claim the guide wheel. A', scraper, B, and ridged roller, C, all our neuroted and arranged to operate substactially as described.

Asstracted and arranged to operate substantially as described. 3,440.—Furnace for Treating Auriferous Ores.—Amos E. Griffiths, Philadelphia, Pa.

First, Ic laim the arrangement of a cupola immediately over a rater cistern for rhetreatment of metal bearing minerals, substantially as set forth.

Second, In combination with a cupola, C, and chimney, F, I laim the reversed pipe, D2 and suction fan, E, substantially as set orth.

rd. I claim passing the fumes from heated metallic ores on rai bearing metals, over wet blankets or other corous substan-or the purpose of condensing such fumes and depositing the is susp nded in them. I susp nded in them. argument of the chimney, F, pipe, Q, the pipe, Q, G, G, G, G, W, with the suice boxes, L and H, substan-

53, 441.—Rack and Stove Shelf.—John Gulllford, Gir

3, 441.— Naun and State and, Pa.:
ard, Pa.:
I claim the rack frame, H. brackets, B F, in combination with the helves, H F, and pipe, A, arranged as and for the purpose substantially as set forth.

53,442.—Valve Gear for Steam Hammers.—Hugh Ham

ilton, Newburgh, N. Y.:

I claim the arrangement of levers. L and N. in combinate link, K. and ram, a, for one, and with rod, u, lever, W. skide valve for the other lever, which enables the blackst work single acting and double acting steam hammers in the possible manner, as described.

53,443.—Gang Plow.—A. Hammond, Jacksonville, Ill.:
1 chaig. First, Providing for adjusting the two supporting wheels.
A and it simultaneously, by means of a rack and screw, or their equivalents, substantially as described.
Second, Connecting the landside wheel, F, to a spring or y is in keer, G, substantially as described.
Third, Connecting the rear supporting wheel, J, to a spring or yielding keer. If, substantially as described.
The roviding for adjusting the spring, v', of the lever, H, substantially as described.
Firth, Pivting the axie bars of the rear supporting wheels, F, and J, to oscillating segments, substantially as described.

53,444.—Frocess of Reducing Refractory Gold Silver, and Copper Ores.—Charles W. Harvey, Buffalo, N. Y.:

I clause the reduction of refractory gold, silver, and copper ores, in common blast furnaces to the degree of obtaining pigs or hars of white metal therefrom, by combining and smelting therewith, either the carbonate of line, soda, muriate of soda, or other alkali or sleg, substantially as described.

53,445.—Cultivator.—Paul Hildreth, Beloit, Wis.:
Iclaim the adjustable cultivator bars. F.F., thebed pieces, H.H.,
the adjustable brackets, w.w., the movable gages, e.e., and the scrapers., q. when constructed substantially as herein set forth and
described, for the purposes specified.

53,446.—Cultivator.—Charles Holman, Cameron, Ill.:
I claim the huttons, H' H', secured to the upper ends of the rods,
G (J, in combination with the bar, J, provided with the recesses, h and for the purpose specified.

53,447.—Cotton Picker.—George A. Howe, Brooklyn, N. Y.:

N. Y:
I claim the arrangement of stripper fans in respect to the shaft on which they revolve, as tangents thereto, substantially as described.

53,448.—Centrifugal Machine.—Harvey Hunt, Oska

loosa, Iowa:

I claim the construction of a centrifugal sugar separating screen
with a conleat floor or deflector, substantially as and for the pur
sose set forth.

pose set form.

53,449.—Flyer for Spinning Machinery.—Charles Hyde,
North Chelmsford, Mass.:
I claim as my invention the combination of the projection, B
sceketed at the ends, with the fiver, A, and the wire or guard, C
applied so as to extend either above or below, or both above and
below the projection, as specified.
I also claim the socke ed projection as made with a groove, f,
going either wholly or part ally around it, substantially as and for
the purpose hereinbefore set forth.

53,450.—Harvester Rake.—J. Herva Jones, Rockford, Ill.:
I claim. First, The combination of the turning and oscillating rate post, with the cameroovelocated upon the grain side of the main frame, when constructed, a ranged and operating substantially in the manner described for the purposes set forth. Second, The combination of the platform, the divider, and the wing board with the rake, substantially as and for the purpose described.

wing board with the rake, busedening, and described.
Third, The arrangement of the platform, the driving shaft, and the rake, substantially for the purpose set forth.
Fourth, The combination of the driving shaft, the swiveling socket, the cam gnove, and the rake, when arranged for joint operation, substantially as described.
Fifth, The combination of a rake-post with a swiveling socket and a sliding fulcrum, substantially as and for the purpose described.

loed. ikih, The combination of the driving shaft, the swiveling ket, and the hemispherical cam groove, arranged and operating

sa described.

Seventh, The combination of the rake post, fulcrum pin, and guides ocket, as and for the purpose described.

Eighth, Uniting the take rost and arm when located as described at an acute angle, substantially as described for the purpose set forth.

3,451.—Portable Tank for Oil, Etc.—Joel F. Keeler, Pittsburg, Pa.:
I claim, First, The hatchway, h h, in combination with the steam, le tanks.
Sergoni The heart

second, The hollow cover, f, constructed and used substantially in the manner and for the purpose described.

13,452.—Broom Head.—Abraham B. King, Seven Mile, Ohio:
I claim, First, A broom head composed of a wooden abutment, C, and one or more wooden clamps, D and E, all arranged and operating substantially us described.
Second, The flance plates, H b h; and I i !?, or their equivalents, in combination with the clamps, D E, as set forth.

53,453.—Sawing Machine.—Joseph Kunz, Bay City,

Mich.:
I claim the arrangement of the saw, c. aljustable pivoted to the warging weighten frame, g, whork vibrates upon pivots in the suporing frame, m n, substantially as described and represented.

53,154.—Match Compound.—Louis Lanszweert, San Francisco, Cal.:

I claim the within-described match compound made of the ingredients above set forth, free from phosphorus and sulphur, substantially as specified.

53,455.—Paper Shirt Bosom.—Charles M. Lee, Spring-field, Mass.:

I claim the button hole strip or loop, c, when attached to the upper edge of the bosom by the continuous ornamental stitching upon the outer edges of the initiation plaits, substantially as and for the purpose set forth.

purpose set torin.

53,456.—Heating Shade for Gas Burners and Lamps.—
Augustus H. Lochman, York, Pa.:
I claim the combination of a fixed or adjustable heater, B, with a
gas or lamp acized, A, substantially as described.
I also claim the construction of the hollow heater, B B a C, sub
familially as and for the p rpose set forth.

Ill.:

Iclaim the arrangement substantially as described of the part,
P. or its equivalent in construction with the pole. A, and the clamp,
D, or its equivalent, substantially as above described, by means of
which a change of direction is obtained, substantially as set forth.
Second, The strangement of the braces, R and R, in manner substantially as set forth with the corn plows or their equivalent, so
that the same can be pointed as one may desire, in order to plow
deeper or otherwise, as one may wish.
Third. The method of raising and livering the plows by the arrangement of the levers, J sud J, in c-anection with the braces, E
and G, running from cross bar to cross bar, as above described, or
their equivalent, substantially as above set forth, with the seat, k,
and in connection with the axie, L, substantially as set forth,
Fourth, The arrangement of corn plows in any and all of the
Pourth, The arrangement of corn plows in any and all of the
ways
subsantially asset forth, in combination with a frame work with
wheels, and constructed substantially asset forth.
\$3.458. Wind Mill. — Phillum Loffler. Milwaukee, Wis.:

53,458.—Wind Mill.—Philipp Loffler, Milwaukee, Wis.:
I claim the guide rod a having the stop pins, oo, and operated by the lever arm, I. constructed and operated se described and arranged in relation to the arms and paddles, substantially asset forth 53,459.—Corn Planter.—David and D. F. Luse, Spring

Mill, Pa.:
First, We claim the bail, L, provided with the attaching and adjusting flanch, t, and angle adjusting rod, M, for mounting the drill tooth upon, substantially as and for the purposes herein speci-

fi.d. Second, We also claim the double share and double mold board furrow clearing plow, N, in combination with the drill tooth, I, sub-stantially as and forthe purposes herein set forth.

33,460.—Composition for Core Powder.—William B. Lupton, Pittsburg, Pa.:
I ciaim a compound made of the ingredients herein specified, to equed in composition with sand in the process of forming sand

oeused in comoination with and in the process of forming and cores, as set forth.

53,461.—Collapsible Fleat for Boats.—J. MacDonough,
New York City:

I claim the combination and arrangement of the collapsible covering, F, hoops, AA, guard rope, C, and valve, D G, constructed and operating in the manner as herein described.

Second, I claim the combination of the adjustable reversible brackets, m, studs, a, and floats, F, arranged and operating as herein described.

Third, I claim the combination of the collapsible floats. F, hoops, a, guard rope, C, valve box, D G, adjustable brackets, m, studs, a, string pieces, B B, constructed and arrenged relatively to each other and the boat, p, in the manner and for the purpose herein specied.

Fourth, I claim the string piece, B B, in combination with the hoops, A A, and flexible covering, F F, substantially in the manner and for the purpose specified.

53,462.—Men's Collars.—D. Mackay, U. S. Army: I claim a cemented covering adapted for application to the frame of a collar or analogous article of wearing apparel, substantially as settorth.

53,463.—Centrifugal Machine.—Alexander Mackey, New York City, and Eberhardt Miller Williams.

et torth.

3,463.—Centrifugal Machine.—Alexander Mackey,
New York City, and Eberhardt Miller, Williamsburg, N.Y.:
First, We claim the inner cylinder, m, applied to the main cylincs especified.

Second, The circular platform, S, and lid, R, arranged with refernce to the partition, m, substantially as set forth for the purpose
pecified.

specified. 53,464. – Machine for Raking and Loading Hay.—W. L.

Mayfield, Ashley, Ill.: claim the manner of giving the up and down motion to the teeth the rake, Il, to wit: by means of the pendent rod, I. notched pivdplates, K. v. the projection, o, and pin, p, all arranged submittially as setforth.

53,465.—Manufacture of Dressing Rolls.—Charles Mc-Burney, Roxbury, Mass.: I-olske the covering of metal rolls with a senti-clastic vulcanized robber compound for dresser rolls and for similar purposes, as set

forth.

I also claim as a new article of manufacture rolls for dressing rain and other like purposes, composed of a metal shaft or roll covered with a sembelastic vulcanized compound having the properties requisite to operate as hereinbefore set forth.

66.—Planing Machine.—Wm. B. McIver, Worcester, Mass.:

m ass.: First, I claim the combination with the feed rolls of a planing ma-hine or machine for working lumber of the bevel gearing, F V H J, and sliding shaft, G, substantially as and for the purposes de-cribed.

U) and situing state, or secretary secre

varing and lowering the general of the feed roll, and the upper end of the vertical shaft, in the same stand or bearing piece, substantially in the manner and for the purposes stated. Fourth, Supporting the upper end of the vertical shaft as described, in combination with giving its lower end play, as and for the purposesset forth.

Sa,467.—Pump.—Jacob Michel, Rochester, N. Y.:

I claim the combination and a rangement of the valve seat, D. made to adjust lower or hisher to give greater or less play to the valve, the valve, the valve, E. provided with the flange. I. and water-packing grooves, m m, and the piston rim. C. made m a single piece, the whole operating substantially as and for the purposes herein set forth.

53,468.—Table Napkin.—Albert L. Munson, New Haven

Conn.: First, I claim a paper and cloth napkin, substautially as de

erioed. Second, A paper and cloth napkin when embossed or printed or erforated, substantially as described.

perforated, substantially as described.

53,469.—Steam Water Elevator.—David Myersand L. H.

Noble, Chicago, Ill.:

First. We claim the combination of the reservoir, A. the induction and eduction pipes, C and D, and steam pipe, E, provided with the valves, c b a respectively arranged and operating substantially as and for the purpose specified.

Second, We claim in combination with said reservoir, A, and pipes, C D E, the sh ft, G and J, and lever, I. for the purpose of opening and closing the valves, a b, simultaneously, for the purposes described.

-Hay Loader.-Oliver F. Nanny, Mamarkaten,

53,470.—Hay Loader.—Oliver F. Nanny, Mamarkaten, N. Y.:
I claim the tubular post, B, with its rings, E E, in combination with the crane, D, the hay fork, G, and bifurcated spring catch, P, for the purposes described.

Button.—Frederick I. Palmer, Springfield,

Mass.:
I claim the combination of the stud, B, notched as described, withe spring, C, and the other parts of the button, substantially herein set forth,

53,472.—Fastening for Garments.—Freder ck Ingersoll Palmer, Springfield, Mass.:
I claim the attachment of fasetning composed of the springs and the pin or study, substantially as herein shown and described.

53,473.—Combined Pistol and Pocket Knife.—A. J. Peavey, South Montville, Maine.:

First, I claimso haveing the barrelo of a pistol within the casing orhandie of a pocket knife that its breech end can swing out of it or into the same, substantially as described and for the purpose specified.

ied. & cond, The combination of the hook end or aum, G, of the pistol barrel with the spring catch, F, of the breech piece, O, of the knife handle arranged, together and operating as and for the purpose, de-Seat Desk for Schools.—Isaac Newton Pierce,

Philadelphia, Pa.: I claim the application of a crane movement by which a chai

53,476,—Manufacture of Sheet Iron.—Charles H. Perkins, Providence, R. I.:
Iclaim preparing plates of sneet iron, whether for receiving a coating of zinc or other metal preparatory for pollshing and coloring in imitation of Russia iron, by the application of the decarboning process, substantially sat, seribed.

And I also claim preparing plates of sheet! on for coloring in imitation of Russia iron by first decarbonizing them and theu nolling them, substantially as described.

53,477.—Box for Propagating Plants and Vines.—F. L. Perry, Canandaigua, N. Y.:
I claim a box for the propagation of plants or cuttings, constructed ith movable or detachable sides and partitions, substantially in the manner herein set forth.

53,475.—Beehive.—T. W. Pierce, Minneapolis, Minn.:

53,478.—Pole and Thill for Carriages, Etc.—John G. Perry, Kingston, R. I.:

First, I claim the convertible pole and thills, k k, in combination with the adjustable cross plates, a b, constructed as hereindescribed and for the purpose set forth.

Second I claim in combination with the foregoing the use of the projections, it, ic connect the pole and thills to the machines and curriages, substantially as herein described.

carriages, substantially as invertible desertion.

3,479.—Railroad Rail.—D. C. Pierce, Clayton, N. Y.:

I claim the combination of the upper or cap rail with latera
finness, the in erposed elastic material and the lower continuous
bearing rail supported upon the road bed either immediately or by
intervening chairs or aleepers.

33,480.— Hub or Speol for Curtain Rollers.—Frederick Pilling, Washington, D. C.;
I claim a cup or hub for the rollers of window shades, curtains, or other similar purposes cast in one piece, and comprising within itself a fiance, pulley, journal and acrewior securing it to the roller, substantially as described.

substantially as described.

53,481.—Apparatus for Carbureting Air.—E. A. Pond and M. S. Richardson, Rutland, Vt.:

First, Veclaim the improved gas machine substantially as herein described, the same consisting of one or more colls of pipes so combined with a fluid vessel and air-forcing apparatus that the said coll or colls shall be constantly supplied with fluid by the action of the blast and hydrostatic pressure, and acontinuous circulation of fluid maintained therein as set torth.

Secon., The arrangement of the coll in relation to the fluid reservoir so that the air shall be discharged from the coll above the level of the fluid in the reservoir, substantially as herein shown and described.

of the fluid in the reservoir, substantially as herein shown and described.

Thir The arrangement of the air supply pipes relatively to the coil and the fluid reservoir, substantially as herein shown and described so that the current of air shall be impelled upwardly and along the tuhular coil, as set forth.

Fourth, The method herein described of combining the air supply pipe with vaporizing coil by inserting the contracted end of the former into the larger tube of the latter for operation as an injector, substantially as set forth.

Fifth, The employment in connection with a communicating pipe or coil extension under the bottom of the fluid, of a stopper or bamboo or other porous material, as and for the purposes set in the Sixth, The use in combination with a fluid vessel and a coil of a perforated disphragm or dome for returning the fluid elected from the coil in spray-like form to the reservoir, and thus fill the gas collecting chamber with hydrocarbon vapor, as set forth.

lecting chamber with hydrocarbon vapor, as set forth.

53,482.—Gas Apparatus.—E. A. Pond and M. S. Richardson, Rutland, Vt.:

First, We claim in combination with an apparatus for charging atmospheric air with the vapor of hydrocarbon fluid, the method of utilizin steam from available sources, substantially as is herein described for forcing the air through hydrocarbon liquid or vapor. Second, The construction of the air pipe with branches, and providing the same with stopcocks so as to supply the vaporizer with hot or cold air at pleasure substantially as set forth.

Third, Generating illuminating gas by means of an apparatus consisting of the combination with avaporizer of an air pump driven by a gas engine which receives its supply of gas from the gas generator, substandally as herein described.

53,483.—-Gaiter Shoe.—-Amaziah M. Preble, Lynn

5.5,483.—-Gairer Shoe.—-Amaziah M. Preble, Lynn Mass.:
TI claim the fiyas made with the clastic gore swranged in it, as described.
I also claim the combination and arrangement of the ply and its buttons with the instep opening, or the same and its incing and lacing holes, the whole being substantially as herelohefore described.

53,484.—Churn Attachment.—William M. Pyle, Greens-

burgh, Ind.:

Leimthe combination with the gearing JK, crank.p. crank wheel, L. frame, g., h, and dasher shaft, f.of the detachable supplementary lid or cover, C. hooks, D, and pins, e, substantially as and for the purpose specified.

tor the purpose specified.

53,485.—Boring Machine.—Emmett Quinn, Washington, D. C.:

I claim the employment in a machine for boring wooden tubes of one or more pipes conveying water to the catters, whereby the chips made by the cutters are discharged from the machine by the force of the water when constructed and operating substantially as described.

scribed.

33,486.—Tool for Turning Wood.—Emmett Quinn,
Washington, D. C.:
1 claim a bollow cutter stock and its cutter, when constructed as
described, in combination with a hollow tube supporting said cuter stock. and a discharge pipe, arranged to operate substantially as
described and for the purposes set forth.

ucscribed and for the purposes set form.

I. B. Randall, West Glover, Vt.:
I claim hinging or pivoting the frame or upright, D, which supports the gearing for operating the churn in such a manner that it may be roifed, substantially as specified.

I also claim the rack, L. in comb nation with the bar, K, and hinged upright, D, substantially as specified.

53,488.—Urinal.—Andrew Rankin, New York City:
I claim a urinal in which a deodorizing agent is amplied around
an eduction tabe arranged in relation to the vessel, as herein shown
and described.

53,489.-Mop Wringer.-Foster Rhines, Watertown,

53,489.—Mop Wringer.—Foster Rhines, Waterfown, N. Y.:

I claim the combination of the roller, C. with fixed hearings, the roller, D. applied to the arms, b b, of the treadle, C. the apring or surrough E. E. and the pail, A. substantially as described.

53,490.—Metallic Cartridge for Loose Ammunition.—

W. H. Risley, Berlin, Conn.:

I claim the cylinder, A. male substantially as described, with a fixed partition to divide it into a shot or ball and a powder cham ber, being of a diameter about equal to the bore of the gun with which it is to be used so that the wad can be used to shut the chambers, and with means for removing te wad at pleasure, substantially as described.

tially as described.

53,491.—Plow Point.—Cyrus W. Saladee and Thomas Simpson, Newark, Ohlo:
First, We claim imbedding the point, Al, in the top surface of the share, B, in the manner and for the purpose substantially as shown and described.

Second, We claim the s and Cl. figure 3, or its equivalent, in combination with the point. A Al, indentation, F, and slot, H, as and for the purpose substantially as set forth.

Third, We claim the beveld lips, E, of the point, A, figure 3, in combination with the corresponding lies, E, figure 2, substantially as and for the purpose shown and described.

Fourth, We claim the short wedge, D. figure 3, in combination with the stud, Cl, and slot, H, in the manner and for the purpose substantially as shown and described.

Scott Aurora III.

53,492.—Bed Rottom.—Charles A. Scott, Aurora, Ill.:
1 claim the herein described mode of securing the ends of the elastic traps in and to the Said blocks and slats by means of the pins, a c. as and for the purposes described,

-Steam, Generator.-Henry C. Sergeant, New

53493.—Steam, Generator.—Henry C. Sergeant, New York City:
I claim, firs', A tube with a partition in it, when so arranged that the fire will operate with the greatest intensity on one side of the tube, so as to cause a circulation of the water in opposite directions.

In the tube.

Second I claim the combination and arrangement of the above described tubes with the inclined water leg and plate for holding the outer ends of tubes in position, substantially as shown and described.

scruoed.

53,494.—Soda-water Apparatus.—Charles C. Sheldrake
and Joseph Bready, Philadelphia, Pa.:
We clain the cup or concave shaped bottom, B. as constructed
and applied in combination with the fountain, A, substantially in
themanner and for the purpose as nerein set forth.

The application of the cup or bottom plate, B, in its connection
with the fountain by means of the screw threads, a, substantially in
the manner and for the purpose as herein set forth.

53,495.—Slate Frame.—Francis Shenton, Statington

I claim a slate frame when constructed with a miterjoint, tong and groove and secret dowel pin, substantially as described. 53,496.-Milling Tool.-John T. Smith, Middletown

Conn COIII.:

I claim a cutter or milling tool made in two parts of irreg lar shape, substantially such as herein described, so that by interposing disks of paper or other suitable material the cutting face of the tool can be adjusted for slots or grooves of different width.

Sa,497.—Cooking Stove.—James Spear, Philadelphia,
Pa Antedated Jan. 10, 1866;
First, I claim the application of an inclined sleve when applied
within the slimits of a stove or range, as shown and described.
Second, I claim the sleve, B, the doors, D, the hearth plate, A, the
partition plate, G, and frame, L, arranged and combined substantially as described.

Third, I claim the bottom plate, I and L, when arranged in combination with the partition plate, G, and hearth plate, A, as shown

and described.

Fourth, I claim the inclosed sifting pan, B, capable of being vibrated in combination with the ash pan, O, when both are applied
to a stove or range, as shown and described.

53,498.—Condenser.—James F. Spence, Williamsburgh,

N. Y.:

I claim the pipe or pipes, D, which connect with the exhaust pipe of a steamboat engine, in combination with the paddle wheel or wheels, B, substantially as and for the purpose described.

wheels, B, substantially as and for the purpose described.

53,499.—Foot Press.—N. C. Stiles, West Meriden, Conn.:

First, I claim the segmental cams, G H, in combination with the
working lever, F, punch, E, and foot lever, I, constructed and operating substantially as and for the purpose ex: for:h.

Second, Providing the segmental cams withloogs on the sides of
their working faces, substantially as and for the purpose described,
Third, The arrangement of clutches, K, or other equivalent of
tices, in combination with the cams, G H, lever, F, and punch, E,
constructed and operating substantially as and for the purpose set
forth.

forth.
53,500.—Milk Shelf.—D. B. Sturdevant, W. C. Parsons, and Freeland Wheeler, Clifton Springs, N. Y.:
We claim the combined construction and arrangement of the series of independently revolving skeleton shelves, D. D., friction rollers, K. K., and portable frame, A. B., the whole admitting a free circulation or air and operating substantially as and for the purpose herein set forth.

erein set forth.

3,501.—Priming Cartridge.—Thomas L. Sturtevant
Boston, Mass.:

I claim a percussion cap plunger or discharger as made with a
ap entrance stopper, b, and with a cap carrier, a, arranged and deigned to operate therewith, as and for the purposes set forth.

I also claim the combination of the shoulder, n, arranged at the
pof the stopper, with the said stopper, b, applied to the cap disharger, for the purpose set forth.

arger, for the purpose set forth.

502.—Machine for Cleaning Grain, Etc.—E. Sweetland, South Bend, Ind.:
claim the arrangement of the radial and inclined wings, D and
case, A, in combination with the shaft, B', crank, C, and screw,
in the manner and for the purpose set forth.

17. case, A, in communation with the stream of the purpose set forth.

53,503.—Attachment for Cooking Stoves.—Joseph A,
Talpey, Somerville, Mass.:
I claim the cooking stove attachment herein described, arran ed
in the place of the pipe elbow, as and for the purpose set forth.

53,504.—Apparatus for Carbureting Air.—Wm. Thompson, Cleveland, Ohlo:
I claim the curved tapering cham'er, b, pipes, c, and cylinder, D,
in combination with the cylinder, C, pipe, S, chamber, p, and pipe,
in combination with the cylinder, C, pipe, S, chamber, p, and pipe,
in combination with the cylinder, C, pipe, S, chamber, p, and pipe,
in combination with the cylinder, C, pipe, I, chamber, p, and pipe,
Second, The float, Prevank, J, rod. k, and lever, r, in combination with the purpose set forth.
Third, The radiat g pentorated pipes, b', annular chamber, f, and
opening, 0, in combination with the pipe, I, and cylinder, A, arranged and for the purpose set forth.
Fig. and spaces or straining chambers, z, in combination with the
rears, a a, shaft, e, and cylinder, A, operating in the manner and
for the purpose set forth.
Fifth, The purpose set forth.
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53,505.—Water Elevator.—John Tilley, West Troy, N. Y.:
I claim, first, The arrangement of the slide or slides, b b, guide or guides, d d, linkor links, c c, combined door and spout or doors and spouts, B C a, and valved bucket or buckets, E E, all constructed and operating substantially in the manner and for the purpose described.

scribed.

Second, The arrangement of the valved buckets, combined door
and spoul, and the slide, b, substantially as described.

Third, The construction of the windlass, G, ot two sections, m,
in combination with provision for keying the section to its shart,
substantially as described.

53,506.—Lamp.—Charles N. Tyler, Buffalo, N. Y.:
1 claim, first, The wick, W. X., asshown in figures 2 and 3, substanstantially as and for the purposes set forth.
Second, The divided wick, substantially as and for the purpose

sectorth.
Third, The wick supporter, c, substantially as and for the purp th.
th, The wick supporter, c, in combination with a wick tub
than the wick, substantially as, and for the purpose se

larger than the wick, substantially as, and the forth.

Fifth, The wick tube, C, as shown in fig. 4, substantially as and for the purpose set forth.

Sixth, The wick tube, G, as shown in figure 5, substantially as and for the purposes set forth.

Seventh, The grooved wick tube, as shown in figure 7, or its equivalent, substantially as and for the purposes set forth.

Eight, The wick tube used with the loose wick, when provided with opening, o, as in figure 9, substantially as and for the purposes set forth.

th opening, o, as mugues, successions of the forth. Forth, The closed vapor chamber, G, in combination with the wick, X, substantially as and for the purposes set torth. Tenth, The cap, D, in combination with wick, W, X, substantially combination with wick, W, X, substantially combination with wick, W, X, substantially combined to the cap.

Fluth, The closed vapor confliction with the cap. D, in combination with wick, W X, substantianly as and for the purposes set forth.

Eleventh, The cap. D in combination with the small wick, substantially as and for the purpose set forth.

Twelfth, The cap. D, as shown in figure 6 substantially as and for the purposes set forth.

That enth, The cap. D, with openings, o, as shown in figure 13, substantially as and for the purposes set forth.

Fourteenth, The valve chamber, V, provided with a valve, v, and opening, s, substantially as and for the purposes set forth.

Pourteenth, The valve chamber, V, provided with a valve, v, and opening, s, substantially as and for the purposes set forth.

53,507.—Iron Railway Sleeper.—Franz Vester, Newark, N. J.:
1 claim the herein described iron railroad tie, constructed in the manner substantially as set forth, as a new article of manufacture.

-Crimping Boots .- O: J. Warren, New York

of a yoke, N, or its equivalent, substantially as [and for the purpo

of a yoke, N, or its equivalent, substantially as [and for the purpose herein set forth.

Second, The nut, K, on the screen, k, of shaft, B. connected with the yoke, N, through the medium of the collar, N, for the purpose of all owing the yoke to be turned independently of the nut, for the purpose specified.

Third, The sleeve, F, on shaft, B, provided with a projection, i, in combination with the notched hub, G, collar, H, and spring, I, substantially as and for the purpose set forth.

Fourth, The coupling by which the shaft, B, is attached to the bench, the same being composed of a plate, C, secured to the bench by a screw. D, and provided with a socket, a, to receive a puntle, by a screw. D, and provided with a socket, a, to receive a puntle, or a fork, C, which is secured to the sleeve, F, by pivots, e, when said coupling thus constructed, is used in connection with the boot crimping apparatus attached to shaft, B, and for the purpose specified.

53,509.—Water Meter.—Charles Weed, Boston, Mass. assignor to himself and J. S. Shailer, of Roxbury, Mass.:

Mass.:
I claim the arrangement of the primary and auxiliary cylinders and valves by which the main piston driven by the pressure of the water operates the valve of the auxiliary cylinders, and brings into positionto cause the pressure of water to operate, alternarely, the pistons of the auxiliary cylinders which, in turn, operate the valve of the main cylinder, substantially as described.

53,510.—Last.—William Wells, South Danvers, Mass.: I claim the two-part last herein described, divided horizontally near its lower surface and otherwise adapted for use in the manner and for the purposes specified.

and for the purposes specified.

53,511.—Dish-washing Machine.—Jonathan Wheeler, Athol, Mass.:
First, I claim the combination in a dish-washing machine of an ordinary force pump. EG H, and flexible discharge pipes, M, with each other and with the box or tank, A, substantially as described and for the purpose set forth.
Second, The combination in a dish-washing machine of the box or tank, A, with one or more horizontal partitions or troughs, B C, so constructed and arranged that the same water may be forced upon the dishes any consecutive number of times, substantially as described and for the purpose set forth.

53,512.—Churn.—James White, Cleveland, Ohio: I claim the tubes, h h, dasher, F, and c se, A, in combination with the pendulum, C, gearing, D e, and lavers, d, substantially as and for the purpose set forth

53,513.—Truss.— Lewis B. White, Moscow, N. Y. Antedated Sept. 27, 1865:
I claim the two pivot bearings, o. o. arranged at an angle to the end of the bow. in relation to the bow and pad lever, substantially as and for the purposes herein specified.

53,514.—Feeding Device for Sewing Machines.—John Williams, Troy, N. Y.:
First, I claim attaching to the feed-point or part of a serving machine which carries the feeding surface, an adjustable removable steel plate, or its equivalent, to receive the wear from the action of the part of the machine which raises it, substantially as above set forth

forth Second, I also claim attaching to the feedbar of a sewing machine an adjustable removable steel plate, or its equivalent, to receive the wear from the parts of a sewing machine which acts against it, substantially as described.

stantially as described,
53,515.—Machine for Swaging Sheet Metal Spouts.—S.
F. Woodworth, Iowa Falls, Iowa:
First, I claim the arrangement of said dies, B C, in a standard, A, so constructed as to fit the square holes usually formed in a tinsmith's work bench.
Second, The dies, B C, in connection with the lever, D, provided with the arm, f, and eccentric projection, e, isubstantially as set forth.

forth.

Third. The gages, b. in connection with the dies, B C, and lever, D, for the purpose specified.

Fourth, Having the upper surface of the die, B, in an inclined position to facilitate the adjustment of the blanks thereon, as set forth.

53,516.—Dairy House.—Silas D. Yerkes, Downington.

53,516.—Dairy House.—Sinas D. Tennes, Domings or holders Par.

I claim the frame, A, provided with suitable openings or holders for cans or pans containing milk; or cream, or both, and constructed and arranged substantially as described for the purpose specified.

53,517.—Sealing Boxes, Eta.—Robert M. Bartlett (assignor to Sarah T. Bartlett), Cincinnati, Ohio:

First, I claim the mode or method in sea ing boxes, substantially as set forth.

Second, A grooved and indented packing box, either of wood or other suitable material, substantially as and for the purpose set forth.

forth.

53,518.—Machine for Ironing Hats.—William Best and Mahlon S. Drake (assignor to William Best), New-ark. N. J.:

First, We claim controlling the movements of the smoothing fron, in the manner described, by means of guides, s. s., and latches, vv, arranged substantially as berein set forth.

Second, The pulley, f, with its crank wheel, r, the pitman, i, vibrating arm, u, and pawl, z, arranged with reference to each other and with the ratchet wheel, x, spur wheels, g and d, and table, A, substantially as herein set forth, for the purpose specified.

53,519—Bed Bottom.—Calvin M. Brown (assignor to

substantially as herein set forth, for the purpose specified.

53,519—Bed Bottom.—Calvin M. Brown (assignor to David B. Turnbull), Aurora, Ill.:

First, I claim the combination of the wedge shaped block, D, the elastic strap, E, and the slats, G, arranged and operating substantially as and for the purpose; specified.

Second, I claim securing the elastic strap, E, to the wedge-shaped block, D, by passing the strap through the mortise in said block, in the manner shown and described.

L Worker, Prown

block, in the manner shown and described. 53,520.—Clasp for Pocket-books.—J. Warren Brown and Eliakim Rice (assignors to J. Warren Brown),

New York City: claim the lid and nicks, e, in combination with the swivel ton, b, and slotted plats, c, constructed and operating, substan-ly as and for the purpose set forth.

as and for the purpose set forth.

3,521.—Churn.—James E Casey (assignor to himself and Richard Lambert), Courtland Village, N. Y.:
I claim a device for communicating a recipiocating rotary motion to a supplementary dasher of a churn, substantially in the manner and for the purpose set forth.

53,522.—Breech-loading Fire-arms.—Francis Clark, Auburn, Mass., assignor to himself and Thomas H. Dodge, Worcester, Mass.: First, I claim making block D, in two parts, substantially as set forth.

Second, Maki g the circular part, D, open as at h, as and for the purpose set forth.

Third, The combination of the

purpose set forth.

Third, The combination of the parts, E and F, substantially as set forth, whereby end, c, projects past the end of F, and prevents any joint in the block where it comes in contact with the rear of the cartridge.

cartridge.

53,523.—Water-proof Soles.—John W. Coburn (assignor to Oliver F. Case), New Haven, Conn.:

I claim coating the inside of the sole for boots and shoes with rubber or any of its allied gums, when prepared and united substantially in the manner and for the purpose herein set forth.

53,524.—Trammel for Ellipses.—Charles Crow (assignor to himself and James Hollingsworth), Onargo, Ill.: I claim the making of five or more holes in the elliptical trammel sweep and graduating the same as above described, for the purpose of striking ellipses of different relative diameters, as set forth.

of striking ellipses of different relative diameters, as set forth.

35,525.—Cultivator and Seeding Machine.—Charles Denton, Pekin III., assignor to himself, Samuel E. Barber, Samuel F. Hawley, Decatur, III.:

First, I claim the plow frame consisting of the two oblique bars, c.c. connected together as shown and to nected to the bars, D. D. of the main frame by means of the joints, b, for the purpose of raising the plows out of the ground when desired.

Second, The ploved draft poje, O, in combination with the pivoted plow standards, K. K., arranged substantially as and for the purpose specified.

Third, The main frame consistin of the bar, C, with slide bars,

D D, attached when used in combination with the plow frame composed of the oblique bars, c c, and all arranged substantially as de

posed of the oblique pars, cc, and all arranged substantially as desoribed.

53,526.—Knob Latch.—Henry H. Elwell (assignor to the Norwalk Lock Company), Norwalk, Conn.:

First, I claim the connecting of the slide latch, D, with the arm, a', of the lever, B, by meabs of the recess, c, and rocket, d, of said arm and the curcular end, e of the slide latch and the notches or theireesses, g g, in the top and bottom edges of the same, substantially as shown and described.

Second, In combination with the connection above specified, the pins, i on the slide latch and the slide, E, substantially as and for purpose specified the pins, i and the slide, E, substantially as and for the purpose set forth.

Third, The cylindrical collar, k, on the side latch in combination with the pins, i, and the slide, E, substantially as and for the purpose set forth.

53,527.—Thread Tension for Sewing Machines.—Pltt Evens, Jr., Cincinnati, Ohio, assignor to to the Florence Sewing Machine Company, Florence, Mass.:

Mass.:
I claim making and regulating tension in sewing machines by lying the thread a signed direction in its turns around the tension theel, substantially as and for the purpose described.

wheel, substantially as and for the purpose described.

53,528.—Condenser.—J. H. Fairchild, Highgate, Vermont, assignor to himself and Andrew Parker, Cleveland, Ohio:

First, I claim the basin, A. and perforated condensing pipe, F, in combination with the water pipe, H, and vapor pipe, E, as and for the purpose set forth.

Second, I claim the receiver, B, pipe, H, and pipe or spout, G, in combination with the pipe, F, and basin. A. as described.

Third, I claim the employment of a current of cold water, introduced through the pipe, C, so as to condense the vapor passing through the pipe, F, into oil in the receiver, B, as specified.

brough the pipe, F, into oil in the receiver, B, as specified.

53,529.—Manufactue of Table Cutlery.—J. W. Gardner (assignor to the Lampson Goodnow Manufacturing Company), Shelburne Falls, Mass.:

I claim thecombination of the pronged bolster and blade, forged to one piece, with a solid handle, all constructed in the manner erem represented and described.

herein represented and described.

53,530.—Knitting Machine.—Joseph Goodman (assignor to himself and Richard W. Reynolds), Pawtucket, R. I.:

First, I claim the combination of a set of stationary needles, n, having a triple motion, a rising and falling, an oscillating and a transversely-silding motion, substantially as and for the purpose set forth.

Second, The transversely silding cardage, K, in combinationwith the guide bar, t, adjustable rod, d', lever, f', and ratchet wheel, k, constructed and operating substantially as and for the purpose described.

the guide bar, t, adjustable rod, d', jever, l', and ratchetwheel, k, constructed and operating substantially as and for the purpose described.

Third, The carriage, K, and guide bar, t, in combination with the oscillating lever, l, and adjustable standard, q substantially as and for the purpose set forth.

Fourth, libe carriage, K, and guide bar, t, in combination with the slotted levers, v, and cams, a' ne, constructed and operating substantially as and for the purpose described.

Fifth, the double-flanged cams, o', worm wheel, n', and serrated wheel, k', in combination with the pawl, l', lever., l', and carriage, K, constructed and operating substantially as and for the purposes set forth.

Sixth, The rock shaft, i, with levers, l h, in combination with the standard, q, and carriage, K, and with the spring pawl, g, ratchet wheel, f, and feed rollers, F, constructed and operatings substantially as and for the purpose described.

wheel, f, and feed rollers, F, constructed and operating substantially as and for the purpose described,

53,531.—Machine for Making Bolts.—Chas. Hall and Emil Hubner, New York City, assignors by mesne assignments of Chas. Hall and J. D. Van Voorhis: First, We claim the combination of the preparing dies and finishing die with the tubular die and carriage, substantially as set forth. Second. The combination of the subject matter of the first part of the invention with the carriage of the machine, and with the cam shaft of the dies, for formi g both the preparatory and finished head in such manner that the carriage is moved intermittently, thus affording periods of rest during which the preparatory and finished head dies are one-rated substantially as set forth.

Third, The combination of the subject matter of the first part of the invention with the movable sage, sub stantially as set forth, Fourth, The combination of the subject matter of the first part of their vention, and the carriage at rest while the bolt blank is successively in the proper position in be acted upon by the several dies, substantially as set forth,

Fifth, The combination of the first part of my invention with the movable gage of the tubular die and with a cam by whose action the gaze is caused to expel the bott blank, substantially as described.

53,532.—Pump Valve.—A. M. Hansen (assignor to Will-

53,532.—Pump Valve.—A. M. Hansen (assignor to William Higby), Stockton, Cal.:

I claim a pump vaive constructed in such a manner and so arranged relatively to its seat that the liquid shall be allowed to discharge both at the center and around the periphery of the valve, substantially as and for the purpose ser forth.

Second, claim the plate. Ciformed with the channels, 789101: and 12, adapted to communicate respectively with the chambers, 1234 5 and 6, and so arranged that all may be closed or opened to the external air by the adjustment of the Valve, K, or an equivalent closing device.

ernal air by the adjustment of the Yalve, K, or an equivalent clos-ga device.
Third, In combination with the valve chamber, A, I claim the de-achable plate, B, formed with the channels, B'B', as and for the urpose specified.

purpose specified.
53,533.—Invalid' Bedstead.—Warren S. Hill (assignor to C. S. Baker, Manchester), N. H.:
I claim the combination of the rack, c. segment, D., cog-wheel. E, shaft, G, wheels, H, jointedarm, K, and fee; A', constructed and ar ranged relatively to each other, and operating in the manner and for the purpose herein specified.

101 to purpose herein epecialed.

53,534.—Cleansing Animal Charcoal.—Gustavus A. Jasper (assignor to The Union Sugar Refinery), Charlestown, Mass.:

I claim the new or improved process substantially as hereinbefore described, for treating charcoal, either after or before use in a flier forthe cleansing of a saccharine or other liquid, the same consisting in boiling the charcoal in an acid solution and washing it, the while being essentially as specified.

Tweer Polyant D. Friedd (conjuged to T.)

while being essentially as specified.

53,535.—Tweer.—Robert D. Kincaid (assignor to himself and Hall & Speer). Pittsburgh, Pa.:

First, I claim in combination with a water hox or reservoir, and a blastor air pipe passing through it, the sleeve lacket or pipe surrounding said air pipe and open to and communicating with the water in the water hox for the triple purpose of surrounding said blast with water, and for allowing for a received aton of the water, and to prevent any sediment from clogding or lodging therein, substantially as and for the purpose described.

Second, I also claim in combination with an air passing through the water box, horizontally, and capable of being attached or connected with a bellows, a vertical branch pipe rising up within the box for the purpose of being connected with a fan blower, both or either to be used, substantially as described.

Thomas J Love-

either to be used, substantially as described.

53,536.—Drill-feed for Artesian Wells.—Thomas J. Lovegroove (assignor to himself and Henry Baldwin, Jr.). Philadelphia, Pa.:

First, Ielaim feeding the drill-rope from the bull-wheel over the end of the walsing beam through a series or system of pulleys, substantially in the manner described.

Second. I also claim the combination with the bull-wheel and the pulley. Hon top of the derrick of the pulleys, IJ K, or their equivaler substantially as and for the purposes set forth.

aler substantially as and for the purposes set forth.

53,537.—Spring Punch,—John Lyle (assignor to himself and C. H. Allen), Newark, N. J.:

I claim the combination of the double spring, D, with the arms, A and B, of the punch, and with the thumb catch, E, substantially as described and f.r the purpose set forth.

Second, The combination of tire thumb catch, E, with the spring, D, the arm, A, and the revolving cylinder, F, substantially as described and for the purpose set forth.

Third, The combination of the revolving cylinder, F, with the arm, A, and the thumb catch, substantially as described, and for the purpose set forth.

pose set forth.

Fourth, The construction of the arm, a, and its combination with the arm, B, substantially as described, and for the purpose set forth.

53,538.—Machine for Preparing Peat for Fuel.—Samuel Marden (assignor to himself and Wm, H. Allen, A. P. Trott, and Cyrus Cobb Jr.), Newton, Mass.: First, I claim the combination of the triturating mechanism, the follower, and the molds, when arranged to operate substantially us described.

Second, I claim also the arrangement of the second of the sec

described.

Second, I claim also the employment of the cleavers, in combination with the follower and double set of mold boxes, substantially as shown and described.

Third. Also the arrangement or combination of mechanism for actuating the follower and clearers, substantially as shown.

Fourth, Also the mechanism for imparting the reciprocating lateral movements to the mold box, substantially as set forth.

53,539.—Revolving Fire-arm.—William Mason (assignor to E. Remington & Sons), Ilion, N. Y.:

First, I claim in combination with a revolving cylinderlifte-arm approved and hooked cartridge case extractor, arranged to operate in connection therewith, substantially in the manner here in described.

described. I also claim in combination with a hook upon the extractor, the beveling of the rear end of the cylinder so as to insure the entrance of the hook between the flange of the cartridge and the cylinder, substantially as described.

Third, I also claim the recess, f, in the face of the extractor for allowing the cartridge case to turn or move while its drawn out in a cur ved line from a straight chamber, substantially as described.

na a cur ven une from a straight chamber, substantially as described.

53,540.—Frame for Securing Liquor and Other Bottles.—Frederick J. Miller (assignor to William J. Miller), Brooklyn, N. Y.:

I claim a frame for holding and locking up bottles by means of a movable locking device, substantially as specified, applied to retain the bottles and stoppers, as set forth

153,541.—Clothes Drier.—Samuel Parker (assignor to Elton Ward), Forest Grove, N. Y.:

First, I claim a clothea frame sliding on guide ways, for the purpose of receiving the clothes within a room, and carrying them out not the open air when arranged, and to expand and contract as herein described.

Second, I further claim the levers, I I I' I', with the hanging cords for contracting the apparatus, to pass through a door or window, and expanding it for use, as explained.

53,542.—Piston Rod Packing.—Edward T. Prindle (assignor to Self and James Walker), Aurora, Ill.:
I claim, First, The combination of the perforated cap, e, for the admission of steam or other elastic agent, with the conical packing, d. substantially as and for the purpose set forth.

Second The combination of the perforated cap, e, springs, c, cearing ring, i, and the sectional conical packing, a, substantially as described.

53,513.—Breech Loading Fire-arms.—Joseph Rider,
Newark, Ohio, assignor to Self and E. Remington
& Sons, Ilion, N. Y.:
I claim in combination with an under hung hammer, such as
described, a combined half and full cock, trigger, de, pivoted to
the frame and to each other, and acting in connection with the
tail, b, so that the hammer may be securely held at half cock, and
operate in the usual well-known manner at full cock, thus making
the arm perfectly sate to carry when loaded, substantially as
described.

described.

53,544.—Car Brake.—Daniel T. Robinson, Boston,
Mass., assignor to Self and Lorin L. Fuller, Malden,
Mass. Antedated March 21, 1866:
I claim the application and arrangement of the lever, D, or its
equivalent device, substantially in manner and to operate a sabove
described, and in combination with said lever, I claim the employment of the auxiliary rope or chain, b' essentially in manner and
to operate as hereinbefore set forth.

53,545.—Soldering Iron .—John H. Trowbridge, (assignor to Self and Daniel Fuller), New Haven, signor to Self and Daniel Fuller), New Hayor, Conn.: I claim a soldering iron constructed in the manner substantially as frein described, as a new article of manufacture.

53,546.—Metallic Handle for Cutlery.—Leroy S. White (assignor to Self, Rogers & Brother, and Green Hendrick), Waterbury, Conn.:

First, The method of effecting the soldering of the tang of table and other cutlery, in tubu kr metallic handles by inserting the solder at or through the rear open end of the latter, substantially as described.

described.
Second, Constructing and applying the cap, D, as described.

Second, Constructing and applying the cap, B, as described.

53,547.—Apparatus for Preparing Peat.—Henry Youle Hind, Fredericton. N. B:

First, I claim the method herein described of drying peat, and preparing it for immediate use as inel, by exhausting the moisture and compressing the peat substantially as and for the purpose set forth.

Second, I claim the conical or funnel-shaped perforated bottom, B, with the interposed layer or filling of canvas, or its equivalent, as and for the purpose described.

Third, I claim the combination of the cylinder. A, perforated bottom, B, and chamber, C, as and for the purpose set forth.

Fouth, I claim the combination of the cylinder, A, perforated bottom, B, chamber, C, and the air-exhausting apparatus, as and for the purpose set forth.

set forth.

Fifth, I also claim the combination of the cylinder, A, provided with the false bottom, B, and air space, C, with the heating apparatus, S, and its connecting pipe, T, substantially as and for the purpose described.

-Revolving Fire-arm.-Prosper Polain, Brussels,

53,36.—Revolving Fire-arm.—Prosper Polain, Brussels, Belgium:
First, I claim the combination of the following elements: I claim a revolving cylinder, whose chambers are provided with lateral openings and countersunk grooves, as set forth.

Second, A cluster of charge tubes capable of revolution with the revolvingcylinder, and of sliding on its axis, as herein described, the whole operating so that the fire-arm may be loaded or the charges withdrawn without disengaging the sliding charge tubes from their respective cylinder chambers.

63,549.—Substitute for Leather.—Philipp Wenzel, Mayence, in the Grand Duchy of Hesse Darmstadt (assignor to Simpson K. Urbino), Boston Mass.:

I claim the composition made substantially as described.

I claim the composition made substantially as described.

53,550.—Apparatus for Disengaging Boats from Davits,
—Edward Oliver & George Myers, Rotherham,
England. Patented in England September 9, 1863.

First, We claim the tube, A, inclosing the rod, B, formed with righthanded and leit-handed screws, a and b, with their screwed, threaded nut,
recessed to receive the pointed ends of the hooks, E E, and handle or
hand-wheel, C, the braces, D, with their weighted hooks, E R, and the
looking catch, in, the whole being arranged substantially in the manner
and for the purposes he reiobefore described and set forth.

Szcond, The double-barreled windlass, with its weighted lever brake,
K, substantially in the manner and for the purposes her inbefore described and set forth.

Third, The two rods, a a, with their curved inner ends, b b, and furhished with a rack, the teeth of the said rack gearing into the pinion, c,
which is caused to rotate from the outside by the weighted lever or hand
wheel, d, the whole bing operated substantially in the manner and for
the purpose hereinbefore described and set forth.

And, Lastly, Forming the lower ends of the brace pieces, D D, with
the jaw pieces, e. e, for inserting the ring or hooks by which the boat is
suspended, And passing the rods, a a, through the books or the eye of
the rings by which the boat is suspended, the same being operated substantially in the manner and for the purpose hereinbefore set forth.

53,551.—Dropper for Harvesters.—Jacob Miller, Canton,

standary in the manner and for the purpose nerembetore set form.

53,551.—Dropper for Harvesters.—Jacob Miller, Canton,
Ohio:
I claim a flexible dropper for catching, holding and delivering grain as
it comestrom the cutters, constructed and operating in the manner and
for the purpose substantially as described.

### REISSUES.

2,209.—Lamp Trimmers and Shears.—William B. Barnard, Waterbury, Conn. Patented December 27 1864:

I claim the construction of shears or lamp-trimmers substantially in the manner herein set forth.

2,210.—Sewing Machine.—Joseph W. Bartlett, New York City. Patented January 31, 1865:
First, I claim imparting to the looper rid the rocking and sliding motions described, when the parts for giving these motions are arranged and operated substantially as and for the purposes described. Second, The adjustable sleeve, o, constructed and operated substantially as and for the purposes set forth.

Third. In combination the rocking and sliding rod, e, sleeve, o, cam, u, and feed bar, s, constructed and operating substantially as described. Fourth, The combination and arrangement of the rotking cam, g, on the driving shaft, with the connecting rod, h, rocking shaft, cam, u, and feed bar, s, operating as and for the purposes set forth. Fifth, the presser foot, e, cam, x, shown in figure 7, and sliding and rocking rod, i, when combined and operating substantially as described.

2,211.—Revolving Fire-arm.—John Webster Cochran, New York City. Patented November 10, 1863:
First, I claim the unloading and cartridge shell expelling piston or plunger, d', attached to the frame of the fire-arm so as to work through the recoil shield, substantially as and for the purpose herein specified. Second, The unloading piston or plunger, d', and bading rammer, d, connected by a bar or yoke, e, to operate substantially as and for the purpose herein specified,

1,212.—Insulating Telegraph Wires.—Alfred B. Ely, Newton, Mass. Patented January 9, 1866: First, I claim insulating telegraph wires and conductors, or their sup-jors, with the material described substantially as set forth. Second, The uew article of manufacture described, constituting an in-ulated wire, made substantially as setforth.

ports, with the material described substantially as set forth.

Second, The uew article of manufacture described, constituting an insulated wire, made substantially as setforth.

2,213.—Machine for Oiling Wool.—George S. Harwood and George H. Quincy, Boston, Mass. Patenied October 7, 1862. Reissued September 13, 1864:

First, We claim the oiling or lubricating of wool or other fibrous material, by means of a pressure roller imprinting and diffusing the oil or lubricating mixture which shall have been supplied in requisite quantity to the roller in the manner substantially as set forth.

Second, A machine or apparatus for oiling wool, consisting of the following elements combined:

1st, One or more reservoirs for containing the oil or oleaginous mixture. 2d, A disper or dippers and a brush or brushes, the former to convey and the latter to receive the determinate and requisite quantity of oil or oleaginous mixture. 2d, A dispributor or distributors, receiving oil or oleaginous mixture from the brush or brushes and transferring it to the wool, substantially as set forth.

Third, In automatic wool-oiling machinery, we claim the combination of a tank or reservoir with a dipper or equivalent mechanism for performing the double function of sitring or agitating the oil or lubricating matter in the tank, and of lifting therefrom at each action a quantity of oil or lubricating matter requisite for one oiling operation, and this is claimed only when arranged for operation as described—that is to say, so that the said dipper shall come in contact with the wool, substantially as set forth.

Fourth, In automatic wool-oiling machinery we further claim, combining with an oil tank, a dipper, constructed substantially as described, for the more perfect agitation of the liquid, substantially as described, for the more perfect agitation of the liquid, substantially as described, for the more perfect agitation of the liquid, substantially as described, for the more perfect agitation of the liquid, substantially as described, for t

set forth.

Ninth, In combination with a distributing pressure roller, we clabrush traveling diagonally over the said roller—that is to say, at ar gle with the axis of, but in a plane tangent to, the roller, substantiall and for the purposes set forth.

4.—Improved Blasting Compound.—Louis Ludovice and Louis Ludovice, Jr., New York, City, assignees of Moriz Nowark, of Williamsburgh, N.Y. Patented May 24, 1864. Antedated March

N. Y. Patented May 24, 1864. Antedated March 18, 1863:
First, I claim the combination of chlorate of potash, nitrate of potash, and ferrocyanate of potash with each other, and with a substance capable of evolving gases, such as carbon or equivalent materials, substantially as and for the purpose described.

Second, The combination of chlorate of potash, nitrate of potash and ferrocyanate of potash with binoxide of manganese, substantially as and for the purpose set forth.

Third, The use of bicromate of potash, in combination with chlorate of potash and ritrate of potash and ferrocyanate of potash, substantially as and for the purpose described.

Fourth. The application of a solution of chlorate of potash, nitrate of potash and ferrocyanate of potash to paper or other vegetable materials capable of being formed into cartridges and protected by some water-tight compound, such, for instance, as those above specified, for the purpose set forth.

2,215.—Improved Cement for Slate Roofing.—Charles Wanzer, of New York City. Patented June 24,

1862:
laim a compound to be used as a cement, composed of grease, pitcl, and quick lime, hydrate of lime, chloride of lime or bleaching ler, or any equivalent thereof, either with or without linseed or oil, and venetian red or other ochre, substantially as described.

2,216.—Improved Method of Starting Street Rallway Cars.—Thomas R. Sinclaire, of New York City. Patented December 19, 1865:
First, I claim, in the application of car starters and brakes to railroad cars, the sus pending of the frame, C, in which a portion of the operating machenism is placed directly on the axies, D, of the car, the axies passing loosely through said frame, substantially as shown and described.

Second, The arrangement, a spring or a series of series.

passing loosely through said frame, suostantially as shown and described.

Second, The arrangement, a spring or a series of springs, working conjointly or in unison, and constituting the motor of a car starter and brake, with the operating mechanism in such a manner that the motor may be applied to either axle of a car, and the spring or springs wound up from either axle, substantially as shown and described.

Third, The sliding clutch, F, in connection with the gears, E I, when arranged with a spring or springs, J, substantially as and for the purpose herein set forth.

Fourth, The levers, G G, connected with the clutch, F, and applies to the truck substantially as described, when used in connection with the gearing and spring or springs, as and for the purpose set forth.

2,284.—Coffin Handle.—P. Bradford (assignor to Sargent & Company), New Haven Conn.
2,285.—Floor Oil Cloth.—Charles T. Meyer Bergen,

2,286.—Tobacco Pipe.—Louis Laarback, Philadelphia, Pa.

2,287.—Plate of a Cook Stove.—Garretson Smith & Henry Brown, (assignors to Abbot & Noble), Philadelphia, Pa.

### TO OUR READERS.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. MUNN & CO., Patent Solicitors, No. 37 Park Row, New York, ipt of \$2. Address

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ARD'S PATENT BRICK MACHINE.—IN REPLY to the numerous inquiries concerning this Machine, herein re ser forth some of the prominent features of its construction, peration, etc.:

1. The weight of the Machine is about two tuns.

2. Two horses work it with ease.

3. Any number of Machines can be run on one line of shafting by the application of steam power.

4. The capacity of each Machine is from 15,000 to 20,000 brick per lav.

2. Two horses work it with ease.
3. Any humber of Machine's can be run on one line of shafting by the application of steam power.
4. The capacity of each Machine is from 15,000 to 20,000 brick per day.
5. It is so simple in its construction that any person can adjust it and direct its operations without previous experience.
6. It is not liable to get out of repair.
7. It uses clay directly from the bank, water being used if the claybe not sufficiently most.
8. The Machine tempers its own clay, presses it into molds, strikes the brick, lits them from the molds, and turns them on edge ready for removal.
9. The clay is used so stiff, and under pressure so great, that the brick can be hacked ten high directly from the Machine, all risk of destruction by rain being entirely obviated.
10. All the labor required in making brick by this Machine is to shovel in the clay, and to remove the brick forhacking as they issue from the molds.
11. It requires one man to shovel the clay, one boy to remove the brick to the truck, one boy to run off the truck, and one man to hack the brick.
12. It makes a fine pressed brick, worth in the market one third more than common brick, and costing much less.
13. No sanding of molds is required.
14. The brick are molded in molds made of either steel or brais, permanently set in a revolving wheel.
15. The price of the Machine is \$700, exclus ve of patent right 16. Yard Rights, exclusive Township and County Rights sold, as parties may desire.
17. It has never failed to take the First Premium at all the State Fairs wherever exhibited.
For further information address E. R. GARD, No. 102 Lake street Chicago. P. O. Box 151.

TESTIMONIALS.

The Chicago Tribune of Dec. 12, 1865, says: "Guard's Brick Ma The Chicago Tribune of Dec. 12, I865, says: "Guard's Brick Ma hine, of which previous notices have appeared in the Tribunne, continues to meet with isyor at the hands of all practical men. Mr. Gard to-dayships one of them to New York City, where he has sold territory to a gentleman who came expressly to this city to witness the action of the machine. We refer our readers to the following testimonial of the worth of Gard's Brick Machine, from Mr. G. W. Dunlap, one of the largestbrickmakers in Chicago, and one who has fully tested the capabilities of the machine:—
"I take great pleasure in stating that I have mede brick on the Brick Machine, thepatent of which is owned by E. R. Gard, of Chicago.

Brick Machine: thepatentof which is owned by E. R. Gard, of Chicago.

It ave never yet seen a machine manufacture as fine brick as it does. They are perfect as the finest pressed, and in burning come out of the kiln as perfect as any I have ever seen. On my present brick yard I have manufactured twenty seven mallions of brick, and find that those made on the Gards Machine are superior to all others. Of the six different machines I have used, I never met with one which so entirely satisfies me as this does.

"The clay is taken directly from the bank, a little water being used, it necessary. It is then shovelled into the machine which choroughly tempers it, presses it into the molds, strikes the brick, and turns them on edge ready to pick off, all by simple machinery, without any handling or sanding the molds.

"One desideratum Gard's Machine possesses over competitors, is that the clay is moist enough to allow the particles to be well tempered, so as to thoroughly unite and cement together, while on the other hand it is sufficiently stiff, and is pressed so well that the brick can be hacked eight or ten high directly from the machine. It is truly a great labor saver, and I cheerfully recommend it to all brick-makers

"G. W. DUNLAF." lly a great labor saver, and i check-makers fany other testimonial scould be given.

Many other resultance.

ARGE ENGINES FOR SALE.—ONE NEW HORIzontal 32x72 inch cylinder; one do. 20x24 inch cylinder; one
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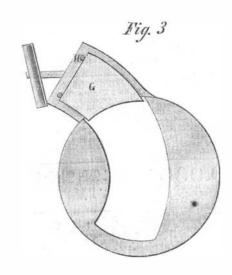
These engravings represent a new brick machine which has some points of novelty. It is of that class where bricks are molded direct from the pug mill or chamber where the clay is tempered, without passing through other processes. It is extremely compact in form, and has but few details and those not of a complicated character.

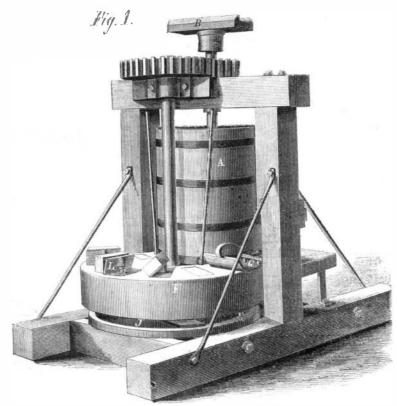
Fig. 1 is a perspective view; Fig. 2 is a section through the machine, and Fig. 3 is a view of the aperture through which the clay passes into the mold.

formed and in the boxes; it remains to get them out. This is done in a novel manner. The reader will see two inclined planes—one at I, in Fig. 2, and another at J, Fig. 2. The former raises the box by the aid of a roller, K, and the latter throws the brick out. This is done by having a false top, L, exactly like a box cover with hinges. There is a short shaft, M, Fig. 2, which projects through the mold box and rests at bottom on the inclined plane, J, as clearly shown in Figs. 1 and 2. As the table runs round them, these planes push up the box, and one acting a little after The clay is placed in the chamber, A, and the mill the other, tip the brick out on the table, from whence

The lint lay upon a beam which was within four inches of a belt some fifteen inches wide and moving two hundred and twenty revolutions a micute. In the beam was an iron bolt, the head of which was toward the belt. From the belt to the bolt was passing a stream of electric sparks, which had set the cotton lint on fire. After attending to this case Mr. Motley, the agent, opened the casing of a similar belt in another mill. The beam in this case was fourteen inches from the belt, but the stream of electric sparks was at once seen jumping across the beam although it had not set fire to anything. Perhaps some of the cases of fire from supposed 'spontaneous combustion ' are due to electricity from machinery. The subject is an interesting one for investigation, and probably a profitable one."

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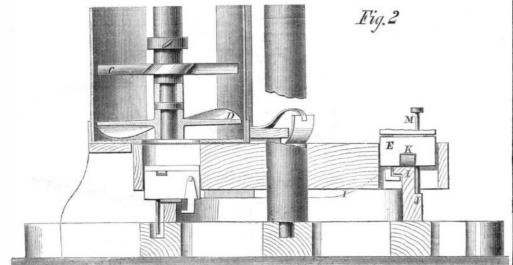
B. This pulverizes and intimately mixes the clay by the beaters, C, on the main shaft. These have a twist in them which causes the clay to be forced down to the bottom of the chamber. Here there is a spiral blade, D, whose office is to force the clay into the mold boxes, which are shown at E. These are ranged in rows about the circumference of a circular table. F, which revolves through the action of gearing, in a direction contrary to the blade, D, so that as the

set in motion by the action of a sweep in the head, | it is afterward removed. These are the details, and ! in the model they work well.

Patents were issued Nov. 25 and Dec. 5, 1865. patent is also pending on the machine through the Scientific American Patent Agency. For further information address E. R. Gard, No. 102 Lake street, Chicago, Ill. [See advertisement on another page.]

# Electricity in a Cotton Mill.

The Lowell (Mass.) Courier of March 23, says:



clay enters the mold the blade moves against it and i crowds it down compactly in the corners. As the table, F, continues its motion, the brick is carried with it, and the superfixous clay cut off by a slide, G, Fig. 3. This is retained in place by two stout Wooden plugs, H which are strongenough for ordinary purposes; should any stone accidentally get in the clay and come in contact w'th the slide and the edge of the mold, the plugs will reak and thus allow it to yield, thereby saving more important parts of the machinery from injury. The bricks are now

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