ing operation that, in the successive passages of the rollers the lines of the impressions do not come exactly in the same place, and impressions produced are rendered imperfect; and steel plates are so hard that a good transfer is only obtained by many repetitions of the operation of the rollers, and the rollers soon wear out. It has been attempted to decarbonize the faces of steel plates to give them the requisite degree of softness, but this has not been successful. The object of this invention is to obtain plates which have a desirable softness of surface, and the requisite hardness or strength of body to resist the heavy pressure to which they are subject; and to this end it consists in combining a layer of steel and a layer of fine iron, by welding, casting or any other suitable method of uniting the iron forming the face and the steel forming the back of the plate. Alfred Sellers, of New York city, is the inventor of this improvement.

Life-boat and Pontoon Bridge.-The object of this invention is to obtain a life-boat which may, when not required for use, be compactly folded and stowed away in a small space and still be capable of being readily adapted for use, and possess the advantage of always righting itself if thrown into the water. The invention consists in having a series of air chambers formed of india-rubber, gutta-percha or any other suitable air-tight and water-proof fabric, provided with infiating tubes so arranged that the chambers may be readily filled with air and the latter retained therein, and having a metallic keel attached to the central air chamber, the upper surface of the boat being provided with a netting and the under surface having a rope applied to it; all being arranged in such a manner as to effect the desired end. Edward L. Perry, of New York city, is the inventor of this improvement.

Fastening for Breast-pins.-This invention consists in a single or double U-shaped clasp hinged to the under side of the breast-pin, stud, button, or other similar article, in combination with a point projecting from the under surface of said breast-pin, button or other article, and passing through all but one of the shanks of said clasp in such a manner that when the clasp is turned back, it can be readily hooked over one or both ends of a dress; or the ends of a sleeve or other part of a garment can be readily entered between its shanks, and on closing it down the point penetrates the fabric between its shanks, and the breast-pin, button or other article is firmly retained in the desired place; it consists, further, in the application to a button or other similar article of a double clasp, the main clasp being hinged to the under surface of the button, and the secondary clasp to the last shank of the double U-shaped main clasp in combination with two points, one projecting from the under surface of the button or other similar article, and the other from the inner surface of the secondary class in such a manner that one end of a shirt sleeve, or other part of a garment, can be secured in the main clasp and the other end in the secondary clasp, and the degree of tightness with which the shirt sleeve or other part of a garment is fastened, can be regulated at pleasure. Gaspard Buhler, of Newark, N. J., is the inventor of this improvement.

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FOR THE WEEK ENDING FEBRUARY 23, 1864.

Reported Officially for the Scientific American,

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.

41,668.—Packing Projectiles for Rifled Cannon.—John Absterdam, New York City:
I claim, first, onstructing a projectile for rifle cannon with one or more bands or bearings of an anti-friction metal that expands in cooling or that does not shrink in cooling, for the purpose herein described.

Second, Sawing the end of the expanding the purpose herein described.

nd, Sawing the end of the expanding cup in several cuts diag to the axis of the projectile, substantially as described.

41,669.—Manufacture of Gun Barrels.—Walter Baker,

Ilion, N. Y.:

I claim as a new article of manufacture the forming of a solid cone seat upon a hollow gun barrel, from the metal at the butt of the same, withoutwelding, in the manner substantially as shown and described.

-Feed Bag. -Joseph Becker and Wm. Tustin, iladelphia, Pa.:

41,670.—Feed Bag.—Joseph Becker and Wm. Tustin,
Philadelphia, Pa.:
We claim, first, The strap, A', running obliquely under the throat
of the animal and fastened by a loop upon the rear top side of the
bag, substantially as and for the purpose described.
Second, The sieve or ventilator, F, fig. 2, or its equivalent, at the
bottom of the bag, as herein described, substantially as and for the
purpose set forth.

purpose set forth.
41,671.—Machinery to aid in puddling Iron and Steel.
—Henry Bennett, Wombridge, England. Patented in England May 18, 1863:
I claim improved apparatus or mechanism to be used in the process of puddling iron, steel-iron or steel, and constructed substantially as herein more fully set forth and specified.

If as a ferein more fully set forth and specified.

1.672.—Water Elevator.—B. B. Bignall, Owego, N. Y.:
I claim the reel, B, having the spurs, kk, of nearly the same transverse thickness at the base and top, and the bearings, 1, respectively on each side of the spurs, for the support of the chain, substantially as herein set forth.
I also claim the total dreel, B, constructed as described, with the main chain, C, auxiliary chain, C, and bucket. D, all arranged and operating substantially as and for the purpose herein specified.

41,673.—Street-sweeping Machine.—H. S. Blood, New

Orleans, La.: claim, first, The rotating brush, J. in combination with the dirte, K. provided at its lower end with the clastic strip, M. arranged perate in the manner substantially as and for the purpose speci-

to operate in the manner substantially as and for the purpose specified.

Second, The endlessapron, N, placedin the box or dirt-receiver, L, for the purpose of discharging the dirt therefrom when used in combination with the brush, J, for the purpose set forth.

Third, The operating of the endless apron, N, from the driving wheel, F', by means of the shaft, O S, gearing, G' P Q R, and endless belt, V, as described.

Fourth, The operating of the door, W, from the lever, A', simultaneously with the throwing in and out of gear of the pinion, P, with the wheel, D', substantially as described.

Fifth, The combination of the rotating brush, J, endless apron, N, and dirt-plate, K, all constructed and arranged to operate in the manner substantially as and for the purpose herein set forth.

(This inventor consists in the employment of a rotary brush

This invention consists in the employment of a rotary brush placed in an oblique position in a mounted frame and used in connection with a curved inclined dirt plate and a dirt receptacle provided with a dirt-discharging apron, all arranged to operate in such a manner that the dirt will be cleanly swept up from the pavement of the street, and discharged at suitable or desired intervals in piles.]

41,674.—Working and using Sugar Evaporators.—Luke W. Bodwell, Ann Arbor, Mich.:
I claim the combination and arrangement of the eccentric shaft and cam. A a, thefulerum or center of motion, E, the flue, R, sliding plate, f, opening, T, enlargement, S, in connection with the arch, J, combined and arranged as and for the uses and purposes set forth in the foregoing specification.

the loregoing specification.

41,675.—Protecting Lead Pipe against the Action of Water.—Leopold Brandeis, Brooklyn, N. Y.:

I claim theapplication of hydrogen or any other gas in combination with sulphur for the purpose producing a sulphite of lead, on which water cannot act, and thereby do away with any danger of lead-poisoning, even if water should be kept standing in suchpipe or vessel.

vessel.

41,676.—Opening and closing Iron Blinds or Shutters.—
William H. Brown, Worcester, Mass.:

I claim, first, The combination with a sliding blind of the slats, b, connecting rod, c, lever, G, rack bar, u, and sliding shaft, n, with its gear, m, arranged and operating together, substantially as and for the purposes set forth.

Seconp, The combination with a sliding blind of the lip, e, spring, l, ratchet wheel, o, and pawl, t, for the purposes stated.

41.677.—Cultivator.—C. J. Buchner, Paxton, Ill.:
I claim the combination of the horizontal connecting plate, a, peudent slotted plates, b b and f f, beams, g g, rods, i i, bracing foot bars, G G, and transverse bars, R K, all as herein shown and described.

This invention relatesto a corn-planter of that class which are ounted on wheels and are provided with a driver's seat. The object of the invention is to obtain a plow of the class specified which may be manipulated by the driver with the greatest facility and be completely under his control, and also have a draught equalizer of simple construction to insure an even pull of the team and an uniform draught movement of the machine.]

Fastening for Breast-pins.—Gaspard Buhler,

41,678.—Fastening for breast-plus.—Gasparu Buller, Newark, N. J.:
I claim, first, The single ord onlie U-shaped clasp, B, hinged to the under or inner surface of a treast-pin, button, stud or other similar article, and operating in combination with the point, f, projecting from the inner surface of said breast-pin or other article, substantially as and for the purposes herein shown and described.

Second, The application of the secondary clasp, C, in combination with the main clasp, B, points, f t', and; button or other similar article, A, arranged and operating in the manner and for the purpose substantially as set forth.

41,679.—Governor.—John P. Burnham, Chicago, Ill.: I claim the lever, E, with the slotted link, h, and friction wheel in combination with the rocking shaft, C, and sleeve, g, of the go

nor, A, all constructed and operating in the manner and for the pur pose substantially as herein shown and described.

(This invention consists in a slotted link secured to a lever which is suspended from a rock-shaft in combination with an ordinary ballgovernor and with a friction wheel, which works within the slotted link in such a manner that when the balls of the governor fly out. the slotted link is pressed up against one side of the friction wheel, and the steam-valve is closed or the effective surface of the sails of the wind wheel decreased, and when the balls sink down, the link is pressed up against the opposite side of said friction wheel, and the steam valve is opened, or the effective surface of the sails increased, and by this means the speed of an engine and wind-wheel can be rendered self-regulating.1

41,680.—Sugar-cane Mill.—Wm. H. Clark Cincinnati, Ohio, and Walter E. Edgerton, Spiceland, Ind.: We claim, first, So arranging the connecting gearing of three-roll cane mills, that the minor rolls may be placed and worked with their faces nearly in contact, for the purpose herein described. Second, Supporting the lower ends of the roll shafts in oil-tight cup boxes, adjustable vertically, substantially as described. Third, Arranging the stay-rods or bolts, e.c., &c., obliquely in opposite directions, as and for the purpose specified. Fourth, The construction and arrangement of the scrapers, h, in reference to the rolls, A and C, for the purpose described. Fifth. The false plate, E, adjustable to the lower ends of the unfanged rolls, B C, and resting against the circumference of the flange of the roll, A, in combination with the adjustable rolls, A B C, substantially as described.

Mantially as described.

41,681.—Sugar-cane Mill.—Wm. H. Clark, Cincinnati, Ohio, and R. R. James, Rising Sun, Ind.:

We claim, first, In combination with the regular main-pressure roll. D, and delivery roll, F. the use of the fluted feed roll, E. when arranged and operating in connection with the former in the manner and for the purposes herein described.

Second, We claim the hand-hole, I, in the end plate and cap, h, when the latter is so constructed and adapted to the plate as to form in connection therewith a plain face on the inner side, as and for the purpose specified.

Third, We claim the vibrating or self-adapting conductor, G, in combination with either a plain or fluted feed roll, for the purpose described.

scribed.

Seribed to combination with the juice channel, j, extending into the triangular space between the rolls, we claim the bridge plate, k, for the purpose specified.

Fifth, We claim the grooves, m, in the end plates and the grooves, a, in the ends of the rolls either separately or in combination for the purpose described.

41,682.—Sofa Bedstead.—Francis Cotton, Brooklyn, N. Y.: First, I claim tightening the sacking, B, substantially as described for the purpose specified.

for the purpose specified.

Second, I claim the use of the hinged levers, E, constructed as shown, in combination with thesofa, A, sacking, B, secondary frame, C, and rubber springs, h h, in the manner and forthe purpose or purposes specified. 41.683.—Door Bell.—Nathan F. Cone, La Crosse Wis

41,693.—Door Bell.—Nathan F. Cone, La Crosse, Wis.; First, I claim, in combination with the bridge or bar, B, the screw-threaded stem, A', formed or cast in one piece with the bell, A, so as to avoid or permanently close any aperture in the said bell, substantially as described.

Second, In combination with the bell, A, rotating shaft, cam, E, frog, G, and one or more hammers, D.D'. I claim the bar, B, inclosed within the bell and employed for the attachment of the latter, in the manner herein explained.

[This invention relates to that class of door bells in which the striking mechanism is operated by rotating the knob, and the present improvement consists in dispensing with all external appliances as a

41,684.—Fixed Ammunition for Fire-arms.—George Con-

over, Middletown, Conn.: I claim the combination with the shell, A, of the chamber. B, disk, l, nipple, a, and percussion cap, i, substantially as and for the pur-lose herein specified.

[This invention relates to the use in fixed-ammunition cartridges, for loading in front of the chamber or chambers of or at the muzzle of a fire-arm, of a second charge of gunpowder, for the purpose of expelling the case or shell of the cartridge through the barrel and out at the muzzle of the fire-arm, in which the cartridge is used ; it con-

at the indizate of the fire-arm, in which the cartriage is used; it consists in a novel mode of applying and igniting such second charge.]

41,685.—Mode of manufacturing Alcohol from Olefant Gas.—E. A. Cotelle, Paris, France:

I claim forming alcohol from olefant gas and water by means of diluted acids acting only by their presence without reconcentration or revivification, substantially as herein described.

41,686.—Gang Plow.—F. R. Crothers, Sparta, Ill.:
I claim, first, Hinging the axletree to the frame of the machine so
that the former will swing forward of its hinge connection, in combination with the thrusting connecting rod, N, chord or chain, m, and
windlass, P, all applied and operating substantially as described.
Second, The use of a stiff rod, N, In combination with a windlass,
p, and a hinged axle, D, operating substantially as and for the purposes described.

Third, The manuer of attaching the draft role P to the play beau.

ses described. Third, The manner of attaching the draft pole, P, to the plow beams, ibstantially as and for the purposes described.

41,687.—Preparation for destroying Vermin.—John W. Dodge, New York City. Ante-dated Feb. 21. 1864: I claim the withindescribed composition, mixed together, of the ingredients herein specified, substantially in the manner and about in the proportion set forth.

[The object of this invention is a composition which will, in every case, kill all kinds of vermin that infest the human head or body, and also cattle and plants, and which is equally effective on bedbugs

-Machine for making Splints for Barrel Hoops.

—John B. Dougherty, Rochester, N. Y.:

I claim the within-described machine for preparing at one operation, hoop splints ready for market, said machine being constructed and operating substantially as set forth.

All, 689.—Rocket.—Isaac Edge, Jersey City, N. J.:

I claim a telescope tail to guide and rotate a rocket in its flight, by means of wings fixed to rods held at each end by rings made to slide or close on the rocket and be partly withdrawn and fastened to the end of the rocket when in use, the wings being then expanded and secured from spreading by means of ties or straps, substantially as described.

41,690.—Refrigerator.—John N. Ehrsam, Hoboken, N.J. Ante-dated Feb. 12, 1864:

I claim the arrangement of the water-chamber, F, covering the whole area of the bottom of the refrigerator, in combination with the ice-diamber, B, and the serpentine pipe, E, connected with and receiving the discharge from said ice-chamber, all asherein shown and described.

(This invention consists in the application to a refrigerator of a salt-water reservoir in combination with the ice chamber and with a serpentine metal pipe conducting the ice water through the salt-water eservoir in such a manner that the temperature of the salt water is brought down to and kept at a low temperature by the acti ice water passing through it, and thereby an additional refrigerating agent is obtained.]

41,691.—Lime-kiln.—Edward B. English, Philadelphia,

Pa.:
First, I claim the arrangement at or near the base of the chimney, of the damper, a, or its equivalent, as and for the purpose set forth.
Second, The chambers, W and X, when formed and arranged in respect to each other, as and for the purpose specified.
Third, The fire-places, FF, with their diverging sides when combined with the chamber, W, as and for the purpose described.

41,692.—Turn-over Shirt-collar.—Nathaniel Evans, Jr.,

I claim a turn over sbirt collar with a concave bottom and turned over on a line parallel with said bottom, substantially as setforthand for the purposes described.

41,693.

,693.—Churn.—S. D. Frazier, Tekonsha, Mich.: I claim the combination and arrangement of the central dasher, and outer dasher, H, provided with the arms, i, and angular ngs, K K, when the same revolve in opposite directions and are spended from the top of the churn, substantially as herein set rth.

th. also claim the slotted plate, I, in combination with the central her shaft, a, and the adjustable pinion, E, whereby the same deanswers the double outpose of suspensiting the shaft and holding pinion either in or out of gear, substantially as herein described.

41,694.—Skate.—Henry Getty, Brooklyn, N. Y.: I claim the means of adjusting the parts, E and E', as herein fully described.

41,695.—Tool for clipping and clinching Horse-shoe Nails.—Joel E. Giles, Marshall, Mich.:

Tains.—OUL E. Giles, maistait, Mich.

I claim the combi ed arrangement of the clinching jaws, a b, and cutting lips, D D, arranged relatively with each other and with the levers, A and B (to which they are respectively connected), and with the falerum pin, C, substantially in the manner and for the purposes herein specified.

-Railroad Track-raiser.-Prosper Gillett, Han-

nibal, Mo.:

I claim the lever, G, and pawl, F, in combination with the plates b, and pin, a' and with the rack, c, and lever, E, all constructed an operating in the manner and for the purpose substantially as shown and described.

The object of this invention is a combination of levers with oothed rack provided with a suitable toe, whereby a considerable power can be exerted on the track to be raised, said levers being so arranged in relation to each other and to the toothed rack that by the action of one lever said toothed rack can be released and dropp to its original position.]

41,697.—Gas Stove.—James S. Gray, New York City I claim, first, The combination of the wick tube, the vapor tu the valves, the wire-gaure screw, and the heater-cap, with the centar tube, substantially in the manner described for the purposes

Second, The central tube, K, combined with the outer tube, J, as set forth.

set forth.

41,698.—Clothes Frame.—John Greek, Evansville, Ind.:
I claim the combination of the post, A, the hubs, CC the arms, b
b', jointed together at or near their extremities, and the cord, D,
passed through or around both the upper or lower members of the
arms, all as bereinbefore described and for the purposes specified.

arms, all as hereinbefore described and for the purposes specified.

41,699.—Rotating Valve for Steam Engines.—W. R.
Greenlea, Silver Creek, N.Y.:

I claim, first, Constructing an oscillating valve with induction and eduction passages so arranged around its periphery that the steam will enter at one end and exhaust at the opposite end of each valve, substantially as described.

Second, A tapering or conical valve having induction and eduction passages arranged around its periphery, which are alternately opened at opposite ends of the valve, substantially as described.

Third, The combination of end-receiving and end-discharging valves with their shells, B B', constructed with circular induction and eduction passages, a a a b b b, substantially as and for the purposes described.

ribed.

Jurth, I claim the arrangement consisting of the valves, F F',
ws, G G, arms, i i, connecting rod, K, and handle or lever, L,
stantially as and for the purpose set forth.

substantially as and for the purpose set forth.

41,700.—Self-feeding Blacking Brush.—Gideon Hamilton & John Post, New York City:
We claim, first, The fountain handle, B, of a blacking brush, so
constructed as to be filled with figuid blacking and to discharge it at
pleasure through the tubes, m, substantially as shown and described.
Second, The valve, h, the valve stem, i, the thumb handle, k, the
combined spring and stuffer, a, when used substantially as and for
the purpose described.

41,701.—Metallic Shank for Boots and Shoes.—Edward Heaton, New Haven, Conn.:

I claim the combination with a metallic shank of an auxiliary spring, substantially in the manner and for the purpose specified.

41,702.—Lamp.—James Higgins, Cambridge, Mass.:
I claim the combination of the two concentric elliptical tubes, for the circular cup, D, provided with an elliptical flange, d, and the circular removable plate. A, provided with an elliptical guard, k, all the said parts being constructed, arranged, and employed in the manner and for the purposes herein specified.

By this invention a much larger and more brilliant flame may be produced, and the lamp adapted to burn as brightly when most of the oil is exhausted as when full.]

the oil is exhausted as when full.]
41,703.—Smut Mill.—Simeon Howes & A. Babcock, Silver Creek, N. Y.:
We claim so constructing a smut mill having two stationary cylinders that a central draft of air from the bottom thereof, shall be forced or drawn upwards through the casing of the scouring beared and also a draft between said casing and the outer casing of the scouring apparatus, and centrally thereof, substantially as described for the purpose set forth.

11,704.—Turning Bayonet Sockets.—John Humphreys,
Millbury, Mass.:
I claim the combination and arrangement of the rotary cutter
head or stock, G, and the slide rest, F, with the tool carriage, D, and
the mandrel, C, the whole being to operate substantially in manner
and for the purpose as specified.

and for the purpose as specified.

41,705.—Machine for washing Wool, &c.—James Hunter,
North Adams, Mass.:
I claim the cylinder, O, provided with floats, D, having an oblique
position in combination with the concave, B, and the box or tank, A,
for the purpose set forth.
I further claim the combination of the feed apron, F, cylinder, C,
provided with floats, D, and the discharge pressure rollers, G G, all
arranged for joint operation, substantially as herein described.

41,706.-Machine for coping Sash.-Tisdil B. Jones, Pat-

erson, N. J.:
I claim the combination of gouge, F, slide, D, and lever, C, when
constructed and operating substantially as described.

41,707.—Saw-mill.—John L. Knowlton, Bordentown, N. J.:

N. J.:

I claim the employment or use in a sawing machine for sawing ship and other timber in curved and beveled form, of a feed roller, E, arranged substantially as herein shown and described, so as to admit of a vertical adjustment and also of an oblique adjustment relatively with the saw, for the purpose specified.

I also claim in combination with the feed roller, E, thus arranged, a swivel pressure roller, M, as and for the purpose set forth.

[This invention consists in a novel arrangement of a feed-roller, whereby the same is rendered capable of being thrown in contact with or free from the log, and also of being adjusted in such a manner as to cause the log or stuff to be fed to the saw in a direction corbe straight or curred, thereby causing the saw to work in line with the cut and avoiding much friction in the working of the former, as well as much wear and tear. The invention further consists in a par-

ticular manner of grooving the feed roller, whereby the log is prevented from slipping laterally while being fed to the saw, and in using in connection with the feed-roller a swivel pressure-roller for keeping the log firmly upon its bed while being sawed.]

41,708.—Washing Machine.—William Kyle, New York

City: claim the relative arrangement of the axles and body or case, combining the bars as described, the whole operating in the man-and for the purposes set forth.

41,709.—Cultivator.—John Lacey, Chicago, Ill.:
I claim, first, The arrangement of the pivotal bells or pins, c and d, and the holes, a and b, the movable beams, A' and G, stirrup, I, and bars, H, for regulating and adjusting the draft of the plowa Second, The combination of the lever, R, the rest or stop, e, connecting bar, S, bow, T, pivotal bolts, c and d, with the movable beams, A' and G.
Third. The combination

' and G.
Third, The combination of the bars, **H**, stirrup, **I**, and chain, **M**,
th the movable beams, **A**' and **G**.
Fourth. Hinging the rear ends of the movable beams, **A**', betweeu
he front and rear plows by the pin, c, so as to move such front and
ar plows in opposite directions, all being constructed and operating
abstantially as set forth and specified.

41,710.—Separating and sorting Ores, &c.—Edward Law son, Island Pond, Vt.:

1.710.—Separating and sorting ores, &c..—ruwaru lawson, Island Pond, Vt.:
I claim the sorting or separating of ores and other matter, by placng the same within a cylindrial or other suitable shaped vessel of
uch diameter that the ore or other matter will be kept in a mass
ville it is elevated by an upward pressure of a column of water, and
y reducing or stopping the pressure of said column of water, the
re or other matter be allowed to separate and dispose itself in layres according to their specific gravity, substantialy as set forth.
I further claim the elevating of the sorted or separated ore or other
natter, within the vessel aforesaid, by means of a piston interposed
netween the ore or other matter, and the ascending column of water
inder pressure, for the purpose of preserving the relative position of
the layers or parts of the separated ore or other matter while the
ame are being discharged from the vessel, as herein described.

[This invention consists in sorting or separating ores and other
natter through the agencies of hydrostatic pressure and specific

matter through the agencies of hydrostatic pressure and specific gravity. In carving out this invention a cylindrical or other suitable shaped vessel of proper dimensions is employed, the lower end of which communicates with an elevated reservoir, the induction pipe being provided with a valve and the vessel provided with a perform

41,711.—Beehive.—Horace Markham, Henderson, Ill.:

I claim having the entrance slide provided with hooks, m. in combination with notches, n, in the hire-front, so as to regulate the size of the entranceaperture, as here shown and described.

[This invention relates to an improved feed chamber applied to the

hive and arranged in such a manner that the bees may, when neces sary, be supplied with food with the greatest facility, and the feedthe rat the same time made to serve the purpose of a robber The invention also relates to an improvement in a slide applied to the bee-entrance, and arranged in such a manner that the be trance may be increased or diminished in area as circumstances may require. The invention fu ther relates to an improved means for preventing insects from obtaining admission into the hive.]

41,712.—Mode of preserving Chopped Meats, &c.—W. C. Marshall, New York City:
I claim, first, The use of cylindrical tubes, A, of cotton or other textile material, substantially such as herein described for the purpose of preserving animal fiesh or meat.
Second, The application of elastic bands, B, to the bags, A, after the same have been filled and tied, substantially as and for the purpose set forth.

[This invention consists in the employment or use of cylindriac tubes made of cotton or other textile fabrics, and tied up at the ends like sausages in such a manner that said tubes take the place of the intestines generally used in the manufacture of sausages and that dry dessicated meat chopped or reduced to more or less fineness can be preserved with a saving in labor equal to fifty per cent of that ordinarily required; the invention consists also in the application to said cylindrical tubes, after they have been filled with meat and tied at the ends, of elastic bands made of india-rubber or other suitable material and embracing the tubes at short intervals in such a manup tight to the meat and no retying of the bands is required as the eat shrinks and its bulk diminished.1

41,713.—Grain Drill.—Anton Maschka, Chicago, Ill.: I claim in combination with the double oblique seed boxes, P T, ar., nged respectively in front and in the rear of the seed covers, the vers, A A', rope, x, and crank shaft, s', for the purpose of planting te grain at various depths and for adjusting the depths of the seed wers, P', substantially in the manner herein described.

41,714.—Self-acting Sled Brake.—Calvin E. Myers, Bristol. Vt.:

tol, Vt.:
I claim, irist, The combination of the sliding frame, E, draft pole, F, and dogs, H, all constructed, arranged, and operating in the manner and for the purpose set forth.

Second, In combination with the above, I claim the hook. I, and eye, b, for preventing the movement of the frame, E, as explained.

The object of this invention is to obtain a simple brake for sleds which will be self-acting and capable of being rendered inoperative when desired by a very simple manipulation.]

Hay-elevating Fork.—D. F. Neikirk, Republic,

1.715.—Hay-elevating fork.—D. f. Neikirk, Kepudlic, Ohio:

I claim, first, A hay-elevating fork constructed substantially as terein described and hinged to its handle at a point about midway of he length of its tines, and controlled by means of devices, g k i m, Second, A pivotal connection, d, when passed through the fork at a coint about midway of the length of the tines, and supported by decies, e f, in the manner and for the purpose described.

Vices, e. i. the manner and for the purpose described.

14.716.—Washing Machine.—J. E. North, Candor, N. Y.:

I claim, first, In combination with the tub, B, the rubbers, C C', provided with cavities, c, operating in the manner described and employed in connection with the rod, D, roller, F, and levers, G H, substantially as and for the purposes specified.

Second, I claim the trough, J, employed in combination with the shaft, D, and aperture, b, in the manner and for the purposes described.

cribed.

Third, I claim the combination with the shaf, F, and rod, D, of the egment, S, and rack, D', as and for the purpose specified.

[This invention chiefly consists in the employment of a novel system of levers by which the power required to operate the rubb-may be increased or diminished in conformity with the strength

the operator.]

41,717.—Connection for Barrel Rafts.—R. W. Park, Alle

gheny City, Penn.:

I claim combining the bars forming the can hook by means of thumb-screws, P. popera ing in the slots, M. M. when said bars provided with eyes, H. H., at or near their ends, in the manner inertin shown and set forth.

ein shown and set forth.

also claim the adjustable crab (Fig. 3), having several bearings
also claim the adjustable crab (Fig. 3), having several bearings
auast the chine of the barrels, for holding them end-ways while in
a water, and prevent abrasion by means of the crab and swivel
ts, substantially in the manner as herein before stated.

-Securing Bits in Braces.-Obed Pcck, Windsor.

V.: I claim the screw, "C, passing transversely through the socket, and provided with the nut.c, and head, d, the latter being notched form a projection, f, to fit in a recess, g, in the shank, b, of the substantially as and for the purpose herein set forth.

[This invention consists in having a screw pass transversely through the socket of the brace or bit-stock, said screw being provided with a head which projects laterally from it, and has a notch made in it to form a projection which, by means of a nut on the screw, is drawn into a recess in the shank of the bit, so as to firmly secure the bit to the brace or bit-stock.

41,719.—Boat and Pontoon.—Edward L. Perry, New York City. Ante-dated Feb. 7, 1864: I claim the combination of the chambers, A A', bars, b, swinging

keel, D, and rope, E, all constructed and arranged substantially as and for the purpose specified.

41,720.—Hook for fastening Umbrellas.—Wm. H. Richardson, Philadelphia, Pa.:
I claim the hook fastening for umbrellas and other articles of wearing apparel, constructed and operating substantially as and for the purposes specified.

purposes specified.

41,721.—Machine for cutting Tobacco.—F. W. Riterhoff & C. A. Colquitt, New York City:

We claim, first, The application of one or more oscillating adjustable levers, H, in combination with cams, G, tappets, J, lever spring catch, L, ratchet wheel, N, ser we spindle, M, follower, O, box, F, and cutter-wheel, D, all constructed and operating in the manner and for the purpose substantially as herein shown and described.

Second, The laterally-sliding nut, F, in combination with the screw spindle, M, and box, F, constructed and operating in the manner and for the purpose substantially as set forth.

41,722.—Baling Press.—Benjamin Roberts, Clintondale, N. Y.:

N. Y.: claim the combination of the levers, G G, links, F' F', props, leys, k k, endless rope, n, drum, J, gearing, L L', and large wheel, M, all arranged and operating substantially as described.

41,723.—Apple Mill.—George S. Rust, Chester, Ill.:
I claim, first, Attaching the concaves, D D', of fruit mills to the ends of pendant pivoted arms, d d', at an intermediate point between the ends of these concaves, substantially as and for the purposes described

Second While not claiming broadly alternately sibrating con-

scribed
Second, While not claiming broadly alternately vibrating concaves, I do claim supporting said concaves or crushers, by means of pivoted vibrating arms, d. d. in combination with a roboting drum or its equivalent, substantially as and for the purposes described.
Third, The eye-botts, d. y, serving as hing as and adjusting devices to the concaves, substantially as described.

41,724.—Plates for printing Bank-notes, &c.—Alfred Sellers, New York City:

I claim the manufacture of plates for engraving and printing purposes, composed of a layer of iron and a layer of steel, combined substantially as herein described, the iron forming the face and the steel the back of the plate, as herein specified.

1,725.—Button-hole cutter.—Michael M. Shellaberger, Randolph County, Ind.: I claim the guide, e, and guard, d, in combination with a button-ole cutter, constructed and operated substantially as herein set

1,726.—Mode of raising Sunken Vessels.—Joseph H. Smith, Cohasset, Mass.:

I claim the application or arrangement of the fore and aft chains, B C, and their sets of reeving eyes, a a, together and with the hull, A, of a vessel, substantially in manner and so as to operate as specified.

41,727.—Fibrous Batting or Wadding.—John T. Stoddard, Plymouth, Mass.:

I claim my improved nannifacture of fibrous batting, as made substantially in manner and for the purpose as herein before specified.

41,728.—Cultivator.—James Swart, Hoffman's Ferry, N. Y.:

N. Y.:

I claim the mould-board, A, constructed with flat-faced wings, e e, narrow at the base and wider toward their ends, having straight loweredges, ff, and rounded outer ends, g, all as herein shown and explained and for the purpose specified.

41,729.—Paint Composition.—William Ten Eyck, Pike Township, Pa.:

I claim compounding and mixing together the aforementioned ingredients to form a paint composition, substantially as herein described.

-Mosquito Canopy.-M. L. Thompson, Brooklyn,

N. Y.:

I claim the folding canopy frame, composed of the x bars, a and b, und double-cross bars, d and e, to which are attached the cords or ines, f and g, as, and for the purposes specified.

I also claim the arms, h h, and cords, k, in combination with said anopy frame, for the purposes specified.

other Fibrous Materials.—Wm. Waukley, Albion Mills, Bury, England. Patented in England, July 30, 1862: 41,731.—Machine for treating Compressed Cotton and other Fibrous Materials.—Wm. Waukley, Albion

ou, 1002. I claim the arrangement and construction of the closed steaming vessel having a perforated false bottom and receiving the steam below said false bottom, substially in the manner and for the purpose set forth.

41,732.—Breech-loading Fire-arm.—James Warner,

41,732.—Breech-loading Fire-arm.—James Warner, Springfield, Mass.;
I claim the construction of the semi-cylindrical recess, f, of a diameter corresponding to that of the flange of the metallic cartridge, in combination with the semi-cylindrical breech-piece projection, h, the recess, I, and the hammer, E, as herein shown and described, so that when the breech-piece is open, the cartridge case will be guided in an exact line with the barrel, both in loading and withdrawing the case; and when the breech-piece is closed, the solid portion thereof, or semi-cylindrical projection, will press against the rear of the cartridge shell, while the fall of the hammer will lock the breech-piece and prevent it from being blown open by the accidental rearward bursting of the shell; the premature discharge or striking of the hammer upon the cartridge-pin being also avoided; all as set forth.

nammer upon the cartringe-pin being also avoided; all as set forth.
41,732.—Hay-elevating Fork.—Seth Wheeler, Albany,
N. Y.:
I claim, first, A horse-fork for handling hay and other substance,
constructed with curved teeth or tines which converge toward one
another and are united so as to dispense with the ordinary crosshead and yet afford a suspending loop or eye, substantially as and
for the purposes set forth.
Second, Attaching the tines, d dee, to the tines, A a a, in the
manner described.

41,734.—Harvester.—Wm. N. Whitely, Jr., Springfield, Ohio:
I claim connecting the external or ground face of the wheel, B, with the internal gear, n', by a convex siderim or projecting portion, j, substantially as described, for the purpose set forth.

intially as described, for the purpose set forth.

--Foot Shield.—Dewitt C. Winans, New York

1,735.— FOUL SHICK.— Description of a shield, D, constructed of metal rother suitable material and of such a form as to encompass the out while its ends rest upon the sole of the boot or shoe, and placed or adjusted in such a position as to be interposed between the foot and the skate straps to relieve the former of the pressure of the later, substantially as set forth.

ter, substantially as set forth.

41,736.—Battering or piercing Ram for Naval Offense and Defense.—Jerome B. Woodruff, Washington, D. C.: I claim, first, The arrangement of the steam cylinder and a hollow piston which passes through a stuffing-box, in a sliding segment, the same being fitted to move up or down in a groove, water-tight, so that the plunger can be changed in its position, while in operation, substantially in the manner herein described.

Second, I claim the plunger, C, the same being in serted at the rear end, and passing through the hollow piston, D, and secured in its place, to be operated by steam-power in the manner described, for the purpose of offense and defense in naval warfare, as specified.

41,737.—Bolting Flour, &c.—J. Wright, St. Louis, Mo.: Iclaim, first, The spiral screen, D', one or more attached to a vertical rotating shaft, A, in connection with a spiral chute, D, also attached to the shaft, A, the screen and chute, being encompassed by a case, E, and all arranged to operate, as and for the purpose herein set forth.

ac case, E, and all arranged to operate, as and for the party set forth.

Second, The hopper, F, attached to the shaft, A, above the screen, D, in combination with the stationary scraper, G, and the opening, n, in the bottom of the hopper, for the purpose herein set forth.

Third, The annular troughs, I I, on the base, B, and underneath the screen, D', and chute, D, when used in connection with the screen and chute arranged on the shaft, A, and the spouts, J J', for the purpose specified.

invention consists in having one or more spiral screens and a spiral chute attached to a vertical rotating shaft and enclosed by a suitable case, whereby the flour, beans, or other substance to be bolt ed or screen d, will be allowed to pass down and over the scree chute as the latter revolves, and be bolted or screened in the most

horough manner. The invention also consists in using in connection with the spiral screen and chute aforesaid, a hopper the screen shaft, has an opening in its botto arranged to operate with a scraper in such a manner that the flo or other substance to be bolted or screened will be fed properly to the screens. The invention further consists in a means employed for glving a vertical and a lateral shake motion to the screen and chute to ensure a perfect operation of the same, by preventing clogging and causing the article, while being screened, to pass freely over the

41,738.—Lifting Jack.—Ebenezer Young, Camden Centre, Mich.:

tre, Mich.:

I claim the lever, C, provided with oblong slots, c, having notches, d, at its outer end, in combination with the bail, D, and a suitable frame in which the lever, C, is itted; all arranged to operate substantially in the manner as and for the purpose herein set forth.

41,739.—Potato-digger.—Peter Antonides, Freehold, N. J., assignor to himself and George W. Mayher, New York City:

I claim, first, The fork, F, attached to the front part of the bar, D, when used in combination with the share, C, and screen, E, as and for the purpose specified.

Second, The hooks or curved terminals, d, at the ends of the prongs, c, of the screen, E, substantially as and for the purpose specified.

[This invention relates to an improvement in that class of potato-diggers which are composed of a share with a screen attached to its back erect. The invention consists in attaching to the front part of a potato-digger of this kind a fork, arranged in such a manner as to a potato-digger to this annua tota, arianger in such a mainter as we effect a partial separation of the earth from the potatoes, before the latter fall or pass upon the screen, thereby relieving the screen or greatly aiding it in its work. The invention also consists in the employment or use of an inclined bar, attached to the implementin such a manner that it will serve as a guard to protect the screen from weeds, grass, and similar trash, which prevent it from operating perfectly. The invention further consists in having the outer prongs of the screen at each side formed with hooks at their ends in order to level the ridges of earth formed at each side of the implex it is drawn along, and to separate the potatoes therefrom, so that they will be left upon the top of the earth.]

41,740.—Horse Rake.—James B. Drake (assignor to A. B., E. F., S. E., & L. B. Sprout), Picture Rocks, Pa.: I claim the application of the spring, A, to the tooth, B, spool, C, and staple, D, asherein described.

This invention relates to an approved manner of applying the teeth, whereby they may be elevated with greatfacility and returned automatically to their working position.]

41,741.—Lock and Latch.—H. H. Elwell (assignor to the Norwalk Lock Company), South Norwalk, Conn.:
I claim the employment or use of a sliding or adjustable pin, d, in the lever, D, in connection with a recess, b, in said lever to receive the inner end of the latch-bolt, C, substantially as and for the purpose herein set forth.

the inner end of the latch-bolt, C, substantially as and for the purpose herein set forth.

41,742.—Machine for stamping Carpenter's Squares.—
Horace K. Jones (assignor to Hart Manufacturing Company), Kensington, Conn.:
I claim first, The combination of the loses and removable roller, K, self-adjusting bed, G an courninge, F, constructed, arranged, and operating, substantially as and for the purpose set forth.
Second publication of a roller which carries the dies with a self-adjusting bed and a weighted lever, substantially as and for the purpose herein shown and described.
41,743.—Cultivator.—John Lacey (assignor to himself, Conrad Furst and David Bradley), Chicago, Ill.: I claim the combination and arrangement of the movable adjustable frame, B, pvoted lever, D, segment pinion, C, and rack, h, with pulleys, a, rod, b, and foot levers, k, the whole constructed and operating in the manner and for the purposes herein set forth.

41,744.—Car Brake.—George S. Miller, Thompsonville, Conn., E. B. Peck, B ridgeport, Conn., and William Olmsted, Thompsonville, Conn., assignors to said G. S. Miller & E. B. Peck:
We claim the employment of the flanges, G H, upon the axle, B, in combination with a double-acting lever, J, and connecting rod, I, substantially as and for the purpose described.

41,745.—Watch-guard or Safety Chain.—Edwin J. Morse

unstanually as and for the purpose described.

1,745.—Watch-guard or Safety Chain.—Edwin J. Morse (assignor to himself and Josiah D. Richards), North Attleborough, Mass.:

Iclaim the said watch guard or chain as constructed of the two gries of staple links and the series of grooved blocks, made, comined, and arranged together, substantially as herein before exlained.

bined, and arranged together, substantially as herein before explained.

41,746.—Harvester.—Edgar M. Smith (assignor to Mitchell, Vance & Co.), New York City:

I claim in combination with the main driving and supporting wheels running loosely on their axle or journals, the main gear wheels, I vanning loosely on the hubs of said drive wheels, and having a ratchet and pawl connection with each other, substantially in the manner and for the purpose herein described and represented. I also claim the arrangement of the two setts of plates and boxes, on the opposite sides of the main frame, so that the cutting apparatus may be arranged on eitherside as set forth.

I also claim in combination with the two setts of plates arranged on opposite sides of the main frame, the curved bar or brace, F, extending from one to the other, so as to leave unobstructed space at I, for the free action of the rake, as described.

I also claim in combination with the loose and shifting main wheels, and main cogged gear, the pinions, b, permanently arranged on the shaft, d, so that said loose and shifting wheels will, when on eitherside of machine mesh, with said pinions as set forth, whichever end of the machine goes foremost.

I also claim banging the reel blades, to the reel shaft, by means of the crossed arms, and adjustable heads, hubs, or sockets, for the purpose or enlarging or diminishing the circumference of the reel, substantially as described.

41,747.— Screw Wrench.—George C. Taft, Worcester,

subitantially as described.

41,747.- Screw Wrench.—George C. Taft, Worcester,
Mass., assignor to Thomas H. Dodge, Nashua, N. H.:
I claim the combination in a wrench in which the strain is transferred from the ferrule to the shank as described, of one or more grooves, b, with perpendicular rear and bevelled or inclined from side or sides, with one or more projections, c, of corresponding form, on the rosette, F, substantially as and for the purposes set for h.

on the rosette, F, substantially as and for the purposes set for h.

41,748.—Grain-dryer.—Henry Wood, Montreal, C. E.;
George Henry Fourdrinier, Lyn, C. W.; and Margaret L. Haselden, Montreal, C. E., executrix of Richard Haselden, deceased:
We claim, first, The employment or use for the purpose of drying grain of a cylinder, B, revolving on wheels, a', and hubs, a', secured to its circumference and provided on its inside with spiral fianges, d. and litters, e substantially in the manner herein shown and described. Second, The steam colls, C, and jacket, B, arranged in combination with the perforated cylinder, B, rotated by means of the friction rollers, a', and with the louvers, F, in the manner and forthe purpose set forth.

Third, The rotary cooler, G, provided with spiral passages, j, between two perforated cylinders, ii, and with fan-blowers, k, to which motion is imparted by a sun and nlaner executions.

set forth.

Third, The rotary cooler, G, provided with spiral passages, i, between two perforated cylinders, i, and with fan-blowers, k, to which motion is imparted by a sun and planet gear, m m', in the manner and for the purpose substantially as here in specified.

Fourth, The compartment, G*, in combination with the cooler, G, elevator, J, and chimney, H, or its equivalent constructed and operating in the manner and for the purpose substantially as described.

RE-ISSUES.

3.—Folding Chair.—John A., William F., & Isaac N. Dann, New Haven, Conn. Patented Jan. 6, 1863: claim the combination of bent or curved arms, with the cross

legs of folding chairs, when the said arms are pivoted or hinged to the two legs which sustain the front of the seet, and the other or upper end of the arms secured to the back by means of slots, whereby the several parts may be folded into a compact form without disconnecting the said curved arms from either back or legs.

connecting the said curved arms from either back or legs.

.,624.—Sash and Door Fastening.—Ross Johnson, Frederick, Md. Patented May 29, 1860:
I claim the within-described implement, 01, as a door and window-ash fastener, substantially as set forth.

.,625.—Sewing Machine.—A. B. & N. H. Shaw (assignees of A. B. Shaw), Swanton, Vt. Patented Dec. 16, 1862:
I claim the combination of the lifting cam and pin, x, with the eed lever, and a spring applied to the said lever, to operate subtantially as and for the purpose hereinspecified.

feed lever, and a spring applied to the said lever, to operate substantially as and for the purpose hereinspecified.

1,626.—Harvester.—Mitchell, Vance & Co. (assignees by mesne-assignments of John Powers & E. M. Smith), New York City. Patented Jan. 14, 1862:

I claim, first, The combination of the upwardly curved arms, D, and sliding bars, F, when united by a hinged joint, a, substantially as and for the purpose described.

Second, The combination of the outwardly curved arms with the wide-spread bearings or boxes, b, for the purpose of bracing the shoe and finger bar tothe maint rame in the direction of their greatest strain, substantially as described.

Third, The combination of the sliding lever, N, with the lifting segment, K, and shoe, C, and their fiexible connections, o q, for the purpose of raising up, holding up, or lowering, the finger bar and cutting apparatus, substantially as and for the purpose described.

Fourth, The curved, flanged, or angle-iron bars or plates, st, for uniting the longitudinal pieces, rr, as herein represented and for the purpose described.

Fifth, Theguard fingers having-backs, h, and ledges, k, extending continuously along the bar so as to present closed surfaces in front and beneath, and formed with channels or grooves, i, extending beneath the sickle bar, and partially around the bolt-holes, I, and open at the back to permit the ready escape of moisture, gum, or other foreign matter, and thus avoid choking or clogging, substantially as described.

DESIGN.

1,903.—Stop-cock.—Henry G. Morris, Philadelphia, Pa.



S ATENTS

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CHAS. MASON.

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Very respectfully, your obedient servant,

J. Holf.

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WM. D. Bishop.

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FOREIGN PATENTS.

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MESSRS. MUNN & CO., having access to all the patents granted ince the rebuilding of the Patent Office, after the fire of 1836 , can furnish the claims of any patent granted since that date, for \$1.