

rel. g, and pipes, p r, with the pipe, n, for the purpose of pumping...

57,492.—COAL AND ASH SIFTER.—Warren R. Evans, Thomaston, Me.

First, I claim the combination of the ash receiver, B, with its...

57,493.—BOOT AND SHOE EDGE PARER.—William Frederick, Ashland, Pa.

I claim an improved boot and shoe edge parer, formed by combining...

57,494.—FUNNEL MEASURE.—Chauncey W. Fuller, Earlville, Ill.

I claim a measuring funnel constructed with a valve, C, raised by...

57,495.—STEM-WINDING WATCH.—E. A. Giles, New York City.

I claim the sleeve, c, and pin, f, combined with each other and...

57,496.—TWINE SPOOL AND STAND.—George P. Goodwin, Lowell, Mass.

I claim as a new article of manufacture a twine spool and stand...

57,497.—WHIFFLETREE.—D. A. Gorham, Lawrence, Mass.

First, the revolving trace hooks, D, and rod or bar, c, constructed...

57,498.—FASTENING FOR RAILROAD RAILS.—E. B. Graff, Baltimore, Md.

I claim a railroad rail, A, having its ends constructed as set forth...

57,499.—PUMP.—John P. Gruber, New York City.

I claim the application of a valve, b, to a rotary spiral blower...

57,500.—SEWING MACHINE.—William H. Halsey, Hoboken, N. J., and Maurice Fitzgibbons, New York City.

First, we claim the combination and arrangement of the spring...

57,501.—TURN TABLE.—Freeman Hanson, Hollis, Me.

I claim a turntable operated in an inclosed pit by the weight...

57,502.—APPARATUS FOR GENERATING AND BURNING GAS FROM PETROLEUM, NAPHTHA, ETC.—Mark E. Hanson, Newport, Me.

I claim the hereinbefore described arrangement of a gas generator...

57,503.—LOCK.—William W. Hardee, New York City.

I claim the combination of the doubly-hooked tumblers, DE F G...

57,504.—CAR COUPLING.—Andrew Hartman, Canton, Ohio.

I claim, first, the arrangement of the hook, D, the crankrod, E...

57,505.—UTERINE AND ABDOMINAL SUPPORTERS.—Joseph S. Havens, T. M. Johnson, and C. W. Howe, Buffalo, N. Y.

We claim, first, in providing the joint of the uterine supporter...

57,506.—PIPE TONGS.—Henry Herbert, Cincinnati, Ohio.

First, I claim the adjustable pipe tongs constructed with a...

57,507.—TUG BECKLE.—Henry Hise, Ottawa, Ill. Antedated Feb. 28, 1866.

I claim as an article of manufacture a buckle composed of the two...

57,508.—LOCK.—E. R. Hopkins, New York City.

I claim the combination with the handle shaft and the bolt of...

57,509.—HORSE RAKE.—Chas. Kugler, Cadiz, Ohio.

I claim the combination of the jointed parts, d, d', front foot...

57,510.—HANDLE FOR CUTLERY.—Taylor D. Lakin, Hancock, N. H.

I claim the central cast-metal plate, A, cast on a core, to form...

57,511.—CLOCK CASE.—Henry B. Horton, Ithaca, N. Y.

First, I claim the combination of the two cast frames, one for...

57,512.—HYDRAULIC ENGINE.—Horace Hubbell, New Haven, Conn.

I claim the combination of the cylinders and their appendages...

57,513.—PUMP.—Nels Johnson, Ripon, Wis.

I claim the arrangement of chambers, K and M, with the sucker...

57,514.—CENTRIFUGAL MACHINE.—Jacob O. Joyce, Dayton, Ohio.

I claim, in combination with a centrifugal sugar separator, a...

57,515.—STEAM-ENGINE VALVE.—Wm. A. L. Kirk, Hamilton, Ohio.

First, I claim the combination of the valve chamber, A, and...

57,516.—DRESS ELEVATOR.—G. Kammerl and D. L. Bollermann, New York City.

We claim the combination of the supplemental operating cords...

such graduations of the said disk and ring are so arranged with...

57,509.—AUTOMATIC STEAM VALVE.—George W. and Elisha Hopkins, Brooklyn, N. Y.

We claim the combination with a piston valve constructed substantially...

57,510.—CALENDAR CLOCK.—Henry B. Horton, Ithaca, N. Y.

First, I claim the cam or sliding surfaces on the month cam, I...

Second, I claim making a four, eight, twelve or more year...

Third, I claim the immediate contact, or other suitable connection...

Fourth, I claim attaching the lever, S, to the weight lever, n...

Fifth, I claim in the pawl, T, with a slot in it for receiving...

57,511.—CLOCK CASE.—Henry B. Horton, Ithaca, N. Y.

First, I claim the combination of the two cast frames, one for...

Second, I claim holding the cast frames and middle piece together...

Third, I claim the use of the wooden plugs, in connection with...

Fourth, I claim the combination of frames and interposed middle...

57,512.—HYDRAULIC ENGINE.—Horace Hubbell, New Haven, Conn.

I claim the combination of the cylinders and their appendages...

I claim the combination of the cylinders and their appendages...

57,513.—CUTTING BOARD.—Roland C. Hussey, Milford, Mass.

I claim the manner of clamping together two or more seasoned...

57,514.—SEWING-MACHINE BOBBIN.—Cornelia F. Ingraham, Indianapolis, Ind.

I claim constructing the bobbin of a sewing machine substantially...

57,515.—VAULT LIGHT.—George H. Johnson, Baltimore, Md.

I claim the combination of inverted or centrally enlarged girders...

57,516.—PUMP.—Nels Johnson, Ripon, Wis.

I claim the arrangement of chambers, K and M, with the sucker...

57,517.—CENTRIFUGAL MACHINE.—Jacob O. Joyce, Dayton, Ohio.

I claim, in combination with a centrifugal sugar separator, a...

57,518.—STEAM-ENGINE VALVE.—Wm. A. L. Kirk, Hamilton, Ohio.

First, I claim the combination of the valve chamber, A, and...

57,519.—DRESS ELEVATOR.—G. Kammerl and D. L. Bollermann, New York City.

We claim the combination of the supplemental operating cords...

57,520.—HORSE RAKE.—Chas. Kugler, Cadiz, Ohio.

I claim the combination of the jointed parts, d, d', front foot...

57,521.—HANDLE FOR CUTLERY.—Taylor D. Lakin, Hancock, N. H.

I claim the central cast-metal plate, A, cast on a core, to form...

57,522.—MACHINE FOR HOLDING THE HEADS OF CASES.—Joseph D. Leach, Penobscot, Me.

I claim the disks, O and P, in combination with the pin, V...

57,523.—EVAPORATOR.—J. Little and S. W. Little, Patoka, Ind.

First, we claim the central supporting framework, E, in combination...

constructed and operating substantially as and for the purpose described.

Second, The flaring sides of the arch, with recesses or grooves...

Third, The skimming shelves, g, in the pan, G, as described.

57,524.—MACHINE FOR APPLYING SCREW MOUTHPIECES TO CANS, ETC.—Henry O. Lothrop, Milford, Mass.

I claim the mouth-piece supporting machine, as composed of the...

57,525.—HAY-STACKING DEVICE.—William Louden, Fairfield, Iowa.

First, I claim the bracing of the upright, A, of the crane by...

57,526.—WATER-CLOSET VALVE.—Archibald and James Loudon, Boston, Mass.

We claim the combination of the passages, a, through the spindle...

57,527.—BRONZING MACHINE.—John K. Lowe, Cleveland, Ohio.

I claim the bronze box, F, feed roller, F', and handle, G, in combination...

57,528.—COMPOSITION FOR PUTTY.—John and William H. Lucas, Philadelphia, Pa.

We claim the composition of ground marble, whiting, and linseed...

57,529.—SCREENING AND SIFTING APPARATUS.—Sebeus C. Maine, Boston, Mass.

I claim an improvement in apparatus for screening and sifting...

57,530.—RAILROAD WEDGE RAIL.—W. M. Martin, New York City.

I claim the wedge-shaped auxiliary rail with a curved face and...

57,531.—PUMP PISTON.—Sylvester G. Mason, Elbridge, N. Y.

I claim the combination of the segmental side valves, D, D', with...

57,532.—CARPET-CLEANING MACHINE.—William McArthur, Philadelphia, Pa.

First, I claim the combination, substantially as described, of a...

57,533.—MACHINERY FOR CUTTING OVAL HOLES IN BOILER HEADS.—James McBride, Allegheny City, Pa. Antedated Aug. 17, 1866.

I claim the combination and arrangement of the wheels, k and...

57,534.—MACHINERY FOR CUTTING OVAL HOLES IN BOILER HEADS.—James McBride, Allegheny City, Pa. Antedated Aug. 17, 1866.

I claim the combination and arrangement of the wheels, l, m and...

57,535.—HOISTING MACHINE.—James McCalvey, Philadelphia, Pa.

First, I claim the combination of the trip levers, I, spring, K,...

57,536.—DRILLING ATTACHMENT FOR TURNING LATHES.—James McCrum, Locust Grove, Ohio.

I claim the sliding rod, I, with the spring, O, and weighted...

57,537.—FARM GATE.—David McCurdy, Ottawa, Ohio.

I claim as an improvement in gates the arrangement of the post...

latch, n, slotted swiveled post, l, roller, m, bars, a, and post, A2, constructed and operating in the manner herein specified and described.

57,538.—WAGON BRAKE.—John S. McGlumphy, Wind Ridge, Pa.

I claim in combination with the rubbers, F, and levers, D, the inflated bar, C, and adjusting nuts, E, the same being respectively attached to the lower end of the ling bolt, B, and to the brake levers, D, substantially as and for the purpose set forth.

57,539.—SEAL LOCK.—Ward McLean, New York City.

I claim a lock whose bolt has two catches which simultaneously engage with or disengage from the hasp and from the seal cover so that a seal cannot be removed from the lock without unlocking the same, substantially as described.

57,540.—BANJO.—George Mein, Williamsburgh, N. Y.

I claim, first, The interior rim, c, in combination with the exterior rim, A, and with the head, B, of the banjo, substantially as described and for the purpose set forth.

Second, The manner of attaching the stem, I, to the rim, A, with a dovetailed groove and strip, substantially as herein described and for the purpose set forth.

57,541.—THRASHING MACHINE.—James H. Melick, Albany, N. Y.

I claim, first, A series of bars each fitted to yield separately and radially and forming the concave or rubber, in combination with the revolving thrashing cylinder, as set forth.

Second, I claim a yielding incline, A, between the feeding table and the concave or rubber, substantially as and for the purpose set forth.

Third, I claim the arrangement of the slides, k, spri gs, j, and adjusting screws, l, to the yielding bars, f, of the concave or rubber, as specified.

57,542.—TOOL FOR SPLITTING BARK UPON TREES.—E. Michaels, Palermo, Me.

I claim a tool for peeling off the bark of trees, consisting of the shank, A, the three-edged knife, B, handle, C, two hand rollers, d, and E, substantially as shown and described.

57,543.—APPARATUS FOR CARBURETING AIR.—Patrick Milhan, Boston, Mass.

I claim, first, An apparatus for carbureting air, conducting the air to be treated through an inlet tube, M, placed about the shaft of the apparatus and terminating near the remote end of the apparatus in a cone-shaped mouth, N, so as to increase the distance to be traversed by the air after it is delivered within the generator, substantially as shown.

Second, I also claim in an apparatus for carbureting air, the use of open tubes supplied with bristles, or their equivalent, revolving through or in a bath of hydro-carbon and exposed, on emerging therefrom, to currents of air, substantially as shown.

Third, I also claim the cover, Q, with its outlet pipe, Q', its cones, P and O, and tubes, U, constructed and arranged substantially as shown and described.

Fourth, I also claim forming a space, V, for receiving the carbureted air in combination with the tubes, C, and the cone, O, and tubes, U, substantially as shown.

Fifth, I also claim covering the tubes, C, with an absorbing material for the purpose of exposing to the fresh air a surface or surfaces wet with hydro carbon, while such air is on its way to the end of said tubes, substantially as shown.

57,544.—STOVEPIPE DAMPER.—Richard S. Miller, Battle Creek, Mich.

I claim the construction and arrangement of the two inverted half cones, C, C', pivots, b, b', crank shaft, B, g, and link, h, in combination with the stove pipe, A, as herein described and shown for the purpose set forth.

Second, The combination of the pivots, b, b', notches, c, c', and rock shaft, B, g, in the construction of a damper formed of two inverted half cones, and arranged in a stove pipe, all as herein described and for the purpose set forth.

57,545.—BURIAL CASE.—William K. Miller, Canton, Ohio.

I claim a lining and carbonizing burial cases of wood, and for the purpose substantially as herein described.

57,546.—WATER ELEVATOR.—Jacob E. Moeller, Terre Haute, Ind.

I claim the combination of the bucket, E, strap, D, pulley, C, ratchet wheel, R, and m, crank, K, and spring catch, n, the whole being constructed, arranged, and operated substantially in the manner and for the purpose set forth.

57,547.—WRENCH.—Isaac Morris and C. M. Morris, Fair Haven, Conn.

I claim the combination of the movable jaw, and vibrating rack, with the main rack, and enlargement of the bar, near the stationary jaw, when the whole is constructed and fitted for use, substantially as herein described and set forth.

57,548.—CARRIAGE.—J. J. Morris, New Bedford, N. J.

I claim, first, The independent axle, C, having the hub and wheel attached permanently thereto, and revolving with the wheel, substantially as set forth.

Second, The independent axles constructed as set forth, in combination with the sleeve, H, when arranged to operate as shown and described.

Third, In combination with the axles, C, as described, I claim the friction rollers, a, arranged and operating as set forth.

Fourth, I claim the combination of the brace, o, hook, h, and spring, m, when said parts are arranged in connection with the vehicle, as shown and described.

57,549.—REAPING MACHINE.—Robert Morris, Salem, Ind.

I claim, first, The square, h, and spring, H, operating with the discharger, F, substantially as and for the purpose specified.

Second, The index, K, and set screw, j, in combination with the spring, H, arranged with the bar, G, and square, h, substantially as described for the purpose specified.

57,550.—DRY DOCK.—John W. Munger and W. O. Jones, Portland, Me.

I claim, first, The combination and arrangement of the docks, D 1 2 3 4 5 6, with the channel, B, and central basin, A, as and for the purpose set forth.

Second, The arrangement and construction with the docks, as described, of the cisterns, 7 8 9 10 11 12, in the manner and for the purpose set forth.

Third, In combination with the docks so arranged and constructed, the ways and carriages, outlets and gutters, as and for the purpose set forth.

57,551.—APPARATUS FOR GENERATING ILLUMINATING GAS.—Henry B. Myer, Philadelphia, Pa.

I claim, first, The arrangement of the chambers, A B C D, in their relation to each other, for the purpose specified.

Second, In combination with the chambers, A B, I claim the pipe, b, and valve, b', constructed and operating substantially as and for the purpose set forth.

Third, I claim the herein described construction and arrangement of the pumps, E F, the same being adapted to the use of water as a packing, as specified.

Fourth, I claim such a structure of the pump, as shown in Figs. 18, whereby it is adapted to the use of quicksilver as a packing, as specified.

Fifth, I claim in combination the perforated coil, C, double disk, d, and perforated disk, f, arranged to operate as specified.

57,552.—HARVESTER.—Wales Needham, Rockford, Ill.

I claim, first, The head, H', spool, K, face plate, J", in combination with the arbor, m, crank, P, sp'ng, i, reins, a' a", arranged as and for the purpose set forth.

Second, The arm, B, rest, E, lever, F, tooth, e', spring, d, in combination with the spool and reins, arranged as and for the purpose specified.

Third, The standard, A, and arm, B, in combination with the serrated coupling, C, and rest, E, as and for the purpose set forth.

57,553.—FRUIT PICKER.—John Neff, Jr., Pultney, N. Y.

I claim the blades, A and B, when made substantially as specified, also the griper, C, and spri g, D, when made and applied as specified, and used for the purpose set forth.

57,554.—HAT.—William S. Nelson, St. Louis, Mo.

I claim the arrangement of the band, A, the connected side frames and rim frames with the hoops, E and G, substantially as described and for the purpose herein set forth.

57,555.—COVERED BUTTON.—Nelson C. Newell, Springfield, Mass.

I claim the disk, C, formed in such a manner that when inserted in the button it may be expanded laterally, substantially in the manner and for the purpose herein described.

57,556.—SAW MILL.—Isaac H. Newton, Oakfield, Mich.

I claim the bars, G, arms, H, and frame, I, J, K, combined with each other and arranged in relation to the head and tail blocks, B H, substantially as herein set forth for the purpose specified.

57,557.—SORGHUM STRIPPER.—David H. Nichols, Richmond, Ohio.

I claim the combination of the sliding plates, F, stationary plate, B, provided with apertures, c, and the springs, d, the whole being constructed, arranged, and operating substantially as herein set forth for the purpose specified.

57,558.—PIANO.—John W. Otto, St. Louis, Mo.

I claim, as my improvement in the pianoforte in general, and also in the grand pianoforte in particular, first, The particular manner in which the case of the piano (including wrest-plank, iron frame, plane of stringing and soundboard) is inclined, constructed, braced, and the area of the soundboard enlarged for the purpose of attaining convenient dimensions, a more effective sound-board, and other improvements, resulting from this transformation, and claimed herein separately, substantially as described.

Second, The removable end casing, F, F', as described and for the purpose specified.

Third, The removable back casing, g, as described and for the purpose set forth.

Fourth, The key lid, k, its joints, n, n, and their connecting rod, m, arranged as described and for the purposes specified.

Fifth, Apertures, r, in the soundboard, serving as passages through which the damper movement is transmitted, as set forth.

Sixth, The soft-pedal arrangement by means of a slotted rail, J, and india-rubber slips, E, or its equivalent, substantially in the manner and for the purposes set forth.

Seventh, Setoffs, M, M, on each side of the keyboard, in the manner set forth and for the purpose specified.

57,559.—DISINFECTOR.—J. D. C. Outwater, New York City.

I claim the combination of the glass vessel, C, with a depression on its bottom, and a metal cap furnished with hollow arms, the whole being adapted to revolve in adjustable bearings in a frame, substantially as described and represented.

57,560.—BED BOTTOM.—Joshua D. Patton, Davenport, Iowa.

I claim a bed bottom composed of a series of cords or other lines, c, secured to one end to the frame of the bed bottom and passing loosely through the other, having heads, E, upon their outer ends, substantially as and for the purpose described.

57,561.—MEDICINE.—W. Petre, New York City.

I claim the within described medical composition, made of the ingredients in the manner and proportion as set forth.

57,562.—CULTIVATOR.—Michael Porter, C. E. Jenkins, and G. F. Jenkins, Terre Haute, Ill.

I claim the combination of the adjustable swivel brackets, a, plow beams, E, E, and axle, A, arranged and operating in the manner as and for the purpose herein specified.

57,563.—CORN CULTIVATOR.—H. S. Potter, Fairfield, Iowa.

First, I claim the frame, A, with the driver's seat, B, placed on its rear end, and connected at its front end to the hounds, D, of the draught pole in front of the axle, E, substantially as and for the purpose set forth.

Second, The frame, J, in combination with the plow beams, L, L, connected by swivel joints to the rod, K, above the axle, E, and arranged in connection with the frame, A, to operate substantially as and for the purpose specified.

Third, The lever, Q, attached to the front part of the frame, A, and applied to or arranged in connection with the frame, J, and the loop, l, with roller, m, substantially as and for the purpose set forth.

Fourth, The connecting of the plow standards, G, M, to the frame, A, and beams, L, by means of the pivoted bars, b, g, provided with wheels, c, h, substantially as and for the purpose specified.

57,564.—KNIFE AND SCISSORS SHARPENER.—T. T. Prosser and James Lawson, Chicago, Ill.

We claim the toothed disk, B, in combination with the frame, A, having the notch, e, formed therein, when said parts are arranged to operate as and for the purpose set forth.

57,565.—SAW MILL.—Paul Prybibil, New York City.

First, I claim the changeable guide, F, for the purpose set forth.

Second, The construction of the guide, F, with shoulder, c, screw, f, nut, h, spring, j, and jaws, c, d, substantially as and for the purposes described.

Third, The yielding spring arms, b, or their equivalent, in combination with the adjustable journal box of the sh ft, B, substantially as and for the purpose set forth.

57,566.—CAR COUPLING.—Samuel Y. Quest, Wellsburg, W. Va.

I claim the combination of the levers, G G' H J K and M, together with the inclined plane, N, when properly constructed and adapted to each other, so as to secure the object proposed substantially as hereinbefore explained.

57,567.—BLACKING.—W. F. Quinby, Wilmington, Del.

I claim a blacking composed of the within ingredients in the manner and about the proportion, substantially as described.

Sixth, The lever, k, short levers or arms, j, links, l', and chains, l, arranged with reference to each other and with the bars, i, of the platform, D, and the rearwardly projecting end of the draught pole, B, substantially as herein set forth for the purpose specified.

Seventh, The supplemental tilting frame, F, sustaining the platform, H, and so arranged upon the rear most end of the machine and combined with suitable operating mechanism, that its rear-most end will be raised simultaneously with the elevation of the forward end of the machine, substantially as herein set forth for the purpose specified.

57,569.—PROPELLER FOR CANAL BOATS.—Ebenezer Raynale, Birmingham, Mich.

I claim a vessel constructed with a submerged recess, A, at the stern divided through part of its length by a partition, B, and having in one of its compartments, A2, a reciprocating propeller, D, constructed with valves, E, the said parts being respectively constructed and arranged for use, substantially as set forth.

57,570.—VALVE FOR WATER CLOSETS.—Joshua Register, Baltimore, Md.

First, I claim constructing a valve, G, of the parts, g, h and i, and arranging it within a box through which water flows, substantially as described.

Second, The continuation of the enlarged capped portion, g, having flattened spaces, i, and the reduced cylindrical guide, h, with the packing, i, said parts being arranged within a chamber, A, and above the outlet chamber, substantially as described.

Third, In combination with the valve, G, constructed with the parts, d, on it, as described in combination with the device, h, j, in the manner and for the purpose described.

57,571.—MACHINE FOR GRINDING TOOLS, ETC.—N. B. Reynolds, Auburn, N. Y.

I claim in combination with a revolving gridstone a tapping instrument which on being vibrated backs the surface of the stone and thus prevents it from glazing or polishing, constructed and operating substantially as herein described.

I also claim in combination with a pair of clamping tongs that are pivoted to a plate or rest traversed by grinding ways which extend past the face of the stone, a tappet or cam, for vibrating said tongs upon its pivots, substantially as herein described.

57,572.—STOVEPIPE DRUM.—Francis E. Ruth, and Jos. De Long, Upper Sandusky, Ohio.

First, We claim the combination of the interior tapering or thimble-shaped tube, F, with the exterior drum, A, and interior central pipe, I, substantially as herein described and for the purpose set forth.

Second, The combination of the disk-shaped damper, J, rod, K, and lever, L, with each other and with the outer cylinder, A, the interior tapering tube, F, and the interior pipe, I, substantially as described and for the purpose set forth.

57,573.—CHURN.—Geo. H. Sanborn, Boston, Mass.

I claim the arrangement of the two sets of floats, 1 and 2 and 3 and 4, in the manner and for the purpose set forth when combined with the frame, C, the shaft, A, and the cream box, B, as shown and set forth, as also the use of the arms, k, k', and the projections, l, l', when arranged and used as shown.

57,574.—LOCK.—James Sargent, Rochester, N. Y.

I claim the rotating tumbler, I, when separated and isolated in action from the permutation wheels, and so arranged that any inward pressure upon the bolt will be exerted on the bearings of said tumbler, and have no action or effect upon the said permutation wheels, substantially as and for the purpose herein specified.

I also claim in combination with the turning tumbler, I, the cog bar, H, and lever, G, arranged as operating as herein set forth.

I also claim the combination and arrangement of the wheels, C, cam disk, E, pivoted lever, G, cog bar, H, and turning tumbler, I, the whole operating as herein specified.

57,575.—STEAM GENERATOR.—Herrman S. Saroni, Marietta, Ohio.

First, I claim the arrangement of the feed water pipe in a coil beneath the boilers in and around the burners, as and for the purpose described.

Second, The combination substantially as described of the boiler, the branch pipe, the feed water pipe, and the burners, for the purpose of securing a circulation in the boiler, as set forth.

Third, The arrangement of the burner with its conductors in contact with the boiler, so that the boiler forms the heater cap for the burner.

57,576.—FEED-WATER HEATERS FOR STEAM GENERATORS.—Herrman S. Saroni, Marietta, Ohio.

First, I claim the generator drum, A, arranged between the feed pump and boiler, as described.

Second, The arrangement of the drum and burner so that the drum serves as the heater-cap for the burner, as described.

Third, The arrangement of the drum, the burner and the feed pipe, substantially as and for the purpose described.

Fourth, The combination substantially as described of a series of generators or drums each having its own burner and entrance, and exit pipe, but all having the same main feed pipe and escape pipe.

57,577.—APPARATUS FOR STEAMING VEGETABLES, ETC.—Herrman S. Saroni, Marietta, Ohio.

I claim a new article of manufacture, a steaming apparatus, having one or more apertures, each or all of them covered with a hood, as above described, connecting with a boiler, for the admission of steam, and a separate pipe for the escape of the water of condensation.

57,578.—VAPOR BURNER.—Herrman S. Saroni, Marietta, Ohio.

First, I claim a vapor burner having a series of conductors surrounding the jet, but without a heater cap, substantially as and for the purpose described.

Second, The combination of the burner and conductors with removable ring and heater cap, substantially as and for the purpose described.

Third, As a new article of manufacture, a vapor burner or heater having the upper or heat generating portion made of metal of high conducting power, while the lower or fluid converging portion is made of metal of lower conducting power, as described, for the purpose of concentrating the heat at the generating or vaporizing point.

57,579.—STEAM-ENGINE SLIDE VALVE.—Thomas Sault, New Haven, Ct.

First, I claim a valve suspended from the axes of the rollers, substantially in the manner and for the purpose herein set forth.

Second, The adjustable saddle plates, m m', adjusting screws, n n', and bridge pieces, l l', in combination with the slide valve, rollers and axle, substantially as described, for the purpose specified.

57,580.—GRAIN METER.—William Schnebby, Hackensack, N. J.

I claim a grain meter so constructed and combined with velocity-registering apparatus that the velocity which a body of grain moving through the meter imparts to its grain wheel will be correctly registered, whereby the weight of the grain which has thus passed through the machine may be correctly ascertained.

Second, I claim a grain hopper and trough supported upon a shaft or journals, upon which they may oscillate, in combination with a grain wheel, so that a quantity of grain moving in said hopper and trough and upon said wheel will have the effect to start, operate, and stop a velocity-registering apparatus, by which means the weight of different quantities of grain may be correctly determined.

57,581.—FENCE.—Conrad Seabaugh, San Antonio, Texas.

First, I claim an improved fence formed by securing the rails, B, to the posts, A, with wires, C, said wires being arranged and applied substantially as described and for the purpose set forth.

their equivalents, for the purpose of acting upon the wheel or wheels for the purpose of raising a car under the action of the team or other motive substantially as described.

I further claim the draw bar, K, having a spring, M, upon it and provided with the piston rod, N, parallel through a slot in the box or case, L, in combination with the notch, e, in bar, I, substantially as and for the purpose set forth.

57,625.—WAGON BRAKE.—George W. Grove (assignor to himself and Benjamin Martin), Cincinnati, Ohio.

I claim an improved wagon brake, formed by combining the lever brake bars, D, and F, the connecting lever, E, connecting rod or bar, J, and the operating lever, K, with each other, the said parts being constructed and arranged substantially as herein described and for the purpose set forth.

57,626.—ROOFING CEMENT.—Joseph Darby (assignor to himself and Stephen Brewer), Cortlandville, N. Y.

I claim an elastic cement or composition of matter composed of the above-said herein named ingredients, as and for the purposes herein set forth and described.

57,627.—SAW.—J. E. Emerson, Trenton, N. J., assignor to American Saw Company, New York City.

I claim the teeth, B, fitted at the back by tongue and groove joints, I, to the shoulders, c, of the saw plate in combination with rivets, screws or keys, C, applied to the heels, c, of the teeth, which are parts constructed and arranged substantially as herein presented, so that in inserting the teeth the shoulders, A, must be placed in position, and the teeth afterward introduced laterally to the saw plate and there secured by the rivets, C, as explained.

57,628.—BRICK MACHINE.—Henry J. Ferguson, New York City, assignor to Selah Reeve, Brooklyn, N. Y.

I claim, first, the combination of the rotating disk, J, having a center cam, h, and outer eccentric or cam-shaped ring, I, with the pitman, L, to the plunger, H, and slide, K, to the pitman, L, for operating the plunger and pusher, substantially as described. Second, the combination of the disk, J, with its radial slide, I, pitman, L, and plunger, H, adjustably connected as described through a slot in the stack, G, by keys, d, fitting in key ways or grooves, c, as herein set forth.

Third, the slotted levers, F, S, pivoted together by joint pins, p, in tandem collars, q, r, bosses, s, and lock nuts, t, substantially as specified.

Fourth, the combination of the pitman, L, with the arm, P, on the shaft, O, geared together by a joint pin, w, arranged to fit in a notch at the back of the pitman, and held in gear therewith by a catch, v, and spring, z, essentially as and for the purpose or purposes herein set forth.

57,629.—BREAST STRAP HOOK.—Henry Foulkes, Utica, N. Y., assignor to John H. Chapman.

I claim the securing or closing the opening of the hook by the use of a screw in the manner substantially as described.

57,630.—HYDRAULIC GOVERNOR.—James E. Gillespie (assignor to Gillespie Governor Company), Boston, Mass.

I claim the combination of a governing device with the cylinder, d, its piston, f, and the spring, n, or the equivalents of these, when arranged to operate together, substantially as specified. Also, in combination with the foregoing of a passage capable of variation, which is arranged so that by such variation the rate of speed of the movement of the piston, under influence of its spring, may be changed.

Also, combining a governor and the object governed thereby, in such a manner that, while the connection between the governor and the object can be broken to prevent movement of the latter in one direction, the connection causing movement of the governed object in the reverse direction remains operative, substantially as shown and described.

57,631.—MACHINE FOR BENDING HORSESHOES.—William F. Goulding, Providence, R. I., assignor to The Goodenough Horseshoe Company, New York City.

I claim, first, the revolving flat bed or table, B, provided with suitable forming blocks, G, and guides, b, b, in combination with suitable lathe-like bending instruments, F, F, arranged substantially as described, for the purposes specified.

Second, the combination of the stationary finger, H, with the forming block, C, and the said revolving bed, B, arranged substantially as described, for the purposes specified.

57,632.—BUCKLE.—Henry C. Griggs (assignor to Smith & Griggs), Waterbury, Conn.

I claim the combination of the frame part with the tongue part, when they are constructed, connected, and fitted to operate, substantially as herein described and set forth.

57,633.—LIFE BOAT.—Henry Hensel (assignor to Louis Sulter), Carver, Minn.

I claim the air chambers, G and H, surrounding the self-adjusting cylinder, A, operating independently on the center shaft, J, arranged and combined with end propellers, K, for the purpose of steering and turning the boat quickly, at the same time preventing the boat from sinking, giving the greatest safety to the passengers as a buoyant life boat.

57,634.—PRINTING PRESS.—George J. Hill, Buffalo, N. Y., and Stephen Greene, Philadelphia, Pa., assignors to Stephen Greene and H. G. Leisenring, Philadelphia, Pa.

We claim, first, the vibrating cam levers, constructed and arranged for the operating of a guided cross-head, D, substantially as herein set forth.

Second, the guides, M, M', composed of plates constructed and arranged for vertical self-adjustability to suit cards differing in thickness and for the retention and guidance of the cards, substantially as set forth.

Third, the combination of the said guides, M, M', with the tickler or card box, N.

Fourth, the movable receiving box, N', where the vertical position of the same is controlled by the quantity of cards in the box, N, through the medium of the devices herein described or any equivalent to the same for the purposes specified.

57,635.—PUMP.—Edward B. Juckett, Roxbury, Mass., assignor to himself and Hunneman & Co.

I claim my improved double-acting force pump, or peculiar arrangement of the valve chambers, D, D', the induction chambers or passages, E, F, and the pump barrel, A, as described, such valve or chambers to be provided with valves, and valve openings, and such barrel to have a piston to operate as specified.

57,636.—MAGAZINE FIRE-ARM.—Nelson King, Bridgeport, Conn., assignor to O. F. Winchester.

I claim the arrangement of the retracting hook, a2, with its sleeve, d2, upon the breech pin, L, so as to retract the cartridge or shell, substantially in the manner herein described.

57,637.—STEAM GENERATOR.—Charles Kinkel, New York City, assignor to Charles Welche, Hoboken, N. J.

I claim the new method herein described for preventing explosions of steam boilers, by a combination of a steam boiler with the mechanism substantially as described, which keeps the water in the boiler in constant and regular motion.

57,638.—HAT-PRESSING MACHINE.—Monroe Morse (assignor to himself and Aaron H. Morse), Franklin, Mass.

I claim the combination as well as the arrangement of a solid

elastic presser with the mold, its head, and mechanism for extending such presser by pressure against it, substantially as specified.

I also claim the application of the head, C, to the mold by means of levers, as described, so that such head, while being withdrawn from the mold, shall be brought into a flattened position in order to facilitate the application of a hat to the presser. I also claim the combination of the bar, G, the slides, F, I, and their pins with the toggles or progressive levers, o, p, q, r, and the foot lever, s.

I also claim the combination and arrangement of bolts, v, w, cat, h, v, and levers, y, y, applied to the mold and the vibrating head, as described.

I also claim the combination of the adjusting screw, g, and its nuts, i, j, with the bar, G, the vibrating head, C, and disc, E, and presser, D.

57,639.—APPARATUS FOR CARBURIZING AIR.—James F. Rowley, William M. Sloane, and James E. Woodruff, Buffalo, N. Y., assignors to themselves and John D. Cross.

We claim an apparatus for carburizing air or gas, having a reservoir, B, for hydrocarbon, a turbo chamber, D, and chamber, E, and F, containing porous substance, all arranged and constructed in the manner and for the purpose substantially as herein set forth.

57,640.—PLATFORM SCALE.—Elnathan Sampson, Lansingburgh, N. Y., assignor to Alfred Clark Hitchcock, Troy, N. Y.

First, I claim the location, under the platform of a scale, of a series of bell crank levers, L, with yokes, P, and suspension links, c, c, which connect said yokes with co-operating and connecting parts for supporting the platform of the scale, substantially as herein described and for the purpose set forth.

Second, I claim the arrangement of a series of bell crank levers with their long arms in upright position, b, low, and placed transversely to the length of the platform or to the trackway over the platform of the scale, substantially in the manner as herein described and for the purpose set forth.

Third, when arranged in combination with the lever, E, with the yoke, F, fulcrum standard, D, and platform timbers, B, B, I claim the supporting plate or frame, J, or its equivalent device, constructed and arranged substantially in the manner and for the purpose as herein set forth.

Fourth, I claim the arrangement, relatively to and with each other, and with the platform timbers, of the respective bell crank levers with yokes, supporting plates or frames, and fulcrum standards, as herein described, when the same are so connected with each other by connecting parts as to operate together for the purpose of a platform scale, substantially in the manner as herein described.

57,641.—WEIGH-LOCK SCALE.—Elnathan Sampson, Lansingburgh, N. Y., assignor to Alfred Clark Hitchcock, Troy, N. Y.

First, I claim the combination of the bell crank lever, F, and the direct sustaining levers, G and G', when said sustaining levers are arranged in horizontal parallel positions to the side walls of the lock chamber, substantially as described, and for the purposes as set forth.

Second, arranged in connection with the bell crank levers, F, F, in manner as described, I claim the combination of the bell crank levers, c, c', and transmitting lever, l, substantially as and for the purpose herein set forth.

Third, I claim connecting the devices arranged on opposite sides of the lock chamber, and constituting a weighing apparatus for weigh-lock scales, by arranging the mechanical means employed for this purpose under the floor of the lock chamber, in manner substantially as herein described, and for the objects as set forth.

Fourth, arranged and connected with the bell crank levers, F, F, in manner as described, I claim the combination of the bell crank levers, t, t', with the bell crank connecting lever, s', for the purpose of transmitting the weight of the vessel resting upon the cradle to the scale beam, in manner substantially as herein described.

Fifth, in combination with the bell crank levers, c, c', and transmitting lever, l, in the manner herein described of connecting the weighing apparatus of the opposite sides of the lock chamber, and the bell crank levers, t, t', and s, all arranged with reference to each other, substantially as herein set forth. I claim the arrangement of the said direct sustaining levers, for the purpose of a weigh-lock scale, in manner substantially as herein described.

57,642.—VENTILATED LARDER.—John Sloan (assignor to himself and John W. Jones), Philadelphia, Pa.

I claim the combination of box, A, air pipe, K, K, and discharge pipe, K', K', charcoal box, A', with larder, F, F, in the manner as herein described, or any other, and substantially the same, so as to obtain the desired and intended effect.

57,643.—STEAM-GENERATING APPARATUS.—Scott A. Smith (assignor to himself, G. V. Cresson, and George W. Hubbard), Philadelphia, Pa.

I claim the method substantially as described, of constructing a steam generating apparatus by combining a series of annular generating vessels with a bottom connecting reservoir.

57,644.—MACHINE FOR MAKING CAST-STEEL CASTINGS.—John Blake Tarr (assignor to himself and P. E. Merrihew), Chicago, Ill.

I claim, first, subjecting the cast-steel, while in a liquid state, and with it in the mold which is to give it the desired form, to such a degree of pressure as will cause the expulsion of air and gas from it and render it more solid, by means substantially as described.

Second, constructing the bottom of the mold at these points where air directly under the ingates, of adjustable blocks of plummer, or other analogous substance, substantially in the manner and for the purpose described.

Third, the manner, substantially as herein described, of constructing the ingates with cutters on them, when said ingates are applied and operated as described for the purpose set forth.

Fourth, the use of adjusting screws in conjunction with mold sections, A, B, C, and the books, g, h, or their equivalents, substantially as described.

57,645.—SAFETY WATCH POCKET.—T. W. Terry (assignor to himself and Geo. W. Hoff), Baltimore, Md.

I claim the combination of the plates, A, D, binged staple, e, and button, c, constructed and operating substantially as and for the purpose described.

57,646.—TEMPLE FOR LOOM.—George L. White, Cumberland, R. I., assignor to W. W. Dutcher & Co., Billiard, Mass.

I claim the combination of the tooth, g, and the notch, f, or their mechanical equivalent or equivalents, with the temple, its arm, D, spring, F, and frame, E, the said tooth and notch being for the purpose hereinbefore explained.

57,647.—OPERATING INDIA-RUBBER SPRINGS.—J. W. Wilder (assignor to himself and Ebenezer Butterick), New York City.

I claim the protecting case, B, and plunger, C, in combination with a piece of india-rubber, A, substantially as and for the purpose described.

57,648.—PISTON FOR STEAM ENGINE.—Geo. Brower, Ashton under Lyne, England, and John Quatter, Barnsley, Eng.

We claim in combination with springs composed of a series of plates, the wedges, e, and wedge pieces, d, combined, and arranged to operate in the manner and for the purpose substantially as herein described.

57,649.—BLEACHING ANIMAL AND VEGETABLE FIBERS.—C. M. E. du Motay and C. R. Marechal, Metz, France.

We claim, first, the method of bleaching vegetable and animal

fibers and tissues by the employment of manganates, permanganates and permanganic acid substantially as herein described. Second, the method of producing the said manganates and permanganates, substantially as herein shown and described.

57,650.—LUMBER WAGON.—C. F. Hall, Toronto, Canada West.

I claim the roller, A, with perforated projecting ends, the perforated plate, E, in combination with the boxes, B, of the running gear of wagon, provided at its forward end with rollers, G, and bearings, H, as constructed and operating substantially as described, for the purpose specified.

57,651.—MODE OF PRODUCING ETCHING GROUNDS.—R. Gotzigtrau, Munich, Bavaria, assignor to Lenneig & Clemm, Philadelphia, Pa.

First, I claim the entire process as above, preparatory to etching the design or designs on plates or surfaces of any description, said designs being produced by crystallization of solutions.

Second, I claim the process of using crystallizing solutions for the production of images on surfaces that can be etched, in the usual method of engraving.

57,652.—STEAM PLOW.—John Fowler, Jr., Cornhill, England, Wm. Worby, Ipswich, Eng., and David Greig, New Cross, Eng., assignors to Wm. P. Tatham, Philadelphia, Pa.

We claim, in machinery for actuating agricultural implements by steam power, combining the two drums, which separately revolve up and let off the rope by which the agricultural implement is drawn, with the driving shaft of the steam engine, or equivalent motor, by means of the cogged or toothed wheels on the drums, the two or a portion of the driving shaft, and the clutches and friction straps, or the equivalents thereof, substantially as and for the purpose specified.

57,653.—STEAM PLOW.—Robert Fowler, London, Eng., and Robt. Wm. Eddison, Leeds, Eng., Executors of John Fowler, Jr., David Greig, and Richard Noddings, Leeds, Eng., assignors to William P. Tatham, Philadelphia, Pa.

We claim, in guiding the laying of the rope on the periphery of the drum, in machinery for drawing agricultural implements by steam power, combining the guiding lever for guiding the rope with the flange drum for drawing and winding the rope by means of the cam and differential wheels, substantially as described and for the purpose specified.

We also claim connecting the guiding lever with the winding drum, so that in addition to having an up and down motion to lay the rope properly on the face of the drum, its guiding catch shall be free to revolve around the drum, and thus adjust itself to the angle at which the rope may be hauling, substantially as described.

57,654.—BURGLAR ALARM AND DOOR FASTENER.—Frederick Oakley, London, Eng., assignor to John Collins, New York City.

I claim, first, the revolving eccentric block, k, with pins, l, attached to it, in the manner and for the purpose herein shown and described.

Second, the combination of the barrel or powder chamber, f, with the set screw, g, bar, p, e, and bars, A and B, substantially as herein shown and described.

57,655.—METHOD OF TEMPERING KNIFE SECTIONS FOR HARVESTERS, ETC.—Asa R. Reynolds, Auburn, N. Y.

First, I claim hard tempering the edges of steel blades or sections by means of a blow from a hammer or drop press delivered under conditions and with a reaction, substantially as herein described.

Second, I claim supporting the blade, section, or blank, to be hard tempered by a drop die or hammer, upon or by its edges, upon a under die, having inclined or sloping faces, substantially as herein described.

Third, I claim means for forcing or directing a blast of air upon that portion of the blade which is not to be highly tempered when used in connection with a hammer or drop press conditioned for giving a blow and for reaction, substantially as herein described.

REISSUES.

2,342.—GAS-PIPE JOINT.—Henry L. Case (Administrator of the Estate of Richard C. Robbins, deceased), Henry L. Case, and Jesse M. Keen, Jersey City, N. J., and John W. Mason, Brooklyn, N. Y., assignees of said Richard C. Robbins, deceased. Patented Jan. 13, 1863.

Claims a joint for gas and other similar pipes, constructed in the manner herein above described, that is to say, the socket end of a length or section of pipe having a groove formed in it capable of retaining the packing in three directions, as set forth, a packing ring of soft metal being cast into the said groove, and the plug end or center end of the adjoining length or section of pipe being made conical and driven into the packing, substantially as hereinbefore described; and the said joint being composed of three parts only, as set forth.

2,343.—PUMP.—William D. Hooker, San Francisco, Cal. Patented Aug. 15, 1865.

I claim a vertical and double partition, b, in combination with the suction valve seats, c, e, and discharge valve seats, d, and d', and the valves, a, a', b, b', the whole arranged as described and for the purpose specified.

2,344.—METALLIC SHIELD FOR BREAST STRAPS.—Martin W. Pond and Henry E. Mussey, Elyria, Ohio, assignors to Martin W. Pond. Patented Sept. 6, 1864.

We claim, first, the seat, f, and base of horns, d, d, the same being constructed and operating in the manner and for the purposes substantially as specified.

Second, the curved metallic slide, having curved metallic horns, as described, in combination with the projections or base of horns forming the cramping seat, f, of the seat, d, the whole being constructed in the manner and for the purpose described.

2,345.—BAG FRAME.—Albert J. Sessions, Bristol, Conn. Patented June 12, 1866.

I claim stitching or punching the strips, a, substantially as described, so as to form the side and rim of the corner or corners of a frame in one piece of a cloth.

I also claim forming the inside corners square at a, substantially as described.

Third, forming the inside corners of a bag frame square, while the outside corners are flattened, curved, or rounded, by means substantially as described.

2,346.—REFRIGERATOR.—Peter A. Vogt, Buffalo, N. Y. Patented May 22, 1866.

I claim the door, D, constructed as described, combined and arranged with the rack, r, of the ice compartment, so as to turn down and form a platform in continuation of the roof, or introducing and removing ice from the chamber, D, substantially in the manner specified.

I also claim the arrangement of the induction air passage through the trap pipe, l, and extension pipe, m, in combination with the trap, k, or its equivalent, whereby the air entering is carried to the top of the ice chamber and cooled in its passage, substantially as set forth.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a bona fide acknowledgment of the receipt of their funds.