



ISSUED FROM THE U. S. PATENT OFFICE FOR THE WEEK ENDING MARCH 27, 1866. Reported Officially for the Scientific American.

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53,359.—Hinge.—John W. Allen, Newark, N. J.: I claim the construction and arrangement of the notched hinge... 53,360.—Stopper for Ink Bottles.—Martin Ames, New Ipswich, N. H.: I claim the fixed catch, B, connected with the collar, A... 53,391.—Door Spring.—B. F. Barker, San Francisco, Cal.: I claim the combination of the spiral spring, C, pivoted arm, E... 53,392.—Vegetable Cutter.—C. F. A. Bander, Newark, N. J.: I claim a vegetable cutter made of a piece of sheet metal, A... 53,393.—Head Block for Saw Mills.—D. C. Baughman, Fort Seneca, Ohio: I claim the application to the shaft, D, of a ratchet gear wheel... 53,394.—Fence Gate.—Julius S. Benedict, Bedford, Ohio: I claim the strip, B, hinge or center pin, E, and roller, b... 53,395.—Filter.—Benjamin Best, Dayton, Ohio: I claim the combination of the sand box, D, and filtering box, C... 53,396.—Valve for Pumps.—Henry P. M. Birkinbine, Philadelphia, Pa.: I claim the valves and valve seats of a pump so constructed... 53,397.—Protracting Bevel.—W. W. Branch Jr., Madison, Ohio: I claim a combination of the protractor, A, margin edges, b, b... 53,398.—Hand Loom.—James L. Branson, Cincinnati, Ohio: I claim the combination of sleeve, H, provided with the inclines or cams on its end... 53,400.—Machine for Boring Hubs.—D. C. Breed, Lyndonville, N. Y.: I claim the combination and arrangement of the annular plate, L... 53,401.—Machine for Ironing Hats.—William Best, Newark, N. J.: I claim, first, the vertically sliding frame, D, carrying the smoothing irons, E, F, G, and the said smoothing irons having a sliding movement...

Fifth, The arrangement of the staples, v, and slide, v, for securing the hat block upon the table, substantially as herein set forth. Sixth, The catch, b, belt slipper, d', and table, B, arranged with reference to each other and to the hat block and smoothing irons, substantially as set forth for the purpose specified. Seventh, The clamp composed of two halves, g, sliding in the base, t, and operated by a screw, l', when provided with a flange, m, and used in connection with a rotating table and suitable smoothing irons, substantially as herein set forth for the purpose specified. Eighth, The annular plate, m, placed upon the flange, m, of the clamp underneath the hat brim, when used in connection with suitable smoothing irons, substantially as herein set forth for the purpose specified. Ninth, The elliptical plate or guide, S, secured upon the hat block and guiding the iron, F, when smoothing the underside of the brim, substantially as herein set forth. Tenth, The horizontal bars, m, adjustable in the lower ends of vertical bars, m', arranged in relation to smoothing irons, substantially as herein set forth for the purpose specified. Eleventh, The arrangement of the luting cloth on the end of an elastic bar or spring attached to the same shaft as one of the smoothing irons, substantially as set forth for the purpose specified. 53,402.—Wooden Pin Machine.—Nelson W. Brewer, Williamsport, Pa.: I claim, first, in combination with the stationary cutters, the vertically reciprocating block carrier for cutting off the pins from the wood and holding them ready for being pointed, substantially as herein described. I also claim in combination with the stationary cutters and reciprocating pointing tools, the traveling followers, for forcing the pins against the pointing tools, substantially as and for the purpose described. I also claim in combination with the stationary cutters, and reciprocating block carrier and followers, the vibrating guide board, which is moved aside by the followers as they are approaching the cutters, and returns after the followers are withdrawn to receive the finished pins and carry them out of the machine, substantially as described. 53,403.—Wick Trimmer.—William B. Brooks, Boston, Mass.: I claim the combination of the frame, a, b, lever, c, g, spring, o, and knife, h, when said knife is attached directly to the lever and all arranged to operate as and for the purposes herein specified. 53,404.—Burner for Gas Stoves.—T. H. Brymer, New York City: I claim the box, B, perforated at its sides as shown at b and provided with the vertical tubes, C, in combination with the button or detector, D, air opening, a, at the top of the box, B, and the tube, A, with or without the perforated disk, G, all arranged substantially as and for the purpose herein set forth. 53,405.—Lathe Chuck.—James A. Bunce, East Berlin, Conn.: I claim the combination of the sliding bars, C, with the jaws, B, shank, D, and stock, A, substantially in the manner as and for the purpose described. 53,406.—Ventilator for Hats.—Benajah J. Burnett, Mount Vernon, N. Y.: I claim, first, a hat provided with a ventilator consisting of the series of air directing and conducting passages, a, g, arranged with reference to each other and projecting outwardly from and inwardly through the crown of the hat, substantially as set forth for the purpose specified. Second, The ventilator consisting of plates, a, m, h, and flanges d', b', united by a screw, e, whereby they are secured in the hat, substantially as herein specified. 53,407.—Method of Treating Cholera.—Alexander Collins Campbell, Mount Morris, N. Y.: I claim, first, The preventive medicine composed of the several ingredients, and in substantially the proportions as described, under the head of the first part of my method of treatment. Second, I claim the same compound with the addition of laudanum, tincture of cayenne pepper, and pepperine, in substantially the proportions described, as a remedy in the diarrhoeal stages of cholera, as set forth. Third, I also claim the external application, composed of unguentum hydrargyrum and iodine, in combination with the internal remedies above named, in the diarrhoeal stage of cholera, as described. Fourth, I claim injecting oxygen gas into the tissues of the body, through perforations made in the skin, for the purpose of vitalizing and re-oxygenizing blood in the capillary vessels and small arteries and veins, and producing warmth of the surface, substantially as set forth. Fifth, I claim injecting oxygen gas into the tissues of the body in combination with the injection of artificial serum into the veins, for restoring the fluidity to the blood, and aërializing it in the small vessels remote from the heart and lungs, substantially as and for the purposes set forth. Sixth, I claim as a whole, the within described method of treating cholera, substantially as set forth. 53,408.—Cultivator.—James Canfield, Washington, Iowa, and Charles Hess, Lyons, Iowa.: First, We claim the combination and arrangement of the inner beam, F, F, the slotted hangers, H, H, pivoted to the cross bar, C, and the regulating bar, I, operating as and for the purposes specified. Second, We claim the combination and arrangement of the plow beams, E, F, the hangers, G, H, the levers, L, L, cross bar, C, chains, a, b, arranged and operating as and for the purposes described. 53,409.—Harvester.—J. M. Canfield, A. T. Still and E. P. Wheeler, Lawrence, Kansas. We claim the arrangement of the grain receptacle, D, the handle, E, and standard, F, when constructed and operated substantially as and for the purposes specified and shown. 53,410.—Balance Valve for Steam Engines.—John W. Carhart, Troy, N. Y.: I claim, first, The receiver, i, in their end of the plug valve, A, constructed and operating substantially as and for the purpose described. Second, The arrangement of the screw, m, yoke, n, set screw, r, and cross bar, q, with the plug valve, A, and shell, B, constructed and operating substantially as and for the purpose set forth. 53,411.—Water Drawer.—H. P. Castle, Ashtabula, Ohio: I claim the clamp, E, provided with an arm, H, and lug, I, in combination with the shaft, B, and forked crank, constructed and arranged as and for the purpose set forth. 53,412.—Window Blind.—L. W. Chase, Galion, Ohio: I claim the arrangement of the handle, l, single strip, G, and crank arms, h, in combination with the slats, b, and tenons, c, operating in the manner and for the purpose herein specified. I also claim the combination of the latch, m, and strip, g, in the manner and for the purpose herein specified. 53,413.—Apparatus for Crimping Hair.—H. Christian, New York City: I claim a crimping apparatus adapted for use in connection with hot water as a medium of supplying heat to the surface or surfaces brought into contact with the hair, substantially as hereinbefore set forth. I claim the post, p, having a stud, d, at the top to enter the foot plate, B, and an opening at the bottom in combination with diagonal brace bars, b, which are secured to the foot plate by screw or otherwise, substantially as and for the purpose set forth. 53,415.—Floor Attachment for Furniture.—Harrison Cole, Cincinnati, Ohio: I claim the furniture floor fastener, consisting of the dovetailed tenons, C, C, and rockets, E, E, having one or more binding or locking tongues, F, substantially as herein set forth. 53,416.—Straw Cutter.—Munson Cole, Colebrook, Conn.: I claim the V, or concave bottom of the receiving box and my method of arranging the operating parts of the straw cutting machine, as herein set forth. 53,417.—Apparatus for Receiving and Delivering Mail Bags.—John J. Cooper, Olmsted Ohio: First, I claim the arms, A', pivoted to the frame, A, in combination with the catch, B', and spring, c', in the manner and for the purpose substantially as set forth. Second, The arms, A', and hanger, C, in combination with the springs, c and b, substantially as and for the purpose described.

53,418.—Fence.—Elias Cozad, East Cleveland, Ohio: I claim the arrangement of wires or rods, C, with the spiral turns, B', in combination with the posts, A, slots, a, and keys, c, in the manner and for the purpose set forth. 53,419.—Carriage Curtain Fastener.—Elmer Crawford and James H. Birch, Burlington, N. J.: We claim the binding of the eyelets of carriage window curtains by means of metallic plates riveted together, held fast to the frame by hooking on revolving knob screws applied to and in combination with carriage window curtains, in the manner and for the purpose above set forth, using, to obtain the said effect, any metal, as brass, silver, galvanized iron, or any suitable material substantially equivalent or which will produce the intended effect. 53,420.—Instrument for Measuring Distances.—John J. Daly, New Orleans, La.: I claim the arrangement of the scale, A, index, B, thumb screw, D, and clamp screw, E, in combination with the rod, F, and eye piece, G. 53,421.—Boiler for Culinary Purposes.—F. W. Dembois, East Saginaw, Mich.: I claim the combination with any vessel suitable for containing liquid to be boiled, of a cover, B, consisting of the parts substantially as herein described. 53,422.—Adjuster for Evaporators.—J. A. DeTar, Lanesfield, Kansas: I claim the frame, or its equivalent, with an adjusting screw depending therefrom and attached to the end of the rocker pan, substantially as and for the purpose described. 53,423.—Roller Temple for Looms.—Warren W. Dutcher, Milford, Mass.: I claim my improved application or arrangement of the headed spindle and its fastening screw, with reference to the cap extension and the standards, E, for supporting the cap, C, the spindle under such application being screwed into one, and being free to move lengthwise in the other, of such parts at E, while the fastening screw is in the act of being set up, the whole being so that there may be no such force exerted by the spindle on the extension of the cap as will operate to draw the cap and spindle out of parallelism with the trough. 53,424.—Gang Plow.—John H. Eckert, Lebanon, Ill.: First, I claim the arrangement of the plow beam, S, E, lever, M, adjustable bars, G, adjustable guide, J, rod, F, screw rods, G, in combination with the standards, J, rods, K, sockets, f, plows, I, and braces, L, constructed and operating in the manner and for the purpose herein specified. Second, The combination of the lever, N, cross bar, o, notched plate, p, and frame, C, constructed and arranged to operate in the manner and for the purpose herein specified. 53,425.—Sheep Shearing Table.—W. R. Elder and O. T. Baker, Huntington, Ohio: I claim the arrangement of the braces, C, C', and D, D', in combination with the adjustable pivoted legs, A, B, straps, c, and elastic holder, D, constructed in the manner and for the purpose substantially as set forth. 53,426.—Telegraph Insulator.—Alfred B. Ely, Newton, Mass.: I claim the rubber belt and disk, attached to the shank, in combination with the pin hook, when constructed and arranged substantially as described. I also claim as articles of manufacture the rubber belt chambered pin hooks as described. 53,427.—Telegraph Insulators.—A. B. Ely, Newton, Mass.: I claim as an article of manufacture, the rubber screw covered pin hook with rubber disk attached, as described. 53,428.—Cravat.—Otto Ernst, New York City. Antedated March 23, 1866: First, I claim a sheet metal frame for a cravat, formed with an opening or openings for attaching the bow at the front portion and retaining it in place, as specified. Second, I claim a loop or fastening on the inside of the sheet metal frame of the cravat at the front part thereof, to connect the same to the shirt collar, as specified. Third, I claim forming the sheet metal for the cravat frame with a curved edge at the part which comes below the chin, as and for the purpose specified. Fourth, I claim a cravat frame enameled, or coated with a color to imitate a silk fabric on those portions of the frame that are visible when in use, as set forth. 53,429.—Egg Beater.—Henry D. Felthouse and John H. Felthouse, Philadelphia, Pa.: I claim constructing a series of beaters, c, substantially as described, and combining them with a closed vessel, A, so that the beaters shall be able to revolve in the vessel back and forth, the apparatus being constructed and operating substantially in the manner hereinbefore described and for the purposes specified. 53,430.—Telegraph Cable.—Samuel T. Field, St. Louis, Mo.: First, I claim an elastic cable cord, A, conducting medium or wires, C, substantially as described and for the purposes set forth. Second, The elastic cable composed of parts, A, and B, combined with the non-conducting and yielding cover, D. 53,431.—Artificial Fuel.—Randall Fish, Washington, D. C.: I claim a composition of matter for use as a fuel, compounded and prepared substantially in the manner set forth, from the ingredients named or their equivalents. 53,432.—Churn.—D. A. Fiske, Delavan, Wis.: I claim a churn dash provided with hinged or jointed flaps when the same are hung as shown, so as to have an inclined position when closed against the frame of the dash, and one flap having a reverse inclined position to that of the other, substantially as and for the purpose set forth. I also claim the chamber, H, applied to the under side of the lid or cover of the churn, substantially as and for the purpose set forth. 53,433.—Scraper and Knife and Fork Cleaner.—Nathaniel W. Foye, Cambridge, Mass.: I claim the within described implement, consisting of a scraper having one or more flexible edges, combined with a knife and fork cleaner, operating substantially as described. 53,434.—Balance Beam for Boring Oil Wells.—John Bodine Frazier and Homer Wickes, Conneantville, Pa.: We claim the weight box, E, F, with the straps, G, key, H, and rollers, i and j, in combination with the beam, B, C, constructed as described, and for the purposes set forth. 53,435.—Amalgamator.—Henry A. Gaston, Austin, Nevada: First, I claim the rotating screw, C, operating within a cylinder or case, D, situated within the amalgamating pan, B, substantially as herein described and for the purpose specified. Second, The inclined partitions, n, arranged between the case, D, and the amalgamating pan, B, and with reference to the openings, S, substantially as herein set forth for the purpose specified. 53,436.—Whiffletree.—Arrington Gibson, Riverfalls, and William M. Newcomb, Clifton, Wis.: We claim the bands, F, with the lips, G, bent lever, D, in combination with the pin, H, spring, f, or its equivalent rod, k, and strap, N, constructed substantially as and for the purpose specified. 53,437.—Crate for Carrying Fruit.—William Gilbert, Catskill, N. Y.: I claim the combination of front, rear, end and bottom frames, formed and arranged as described, with a solid or frame work top or lid, to form crates, or the holding and carrying of fruits or vegetables or similar articles, in the manner as set forth in the within specification. 53,438.—Evaporator.—L. R. Gleason.—Dundee, N. Y.: First, I claim the channeling of tables, which allows of using broad tables. Second, The use of faucets to feed the brine upon the first table, and to regulate the feeding according to the condition of the atmosphere. Third, The depending points in combination with projecting

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

Fourth, The movable pins or their equivalent for the purpose specified.

53,439.—Garden Roller for Destroying Insects.—Harman Gray, Sugar Creek, Wis.:
I claim the guide wheel, L, scraper, B, and ridged roller, C, all constructed and arranged to operate substantially as described.

53,440.—Furnace for Treating Auriferous Ores.—Amos E. Griffiths, Philadelphia, Pa.
First, I claim the arrangement of a cupola immediately over a water cistern for the treatment of metal bearing minerals, substantially as set forth.
Second, In combination with a cupola, C, and chimney, F, I claim the reversed pipe, D, and suction fan, E, substantially as set forth.
Third, I claim passing the fumes from heated metallic ores on mineral bearing metals, over wet blankets or other porous substances, for the purpose of condensing such fumes and depositing the metals suspended therein.
Fourth, I claim the arrangement of the chimney, F, pipe, G, branch pipes, G1 G2 G3 G4, with the sluice boxes, L and H, substantially as set forth.

53,441.—Rack and Stove Shelf.—John Gullford, Girard, Pa.:
I claim the rack frame, H, brackets, B F, in combination with the shelves, K, and the pipe, A, arranged as and for the purpose substantially as set forth.

53,442.—Valve Gear for Steam Hammers.—Hugh Hamilton, Newburgh, N. Y.:
I claim the arrangement of levers, L and N, in combination with links, K, and ram, A, for one, and with rod, U, lever, W, and the slide valve for the other lever, which enables the blacksmith to work single acting and double acting steam hammers in the easiest possible manner, as described.

53,443.—Gang Plow.—A. Hammond, Jacksonville, Ill.:
I claim, First, Provision for adjusting the two supporting wheels, A and F, simultaneously, by means of a rack and screw, or their equivalent, substantially as described.
Second, Connecting the landside wheel, F, to a spring or yielding lever, G, substantially as described.
Third, Connecting the rear supporting wheel, J, to a spring or yielding lever, H, substantially as described.
Fourth, Providing for adjusting the spring, V, of the lever, H, substantially as described.
Fifth, Fitting the axle bars of the rear supporting wheels, F, and J, to oscillating segments, substantially as described.

53,444.—Process of Reducing Refractory Gold Silver, and Copper Ores.—Charles W. Harvey, Buffalo, N. Y.:
I claim the reduction of refractory gold, silver, and copper ores in common blast furnaces to the degree of obtaining pigs or bars of white metal therefrom, by combining and smelting therewith, either the carbonate of lime, soda, manganate of soda, or other alkali or slag, substantially as described.

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

53,446.—Cultivator.—Charles Holman, Cameron, Ill.:
I claim the buttons, H, H, secured to the upper ends of the rods, G, G, in combination with the bar, J, provided with the recesses, h, h, and the springs, g, on the rods, G, all arranged substantially as and for the purpose specified.

53,447.—Cotton Picker.—George A. Howe, Brooklyn, N. Y.:
I claim the arrangement of stripper fans in respect to the shaft on which they revolve, as tangents thereto, substantially as described.

53,448.—Centrifugal Machine.—Harvey Hunt, Oskaloosa, Iowa:
I claim the construction of a centrifugal sugar separating screen, with a conical floor or deflector, substantially as and for the purpose set forth.

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

53,450.—Harvester Rake.—J. Herva Jones, Rockford, Ill.:
I claim, First, The combination of the turning and oscillating rake post, with the cam groove located upon the grain side of the main frame, when constructed, a ranged and operating substantially in the manner described for the purposes set forth.
Second, The combination of the platform, the divider, and the wing board with the rake, substantially as and for the purpose described.
Third, The arrangement of the platform, the driving shaft, and the rake, substantially for the purpose set forth.
Fourth, The combination of the driving shaft, the swiveling socket, the cam groove, and the rake, when arranged for joint operation, substantially as described.
Fifth, The combination of a rake post with a swiveling socket and a sliding tircum, substantially as and for the purpose described.
Sixth, The combination of the driving shaft, the swiveling socket, and the hemispherical cam groove, arranged and operating as described.
Seventh, The combination of the rake post, fulcrum pin, and guides socket, as and for the purpose described.
Eighth, Uniting the rake post and arm when located as described at an acute angle, substantially as described for the purpose set forth.

53,451.—Portable Tank for Oil, Etc.—Joel F. Keeler, Pittsburg, Pa.:
I claim, First, The hatchway, h, h, in combination with the steam pipe, d, or their equivalents, in the construction and use of portable tanks.
Second, The hollow cover, f, constructed and used substantially in the manner and for the purpose described.

53,452.—Broom Head.—Abraham B. King, Seven Mile, Ohio:
I claim, First, A broom head composed of a wooden abutment, C, and one or more wooden clamps, D and E, all arranged and operating substantially as described.
Second, The flange plates, H and I, and I P, or their equivalents, in combination with the clamps, D E, as set forth.

53,453.—Sawing Machine.—Joseph Kunz, Bay City, Mich.:
I claim the arrangement of the saw, c, adjustable pivoted to the swinging weighted frame, g, which vibrates upon pivots in the supporting frame, m, n, substantially as described and represented.

53,454.—Match Compound.—Louis Ianszweert, San Francisco, Cal.:
I claim the within-described match compound made of the ingredients above set forth, free from phosphorus and sulphur, substantially as specified.

53,455.—Paper Shirt Bosom.—Charles M. Lee, Springfield, Mass.:
I claim the button hole strip or loop, e, when attached to the upper edge of the bosom by the continuous ornamental stitching upon the outer edges of the imitation platts, substantially as and for the purpose set forth.

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

53,457.—Sulkey Plow.—Samuel M. Lockwood, Chicago, Ill.:
I claim the arrangement substantially as described of the part, P, or its equivalent, in construction with the pole, A, and the clamp, D, or its equivalent, substantially as above described, by means of which a change of direction is obtained, substantially as set forth.

Second, The arrangement of the braces, R and R, in manner substantially as set forth with the corn plows or their equivalent, so that the same can be pointed as one may desire, in order to plow deeper or otherwise, as one may wish.
Third, The method of raising and lowering the plows by the arrangement of the levers, J and J, in connection with the braces, B and G, running from cross bar to cross bar, as above described, or their equivalent, substantially as above set forth, with the seat, k, and in connection with the axle, L, substantially as described, the cross bar, C, with the arms, I and I, or their equivalent, in connection with the shanks m and M, substantially as set forth, and the cross piece, H, or its equivalent, substantially as set forth.

Fourth, The arrangement of corn plows in any and all of the ways substantially as set forth, in combination with a frame work with wheels, and constructed substantially as set forth.

53,458.—Wind Mill.—Phillip Loeffler, Milwaukee, Wis.:
I claim the guide rod, a, having the stop pins, o o, and operated by the lever arm, l, constructed and operated as described and arranged in relation to the arms and paddles, substantially as set forth.

53,459.—Corn Planter.—David and D. F. Luse, Spring Mill, Pa.:
First, We claim the ball, l, provided with the attaching and adjusting flanch, t, and angle adjusting rod, m, for mounting the drill tooth upon, substantially as and for the purposes herein specified.
Second, We also claim the double share and double mold board furrow clearing plow, N, in combination with the drill tooth, l, substantially as and for the purposes herein set forth.

53,460.—Composition for Core Powder.—William B. Lupton, Pittsburg, Pa.:
I claim a compound made of the ingredients herein specified, to be used in combination with sand in the process of forming sand cores, as set forth.

53,461.—Collapsible Float for Boats.—J. MacDonough, New York City:
I claim the combination and arrangement of the collapsible covering, F, hoops, A A, guard rope, C, and valve, D G, constructed and operating in the manner as herein described.
Second, I claim the combination of the adjustable reversible brackets, m, studs, a, and floats, F, arranged one operating as herein described.
Third, I claim the combination of the collapsible floats, F, hoops, a, guard rope, C, valve box, D G, adjustable brackets, m, studs, a, string pieces, B B, constructed and arranged relatively to each other and the boat, p, in the manner and for the purpose herein specified.
Fourth, I claim the string piece, B B, in combination with the hoops, A A, and flexible covering, F F, substantially in the manner and for the purpose specified.

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

53,463.—Centrifugal Machine.—Alexander Mackey, New York City, and Eberhardt Miller, Williamsburg, N. Y.:
First, We claim the inner cylinder, m, applied to the main cylinder of a centrifugal machine, substantially as set forth for the purpose specified.
Second, The circular platform, S, and lid, R, arranged with reference to the partition, m, substantially as set forth for the purpose specified.

53,464.—Machine for Raking and Loading Hay.—W. L. Mayfield, Ashley, Ill.:
I claim the manner of giving the up and down motion to the teeth of the rake, H, to wit: by means of the pendulum rod, l, notched pivoted plates, K K', the projection, o, and pin, p, all arranged substantially as set forth.

53,465.—Manufacture of Dressing Rolls.—Charles McBurney, Roxbury, Mass.:
I claim the covering of metal rolls with a semi-elastic vulcanized rubber compound for dresser rolls and for similar purposes, as set forth.
I also claim as a new article of manufacture rolls for dressing yarn and other like purposes, composed of a metal shaft or roll covered with a semi-elastic vulcanized compound having the properties requisite to operate as hereinbefore set forth.

53,466.—Planing Machine.—Wm. B. McIver, Worcester, Mass.:
First, I claim the combination with the feed rolls of a planing machine or machine for working lumber of the bevel gear, F V H U, and sliding shaft, G, substantially as and for the purposes described.
Second, The combination with the feed rolls in a planing machine of mechanism for operating both rolls upon their axes, and for elevating and lowering the top feed roll, substantially as herein described.
Third, Supporting the rear end of the feed roll, and the upper end of the vertical shaft, in the same stand or bearing piece, substantially in the manner and for the purposes stated.
Fourth, Supporting the upper end of the vertical shaft as described, in combination with giving its lower end play, as and for the purposes set forth.

53,467.—Pump.—Jacob Michel, Rochester, N. Y.:
I claim the combination and arrangement of the valve seat, D, made to adjust lower or higher to give greater or less play to the valve, the valve, E, provided with the flange, I, and water-packing grooves, m, m, and the piston rim, C, made in a single piece, the whole operating substantially as and for the purposes herein set forth.

53,468.—Table Napkin.—Albert L. Munson, New Haven, Conn.:
First, I claim a paper and cloth napkin, substantially as described.
Second, A paper and cloth napkin when embossed or printed or perforated, substantially as described.

53,469.—Steam Water Elevator.—David Myers and L. H. Noble, Chicago, Ill.:
First, We claim the combination of the reservoir, A, the induction and ejection pipes, C and D, and steam pipe, E, provided with the valves, c, a, respectively arranged and operating substantially as and for the purposes specified.
Second, We claim in combination with said reservoir, A, and pipes, C D E, the shaft, G and J, and lever, I, for the purpose of opening and closing the valves, a, b, simultaneously, for the purposes described.

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

53,471.—Button.—Frederick I. Palmer, Springfield, Mass.:
I claim the combination of the stud, B, notched as described, with the spring, C, and the other parts of the button, substantially as herein set forth.

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

53,473.—Combined Pistol and Pocket Knife.—A. J. Peavey, South Montville, Maine:
First, I claim as having the barrel of a pistol within the casing or handle of a pocket knife that its breech end can swing out of it or into the same, substantially as described and for the purpose specified.
Second, The combination of the hook end or arm, G, of the pistol barrel with the spring catch, F, of the breech piece, O, of the knife handle arranged, together and operating as and for the purpose described.

53,474.—Seat Desk for Schools.—Isaac Newton Pierce, Philadelphia, Pa.:
I claim the application of a crane movement by which a chair

may be attached to its own desk and yet have a free movement, as substantially set forth.

53,475.—Beehive.—T. W. Pierce, Minneapolis, Minn.:
I claim a beehive constructed of corn cobs, substantially as shown and described.

53,476.—Manufacture of Sheet Iron.—Charles H. Perkins, Providence, R. I.:
I claim preparing plates of sheet iron, whether for receiving a coating of zinc or other metal preparatory for polishing and coloring in imitation of Russia iron, by the application of the decarbonizing process, substantially as described.
And I also claim preparing plates of sheet iron for coloring in imitation of Russia iron by first decarbonizing them and then rolling them, substantially as described.

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

53,478.—Pole and Thill for Carriages, Etc.—John G. Perry, Kingston, R. I.:
First, I claim the convertible pole and thills, k k, in combination with the adjustable cross plates, a b, constructed as herein described and for the purpose set forth.
Second, I claim in combination with the foregoing the use of the projections, H, to connect the pole and thills to the machines and carriages, substantially as herein described.

53,479.—Railroad Rail.—D. C. Pierce, Clayton, N. Y.:
I claim the combination of the upper or cap rail with lateral flanges, the lower or bed rail, and the intervening continuous bearing rail supported upon the road bed either immediately or by intervening chairs or sleepers.

53,480.—Hub or Spool for Curtain Rollers.—Frederick Pilling, Washington, D. C.:
I claim a cup or hub for the rollers of window shades, curtains, or other similar purposes cast in one piece, and comprising within itself a flange, pulley, journal and screw for securing it to the roller, substantially as described.

53,481.—Apparatus for Carbureting Air.—E. A. Pond and M. S. Richardson, Rutland, Vt.:
First, I claim the improved gas machine substantially as herein described, the same consisting of one or more coils of pipes so combined with a fluid vessel and air forcing apparatus that the said coil or coils shall be constantly supplied with fluid by the action of the blast and hydrostatic pressure, and a continuous circulation of fluid maintained therein as set forth.
Second, The arrangement of the coil in relation to the fluid reservoir so that the air shall be discharged from the coil above the level of the fluid in the reservoir, substantially as herein shown and described.
Third, The arrangement of the air supply pipes relatively to the coil and the fluid reservoir, substantially as herein shown and described, so that the current of air shall be impelled upwardly and along the tubular coil, as set forth.
Fourth, The method herein described of combining the air supply pipe with vaporizing coil by inserting the contract end of the former into the larger tube of the latter for operation as an injector, substantially as set forth.
Fifth, The employment in connection with a communicating pipe or coil extension under the bottom of the fluid, of a stopper or bamboo or other porous material, as and for the purposes set forth.
Sixth, The use in combination with a fluid vessel and a coil of a perforated diaphragm or dome for returning the fluid ejected from the coil in spray-like form to the reservoir, and thus fill the gas collecting chamber with hydrocarbon vapor, as set forth.

53,482.—Gas Apparatus.—E. A. Pond and M. S. Richardson, Rutland, Vt.:
First, We claim in combination with an apparatus for charging atmospheric air with the vapor of hydro-carbon fluid, the method of using the same as a variable source of supply, substantially as herein described for forcing the air through hydro-carbon liquid or vapor.
Second, The construction of the air pipe with branches, and providing the same with stopcocks so as to supply the vaporizer with hot or cold air at pleasure substantially as set forth.
Third, Generating illuminating gas by means of an apparatus consisting of a retort with a vaporizer of an air pump driven by a gas engine which receives its supply of gas from the gas generator, substantially as herein described.

53,483.—Gaiter Shoe.—Amaziah M. Preble, Lynn, Mass.:
I claim the fly as made with the elastic Gore arranged in it, as described.
I also claim the combination and arrangement of the ply and its buttons, with the sole opening, of the same and its lacing and lacing holes, the whole being substantially as hereinbefore described.

53,484.—Churn Attachment.—William M. Pyle, Greensburg, Ind.:
I claim the combination with the gearing, J K, crank, p, crank wheel, L, frame, g, h, and dasher shaft, f, of the detachable supple, m, in combination with the hooks, D, and pins, e, substantially as and for the purpose specified.

53,485.—Boring Machine.—Emmett Quinn, Washington, D. C.:
I claim the employment in a machine for boring wooden tubes of one or more pipes conveying water to the cutters, whereby the chips made by the cutters are discharged from the machine by the force of the water when constructed and operating substantially as described.

53,486.—Tool for Turning Wood.—Emmett Quinn, Washington, D. C.:
I claim a hollow cutter stock and its cutter, when constructed as described, in combination with a hollow supporting said cutter stock, and a discharge pipe, arranged to operate substantially as described and for the purposes set forth.

53,487.—Churn.—L. B. Randall, West Glover, Vt.:
I claim a hinged or pivoting the frame or upright, D, which supports the gearing for operating the churn in such a manner that it may be folded, substantially as specified.
I also claim the rack, L, in combination with the bar, K, and hinged upright, D, substantially as specified.

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

53,489.—Mop Wringer.—Foster Rhines, Watertown, N. Y.:
I claim the combination of the roller, C, with fixed bearings, the roller, D, applied to the arms, b, b, of the treadle, G, the spring of screws, E, and the pad, A, substantially as described.

53,490.—Metallic Cartridge for Loose Ammunition.—W. H. Risley, Berlin, Conn.:
I claim the cylinder, A, made substantially as described, with a fixed partition to divide it into a shot or ball and a powder chamber, being of a diameter about equal to the bore of the gun with which it is to be used so that the wad can be used to shut the chambers, and with means for removing the wad at pleasure, substantially as described.

53,491.—Plover Point.—Cyrus W. Saladee and Thomas Simpson, Newark, Ohio:
First, We claim the bedding of the point, A, in the top surface of the share, B, in the manner and for the purpose substantially as shown and described.
Second, We claim the sand, C, figure 3, or its equivalent, in combination with the point, A, indentation, F, and slot, H, as and for the purpose set forth.
Third, We claim the beveled lips, E, of the point, A, figure 3, in combination with the corresponding lips, E, figure 2, substantially as and for the purpose shown and described.
Fourth, We claim the short wedge, D, figure 3, in combination with the stud, C, and slot, H, in the manner and for the purpose substantially as shown and described.

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

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These engravings represent a new brick machine which has some points of novelty. It is of that class where bricks are molded direct from the pug mill or chamber where the clay is tempered, without passing through other processes. It is extremely compact in form, and has but few details and those not of a complicated character.

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

The clay is placed in the chamber, A, and the mill

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

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

VALENTINE found that the whole quantity lost by exhalation from the cutaneous and respiratory surfaces of a healthy man, who consumed daily 40,000 grains of food and drink, to be 19,000 grains, or three and one-half pounds.

Fig. 1.

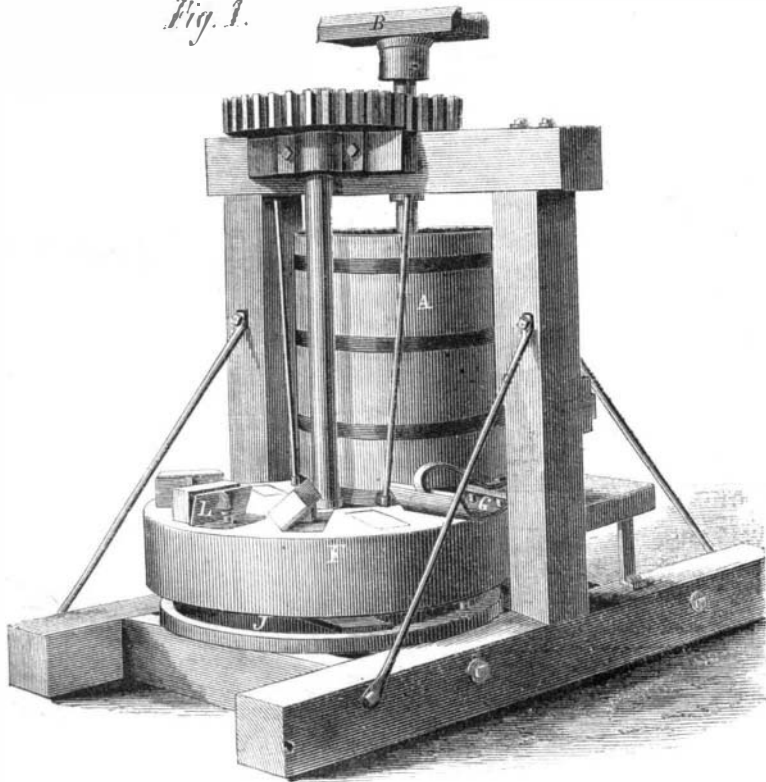
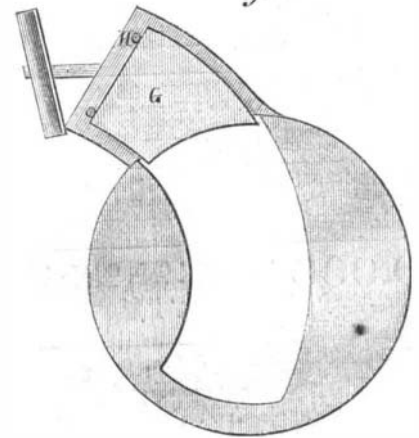


Fig. 3.



GARD'S BRICK MACHINE.

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

it is afterward removed. These are the details, and in the model they work well.

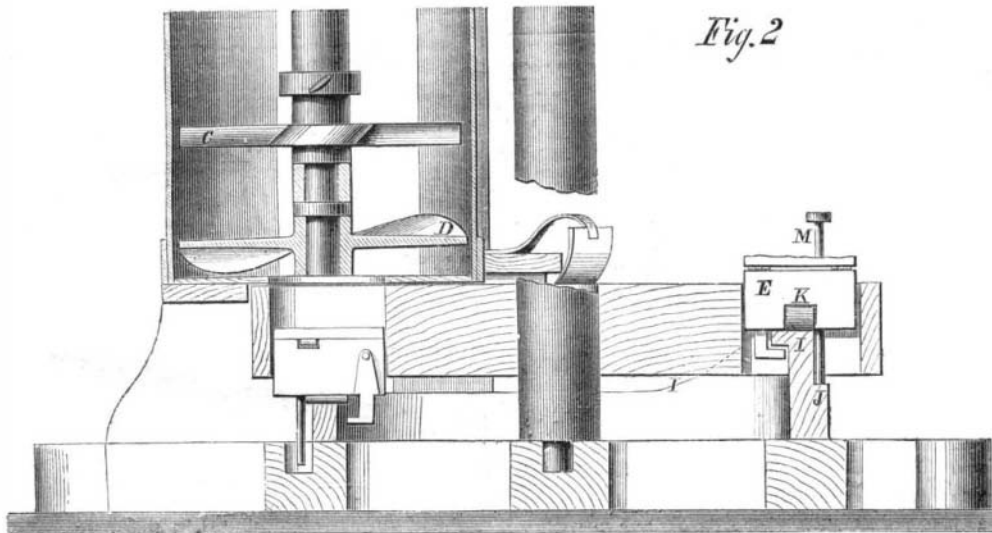
Patents were issued Nov. 25 and Dec. 5, 1865. A patent is also pending on the machine through the Scientific American Patent Agency. For further information address E. R. Gard, No. 102 Lake street, Chicago, Ill. [See advertisement on another page.]

Electricity in a Cotton Mill.

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

It has been ascertained by means of the Sirene that the wings of the mosquito vibrate at the rate of 15,000 times a second.

Fig. 2.



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

"It is a general truth that friction develops electricity, and most workmen know that a machine belt at high speed by its friction with the air is highly electrified. It has for years been a common experiment for a workman to light gas burners by holding one hand to a fast-going belt and the other to the open burner. This matter was curiously demonstrated in the Appleton Mills of this city on Wednesday. A strong smell of fire being noticed, the premises were carefully searched, and a small quantity of cotton lint inside a belt casing, was found on fire,



INVENTORS, MANUFACTURERS

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