

American Railway Master Mechanics Association.

A convention of Railway Master Mechanics was held at Cleveland, Ohio, Sept 30, at which time an organization was formed, and the above title adopted. The following officers were chosen: President, Mr. H. M. Britton, of the Indianapolis, Cincinnati and La Fayette Railway; Vice-president, Mr. N. E. Chapman, of the Cleveland and Pittsburg Railway; Secretary, Mr. Frederick Grinnell, of the Atlantic and Great Western; Treasurer, Mr. S. S. Hayes, of the Illinois Central Railway. A constitution was adopted and signed by the gentlemen present, a large number of railroads being represented. A Committee on Order of Business was appointed, which reported the following subjects for discussion:

- 1. Are steel plates preferable to iron in the construction of locomotive boilers, and if so will the difference in strength, durability, and safety, justify the excess of cost of steel as compared with the cost of the best iron?
2d, What should be the thickness of steel or iron plates when used in the construction of the outside shell of a forty-eight inch boiler? Also the best and strongest mode of riveting and bracing the same?
3d, What water space is deemed best upon the sides and ends of a furnace, both for wood and coal burning engines?
4th, How does the durability of steel for furnaces and flue sheets compare with that of copper or best iron?
5th, What space should there be between the flues so as to obtain the greatest absorption of heat?
6th, What size flues and what length will give the best results in wood and coal burning engines?
7th, What is the experience of the different master mechanics as to the wear and tear of steel tires now in use on their respective roads?
8th, What are the views of this convention on the subject of packing for cylinder and stuffing boxes?
9th, What are best modes of preventing the formation of lime and other incrustations in boilers?
10th, What is the opinion of this convention as to the present system of safety valves, levers and fixtures upon locomotive and other boilers—is it the safest and best?
11th, Would not the adoption of a "lock up valve," that could not be interfered with by the engineer, tend to the prevention of explosions now so frequent?

The following committees were appointed to report upon these subjects at the next meeting: On the articles 1st to 6th, inclusive, Messrs. Hayes, Jauriet, and Anderson; article 7th, Philbrick, Eddy, and Perry; article 8th, Brown, Chapman, and Smith; article 9th, Dripps, Towne, and Ray; article 10th and 11th, Stone, Young, and Wells.

On motion a committee of three—Messrs. Kinsey, Cooper, and Congdon—was appointed on valves anti-friction, size, etc. Messrs. Losey, Cullen, and Little, were appointed a committee on the explosion of boilers.

After the transaction of some minor business, the meeting adjourned, to meet at the shops of the Pennsylvania Central Railway at Pittsburgh, Pa., on the second Wednesday of September, 1869.

Adulterations in Vinegar.

The Prairie Farmer, has the following on adulterations in vinegar: Since the great increase in the price of high wines, on account of the heavy tax imposed by the Government, there has been a disposition, on the part of vinegar manufacturers, to produce the requisite degree of acidity by means of a cheaper substance than acetic acid, which forms the acidity of all pure vinegar, and which can only be produced by the oxidation of alcohol. Sulphuric, nitric, and hydrochloric acids are all employed for this purpose, but in the great majority of cases, the former is used, on account of its extreme cheapness and its intense sourness.

This acid may be detected, even in extremely small quantities, by taking a portion of the suspected vinegar, placing it in a clear glass vessel, and dropping into it a few drops of a solution of the chloride of barium, or the nitrate of barite. If the vinegar remains clear after the introduction of this substance, it is sufficient proof that it contains no sulphuric acid. If, on the other hand, the liquid presents a cloudy appearance, it is on account of the formation of the sulphate of barite, which will remain insoluble, whatever acid may be afterwards added.

The detection of nitric acid is not so easy. It may be discovered, however, by first adding to the vinegar placed in a wine glass, a few drops of sulphuric acid, waiting a few minutes for the mixture to cool, and then dropping in a crystal of the sulphate of iron, or copperas. If nitric acid is present, a brown ring will form around this substance, in the bottom of the glass.

To detect hydrochloric or muriatic acid, we have only to bring the suspected vinegar to a moderate heat, and to hold over it a glass rod or shaving of wood, moistened in aqua ammonia. If this acid be present, it will form white fumes as the two substances come in contact, forming, as they do, chloride of ammonium, or sal-ammoniac.

Ordinarily, however, it will only be necessary to test for sulphuric acid; but this should always be done before using vinegar, as this acid is very injurious to the health, and exceedingly liable to destroy substances placed in it to be preserved, as pickles. A few cents' worth of the substance we have recommended under this head, is sufficient to test all the vinegar which would be used in a family for many years. The cheapness of sulphuric acid is so great that vinegar may be made from it—or, rather, a substance that passes by the name of vinegar—for only a cent or two per gallon. That it is so made, is evident from the fact that carboys of sulphuric acid are to be found in most of the manufactories of "pure cider vinegar," in this as in other cities.

THE first mill in America for making sewing silks and twists by water was built by Rodney Hanks, in Mansfield, about fifty-eight years since. The first silk made by machinery in the United States was made in 1829, in Mansfield. In 1814 silk rose to \$30 a pound. The census of 1810 gives us the value of the silk manufacture and raw silk of Massachusetts and Connecticut for that year—\$29,121. In Windham County, Connecticut, the value of these products in 1825 was \$54,090. In 1831 Mansfield produced 84,000 worth of silk.

Can Any One Beat This?

OLD SAYBROOK, CONN., Sept. 26, 1868.

MESSRS. WHEELER & WILSON: Gentlemen:—I wish to say that I have in my family a "Wheeler & Wilson Sewing Machine," that has been in almost daily use for the past ten (10) years, and not a thing has ever been done to it in way of repairing; not a screw loose, or any part of it out of order in all that time. It has been used in making coats, vests, and pants, of the thickest of woolen goods, beside doing all kinds of family sewing, and is now, this day, the best machine for work I ever saw. Can any one beat this? Respectfully, GILBERT PRATT. Any one who can beat this (and we think many can), will please address Messrs. WHEELER & WILSON, 625 Broadway, New York.

OFFICIAL REPORT OF PATENTS AND CLAIMS Issued by the United States Patent Office.

FOR THE WEEK ENDING OCTOBER 20, 1868.

Reported Officially for the Scientific American.

Table with 2 columns: Fee Category and Amount. Includes: On filing each caveat, On filing each application for a patent, On appeal to Commissioner of Patents, etc.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:— On filing each caveat, On filing each application for a patent, except for a design, On appeal to Commissioner of Patents, etc.

83,124.—CAR-COUPLING.—George S. Acker, Kalamazoo, assignor to himself and H. A. Lacey, Detroit, Mich. I claim the plates, J and K, the link, L, the bar, M, and channel, N, in connection with the link, L, and pin, D, and draw bar, A, when arranged and operating substantially as and for the purposes set forth.

83,125.—BOILER SAFETY VALVE.—Edward Andrews, Pottsville Pa. Antedated October 9, 1868. I claim, 1st, The arrangement and combination of the balanced valve, E, with the valve, J, lever, H, piston, K, and yoke, D. 2d, The arrangement of the box, B, inclosing the valves, J and W and lever, H.

83,126.—INKSTAND.—H. P. Andrews, and M. E. Rawson, Cleveland, Ohio. We claim, 1st, An ink-elevating elastic air sack, constructed with a perforated corking end, which is of thicker material than the body of the sack, substantially as described. 2d, The horizontally sliding cover, D, pressure plate, F, one or more air chambers, E, and one or more ink reservoirs, G, combined and operating substantially as described.

83,127.—REVENUE STAMP FOR LIQUOR BARRELS.—George W. Bishop, Baltimore, Md. Antedated October 6, 1868. I claim, 1st, The oblong plate, A, provided with flanges on the sides, and with a central box, B, when constructed substantially as and for the purposes specified. 2d, The stamp, C, made of soft metal, and provided with pins, b, b, as described, and used with the beveled box, B, substantially as set forth.

83,128.—GROOVING MACHINE.—William H. Bond, and George G. Lee, Syracuse, N. Y. We claim an arm, B, when constructed in such manner as to alternately present a plan or grooved rolling face, as desired, substantially as and for the purpose herein described.

83,129.—PERMUTATION LOCK.—Edward W. Brettell, Elizabeth, N. J. I claim the wheel, B, pawl, t, with its arms, r and s, in combination with the inner circular tumblers, and the case, A, all constructed and arranged to operate in the manner and for the purpose set forth.

83,130.—PLOW POINT.—Lyman D. Burch, Sherburne, N. Y. I claim, 1st, The ribs or braces, D, D1, and D2, constructed and operating substantially as described. 2d, The stays, E and E', constructed and operating substantially as described.

83,131.—SAW FRAME.—Beauman Butler, and Charles F. Ramsay, St. Johnsbury, Vt. We claim, 1st, The saw frame, constructed substantially as above described, with a rigid end, A A' C E, and a flexible end, B C E'. 2d, The provision, in a buck saw frame, of the spring or cushion, G G', substantially as and for the purpose set forth.

83,132.—HOSE, AND MACHINE FOR MAKING HOSE.—George Gales, London, and James Archibald Jacques, and John American Fanshawe, Tottenham, England. Patented in England August 17, 1864. We claim, 1st, As a new article of manufacture, flexible hose, when constructed substantially as and for the purpose specified. 2d, The apparatus, constructed as described, whereby alternate layers or piles of yarn or thread are laid helically round the core in opposite directions, as herein set forth and shown.

83,133.—FEEDING MECHANISM FOR SEWING MACHINES.—J. L. Gales, and David H. Coles, New York City. We claim, 1st, The cam slide, C, in combination with the feed bar, A, substantially as and for the purpose described. 2d, The feed bar, A, in combination with the cam slide, C, constructed as described, and its mechanism for adjustment, as and for the purpose set forth.

83,134.—SNAP HOOK.—Edward A. Cooper, Buffalo, N. Y. I claim the hook, A, cast with hinge pin, e, and cross bar, h, in combination with the grooved tongue, D, and bow spring, h, when the parts are arranged and secured together in the manner described.

83,135.—VENTING CORE.—George G. Cressey, Philadelphia, Pa. Antedated October 8, 1868. I claim the box, E, its plate, G, and prints, H, in combination with the sliding plate, F, and its point d wires, K, and the mechanism herein described, or its equivalent, for imparting the desired movement to the said plates.

83,136.—BOAT DETACHING APPARATUS.—Thomas L. Cuthbert, Charleston county, S. C., assignor to himself, Nathaniel Levin, and Edward J. Marks. I claim the "marine cradle," by which ships' boats or yawls may be lowered and raised in the manner described in the above specification, or any other substantially the same, and which will produce the intended effect.

83,137.—LOCK FOR TRUNKS, PIANOS, ETC.—C. N. Cutter (assignor to Davis, Hill & Co.), Worcester, Mass. I claim, 1st, The combination, with the face plate, D, of the hinged tongue C, substantially as and for the purposes set forth. 2d, The combination, with the face plate, D, of the hinged tongue, C and spring, E, substantially as and for the purposes set forth.

83,138.—TRACK LIFTER.—Charles De Bierge, Westminster, Great Britain. I claim the within described instrument, consisting of the metal bed plate, a, pivot lever, c, and operating screw, w, e, the whole constructed and operating substantially as and for the purpose herein set forth.

83,139.—STOVE-PIPE DAMPER.—William H. Deily, Sycamore, Ill. I claim the two part case, formed by the parts, A and M, having flanges, D, B, for supporting the joints of pipe, and a recess inside, in which a damper, H, is made to operate for regulating the draft, substantially as and for the purposes set forth.

83,140.—NOZZLE FOR CANS.—Frederick W. Devoe, New York City. I claim, 1st, The plate, C, made separate from the nozzle and can, in combination with the nozzle and the can, substantially as and for the purpose herein specified. 2d, The box formed with the nozzle by the closed bottom, C, and the cap or cover, substantially as herein described.

83,141.—CLOTH DRAWERS.—Job Dyson, New Britain, Conn. I claim cloth drawers made by forming each half or leg, portion in one piece, with the seam down the back of the leg, and an opening, B, suitably located to form the body connection of the two legs, substantially as shown and described.

83,142.—RAILROAD-CAR HEATER.—John C. Eckert, Dayton, Ohio. I claim, 1st, The knob or trigger, N, in combination with the vase, for the purpose set forth. 2d, The inner catch, T, with the shutter, P, its spring, S, and arm, Q, as herein described and shown.

83,143.—PAPER CUTTING MACHINE.—Spencer Ellsworth, Lacon, Ill. I claim, 1st, The combination of the bar or way, C, the sliding carriage, D, the vertically adjustable knife, K, and screw, S, in a frame, constructed and operating in the manner and for the purposes herein set forth. 2d, The combination of the bar, C, provided with the sprooves, c, the carriage, D, provided with the rib, b, and adjustable rib, d, and the screw, L, all arranged to operate in the manner and for the purposes described.

83,144.—PERMUTATION LOCK.—William F. Ensign, Troy, N. Y. I claim in combination, the interlocking of the wheels or tumblers, and closing of the gateway in the wheels by the slides, as shown and described.

83,145.—WASHING MACHINE.—Robert E. Ferguson, Chicago, Ill. I claim the arrangement of the wringer rib, i, centrally over the tub of the machine, when supported upon a bar or bars, C, D, which at the same time encloses and protects the gearing of the machine from the water expressed from the clothes by the wringer, all constructed and operating as and for the purposes specified.

83,146.—COMBINED SKIRT AND HOSE SUPPORTER.—Maria J. Foss, Charlestown, Mass. I claim the skirt-supporter, B, to which are attached the hose supporters, D, the latter being provided with lip pads, C, and the whole being combined and arranged substantially as set forth.

83,147.—MACHINE FOR CARBURETING AIR.—Theodore F. Frank, Buffalo, N. Y. I claim, 1st, An upright cylindrical vessel forming the carbureting chamber, D, regulating compartment, G, and water tank, I, containing the air drum, H, arranged respectively one above the other, and with the supporting frame, A A' B, and operating weights, W W, substantially in the manner and for the purpose set forth.

83,148.—STAMP KNIFE.—Samuel Friend and John McCollom, Decatur, Ill. We claim the construction and arrangement of the stock, A, flat rectangular knife blade, B, secured hereto by means of the stirrups, c, a and a adjustable means of the set screws, b, b, curved metal spring apron, C, actuating the beveled under side of said stock, A, its outer end projecting therefrom and guiding the silt, as herein set forth, for the purpose specified.

83,149.—PLASTIC COMPOSITION.—Hannah C. Gaskin, Union Vale, N. Y. I claim, 1st, A plastic composition of flour or starch, treated substantially as described, in combination with glue, resin, gum, or other equivalent substance, as described. 2d, The new article of plastic manufacture, substantially as described.

83,150.—IRON HOLDER.—Lorenzo D. Gillett, Rochester, and Henry W. Inman, Detroit, Mich. We claim the construction of a iron holder, with bed plate A, curved lever, F, and spring, D, arranged and operating substantially as herein described.

83,151.—SLED PLANTER.—John M. Gitchell, Haverhill, assignor to J. F. Morse, North Haverhill, N. H. I claim for effecting the reciprocating movements of the slider F, by means of the wheel or roller, H, the combination of the vibratory frame, G, the pulleys, the crank shaft, and the pitman, arranged with the slider, the wheel shaft, and the hopper, in manner, and to operate with an endless band or chain, substantially as specified.

83,152.—MANUFACTURE OF SHOT.—William Glasgow, Jr., and John G. Wood, St. Louis, Mo. We claim, 1st, The method herein described of producing shot, consisting substantially in dropping the metal, in a molten state, through a column of glycerin, oil, or other similar fluid, instead of air. 2d, The heating of said column at or near the top, so that the molten shot shall first impinge upon the heated portion of the medium, and be quickly cooled by its descent into the cooler portion of the same.

83,153.—BILLIARD TABLE.—Karl Guenoge, San Francisco, Cal. I claim the construction of a billiard table by the arrangement of the longitudinal slats, a, transverse slats, b, longitudinal rails, c, c, and alternate wide boards or pieces, u, d, d, placed edge-wise, and held by the transverse bars, e, e, or equivalents, substantially as a d for the purpose described, in combination with the papier maché or pasteboard, e, d, applied and prepared as specified.

83,154.—COMBINED PLOW AND HARROW.—Jacob Haessel, St. Louis, Mo. I claim the arrangement of the harrows, D, with the plow, A B, in the manner shown and described.

83,155.—CORN HARVESTER.—John D. Hampshire, Paper Mills Post Office, Md. I claim, 1st, The circular saw or cutter, E, perforated with holes, k, and arranged in connection with the spring bar, O, bar, Q, and discharging bar R, to operate in the manner substantially as and for the purpose set forth. 2d, The bow, U, connected with the discharging bar, R, and arranged to operate in connection therewith substantially in the manner as and for the purpose set forth.

83,156.—AUGER HANDLE.—T. C. Hendry (assignor to himself and R. B. Smith), Union Point, Ga. I claim the combination of the socket, A, formed by two tubes, a and b, crossing each other, with the handle, B, made adjustable in the socket, b, and the auger shaft, c, having a ratchet thereon, extending up through the tube a, and handle, B, all constructed and arranged substantially as and for the purposes herein specified.

83,157.—FASTENING FOR CHECK HOOKS AND TERRETS.—A. L. Hill, Decatur, Ill. I claim the screw, B, with a flat head, D, having its corners, a, turned upwards, and used for connecting the terret or check hook, A, when said terret or hook is provided with a female screw in the Shank, all substantially as herein shown and described.

83,158.—SERVING MACHINE.—Frank A. Hill, Marysville, Cal. I claim the frame, A, provided with the shafts or teeth, A, in combination with the feed box, D, provided with the toothed shafts, E, E', rotated in opposite directions from the wheels, B, B, and also provided with the fixed and adjustable perforated plates, c, c', all arranged to operate in the manner substantially as and for the purpose set forth.

83,159.—RAILROAD AXLE.—George H. Hoagland, Port Jervis, N. Y. Antedated October 10, 1868. I claim a wrought iron axle, constructed with steel journal castings, extending abut midway into the eye of the wheel, substantially as and for the purposes specified.

83,160.—TOY.—John L. Holt, Providence R. I. I claim, 1st, The toy, consisting of the self-sustaining pendulum, A B C, and of the figures or images, E E, having loose swinging limbs or parts, F F, attached thereto, so that constantly varying pictures and positions are produced, substantially as described. 2d, The pin, c, when provided with the fastenings, d, and when secured to the images, E, to suspend the limbs, F, as specified.

83,161.—TOY.—John L. Holt, Providence R. I. I claim the disk, D, when provided with a socket, c, with its equivalent, the spring, g, and when so arranged that figures or images, s, can be easily fastened to and removed from it, as specified. 4th, The manner herein shown and described of fastening the sustaining plates, G, to the figures, E, by cutting pined pinions, h, out of the former, and fastening them to the figures, as set forth.

83,162.—TOY.—John L. Holt, Providence R. I. I claim the manner herein shown and described of suspending the members, F, from the figures, E, by fastening tubes, i, to the figures, and pins, j, to the members and securing and arranging all as herein shown and described.

guide, h, to which the knife, F, is attached, in combination with the frame, D, constructed substantially as described, and operating as and for the purposes set forth.

2d, The shaft, e, crank, f, lever, g, crank lever, h, rod, g, lever, i, and pawl, j, and j, in combination with wheels, k, and k, and rollers, m, n, substantially as described, and operating as and for the purposes set forth.

83,316.—**REFRIGERATING HOUSE.**—Thos. L. Rankin, New Richmond, Ohio.

1st, The ice box, b, constructed and operating substantially as and for the purposes described.

2d, The combination of ice floor, c, and pans, c, c', operating together for the purposes explained.

3d, The combination of ice floor, c, and follower, h, operating together substantially as and for the purposes explained.

83,317.—**VARNISH.**—Isaac Ranney, Delaware, Ohio.

1st, The varnish compounded substantially as above described.

2d, The process herein set forth of making the above described varnish.

83,318.—**FASTENER FOR COLLARS AND NECKTIES.**—Emanuel Rau, New York city.

1st, The stud, A, having an inclined side slot, g, as described, in combination with the pointed arm, d, e, double or joint, d, f, and having both a forward and lateral pring, when the parts are constructed to operate substantially as described.

83,319.—**ELLIPSOID.**—John Jay Rea, Cadiz, Ohio.

1st, The beam, A, books, B, E, forked track, C, provided with wheels, D, and E, together with pulley, F, rods, G, H, and weight, H, all combined and operating substantially as herein set forth.

83,320.—**STEAM SAFETY VALVE.**—Geo. W. Richardson, Troy, and Henry Watman Hudson, N. Y.

We claim, 1st, The lock-up bar or arch, J, J, constructed substantially as shown and described.

2d, The construction of the branch or escape passage, N, substantially in the manner shown and described, it being so arranged as to prevent tampering with the valve or its adjustments.

3d, The combination of the valve, A, spring, spider, D, D, cap, H, and lock-up bar, J, J, substantially as shown and described.

4th, The arrangement of the branch escape passage, N, with reference to the valve, A, and spring, C.

5th, The arrangement of the lock-up bar, J, J, with reference to bolts, I, I, substantially as shown and described.

6th, The arrangement of the spider, D, D, with reference to the spring, C, substantially as shown and described.

7th, The combination of the overhanging valve, A, spring, C, spindle, E, and solder, D, D, or its equivalent, substantially as shown and described.

83,321.—**RAILWAY CAR BRAKE.**—Martin H. Rumpf, Paris, France. Patented in France Oct. 17, 1867.

1st, The combination with a brake suspended as described, of a sliding or rotating half, or a chain for raising and lowering the brake, either the shaft or chain being operated by any suitable mechanism, substantially as herein set forth and shown.

83,322.—**MACHINE FOR SHARPENING THE CUTTERS OF MOWING MACHINES.**—Gelson Sanford, Bergen Point, N. J.

1st, The combination, with the holding bed, I, of a reciprocating grinder, arranged for adjustment relative to one another, substantially as and for the purpose set forth.

2d, The combination, with the holding bed, I, of the adjustable arms, L, substantially as and for the purpose set forth.

3d, The combination, with the holding bed, I, and reciprocating stone, D, substantially as and for the purpose set forth.

4th, The bed, B, provided with the ways, c, through, B, and sponges, Q, substantially as and for the purpose set forth.

5th, The arrangement of the driving stone, D, connecting rod, G, crank shaft, H, and stone, P, substantially as and for the purpose set forth.

6th, The combination, with the reciprocating stone, D, of the presser wheel, O, substantially as and for the purpose set forth.

83,323.—**DINNER PAIL.**—Moritz Saulson, Troy, N. Y.

1st, The combination of the pail, A, inner vessel, B, arranged in the upper part of the pail, pan, C, in the upper part of the inner vessel, and cover, D, extended down outside of the pail, inner vessel, and pan, as herein described.

Also, the combination, with the pail, A, and inner vessel, B, of the removable wire spring, K, and groove or grooves, L, formed and arranged substantially as and for the purpose herein set forth.

Also, the combination, with the pail, A, and outside surrounding cover, D, of the cover, C, and wire-like spring, N, U, formed and arranged substantially as and for the purposes herein shown and described.

83,324.—**SAWING MACHINE.**—F. M. Schaeffer, Blooming Grove, Kansas.

1st, The arrangement of the guides, M, M, and springs, m, m, with relation to the guides, G, and the saw, whereby said guides, M, move independently of each other, to rest upon the log being sawed, as herein described, for the purpose set forth.

2d, The guide of a reciprocating saw, supported on an adjustable oscillating plate or support, K, substantially as and for the purpose described.

3d, The combination, with the plate, K, and the saw guides, of the lazy tongs, L, for the purpose of connecting the guides to the oscillating plate, and admitting of the rising and falling motion required by the saw in its passage through the log, substantially as and for the purpose described.

4th, The swinging block support, Q, arranged as described, in combination with the log bed, substantially as and for the purpose described.

83,325.—**WASHING MACHINE.**—Jerome Scott, Charleston, Pa.

1st, The swinging bucket, D, as arranged and connected, by means of the arms, K, with the press board, H, and operated by the levers, F, and handle, E, substantially in the manner as and for the purposes herein shown and described.

83,326.—**HORSE RAKE.**—Nicholas Selby, Flora, Ill.

1st, The arrangement of the hinged rake, e, c, carrying the revolving rake within the rectangular balanced frame, a, a, a, all constructed and combined to operate substantially as and for the purposes herein shown and described.

2d, The notched trip stick, r, when hinged to the front cross bar of the frame, a, and combined with a spring, w, whereby said stick, r, is actuated downward, and held in contact with the rake head, as herein shown and described.

3d, The described arrangement of the pivoted lever, k, link, l, and stirrup link, n, with relation to the rectangular balanced frame, a, and hinged rake frame, c, as herein shown and for the purpose set forth.

83,327.—**PUMP.**—Nancy M. Sheldon, Chatham, Conn.

1st, An article of manufacture, the cone-shaped tube, A, provided near its lower end with a series of holes, a, substantially as and for the purposes herein set forth.

83,328.—**INKSTAND.**—Wm. G. Shattuck, Boston, Mass.

1st, The combination, with the ink well and its metallic case and cover, applied to a desk or like article, in the manner described, of a nut, E, arranged to hold said ink well and case in place, substantially as herein set forth.

83,329.—**WASH MOWER.**—Allen Sherwood, Auburn, N. Y.

1st, A clothes washer, the wooden perforated float, B, provided with a metal flag, C, and a hole, I, and, at its center, with a circular hole, covered with wire gauze, over which hole, I, place a tapering cylinder, D, provided with its upper end with a circular perforated box, E, all constructed and operating substantially as and for the purposes herein set forth.

83,330.—**STOP MOTION FOR WARPING MACHINE.**—J. Siegrist, New York city.

1st, In combination with the weights, G, suspended on or from the yards, the balanced frame, H, I, and K, attached for operation by said weights, revolving shaft or drum, L, provided with a lifter, C, and belt shifter for throwing the yarn beam out of gear, all for action together, substantially as specified.

83,331.—**SPINDLE FOR SHUTTLES.**—C. E. Smith (assignor to himself, J. S. Jacques, and F. T. Jacques), Lowell, Mass.

1st, A split shuttle spindle, notched or serrated on both sides, or on its entire circumference, substantially as and for the purposes set forth.

83,332.—**DEVICE FOR FASTENING SHIRT COLLARS.**—P. W. Smith, Chicopee Falls, Mass.

1st, The combination of the plate, A, necks, a and b, with oblong and circular flanges, B and C, and pin, D, the parts being constructed and arranged substantially in the manner and for the purposes set forth.

83,333.—**SOFA BUSTEAD.**—B. L. Southack, New York city.

1st, The seat, D, sliding in groove, a, of the arm rests, B, and hinged at its ends, and connected to the back, C, by the arm rests, B, by the catches, e, and projections, f, all operating as described, whereby the back is turned down into a horizontal position and then drawn forward into the groove, s, with the seat, D, until arrested by the projection, f, whereby a continuous bed bottom is formed, as herein shown and described.

83,334.—**COMBINED SEEDER AND CULTIVATOR.**—Lucius Stedder, Bowen, Ill.

1st, The knives, G, constructed and operating substantially as and for the purposes set forth.

2d, Combining in one machine the knives, G, the seed-sowing box, D, the seed breakers, F, cultivator plows, K, and harrow, O, substantially as specified.

3d, A seed-sowing cultivating, and harrowing machine, having seed box, D, cylinder, E, cranks, a, a, pulley, b, b, crank, c, d, seed breakers, F, knives, G, roller, H, pins, n, plows, K, lever, S, and harrow, O, constructed and arranged substantially as specified.

83,335.—**BEEHIVE.**—Upton Stansbury, Plymouth, Ind.

1st, The breeding boxes, C, C, closed at their sides and ends, and slotted at the top and bottom, and provided with small glass windows and entrance, and connected to the clear, c, c, of box, A, by means of their grooved sides, as herein set forth.

2d, The arrangement of the outside box, A, with the breeding boxes, C, C, honey boxes, D, and slide screens, a and n, substantially as and for the purposes herein set forth.

83,336.—**BALANCE SLIDE VALVE.**—William M. Stevenson, Sharon, Pa.

1st, A steam valve, constructed as described, with a cavity, d, between the walls, a, and with working trips, e, in grooves on the top of the walls, a, steam being admitted through holes, f, in the walls, a, strips, pressing them up against the cap of the steam chest, substantially as and for the purpose herein set forth.

83,337.—**WEATHER-BOARD GAGES.**—W. E. Stoddard, Fort Edward, N. Y.

1st, The combined weather-board gage and scriber, consisting of arms, A, B, slide, E, the spring-pole, block, F, hinge, bar, I, sliding block, J, a sliding knife, K, all constructed and arranged to operate as herein shown and described.

83,338.—**CORN PLANTER.**—D. F. Taft, New Bedford, Mass.

1st, The rock shaft, J, levers, G, I, and disk, e, in combination with the cords, h, i, section, M, angular lever, H, and cam, L, attached by a rod to the rock shaft, throws the seeding device out of gear, and folds back the discharge spout simultaneously, substantially as herein shown and described.

2d, The hinged section, M, of the jointed spout, in combination with the pin, h, notched bar, f, and spring, i, all made and operating so that the section will be yielding, even if in the working position, as set forth.

3d, The cam, D, levers, I, H, and spring, K, all operating as set forth, so as to move the section, B, back and forth, the cam being connected with a revolving ratchet wheel, A, by means of a pawl, b, so that it will be out of gear when the machine moves backward, as specified.

4th, The wheel, L, connected with a crank or disk on the rock shaft, J, substantially as herein set forth, and operating so as to throw the lever, I, off the cam D, when the machine is to cease dropping seed, as set forth.

83,339.—**ATTACHMENT FOR SKATES.**—F. T. Thurston, Providence, R. I.

1st, The shoe, A, or B, with the protecting strip, a, constructed substantially in the manner described for the purpose specified, irrespective of the method employed to secure its attachment to the skate.

83,340.—**SHIELD FOR CORN PLANTER.**—R. T. Taylor, Everett, Ind.

1st, The adjustable shield, B, constructed and attached to the plow in the manner described, and operated by means of the slotted arms on the stay, c, and the lever, D, substantially as and for the purposes herein set forth.

2d, The ratchet bar, g, in combination with the bent spring, h, for the purpose of holding the lever, B, at any point desired, thereby adjusting the shield, B, substantially as and for the purposes herein set forth.

83,341.—**POCKET DRINKING CUP.**—J. S. Towndrow, Moline, Ill., assignor to W. P. Humphrey, Davenport, Iowa.

1st, A pocket gage, consisting of the cap, A, and stand, B, constructed so that they may be detached, and the cup connected to the stand in a reversed position, substantially as herein described.

83,342.—**HORSESHOE MACHINE.**—Enoch B. Turner, Providence, R. I.

1st, The arrangement and combination of the adjustable gage, L, knife holder, M, adjustable knives, T, and S, adjustable butting gage, N, spring, t, and slotted bar, K, as herein set forth and for the purposes described.

2d, The combination of the anvil, F, mandrels, I, I, pads, J, J, squeezing cam levers, E, E, forks, k, k, and springs, j, j, all arranged as herein set forth and for the purposes described.

3d, The combination of the above devices with the cranks, b, b, adjustable shafts, B, B, saddles, A, A, spurs, m, m, m, axle g, g, adjustable connecting rods, P, P, rollers, D, D, slotted cam formers, G, G, former rollers, H, H, and adjustable rollers, l, l, as herein set forth, all arranged and combined so as to form a complete machine for making horseshoes, as described.

83,343.—**SPRING ADJUSTER.**—J. D. Van Hoevenbergh, Kingston, N. Y.

1st, The improved spring adjuster above described, its several parts being arranged and operating together, substantially as herein specified.

83,344.—**GAS MACHINE.**—Hugh Wain, Itavenna, Ohio.

1st, The arrangement of the cylinder, A, tank, C, provided with inlets and exhaust pipes, and having the space, H, filled with a poor conducting material, in combination with the perforated bottom and gasometer, D, as and for the purpose substantially as described.

83,345.—**BINDING MATHEMATICAL BOOKS.**—F. B. Wells, Fishkill on the Hudson, N. Y.

1st, The insertion of these silicated leaves in the aforementioned works in which they may be used, as set forth, and in the book firmly inserted, an number being provided to the nature and size of the volume, or they may be simply inserted in any way, to which they may be removed, changed, or replaced, or new ones inserted, at pleasure, if so thought to be more practicable.

83,346.—**JET ATTACHMENT FOR SODA FOUNTAINS.**—J. C. Wharton, Nashville, Tenn.

1st, An attachment for soda-water fountains, when constructed of a plane surface, A, having a border pipe, B, provided with jet tubes, a, a, a, e, a, e, a, e, a, e, and supply pipe, d, all substantially as and for the purpose set forth.

83,347.—**MACHINE FOR BENDING SHEET METAL.**—A. W. Whitney and P. Whitney, Woodstock, Vt.

1st, The folding bar, B, in combination with the bars, J, J, arms, P, P, and connecting rods, Q, all arranged to operate in the manner substantially as and for the purpose set forth.

2d, The straps, M, in combination with the folding bar, H, adjustable bearings, I, and screws, O, all arranged to operate in the manner substantially as shown and described.

3d, The sliding blade, C, upon the work or bed piece, B, through the media of the guides, I, I, I, I, rollers, L, and bars, D, e, all arranged to operate substantially as set forth.

4th, The gage, E, arranged and applied in connection with the screw, F, substantially in the manner as and for the purpose set forth.

83,348.—**COUNTER SINK.**—P. A. Whitney, Woodstock, Vt. Antedated Oct. 16, 1868.

1st, The herein-described improved counter sink, when constructed substantially as and for the purpose described.

83,349.—**LATHE CHUCK.**—D. E. Whiton, West Stafford, Conn.

1st, The construction and arrangement of the back plate, P, with openings, b, b, b, and projection, E, with sockets, a, a, when connected with the rack, B, of a geared chuck, substantially as and for the purpose herein set forth.

83,350.—**EXTENSION TABLE.**—F. R. Wolfinger and Joseph Barrett, Chicago, Ill.

1st, The extension table consisting of a central frame, A, having the elements cut away to form recesses, F, to receive the attach top boards G, and having the extension frames connected thereto by the hinged bars, H, all constructed and arranged to operate as set forth.

83,351.—**STEAM HEATING.**—George M. Woodward, New York city.

1st, The cap, C, secured upon the pipe, B, and provided with a perforated diaphragm, b, from which the tube, D, is suspended, substantially as herein shown and described.

83,352.—**HYDROCARBON BURNER.**—H. W. Yerington, Jersey City, N. J.

1st, The combination, with the oil tank, A, of the air jacket, B, having inlet, C, and outlet, d, and for operation in connection with the burners of a liquid fuel apparatus, substantially as specified.

2d, The combination of the oil tank, A, air jacket, B, suction pipe, C, and steam jet pipe or nozzle, g, essentially as herein set forth.

3d, The combination of the pipe or pipes, I, mixing and distributing boxes, F, air pipes, C, and burners, E, for operation together, as specified.

4th, The inlet, J, in combination with the gas pipes I, and air jet, substantially as shown and described.

5th, The tubular burners, E, E, arranged essentially as specified, and provided with oblique jet orifices or slots, c, as herein set forth.

83,353.—**ATTACHMENT TO SPOOLS FOR CUTTING THREAD.**—J. W. Murrell, Seafo, Del., assignor to himself, Samuel Perry, and E. R. Jacobs.

1st, An article of manufacture, the within described thread breaker, formed from sheet metal, its retaining parts, a, a, being cut from its center, and bent at right angles thereto, substantially as and for the purposes herein set forth.

83,354.—**BOBBIN AND THREAD-HOLDER FOR SPINNING MACHINES.**—T. L. Luders, Olney, Ill.

1st, The combination, with the spindle, A, having outwardly curved arms, a, a, constructed as described, combined with the spindle, and serving as a holder for the bobbin and for the thread, as set forth.

74,149.—**BALLASTING VESSELS.**—J. B. Stoner, Leopold Mendelsohn, and Theodore Crommelin, New York city, assignees of J. B. Stoner. Dated Feb. 4, 1868; reissue 3,167.

We claim, 1st, A ballast receptacle, L, applied on the free end of a swinging arm in combination with a recess made in the hull of a vessel, to receive said weight and arm, and a tube, P, substantially as described.

2d, The use of one or more weights, secured to stiff rods, and applied to a vessel in such manner that they can be lowered considerably below a vessel's keel, or raised and secured within recesses formed in the bottom of a vessel, substantially as described.

3d, A temporary ballast, consisting of a weight secured to the lower ends of one or more rods, and adapted to fit into a socket formed in the vessel, and operated from the deck, said rods being suitably inclined within a tube rising from said sockets, substantially as specified.

DESIGN.

3,212.—**CLOCK CASE.**—Karl Muller (assignor to Nicholas Muller), New York city.

Inventions Patented in England by Americans.

- [Compiled from the "Journal of the Commissioners of Patents."]
- PROVISIONAL PROTECTION FOR SIX MONTHS.
- 2,680.—**APPARATUS FOR EFFECTING AERIAL PROPULSION.**—John Hunter, Morristown, N. J. Aug. 26, 1868.
- 2,692.—**PROJECTILES FOR ORDNANCE AND FIRE-ARMS.**—W. H. Shock, Washington, D. C. Aug. 31, 1868.
- 2,694.—**CUTTING NIPPERS.**—Nathan Thompson, Brooklyn, N. Y. Aug. 31, 1868.
- 2,704.—**LOOM.**—George Crompton, Worcester, Mass. Sept. 1, 1868.
- 2,758.—**ROTARY ENGINE.**—George Whitchee, Brooklyn, N. Y. Sept. 7, 1868.
- 2,774.—**STEAM BOILER.**—Joseph Nason, New York city. Sept. 9, 1868.
- 2,780.—**PUMP.**—James Wilson, Bridgeport, Conn., and Chas. F. Mudge, Lynn, Mass. Sept. 9, 1868.
- 2,818.—**SUBSTITUTE FOR HAIR STUFFING FROM VEGETABLE FIBERS.**—Nathan W. Blanchard, Dutch Fla., Cal. Sept. 14, 1868.



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