

OFFICIAL REPORT OF PATENTS AND CLAIMS

Issued by the United States Patent Office.

FOR THE WEEK ENDING MAY 12, 1868.

Reported Officially for the Scientific American.

PATENTS ARE GRANTED FOR SEVENTEEN YEARS, the following being a schedule of fees:—

Table with columns for fee type (e.g., On filing each caveat, On filing each application for a patent) and amount.

In addition to which there are some small revenue-stamp taxes. Residents of Canada and Nova Scotia pay \$500 on application.

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

77,707.—STOVE GRATE.—D. S. Baker, West Bloomfield, N. Y. I claim, 1st, A rotating grate, b, having upright flanges, m, in combination with the lower grate, l, constructed and operated in the manner substantially as shown and described, and for the purpose set forth.

2d, The combination of the fingered ring, c, with the fire box, A, fingered rotating grate, b, and the under supporting grate, l, constructed and operated in the manner substantially as shown and described and for the purpose set forth.

3d, The combination of a cylinder or fire box, or its equivalent, with a fingered ring or bar, C, as shown and described, and for the purpose set forth.

4th, The combination of rotating grate, o, with a fingered ring, n, constructed and operated in the manner as shown, and described and for the purpose set forth.

5th, In combination with said parts, as just described, the fingered ring, C, or its equivalent.

77,708.—CORN HARVESTER.—Moses Bales and Wm. P. Bales, London, Ohio. We claim, 1st, The arrangement of gatherers, E E', spreaders, F F', curved bar, and the general mechanism, O O', for the purpose set forth.

2d, The oblique sickles, J J', pins, j j', oblique tongue, N, and pivoted frames K K', combined and operating in the manner explained.

3d, The pivoted platform, O O', in the described combination, with the discharging lever, P, arranged and operating as set forth.

4th, The curved guide or rod, R, in the described combination, with the gatherers, E E', spreaders, F F', curved bar, I, and platform, O O', for the purpose specified.

77,709.—AUTOMATIC FAN.—Joseph Beck, New York city. Antedated April 25, 1868. I claim, 1st, The employment of the fan, C, constructed with the protectors, b b and c, c, operated and for the purpose substantially as herein described.

2d, The arrangement and combination of the clock work, G, the balance, V, with the crank, W, the rod, X, the arm, Y, the axle, Z, the gear, Z Z, and the fan shaft, C, operated and for the purpose as herein shown.

77,710.—MACHINE FOR THREADING BOLTS.—Benjamin D. Beecher, Plantsville, Conn., assignor to Luther Beecher. I claim, 1st, Arranging the cutting threads on the surface of the dies, as herein described, that is to say, so that a portion of each of said diesurfaces shall be cutting threads, so that in turning the blank, as the operation of threading progresses, and the initial or commencing portions of the several cutting threads shall follow one another in succession, all substantially as set forth.

2d, In combination with the threaded part of the die, the embossed surface, k k', substantially as and for the purpose set forth.

77,711.—FENDER RING FOR HEATING STOVES.—N. A. Boynton, New York, assignor to himself and Daniel E. Paris, Troy, N. Y. I claim a fender ring, situated at or near the bottom of a fire pot, with its outer edges turning inward, so that the ring and the pot shall form together an acute angle, with its point toward the base of the pot, substantially as and for the purposes described.

77,712.—DRYER.—Joseph Brakeley, Bordentown, N. J. I claim a combining with a dry-kill boat a condenser and an exhaust pump, substantially as and for the purpose set forth.

77,713.—MACHINE FOR MAKING WIRE HEDDLES FOR LOOM HARNESSES.—Darius C. Brown, Lowell, and John Ashworth, North Andover, assignors to D. C. Brown, Lowell, Mass. We claim the combination of machinery for spreading the heddle eye lengthwise, as described, and also the combination of machinery for spreading the heddle eye lengthwise as specified, with mechanism for forming such eye from wire, in combination, substantially as explained, such mechanism as spreading the eye consisting of the fingers, q3 q3, and mechanism for operating them, as set forth.

Also, the presser, R, as constructed, and provided with mechanism for operating it, substantially as described.

Also, the combination of such presser, R, (provided with mechanism for operating it, as described) with the eye former, P, made substantially as described, so as to form and spread the eye of the heddle, as specified, and with the next adjacent twist, T, U, to form the twists of the eye, as explained.

Also, the mechanism or combination for straightening the wire during its passage into the machine, the same consisting of the curved arm, f, and its pins, m, n, and the slider, K, and its pins, o, o, the whole being arranged and moved together and to the frame of the machine, substantially in manner and so as to operate as specified.

Also, the arrangement of the latch lever, k1, and the cam, m1, with the wheel, L, its notch, l1, and the shaft, N, such latch lever, k1, being for estopping the wheel, L, as set forth.

Also, the combination as well as the arrangement of the nipping and cutting levers, w, x, and the operative mechanism, with the wheel, L, such operative mechanism as described, the purpose of such screws being to adapt the twister to operate on wire of different sizes.

Also, the application or arrangement of the slide jaw, i5, the lever, m5, and its spring, u5, with the lever, a5, applied to the bar, c5, as and for the purpose specified.

Also, the combination and arrangement of the spring, f3, or its equivalent, with the mechanism for making the heddle, such spring, when the heddle may be resting on the inner stationary jaw of the bar, c5, being used to press the heddle down a little, as and for the purpose hereinbefore mentioned.

Also, the combination of the discharger, u5, (provided with mechanism for operating it as described) with mechanism for making the heddle, as specified.

a lining fabric, one of whose sides consists of a loose, shaggy or woolly material, when such shaggy side is placed towards the upper or outside of the boot or shoe, for the purpose of securing warmth and ventilation, as specified.

77,718.—CONDENSER FOR SPIRIT STILL.—Paxson Coats, Cincinnati, Ohio. I claim the worm, B, having its lower end, b, terminating in the reservoir, C, from which extend the pipes, E and D, the one up and the other down, in combination with the still, A, when the same are constructed and arranged in the manner specified, and for the purpose specified.

77,719.—MOWING MACHINE.—Marcellus V. Cumming, Winthrop, Me. I claim, 1st, The combination of a cutting apparatus, M, a wheeled carriage and a steam engine applied to both, so as to put them in operation under circumstances and substantially in manner and for the purposes as hereinbefore explained.

2d, The combination of an auxiliary wheel carriage, O, and mechanism as described (viz., the chain, R, and wheels, S S'), or its equivalent, for revolving its axle with the mowing machine, in such carriage and steam engine applied to both, so as to put them in operation, substantially as and for the purposes set forth.

77,720.—BED BOTTOM.—J. D. F. Dahl, Milwaukee, Wis. I claim the combination of the frame, B, provided with the guide rods, C, and the frame, A, with the springs, D, cores, G, and pulleys, F, all constructed and arranged to operate as set forth.

77,721.—HAY RAKER AND LOADER.—Matin A. Dilley, Mendon, Mich. I claim, 1st, The hinged box, e, e, and universal joint, j, in combination with the frame, F, guide bar, k, and winding drum, H, the several parts being constructed and arranged substantially as and for the purpose herein specified.

2d, The arrangement of the lever, l, rod, a, elbow lever, t, and rod, h, with the arm, n, and lever, m, for the purpose of automatically detaching the clutch, j, as herein fully described and for the purpose specified.

3d, The shaft, R, provided with the arms, L m m and n, in combination with the cores, b c d, and winding drum, H, the several parts being constructed and arranged for the purpose of elevating the hay fork described, substantially as herein set forth.

77,722.—FURNACE AND PROCESS FOR THE MANUFACTURE OF IRON AND STEEL.—Francis Ellershausen, Montreal, Canada. I claim, 1st, The process, in its novel combination of gas fire chambers, b and l, separated by fire bridge, m, as shown in the two modifications, one chamber being a crucible fire chamber, and the other a reverberatory fire chamber, both in connection with the crucible, i, all working together, substantially in the manner and for the purpose described.

2d, The process of smelting and refining metals in large quantities and in short time, by the employment of a large crucible with discharge hole, 3d, The furnace of cast iron in a crucible placed in my furnace, and surrounded by fire, the product being cast steel, substantially in the manner described.

77,723.—HASP LOCK.—Joseph S. Elliott (assignor to himself and A. B. Cooley), Philadelphia, Pa. I claim the bolt, D, operated by a spring, f, and projecting pin, i, as described, and the tumblers, F and G, secured within, and arranged to operate in connection with the said bolt and with each other, in the manner and for the purpose herein set forth.

77,724.—SEAMLESS LEATHER STRAP AND TUBE.—Alois Eschenlohr, Munich, Bavaria. I claim, 1st, The method of skinning the animal and cutting out the skin, as herein described and illustrated in fig. 1, sheet 1, of the accompanying drawings.

2d, The method of skinning and cutting out the skin of the animal, so as to form endless belts or straps of great length, in the manner herein described, and illustrated in fig. 2, sheet 1, and figs. 1 and 3, sheet 2, of the accompanying drawings.

77,725.—CANDLE.—John Lyon Field, Kensington, Great Britain. I claim a candle, having one or more ribs or projections near its lower end, substantially as and for the purpose described.

77,726.—PAN FORMER.—John Finn, Decorah, Iowa. Antedated April 24, 1868. I claim, 1st, The recesses, e, e, and blocks, F, as herein specified.

2d, The arrangement of the bolt and slot, J, substantially as described.

3d, Lever or cam, G, for the purpose set forth.

77,727.—MANUFACTURE OF VINEGAR.—Joseph Firmenich, Buffalo, N. Y. I claim the process of making vinegar from grain and other starch producing substances as a whole substantially as herein specified.

Also, as a part of the process of making vinegar, the injection of steam into the digesting mass of meal or grain, as in the vats, G and L, substantially as herein set forth.

Also, the process for making vinegar, the soaking and digesting of grain, without grinding, as in the vat, i, substantially as herein described.

Also, as a part of the process of making vinegar, the subjection of the soaked meal or grain to the smooth squeezing mill, j, substantially as herein specified.

Also, as a part of the process of making vinegar, the method of applying the sulphuric acid, f, with cold water, and then with boiling water, and the injection of steam into the latter while adding the starch, and until it is converted into glucose, substantially as herein specified.

Also, as a part of the process, the method of conducting the vinous fermentation by successive additions of yeast, first weak and then strong, substantially as herein described.

Also, the arrangement of the sieves, K and L, substantially as and for the purpose herein specified.

Also, the gate valve, m, n, for drawing off the clarified sirupy liquid, substantially as herein specified.

Also, the construction of the acetic generator, substantially as herein set forth.

77,728.—ANKLE OR KNEE GUARD.—Henry A. Hall, Boston, Mass. I claim, as a new article of manufacture, an ankle or knee guard, in which the band or belt is provided with a series of independent and separate feelers of vulcanized rubber, constructed and formed in the manner herein shown and described, so that each feeler shall be uniformly flexible in various directions.

77,729.—LIGHTNING ROD.—William Hall, Dubuque, Iowa. I claim a continuous convoluted cylinder, constructed of sheet metal, wherein the sheet of which it is composed shall extend more than once around the axis in forming the cylinder, whether the same shall be constructed over an iron wire or not, when the same is made substantially as and for the purposes herein set forth.

77,730.—IRON FURNACE.—Alexander Hamar, New York city. I claim, 1st, The method herein described, of injecting steam, superheated steam, or hydrogen into the oven, to mingle with the gases, and increase their heating effect on the hot blast pipes.

2d, The arrangement, in a large combustion chamber, of the hot air pipes, as and for the purpose specified.

3d, The combination, substantially as set forth, of the hot air pipes with the interposed deflectors, r, for the purpose described.

4th, The combination, substantially as set forth, of the mixing chamber, the combustion chamber, and the hot air pipes.

2d, In combination with said chamber or partition, I, H, and tumbler, G E F, the arrangement of the lever, C, with its hook, D, in connection with the spring bolt, B, by the pin, b, when actuated in the manner and for the purpose set forth.

77,741.—BRIDGE.—George T. Lape, Summit, N. Y. Antedated April 28, 1868. I claim, 1st, The construction of sections or voussoirs, consisting of abutting ends, flanges, rib, and cross plate with tongues, grooves, and dove tails all arranged substantially as and for the purposes specified.

2d, The construction of bridges, arches, etc., by combining a series of sections of voussoirs, and securing them to each other, substantially as herein specified.

77,742.—TOOL POST FOR LATHE OR PLANING MACHINE.—William H. Leach (assignor to himself and Bradford Setson), Uxbridge, Mass. I claim the construction of a tool post, for a lathe or other machine, with the joint, A B, in combination with the collar, C, and set screw, F, substantially as and for the purpose set forth.

77,743.—CASTER FOR FURNITURE.—Samuel N. Long, South Chatham, assignor to himself and Lincoln B. Beards, Barstow, Mass. I claim the combination of the sleeve, D, with the spindle, A, with the plate, B, having the groove, c, and the opening, g, all constructed, arranged and operating as and for the purpose specified.

77,744.—SAFETY HATCH.—Robert H. Martin, Staten Island, N. Y. Antedated April 25, 1868. I claim, 1st, The combination of a hatchway-hoist to the several floors, or any of them, of a warehouse or other structure, of partially balanced or counterpoised safety guards, substantially as specified.

2d, The combination with rising and falling opening and closing safety guards to a hatchway on any one of the floors of a building, of self-shooting bolts on the hoist, operating automatically to open the guards, both in the ascent and descent of the hoist, essentially as shown and described.

3d, The combination with self-shooting or back locking gear to its self-shooting bolts, for operation at pleasure, of the latter with any one or more of the safety guards without lifting the others on intermediate floors, or for running the hoist up and down the hatchway without stopping at or raising any of the guards, substantially as herein set forth.

77,745.—ATTACHING DOOR KNOBS TO SPINDLES.—Thomas Marvin, Middlesex county, Mass. I claim the combination of the stationary escutcheons, the spindle, the spindle sockets, with the shoulder, h, and flange, i, the disks and the knobs, all constructed, connected, and relatively arranged substantially as described.

77,746.—PURIFYING SORGHUM JUICE.—Wm. Matthews, Troy Township, Ohio. I claim the improved filterer herein described, composed of the vessels, b c d, or their equivalents, arranged and charged with filtering materials substantially as described.

77,747.—HUB FASTENING FOR ECCENTRICS.—Geo. W. Miller, and Julius D. Stevens, Scranton, Pa. I claim the hub, c, and which are secured within the hub of the eccentric, and made to clamp the shaft by means of a bolt with a tapering head, or other equivalent, as and for the purpose set forth.

77,748.—SHUTTER FASTENING.—W. J. Miller, Gettysburg, Pa. I claim the arrangement and combination in a shutter fastening of the pull, P, bent arm or trigger, E, rod, J, spring, I, catch, b, and plate, a, with its projecting catch, operating in the manner as shown and described and for the purpose set forth.

77,749.—GAS BURNER.—Hypolite Monier, Paris, France. I claim, 1st, The combination with a gas or other burner, such as herein described, of a gas pipe or chimney, fitted with a ring, or other transparent material surrounding the same, and a cap, H, or its equivalent, the whole being constructed and arranged as specified, so that air shall pass to the flame through the interior of the burner between the burner and the cone, and between the cone and the chimney, as and for the purposes set forth.

2d, The combination with the burner of the internally fluted glass cone and chimney seat, and the corrugated and fluted glass cup applied to the said cone, in the manner and for the purposes shown and specified.

77,750.—CLOTHES LINE HOLDER.—Henry Morgan, Springfield, Mass. I claim the combination of the pulley, A, and cam, B, with the gear, c, when arranged upon a plate, C, substantially in the manner and for the purpose shown.

77,751.—COOKING STOVE.—B. L. Mott, Jr., Pawtucket, R. I. I claim the combination and arrangement of the arched plate, H, with the soot drawer, G, so as to divide such drawer or the chamber, E, into two connected or return flues, as set forth, and be movable with the drawer.

Also, the combination of the lip or flange, a, with the partition or arched plate, H, or the same and the drawer, G, to be applied to the chamber, E, and flues, D, of the cover, as specified.

77,752.—MEAT POUNDER AND ICE PICK.—George Murray, Jr., Cambridge, Mass. I claim as an article of manufacture a combined meat pounder, c, lever, ice pick, fish scaler, etc., composed of a rectangular shaped plate, of cast or malleable iron, A, one side of which is covered with pointed projections, while from the opposite projects a handle, B, and having one edge, C, and end, D, sharpened, so as to produce cutting edges, substantially as herein set forth.

77,753.—CHURN.—Esau P. Newman, New Albany, Ind. I claim the breakers, J J J, and steel wire springs, K K, as used in connection with the paddles, L L L, in churning butter.

77,754.—WAGON LOCK.—Chas. Noethlich, Muscatine, Iowa. I claim the arrangement and construction of the angular lever, G G', link, and pivoted pawl, B, in combination with the bevel toothed rack, A, and a vibrating lever, D, B, the arrangement of the whole being such that the pawl, c, can be thrown to the right or left of the ratchet, x, and when in one position the pawl will be firmly locked without the aid of an auxiliary stop, and when in the other position the pawl will be unlocked, all substantially in the manner described and shown.

77,755.—OIL CAN.—James Ogden, Philadelphia, Pa. I claim the combination and arrangement of a can, A, pipe, G, socket, B, having openings, I and J, and a plug, D, fitting the said socket, and having passages, e, m, and a spout, E, all substantially as described.

77,756.—LIFTING JACK.—Samuel Perry, Seaford, Del., assignor to himself and John L. Coulborn. I claim the arrangement of the standard, A, with its slotted arm C, through which passes the rack, E, and to which is pivoted a loop, d, said rack being operated by the lever, B, passing through the eye of a hook, in position by the bar, E, and block, c, all constructed and used as specified.

77,757.—SUSPENSORY BANDAGE.—V. H. Phelps, Boston, Mass. I claim a suspensory bandage constructed and adapted for being used substantially as described and shown.

77,758.—MEDICINE.—Samuel Pitcher, Barnstable, Mass. I claim the composition substantially as described, and for the purpose as explained.

Also, the process hereinbefore described for compounding the ingredients of such composition, such process embracing the two operations of straining the liquor from the leaves, and subsequently obtaining, by pressure of them, one extract, not obtainable by simple infusion.

77,759.—STENCIL PLATE.—Wm. W. Potter, Buffalo, N. Y. I claim, 1st, A slotted plate, A, attached to the stencil plate, B, at one end while the other end is free, substantially as and for the purposes set forth.

2d, The combination of the slotted plate, A, stencil plate, B, and C-formed letters sliding on plate, B, and the latch, D, substantially as and for the purposes described.

77,760.—HORSE HAY FORK.—S. H. Rhoads, Clyde, Ohio, and Wm. Carroll, Hillsdale, Mich. We claim, 1st, The springs, b', in combination with prongs, E, for the purpose specified.

2d, The catches, a, b, and springs, c, d, as constructed and arranged to operate in combination with the shaft, C, for the purpose specified.

77,761.—COTTON PLANTER.—Charles Richmond (assignor to Gaynor, Stiles, & Co.), Memphis, Tenn. I claim in the a justable flanges where by they can be separated or closed at will, for the proper distribution of seed, the separators to keep the seed apart in order to insure the proper distance, and receding, together with the hollow joints, allowing the whole to revolve and stand itself.

77,762.—STRAW CUTTER.—James Riley, Detroit, Mich. I claim the arrangement of the shaft frame, C, with feeders, A', when used in combination with the revolving cutter, D, and hopper, L, and operated in the manner substantially as and for the purposes herein set forth.

77,763.—PAINT FOR LIQUID COMPASSES, ETC.—Edward S. Ritchie, Brookline, Mass. I claim the application to a compass card, or other article to be exposed to alcohol or an alcoholic mixture, as set forth, a paint composed of one or more pigments and a suitable material (such as albumen, for instance), and then, or subsequently, collecting the solution of the vehicle, the whole being substantially as and for the purpose above specified.

for the passage of exterior air, to maintain in the process an equilibrium of pressure within and without, for the purposes substantially as described.

**77,769.—SHAFT COUPLING FOR CARRIAGES.—Anson Searls, New York city.**  
I claim, 1st, The shaft hook, A, with a recess, C, in the back part of it, and hole for bolt, L, as set forth.  
2d, The curved T head bolt, I, for the purposes described.  
3d, The combination of the bolt, I, spring, E, washer, J, and nut, E, in combination with the hook, A, and pin, B, substantially as described and all for the purposes set forth.

**77,770.—COTTON BALE TIE.—G. A. Seaver, New York city.**  
I claim the construction of the tie or fastening substantially as described.

**77,771.—INSTRUMENT FOR LIGHTING GAS, ETC.—Amos Shipley and Wm. T. Mersereau, Newark, N. J.**  
We claim in combination with a standard, a movable framework supporting the corrugated lips, when the same shall be constructed and operate substantially as described, for the purposes set forth.

**77,772.—TUBE WELL.—S. E. Skilling, Benton Harbor, Mich.**  
I claim the coil spring, G, provided with the rod, H, the collars, E and I, and the nut, J, within the pipe, A, substantially as arranged and for the purposes hereinbefore described.

**77,773.—DENTISTRY.—Edward C. Smith and David F. Wilcox, Greenville, N. Y.**  
I claim, 1st, The introduction of air between the surface of the mouth and the material used in taking impressions for artificial bases for teeth, by means of air tubes, T, valve rod, W, and spring, S, substantially as set forth.  
2d, In combination with the impression cup, C, the tubes, T, valve rod, V, and coil spring, W, when arranged and operating substantially as and for the purposes set forth.

**77,774.—SINKER FOR FISHING LINE.—William H. Smith (assignor to himself and Israel Hecker), New York City.**  
I claim making a sinker in two parts, and in such a manner that sections or disks may be added to or taken from it, for the purpose of increasing or diminishing its weight, substantially as herein set forth.

**77,775.—HOP TRELLIS.—Iorenzo D. Snook, Barrington, N. Y.**  
I claim the horizontal poles, D and E, when supported at right angles upon the upper sections, K, of the stakes, as specified, by means of the hooks, K, and used in combination with the sectional stakes, A, B, substantially as and for the purposes set forth.

**77,776.—SPRING MACHINE.—George W. Southwick and John H. Gillet, Scott, N. H. Antedated May 4, 1868.**  
We claim the movement of the bar, N, with its grooves, P, P, through which pass the pins, S, S, said bar being operated by the lever, Q, for oscillating the arm, J, through its joints, K, substantially as and for the purpose specified.

**77,777.—PROCESS FOR TREATING WOOD.—Edward Spaulding, Brooklyn, N. Y.**  
I claim the method of treating wood herein described, consisting essentially in subjecting it to sufficient pressure to change and compact the structure preparatory to the process of drying by artificial heat, substantially as set forth.

**77,778.—CONSTRUCTION OF BLACKING BOX.—Thomas H. Spencer (assignor to Charles L. Spencer), Providence, R. I.**  
I claim a double hinge, when applied to a blacking box and cover, in connection with a handle, substantially as described, and for the purpose set forth.

**77,779.—SAW HORSE.—Augustus Stanley, New Britain, Conn.**  
I claim the folding part, A, B, C, notched or crossed across, and adapted to lock into each other, and be rigidly confined at the proper angle by the aid of the screw brace, D, d', or its equivalent, substantially as and for the purpose herein specified.

**77,780.—ROTARY STEAM ENGINE.—Albert I. Thunell and John M. Hedstrom, Buffalo, N. Y.**  
We claim the arrangement of the concentric steam grooves, ff', passage or passages, g, and blank, n, when combined with the piston head, B, and steam pipes, E, G, in the manner and for the purpose specified.  
Also, in combination with the valve, D, the spring slide, D', with right angled packing edge, A, arranged and operating as herein set forth.  
Also, in combination with the valve, C, the crank arm, H, connecting bar, I, rock lever, K, and cam pin, m, the whole arranged and operating as herein set forth.

**77,781.—MODE OF LETTERING MARBLE.—Jules Turel, Kendallville, Ind.**  
I claim the process, substantially as herein described, for applying metallic lettering to marble or other stone.

**77,782.—KING BOLT FOR WAGON.—John J. Waldron, East Durham, N. Y. assignor to himself, Timothy G. Palmer, and Henry Brown.**  
I claim the socket, I, projecting downwards from the plate, f, h, at unites the perch, e, and bolster or head block, d, in combination with the king bolt, I, that enters, at its upper part, said socket, I, and is retained by the nut, o, above said plate, f, as and for the purposes specified.

**77,783.—BLOTTER.—David Walker, Newark, N. J.**  
I claim the thin strip of metal or hard substance, a, constructed, adapted, and attached to the blotter, in the manner and for the purposes specified.

**77,784.—WAXING FLOORS.—R. B. Walker, Claremont, N. H.**  
I claim the combination of the beeswax, paraffine, or paraffine, or its equivalent, in such proportions that the whole may be reduced to powder, substantially as and for the purpose set forth.  
Also, the method or process, herein described, of waxing floors, by sprinkling thereon a waxing material, when the same is in a dry or pulverized or powdered state.

**77,785.—MODE OF ATTACHING HUBS TO AXLES.—James Weathers, Greensburg, Ind.**  
I claim the thimble, B, and key, E, cast of one piece, the former provided with a flange, h, and secured to the axle, A, by means of the bolt, f, and rod, g, all combined, arranged, and used substantially as specified.

**77,786.—STOVE FOR RAILROAD CAR.—E. Z. Webster, Louisville, Ky.**  
I claim the slides, M and O, in combination with the hopper, N, for supplying coal to the furnace, substantially as herein described.  
Also, the combination of the furnace, A, casing, H, valves, I and G, smoke and hot air flues, D and K, slides, M and O, and hopper, N, for the purpose, and substantially as herein specified.

**77,787.—TRUNK LID SUPPORTER.—Samuel Wehrly, San Francisco, Cal.**  
I claim, 1st, The spring, B, having a hole, a, near its upper end, for the purpose of receiving the pin, D, substantially as described.  
2d, The combination of the spring, B, and pin, D, formed by making a slot in its top, substantially as and for the purpose described.

**77,788.—FRAME FOR NECK TIE.—Patrick Welch, New York, N. Y.**  
I claim the neck tie frame, formed with a slot running from the upper part down the center of the body, for the purposes as set forth.

**77,789.—CHURN DASHER.—John E. Williams and Michael Lemon, Binghamton, N. Y.**  
We claim the combination of the dasher, A, center hinged valve, F, hollow shaft or dasher rod, C, and oblique openings, E, E, through the edges of the wings, all being constructed substantially as herein described and represented for the purpose set forth.

**77,790.—BOILING AND PUDDLING FURNACE.—John I. Williams, Etna, Pa.**  
I claim, 1st, The hollow cast iron water chill boxes, a, a, of a puddling or boiling furnace, made with the corners and flanges, b, in front, substantially as and for the purpose hereinbefore described.  
2d, The use of hollow water hoses or boxes, connected with a water reservoir or tank, of suitable capacity to keep up a circulation of warm water, as well between heats as when the furnace is in operation, substantially as hereinbefore described.

**77,791.—SEAT FOR VEHICLES.—L. W. Wolfe, Jacksonville, Ill.**  
I claim the arrangement of the seat, A, with the hollow convex metallic corners, B, B, as herein described, all constructed and used substantially as set forth.

**77,792.—FINISHING SKINS AND LEATHER.—George T. Woodbury and Thomas Burch, Newark, N. J.**  
We claim, 1st, A metallic or other roller, provided with such marks, prominences, and depressions as will produce, when passed over leather, under pressure, an imitation hog skin.  
2d, The means of producing an imitation of the dressed skin of a hog upon leather adapted thereto, by the use of a roller, prepared and employed substantially as described.  
3d, An imitation hog skin, when produced by the use of a metallic or other roller, having a curved, or indented, transverse, or otherwise prepared upon its circumference, such marks, depressions, and projections as will secure a representation of the marks left by the removal of bristles and otherwise, when pressed upon and revolved over leather, the whole substantially as described.

**77,793.—ALLOY FOR THE MANUFACTURE OF SPOONS AND FORKS.—Howell W. Wright (assignor to Reed and Barton), Taunton, Mass.**  
I claim the within described alloy, or composition of metals, or any other substantially the same, all as and for the purposes set forth.

**77,794.—RAILWAY CHAIR.—Reuben Zier, El Paso, Ill.**  
I claim the arrangement of the clamps, B, B, and key, D, with the chair, A, the several parts being constructed substantially as described, thus forming an improved railroad chair.

**77,795.—CUPOLA FURNACE.—Federal C. Adams, Cincinnati, Ohio.**  
I claim, 1st, The general shape of the interior of a cupola furnace, as is described, that is to say, gradually contracted from the bottom to a point above the tweers, and thence gradually enlarged to the top, as shown.  
2d, The heating chamber, A, above the cupola, provided with openings, B, and door, C, with the base wall, H, projecting over the lining, substantially as shown.  
3d, The air heating chamber, F, under the wall, H, and between the lining and the outer case, with the openings for the introduction and discharge of air, substantially as described.  
4th, The plate, J, in the chimney, with its smoke passages, substantially as shown, and for the purpose described.  
5th, The outer case, L, forming a blast heating chamber, N, surrounding the cupola, substantially as described.  
6th, The partitions, O, O, O, O, in the blast heating chamber, N, substantially as and for the purposes described.  
7th, The space or chamber between the lining, E, e, and the inner case, for the purpose of cooling the back of the lining, or heating the blast, substantially as described.  
8th, The cupola lining, E, e, composed of an iron plate or plates covered with fire clay or other non-conductor, as described.  
9th, Arranging the tweers in a cluster, as shown by P, Q, R, S, T.  
10th, The arrangement of tweers on an angular or spiral line, as shown by the combination, P, Q, R, S, or H, V, Y.  
11th, The tweers set at an angle to a radial line, as shown at W, for the purpose of creating a tangential or vertical blast, as described.  
12th, The arrangement of tweers, having the same size at the outlet, one

above the other, in regular or irregular order, substantially as and for the purpose described.

**77,796.—TWEERS, Y, Y, projecting beyond the lining toward the center of the cupola, as described.**

**14th, The employment, in a cupola furnace, of slotted tweers for the admission of the blast.**

**15th, The slotted tweers constructed with the lower part of the outer end wider than the upper part, and projecting beyond the lining, substantially as shown.**

**16th, The horizontal slotted tweers, constructed substantially as shown.**

**17th, The upright center twee, Z, surmounted by a cap, Z', whether introduced through the bottom or from the sides of the cupola, substantially as described.**

**18th, So arranging the tweers of a cupola furnace, as to employ a greater number below than above, for the purposes described.**

**19th, The upper row of tweers, W, W, W, substantially as and for the purpose described.**

**20th, The combination, in the same cupola furnace, of tweers of different shapes and sizes, and located above and below each other, substantially as set forth.**

**21st, The inclined supports of the cap of the center twee, Z, for the purpose of introducing the blast with a vertical motion, as described.**

**22d, In a horizontal series of tweers applied to a cupola furnace, constructed as described, the size, as described, for the purpose specified.**

**23d, In a series of tweers placed one above the other, making some of them with the outer end of a greater diameter than the others, while the inner end remains of the same diameter, as described.**

**24th, The horizontal line of tweers, R3 R2 P T S S2 and S3, increasing and diminishing, substantially as shown.**

**77,796.—CARRIAGE POLE TIP.—Alonzo Benedict, Albany, N. Y.**  
I claim the pole tip, A, B, substantially as and for the purpose described.

**77,797.—SHAFT FOR VEHICLES.—William L. Blaisdell, Port Byron, N. Y.**  
I claim, 1st, The hollow foot, B, of iron or other metal, when arranged as described, for the purpose of aiding the shaft and cross bar.  
2d, The combination of the hook, D, and shoe, E, with the springs, e and F, and foot, B, all arranged and operating substantially as described for the purpose set forth.

**77,798.—STUMP EXTRACTOR.—Isaac J. Bogert, Fayette, assignor to himself and S. C. Crosby, Manchester, Iowa.**  
I claim, 1st, The combination of the head block or frame, A, inclined legs, B and C, cylinder, F, and toothed wheel, G, with each other, substantially as herein shown and described, and for the purpose set forth.  
2d, In combination with the head block or frame, A, the lower ends of the legs, B and C, substantially as described, for the purpose specified.  
3d, The combination of the lever, I, and hooked pawl, J, with the toothed wheel, G, substantially as herein shown and described, and for the purpose set forth.

**77,799.—FLAME AERATOR.—C. L. Browne, Washington, D. C.**  
I claim the wedge shaped bar, a, a, grooved on its periphery or exterior edge, and so placed on the burner that the ends or mouths of the groove are below the lowest point of combustion, substantially as and for the purposes herein described.

**77,800.—SUSPENSION BRIDGE.—Edward M. Carpenter, Middletown, N. Y.**  
I claim, 1st, The construction and arrangement of the frame of a bridge, of separate sections, B, B, and P, in combination with the wedges, F, F, substantially as herein shown and described, and for the purpose set forth.  
2d, The wedges, F, F, combined with the screw rods, e, and nuts, g, substantially as and for the purpose herein shown and described.

**77,801.—EXTENSION FOR TABLE.—De Lance Cole, Marshall, Ill.**  
I claim the combination of the extension leaf leaves, F, provided with legs, H, dovetail pins, G, and supporting bars, I, with the hinged leaf or leaves, L, and slotted side bars of the frame, A, of an ordinary table, substantially as herein shown and described and for the purpose set forth.

**77,802.—WHEAT DRILL.—J. W. Davidson, Mount Auburn, Ill.**  
I claim, 1st, The seat, K, when its forward end is supported upon the adjustable cross bar, C, carrying the seed tubes by the bars, M, all arranged as described, for the purpose specified.  
2d, The adjustable shoes, B, when provided with short vertical tubes at their rear ends to receive the flexible tubes, D, said shoes being held in place and connected to each other by means of the cross bar, C, secured to the short tubes, all arranged as described, for the purpose specified.

**77,803.—TOBACCO PIPE.—Henry G. Dayton, Maysville, Ky., assignor to Richard H. Collins, Cincinnati, Ohio.**  
I claim, 1st, As a new article of manufacture, a bowl, D, with a perforated side, so that it can be inserted into the main bowl of a pipe.  
2d, The combination of the bowl, D, with a bowl, B, at the bottom, and with a socket, B, of a removable bowl, D, which is held in place by means of the tube, C, substantially as herein shown and described, and for the purpose set forth.

**77,804.—THILL FASTENER.—Lyman Derby, New York city.**  
I claim, 1st, The combination of the slotted bolt, C, with the ear pieces, B, whether attached to the clip, A, or jack plate, for securing the clip upon the axle, as sometimes used, for the purpose hereinbefore set forth.  
2d, In combination with the slotted bolt, C, the tenoned or wedge shaped thill, E, having an oblong hole, F, in it, substantially as hereinbefore set forth, and for the purposes described.  
3d, In combination with the tenon shaped thill iron, E, having a slot or hole, F, in it, the spring latch, G, substantially as described, and for the purpose set forth.

**77,805.—LIQUID EXTRACT FROM VEGETABLES.—Gustave De Villepoix, Abbeville, (Somme,) and Joseph Francois Bonnatere, Paris, France.**  
We claim, 1st, As a new article of manufacture, the herein described liquid extract of vegetables, as and for the purpose described.  
2d, The herein described process for preparing the said liquid extract of vegetables, as and for the purpose described.  
3d, The combination, with the said liquid extract of vegetables, of a solution of salt and sugar, substantially as and for the purpose described.

**77,806.—PRESERVING THE WOOD OF COFFINS.—Jean Maurice Dufournet and Louis Clémendot, Paris, France.**  
We claim, 1st, Rendering the wood indestructible, by coating it over with any antiseptic matter.  
2d, Covering the coated wood with metallic sheets or suitably prepared papers, so as to obtain perfect air and water tight surfaces, substantially as and for the purpose herein specified.

**77,807.—CORN PLANTER.—John Elbertson, Kirksville, Mo.**  
I claim, 1st, The combination of the rack, e, gear, e', plate, i, and roller, C, having one flat edge, substantially as and for the purpose set forth.  
2d, In combination with the parts above referred to, the slide, D, and tube, A, when all said parts are constructed and arranged so as to operate together in the manner and for the purpose set forth.

**77,808.—CORN PLANTER.—W. H. Fish, Jr., Scarsdale, N. Y.**  
I claim, 1st, The valve, e, in the spout, I, when arranged in connection with the seed slide, H, so as to be operated therefrom, substantially in the manner as and for the purpose specified.  
2d, The combination of the front wheel, D, in an adjustable frame, E, secured to the front part of the frame, A, in the manner substantially as and for the purpose set forth.  
3d, The combination of the two frames, A, E, when used in connection with a seed dropping mechanism, substantially as shown and described.

**77,809.—WATER INDICATOR AND ALARM.—Thomas Flinn, Brooklyn, N. Y.**  
I claim, 1st, The arrangement of the rods, E and F, connected so that the upper suspended rod, F, will only be operated by the lower floating rod, when the water in the boiler is at too high or too low a level, substantially as and for the purpose specified.  
2d, The rod, F, when operated as described, in combination with the levers G, H, and with the valve, B, all made and operating so that the valve will be opened both when the rod, F, is raised and when it is lowered, as set forth.  
3d, The above, in combination with the pin, i, or other indicator on the floating rod, E, whereby the apparatus is provided with an index, as set forth.

**77,810.—BRIDLE BIT.—Wm. S. Ford, Clinton, Ill.**  
I claim the tubes, B, B, when formed as described, in combination with the bit mouth, A, and cheek straps, C, C, as and for the purpose set forth.

**77,811.—CORN PLANTER.—A. J. Going, M.D., Clinton, La.**  
I claim the arrangement of the colter, D, furrow opener, E, and standard, F, with the beam, B, as herein described for the purpose specified.

**77,812.—LATHÉ.—Lewis Griscom, Mahanoy Plane, Pa.**  
I claim, for operating the cross-feed screw of a lathé, the combination of the feed screw with the pulley, Q, band, B, bar, J, or its equivalent, all substantially as described.

**77,813.—CHART ROLLER.—E. L. Hagar, Empire City, Colorado.**  
I claim the chart roller, constructed as described, consisting of the case, C, having the hinged lid, H, and adapted to receive the chart rollers, B, said chart passing through the curved opening, E, their operating cords, F, passing through separate openings in front of the charts, as herein shown and described.

**77,814.—LINIMENT.—Wm. P. Hamlin, Exira, Iowa.**  
I claim a liniment, formed of the ingredients, in the proportions, and in the manner substantially as herein described.

**77,815.—HEMP BREAKING MACHINE.—Joseph S. Hoskins, Spring Hill, Mo.**  
I claim, 1st, The lifting frame, F, carrying the swords, C, the swords, D, upon the frame, A, and the swords, E, upon the springs, G, secured at g to the frame, and passing beneath the rollers, B, all constructed and operating as described for the purposes specified.  
2d, The lifting frame, F, F, swords, C, D, yielding swords, E, and springs, G, in combination with the rollers, B, rollers, B, pawl, R, and oscillating bar, P, substantially as described for the purpose specified.  
3d, The whipper, Q, substantially as above set forth and described.  
4th, The oscillating bars, P, carrying the whipper, Q, in their forked extremities, in the manner and operating substantially as above set forth and described.  
5th, The pawl, R, in combination with the ratchet, T, and oscillating bar, P, operating substantially as above set forth and described.

**77,816.—FIRE-PROOF SAFE.—A. W. Herr, Chicago, Ill.**  
I claim the fire-proof box, consisting of case, A, and box, B, each constructed and arranged, and both combined as described, the spaces between the same being provided with water evaporators, arranged in the manner herein described, and in any other suitable manner, and filled with fine salt or other bad conductor of heat, substantially as herein shown and described and for the purpose set forth.

**77,817.—HAY RAKER AND LOADER.—S. R. Higgins, Parma, Michigan.**  
I claim, 1st, The two rollers, B, H, in combination with the endless carrier, D, guide, E, the adjustable frame, C, and the main frame, A, all constructed and arranged to operate in the manner substantially as and for the purpose set forth.

**2d, The revolving rake or picker, G, in combination with the rollers, B, H, arranged substantially as and for the purpose specified.**

**3d, Constructing the revolving rake or picker with movable rake bars, t, arranged so as to be operated by the curved plates, u, and their own gravity substantially as shown and described.**

**77,818.—MANUFACTURE OF WHITE LEAD.—Otto Jacobi, Philadelphia, Pa.**  
I claim, 1st, An apparatus for producing carbonate of lead, consisting of the furnace, A, boiler, D, converter, G, and of the perforated boxes, I, i, or their equivalents, all made and operating substantially as herein shown and described.  
2d, The device set forth in the foregoing claim, in combination with the vertical apparatus, F, arranged within the converter, as described.  
3d, The pipes, B and J, in combination with the converter, G, all made and operating as described, the pipes being provided with dampers, c and d, respectively, as specified.

**77,819.—COUNTERSINK.—C. Krebs, West Springfield, Mass.**  
I claim a countersink, having one or more bent lips, when constructed substantially as herein described and set forth.

**77,820.—FINGER FOR SHUTTLE STOP ROD IN LOOMS.—E. S. Laney (assignor to himself and Enos Laney), Waterloo, N. Y.**  
I claim the improved finger herein described, when constructed substantially as and for the purpose specified.

**77,821.—LAMP BURNER.—Gilbert Lavery, Bridgeport, Conn.**  
I claim, 1st, The combination of the central chamber, b, with the annular chamber, e, and wick tube, d, substantially as shown and described, and for the purposes set forth.  
2d, The removable burner, substantially as shown and described, in combination with a rest, q, the said burner being so constructed as to be lifted off from the said rest, q, without unscrewing, all as set forth.

**77,822.—FURNACE FOR BURNING FUEL FOR HEATING METALS, and for other Purposes.—T. J. Leigh, London, England.**  
I claim the combination of fuel in a bed of molten matter, and the construction and working of furnaces adapted to this purpose, as herein described.

**77,823.—VULCANITE BILLIARD BALL.—W. H. Lippincott, Pittsburgh, Pa.**  
I claim forming billiard balls, and other balls of a similar nature, or for similar purposes, of successive layers of rubber, each layer being vulcanized as it is added, substantially as herein described.

**77,824.—CRUTCH.—John A. Lobb, Independence, Mo.**  
I claim, 1st, The hollow staff, A, in combination with the hollow bar, a, the plug, d, and the spring, e, substantially as and for the purpose set forth.  
2d, The hollow bar, a, in combination with the plug, d, the spring, e, and the clamps, e', e'.

**77,825.—SAW SET.—A. Lyon, W. Shumard, and J. N. Robbins, Goshen, Ohio.**  
We claim, 1st, The chisel pointed punch, D, so guided as to strike the teeth at their bases only.  
2d, The tapering anvil, G, adjustable to fit teeth of different widths, as explained.  
3d, The combination of the anvil, G, supporting bar, I, punch, D, and stops or gages, F, F, substantially as and for the purposes set forth.

**77,826.—PAN FOR CONCENTRATING SULPHURIC ACID.—P. Marcellin and Joseph Saunders, Green Point, N. Y.**  
I claim providing sulphuric acid pans with elongated, downward-extending spouts, B, for the purpose of carrying the acid from the upper part of one pan to the bottom of the next pan below, substantially as herein shown and described.

**77,827.—PALETT FOR TIMEPIECE.—C. E. Mason, Elgin, Ill.**  
I claim the pallet block or stud, when slit or cut across from side to side, substantially as described, for the purposes specified.

**77,828.—WASHBOARD.—Michael McGarry, Westfield, N. Y.**  
I claim the arrangement of the spring guides, B, and ways, b, connected by eyes, c, and bends, h, as described, when combined with washboard, A, and rubber, C, C, as herein set forth.

**77,829.—MACHINE FOR MAKING PAPER PULP.—Warner Miller, Herkimer, N. Y., assignor to National Wood Fiber Company, New York city.**  
I claim, 1st, The operating of the followers, E, E', or, in other words, the feeding of the wood to the grinding stone, by means of springs or a lever and weight, arranged substantially as herein shown and described and for the purpose specified.  
2d, The particular application of the springs, I, K, as shown, to admit of the followers being relieved of their pressure, whenever it is required to withdraw the followers for the insertion of the wood to be ground.  
3d, The facing of two or more screens, P, P', one above the other, in a shoe C, placed in a suitable box, N, and having a shake motion communicated to it by means of a cam, R, or its equivalent, when such device is used in connection with or applied to a machine for making paper pulp, substantially as set forth.  
4th, The curved spout or chute, T, attached to the upper screen, P, when said spout or chute is used in connection with a shoe containing two or more screens, and all arranged in such a manner as to admit of the dividing, or separating of the pulp into two or more kinds or qualities of stock, substantially as set forth.

**77,830.—REVOLVING SPADE PLOW.—J. W. Milroy, Galveston, Ind.**  
I claim, 1st, In a revolving spade plow, the hinged frame, D, operating substantially as and for the purposes set forth.  
2d, The employment of one or more revolving plows or forks, arranged to operate substantially as described.

**77,831.—MODE OF REMOVING METALLIC SCALE FROM GLASS AND MOLLS.—Wm. P. Parrott, (Geo. Hughes, executor,) and J. J. Bordman, Boston, Mass.**  
We claim the employment of heat and a weak solution of sulphuric or muriatic and fluoric acids, in manner substantially as described, for removal of the metallic oxide or scale from the molls, or from the sand or silica used for making glass.  
Also, for the purpose set forth, the combination of the vessel or tray, C, with the boiler, B, and the furnace, A.  
Also, the combination as well as the arrangement of the acid generator, E, with the boiler, B, and the furnace, A, the said boiler and generator being connected, as described.  
Also, the combination of the condenser, D, with the boiler furnace and the vessel, C, or the same and the generator, E.

**77,835.—COOKING STOVE.—L. M. Parsons, Waukau, Wis.**  
I claim, 1st, The arrangement, as herein described, of the damper, K, with relation to the air passage, G, and oven, C, whereby the supply of cold air to the furnace, A, is cut off and directed through the oven to reduce the heat in the latter, and the supply of oxygen to the fire, as set forth.  
2d, The arrangement of the air-supply flue, G, beneath the fire flue, a, of the stove, communicating with the furnace, A, through the ash pit when the stove is used with coal, and through the aperture, f, above the ash pit when used with wood, and whereby the cold air is heated by contact with the plate J, before reaching the fire, as herein shown and described for the purpose specified.

**77,836.—VOTE REGISTER.—N. A. Patterson, Winchester, Tennessee.**  
I claim, 1st, The catching strips, G, or their equivalent, substantially as shown and described, in combination with the name blocks, B, and plate, A, or its equivalent, all as and for the purpose set forth.  
2d, The springs, h, attached and operating substantially as shown and described, or the equivalent thereof, in combination with the name blocks or chases, B, all as and for the purpose set forth.  
3d, The springs, s, of any suitable material, employed and operating substantially as shown and described, in combination with the strips, G, and plate, A, or the equivalent thereof, all as and for the purpose set forth.  
4th, The device, consisting of the tablet, H, strip, I, and cross piece, J, or other equivalent mechanism, constructed and operating substantially as shown and described, in combination with the strips, G, all as and for the purpose set forth.

**77,837.—PERPETUAL CALENDAR.—Charles T. Pooler, Deansville, N. Y.**  
I claim, 1st, A perpetual calendar, consisting of the hands, C and E, working respectively around horizontal and vertical rollers, substantially as herein shown and described.  
2d, The perpetual calendar, when provided with the bands, C and E, of which the latter partly covers the former, in combination with the hinged portion, G, of the frame in which the device is held, as set forth.  
3d, The band, H, and rollers, I, in combination with the device set forth in the foregoing claims.

**77,838.—SEAT FOR VEHICLE.—Lewis Pray, Portland, Me.**  
I claim the combination of the jump seat, A, upheld by crossed legs, a, a, and pivoted, as shown and described, in combination with the sliding seat D, of a vehicle body, all substantially as and for the purpose set forth.

**77,839.—HORSE HAY FORK.—Emanuel Raber, Lake, Ohio.**  
I claim, in combination with the pivoted forks, A, A, the trigger, C, hook, F, and lines or cords, g, connecting said forks with the bar, E, so that the forks may enter and hold and carry the load or charge of hay upon their tines, and drop it at the place of delivery, substantially as herein described and represented.

**77,840.—FERTILIZER.—J. S. Ramsburgh, New Market, Md.**  
I claim the compound for a fertilizer, composed of the ingredients, mixed in the manner and proportions substantially as herein described.





**77,915.—JOINT FOR SHACKLES.**—John F. Reiner, Columbus City, Iowa.  
I claim a joint or shackle having parts, A and B, bolts, C and E, clutch, D, and hollows, G, constructed, combined, and arranged substantially as specified.

**77,916.—CAN OPENER.**—Charles F. Ritchel, Chicago, Ill.  
I claim the can opener made of one piece of sheet metal, as described, provided with point, D, and blade, E, both arranged and operating substantially as herein shown and specified.

**77,917.—GAS BURNER.**—Wm. H. Rodgers, Brooklyn, N. Y.  
I claim, 1st, the gas cocks, 2, 4, and 7, in combination with the opening, 3, and pipes, 5 and 6, to supply gas to the chamber, F, and jet, 8, which jet, 8, is extinguished, the parts being arranged and acting substantially as described for the purposes set forth.  
2d, The regulating screw or cock, 8, in combination with the jets, 1 and 2, and for the purposes set forth.

**77,918.—HARNES LOOP.**—Geo. W. Rowland, Salem, Oregon.  
I claim a winged metallic loop for attachment to harnesses, constructed to operate substantially as described.

**77,919.—MOP WRINGER.**—Hugh B. Rorke, California, Mo.  
Ante-dated April 29, 1868.  
I claim the rollers, B, B', either with or without corrugations, the ear pieces, A, lever, C, when combined and arranged as described and set forth.

**77,920.—MACHINE FOR TREATING HIDES.**—Hermann Royer, Louis Royer, San Francisco, Cal.  
We claim, 1st, The vertical shaft, B, with a slot, B', and set screws, b b', said shaft having a forward and back motion, substantially as and for the purpose specified.  
2d, The rollers, C, C', set in the rings, D, and D', together with the groove, E, I, substantially as and for the purposes specified.

**77,921.—SOLDEHING FURNACE.**—Geo. O. Sanerson, Boston, assignor to himself and E. D. Goodrich, Cambridge, Mass.  
I claim, 1st, The flattened tub, A, D, E, when made and arranged substantially as described and for the purpose set forth.  
2d, The combination as well as the arrangement of a burner with a deflector, G, to the pieces, K, K', K'', and the case, N, O, made substantially as described and for the purpose set forth.

**77,922.—APPARATUS FOR HANDLING IRON IN ROLLING MILLS.**  
Elias Sanford, Meriden, Conn.  
I claim the part, C, with the valve, a, attached, and its peculiar construction, with the rollers, D, and the double jointed lever, F, by which it is carried around and over the upper roll, and presented to the man in front of the machine, substantially as herein specified.

**77,923.—REGULATING AND DISPENSING MECHANISM.**—Socrates Schofield, Providence, R. I. Ante-dated March 20, 1860.  
I claim, 1st, Causing the motion derived from any kind of governor, as transmitted in one direction, to be stopped and controlled by an obstructing point or notch, or system of elevations and depressions, operating under the action of a governor, transmitted in another direction, substantially as described.  
2d, Arranging the ratchet teeth in steps, or one above the other, in connection with a gear operating to produce a corresponding change in the elevation of the catches, substantially as and for the purpose specified, in any regulating or dispensing mechanism.  
3d, The combination of several elements, consisting, first, of a dispensing device; second, of a vibrating bar or lever; and third, of an opposing point, placed in connection with the governor or other indicator of a desired change in the action of a machine, to operate substantially as described.

**77,924.—GRAIN DRILL.**—Jacob H. Shreiner, Camp Hill, Pa.  
I claim, 1st, The peculiar construction of the foot, B, substantially as and for the purpose herein set forth and described.  
2d, The combination of the foot, B, cutter, C, and boot, A, substantially as herein shown.  
3d, The cutter guard, E, substantially as and for the purpose set forth.  
4th, The combination and arrangement of the feed pipe or boot, A, cutter guard, E, frame, D, cutter, C, and chare, a, substantially as herein set forth and for the purpose set forth.

**77,925.—MACHINE FOR MAKING DRAIN PIPE.**—Robert Skinner, San Francisco, Cal.  
I claim, 1st, The follower, G, constructed with slots, G', G', and the curved openings, F, F, in which it slides, in combination with the stationary core, E, and ring, N, substantially as and for the purpose set forth.  
2d, In combination with the above claimed apparatus, the steam jacket, J, for heating the same, and the material worked thereby, substantially as described.

**77,926.—CHURN.**—J. C. Slaughter, Crumpton, Md.  
I claim, 1st, A casing, A, constructed in diameter near the bottom, in combination with a series of revolving blades, B, arranged together under the lower than the upper end of the casing, for the purpose set forth.  
2d, The frame, C, having blades, b, extending across the same, and hung to the shaft, C, in respect to its blades, n, as and for the purposes specified.

**77,927.—FOXING AND SOLING BOOTS.**—Alfred G. Smith, Marathon, N. Y.  
I claim, as an improved article of manufacture, a foxing or fronting and soling for boots and shoes, constructed separately from the work to which it is to be applied, substantially as and for the purpose set forth.

**77,928.—MEASURING TAUCET.**—James D. Smith (assignor to Arthur P. Emery), New York City.  
I claim, 1st, The combination with a rotary measuring and drawing device, C, arranged in the center of the shaft, A, and turned from the outside by a gear, or band, G, of the fast and loose differential wheels, J, J', pinion, K, carried by the handle and wheels, M, N, or their equivalents, for operating the dial, P, substantially as shown and described.  
2d, The dial, P, being for independent action, as described, and for free rotation with the wheel, N, by which it is driven by frictional gear with the latter, through a spring or springs interposed between said wheel and dial, essentially as specified.

**77,929.—DOUBLE STEAMER FOR TIN WORK.**—Charles F. Spaulding, St. Johnsbury, Vt., assignor to himself and E. D. Goodrich, Cambridge, Mass.  
I claim, 1st, The carrying disk, F, the shaft, D, and crank, E, when combined with the compressing disk, H, operating substantially as described, and for the purpose set forth.  
2d, The rubber band, G, in combination with the disk, F, substantially as described, and for the purpose set forth.  
3d, The combination of the disk, F, and crank, E, in combination with the brace, N, substantially as and for the purpose set forth.  
4th, The combination and arrangement of the lever, M, shaft, I, sliding standard, J, and standard, K, substantially as described, and for the purpose set forth.

**77,930.—DITCHING MACHINE.**—George H. Stevenson, Washington, Ohio.  
I claim the construction of a space that will cut a ditch ready for tile, thirty inches deep, without the use of any other instrument, and is useful for digging out holes and making other useful things, which is done by the movable foot-piece and peculiar shape of the blade or lips attached thereto.

**77,931.—BOOT AND SHOE LAST.**—James H. Swain, San Francisco, Cal.  
I claim, 1st, The projection or flange, C, or its equivalent, on the face of the last, substantially as and for the purpose specified.

**77,932.—PUDDLING AND BOLLING FURNACE.**—William Swinell, Allegheny City, Pa.  
I claim, 1st, A bottom plate for a puddling or bolling furnace, cast with a series of grooves in or along its lower surface, in which to arrange a series of water pipes, substantially as and for the purposes hereinbefore set forth.  
2d, The use of a series of tin water chills, a, when arranged in grooves cast in the lower face of the bottom plate of a puddling or bolling furnace, substantially as and for the purposes hereinbefore set forth.  
3d, Supporting the boshes of a puddling or bolling furnace by a ledge or rim, c, on the upper face of the bottom plate, and extending around in it the outside line of the boshes, substantially as and for the purposes hereinbefore expressed.  
4th, Joining the boshes of a puddling or bolling furnace to the bottom plate and to each other, by the shafts, b, in combination with lips, c', to form a dove-tail joint, substantially as and for the purposes set forth.  
5th, Making chills face boshes for puddling or bolling furnaces, by casting them against a metallic chill, substantially as and for the purposes hereinbefore set forth.

**77,933.—OSCILLATING RUBBING MACHINE FOR MEDICAL USES.**—George H. Taylor, New York City.  
I claim, 1st, The rubber, A, composed of India rubber, and having its outer surface coated or covered with India rubber, the said outer surface being furnished with projecting ribs, points, or corrugations, and the said rubber A, being constructed substantially as and for the purpose specified.  
2d, The combination with the rubber, A, of the forked rod, C, hung on a pivot, E, and operated by any suitable mechanism, substantially as and for the purpose set forth.  
3d, The combination with the rubber, A, and rod, C, of the crank, G, arm or connecting-rod, H, and shaft, I, substantially as described and for the purpose set forth.  
4th, The combination with the rubber, A, driven by suitable mechanism, substantially as set forth, of the cone, S, properly connected with the frame, O, a, d having an opening, it, through it, for the said rubber A, to work through, substantially as and for the purpose set forth.

**77,934.—TAILORS' PRESSING MACHINE.**—Joseph W. Thorpe, Hillsborough Bridge, N. H., assignor to himself and David F. Brown.  
I claim, 1st, The arrangement of the socket, E, the sleeve, F, and the spindle, J, with the press iron, and its adjusting handle, substantially as set forth.  
2d, Supporting the heater at a distance from the face plate of the press iron, by means substantially as and for the purpose specified.  
3d, The arrangement of the adjustable handle, a, and cam, a', with the spindle, J, and press iron, for the purpose substantially as set forth.  
4th, The rubber or elastic bearing, e, arranged in combination with the jack F, substantially as set forth.

**77,935.—APPARATUS FOR COOLING AND PURIFYING BONE BLACK.**—D. Mel H. Turner, New York City.  
I claim, 1st, The combination of the circumferentially close revolving cylinder, A, provided with interior lifters, and set horizontally, or thereabouts, screen, or screen extension, C, at the forward end of said cylinder, and hot air, gas, and dust conductor, F, for operation together substantially as specified.  
2d, In combination with the circumferentially close cylinder, A, and screen forward extension, C, the adjustable ring or cover, K, essentially as shown and described.  
3d, The arrangement with the conductor, F, of the distributing apron, H, for operating in connection with the cylinder, A, provided with lifters, and set horizontally, or thereabouts, as herein set forth.

**77,936.—LAMP SHADE.**—Gustav Wedekind, Philadelphia, Pa.  
I claim, in combination with the radial braces for supporting the shade on the chimney, the raised elbows on said braces, to support the shade and prevent it from shaking about, substantially as and for the purpose specified.

**77,937.—BED PAN ATTACHMENT FOR INVALID BEDS.**—Sam'l G. Welch, New Rochelle, N. Y.  
I claim the movable elastic seat piece, in combination with the pipe and pan, substantially as and for the purposes set forth.

**77,938.—ARTIFICIAL IVORY.**—William M. Welling, New York City. Ante-dated May 2, 1868.  
I claim the composition herein specified, prepared as set forth.

**77,939.—CHURN DASHER.**—E. B. West, St. Anthony, Minn.  
I claim, 1st, The arrangement of the arm, N, and stationary paddle, O, as specified, and for the purpose set forth.  
2d, The combination of the stationary arm, N, and its paddle, O, with the movable arm, M, F, their paddles, and the plate, A, all constructed and operated as specified.

**77,940.—PORTABLE MUSIC STAND.**—Daniel M. White, Malden, Mass.  
I claim so arranging a convertible cane and music stand that when closed to form a cane, said cane shall consist of the hinged legs, B, B', and the tube, A, said parts being adapted to enclose the rod, D, and folding rack, C, and when arranged as a music stand, the legs, B, B', shall be extended to support the tube, A, and the rod, D, and frame C, be adjustably supported on the latter by means of the spring, S, substantially as described.

**77,941.—TUBE WELL.**—William H. White, Lynn, Mass.  
I claim the combination with a well tube, A, of the movable strainers of induction tubes, applied and operating substantially as described.

**77,942.—PORTABLE FENCE.**—Thos. B. Wickham, Granville, Ohio.  
I claim the manner of locking and supporting the panels by the double brace and clamp, B, B, in combination with the stakes, D, D, and lock, C, C, all substantially arranged as set forth in the foregoing specifications.

**77,943.—PLATFORM CAR STAKE HOLDER.**—Wm. J. Willits, Detroit, Mich. Ante-dated April 28, 1868.  
I claim, 1st, The arm, I, cams, N, N', collar, H, staple bolts, F, F', etc., clamp, E, plate, K, projection, O, staple bolt, F', nut, S, and lever, L, for the purpose specified.  
2d, The combination and arrangement of the stake, B, the sill, A, the gain, D, in the door, C, the clamp, E, the staple bolts, F, F', the collar, H, the arm, I, the head, K, the lever, L, the cams, N, N', the projection, O, staple bolt, F', the plate, R, the ring, X, and the stop, T, arranged substantially as described for the purpose specified.

**77,944.—VEGETABLE WASHER.**—George H. Tift, Morrisville, Vt.  
I claim the combination of the both ended journals, C, C, when attached to the rotating cylinder, F, from its interior, and used with the pivoted blocks, J, J, in the manner as specified.

REISSUES.

**2,925.—COVERING WHIPS.**—Chas. C. Pratt, Westfield, Mass., assignee by mesne assignments of Gamaliel King. Patented June 18, 1867. Division 1.  
I claim, 1st, A water proof coating, consisting of the combined ingredients herein shown and described.  
2d, The application of the dissolved caoutchouc with or without the lead and oil, to a whip, substantially as and for the purposes shown.

**2,926.—COVERING WHIPS.**—Chas. C. Pratt, Westfield, Mass., assignee by mesne assignments of Gamaliel King. Patented June 18, 1867. Division 2.  
I claim, 1st, The covering of the body of a whip with an inner braiding, a, substantially as shown and described.  
2d, The combination of the inner and outer braidings, a, r, with the varnish or coatings, c, e, all applied in the construction of a whip, substantially as shown and described.

**2,927.—MACHINE FOR POLISHING BUCKLES.**—Emanuel Andrews, Williamsport, Pa., assignee of Robert G. Pine. Patented April 8, 1868.  
I claim, 1st, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for said holder, and springs to bear the article against the revolving wheel with a yielding pressure, substantially as before set forth.  
2d, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, and guide to limit the movement of the article under the yielding pressure, substantially as before set forth.  
3d, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, and traversing mechanism, to move the article transversely to the rim of the wheel, substantially as before set forth.  
4th, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, and guide to limit the movement of the article towards the polishing wheel, and pattern for the article, substantially as before set forth.  
5th, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for the holder, guide to limit the movement of the article towards the polishing wheel, and pattern for the article, substantially as before set forth.  
6th, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for the holder, spring, guide, and pattern, substantially as before set forth.  
7th, The combination of the following instrumentalities, viz, the revolving polishing wheel, holder for the article, shaft for the holder, springs to exert a yielding pressure, traversing mechanism, and guide to limit the movement of the article towards the polishing wheel, substantially as before set forth.

**2,928.—OPERATING THE TREADLES OF LOOMS.**—Robert W. Andrews, Stafford, Conn. Patented January 18, 1863. Extended seven years.  
I claim the combination, in a loom, of the harness frame and cords with the treadles and treadle cams, constructed and operating substantially as described.  
Also, the treadles and the movers or cams, combined, constructed, and arranged so that by reversal of the cams upon the shaft, a reversal of the movement and intentions of the harness frames is produced, substantially as herein set forth.  
Also, in a cam loom having upright treadles or harness levers strung to the harness leaves or frames, and actuated by a single set of cam wheels, the arrangement of the fulcrum shaft of the harness levers directly over or within the vertical plane of the cam wheels, substantially as described.

**2,929.—CORSET SPRING.**—Francis L. Barnes, New York City, administratrix of the estate of Samuel H. Barnes, deceased. Patented July 7, 1865.  
I claim a corset spring, consisting of the parts, B, provided with pins, b, and slotted springs, B', rivets, as shown, and having suitable clasps, C, and headed rivets, D, and of form corresponding to the body of the wearer, constructed and operating in the manner and for the purpose herein represented and described.

**2,930.—PAPER FILE.**—Henry E. Woodbury, Washington, D. C. Patented August 8, 1854.  
I claim the box or compartment document file, consisting of a box part, A, and spring platen or holder, B, the said holder being hung or attached to a spring or springs, C, at its back, so as to give a flexible or yielding character to the platen, all constructed and operating substantially as herein described.

**2,931.—HARVESTER.**—Jacob V. A. Wemple, Quincy, Mich. Patented April 19, 1855.  
I claim, 1st, A separating rod or finger, W, automatically interposed, for separating the falling grain from that which is being discharged from the platform.  
2d, The rod or finger, W, pivotal piece, C, and standard, E, in combination with the rod, B, constructed and operating substantially as specified.  
3d, A movable or separating rod and finger, for separating the falling grain from the completed gavel on the platform, in combination with a single supporting standard or post, located at the inner end, or inner front corner of said platform, substantially as described.

DESIGNS.

**3,019.—IMITATION BRAID FOR BONNETS, ETC.**—Samuel A. Blake, Milford, Conn.  
**3,020 to 3,032.—BRACKETS.**—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn.  
**3,033.—CARD RECEIVER.**—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn.  
**3,034.—MATCH SAFE.**—F. W. Brocksieper (assignor to Sargent & Co.), New Haven, Conn.  
**3,035.—MEDALLION.**—Garret Erskon, Brooklyn, N. Y.  
**3,036 to 3,039.—FLOOR OIL CLOTH PATTERNS.**—Charles T. Meyer, Bergen, N. J., assignor to Edward C. Sampson.  
**3,040 and 3,041.—FIGURE.**—Carl Muller and John Deacon, New York City.  
**3,042.—CLOCK CASE.**—George B. Owen, Winsted, Conn.  
**3,043.—BOX STOVE.**—Asa Snyder and Alexander Delaney, Richmond, Va.  
**3,044.—TRADE MARK.**—James S. Waters, St. Louis, Mo., assignor to St. Louis Lead and Oil Company.  
**3,045.—STEAM-VALVE CASE.**—John Johnson, New York City.  
**3,046.—DOOR OF A COOK'S STOVE.**—John Martino, Jacob Besley, and John Currie, Philadelphia, assignors to March, Sister and Company, Lamerick Station, Pa.  
**3,047.—COFFIN HANDLE.**—C. L. L. Nieberg (assignor to Sargent & Company), New Haven, Conn.  
**3,048.—TRADE MARK.**—Dudley F. Stevens, Boston, Mass.

EXTENSIONS.

**ATTACHING PROPELLERS TO THE DRIVING SHAFT.**—James L. Cathcart, Georgetown, D. C. Letters Patent No. 10,790. Dated April 18, 1868.  
I claim attaching the propeller, secured to a short shaft which passes through the rudder to its main or driving shaft, by a universal joint placed between the stern post and the rudder, by which attachment the propeller is moved laterally with the movement of the rudder.

**APPARATUS FOR MOLDING CANDLES.**—Willis Humiston, Troy, N. Y. Letters Patent No. 10,730. Dated April 4, 1854. Reissue No. 2,396. Dated March 6, 1866.  
I claim, 1st, The employment of the wick stretcher, E, so arranged and combined with the machine, having vertical stationary candle molds (herein called) drawn or ejected from the stationary candle molds below, and thereby come in contact with the tips of the said candles in such manner as to center the candle wick in the said molds, and at the same time hold the said candles thus suspended during the operation of filling the said molds with melted material from which to mold candles, and during the cooling thereof, and until the wick is cut or severed between the said suspended and molded candles in said stationary candle molds, substantially as herein described and set forth.  
2d, I claim the employment of the candle tip bar, F, or any substantial equivalent thereof, which shall be so constructed and arranged as to be moved in a lateral direction up to, or against, or under the tips of the candles drawn or ejected from the stationary candle molds below, and thereby come in contact with the tips of the said candles in such manner as to center the candle wick in the said molds, and at the same time hold the said candles thus suspended during the operation of filling the said molds with melted material from which to mold candles, and during the cooling thereof, and until the wick is cut or severed between the said suspended and molded candles in said stationary candle molds, substantially as herein described and set forth.  
3d, I claim the employment of the candle mold, constructed with an inner annular shoulder, b', and with an outer surrounding shoulder, c, and with a screw and nut at or near the lower end thereof, in the manner and for the purposes substantially as herein described and set forth.  
4th, I claim the contraction of the lower end of the vertical stationary candle molds, so as to form an inner annular shoulder, in the manner and for the purposes substantially as herein described and set forth.  
5th, I claim the mode, substantially as herein described and set forth, for attaching to, and combined with the lower end of the vertical stationary candle molds, having an outer surrounding shoulder, c, and the bottom plate, B', of the surrounding water box, so as to make the same water tight and firm therein, in the manner and for the purposes substantially as herein described and set forth.  
6th, I claim the employment of the shovel blade cutter, J, or any equivalent thereof, and the passing of the same between two rows of the wicks of the vertically suspended candles, so as to cut or sever the two rows of the said wicks, in the manner and for the purposes substantially as herein described and set forth.

**RAILROAD CARS.**—B. J. La Moth, New York City. Letters Patent No. 10,721. Dated April 4, 1854. Reissue No. 360. Dated March 18, 1859.  
I claim the construction of the frames of railroad cars, substantially in the manner and for the purposes specified.

**SEWING MACHINE.**—Samuel J. Parker, Ithaca, N. Y. Letters Patent No. 10,757. Dated April 11, 1854.  
I claim that combination that secures to me the relative position in which I place the needle's eye to the movement of the material or feed motion, and the position of the shuttle and its race resulting therefrom, when the needle is straight and the table on which the material to be sewn is horizontal, said relative position meaning the longitudinal axis of the shuttle and its race at right angles to the feed motion, and the consequent position of the needle's eye to the feed motion, so that the needle's eye, when in the act of passing the center of the material sewed, shall coincide with the line of feed motion, not be at right angles therewith, and this for the purpose of rendering the stitch more nearly straight and perfect than it otherwise would be, the combination and purpose substantially as described.

**HEATING SKELPS FOR THE MANUFACTURE OF WROUGHT IRON TUBES.**—James McCarty, Reading, Pa. Letters Patent No. 10,747. Dated April 3, 1854.  
I claim the new mode of operating, as described, viz, heating the skelps in a furnace, so as to form an inner annular shoulder, with raw coals as fuel, whose combustion is maintained by a blast of air forced into the furnace under pressure, as set forth.

**VERSELS FOR HOLDING LIQUIDS.**—Julia M. Colburn, Baltimore, Md., administratrix of James Stimpson, deceased. Letters Patent No. 11,819. Dated Oct. 17, 1854. Ante-dated April 17, 1854.  
I claim the employment of a chain or string attached to the handle and lid of a pitcher, as described.

**TREATING CANE FIBER FOR PAPER AND OTHER PURPOSES.**—Benj. A. Lavender, Halifax, N. C., and Kate Lowe, Baltimore, Md., administratrix of Henry Lowe, deceased. Letters Patent No. 10,722. Dated April 4, 1854.  
I claim breaking down woody fiber of cane and other like plants, and dissolving the gummy and other foreign matters therefrom by means of muriatic or sulphuric acid, of the strength of 10° Baumé, or thereabout, preparatory to making hemp flogging, rope, paper pulp, etc., in the manner substantially as set forth.

**MACHINERY FOR LAYING ROPE.**—Stephen Bazin and James A. Bazin, Canton, Mass. Letters Patent No. 10,823. Dated April 25, 1854.  
I claim adapting the machinery for forming both hard and soft cordage by means of the ring, g, so actuated by the circular plate, i, and its rollers made to revolve, or hold stationary, as above set forth, as to form an extra twist in the rope when desirable, by giving an additional revolution to the bobbin frames, as above described.  
We also claim an improvement in the movable crane, the same consisting in forming it of a bent shape, with the right angular hinged arm operating as above described, so as to feed the rope in a direction parallel with the axis of the winding reel.  
We also claim stretching the rope after it is laid, by means of the double pulley, r, b, with grooves of different diameters, as above set forth.

**COFFEE POT.**—James Buell, New York City, executor of Jas. MacGregor, Jr., deceased. Letters Patent No. 10,752. Dated April 11, 1854.  
I claim having the pot where the tea or coffee is prepared air tight, and so regulating the heat that is applied to the heating of the same that a small pressure by the covers prevents it from boiling, and consequently from evaporation, while the tea or coffee is being prepared, in the manner and for the purposes substantially as above set forth.

**AIR ENGINES.**—Philoander Shaw, Boston, Mass. Letters Patent No. 10,868. Dated May 2, 1854. Reissue No. 1,014. Dated July 17, 1860.  
I claim reissue No. 71. Dated April 23, 1861.  
I claim, 1st, The within described auxiliary heater, constructed and arranged as set forth, the exhaust air and the products of combustion being passed through in one direction while the cold air from the force pump is passed through in the other, by which means the heat is extracted from the heated air and smoke and transferred to the cold air on its way to the engine the latter being pumped in against a pressure much less than that at which it is worked off from the main heater, as explained.  
2d, I claim passing the exhaust air which has propelled the piston directly through the fire, for the purpose of economizing heat, as set forth.  
3d, In combination with a tight ash pit, into which the air for the support of combustion within the furnace is forced, I claim a chamber, D, communicating with the ash pit and surrounding the furnace for the passage of a portion of the air not required by the fire, which, combining with the products of combustion in the chamber, B, passes off through the flue, G, for the purpose of economizing heat, as set forth.  
4th, I do not claim refrigerating the cylinder or piston of hot air or other engine by means of cold water, but I do claim the arrangement herein described of the tubes within the piston rod, the reservoir, R, and the india-rubber tubes, S, S', for the purpose set forth.

**MACHINE FOR FEEDING SHEETS OF PAPER TO PRINTING PRESSES.**—Henry Clark, Cedar Keys, Fla. Letters Patent No. 10,834. Dated April 25, 1854.  
I claim loosening or detaching the top sheet of a layer of papers from those underneath it, by giving a part of said sheet a backward and forward motion, as herein shown, previously to its being operated upon by the pressure rollers or other device for conveying it to the printing press or other to which the sheet of paper is fed, for the purpose of insuring the feed of only a singlesheet of paper at a time, as set forth.

**GLASS FURNACE.**—Frederick G. Schaum, Baltimore, Md., administrator of Frederick Schaum, deceased. Letters Patent No. 10,830. Dated April 25, 1854.  
I claim making the external and internal configuration of the breast work of the furnace wall with the re-entering portions, so as to partly embrace the pots and to furnish room for additional or extra teaze or ring holes, substantially in the manner described.

**PLATE FOR ARTIFICIAL TEETH.**—Mahlon Loomis, Washington, D. C. Letters Patent No. 10,847. Dated May 2, 1854.  
I claim the improved manufacture of whole or half sets of porcelain or mineral teeth, substantially as described.

EXTENSION NOTICES.

Alexander Hay, administrator of the estate of M. C. A. Mellier, deceased, of Philadelphia, Pa., having petitioned for the extension of a patent granted to the said Mellier the 26th day of May, 1854 (said patent was also granted in France Aug. 7, 1854, and in England Oct. 26, 1855), for an improvement in making paper pulp, for seven years from the expiration of said patent, which takes place on the 7th day of August, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next.

Albert G. Safford, of Boston, Mass., having petitioned for the extension of a patent granted to him the 8th day of August, 1854, for an improvement in applying springs to window sashes, for seven years from the expiration of said patent, which takes place on the 8th day of August, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next.

Jarah W. Reed, administratrix of the estate of Cheney Reed, deceased, and Jane E. Mould, administratrix of the estate of Brooks K. Mould, deceased, of Chicago, Ill., having petitioned for the extension of a patent granted to the said Cheney Reed and Brooks K. Mould the 8th day of August, 1854, for an improvement in ventilating railroad cars, for seven years from the expiration of said patent, which takes place on the 8th day of August, 1868, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next.

Jacob Sennett, of Philadelphia, Pa., having petitioned for the extension of a patent granted to him the 13th day of January, 1852, and an additional improvement granted thereon the 20th day of July, 1853, for an improvement in metallic heddles, for seven years from the expiration of said patent, which took place on the 13th day of January, 1866, this application having been authorized by act of Congress, it is ordered that the said petition be heard at the Patent Office on Monday, the 20th day of July next.

**Inventions Patented in England by Americans.**  
(Compiled from the "Journal of the Commissioners of Patents.")

**PROVISIONAL PROTECTION FOR SIX MONTHS.**

**910.—PREPARING IRON ORE FOR SMELTING, AND FURNACES THEREFOR.**—Alois Thoma, New York City. March 17, 1868.  
**1,096.—SEWING MACHINE.**—Geo. Rehfuss, Philadelphia, Pa. March 31, 1868.  
**1,109.—COTTON GIN.**—Joseph H. Adams & Coombs, New York City. April 1, 1868.  
**1,212.—MODE OF VENEERING PAPER, CLOTH, LEATHER, ETC.**—Samuel W. Huntington, Augusta, Me. April 11, 1868.