

RECENT AMERICAN INVENTIONS.

The following are some of the most important improvements for which Letters Patent were issued from the United States Patent Office last week. The claims may be found in the official list.

Revolving Fire-arms.—This invention relates to that class of revolving fire-arms in which the bores of the chambers are continued right through the cylinder for loading them at the breech with metallic cartridges. It consists in so constructing a slide for closing the opening provided in the recoil shield for the insertion of the cartridges into the chambers, and so applying the same in combination with the pawl by which the rotary motion of the cylinder is produced, that the said slide prevents the acts of cocking the hammer or rotating the cylinder, while it is open, and that the hammer, when cocked, prevents the said slide from being opened. James Jenkinson, of Brooklyn, N. Y., is the inventor of this improvement.

Device for Indicating the Elevation of Ordnance.—This invention consists in combining a sighting bar with a device for indicating the elevation of the piece, on the same side of the gun as the latter device, so that the sighting of the gun and the adjustment of the elevation may be directed by the same man and at the same time. Charles B. Long, of Worcester, Mass., is the inventor of this device.

Officers' Shoulder Straps.—The object of this invention is to obtain a shoulder strap which is less costly and more durable than those which are made of bullion embroidery, and which has a better appearance than those in which the border and bars are composed of metal plate, and, at the same time, it has a desirable degree of flexibility; to this end it consists in the construction of the border of the shoulder strap of wire by coiling the wire upon a mandrel of half-round or nearly half-round shape to form the sides and ends of the border, and combining the sides and ends by means of internal corner pieces stamped or otherwise formed of plate metal. It also consists in the use of a lining of wire cloth applied in combination with the coiled wire of the border for the purpose of better preserving the form of the border and keeping the coiled wires from separating perceptibly in case of the bending of the strap. Gideon Robinson, of New York city, is the patentee of this invention.

Drip Pots for Refining Sugar.—The drip pots commonly employed for the draining of the molds in the manufacture of sugar are made with cast-iron bottoms of uniform thickness, and in placing away the pots one above another in the sugar-house the bottoms are often cracked or broken by being brought down violently upon the edges of the necks of those upon which they are placed. The object of this invention is to prevent such fracture, and to this end it consists in strengthening the bottoms by casting them with ribs projecting in such a manner that, in setting down the pots on the tops of others, the ribs, where the greatest strength is, will always strike the necks of the pots below them. Alexander Mackey and John W. Jarboe, of New York city, are the inventors of this improvement.

Machine for Dressing Fibers.—This invention relates to the employment, in combination with each other and with suitable feeding rollers, of a series of combs or combs and scrapers attached to the periphery of a cylinder and a similar series attached to an endless belt, for the removal of the woody or pulpy portions of the leaves from the fiber. It consists in so arranging the bearings of the shaft of the drums which carry the endless band, and those of the feed rollers as to leave the machine open on one side to facilitate the removal of the fibers; and it further consists in so applying the upper feed roller as to allow the end next the open side of the machine to be raised for the purpose of permitting the uncombed ends of the leaves to be taken out of the machine. J. A. de Brame, of New York city, is the inventor of this improvement.

Improved Harrow.—This invention consists in the arrangement of two or more rows of flanged teeth rounded at their front edges and secured to the frame in oblique positions, one row being inclined to the right and the other to the left, and so disposed that they cover the whole line, in combination with longitudinal triangular ribs attached to the same frame

with the teeth in such a manner that by the action of the teeth, when the harrow is drawn over the field, every particle of ground is disturbed and pushed off first in one direction and then in the other; and by the action of the triangular ribs the ground is fully smoothed, pulverized and leveled. C. E. Steller, of Genesee, Wis., is the inventor of this improvement.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING DECEMBER 2, 1862.

Reported Officially for the Scientific American.

* * Pamphlets giving full particulars of the mode of applying for patents, under the new law which went into force March 2, 1861, specifying size of model required, and much other information useful to inventors, may be had gratis by addressing MUNN & CO., Publisher of the SCIENTIFIC AMERICAN, New York.

37,030.—W. D. Andrews, of New York City, for an Improvement in Steam Engines:

I claim the construction of the valve with flanges, l l, attached respectively to the partitions, k k, and arranged to operate in conjunction with the ports, all in the manner herein shown and described.

[This invention relates to valves of that class which effect the reversal of the engine by reversing the relation of the steam and exhaust pipes with two chambers or passages, or sets of passages in the steam chest of the engine. It consists in a certain construction of such valve of ring form, and a certain arrangement of the ports and passages or pipe connections in its casing, whereby the said valve and casing are enabled to be fitted up entirely in a turning lathe, and the valve when in use is perfectly balanced.]

37,031.—G. B. Bailey, of Greenfield, Ind., for an Improvement in Grain-cleaners:

I claim the curved guard plate arranged over the space, a, in cylinder, A, as herein set forth for the purpose specified.

[This invention consists in constructing a cylindrical screen with a longitudinal opening in it, which is protected by a curved plate, arranged in such a manner over said opening that grain may be readily put into the cylinder, and the cylinder rotated in one direction without the grain escaping, and by rotating the cylinder in an opposite direction the grain will all escape through the guard opening.]

37,032.—R. Chester, of Chicago, Ill., for an Improvement in Signal Lanterns:

I claim the combination and arrangement of the glasses, c d e, (whether set in frames or not) the grooves, C D E, and the cords, f f', g', and second, the arrangement of the wings, a, with the glass, c, all constructed and operating substantially as and for the purposes delineated and set forth.

37,033.—C. O. Crosby and Henry Kellogg, of Hartford, Conn., for an Improvement in Machines for Frilling and Crimping:

We claim, first, A crimper, acting substantially as described, to crimp goods and to space the crimps, in combination with a table or platform and a holding mechanism or holder, substantially such as described, the combination acting substantially as specified, and we claim these also in combination with either one or two mechanisms for making stitches, substantially as specified.

Second, We claim in combination, a crimper and a smoother, substantially such as described, and acting substantially as specified to fold the crimps to an edge.

Third, We claim a crimper, whose acting edge is provided with slots, substantially as described, to admit the passage of a needle to secure the crimps as formed while said crimps are being held by the crimper.

Fourth, We claim in combination with a crimper, substantially such as specified, a spring acting to force said crimper upon the goods while crimping them, and relaxing its pressure while the crimper is retracting, substantially in the manner and for the purpose specified, and, lastly, we claim an auxiliary smoother, having a mode of operation substantially such as specified in combination with a crimper and a holder or holding mechanism, substantially such as described.

37,034.—D. M. Cummings, of Enfield, N. H., for an Improvement in Water Wheels:

I claim the long and short sided buckets, A A A, of my improved water wheel, made substantially as herein described.

I also claim the use of a combined series of long and short sided acute-angled buckets, A A, when arranged within a water way, E, which is furnished with a series of stationary tangential shutters, K K, and with a connected series of movable connecting gates, M M, substantially in the manner and for the purpose herein set forth. I also claim the arc-shaped open spaces, t t, which immediately surround my improved water wheel, the said spaces being outwardly bounded by the tangential shutters, K K, and the inner side of the water-way, E, substantially in the manner and for the purpose herein set forth.

37,035.—H. H. Day, of New York City, for an Improvement in Elastic Breeches for Ordnance:

I claim an elastic breech-piece, composed of rubber or its equivalent, acting in combination with confined air, the whole being placed in rear of the charge, constructed substantially as above set forth, for the purpose of lessening the pressure upon that part of the gun against which the gases press with greatest force in the act of explosion.

[An engraving of this invention will soon be published in our columns.]

37,036.—O. H. Dunham, of Washington, D. C., for an Improved Lubricator for Steam Engines:

I claim the combination of the simultaneously-operating disk valves, B F, with the tubes, a2 e2 and f2, arranged to provide independent and unobstructed passages for the oil and steam, in manner substantially as and for the purposes explained.

[This invention consists in a certain novel arrangement of two connected disk valves operating simultaneously with separate ports, whereby the steam or air from the part of the engine to be lubricated is conducted through the oil without interfering with its descent.]

37,037.—John Firth and John Ingham, of Phillipsburg, N. J., for an Improved Flask for Cast-iron Pipes:

I claim, first, The combination substantially as set forth of the two halves, A and A', of the flask hinged together, the staples, I, or their equivalents, the flanges, a a, and clamps, B B, or their equivalents, for the purpose specified.

Second, The covers, H, of the holes, G, when the said covers are hung to the side of the flask and adapted to projections on the same, in the manner described.

37,038.—F. W. Hudson, of Leominster, Mass., for an Improvement in Apple-parers:

I claim the arrangement of the gearing, E g h, disk, E, and shaft, C, substantially as shown, for giving the fork, I, and apple thereon the two movements specified; in combination with the knife arm, J, arranged to operate conjointly with the aforesaid parts through the medium of the pinion, G, lever, M, and flange, l, on disk, F, or their equivalents, substantially as herein described.

[This invention consists in arranging the fork on which the apple is placed with gearing, in such a manner that it will by the turning of a crank rotate on its axis, and also rotate in a circle in such relation with a knife or cutter that the apple will be properly pared; the knife being so arranged as to operate conjointly with the fork to effect that result.]

37,039.—D. M. Gunn and C. L. Cain, of Oskaloosa, Iowa, for an Improvement in Beehives:

I claim, first, The springs or elastic projections, C, attached to the comb frames, B, as and for the purpose herein shown and described. Second, The false or sliding bottom, F, provided with a cleat, j, all around its edge, and an alighting board, n, and also provided with recesses, l, in its under surface in connection with the notches, m, in the under side of the bottom, and in the lower edges of the sides of the bottom of the hive, substantially as and for the purpose herein set forth.

[This invention relates, first, to an improvement in the construction of the comb-frames of the hive, whereby the bees are allowed a free passage from one comb-frame to the other, and the former rendered less liable than hitherto to join the combs of contiguous frames, and the guard wires between the upper parts of the frames allowed to be placed lower in position than formerly, so as to prevent them being waxed or glued to the cover of the hive. The invention also relates to an improved means for keeping the comb-frames at a proper distance apart, and also to a novel and improved arrangement of a false bottom applied to the hive in such a manner that the advantage of a proper ventilation is obtained, as well as facilities for cleaning the hive, and the guarding of the same against the ravages of the bee moth.]

37,040.—Suspended.

37,041.—Joseph Goodrich, of Muscoda, Wis., for an Improvement in Sorghum Strippers:

I claim the cutter, A, when constructed, arranged and operating substantially as and for the purposes delineated and set forth.

37,042.—Richards Kingsland, of New York City, for an Improvement in Heaters and Ventilators for Tents:

I claim the combination of the stoves, A B, drum, F, ventilating pipe, H, and discharge pipe, G, constructed and arranged to operate in manner substantially as and for the purpose set forth.

[This invention is formed of two of Kingsland's army stoves, together with a long drum and ventilating pipe. The entire apparatus is nested together within a single stove. It has been fully tested, and has received high commendation from the principal authorities in the army.]

37,043.—Richards Kingsland, of New York City, for an Improvement in Army Stoves:

I claim, first, A course of two or more stoves, A B, each having the form of an elliptical cylinder with a flat upper surface, and provided with movable legs, b, a movable head, d, g, and tapering pipe, i, all as herein described, so as to adapt them to fit compactly one within another, in the manner and for the purposes explained. Second, Securing the pipe, i, and movable head in position by means of the prong, h, and loop, j, in manner substantially as and for the purposes explained.

[The object of this invention is to produce a portable and effective stove particularly for army purposes, capable of being transported with ease and facility, and of being readily put up and used with a comparatively small quantity of fuel.]

37,044.—Henry Kurth, of New Lotts, N. Y., for an Improvement in Tobacco Pipes:

I claim the arrangement of the central opening, c, and weighted valve, d, in combination with the perforated plate, C, inserted into the bowl, A, of a smoking pipe, substantially in the manner and for the purpose shown and described.

[The invention consists in the arrangement of a weighted valve being retained by a perforated plate which is inserted in the bowl above its junction with the stem, in such a manner that the inner end of the smoke channel is never closed by the tobacco in the bowl, and consequently a good draught of the pipe is insured, and that by means of the central valve the spittle and other impurities accumulating in the lower portion of the bowl can easily be removed without taking out the perforated plate.]

37,045.—J. H. Mabbett, of Mechanicsville, N. Y., for an Improvement in Railroad Chairs:

First, I claim a railroad chair having a recess or opening, E, through the bottom plate or bed thereof, with lip, D, upon the inside, and the lip, B, on the opposite side thereof, and each next adjoining the said recess or opening, E, on opposite sides of the same, in combination with the block, F, substantially as herein described and set forth.

Second, I also claim supporting the head or table of railroad rails at their respective joints on the outside thereof, and immediately under and adjoining the same, by means of the brace, B, in combination with the bottom plate or bed of the chair, and with the head or table of such rails, whereby great strength is given thereto, and undue wear and fracture thereof prevented, substantially as herein described and set forth.

37,046.—Alexander Mackey and J. W. Jarboe, of New York City, for an Improvement in Drip Pots for Refining Sugar:

We claim the construction of a drip pot with a ribbed bottom, substantially as and for the purpose herein specified.

37,047.—J. J. Marcy, of Meriden, Conn., for an Improvement in Lamp Burners:

I claim the burner, B, having its tube, c, perforated at its lower end and encompassed by the guard or flange, f, in combination with the perforated annular flange or chimney supporter, C, applied to the tube, c, below the deflector or cone, d, all arranged as and for the purpose herein set forth.

[The object of this invention is to obtain a lamp for burning coal oil with or without a glass chimney, and it consists in a peculiar arrangement of two perforated rims, a draught chamber and a cone or deflector, whereby the flame of the lamp will be supplied with a requisite quantity of air to support proper combustion, and the draught of air rendered uniform, so that the flame will not flicker, but give a steady light.]

36,048.—I. M. Milbank, of Greenfield Hill, Conn., for an Improvement in Breech-loading Fire-arms:

I claim the employment of a detached or loose breech-piece, C, and a self-locking independent breech-wedge, D, arranged to operate together in the manner herein shown and described.

[This invention relates to the use of a chambered breech, which fits to the rear of the barrel with a valve-like joint, and which has a movement toward and from the barrel, in a direction parallel therewith, and a tilting movement to bring its muzzle above the barrel for loading. It consists in a certain improved arrangement of such a breech in the frame of the gun and means of locking the same in connection with the barrel for firing, and unlocking the same preparatory to loading, whereby a breech-loading firearm of exceedingly simple construction, and which is very durable and effective, is obtained.]

37,049.—Lewis and Jacob Miller, of Canton, Ohio, for an Improvement in Harvesting Machines :

First, We claim in combination with a reversible main frame and cutting apparatus, the double pawls and ratchets for connecting and disconnecting the driving wheels and axle, so that the necessary fast and loose motions of the wheels upon their axles may be had, which ever end of the main frame goes foremost, substantially as described.

We also claim, in combination with a hinged platform or cutting apparatus, the locating of the raker's position on the coupling bar, which connects said platform or cutting apparatus with the main frame, substantially as described.

We also claim, in combination with a hinged platform, finger bar and cutting apparatus, a double-hinged side or fence on said platform, so that the finger bar, cutters and platform attached to them, may be folded up to or against the main frame, so as to be carried by the main frame, substantially as described.

37,050.—W. T. Nichols, of Rutland, Vt., for an Improvement in Motive Power :

I claim a treadle or rocker, E, constructed, arranged and operated substantially in the manner and for the purpose set forth.

37,051.—J. D. Otstot, of Springfield, Ohio, for an Improvement in Lifting Jacks :

I claim, first, So connecting and combining the lever, B, with the stock and lifting bar that it may be attached or detached, for use or for transportation at a moment's notice, in the manner herein set forth.

Second, The employment of the rod, d, in connection with the pawls, a, for the purpose of detaching them from the teeth of the rack bar, when necessary, substantially as specified.

Third, The arrangement of the lever, B, the pawls, a, the springs, c, c, the rod, d, and the lifting bar, E, in the manner and for the purpose specified.

37,052.—C. H. Palmer, of Lakeville, Conn., for an Improvement in Repeating Guns :

I claim, first, Presenting and thrusting the cartridges into the rear of the revolving barrel or series of such barrels in one point in its circuit, confining and discharging them at another point in such circuit, and removing the shells or cases in another part of such circuit, in the manner substantially as set forth.

Second, The employment in such machines of the projections, g, and surface, i, arranged relatively to the breeches of the barrels, G, and to the surface, I, or their respective equivalents, in the manner set forth, and this I claim whether the breeches of the barrels and the projections, g, or either of them, be adjustable or permanently fixed.

Third, The employment in breech-loading arms, of the movable spout, N, turning on a hollow axis in line with the barrel to be charged, for the purpose herein set forth.

Fourth, The arrangement of the movable spout, N, springs, P and N2, and pusher, Q3, as herein set forth.

Fifth, The spring guides, N1, arranged in an annular series around the path of the pusher, Q3, for the purpose set forth.

Sixth, The clearing hooks, t, arranged and operating as described, in connection with the revolving barrels, G, or their equivalents.

Seventh, The clearing lever, U, operated by the reciprocation of the clearing hooks, t, and combined and arranged therewith, substantially as herein set forth.

37,053.—J. G. Perry, of South Kingston, R. I., for an Improved Meat-cutter :

I claim, first, The combination of the two spiral-flanged cylinders, differing from each other in the number of flanges and in the speed at which they are driven, substantially as herein described and for the purposes set forth.

Second, I claim the cross knives, S, in combination with the case and cylinders, substantially as described and for the purpose set forth.

37,054.—Titus Powers, of Philadelphia, Pa., for an Improvement in Rifling Machines :

I claim, first, The combination of the vibrating pinion shaft, I, and pinion, H, with the reciprocating frame, E, and plunger, D, all constructed and arranged, substantially as set forth.

Second, Causing the reciprocating frame, or any devices connected therewith, to impart an intermittent motion to the plunger, D, or tube, C, through the intervention of a bell-crank lever, G, and hub, F, with arms, y, substantially as specified.

37,055.—T. H. Risdon, of Mount Holly, N. J., for an Improvement in Casting Water Wheels :

I claim casting water wheels in one piece, in the manner and by means of a mold or molds, constructed and arranged as described.

[This invention consists in casting all the parts comprising the wheel in one piece, by forming, by means of a suitable mold, cores for the buckets—or, rather, for the spaces between the buckets—and setting them up in the mold.]

37,056.—Gideon Robinson, of New York City, for an Improvement in Shoulder Straps :

I claim a shoulder strap having its border composed principally of a series of wires, b, b, coiled or wound in a half round form, and a series of internal corner pieces, C, C, combined substantially as herein specified.

37,057.—Christian Sharps, of Philadelphia, Pa., for an Improvement in Rifling Machines :

I claim, first, Imparting to the cutting rod of a rifling machine, a reciprocating motion, through the medium of an endless belt or chain, or their equivalents, and a rod connected thereto, substantially as and for the purpose herein set forth.

Second, I claim any convenient number of projections, x, on the rod, E, in combination with the grooved cylinder, D, when each projection is caused to pass from one groove of the cylinder to the adjacent groove, by the automatic devices herein described.

Third, I claim in combination with the rod, E, of a rifling machine, the hub, F, with its reversed inclined planes, m and n, the spring, I, and its projection, l, the whole being arranged and operating substantially as and for the purpose herein set forth.

37,058.—Abiel Sampson, of Providence, R. I., for an Improvement in Putting up Cranberries for Preservation :

I claim the merchantable package of cranberries, preserved in their natural condition by being submerged in water, as a new manufacture or article of trade.

37,059.—Jacob Rupertus, of Philadelphia, Pa., for an Improvement in Revolving Fire-arms :

First, I claim the center pin, C, having one end secured to the barrel and the other end formed substantially as described, so as to fit to the frame, the pin thereby serving as a longitudinal stay to stiffen the said frame, as described.

Second, The arm, I, hung to the frame and adapted to the end of the center pin, substantially as described.

37,060.—J. M. Simpson, of Mantville, N. Y., for an Improved Machine for Cutting Tenons on Wheel Spokes :

I claim, first, The cutter bars, E, E, placed in the reciprocating frame, B, and used in connection with the adjustable keys or wedges, j, j, s, all arranged substantially as and for the purpose set forth.

Second, The adjustable bed, H, provided with the gage, M, guide, J, and clamp, K, when said bed is used in connection with the cutter bars, E, E, and reciprocating frame, B, and arranged therewith, as and for the purpose herein specified.

Third, The combination of the cutter bars, E, E, reciprocating frame, B, and adjustable bed, H, all arranged for joint operation as and for the purpose set forth.

37,061.—C. E. Steller, of Genesee, Wis., for an Improvement in Harrows :

I claim the arrangement of two or more rows of teeth, C, D, secured by means of flanges, c, d, and screws, a, or their equivalents, in oblique positions to the frame, A, in combination with the triangular bars or ribs, E, on the rear part of the frame, A, all constructed and operating in the manner and for the purpose specified.

37,062.—W. H. Thompson, of Cleveland, Ohio, for an Improvement in Horse-shoe Machines :

I claim, first, The adjustable rest, Q1, gage, S, slide, U, and fingers, b, b, in combination with the cylinder, E, and sliding mandrels, J, J.

Second, The combination of the cylinder, E, the mandrels, J, J, with their radial stems, M, M', and arms, N, N', and the cams, O, O', constructed and arranged substantially as set forth.

Third, The combination of the cylinder, E, the sliding jaws, G, G', G', cams, I, I, and pin, K, operating in conjunction with the wheel, D, and male dies, F, F', the whole constructed and arranged substantially as specified.

37,063.—John Tremper, of Buffalo, N. Y., for an Improvement in Variable Cut-off Gear for Steam Engines :

I claim, first, The attachment of the lifters or tripping levers, F, F', by pivot joints to two arms, E, E', which are so arranged upon a rock-shaft, or its equivalent, as to work below the axis thereof and so cause the opening of the valve, slowly at first and with a gradually increasing velocity, substantially as and for the purpose herein specified.

Second, The combination of the lifters or tripping levers, F, F', applied as above specified, the lifting block, B, and the cone, G, substantially as and for the purpose herein set forth.

Third, The arrangement of the lifters or tripping levers, F, F' and the toothed lifting block, B, in combination with the rock-shaft, D, and a cone, G, connected with the governor or otherwise controlled, substantially as herein specified.

Fourth, The mechanism shown in Figs. 3, 4 and 5 and herein described, for tripping the levers, F, F', in their downward motion, substantially as and for the purpose herein set forth.

[This invention consists in a certain novel mechanism, composed of two toothed lifters or tripping levers, joined to two arms of a rock-shaft, and operating in combination with a toothed block on the up right stem or rod of the cut-off valve, and with a cone or wedge connected with a governor or otherwise made adjustable, whereby a gradual opening of the cut-off valve for the admission of steam to the engine cylinder, and a sudden closing of the same to cut off the steam at such point as may be required during the first half of the stroke of the piston, are obtained ; and it also consists in certain means applied in combination with the aforesaid tripping levers, for the purpose of enabling the steam to be continued on the piston to different points beyond half-stroke.]

37,064.—John Tremper, of Buffalo, N. Y., for an Improvement in Centrifugal Governors :

I claim, first, A steam governor having vertical or nearly vertical ball arms, b, b, and arms, c, c, horizontal or otherwise, acting upon a valve-controlling or valve-actuating rod, d, the arms, c, c, being as long as or longer than the arms, b, b, and the whole so constructed and arranged as to avail the full centrifugal force of the balls when hanging in vertical or nearly vertical positions and impart to the rod, d, a motion at least equal in extent to that of the balls.

Second, The rectangular or nearly rectangular ball arms, b, b, c, c, and the load-lever, G, applied in combination with each other and in relation to the governor spindle and valve-operating or valve-controlling rod, d, substantially as herein specified.

Third, So constructing the connections or surfaces of contact of the ball arms, the valve-operating or valve-controlling rod and the load-lever, that the effective load on the lever acting in opposition to the centrifugal force of the balls, increases or diminishes as the centrifugal force of the balls increases or diminishes, substantially as herein described.

[The object of this invention is so to construct a centrifugal governor that it may be driven at any speed, and increase or obtain power according to the speed, in such a ratio as to overcome friction ; also to enable the balls to be made small and effect the necessary movement of the valve by a very little motion toward and from the axis of revolution ; also to cause the governor to run at the same speed whatever the position of the balls relative to the axis ; and to these ends the invention consists in a certain novel mode of applying the balls in combination with the spindle or axis of the governor, and with a weight or spring employed to act in opposition to the centrifugal force of the balls.]

37,065.—W. H. Willard, of Cleveland, Ohio, for an Improved Revolving Extension Colter and Gage Wheel Combined :

I claim a gage wheel and revolving extension colter, constructed and operating substantially as and for the purpose specified.

37,066.—W. A. Wood, of Hoosick Falls, N. Y., for an Improvement in Cutting Apparatus for Harvesters :

I claim the harp or bow-shaped guard surrounding the finger bar, and leaving the unobstructed space herein represented between itself and the finger bar, substantially as and for the purpose described.

37,067.—Wm. R. Arthur (assignor to himself and L. H. Clarke), of Chicago, Ill., for an Improvement in Railroad Splices :

I claim a splice or fastening for T-rails consisting of the pair of deeply-crippled fish plates, B a b c B' a b c, secured by bolts or keys, C, C', passing through the upper part of the fish plates and through the neck of each rail, and by one or more bolts or keys, C'' C''' C''', passing through the lower parts of the fish plates beneath the rails, when the said plates are adapted to fit the T-rails in the manner specified, that is to say, wedging tightly between the base and tread of the rails, grasping the base above and below, and covering the under side of the latter for the greater part of its width, all as herein shown and described, so as to support the head and base of the rails against both vertical and lateral deflection without strain upon the bolts.

37,068.—E. C. Blakeslee (assignor to Holmes, Booth & Hayden), of Waterbury, Conn., for an Improvement in Lamps :

I claim the bent lever, g, on the fulcrum, I, and actuated by a spring, as set forth, in combination with the flanged chimney, c, and ring or holder, b, for the purposes and as specified.

37,069.—P. L. Clow (assignor to himself and Windsor Stone), of Cohoes, N. Y., for an Improvement in Sash Fastenings :

I claim the latch, C, the catch, b, and the spring, e, e, the whole constructed, arranged and operating in the manner and for the purposes set forth.

37,070.—James Crawford (assignor to himself and W. H. McIntosh), of Roxbury, Mass., for an Improved Flower Stand :

I claim the flower stand herein described and represented, consisting of shelves, c, brackets, B, standard, A, and pedestal, a, combined, arranged and operating in the manner and for the purpose set forth.

[The object of this invention is to produce a flower stand capable of supporting and exhibiting at one view a large number of flowers growing in pots, and which admits of the same being arranged in a variety of ways to form a mammoth bouquet or variegated flower-tree ; and it consists in the manner of arranging a series of shelves on a standard so that they can be placed in any desired position thereon horizontally, each independent of the other and made self-sustaining.]

37,071.—George Custer (assignor to himself, E. B. Root and J. J. Stevens, of Monroe, Mich.), for an Improved Cultivator Tooth :

I claim, as an improved article of manufacture, a cultivator tooth provided with wings, and all constructed of a piece of rolled steel, in the manner herein set forth.

[This invention consists in constructing a cultivator tooth of rolled steel with a wing at each side, both formed from the same piece, whereby a much superior tooth than usual is obtained, one that will run steeper in the soil and pulverize the earth more perfectly.]

37,072.—Thomas Hope, of Boston, Mass., assignor to himself and Henry Edgarton, of Shirley, Mass., for an Improvement in Skates :

I claim the actuator, consisting of the right and left screw and lantern, when used in combination with the sliding heel rest, C, the stationary footrest, b, loop, B, and heel and instep straps, D and E.

37,073.—Stephen Hull (assignor to himself and Isaac W. White), of Poughkeepsie, N. Y., for Improvement in Harvesters :

I claim constructing the guard fingers, A, with four planes, d n i j, or the equivalent thereof, substantially as and for the purposes set forth.

37,074.—R. G. Hunt, of New York City, for an Improvement in Wooden Sieves for Gas Purifiers :

I claim a sieve or section of a sieve made from the solid wood by

slotting, when the slots are conical in form and so formed at the end as to leave a wider bar at the end on the bottom side, substantially as described and substantially for the purpose hereinbefore set forth.

37,075.—James Jenkinson, of Brooklyn, N. Y., assignor to Joseph Merwin and E. P. Bray, of New York City, for an Improvement in Revolving Fire-arms :

I claim the slide, F, so constructed with a slot, e, and notch, f, or their equivalents, and so combined with a pawl, a, through which the rotation of the cylinder is effected, that the cocking of the hammer and rotation of the cylinder are prevented while the slide is open and that the pawl prevents the slide from being opened while the hammer is being cocked substantially as herein specified.

37,076.—C. B. Long (assignor to himself, Augustus Rice and Jonathan Luther), of Worcester, Mass., for an Improvement in Adjustable Sights for Ordnance :

I claim combining the sighting bar and the device for indicating the elevation on the same side of the piece, substantially as and for the purpose herein specified.

37,077.—G. H. Reynolds (assignor to himself and C. H. Delamater), of New York City, for an Improvement in Condensing Steam Engines :

I claim, first, The so combining and arranging the air-pump bucket relatively to the steam piston that the latter shall, by the pressure upon the former be caused to come to or near the condition of half-stroke, substantially in the manner and for the purpose herein set forth.

Second, Operating the pressure cock, Q, or its equivalent, by the means of the injection cock, substantially in the manner and for the purpose herein set forth.

Third, The so arranging the parts of the pressure cock or valve and of the injection cock or valve, and their several connections that the injection orifice may be increased and diminished without effecting the pressure orifice, and yet so that by an additional movement of the same controlling means, after the injection orifice is closed, the pressure orifice may be opened with the strict herein set forth.

37,078.—Paul Schulze (assignor to himself and F. W. Billing), of Brooklyn, N. Y., for a Process of obtaining Printing Surfaces :

I claim the within-described process of drawing in soluble ink and treating such drawing for the several purposes herein specified.

[This process promises to be very valuable, as by it cheap substitutes for electrotypes of wood engravings and for etchings on steel or copper are obtained. It can also be used to obtain photographic negatives without a camera, and to make dies or seals. We are unable at present to publish an intelligible description of it. Patents have been secured in England and France through our agency.]

37,079.—Richard Uren, Thomas Dunstone and Joseph Blight, of Eagle Harbor, Mich., for an Improvement in Machinery for Manufacturing Safety Fuses :

We claim the arrangement of and mode of driving the several tubes and their flyer arms or guides and bobbins or spools, whereby both the yarns and tapes are laid, wound or twisted in opposite directions alternately and simultaneously, and the process of making the tape covered fuse is enabled to be performed by a continuous operation, substantially as and for the purpose herein specified.

[This invention consists in so arranging and giving motion to the tubes and flyers or guides and bobbins or spools of a fuse-making machine as to lay the yarns and tapes in opposite directions alternately and simultaneously, by which means the process of making the tape-covered fuse is enabled to be carried on continuously.]

37,080.—J. M. Hancock, of Philadelphia, Pa., for an Improvement in Coal-oil Lamps :

I claim, first, Any suitable reservoir, D, in which is a tube forming air passage, the latter being supported by a cap, H, and said reservoir having one or two wick tubes, C and C', when the latter are formed and arranged in respect to the opening in the top of the cap, substantially as specified, and when a supply of air is transmitted to the cap, through the aforesaid tube by the agency of auxiliary supplementary lamp.

Second, I claim the tube, E, and its reservoir, D, when the former is hinged to a suitable base, A, and is arranged to inclose a supplementary lamp, B.

Third, I claim the arrangement of the tube, E, tube, F, reservoir D, and cap, H.

37,081.—J. A. de Brame, of New York City, for an Improvement in Machinery for Separating Fibers from Plants :

I claim, first, So arranging the bearings of the cylinder, those of the drums which carry the endless belt and those of the feed rollers, as to leave the machine open on one side, substantially as and for the purpose herein set forth.

Second, So applying the upper feed roller as to enable its end to be raised to increase the opening between the two feed rollers at the open side of the machine without raising the bearing of said roller at the opposite side, substantially as and for the purpose herein specified.

RE-ISSUE.
1,357.—Benjamin Crawford (assignor to English, Bennett, Frisbee & Crawford), of Allegheny, Pa., for an Improvement in Steam Boiler Furnaces. Patented January 29, 1850 :

I claim, first, The injection of whirling jets of steam among the gases evolved by the fuel on the grates, for the purpose set forth.

Second, Self-whirling adjutages, or their equivalents, on the pipes leading from the boiler or steam blower to proper positions for increasing the draft or promoting combustion, substantially as set forth.

Third, Whirling live steam for the purpose of increasing or maintaining the draft of a steam boiler furnace, substantially as set forth or the equivalent thereto.

Fourth, A combined stream of mingled steam and hot air introduced and forced into the ash-pit and up through the fire of a steam boiler furnace by means of the steam boiler and hot air and steam pipes which intersect one another and terminate in a discharging nozzle within the ash-pit, substantially as set forth or the equivalent thereto.

Fifth, Live steam blowers arranged in the flues of a steam boiler for the purpose of aiding the draft and blowing out the foul matter which accumulates in the flues.

Sixth, The combination of means, as set forth, for performing unitedly the several functions specified.

NOTE.—We recognize in the above list of claims the names of TWENTY-THREE patentees whose applications were conducted through this office.

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PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1863, to accompany the claim, on receipt of \$2. Address **MUNN & CO.** Patent Solicitors, No. 37 Park Row, New York.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on design patents when two good drawings are all that is required to accompany the petition, specification and oath, except the government fee.

NEW PAMPHLETS IN GERMAN.—We have just issued a revised edition of our pamphlet of *Instructions to Inventors*, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon application at this office. Address **MUNN & CO.,**

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