or gibs bear square on a flat surface so as to allow of setting and retaining said gib or gibs with the greatest accuracy. It consists, also, in a touch-off motion o peculiar construction, whereby the clutch-pin is moved by the direct action of the cam. And, further, in the use of a loose clutch-pin, the position of which is entirely controlled by the direct action of the cam and is not made dependent upon springs or other mechanical devices. Also in the application of a yielding coupling-pin in combination with the clutch-pin and cam is such a manner that if the clutch-pin is pushed out when it stands opposite to the coupling pin, the latter will yield, and injury to the working parts of the press will be prevented. Finally, in attaching the cam motion to a yielding pin to prevent an accident in turning the press back. N. C. Stiles, of West Meriden, Conn., is the inventor of this improvement.

Machine for cutting Slats for Window Blinds.—This invention relates to a machine for cutting the thin slats which are used for making inside rolling blinds for windows, and it consists in the employment of adjustable cutters and a stationary concave and a gauze wire, all arranged in such a manner as to admit of the slats being cut from the bolt by simply shoving the latter along over the cutters, the device being capable of cutting the slats both from straight and cross-grained wood. G.H. Denison, of Suspension Bridge, N. Y., is the inventor of this improvement.

Manufacture of Soap.—This invention consists in a composition of grease, flour, sal soda, borax, salt tartar and alkali, which are mixed together in suitable proportions and in a peculiar manner, so that by the combination of the flour with the grease the latter is enabled to combine with a much larger quantity of alkali than it can without the flour, or when the flour is first mixed with the alkali and a soap is produced which is not liable to shrink and possesses superior washing qualities. S. A. Sealy, of Brooklyn, N. Y., is the inventor of this improvement.

Securing Boiler Tubes.—The object of this invention is to so apply the tubes in the two tube sheets of a boiler as to make very tight joints and to provide for their easy removal when necessary to repair or renew them. The tubes are screwed into tapped holes in the two tube sheets, the holes in one sheet being larger than those of the other, and the corresponding ends of the tubes are enlarged to fill the larger holes by means of taper thimbles which screw on to the tubes and into the latter holes, and it is in such enlargement of the tubes at one end that the invention consists. James Howell and David Birdsall, of Jersey City, N. J., are the inventors of this improvement.

Steam-pump and Boiler Feeder.—This apparatus consists, essentially, of a hollow or chamber shaft, from the opposite sides of which project arms carrying hollow balls or chambers which, being alternately filled with water and with steam, impart, by the gravity of the water, a rocking motion to the shaft. The opposite sides of the apparatus are thus thrown into alternate communication with a steam boiler and with an elevating condensing chamber, the water descending from which displaces the steam within the oscillating balls, causing the said steam to ascend to the condensing chamber and pass down through a pipe within the same, by which means it is instantaneously condensed without previous expansion, producing a partial vacuum within the condenser, and thus causing water to be supplied thereto from any suitable external reservoir. The apparatus is entirely automatic in its action, and by means of the alternate pressure and condensation of steam, may be made to elevate or force water for any purpose desired. When employed for supplying steam boilers, the parts are so arranged that when thrown into communication with the boiler, the water will descend into it by its gravity in a manner common with boiler feeders. The inventor is Mr. George I. Washburn, of Worcester, Mass.

WANTED—TAR FOR PAINT.—A correspondent connected with one of our telegraph companies informs us that coal tar is a good non-conductor and an excellent preservative for telegraph posts, but when applied cold it washes off. As it is difficult and inconvenient to apply it hot for such purposes, he desires us to call the attention of inventors to this subject, in order that they may make efforts to combine some other substance with it, so as to apply it cold and render it permanently adhesive.

ISSUED FROM THE UNITED STATES PATENT-OFFICE

FOR THE WEEK ENDING JANUARY 26, 1864.

Reported Officially for the Scientific American.

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41,353.—Machine for dressing Slates.—C. E. Amos, Southwark, England and John Francis, Penrhyn, North Wales. Patented in England, July 27, 1863:

I claim a machine for dressing slates, constructed and operating substantially as herein shown and described.

41,354.—Drum Stove.—A. S. Ballard, Mount Pleasant, Iowa:

I claim the combination and arrangement of the base, A, annular drum, B, damper, C, and pipes, D and E, the whole forming a parlor heating drum, constructed and operating substantially as herein set forth

41,355.—Cooking Range.—A. C. Barstow, Providence, R. I.:

I claim, first, locating two ovens, one over the other, back of and above the fire, substantially in the manner hereinbefore shown and described.

Second, Forming around the range a mantle composed of jaws and a rear plate supporting a top plate under the arrangement substantially as herein described.

Third, The employment of a pendant door hung upon hooks on either side of the oven, in such manner that it shall perfectly close the opening thereof, while its removal may be effected by lifting without interfering with the boilers, substantially as set forth.

41,356.—Barrel-head Machine.—Alfred Benster, Detroit, Mich.:

I claim, first, The employment or use of the revolving planer, C, as described, for the purpose of turning, planing and chamfering barrel heads at one operation.

Second, The revolving toothed rings, G G′, and rising and falling frames, H H′, in combination with the planer, C, constructed and operating in the manner and for the purpose substantially as described.

Third, The turn-table, J, in combination with the toothed rings, G G′, and cam, L, constructed and operating substantially as and for the purpose specified.

Fourth, Imparting to the rings, G G′, turn-table, J, and revolving cutter, F, a rising and falling motion by the action of the cam, L, as and for the purpose set forth.

Fifth, The rising and falling standard, I, hinged board, K, and lever, R, in combination with the cam, L, frames, H H′, and sash, Q, all constructed and operating substantially as and for the purpose described.

Sixth, The eccentric shaft, R, with cog-wheel, S, in combination with the toothed ring, G′, constructed and operating substantially as and for the purpose set forth.

Seventh, Imparting to the head to be turned an eccentric motion under the planer, as and for the purposes specified.

[The object of this machine which forms the subject of this invention is to plain the upper surface of a barrel head to the desired oval shape, make the upper and lower chamfers impart to said head the desired elliptic shape, revolve, clamp and loosen the some automatically, without the assistance of the operator, who has nothing else to do but to arrange the pieces for a head on a table in front of the machine and push the same in, and in doing so the finished head is pushed out on the opposite side of the machine and deposited on a table situated in a convenient position to receive the same.]

41,357.—Filter.—Benjamin Best, Dayton, Ohio:

I claim, first, The construction of the box, A, with removable perforated partitions, a b, in combination with the perforated cylinders, B′, space, e, and jacket or casing, C, substantially as and for the purpose described.

Second, I claim the combination of an upper horizontal detachable filter, A, with a lower permanent vertical filtering chamber, B′, substantially as and for the purpose set forth.

Third, Third, The combination of the horizontal filtering box, A, with the upright filtering chamber, B′, passage, e, and outlets, f f, arranged and operating substantially as described.

41,358.—Spring Bed-bottom.—George Bevis, Rochester, N. Y.:

I claim as a new article of manufacture a continuous and elastic bed-bottom, composed of the slender yielding rounds or slats, a a, secured closely together in any manner by the cords, b b, or equivalents, substantially as herein described.

41,359.—Blacking Brush and Holder.—Daniel Bowker, Boston, Mass.:

I claim my improved combined brush and blacking holder, constructed substantially in the manner and for the purposes as above described.

41,360.—Endless Chain Propeller.—W. W. Bowman, Graves county, Ky. Ante-dated Jan. 20, 1864:

I claim the arrangement and construction of the chain propeller, with inside and outside paddles operating upon open toothed wheels, all in combination as herein described and for the purposes set forth.

41,361.—Slide Valve or Steam Engines.—Jacob Bradley, St. Mary's, Ohio:

I claim the slide valve, E, having two cavities, g g′, in combination with the system of ports c c′ d d′ e, communicating with the high and low pressure cylinders, steam chest and exhaust pipe, substantially as herein specified.

[This invention relates to that class of steam engines in which steam of a high pressure is first used in a cylinder or small diameter and afterward at a lower pressure in a cylinder of larger diameter. It consists in an improved slide valve and system of ports for effecting the induction and eduction of steam to and from the two cylinders.]

41,362.—Truss-pads.—Albert Bridges, Jersey City, N. J.:

I claim attaching the hollow elastic ball to the truss spring by means of the headed pin, d, and screw nuts, e and f, the head of said pin being introduced within the ball, as specified, and in combination with the elastic ball and pin, d, I claim the cap, c, for the purpose of retaining the ball in its proper position as specified.

And I claim regulating the elasticity of the hollow pad by the action of the air confined within it by the screw, i, or its equivalent, as set forth.

41,363.—Leather-rolling Machine.—J. G. Busfield, Feltonville, Mass.:

I claim the combination and arrangement of the levers, c c, and treadle, N, placed within the frame, A, and connected by the adjustable rods, Q Q, substantially as and for the purpose set forth.

I further claim the adjustable bearings, f f, of the roller, L, placed in the levers, c c, when used in combination with the treadle, N, and the roller, B, for the purpose herein specified.

[This invention relates to a new and useful arrangement of lever frame in which the lever and adjustable roller is hung, whereby said roller may be raised and lowered to regulate the pressure on the leather as may be desired without in the least affecting the gearing by which the lever or adjustable roller is driven. The invention also relates to an improvement in attaching the treadles to the lever frame of the adjustable roller, whereby the movement of the former may be regulated as desired, and the invention further relates to the employment or use of adjustable bearings arranged in the lever frame to receive the journals of the lever or adjustable roller to admit of the independent adjustment of the latter as may be required.]

41,364.—Sail Cringle and Clew.—Frederick Chandler, Charlestown, Mass.:

I claim a metallic cringle of two parts for grasping the rope and sail; these ports held together by screws or rivets, the whole constructed and the parts thereof arranged, substantially as and for the purpose specified.

41,365.—Submarine Boat.—JamesCarver, Bellvue, Ohio:

I claim the employment or use of the vertically-swinging adjustable pins, B, at or near the bow of a boat, A, constructed and operating in the manner and for the purpose substantially as herein shown and described.

Second, The tank, D, containing inflammable liquid in the hull of a submarine boat, in combination with a suitable pump, W, and pipes, 5 6 7, all constructed and operating in the manner and for the purpose substantially as set forth.

Third, The vertically-adjustable propellers, M′, in combination with the boat, A, constructed and operating in the manner and for the purpose substantially as specified.

Fourth, The regenerator, R, in combination with the steam generator, G, and boat, A, constructed and operating substantially as and for the purpose specified.

[The object of this invention is to produce a submarine boat, the motion of which can be perfectly controlled in every direction, two vertically adjustable screw propellers being provided to cause the boat to descend to any desired depth or to ascend to the surface, one ordinary propeller at the stern and two hinged wings or fins at the bow for the purpose of propelling the boat and of directing its course upward or downward.]

41,366.—Hitching Strap.—Peter Conover, Kingsessing, Philadelphia, Pa.:

I claim as an improved article of manufacture a hitching strap, provided with a safety ring, D, near the buckle, and otherwise constructed as herein shown and described.

[This invention consists in the application to a hitching strap of a ring large enough to admit of passing through it the snap at the loose end of the strap and at a distance of about three inches (more or less) from the buckle which serves to attach said strap to a post or tree, in such a manner that on applying the strap to a post or tree a strain exerted on it is not able to disengage the same from the tongue of the buckle, and furthermore, by such strain the strap is drawn up to the post or tree with increased tightness, thus preventing it from slipping down to the great inconvenience of the horse and of the persons having charge of the same.]

41,367.—Machine for cutting Slats in Window Blinds.—G. H Denison, Suspension Bridge, N. Y.:

I claim, first, The concave bed, D, in combination with the adjustable cutter, E, arranged in connection with the bed-piece, A, substantially as and for the purpose herein set forth.

Second, The cutter, H, provided with the grooved cap plate, J, and fitted in the bed-piece, A, substantially as and for the purpose specified.

Third, Providing the bed-piece, A, with the longitudinal grooves, a a′, in combination with the two cutters, E H, provided respectively with the concave bed, D, and cap-plate, J, substantially as and for the purpose specified.

41,368.—Lathes for Turning Spokes.—Theophilus Derington, Du Quoin, Ill.:

I claim, first, Controlling the lateral motion of the cutters, and at the same time feeding them up to the work of making spokes by means of a single pattern, constructed and operating substantially as described.

Second, A spoke pattern constructed with a spiral or screw thread on its surface, substantially as and for the purposes described.

Third, The oscillating traveling carriage, H J, in combination with the travelling weight, I, tooth, n, and a spoke pattern operating substantially as described.

41,369.—Apparatus for addressing Newspapers, &c.—Wm. M. Doty, New York City:

I claim the employment of the oscillating feed levers, F, fingers, i, and curved bed, K, in combination with the gate, B, in the manner and for the purpose herein shown and described.

I also claim the combination of the spring, d, with the cutters, D E, and gate, B, in the manner herein shown and described.

[This invention consists in the arrangement of a rising and falling gate acted upon by a suitable handle and spring, and provided with a movable cutting jaw or blade in combination with a curved bed, stationary cutting blade end, and oscillating levers provided at the upper ends with cam slots fitting over pivots projecting from the ends of the rising and falling gate, and carrying at their other ends a rock-shaft provided with pointed fingers or dogs and acted upon by a spring or springs, in such a manner that on depressing the gate the pointed fingers or dogs are carried back, and on raising the gate the said fingers act on the paper and feed it at regular intervals to the cutting blades. Mr. Doty's address is 42 Park-row, New York City.]

41,370.—Spoke-socket and Felly Clamp.—L. D. Flanders, Cleveland, Ohio:

I claim the plate, C, socket, A, lugs, B B, and lips, a a, all cast in one piece and secured to the felloe by means of the screw, b b, substantially as and for the purpose specified.

41,371.—Plowing Machine.—D. D. Foley, Washington, D. C.:

I claim the share, B, in combination with the rollers, E E E′, and reversible platform, F, substantially as described, for the purpose of plowing up and inverting the surface of the earth with much less friction than is commonly experienced.

The share, B, and rollers, E, in combination with the revolving cutters, C, and colters, K3, or their equivalents for the purpose of more perfectly dividing sod ground.

The platform, F, in combination with latch springs, G, the geared wheels, H I and J, or their equivalents, for the purpose of rapidly inverting the sod, so that it will fall with certainty upside down, all substantially as described.

41,372.—Pepper Bottle.—J. W. Gay, Brooklyn, N. Y.:

I claim a pepper box or bottle formed with a contraction in the neck, of the nature and for the purposes specified.

41,373.—Carrying Cranks over Dead Points.—Francis Glass, of Knightstown, Ind.:

I claim the combination with the pis on rod, D, and cross head, C, of the angular block or gate, F, controlled by a spring or cam, and employed to carry the wrist-pin, H, beyond the dead points in the manner explained.

[By this invention the dead centers of the crank are effectually overcome, and the engine caused to work smoothly in all parts of its stroke, and adapted to be started with equal freedom at any point.]

41,374.—Feed-water Heater for Steam Boilers.—A. M. Granger, of St. Louis, Mo.:

I claim, first, The basin, d, in combination with the immersed

mouth of the feed pipe, a, and the heating vessel, D, substantially as herein specified.

Second, The perforated basins, e, and f f, arranged within the heating vessel, D, to deliver the wa er in the form of a shower or spray, substantially as herein described.

Third, The protecting casing, h, applied in combination with the basins, d, e, f, f, as and for the purpose herein set forth.

[This invention consists in heeting the feed water on its way from the feed pump or other feeding apparatus, to the mud well or lower part of the boiler, by exposing it in the form of drops or spray, in direct contact with steam taken from the boiler, thereby causing a more speedy and perfect separation of the mineral matters and other impurities than is obtained by means at present in use. It also consists in certain devices for effectidg the distribution of water in the best practicable manner within the heating vessel.]

41,375.—Repeating Fire-arm.—Joshua Gray, of Boston, Mass.:

I claim, first, The stationary curved rack, N, constructed and operating as described.

Second, The spring bar, O, for the purpose of carrying up the cartridge from the magazine to the barrel, substantially as described.

Third, The sliding carrier, L, in combination with the lever, J, and spring, O, or their equivalents, as and for the purpose described.

Fourth, The combination and arrangement of the rack, N, pinion, M, and sector, G, or their equivalents.

Fifth, The bent lever, J, arranged as set forth, and operating in combination with the sliding carrier, L, and stark, g, on the sector, G, as and for the purpose described.

41,376.—Furnace for roasting Ores.—C. B. Grubb, of Lancaster, Pa.:

I claim the application of an elevated kiln, provided with side furnaces, a cooler opening into an archway, constructed substantially in the manner described for the purpose of roasting ore, as specified.

41,377.—Machine for binding Grain.—S. T. Holly, of Rockford, Ill.:

I claim the combination of a flexible compressing strap, with mechanism for extending it round the gavel to be bound, and drawing it taut with a variable force; the combination as a whole operating substantially as set forth.

I also claim the arrangement of the instrumentalities for applying the compressing strap in such manner that the latter is held out of the way of the grain while it is being moved to and from the place where it is bound, substantially as set forth.

I also claim the combination of a reciproca ing arm fit ed with fingers for carrying the binding cord with a reciprocating bar for operating it, substantially as set forth

I also claim the combination of two reciproca ing arms with fingers, to operate upon the binding cord, and with the same reci procating bar, so that the two arms are caused to embrace opposite sides of the gavel to be bound, and apply the binding cord by the movement of the same bar, substantially as set forth.

I also claim the combination of a reciprocating arm with a hinged hand fitted with fingers to carry the binding cord, substantially as set forth.

I also claim the combination of a hinged hand fitted with fingers, with an inclined plane or other instrumentality to turn the hand on its wrist-pin, substantially as set forth.

I also claim the combination of two pairs of fingers (for holding the binding cord) and the mechanism for moving them in such manner that one pair will pass between the other pair when moving in one direction (relatively thereto), and outside the said other pair when moving in the opposite direction (relatively thereto), so as to deliver the cord held by the first pair to the second pair, the combination as a whole operating substantially as set forth.

I also claim the combination of a gathering arm with the same reciprocating bar that operates the arm (or arms) which carries the binding cord or the compressing strap in such manner that the said gathering arm completes its movement before the other arm does, substantially as set forth.

I also claim the combination of two reciprocating arms, fitted with fingers, to carry the binding cord with a cord-twister for twisting the ends of the band together, substantially as set forth.

I also claim the combination of fingers carrying the binding cord with a pin or stud across which the binding cord is strained, substantially as set forth.

I also claim the combination of fingers holding the binding cord, with an instrumentality for relaxing their hold on the cord, which is operated by the band-securing mechanism, substantially as set forth.

I also claim the combination of the ins rumentalities for applying the binding material, or the compressing strap, to the gavel, with a locking mechanism for holding them fast until the binding is completed, the combination as a whole operating substantially as set forth.

I also claim the combination of the cord-twister (having jaws adapted to seize and hold cord) with a knife for cutting the cord, substantially as set forth.

I also claim the combination of the cord-twister with a fork, to operate upon the twisted ends of the band, the combination as a whole operating substantially as hersin set forth.

I also claim the opera ion of the mechanism for operating the cord-twister, with stop mechanism for stopping its motion when it is in proper position for receiving the ends of the band, the combination as a whole operating substantially as set forth.

41,378.—Machine for binding Grain.—S. T. Holly, of Rockford, Ill.:

I claim the combination of instrumentalities or compressing and binding grain with a funnel-mouthed cradle, substantially as set forth.

I also claim the combination of a flexible compressing strap with a tension apparatus therefor and with a ring carrier, the combination as a whole operating substantially as set forth.

I also claim the combination of a flexible compressing strap and apparatus for withdrawing it from the sheaf, with a detachable strap-holder, the combination as a whole operating substantially as set forth.

I also claim the combination of fingers or other instrumentality to hold the binding material, with a ring carrier to carry it around the position of the gavel to be bound, substantially as set forth.

I also claim the combination of cord-feeding fingers, with an oscillating finger stock, substantially as set forth.

I also claim the combination of traveling cord fingers and mechanism to carry them around the position of the gavel o be bound, with a stop by means of which they are opened to release the cord at the proper time, the combination as a whole operating substantially as set forth.

I also claim the combination of a knife blade with the oscillating finger-stock, substantially as set forth.

I also claim the combination of a carrier arranged to turn in one direction around the position of the gavel, with a locking mechanism, the combination as a whole operating substantially as set forth.

I also claim the combination of instrumentalities for surrounding the gavel with cord, with a cord-twister and shield, the combination as a whole opera ing substantially as set forth.

I also claim the combination of the stop which stops the movement of the ring carrier for encircling the gavel with cord, with detent mechanism that permits the operation of the cord-securing devices when the gavel is encircled with cord, the combination as a whole operating substantially as herein set forth.

I also claim the combination of a detachable holder for the compressing-strap, with the mechanism for securing the ends of the band so that the strap is released when the band is secured, the combination as a whole operating substantially as herein set forth.

41,379.—Reversible Latch Bolt.—B. G. Hosmer, of Nashau, N. H.:

I claim, first, Connecting the latch bolt, D, to the tumbler fork, C, by m ans of the hinged or swinging hook, E, substantially as and for the purposes set forth.

Second, The combination of the pec liarly constructed tumbler fork, C, and the peculiarly constructed latch bolt, C, with the parts connected therewith, as and for the purposes set forth.

41,380.—Method of securing Tubes in Steam Boilers, &c. James Howell and David Birdsall, of Jersey City, N. J.:

We claim, first, the combination of the enlargements at one end of the tubes, and corresponding enlarged holes in one tube sheet, substantially as herein specified.

Second, The internally and externally tapered screwed thimbles, D, applied in combination with the taper scr w threads, e, on the tubes, and taper-tapped holes, g, in the tube sheet, B, substantially as herein described.

41,381.—Knitting Machinery.—Luke Kavanaugh, of Waterford, N. Y.:

I claim the combination of the stud or spindle, B, secured in the stock or hub of the burr, and the socket bearing, C, supplied with oil from the bottom by a reservoir, E, or other means, substantially as herein described.

[This invention relates to the rotary burrs used in knitting machines, both as sinkers and for landing and casting off the loops. The stock or hub of the burr has heretofore been made with a hole in the center and fitted to rotate on a fixed stud, and has not only required a very frequent application of oil for lubrication, but the oil, having been applied above, has run over the exterior of the burr and injured the work. The invention consists in securing the hub or stock of the burr to the stud and fitting the latter to a socket bearing, lubricated from below by a fountain or other receptacle for the oil.]

41,382.—Ladies Skirt-lifter.—Rufus Leavitt, of Melrose, Mass.:

I claim making the skirt with a series of eyes attached at or near the belt, and another series at a suitable distance below the same, and interlacing them by a cord, substantially in the manner and for the pur ose described.

41,383.—Reaping Machine.—J. B. McCormick, of St. Louis, Mo.:

I claim the automatic rake, G, arranged to operate s oast o discharge the grain at one side of the rear of the platform, B, in combination with the table, I, and binder's platform or stand, J, all arranged substantially as herein set forth.

[This invention consists in the employment or use of an automatic rake arranged to operate in such a manner as to deliver the grain at one side of the rear of the machine, in combination with a gavel receiving table and a binder's platform or stand.]

41,384.—Harvester.—John C. McDougal, Black Rock, N. Y. Ante-dated Jan. 11, 1864 :

I claim the shoe, C', provided with the series of vertical notches, v, and the vertical oblong slot, s, in combination with the projections, w, at the outer side of the finger, u, all the parts being arranged as shown, to admit of the adjustment of the shoe, C', as set forth.

[This invention relates to an improved arrangement of the sickle, driving mechanism, whereby the same is fully protected from the cut grass and grain, and also from dust and dirt, and also readily thrown in and out of gear with the driving wheel. The invention also relates to an employment and arrangement of certain parts, whereby the machine may be readily converted from a grain to a grass harvester and *vice versa*.]

41,385.—Cork Extractor.—J. P. Miers and John Groendyke, Lebanon, N. J. :

We claim, first, The hand lever, F, in combination with the corkscrew, D, attached to the vertically sliding rotary spring shaft, C, in the manner and for the purpose substantially as shown and described.

Second, The vertically sliding carriage, B, in combination with the shaft, C, corkscrew, D, and hand lever, F, constructed and operating in the manner and for the purpose substantially as set forth.

Third, The cutting blades, E, applied in combination with the corkscrew, D, substantially as and for the purpose specified.

[This invention consists in a corkscrew attached to a vertically sliding rotary shaft which is exposed to the action of a spring or its equivalent, in combination with a hand lever, in such a manner that by the action of the spring or its equivalent on the shaft, the corkscrew is forced up against the cork and caused to enter the same, when the shaft is rotated, and after the corkscrew has been screwed in the cork, a slight pressure or tap of the hand on the hand lever causes the same to be drawn out of the bottle with the greatest ease and facility.]

41,386.—Street Car.—J. A. Miller, New York City :

I claim, first, The combined arrangement of a momentum-saving friction brake, substantially such as herein described, with the hand wheel and shaft, which serves to operate the ordinary brake, and with a treadle, d, sliding clutch, c, and drum, b, or their equivalents, all constructed and operating in the manner and for the purpose substantially as set forth.

Second, The arrangement of the ring, H, with springs, I, in combination with the sliding disk, G, and axle, C', of a street car, constructed and operating in the manner and for the purpose substantially as herein shown and described.

[This invention consists in the arrangement of a momentum-saving friction brake in combination with the hand wheel and shaft, which serves to operate the ordinary brake and with a treadle and sliding clutch, in such a manner that by the act of turning the hand-wheel, whereby the ordinary brake is applied, the momentum-saving brake is also brought in operation, and by stepping on the treadle the ordinary brake is taken off and the momentum-saving brake assists in starting the car. Mr. Miller's address is 200 Broadway, New York.]

41,387.—Caliper.—W. A. Morse, Boston, Mass.:

I claim the projecting ends or arms, F F', passing each other as specified, in combination with the double scale, A A', for the purpose herein shown and described.

41,388.—Ice-crusher.—Lucilius H. Moseley, Poughkeepsie, N. Y.:

I claim, first, The bisecting cutter, F, and crushers, H, for the purposes set forth, in combination with the axis, E.

Second, I also claim the use of the pins or studs, I, arranged as hereinbefore described, on the cheeks or sides of the box, A, in combination with the bisecting cutter, F, and crushers, H, substantially as set forth.

Third, I also claim the use of an ice-crusher case or box, A, when it has a mouth, B, in the op of it for the reception of the lump of ice, and a vent, c, in the bottom of it for the discharge of the crushed ice, in combination with the bisecting cutter, F, and crushers, H, for the purposes hereinbefore set forth.

41,389.—Cultivator.—Wm. H. Older, Packwaukee, Wis. Ante-dated Jan. 20, 1864 :

I claim the arrangement of the standards, F F, and treadles, K K M, as shown and described, to wit, the standards being fitted in the bar, E, with the bolts, d, passing through longitudinal oblong slats, c, therein, and the treadles connected to the standards by means of the cords, belts or chains, f f' f'', all arranged to operate as set forth.

[This invention relates to an improved cultivator of that class which are designed for cultivating corn. The object of the invention is to obtain a cultivator of the class specified, which will have its plows under the complete control of the driver, so that they can be raised or lowered or adjusted laterally, and operated solely by the feet.]

41,390.—Band-cutting and Feeding Attachment to Thrashers.—Isaac H. Palmer, Lodi, Wis.:

I claim a band-cutter and feeder for thrashing machines, constructed and operating substantially as herein described.

[By means of this invention the bands are severed and the sheaves opened out and fed to the thrashing machine with great rapidity and as effectually as it can be done by hand.]

41,391.—Calendar.—James M. Patton, Indianapolis, Ind.:

I claim as a new article of manufacture, the calendar herein described, when arranged and operated substantially as and for the purposes set forth.

41,392.—Preserving Fruit in Jars, &c.—S. J. Parker, Ithaca, N. Y.:

First, I claim the prevention of mold in fruit jars, by any apparatus by which a liquid or fluid is let in and to fill completely the inside of the jar, as it cools.

Second, I claim a total or partial filling of the cavity always formed by the cooling of the contents of a fruit jar, by gases or vapors of easily volatile and expansive fluids, when the said gases or liquids are contained in any suitable cavity or apparatus as described.

Third, I claim as a new device in fruit jars, the special oval opening of the lip above the mouth or neck of the jar and the side crescent-shaped inverted edges of the same, in combination with an oval-shaped stopper.

41,393.—Sewing-machine Case.—Alexander 'Pilbeam, South Kensington, England :

I claim the arrangement and construction of the stands or supports of sewing machines, so as to fold or collapse into the form of a chest or case, small and compact in compass, inclosing all parts of the machinery within it, suitable for the purpose of transit and traveling, substantially as hereinbefore described, or any mere modification thereof.

41,394.—Finishing the Soles of Boots and Shoes.—James Purinton, Jr., Lynn, Mass. :

I claim a boot or shoe having the stitching, pegging or nailing, in the sole or heel, concealed by the use of paper or other material attached and covering partially or entirely the outer surface, as herein described and specified.

41,395.—Apparatus for feeding Paper to Envelope Machines.—George H. Reay, New York City :

I claim the employment of the hook, C, or its equivalent, in combination with the pickers, B, or their equivalent, substantially as and for the purpose shown and described.

[This invention consists in the employment of a hook or finger in combination with the ordinary lifters or pickers of an envelope machine, or with any other equivalent device, serving to raise or deliver the blanks or sheets of paper in such a manner that, by the action of said hook or finger that portion of the sheet between or close by the lifters or pickers is slightly turned down as soon as the pickers ascend, and any sheet adhering to that sheet which is in contact with the pickers are separated, and the feeding of the blanks or sheets, one at a time, is carried on regularly, thus avoiding the waste caused by the adhesion of the blanks to each other and the consequent simultaneous introduction of two or more sheets to the folding mechanism.]

41,396.—Trying Square.—John Richards, Columbus, Ohio :

I claim, first, A trying square constructed with a movable blade or its equivalent, substantially as and for the purposes described.

Second, Applying a spring or its equivalent, to the movable-blade trying square, for the purpose of keeping said blade in a proper position for use, substantially as described.

Third, Registering or indicating angles by means of the blade and head, or some portion thereof, of a trying square, substantially as described.

41,397.—Sawing Machine.—F. J. Richmond, Ashford, Conn.:

I claim the arrangement of the swinging bars, L L, slides, I I, crank shaft, D, shaft, N, arms, O O, segments, M, and saws, J, in combination with the curved jaw, S, attached lever, R, buck, e e, pivoted notched bar, T, and plate, U, all as herein shown and described.

[This invention relates to a new and improved cross-cut sawing machine for sawing fire-wood, &c. The invention consists in the employment of reciprocating saws arranged in connection with swinging guide bars and a novel means for adjusting the latter, and also arranged with a log-clamping device, whereby it is believed that a very superior, simple and efficient device is obtained for the purpose specified.]

41,398.—Manufacture of Sugar and Sirup from Sorghum, &c., J. F. Riggs, Fremont, Nebraska :

I claim, first, Applying soda or other suitable alkali to the sirup, while the la ter is at a temperature of 100° Fah., or thereabouts, for the purpose of rectifying the same, as explained.

Second, Refining sorghum or other sugar by the applying of water or other suitable liquid thereto, and quickly pressing out, substantially as and for the purposes explained.

[This process has produced sugar of the finest quality from sorghum sirup, in no respect distinguishable from that made from the sugar cane.]

41,399.—Skate Fastening.—G. P. Schiffilin, New York City

I claim the employment or use of the cam-bu tons, c, attached to the runner, B, of a skate and acting on the straps, C, in the manner and for the purpose substantially as herein shown and described.

41,400.—Manufacture of Soap.—S. A. Sesly, Brooklyn, N. Y.:

I claim mixing the grease used in the manufacture of soap with a quantity of vegetable flour, about in the proportion herein specified, previous to adding the alkali, as described, so that by the flour the grease is spread or opened and all its particles are caused to come in immediate contact with the alkali. Also the within-described composition of the ingredients above specified and mixed together in the proportion and in the manner set forth.

41,401.—Manufacture of Tinned Lead Pipe.—W. A. Shaw and Gardner Willard, New York City :

We claim forming an ingot of metal for lining lead pipe with a taper at one end or an enlargement at the other, or both, for the purposes and as specified.

41,402.—Submarine Gun.—Joseph N. Smith, New York City. Ante-dated Jan. 4, 1864 :

I claim the breech-piece, B, when pivoted above the central line of the bore of the gun, and provided with a packing block centered below the said central line of the bore, substantially as and for the purpose herein specified.

I also claim the self-adjusting packing block, C, pivoted transversely in the breech-piece, in combination with said breech-piece, substantially as and for the purpose herein set forth.

I also claim disabling the gun by means of the removable pivot pin, b, which pivots the packing block to the breech-piece, as specified.

I also claim a cut-off, H, for closing the muzzle of the gun against the influx of water into the barrel after the discharge of the projectile therefrom

41,403.—Punching Press.—N. C. Stiles, West Meriden, Conn.:

I claim, first, The compound eccentric, D, consisting of an eccentric wrist-pin, a, adjustable disk, b, and clamp, d, or its equivalent, in combination with the pitman, F, constructed and operating in the manner and for the purpose substantially as set forth.

Second, The V-shaped faces, g, on the slide, E, in combination with the jaws, G, cast solid with the stock, A, and with the triangular gib, h, all as and for the purpose specified.

Third, The touch-off device, k H, arranged in combination with the clutch pin, m, substantially as shown and described, so that said clutch pin is thrown in either direction by the direct act on of the cam.

Fourth, The loose clutch pin, m, applied in combination with the band wheel, C, and shaft, B, in the manner and for the purpose substantially as specified.

Fifth, The button, l', on the shaft, B, in combination with the spring catch, k', clutch pin, m and n, and cam, H, arranged substan ially as described so that the cam is released automatically a ter the punch or cutter has completed its stroke.

Sixth, The yielding coupling pin, n, in combination with the clutch pin, m, and touch-off device, k H, constructed and operating in the manner and for the purpose substantially as specified.

Seventh, The yielding fulcrum pin, J, arranged in combination with the cam, H, clutch pin, m, and band wheel, C, substantially as and for the purpose set forth.

41,404.—Spring for Wheel Vehicles.—John E. Taber, Fall River, Mass.:

I claim the springs, E, fitted on the rods, D, and connected thereto and the frame, B, in connection with the tubes, G H, collars, F I, all arranged substantially as and for the purposes herein set forth.

I further claim the connecting of the springs, E, to the frame, B, by means of the bars, J, collars, I, and joints, e d, when used for the purpose herein specified.

[This invention consists in the employment of spiral springs applied to a wheel vehicle, in such a manner that the body of the latter will have a yielding movement in any direction, that is to say, both forward and backward, laterally and vertically, and a very easy and comfortable pleasure vehicle obtained and one which will not be liable to be racked or injured by jars or concussions in passing over rough or uneven roads, the springs also not being liable to be injured by being subjected to heavy loads.]

41,405.—Machine Belting.—Hen y Taylor, Trenton, N.J.:
I claim the new article of manufactured, belting constructed substantially as above described and set forth.

41,406.—Motive Power.—Jose Toll, Locust Grove, O io. Ante-dated Jan. 24, 1864:
I claim the arrangement of the doubly-cogged master wheel, E, meshing with the disconnected pinions I, I I and I I I, coincident with the lines of contact of a series of crushing or other rods, 1 2 3, the whole being combined and operating together in the manner and for the objects stated.

41,407.—Plow.—James Tomlinson, Racine, Wis.:
I claim a plow having its mold-board, share, and coulter, in the form of a scoop or spiral shell and provided with a curved land side, P, substantially as set forth.

[This invention consists in constructing the mealboard, share, and coulter, all in one piece and of scoop or hollow screw form with a point nearly in the center of the cutting part or share, whereby the furrow slice is cut rounding on the land side and turned over with far greater facility than by the plows of ordinary construction, the draught of the plow rendered comparatively light and the furrow slice in being turned not elevated as high as when turned by the ordinary plows, the invention at the same time being better adapted for a gang plow than those of ordinary construction. The invention further consists in a novel arrangement of a wheel and lever applied to the plow frame or beams in such a manner as to gage the depth of the plow or plows, and enable the latter to be raised out of the ground by the plowman with the greatest facility.]

41,408.—Boiler Feeder.—George I. Washburn, Worcester, Mass.:
I claim, first, Condensing a body of steam within an apparatus having no external outlet by forcing it from one chamber to another by the gravity of water, and causing it to pass beneath the surface of and in contact with the water in the chamber into which it is forced, substantially as herein described.
Second, In a condensing or pumping apparatus operating substantially on the principle specified, I claim the use of a check valve, o, operating as described, to prevent the reflux of water into or down the supply pipe.
Third, The combination of the hollow divided shaft, D, chambers, A1 A2 E1 E2, and valve, G, operating substantially as and for the purposes set forth.
Fourth, The combination of the rod, H, with the oscillating shaft, D, and valve, G, for imparting motion to the said valve as explained.
Fifth, The chambers, A1 A2 and C, and troughs, B1 B2, operating together in manner substantially as and for the purposes set forth.

41,409.—Railroad Car.—James Withycombe & Charles Reiblein, Cleveland, Ohio:
I claim supporting the bolsters, F F', of railroad cars, by the beams, C C C' C', and E E', arranged and operating as and for the purpose set forth.

41,410.—Water Elevator.—James C. Barrett, Stamford, Conn., assignor to Joseph R. Van Marter, Lyons, N. Y.:
I claim the pulley, G, attached to the shaft, B, of the windlass, in connection with the disk, I, placed loosely on the shaft, B, the clamps, H H', and crank, J, all arranged to operate substantially as and for the purpose specified.
I further claim the eccentric, h, and the friction roller, g, or an equivalent bearing; when used in combination with the disk, I, and applied to a windlass to operate as and for the purpose set forth.

[This invention relates to certain improvements in windlasses for raising light weights, designed more especially for raising water from wells in buckets. The object of the invention is to obtain a windlass of simple construction which will admit of the bucket being lowered by its own gravity by a very simple manipulation of the crank and without having the latter turned with the drum of the windlass as the bucket descends, the filled bucket at the same time being held at any desired point when the crank is free from the hand of the operator.]

41,411.—Harvester.—Henry Fisher, A liance, Ohio, assignor to himself, Wm. M. Whitely, Jerome Fassler & Oliver S. Kelly, Springfield, Ohio:
I claim in combination with the stationary bowl or cam, M, arranged a described, extending the rake-head back behind its fulcrum so as to raise and control the rotating rake by the action of the camway on its heel or rear end, substantially as described.
In combination with the rake, I claim the curved arm on the side of the rake to push the grain down in advance of the rake and insure its being cut before the rake shall move it on the platform.

41,412.—Cast-iron Pavement and Gutter.—Morton Pennock (assignor to himself & Samuel Pennock), Kennetts Square, Pa.:
I claim, first, The channel, B, under the metal plates, A, substantially as and for the purpose described.
Second, The combination with the plates, A, of a gutter, C, of metal with a channel, D, substantially in the manner and for the purpose set forth.
Third, The gutter, C, made of metal or other good conductor of heat and provided with a channel, D, substantially as and for the purpose specified.

[This invention consists in arranging a hollow space or channel under the metal plates which constitute the pavement in such a manner that by admitting steam or heated air into said channel, the pavement can be kept free from snow and ice; and it also consists in the arrangement of a metal gutter with a similar channel in combination with the pavement in such a manner that by admitting steam or heated air under said gutter the same can be freed from ice and snow and at the same time the water accumulating in it prevented from freezing.]

41,413.—Casting Packing-rings in Gas and Water Pipes.—Richard C. Robbins (assignor to himself, Henry L. Case, Jesse M. Keen & John W. Mason), New York City:
I claim, first, The forming ring, B, constructed as described for the purpose set forth.
Second, The combination therewith of set screws arranged as described to secure it in place.
Third, The combination with the said forming ring, B, of the india rubber ring, G, substantially as described and for the purpose set forth.

41,414.—Frame for Traveling Bags.—Zachariah Walsh assignor to Cornelius Walsh), Newark, N. J.:
I claim the combination of the divided lip, d d, and jointed frame, B, constructed and arranged as and for the purpose herein shown and described.

[This invention consists in constructing each side of the frame of the bag with one or more joints in such a manner that the sides of the frame may be distended or forced apart in order to open the bag, thereby avoiding the curved ends of the ordinary frames which, unless side locks or straps are used, admit of the hand being inserted within the bag at each end when the frame is locked.]

41,415.—Take-up for Circular Knitting Machines.—Samuel Ward, Amsterdam, N. Y., assignor to George Campbell & John Clute, Cohoes, N. Y.:
I claim, first, The arrangement of the take-up rolls in a frame, C c, which is arranged to swing within the rotating frame, A a, under the control of spring, g, and levers, I, or their equivalents, substantially as and for the purpose herein specified.
Second, The pawl, k, and stop lever, g, applied in combination with each other and with the ratchet wheel, f, frames, C c, and A a, and stationary cam, E, to operate substantially as and for the purpose herein set forth.

[This invention relates to the take-up of that class of circular knitting machines in which the needle-plate or needle-ring has a rotary motion about its axis; and it consists in certain means of controlling the operation of such a take-up, by the tension of the knitted goods, whereby all parts of a piece of goods are made uniformly of any desired texture or tightness.]

41,416.—Machine for cutting Hay for Pressing.—Orson Waste & Charles Waste (assignors to Charles Waste), Cameron, Ill.:
We claim, first, The combination of the rollers, A A, with a knife working periodically, so connected and geared to the rollers as to cut the hay in proper lengths for packing, substantially as set forth.
Second, We claim the combination and arrangement of the catch, F, with the weight, E, and knife, C, subsantially as and for the purpose specified.
Third, We claim also the combination of the knife, C, with a grooved projection, M, substantially as set forth.

41,417.—Fruit Can.—Joseph B. Wilson (assignor to David W. Moore), Fislerville, N. J.:
I claim the stopper, D, composed of the guiding portion, f, flange, e, and projection, d, when combined with and arranged in respect to the mouth of a vessel having two shoulders, a and b, in the manner set forth.

REISSUES.

1,609.—Machine for enameling Picture F ames.—O. L. Gardner (assignee of John Sperry & C. W. Sherwood), New York City. Patented April 2, 1861:
I claim, first, The employment for the purpose specified, of a basin or enamel receiver, D', either fixed or stationary, used in connection with a rotating shaft, C, or an equivalent means, for rotating the frame, I, to be enamelled, and either with or without a lamp, E, or other heating medium, substantially as described.
Second, The scraper, J, formed of two plates, g, h, connected together by a bolt, j, and arranged to operate as and for the purpose herein set forth.
Third, The lever, H, in combination with the pin, e, of shaft, C, and the pin, f, of the sliding or adjustable basin or receiver, D', or other suitable clutch, arranged to operate substantially as and for the purpose specified.

1,610.—Machine for cutting-out Boot and Shoe Soles.—David Knox & Walter D. Richards (assignees by mesne-assignments of C. H. Griffin), Lynn, Mass. Patented June 12, 1855:
I claim, first, The combination of the depresser bar with the reciprocating knife frame, its two movable knives and their elevating springs or equivalent machinery, such being arranged and made to operate together substantially as specified.
Second, I claim to constructing a machine with two knives, each connected to a separate cutter-head, and with their edges toward the surface to be cut that by the mechanism employed said knives shall be brought alternately to the cutting point, the one ascending as the other descends, the one cutting the right and the other the left side of the sole, and so on alternately in the manner described and for the purposes set forth.

DESIGNS.

1,888.—Hand Engine.—Wm. R. Bush, Fall River, Mass.:

1,889.—Trade-mark.—Samuel B. Newell, Cincinnati, Ohio:

1,890.—Oil-cloth Pattern.—Joseph Robley, Brooklyn, N. Y.

1,891 and 1,892.—Valves.—W. Barnet Le Van, Philadelp ia, Pa. (2 cases):

1,893.—Stove Plate.—Nicholas S. Vedder & Benjamin F. Johnson (assignors to Wager & Fales), Troy, N. Y.:

EXTENSIONS.

Steam Boiler Furnace.—Benjamin Crawford, Allegheny, Pa. Patented Jan. 29, 1850. Re-issued Dec. 2, 1862:
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 adjustages or their equivalents on the pipes leading from the boiler or steam blower to proper positions for increasing the draught or promoting combustion, substantially as set forth.
Third, Whirling live steam for the purpose of increasing or maintaining the draught 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 draught 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.

Spark-arrester.—James Radley & Margaret Hunter (administratrix of John W. Hunter, deceased), New York City. Patented Jan. 22, 1850. Re-issued Jan. 16, 1855:
We claim, first, The arranging of a series of chambers and channels between conically-shaped plates, the channels being so formed as to cause the products of combustion to impinge against that side of each of the dirt chambers, which has the springs and caps, and thereby force the sparks, dirt, &c., into them in the manner described herein.
Second, We claim the piece, p, suspended in the central aperture at the top of the spark-arrester, arranged and operating in the manner and for the purpose substantially as herein before described.
Third, We claim the double cover or top for the formation of a second series of dirt passages, arranged and operating in the manner and for the purpose substantially as hereinbefore described.

Loom for Piled Fabrics.—John Turnbull, Baltimore, Md., and James Turnbull, Simsbury, Conn. Patented Jan. 29, 1850:
We claim, first, Dividing the heddles into two or more divisions to be worked in succession, substantially as herein described, that the entire opening of the shed may be effected in succession, and thus avoid the evil effects consequent on the opening of the shed, at one operation as heretofore described.
Second, Operating the two picker levers or treadles by means of a shifting tappet operated or shifted alternately for each pick by means of an eccentric or its equivalent, that the shaft which carries the tappet or tappets may make one entire rotation for each throw of the shuttle, substantially as herein described, and thus operating the shuttle by a tappet rotating with greater velocity than by any means heretofore known, as described.