

## RECENT AMERICAN PATENTS.

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.

**Shipper Lever for Looms.**—The lever commonly used in power looms for shipping the belt from the fast to the loose pulley, and *vice versa*, and otherwise stopping and starting the loom, has its lower portion made to constitute a spring, and this spring is very liable to be broken by the violent concussion to which the lever is subject in the movement effected by the said spring for stopping the loom, and when it is broken, the stoppage of the loom until the lever and spring have been taken off, carried to the smith for repair and put on again, results in serious loss to the manufacturer. Another difficulty is, that the spring cannot be adjusted to give it more or less tension while it remains attached to the loom. The object of this invention is to obviate both of these difficulties; and to this end it consists in the combination, with each other and with the loom, of a rigid lever, an independent spiral or conical volute spring and an adjustable fulcrum. George W. Hathaway, of Hinsdale, Mass., is the inventor of this device.

**Sewing Machine.**—In the application of reversible feed mechanism to a shuttle or other "lock stitch" sewing machine, the two threads are simply interlaced when the feeding movement is in one direction but are crossed and form a kind of half knot when the said movement is in the reverse direction, and the consequence is, that the degree of tension of the upper thread that is requisite to bring it tight on the upper surface of the cloth, and make it draw the under thread tight up into the cloth when the feeding movement is in the first-mentioned direction, is not sufficient to produce the same effect when it is reversed, but leaves the upper thread loose on the upper surface of the cloth and the under thread straight on the under surface, the reason being that in the latter case the friction of the threads is so much greater; or, if the tension should be sufficient to draw the upper thread tight and the under one far enough into the cloth when the feed movement is in the last-mentioned direction, it would draw the under thread through the cloth when the movement was in the first-mentioned direction. Hence, in order to make good work in sewing back and forth, the tension of the needle thread requires to be varied every time the direction of the feed movement is changed. This invention consists in so combining the device which produces the tension with the device by means of which the feed movement is reversed, that by the act of changing the direction of the feed movement the tension is varied in such a manner as is rendered necessary by such change of direction. N. Jones, of La Porte, Ind., is the inventor of this improvement.

**Drum.**—This invention relates to a new and useful improvement in military side (or small) drums, and consists in constructing the drum in such a manner that its head and reverse may be braced separately or independently of each other, thereby preventing the reverse, which is the head not beaten upon and which is generally formed of inferior material, from being unduly strained, a contingency which is liable to occur in drums of ordinary construction, in bracing the head proper, in consequence of one bracing cord being connected to both bracing hoops, thereby causing both the head and the reverse to be braced simultaneously, and the latter to be unduly strained or stretched before the forward is brought to a proper degree of tension to insure a good or perfect tone. The invention further consists in a novel manner of applying the cords to the bracing hoops, whereby the former are kept free from contact with the heads and the latter thereby, as well as the cords, prevented from being injured by abrasion. The inventor of this improvement is John Dermond, of Louisville, Ky.

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ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING FEBRUARY 4, 1863.

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., Publishers of the SCIENTIFIC AMERICAN, New York.

**37,559.—Manufacture of Felt.**—S. M. Allen, Boston, Mass.:

I claim combining ordinary felting materials like fur, wool, &c., with a short fiber made or reduced in such a manner from long staple fibrous materials, like fax, hemp, jute, silk, china grass, and similar substances, as to have the peculiarities hereinabove described, whereby, when so combined, they can be felted together by any suitable felting process.

**37,560.—Bedstead-fastener.**—Dwight Babcock, Seneca Falls, N. Y.:

I claim, as a new article of manufacture, the coupling hook, C, provided with the double points, d d', for use on the opposite sides of the bedstead, substantially as described.

**37,561.—Bank-note.**—J. M. Batchelder, Cambridge, Mass.:

I claim the fixed scale or column of figures, as 1 2 3 4 5 10, occupying the middle area, substantially as and for the purposes set forth, a border or embossed space, in combination with a series of lines, marks or rays radiating from that figure of the scale that represents the denomination or value of the bill.

I also claim the combination of a single colored figure of the scale, with the denomination figure of the bill made of the same color, substantially as herein described.

**37,562.—Machine for Framing Lucifer-match Splints for Dipping.**—Anson and E. B. Beecher, New Haven, Conn.:

We claim, first, The employment of a flexible binding tape or band, in combination with a drum adapted to be rotated by a mandrel and removed therefrom, substantially as described, as a means of forming a spiral frame of match splints for dipping, substantially as hereinbefore set forth.

Second, In combination with a frame-drum moved by friction, the endless band and pressure roller, or equivalent feeding mechanism, for the purpose of holding and paying out the flexible binding tape to the frame, substantially as described.

Third, In combination with the frame-drum, binder, setting and feeding mechanism, the friction drag, or its equivalent, for the purpose of stopping the frame when the feeding and setting mechanism is reversed, and for the purpose of driving the frame forward.

Fourth, The receiving cylinder grooved across its periphery with grooves suitable to take in and hold only a single match splint, each substantially as described.

Fifth, The wire brush, or its equivalent, in combination with the receiving cylinder, substantially as described.

Sixth, In combination with the setting wheels and receiving cylinder, the comb wheel, substantially as described.

Seventh, The setting wheels, in combination with the frame-drum and binding tape, substantially as described and substantially for the purpose of setting the splints in the coils of the binding tape, as set forth.

Eighth, In combination with the feeding and setting mechanism, the clutch and levers, or their equivalents, whereby the frame is stopped when splints are not supplied at the proper time, and set in action again by the splint itself, substantially as described.

**37,563.—Telegraphic Apparatus.**—Giovanni Caselli, Florence, Italy:

I claim the combination of the spring, u, and the micrometric screw, v, with the pendulum of the regulator, P', substantially in the manner herein shown and described.

The employment of the marking device, consisting of the oscillating lever, y, screws, b b', slides, d' d', styles, v v', and tablets, t t, or their equivalent parts, combined and operating together, substantially as herein shown and described, with the pendulum, A B, as set forth.

The employment of the copying device, consisting of the segment rack, s, bar, l l, levers, h' h', styles, v v', and intermittent drum, A B, or their equivalent parts, combined and operating together substantially as herein shown and described, and the pendulum, A B, as set forth.

**37,564.—Corn Planter.**—H. Cassidy, Putnam, Ohio:

I claim the combination of the chambered hoppers, L, spring slides, J, wheels, E, shafts, G H, and side beams, A, with each other and with the central beam, C, all in the manner and for the purpose herein shown and described.

**37,565.—Explosive Projectile.**—J. M. Connel, Newark, Ohio:

I claim, first, Expanding the packing, l, by a combination of the force of the expanding gas and of the resisting action of separated ribs, in the manner shown and described, and for the purposes set forth.

Second, The inclined beads or ribs having flutes between them, in combination with a loosely-fitted expansible seat, substantially as and for the purpose set forth.

**37,566.—Percussion-exploder for Shells.**—J. M. Connel, Newark, Ohio:

I claim, first, Suspending a plunger upon a projecting stem, b, of the screw-plug, A, in the manner and for the purpose set forth.

Second, So applying a shell-exploder to a shell, that when the latter strikes obliquely, or sidewise, the said "exploder" shall be ignited by a leverage impact against the rear of the screw-plug, in the manner substantially as described.

**37,567.—Door Latch.**—J. H. Cooper, Philadelphia, Pa.:

I claim the latch, L, in combination with the knobs, k' and k'', and shank, A, when the latch turns on an axis parallel to that of the door, and when the latch is opened by pushing or pulling the knobs in the manner described.

**37,568.—Car Brake.**—D. S. Cross, Cincinnati, Ohio:

I claim, first, The arrangement of driving axle, G, sliding and revolving windlass, F, ratchet and pawl, H K, clutch, I J, armed shaft, L M N, and self-releasing attachment, N n n', in the described combination with the brake chain, E, the whole being combined and operating as set forth for the purposes set forth.

Second, In the described combination with the above, I claim the cam-headed lever, O, connected to the pawl, and operating substantially as set forth.

Third, The provision of toggle, P Q, and rollers, T T', or their equivalents, in the described combination with the consecutive cars, and with the main brake chain, E, for the equalization of tension of the said chain, in the manner set forth.

**37,569.—Weighing Apparatus.**—A. B. Davis, Philadelphia, Pa.:

I claim, firstly, A graduated beam, E, connected to the platform of a scale, in combination with any desired number of supplementary graduated beams, so arranged that, by the appliances herein described, or any equivalent to the same, any one or all of the said supplementary beams can be connected to or disconnected from the main graduated beam, for the purpose specified.

Secondly, Arranging the graduated beam, E, and its supplementary graduated beams within a box or casing, furnished with doors and locks, substantially as described, and having such openings that, while the attendant can observe the movements of any of the supplementary beams from the outside of the casing, he cannot gain access to the beams themselves or gain a knowledge of the weights determined by the beams.

Thirdly, The stirrup, J', suspended from the graduated beam, E, and provided with knife-edged bearings, k, for the reception of the supplementary beams, substantially as and for the purpose herein set forth.

Fourthly, The levers, M, arranged in respect to the supplementary graduated beams and stirrups, J', substantially as and for the purpose herein specified.

**37,570.—Military Drum.**—John Dermond, Louisville, Ky.:

I claim the hoop, B, attached centrally to the cylinder, A, in combination with the two bracing cords, F E, and the two bracing hoops, E E, all arranged substantially as shown, to form an improved military or side drum.

I further claim making or boring the cord holes, c, in the bracing hoops, E E, in a direction parallel or nearly so with the axis of the cylinder, A, and about at the centers of the bracing hoops, as and for the purpose set forth.

**37,571.—Sails of Vessels.**—Daniel Fitzgerald, New York City:

I claim, first, The self-adjusting sails, A, constructed and arranged substantially as above described.

Second, The collapsing jib, B, constructed and arranged substantially as above described.

Third, The collapsing circular sail, C and D, made to fold like a fan, constructed and arranged substantially as above described.

Fourth, The mid-jib, between the two bowsprits, as constructed and described.

Fifth, Suspending a circular sail, D, between the mast and bowsprit or on a jib-hook, constructed and arranged substantially as above described.

**37,572.—Paddle Wheel.**—W. C. Ford, Brooklyn, N. Y.:

I claim, first, The arrangement of the prismatic buckets, e f and g, in the manner and for the purposes specified.

Second, I claim the construction of the prismatic sheet metal buckets, with the flanges, 3 3, and arm-hole, 4, for the purposes and as specified.

**37,573.—Paper Bag Machine.**—J. J. Greenough, New York City:

I claim, first, Forming a paper bag or other envelope by cutting the form or blank therefrom from a strip or roll, by circular knives, as herein described, and then folding the same between a series of rollers, without stopping the paper to perform either of the functions, the whole being combined and arranged substantially as and for the purposes set forth.

Second, I also claim cutting the edges of the paper in an irregular line to shape the form or blank by the cylindrical cutters, in combination with folding machinery for making bags, &c., by a continuous operation, as above specified.

Third, I also claim the combination of the "waste" rollers, W, or their equivalent, for insuring the separation of the parts, and removing the waste from the machine, with the cutters, substantially as described.

Fourth, I also claim printing or embossing the paper while it is stretched and held tight on both sides of the printing apparatus, while being printed, as herein described, when the same is connected with machinery for making bags and envelopes for the purposes specified.

Fifth, I also claim conveying the form or blank for a bag or envelope through the preliminary operations of forming the envelope, and before serving the same from the strip of paper from which it is cut, substantially as and for the purposes set forth, when the bag is formed by passing the material through a series of rollers, substantially such as is herein set forth.

Sixth, I also claim embossing the line of the seams of bags, or other envelopes, where they are joined by adhesive material, for the purpose of cementing the seams more perfectly, and concealing the joints, as set forth.

Seventh, I also claim turning the side fold of the blank, cut as herein described, before the bottom fold, so as to bring the side fold on the inside of the bag or envelope, and securing the same to the cut lap or side, by which a neater joint is made.

**37,574.—Grubbing Machine.**—Joseph Frey, Battle Creek, Mich.:

I claim the adjustable and movable cast-iron shackle for pulling trees with the roots, in combination with the reversible wrought-iron clevis, or its equivalent, the clevis being guttered, and I also claim the adjustable and movable cast-iron shackle for pulling stumps or cap-grubs, in combination with the hook on the reversible wrought-iron clevis.

**37,575.—Vulcanizing Lamp.**—B. W. Franklin, New York City:

I claim the construction of a lamp with two or more adjustable compartments, connected with gauze-wire wicks, that shall, when graduated, evolve the proper degree of heat to vulcanize india-rubber and other vulcanizable gums, without the use of thermometers, steam gages, or other tests, constructed substantially as above described and for the purposes set forth.

**37,576.—Beehive.**—H. A. Hannum, Cazenovia, N. Y.:

I claim the board or cover, B, the parallel bars, m, and strips or cleats, n, arranged and combined as shown, so that the board or cover may be detached from the bars, m, when necessary, and also used in connection with them when desired, as herein specified.

The object of this invention is to obtain a beehive which will admit of the bees being very readily hived in it, and also admit of being thoroughly ventilated and the filth allowed to escape freely from it. The invention also has for its object facilities for thoroughly examining the combs and manipulating or handling the same, as circumstances may require.]

**37,577.—Shipper Lever for Looms.**—G. W. Hathaway, Hinsdale, Mass.:

I claim the combination with each other and with a loom, of the rigid lever, B, the spiral or volute spring, D, and the adjustable fulcrum, a, substantially as and for the purpose herein specified.

**37,578.—Extract of Malt, &c., for making Beer, Ale and Porter.**—Thomas Hawks, Rochester, N. Y.:

I claim a concentrated portable preparation of wort, mixed with and shielded by the sirup of cane sugar, either with or without the addition of gelatine, for increasing its security against the influence of atmospheric changes, substantially as and for the purposes above specified.

**37,579.—Grinding and Pressing Grapes, Apples, &c.—C. B. Hutchinson, Auburn, N. Y.:**

I claim the construction and arrangement of a grinding mill and press together, combined and operating substantially as herein specified.

I also claim the open discharge depression, F, across the face of the case, opposite to the grinding wheel, in combination with said grinding wheel, arranged and operating substantially as and for the purpose herein specified.

In combination with said depression, F, I also claim the peculiar construction and arrangement of the teeth, h and h', and spiral, wedge-shaped hopper, as herein set forth.

I also claim the guide stem, N, projecting vertically from the removable follower, K, and sliding in a lock, p, or its equivalent, for the purposes specified.

I also claim the combination of the curb, I, having openings or slots in the lower portion only, with the concave follower, K, and guide stem, N, substantially as specified.

**37,580.—Sewing Machine.**—N. Jones, La Porte, Ind.:

I claim so combining the device which produces the tension with the device by means of which the direction of the feed movement is changed, that by the act of changing the direction of the feed movement the tension is varied in such manner as is rendered necessary by such change of direction, substantially as herein specified.

**37,581.—Lamp.**—S. J. Kelly, Pemberton, N. J.:

I claim the combination of the doubly-perforated and flat topped cone or deflector, F, the two parallel flat-wick tubes, E E', shafts, G G', milled head, H, disconnected elevating wheels, g g', and connected cog wheels, h h', the latter having no contact with the wicks, when the said parts are constructed and arranged as herein shown and described, and operate in the manner and for the purposes specified.

[This lamp is provided with two parallel flat wicks which are so arranged as to be raised or lowered simultaneously by means of a single thumb wheel, and produce two distinct flames of any size required.]

**37,582.—Motive Power.**—Frederic Kettler, Milwaukee, Wis.:

I claim the arrangement and combination of a wind wheel with hammers, 13, weights, 12, levers and toothed wheels, arranged and

constructed as herein described, for the purpose of driving various kinds of machinery.

**37,583.—Bride.—A. H. Langholz, Chicago, Ill. :**

I claim the combination of the nose and jaw band, E, with the hook, G, at each end, when arranged with the head stall, and fastened by the hooks to the top of the bit, as herein described, for the purposes set forth.

**37,584.—Machinery for Coating Thread of one Fiber with another Fiber.—Alphonse Loiseau, Bernay, France :**

I claim the arrangement of machinery for coating or covering a core with a thread of wool, or for surrounding a core of any material with a thread of any desired material, hereinbefore described and illustrated in the accompanying drawings.

**37,585.—Sewing-machine Needle.—John Madden, Youngstown, Ohio :**

I claim, as a new article of manufacture, the sewing-machine needle, constructed as herein set forth.

**37,586.—Journal Box.—W. T. Morrow, Chicago, Ill. :**

I claim the arrangement of the adjustable liner wedge, B, in combination with a journal box, A, constructed and applied substantially as and for the purposes set forth.

[This invention consists in the arrangement of an adjustable wedge capable of being slipped between the guides on the face or over flanges on the edges of the driving box of a locomotive or of the journal box of any other axle, in such a manner that by means of said wedge any wear occurring on the face of the box can be compensated without removing the box.]

**37,587.—Apparatus for Threading Needles.—James O'Kane, Philadelphia, Pa. :**

I claim, first, The cam, C, so formed, graduated and arranged in respect to the hole, c, in a plate, a, to which the cam is hung, that the eyes of needles of different sizes may, by the aid of the cam and its graduations, be brought to coincide with the said hole in the plate, for the purpose specified.

Second, In combination with the graduated cam or its equivalent, I claim the slide, D, with its notch, i, the whole being arranged and operating substantially as and for the purpose described.

Third, The flexible lip, B, arranged on the plate, a, in respect to the hole, c, in the said plate, and the notch, i, in the slide, D, substantially as and for the two-fold purpose described.

**37,588.—Water Meter.—John Percy, Albany, N. Y. :**

I claim a balance valve, as constructed, for the purpose described. I also claim the arrangement and combination substantially in the manner and for the purpose set forth in the above specifications, of the following apparatus, viz., the valve chamber, P, with its valves, v and v', and stem, T, the chamber, D and E, the cylinders, F and G, with their pistons, H & J, connected with the beam, L, the valve, I and K, connected with the beam, M, the valve, N and O, also connected with the beam, M, the operating valves, J and K, the lever, U, attached to the valve shaft, T, the detents, 1 and 2, with their pins, 3 and 7, lever, 3, attached to the shaft of the beam, M, with the tripping levers, 4 and 5, spring, W, operated by the beam, M, in order to operate the lever, v, the lever, X, as connected with apparatus measuring the water, forming together a complete water meter.

**37,589.—Bedstead.—D. U. Pratt, Cleveland, Ohio :**

I claim making bedsteads with the side rails and support for the slats, four inches, more or less, higher at the head than at the foot, as and for the purpose herein set forth, the same being a new article of manufacture.

**37,590.—News Distributor.—J. H. Pratt, New York City :**

I claim a combination with a balloon, mechanism which is capable of throwing off and delivering news sheets into the air, during the flight of the balloon, for the purpose set forth.

**37,591.—Process of Manufacturing Enamelled Fruit Jars and other Vessels.—Horatio Reed, Jersey City, N. J. :**

I claim the lining of a metallic can while in a red-hot state with glass, which is blown in a hot state into a metallic can.

**37,592.—Machine for Spreading Japan, &c., over Fabrics.—Ferdinand Sautermeister, Newark, N. J. :**

I claim the use of a drum or cylinder with its surface roughened by sand, gravel, pumice, or any like substance, for carrying forward cloths in the process of japanning or painting.

I also claim the spring bars, G, and the roughened rollers, L and M, when used in combination with the cylinder.

**37,593.—Machine for Corrugating Metals.—S. J. Seely, Brooklyn, N. Y. :**

I claim, first, So operating, retaining and corrugating dies together in a machine for corrugating sheet metal, that the retaining die forms the first corrugation and takes into the corrugations formed successively by the corrugating die, substantially as and for the purpose set forth.

Second, The organization of means, substantially as herein described, for the purpose of corrugating sheet metal, the said organization consisting of the frame, A, bed, B, C, with dogs, the female dies, the male dies with sash beams, the toggle levers, or equivalents, adjustable crosshead, and the gearing or its equivalent, constructed and arranged as set forth.

Third, In a machine for corrugating metal, operating substantially as described, I claim the adjustable crosshead with its hand screws and guide screws, for the purposes set forth.

**37,594.—Step Ladder.—D. J. Stagg, New York City :**

I claim the standing or supporting frame, A, in combination with the step ladder, either or both of them, connected to the frame, A, substantially as shown to admit of the adjustments herein set forth.

[This invention consists in combining one or more step ladders with a standing frame or support, the parts being constructed and arranged in such a manner that the frame will, at all times, serve as a support for the ladder or ladders, and admit of the same being adjusted in an inclined position for use, and also admit of the same being drawn or folded compactly within the frame when not required for use.]

**37,595.—Cover for Preserving Vessels.—Israel Stratton, Philadelphia, Pa. :**

I claim the plate, B, its annular flange, b, screwed stem, C, and ring, e, of gum elastic or other suitable material, in combination with the yoke, D, and its projections, d, when the said yoke serves the purpose of a nut, and when the whole is constructed and applied to the mouth, A, of the vessel, and its flange, a, as and for the purpose herein set forth.

**37,596.—Valve for Steam Engines.—Daniel Teeter, Hagerstown, Ind. :**

I claim, first, The rotary valve, G, constructed as herein represented and described in combination with the steam ports, 1, 2, 3, 4, in the valve seat of the double cylinder, D, when said ports are arranged and the rotary valve adapted to operate in connection with them, in the manner and for the purpose set forth.

Second, The T-headed spindle, H, beveled cog wheels, c, g, and shaft, I, in combination with the loosely-fitted beveled gear wheel, j, feather, n, and gear wheel, O, when arranged in the manner and for the purpose specified.

Third, The bevel pinion, j, fitted loosely on the end of the shaft, I, and attached to it by means of a feather or pin, n, fitting a radial mortise in the hub of the pinion, j, in the manner described; in combination with the fixed cog wheel, m, and toothed segment lever, J, adapted for reversing the motion of the engine by changing the relative position of the valve on its seat, substantially as described.

[This invention consists, first, in the combination of a peculiarly constructed rotary valve with the ingress and egress parts of a double steam cylinder, whereby the engine is adapted for movement in either direction. Second, in a peculiar arrangement of devices for imparting motion to the rotary valve. Third, in certain means provided for changing the relative position of the valve on its seat, thereby adapting the engine for movement with like efficiency in either direction.]

**37,597.—Blind Fastening, &c.—Wenzel Toepfer and Herman Rugee, Milwaukee, Wis. :**

We claim, first, The sliding bar, D, connected with the lower butt, B, of the blind through the medium of the link, C.

Second, Securing said bar, D, or preventing the casual movement of

the same, and at the same time locking the blind by means of the notch or recess, j, pressure rod, k, and the opening in the face plate, F, as herein shown and described.

Third, The rod or shaft, G, provided at one end with the arm, H, and at the opposite end with the lever, I, connected with the slide, T, in combination with the pin, q, on the arbor, r, of the knob, L, the pin, o, on the side, T, and the lever, P, and rod, O, attached to the blind, B, all arranged to operate as and for the purpose herein set forth.

[This invention relates to a new and useful arrangement of means for opening and closing window blinds and adjusting their slats, opening and closing them, from the inner side of the window within the compartment, without the necessity of raising the sash.]

**37,598.—Fastening for Door Latches.—J. F. Tozer, Birmingham, N. Y. :**

I claim the plate, H, attached to the inner side of the collar, E, and having a segment removed or cut off from it so as to leave a straight edge or surface, b, in combination with the bearing, J, and key or wedge, K, all arranged and applied to the door, and in such relation with the knob arbor, A, to operate as and for the purpose herein set forth.

[This invention relates to a new and improved catch or fastening, to be applied to the knob-arbors of locks and latches, in order to prevent the turning of the knob-arbors from the outer side of the door, and thereby convert the ordinary latch-bolt of a lock into a secure fastening, so as to dispense with the use of extra inside bolts, which are generally used on doors to guard against the picking of the locks.]

**37,599.—Lamp Burner.—James Wolstenholme, Providence, R. I. :**

I claim surrounding the under side of such flanch with a space of confined air for the purpose of preventing the cooling effect upon the flanch of ascending air currents, substantially as described.

**37,600.—Lamp Burner.—H. C. Hunt (assignor to himself and G. W. Devin), Ottumwa, Iowa :**

I claim, first, The elastic drum, J, constructed substantially as shown, so as to grasp and retain properly in position the chimney, L, and cone or deflector, K, and also admit of being fitted snugly on the disk, C, and readily detached therefrom, as herein shown and described.

Second, The rotating disk, C, fitted on the top of the lower part, B, of the burner, in combination with the stationary rack, c, on the flange, b, of B, and the pinion, H, on the serrated wheel shaft, G, all arranged to operate as and for the purpose herein set forth.

Third, The spring, d, formed by silting or cutting the wick tube, D, as described, and having such a relative position with the serrated wheels, F, E, to operate for the purpose set forth.

**37,601.—Machine for Rolling Metals.—J. B. Mignault, A. B. Southwick and Charles Spofford, of Ballard Vale, and Albert Marshall, of Lawrence, Mass., assignors to the Whipple File Manufacturing Company, of said Ballard Vale :**

I claim the above-described machine for rolling metals, consisting essentially of the rolls, a, and gears, H, upon the traversing carriage, in combination with the stationary patterns and rack-bars, operating in the manner substantially as set forth for the purpose described.

**37,602.—Window-sash Fastenings.—Anthony M. Smith (assignor to Gilbert Sayres), Jamaica, N. Y. :**

I claim a jointed swivel hasp, A, in combination with the swivel hook, D, and eccentric, j, arranged and applied to the sashes to operate as herein set forth.

[This invention relates to an improved window sash fastening of that class which are applied to the centre of the lower cross rail of the upper sash and to the center of the upper cross rail of the lower sash, and which are designed to lock or secure the sashes in a closed state. The object of the invention is to obtain a fastening of the kind specified which cannot be operated upon and unlocked from the outer side of the window.]

**37,603.—Grinding File Blanks.—Alpheus B. Southwick (assignor to the Whipple File Manufacturing Co.), Ballard Vale, Mass. :**

I claim the method of connecting the crank, I, with the wheel, G, by means of the pin, h, whereby the blank may be inserted in the holder without stopping the machine.

I also claim the combination of the spring, t, and screw i, with the hand-wheel, T, and roller, R, for the purpose of graduating the force with which the article is pressed up to the stone as set forth.

**37,604.—Adhesive Plaster.—Joshua Melvin, Lowell, Mass. :**

First, In combination with a gelatinous preparation and a backing of cotton or other fabric, I claim the use of a film of caoutchouc or analogous elastic and impervious material interposed between the gelatine and the backing to prevent the former from penetrating the latter and adapt the plaster to be rolled without injury.

Second, Spreading a gelatinous preparation upon a foundation of caoutchouc or analogous elastic and impervious material in the manufacture of adhesive plasters substantially as set forth.

[This invention is adapted for the production of roller bandages or of plaster to be used in the usual manner. The elasticity and softness of the plaster are preserved by preventing the penetration of the backing by the adhesive material.]

REISSUES.

**1,391.—Applying Pressure to Top Rollers of Drawing Machines.—Noah E. Hale, Nashua, N. H. Patented Nov. 8, 1859 :**

I claim my improved combination, or mechanism for applying pressure to and relieving from it, the top rollers of one or more sets of drawing rollers, the said mechanism consisting of one or more bars, G, the lever, J, the weight K, the lifting lever, L, the notched bar, N, and hanger, O, or their mechanical equivalent or equivalents, the whole being applied to the said top rollers substantially in manner and so as to operate therewith as described.

**1,392.—Mode of Raising Sunken Vessels.—Casper Krogh & M. G. Hogness, Kroghville, Wis. Patented Oct. 21, 1862 :**

We claim, first, The employment of inflexible lifters applied outside of the vessel, when arranged, constructed and operating substantially as and for the purposes set forth.

Second, The employment of the flexible chambers inside the vessel for preventing damaged vessels from sinking, when constructed and operated substantially as herein as delineated and described.

Third, The arrangement of the connections of the air pipes for the admission of air into the lifters or near the bottoms thereof substantially as and for the purposes herein delineated and set forth.

Fourth, The weighted flexible pipes, f, applied to the lifters, and operating substantially as and for the purposes herein shown and described.

**1,393. (Div. A.)—Grain Drill.—Lewis Moore, Ypsilanti, Mich., formerly of Bart, Pa. Patented April 18, 1848, and extended :**

I claim, first, The box plate, F', employed to adjust a seeding cylinder or seeding cylinders in respect to the hopper bottom or other suitable part of the machine, to regulate the supply of grain substantially as set forth.

Second, The combination and arrangement of the levers, C, bars, C' P, and journals, p, with the hopper, B, frame, A, and supports, g, for moving the hopper and sowing cylinders in the arc of a circle substantially as and for the purpose set forth.

Third, The combination of the chains, O, with the tubes, L, and bar C, of the hopper-frame, by which the tubes are raised or lowered simultaneously with the turning of the hopper on its axis as described.

[This invention consists first in an improved mode of regulating the supply of seed in cylinder drills, and secondly in a peculiar device for throwing the seeding mechanism in and out of gear.]

**1,394. (Div. B.)—Grain Drill.—Lewis Moore, Ypsilanti, Mich., formerly of Bart, Pa. Patented April 18, 1848, and extended :**

I claim, first, A drill tooth provided with one or more flanges near its upper end by means of which it is both pivoted and braced to the drag bar in such a manner as to dispense with the use of a separate brace bar or its equivalent.

Second, Bracing a pivoted drill tooth to its drag bar by means of a wooden pin held within or against a flange or projection upon the tooth and adapted to break in the event of the said tooth striking an immovable obstacle.

Third, Attaching the curved plate or nosing, L, to the front of the drill tooth by means of a dovetail overlapping the top of the said nosing and a screw or rivet lower down.

[This invention consists in a new mode of attaching drill teeth or hoes to their drag bars, the advantages being that the teeth admit of ready adjustment in their angle or pitch, and in the event of striking an immovable obstacle will yield without danger of the breakage of any of the parts.]

**1,395. (Div. C.)—Grain Drill.—Lewis Moore, Ypsilanti, Mich., formerly of Bart, Pa. Patented April 18, 1848, and extended :**

I claim the combination of the adjustable perforated gauge plate, C, with two or more holes or series of holes of different capacity when the said gauge-plate is so arranged as to cut off the flow of seed from one capacity of opening and transfer it to another substantially as herein set forth.

[The object of this invention is to admit of readily adapting a machine to sow any kind or quantity of grain.]

**1,396.—Butt Hinge.—John F. Townsend, Westfield, N. Y., and P. P. Pratt, Buffalo, N. Y., assignees of said J. F. Townsend. Patented Nov. 4, 1862 :**

We claim the base, or sustaining portion, A, of the hinge consisting of the leaf, h, projecting radially or centrally from the knuckle, e, and pin, f, having a series of holes, i, in combination with each side thereof, the whole arranged and operating substantially as described, and for the purpose herein set forth.

In combination with the base piece, A, thus formed we also claim the movable piece, B, with its leaf projecting tangentially from the socket, in such a manner, that by inverting it, it is adapted to right and left use, as herein specified.

**1,397.—Stove.—John G. Treadwell & Wm. Hailes (assignor to Wm. Hailes & Ellen T. Treadwell), Albany, N. Y. Patented May 7, 1861 :**

We claim, first, A base-burning-coal-supply-reservoir stove, or furnace, so constructed that the products of combustion do not pass up around and above the supply reservoirs nor up through the grate, but down outside of the fire-pot, toward the base of the stove and out through a main draft flue which leads directly from a space or chamber about the lower part of the stove—all for the purpose set forth, and substantially as described.

Second, The contracting of the discharge end of the coal-supply reservoir, the expanding of the fire-pot and the extending of the flame passage downward—for united operation in a base-burning-coal-supply-reservoir stove or furnace, essentially as set forth.

Third, A fire-pot resting on a base, and imperforated on its inner or outer circumference, or from its inner to its outer circumference, and so constructed and applied with respect to a coal-supply reservoir, that an inclosed horizontal chamber for the free expansion and circulation of the flame and gases is formed all around and outside of the contracted discharge, and above the upper edge of the fire-pot substantially as and for the purpose set forth.

Fourth, The descending passage or passages in combination with the continuous flame expansion and circulation passage, and a main draft flue leading out of the base or lower part of the stove or furnace, substantially as set forth and for the purpose described.

Fifth, Constructing the fire-pot of a base burning coal-supply-reservoir stove or furnace, with an imperforated circumference and in form of a trumpet-mouth at its upper portion, in combination with descending flame passages, substantially as described, and for the purpose set forth.

Sixth, Constructing the metal of the fire-pot, with a gradually decreasing thickness from the center of its depth, both up and downward, substantially as described.

Seventh, A detachable ring in combination with a fixed ring flanch of a coal-supply reservoir, for the purpose of confining the fire brick or other fire-proof substance, on the lower part of the reservoir.

Eighth, The combination of a perforated jacket or casing, a coal-supply reservoir with a contracted discharge, a fire-pot with a flame expansion chamber around and above its upper edge, and a descending flue or flues and a main draft flue, substantially as and for the purpose described.

Ninth, The combination, in a base-burning-coal-supply-reservoir stove, of a descending flue or flues and a perforated casing, substantially as and for the purpose set forth.

Tenth, In a base-burning-coal-supply-reservoir stove or furnace, we claim a branch flue opened and closed by a damper above the base of the fire-pot, in combination with a descending passage or passages leading to the lower part of the stove, and with the main draft flue leading out of the lower part of the stove, substantially as and for the purposes set forth.

Eleventh, The weight constructed and applied in connection with the damper valve in the manner and for the purpose set forth.

Twelfth, The combination of the perforated jacket or case, the reservoir for coal, the fire-pot, the descending flue or flues, the hollow space about the base of the stove and the chimney flue, whereby the base of the stove is heated by direct heat of the flame or gases, and the upper part of the stove by radiated heat acting upon the circulating air, substantially as described.

EXTENSION.

**6,063.—Baking Apparatus.—John P. Hayes, Boston, Mass. Patented Jan. 30, 1849 :**

I claim a cooking or baking apparatus having several parallel baking chambers, with divided horizontal flue spaces between them communicating with vertical flue spaces on each side of them, substantially as herein above described and so as to make the smoke &c., pass around said chambers, as above set forth. I also claim connecting said chambers with each others by the combination of the turning registers, c' c' c', in their backs with the vertical hollow shaft, d' d', in the manner and for the purpose herein above set forth.

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