

RECENT AMERICAN INVENTIONS.

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

Uniform Scale.—The object of this invention is an improvement on that class of scales for which Letters Patent were granted to the same party on May 24, 1859, and the invention consists in the employment of bell-crank levers in combination with and connected to each other and to double knife-edged pendent levers and to a graduated scale beam, in such a manner that, by the action of said bell-crank levers the oscillating motion of the pendent levers is transmitted to the scale beam perfectly correct and by means which are cheap and easily put up, and which, when put up, are durable, not liable to get out of order and work with as little friction as possible either up or down, rendering these scales equally applicable for weighing railroad cars, &c., and also for weigh locks. Elnathan Sampson, of Waterford Junction, N. Y., is the inventor of this improvement, and he has assigned his full right to the Sampson & Tibbet Scale Company, 15 Dey street, New York city.

Projectile for Ordnance.—This invention relates to projectiles which are intended to be fired from a gun having a bore of larger diameter than their own, for the purpose of concentrating, within the smaller transverse sectional area of the projectile, all the force obtained by the pressure of the gases of the gunpowder on the larger transverse sectional area of the bore; and it consists in a jacket or case of a novel character applied to and combined with such a projectile in such a manner as to center it in the bore of the gun, to leave the gun with it, and to remain attached to it during its flight, and only to be detached by the act of the projectile striking and after having added its momentum to the impact of the projectile. The inventor of this projectile is W. H. Smith, of Birmingham, Conn.

Combination of Melodeon and Pianoforte.—The object of this invention is to combine a reed musical instrument, such as is known as a melodeon or harmonium, with a pianoforte, in the same case, with a separate and distinct set of keys for each, so that each can be played separately or the one as an accompaniment to the other by a different player, without making the said case much larger or very perceptibly altering its appearance in any way; to this end it consists in the arrangement of the reed-board within one end of the case in an upright position, and the arrangement of the key-board to swing back into the case with the keys nearly close to the reed-board when it is not desired to play upon the reeds; also in a novel arrangement of the action in combination with such arrangement of the reeds and the key-board. R. W. Carpenter, of Brooklyn, N. Y., is the inventor of this device.

Rules to be Observed while Skating.

The following excellent advice, taken from *Hall's Journal of Health*, will doubtless be appreciated, if not followed, by many of our readers at this season:—

Skating is one of the most exhilarating of all pastimes, whether on the ice, or over our parlors or hall floors, with roller skates. In the days of "Queen Bess," some three hundred years ago, it was a favorite amusement with the Londoners, whose facilities for the same were limited to pieces of bone attached to the shoes. As lives have been lost in connection with skating, the following suggestions are made:—

1. Avoid skates which are strapped on the feet, as they prevent the circulation, and the foot becomes frozen before the skater is aware of it, because the tight strapping benumbs the foot and deprives it of feeling. A young lady at Boston lost a foot in this way; another in New York her life, by endeavoring to thaw her feet in warm water, after taking off her skates. The safest kind are those which receive the fore part of the foot in a kind of toe, and stout leather around the heel, buckling in front of the ankle only, thus keeping the heel in place without spikes or screws, and aiding greatly in supporting the ankle.

2. It is not the object so much to skate fast as to skate gracefully; and this is sooner and more easily

learned by skating with deliberation; while it prevents overheating, and diminishes the chances of taking cold by cooling off too soon afterward.

3. If the wind is blowing, a veil should be worn over the face, at least of ladies and children; otherwise, fatal inflammation of the lungs, "pneumonia," may take place.

4. Do not sit down to rest a single half minute; nor stand still, if there is any wind; nor stop a moment after the skates are taken off; but walk about, so as to restore the circulation about the feet and toes, and to prevent being chilled.

5. It is safer to walk home than to ride; the latter is almost certain to give a cold.

7. Never carry anything in the mouth while skating, nor any hard substance in the hand; nor throw anything on the ice; none but a careless, reckless ignoramus, would thus endanger a fellow-skater a fall.

7. If the thermometer is below thirty, and the wind is blowing, no lady or child should be skating.

8. Always keep your eyes about you, looking ahead and upward, not on the ice, that you may not run against some lady, child, or learner.

9. Arrange to have an extra garment, thick and heavy, to throw over your shoulders, the moment you cease skating, and then walk home, or at least half a mile, with your mouth closed, so that the lungs may not be quickly chilled, by the cold air dashing upon them, through the open mouth; if it passes through the nose and head, it is warmed before it gets to the lungs.

10. It would be a safe rule for no lady or child to be on skates more than an hour at a time.

11. The grace, exercise, and healthfulness of skating on the ice can be had, without any of its dangers, by the use of skates with rollers attached, on common floors; better, however, if the latter are covered with oil-cloth.



ISSUED FROM THE UNITED STATES PATENT OFFICE
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* * 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.

37,209.—Lock.—John Adt, Waterbury, Conn.:

I claim the catch, C, when used in combination with the bolt, B, and the double-pronged bit, q, all arranged as herein set forth.

[This invention relates to an improvement in that class of locks which are constructed and arranged in such a manner as to admit of being readily inserted in an auger-hole made in a door, without the trouble of mortising. The object of this invention is to render the class of locks more compact and simple than any hitherto devised.]

37,210.—Bed Bottom.—Hiram Barber, Juneau, Wis.:

I claim the combination and arrangement of the springs, A, cross-bars, O, slats, G and F, and sheath, E, with or without the devices for raising and lowering the slats, F, substantially as and for the purpose specified.

37,211.—Metallic and Wooden Roof.—E. U. Benedict, Chicago, Ill.:

I claim the combination of gutters made of metal and substantially as described, with the joints and enlarged grooves of the board roof, the gutters being capable of being withdrawn, and the boards capable of shrinking or swelling independent of the gutters, all substantially as and for the purposes set forth.

37,212.—Lamp Insulator.—Alfred Bliss, New Rochelle, N. Y.:

I claim an insulating collar of gutta-percha or india-rubber, constructed with an internal thread, b, to receive the burner, A, and an external thread, a', to screw into the socket, B, substantially as herein shown and described, and adapted to entirely prevent contact between the metallic surfaces of the lamp top and socket, as explained.

[This improved form of insulator is adapted to entirely prevent contact between the burner and the reservoir, and may be applied by any one to lamps in common use.]

37,213.—Valve for Water Closets.—J. E. Boyle, Brooklyn, N. Y., assignor to James Stevenson, New York City:

I claim the hollow valve stem with its lateral induction and education water-ways, substantially as described, in combination with the induction valve, sliding piston and cylinder, provided with a small aperture or leak, to control the closing of the valve, and the diaphragm or the equivalent thereof, for closing the valve by the pressure of the water alone, substantially as and for the purpose specified.

37,214.—Churn.—Jacob Brinkerhoff, Auburn, N. Y.:

I claim, first, The hollow stud shaft, c', short metal shaft, b', key, d', and fly or balance wheel, D, when combined and arranged to operate in the manner and for the purpose specified.

Second, The series of longitudinally-grooved blades, H, in combination with the horizontal shaft, C, on which they are arranged in spiral lines, to operate in the manner and for the purpose set forth.

[The nature of this invention consists in a peculiar manner of hanging a balance wheel, whereby its entire weight is supported indepen-

dently of the driving shaft on which it acts, relieving the latter of all strain except what is required to rotate the wheel, thereby lessening the tendency of the churn to leak by the bearing nearest the wheel wearing away more than the other. It also consists in a peculiar construction of the dasher, whereby it is made more effective in its operation both in the formation and gathering of the butter.]

37,215.—Elevator Bucket.—J. E. Brooks, Rochester, N. Y.:

I claim the employment of a shield or facing of steel, or its equivalent, in any hardened metal, to elevate buckets, as and for the purposes described.

I also claim, in combination with the above, the mode of putting the iron band around the back and ends while they are flat, and fastening it to the steel facing, as and for the purposes shown and described.

37,216.—Cartridge Box.—Francis Bush, Boston, Mass.:

I claim, first, The adjustable inner box or boxes, B, in combination with the box or case, A, in the manner and for the purpose specified. Second, In combination with the boxes, A and B, the employment of a stop, substantially as and for the purpose described.

37,217.—Combination of Reed Instruments with the Pianoforte.—R. W. Carpenter, Brooklyn, N. Y.:

I claim, first, The arrangement of the reed-board, C, and the key-board, D, in combination with each other and with the extended portion, B, of the case, A, B, substantially as and for the purposes herein described.

Second, In combination with such arrangement of the reed-board and key-board within the case, I claim the combination of the reeds and keys by means of jacks, G, G', applied substantially as herein specified, to permit the closing-up of the key-board.

37,218.—Bucket for Chain Pumps.—J. D. Clark, Leicester, Mass.:

I claim a grooved bucket in combination with an elastic packing ring, as herein described, and for the purpose set forth.

37,219.—Cultivator.—Josephus Danner, of Milton, Ill.:

I claim the combination and arrangement of the draught pole, A, the adjustable beams, B, the standards, C, and shares, c, the supports, D, and the bar, E, and the strap, F, or its equivalent, all arranged and constructed substantially as and for the purposes delineated and set forth.

37,220.—Coal-oil Burner for Lamps.—Joseph Dodin, Brooklyn, N. Y.:

I claim, first, The particular shape of the plate, Fig. 4, with its slots, a, a', substantially as described. Second, The circular plate, Fig. 5, with its slot, M, in combination with the moveable tube, Fig. 3.

37,221.—Can or Bottle Stopper.—Jacob Dunton, Philadelphia, Pa.:

I claim a bottle or can stopper consisting of the socket, A, formed with a screw thread, a, and internal screw thread, a', and internal shoulder, a'', the neck, D, formed with an external lip, G, internal screw thread, d, and annular flange, E, and the imperforate cylindrical cock or plug, C, all constructed, combined and arranged in the manner and for the purposes shown and described.

[This improved stopper has been extensively introduced in the army and is found well adapted for medical and other uses.]

37,222.—Bayonet Scabbard and Guard.—John G. Ernst, York, Pa.:

I claim, first, The ring, D, adapted and employed to operate in combination with the scabbard, C, and guard or scabbard, A, in the manner and for the purposes specified.

Second, The combination of the guard ball, E, with scabbard, A, to constitute a combined scabbard and guard, as explained.

[A description of this invention will be found on page 200, Vol. VII (new series) of the SCIENTIFIC AMERICAN.]

37,223.—Loom.—John F. Fosdick, Lowell, Mass.:

I claim my improved application and arrangement, as described, of the guides, a, the take-up roller, b, the beam or roller, c, and its guides, d, with respect to the lay and the breast beam of the loom.

37,224.—Churn.—Herman Gardner, New York City:

I claim, first, The secondary chamber, C, at the bottom of the churn, closed as described, having the apertures for the ingress and egress of the milk, E, for regulating the agitation and permeating process is produced, separate from the milk in the body of the churn. Second, The combination and arrangement of the chamber, C, the cylinders or tubes, D E E', around the dasher, operating so as to maintain, when the dasher is in motion, a circulation and agitation of the milk and air, as described.

Third, The use and application of the combined gauze cylinder, E, and sliding cylinder, E', for regulating the circulation of the milk while the process of churning is going on.

Fourth, The combination and arrangement of the inner tube, D, and outer tubes, E E', so as to form the hollow space or chamber through which space the milk is drawn downward to the bottom of the churn into the chamber, C.

37,225.—Attaching Handles to Cutlery.—J. W. Gardner, Shelburne Falls, Mass.:

I claim forming handles for cutlery and implements pertaining or analogous thereto, by means of the parts, C C, secured to a flat tang, B, by means of ferrules, D D, fitted and compressed in recesses, a b, made respectively in said parts and the tang, substantially as herein set forth.

[This invention consists in having the implement provided with a flat tang, and the handle formed of two parts placed one at each side of the tang and secured thereto by means of ferrules.]

37,226.—Washing Machine.—M. L. Grover, Duplainville, Wis.:

I claim the combination of the clothes receptacle, B, and rubber, E, constructed and arranged as shown, and used in connection with the suds-box, A, for the purpose specified.

[This invention relates to an improvement in that class of clothes-machines in which a rotary or a reciprocating partially-rotating clothes-cylinder is employed and fitted within a suitable suds-box.

The invention consists in the employment or use of a cylindrical clothes receptacle formed of staves or slats with open spaces between them to admit the suds, said staves or slats being grooved or fluted at their inner surfaces, and the clothes-receptacle having a rubber suspended within it, constructed and arranged in a novel way.]

37,227.—Hold-back for Carriages.—H. A. Harris, Battle Creek, Mich.:

I claim the use of a graduated bar in combination with a moveable stirrup or ring and a spring, for the purpose and substantially as set forth.

37,228.—Heater.—J. C. Henderson, Albany, N. Y.:

I claim, first, The range of vertical hot-air pipes, h, h, within the cylinder, d, in combination with the cone, k, that deflects the products of combustion against the base of said pipes and cylinder for the purposes and as specified.

Second, I claim the conical chamber, k, in combination with the cylinder, d, and air pipes, m, m, as and for the purposes specified.

37,229.—Adjustable Link.—Jonas Hinkley, Norwalk, Ohio:

I claim having the sides of the two links pivoted together as shown, with an opening in each link just in front of the pivot, all as herein set forth.

[The object of this invention is to obtain a link of simple construction which may, in the case of the breaking or parting of a chain serve as a means to cement the same and be capable of being very readily adjusted in proper position, and also capable of being detached with facility, and, at the same time, not be liable to become casually detached. The invention is more especially designed for a temporary fastening to be carried by teamsters and others, for the purpose of connecting a broken chain until it can be properly repaired by a smith.]

37,230.—Governor.—J. S. Howell, Portsmouth, N. H.:

I claim the friction strap or box, k, on the nut, f, in combination

with the stop, h h, on the screw, substantially as described for the purposes set forth.

37,231.—Treating Caoutchouc.—Liverus Hull, Charlestown, Mass. :
I claim the application of carbon spirits, as described, and chloride of sulphur, to ground caoutchouc, substantially as and for the improvement of it, as specified.

37,232.—Floating Battery for Ships and other Navigable Vessels.—James Hyde (assignor to Thomas Keech), New York City :
I claim, first, The employment of a floating turret in combination with a floating tank or ship's hull, substantially in the manner and for the purposes hereinbefore described.
Second, I also claim forming a communication between the interior of the ship, A, and inside of the floating turret, D, through the frame, B, and hollow shaft, F, substantially as and for the purpose set forth.

37,233.—Boot and Shoe.—Oliver Lafreniere, New York City :
I claim a boot or shoe provided with a dovetailed plate, D, grooved heel frame, E, and sole frame, A, all made and united in the manner herein shown and described.

[The object of this invention is to produce cheap, durable and easy boots or shoes, and the invention consists in the employment, for the purpose of soles of boots and shoes, of a metallic frame filled with hard wood or some other suitable material, and secured to the inner side of the boot or shoe by means of screws or rivets, or by any other suitable means, in such a manner that the sole can be made cheap and attached in a short time with little trouble, and that it will wear much longer than soles of the ordinary make.]

37,234.—Harrow.—John Kelsey, of Yardleyville, Pa. :
I claim the construction of the oblique extended point, B, with its front tooth, C, and the scraper, M, when arranged and combined with the harrow, as herein described and for the purposes herein set forth.

37,235.—Engraving Machine.—J. S. Ives, of Morrisania, N. Y. :
I claim the employment of a shaft or rod, K, hung by a universal joint in an adjustable stand, F, in combination with a table, D, or its equivalent, connected by a universal joint to one end of rod, K, and a tracer or engraving tool, e, the whole operating substantially as set forth, to produce on a surface placed on table, D, various designs from patterns which guide the lower end of rod, K, in the manner hereinbefore described.

I also claim making the pivots, or their equivalents, of the universal joint in stand, F, adjustable or variable, substantially as described, for the purpose of changing the proportions of the designs cut from the same pattern.
I also claim the construction of the machine substantially as described, so as to admit of changing the angles of the axes of the universal joint, as set forth, for the purpose of inclining the design in either direction to its base, while the pattern has no inclination, as hereinbefore described.
I also claim the sliding rod, k, in combination with the rod, K, and a suitable handle, i, substantially as and for the purposes described.

37,236.—Metallic Framing for Ships and other Navigable Vessels.—B. J. La Mothe, of New York City :
I claim a series of metal tubes forming the ribs of ships and other vessels, passing between the longitudinal tubes forming the keel and keelson, substantially as specified.
I also claim forming the knees uniting the decks to the sides of the vessel, by bending the tubes forming or extending from the deck or rib tubes, as set forth.
I also claim the combination of ribs formed of pipes, with longitudinal pipes passing between each other and clamped together, substantially as set forth.

37,237.—Lamp Wick.—Frederick McKee, Pittsburgh, Pa. :
I claim as a new article of manufacture a lamp wick made out of pulp, and felted or hardened together, instead of being woven, plaited or twisted, as herein set forth, and this I claim whether the pulp be incased in an outer protection or not, as described.

37,238.—Railroad Car Brake.—D. Myers, South Bend, Ind. :
I claim, first, Applying the rubbers to the wheels of a train of cars by means of suitable ends of chains and levers, and a screw surrounding one of the axes of the center springs of the axes of the car, and which, when a pull is applied to the chain, each edge having a spiral groove, is drawn on the said screw as set forth, for the purpose specified.
Second, I claim the levers, R and W, their pulleys, s, s, and chains, t, and the whole being arranged and operating in conjunction with the brake levers, I and J, substantially as and for the purpose herein set forth.

37,239.—Railway Lamp.—T. J. Newland, Utica, N. Y. :
I claim the tubes, B B', or their equivalents, constructed and operating substantially as described.

37,240.—Lock.—J. M. Perkins, Cleveland, Ohio :
I claim, first, The guard plates, D D', and stops, F I, constructed, arranged and operating as and for the purpose described.
Second, I claim the guard, K, the stop, K', and the wards, a, arranged and operated as and for the purpose specified.

37,241.—Combination Lock.—G. M. Phelps, Williamsburgh, N. Y. :
I claim, first, The key spindle, B, having both a rotary and a longitudinal movement, and provided with a feather, f, in combination with the series of disk tumblers, A A', A2, loosely mounted on the said key spindle, and each having an internal slot, g, and a yielding holder, e, substantially as and for the purpose herein described.
Second, In combination with the series of independent disk tumblers, A A' A2, each having an internal notch or slot, g, and a series of notches, k, around its periphery, with a click, e, applied thereto, and all mounted on a sliding and turning spindle, B, provided with a feather, f, substantially as herein described, the notch or groove, j, in the said spindle and pawl or stop, K, applied thereto, substantially as and for the purpose herein set forth.
Third, In combination with the bolt, C, bolt tumbler, D, and series of disk tumblers, A A' A2, mounted upon, and formed so as to be turned and adjusted by the sliding and turning key spindle, B, substantially as herein described, the bolt, L, or its equivalent, whereby the said key spindle, when disengaged from the said disk tumblers, can be engaged with and disengaged from the said bolt tumbler and bolt, substantially as and for the purpose herein set forth.
Fourth, The arrangement of the pawl, P, by which the toothed hubs, q, are secured to the rims, r, of the disk tumblers, with the perforation, Q, and slot, a, in each of the said rims, the hole, R, in the lock case, and the tongue, e, of the bolt tumbler, substantially as and for the purpose herein described.

37,242.—Boot-crimping Machine.—Corydon Pratt, Pratt's Hollow, N. Y. :
I claim, first, The combination and arrangement of mechanism, substantially as described, whereby the jaws, when moved downward or in the opposite direction from which the leather is forced on to the former, are released from pressure on the leather, substantially as represented and described.
Second, The U-shaped expander, provided with double-inclined plains, and acting upon the springs, G G, in the manner substantially as set forth.

37,243.—Umbrella.—T. H. Ray, North Adams, Mass. :
I claim the combination of the closing rod, b, with the spring catch, A, when they are constructed, arranged and fitted to produce the result, substantially as herein described.

37,244.—Churn.—William Robinson, Bellefontaine, Ohio :
I claim, first, Suspending the body, A, of a churn upon a central spindle, c', in the manner and for the purpose substantially as set forth.
Second, In combination with the cylinder, A, and spindle, c', I claim the stationary dasher, E, constructed substantially as and for the purpose set forth.
Third, I claim the cap, e, in combination with the spindle, c', and opening, i, substantially as and for the purpose set forth.

37,245.—Lubricator for Steam Engines.—James Roscoe, Leicester, England :
I claim constructing a lubricator with an air pipe, f, in combination with the other parts, substantially as described and represented.

37,246.—Mode of operating Brakes of Railroad Cars.—A. G. Safford, Boston, Mass. :
I claim the combination of the "equalizer," P, with the pulley, N, and the chain of the windlasses, K R, and the system of brake levers.
Also, the arrangement of the spring drum, S, and its coupling and winding mechanisms (viz.: the teeth, h i, and the system of one or more springs, k k), with the pulley, N, arranged between the two trucks, and so as to operate substantially in manner as specified.
Also, The combination and arrangement of two or more separate springs, k k, with the spring drum, S, and its rotary head or ratchet, T.
Also, The arrangement and combination of a relieving mechanism (viz.: the windlass, o, with its ratchets, p q, and retaining and impelling pawls, r U, and connections, l m n), with the rotary spring drum, S, and the chain pulley, N, arranged substantially as hereinbefore specified.
Also, The arrangement of the tripping lever, V, with the car body and the relieving mechanism, substantially as specified.
Also, The combination and arrangement of the auxiliary brake levers, K K, with the pulley, N, and the system of levers and rods connecting the brakes of trucks, as described.

37,247.—Reversible Neck Scarf.—A. S. Saroni, New York City :
I claim a reversible scarf, provided with a neck piece made of card board, B, or any other suitable material, coated with hatter's sizing, and provided with an elastic loop or loops, so that the scarf, A, is properly attached to the collar either side out, at the same time presenting the appearance of a carefully adjusted cravat neck-tie.

37,248.—Metallic House.—S. J. Seely, Brooklyn, N. Y. :
I claim, first, The foundation sill, a a', constructed in the manner and for the purpose substantially as described.
Second, I claim constructing the sheet-metal walls, D D', with ribs, e, and plane-faced surfaces, e', substantially as and for the purpose set forth.
Third, I claim the connecting sill, M, constructed in the manner and for the purpose substantially as described.
Fourth, I claim the siders, G, in combination with the walls, D D', substantially as described.

37,249.—Cork.—W. H. Towers, New York City :
I claim the cork with the wire extending through it from top to bottom, the whole constructed and arranged substantially as set forth and for the purpose specified.

37,250.—Operating Ordnance.—Otis Tufts, Boston, Mass. :
I claim the gun carriage with its attached turn-table, in combination with the sliding or recoil carriage on which the table turns, and the training carriage or slide that supports them, substantially as described.
I claim operating a pivot-gun carriage and the gun thereon, substantially in the manner set forth, viz.: by locating the shaft through which the power is transmitted, so that it will be concentric with the train-pivot or axis.
I claim the training pin or pivot, y', when formed to admit the passage of a shaft concentrically through it, and combined with the training carriage of the gun.
I claim so arranging and combining a friction-producing clamp with the slide and ways of a gun carriage that it may be operated at one central point, substantially in the manner described, in the place of two separate clamps each requiring its own adjustment, as heretofore employed.
I claim so combining the clamp, s', and the clamp, v, that they are operated by one device in common, substantially in the manner set forth.

37,251.—Cultivator.—W. S. Weir, Jr., Monmouth, Ill. :
I claim, first, The combination and arrangement of the frame, B tongue, A, and wheels, C, C, substantially as set forth.
Second, The combination with the posts, B' B', and plow beams, of the loops, a, and draft-adjusting devices, b, b, substantially as set forth.

37,252.—Photographic Plate-holder.—A. B. Wilson, Waterbury, Conn. :
I claim, first, The double funnel and stem, with separate channels, constructed and operating substantially as and for the purpose described.
Second, Securing the negative glass in position in the manner and by the means of a plate-holder, constructed and operating substantially as described.

37,253.—Harvester.—A. L. Darby, of White Creek, N. Y., assignor to himself and J. H. Balch, of Cambridge, N. Y. :
I claim, first, The apparatus for lifting and turning over the finger bar, to wit: the lever, L, and chain, with shafts, S and G, coupled by an universal joint, and operated by bevel wheel gear K and R, with shaft and winch, when used in combination with the vibrating frame, B, for the purposes set forth in the within specification.
Second, The construction of the cutter guard or finger as described, with the cylindrical opening back of the points of the cutters and forward of the cutter bar, and providing the front part of the guard with cutting edges on the upper ridge and flank edges and lower ridge, or on the upper ridge and flank edges alone, for the purpose specified.

37,254.—Churn.—Thomas T. Ffirth, Camden, N. J., assignor to himself and G. W. Adler :
I claim any suitable number of fluted wheels, E and F, when arranged to revolve in the direction shown, in combination with any convenient number of ribs, H, H', &c., and their concave recesses, the whole being arranged and operating as and for the purpose set forth.

37,255.—Apparatus for Pressing Hats.—J. S. Giles and William Halladay, New York City, and J. A. Rue, Brooklyn, N. Y., assignors to J. S. Giles and William Halladay aforesaid :
I claim the block, d, fitted to slide vertically in combination with the hinged blocks, e c and b, any forming the crown die for pressing hat-rim or bell-crowned hats or bloomers substantially as specified.

37,256.—Skeleton Skirt.—J. M. Kinney, Columbus, Ohio, assignor to himself and D. D. Winant, Brooklyn, N. Y. :
I claim a skeleton skirt formed of springs radiating from a suitable waist-belt and connected to each other to retain them in a skirt form by elastic or non-elastic cords, tapes or their equivalents, substantially as specified.

37,257.—Divided Vent-bushing for Ordnance to facilitate Unspiking.—B. G. Martin (assignor to Jerome Buck), New York City :
I claim the divided and doweled cylinder, the combination of the said bisected and perforated cylinder and vent-hole detachable from the cylinder of the gun barrel and from each other for the purpose of sucking any vent-hole whenever needed, and the combination of the bisected and perforated cylinder and wrench detachable from each other as well as from the vent-hole for the purpose of unspiking cannon or other fire-arm and showing the vent-hole all operating as above described.

37,258.—Apparatus for Condensing and Evaporating.—J. J. Miller, (assignor to himself and Ernst Prussing), Chicago, Ill. :
I claim, first, The combination of the closed vessel, A, and alternately concave and convex rotating pans, D and E, with suitable induction and ejection ports, the whole being arranged to operate substantially as and for the purposes set forth.
Second, The combination of the surrounding jacket or coil, J, with the said closed vessel and pans substantially as and for the objects specified.
Third, Securing the pans, D and E, upon the shafts, B, by means of the collar, M, tubes, d, and clamping nut, N, substantially as and for the purposes described.

37,259.—Platform Scale.—Elnathan Sampson, Waterford, N. Y., assignor to the Sampson and Tibbitt's Scale Company, Green Island, N. Y. :
I claim the employment or use of bell-crank levers, k l k l l p q, connected by rods or their equivalents in combination with the oscillating vertical or pendent levers, C C', from which the platform, A, is suspended, all constructed, arranged and operating substantially in the manner and for the purpose herein shown and described.

37,260.—Projectile for Rifled Ordnance.—W. H. Smith, (assignor to himself and R. M. Bassett), Birmingham, Conn. :
I claim the jacket or case, B, constructed and combined with the body, A, or projectile proper by means of resin or other suitable cement in its annular cavity, d, substantially as and for the purpose herein specified.

37,261.—Vest.—David Vogl, London, England, assignor to Simon Guterman, New York City. Patented in England, Dec. 10, 1861 :
I claim the construction of a vest closed in front, without arm-holes and held in position around the person by adjustable bands substantially as described.

37,262.—Feed-bag for Horses or other Animals.—W. B. Wait, Greenwood, Mass., assignor to himself and J. A. Fairbanks, Melrose, Mass. :
I claim the nose-bag as made either with the head cap provided with air inlets, b b b, or with the same and an elastic mouth arranged substantially as specified.
I also claim the nose-bag as made with an elastic hanger or its equivalent, and in other respects in manner and so as to operate substantially as hereinbefore specified.

37,263.—Oil Still.—W. G. Warden and Thomas K. Petty, Pittsburgh, Pa. :
We claim the use in stills, for distilling hydro-carbon oils, of a double trap constructed substantially as herein before described, so connected with the still, z, its worm-pipe or goose-neck, as not to return to the still the heavier vapors or any condensed products of distillation, but so that any unvaporized liquid or solid substance, carried over with the vapor or boiling over from the still through the still-head or goose-neck, shall be arrested before reaching the worm or condenser, and returned to the still or collected in a separate receptacle.
Also, Drawing off the unvaporized matter which is carried over from the still in the process of distillation and thereby preventing it passing into the condenser or receptacle for distilled oil by means of the apparatus, substantially as herein before described.

37,264.—Passenger Ticket.—N. D. Morgan, Mount Pleasant, N. Y. :
I claim the combination of a new and improved form of passenger ticket to be used on railroad cars, steamboats and all other public conveyances with a card or slip of paper printed or illustrated or both so that the former shall inclose the latter as with an envelope or wrapper; with an aperture in the side of the ticket through which the inclosed card or slip of paper shall exhibit some conspicuous word or illustration to attract the attention of the passenger holding the same, and also open at the ends so that the inclosed card or slip of paper may be easily removed therefrom and retained by the passengers substantially as herein before set forth.

37,265.—Canal Lock.—S. J. Seely, Brooklyn, N. Y. :
I claim, first, The method, substantially as herein described, of constructing canal locks, whereby metal instead of masonry is used to give the requisite strength to the whole structure.
Second, Sustaining the side walls and bottom or flooring of canal locks by means of corrugated metal or its equivalent substantially as described.
Third, The sustaining the walls of the gate channels by means of corrugated metal or its equivalent substantially as described.

RE-ISSUES.

1,367.—Artificial Leg.—Douglas Bly, Rochester, N. Y. Patented May 17, 1859. Re-issued July 3, 1860 :
I claim, first, Curving or deflecting the jointed extremities of the base, J, so as to bring their axes of motion back of their line of direction, substantially as and for the purposes set forth.
Second, I claim the cord, T, and spring, X, acting upon the parts, D and L, substantially in the manner and for the purpose herein set forth.
Third, I claim the combination of the india-rubber spring, E, with a tendon or cord in such a manner that the required effect is derived from the compression and expansion of the material, and not from its elongations and contractions, substantially as set forth.
Fourth, I claim the axial bolts or transverse axes, B C, as and for the purpose herein set forth.
Fifth, I claim providing the ends of the cords, F, with the enlargements and with the conical socket fastenings, G, to receive the same, substantially as described, in order to apply adjusting screws for the purposes herein specified.
Sixth, I claim the manner of constructing the bearing portions of the knee-joint consisting of the upper and lower bearing blocks, N N, each of which forms a segment of a circle more or less corresponding with the axial bolt, the one being fixed in position and the other adjustable by means of the screws, S S, to admit of adjusting the parts together to prevent looseness and noise, and to reduce and regulate the friction, substantially as and for the purpose herein set forth.

1,368.—Lamp Chimney.—W. L. Fish, Newark, N. J. :
I claim the use in connection with oil lamps of ordinary construction and operation, of heating vessels containing a central tube so shaped as to form the chimney of said lamp substantially as herein shown and described, whereby the same lamp may be used for both illuminating and heating purposes or for either.
Second, In oil lamps of ordinary construction and in connection with the heating vessel before referred to, I claim the use of a bulb or its equivalent device for the intermediate support of said vessel by the lamp substantially as herein shown and described.
Third, In combination with the said heating vessel and bulb, when the latter is made of an opaque material, I claim the use of a window or windows made of a transparent material for the transmission of light through it substantially as and for the purposes set forth.

DESIGN.

1,702.—Design for a Cane-head, Umbrella-handle or Sword-hilt.—J. C. Nobles, Rushford, N. Y.

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