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 :—

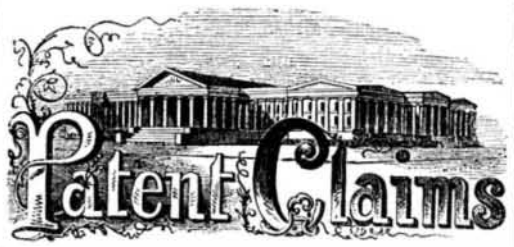
Salt Apparatus.—This invention consists in the arrangement of false metal bottoms resting on ribs projecting from the regular bottoms of the pans of a salt block, in such a manner that a space is formed which can be filled with steam or hot air, and that the salt brine passing through said pans is evaporated entirely by the action of the hot air or steam. It consists further in the arrangement of a graduation and purifying range, consisting of a long flat trough, with longitudinal partitions, forming a zig-zag channel in combination with the preliminary heating pan above, and a series of finishing pans below, in such a manner that the brine, after being heated in the preliminary pan is passed through the purifying range, where the same presents a large evaporating surface and consequently readily deposits its impurities before it passes to the finishing pans ; it consists, finally, in giving to the finishing pan a laterally-inclined position, so that the bitterns can easily be drawn off when it is desired to dry the salt on the pans. C. O. Garrison, of East Saginaw, Mich., is the inventor.

Pile for Rolling Rail.—This invention consists in forming the pile of several flat bars of iron, two of which are about of equal width, and placed in such a relative position to each other that they form an inverted T, the stem or vertical part of which is kept in position by two or more flat bars, that are placed on the sides of said vertical part, and on the top of the base, and the width of which is equal to one half the width of the base less one half the thickness of the vertical bar, the whole being arranged and combined in such a manner that ordinary bars of iron, such as are usually made and sold on the market can be used for forming the pile without subjecting them to the preliminary rolling or other operation, and that by passing the pile once through suitable rollers, finished shoe rails are produced. The patentee of this invention is John L. Lewis, of Pittsburgh, Pa.

Hooks and Terrets for Harness Saddles.—This invention relates to an improvement in the construction of that kind of saddle hooks and terrets which are covered with leather and provided with a metal lining to prevent the wearing of the leather under the friction of the reins and strap. Its object is to obtain a neater and more durable hook and terret than those constructed in the ordinary way, and also a more economical mode of manufacture, which will not only admit of the hooks and terrets being repaired with facility when worn or soiled by use, but which will also admit, when desired, of genuine silver plate being used as a lining—the old mode of construction being confined to German-silver lining for the best class of work. The inventor of this device is Samuel E. Tompkins, of Newark, N. J.

Dust Room of Cotton Pickers.—All cotton openers and pickers, and machines for picking and burring wool, of modern construction, have their own suction fans independent of each other, and it is customary to connect with several of these fans dust pipes, which all terminate and discharge into a dust room ; but there is one difficulty connected with this arrangement, namely, whenever it is necessary to stop one of the machines, the pressure of the air in the dust room, produced by the fans of the machines which continue in operation, being greater than the pressure of the atmosphere in the picker room, forces the air and dust back through the dust pipe of the machine that is stopped, into the picker room. The object of this invention is to obviate this difficulty, and to this end it consists in fitting the dust pipes of the pickers, at their connection with the dust room, with valves which close automatically when their respective machines are stopped. The inventor is Richard Kitson, of Lowell, Mass.

Bayonet Scabbard.—The leather scabbard which has hitherto been exclusively used for the common angular bayonet is well known to be the most perishable article in a soldier's accouterments. The present invention consists in forming an angular bayonet scabbard of steel. The new scabbard affords a better protection, is more convenient to use, more sightly, lighter, much less costly and incomparably more durable than the old, while in no single respect is it inferior. It is the invention of James E. Emerson, of the firm of Emerson & Silver, of Trenton, N. J.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING AUGUST 19, 1862.

Reported Officially for the Scientific American.

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

36,201.—N. Aubin, of Canada, for Improvement in Water Meters :

I claim the combination of a diaphragm with a reversing apparatus and a short slide valve, connected each with the other without the use of stuffing boxes, and the whole inclosed within a proper receptacle containing a valve seat, and constituting a fluid meter, substantially such as is described and acting substantially as specified.

I also claim a receptacle constructed in two pieces, one half of which contains part of the side pipe, and the other half the other part thereof, when the joint between the two is made by a diaphragm, and the latter acts on a reversing apparatus contained in one half of the said receptacle; the construction being substantially such as described. And

Lastly, I claim in combination with a diaphragm of a water meter, a short slide valve of less length than the distance from the outside of one port, to the inside of the other port, the combination being substantially such as described.

36,202.—C. J. Austin, of Nantucket, Mass., for Improvement in Coal Sifters :

I claim the arrangement of the flap, D, hinged to the cover, B, as described, in combination with the reciprocating sieve, A, and hopper, E, all constructed and operating substantially as specified.

[An engraving and description of this invention will shortly be published in the SCIENTIFIC AMERICAN.]

36,203.—J. F. Black and Ambrose Buracker, of Lancaster, Ill., for Improvement in Cattle Pumps :

We claim the platform, C, with the weight, G, attached, in combination with the tubular piston rod, I, of the pump and the trough, O, attached to the platform, arranged substantially as and for the purpose herein specified.

We further claim the railing, M, and cover, N, when combined and arranged relatively with the platform, C, for the purpose herein set forth.

[This invention consists in attaching a tubular piston rod of a pump to a platform, which works on a joint at one end, and is provided with a water trough, and placed within a guard or railing at its free disengaged end, and covered at its opposite end, all being arranged in such a manner that a very simple and efficient pump is obtained for the desired purpose.]

36,204.—M. C. Burr, of Owatanna, Minn., for Improved Clothes Dryer :

I claim the straight bars, A E, in connection with the semi-circular, B, brace, D, and the arms, F F′ F″ F‴, connected by cords or ropes, j G, combined and arranged to operate as and for the purpose set forth.

[The object of this invention is to obtain a simple device which may be readily applied to the windows of dwellings, and admit of the clothes being placed on it and removed therefrom with the greatest facility, and when not in use, be capable of being compactly folded so that it may be stowed away in a small space.]

36,205.—W. H. Crawford, of New York City, for Improvement in Reflectors :

I claim a reflector, A, formed of two curved or bent surfaces, B C, with one high central ridge, D, as and for the purpose shown and described.

[This invention consists in a reflector having a high central ridge opposite the flame, and formed by placing two curved or bent surfaces together, in such a manner that said central ridge is produced, and that the rays of the light from the flame are spread by the action of the reflector over a large area.

36,206.—G. Y. Custer, of Norristown, Pa., for Improvement in Coal Oil Lamps :

I claim the reservoir, B, containing a supply of water, and arranged immediately below the perforated air chamber, G, of a coal oil lamp in respect to the wick tube, as and for the purpose herein set forth.

36,207.—Jonathan Dearborn, of Seabrook, N. H., for Improvement in Door Latches :

I claim my improved door fastener as made with its bolt case, A, its bolt, B, its knob shaft, h, constructed and arranged with respect to each other, and so as to operate substantially in manner as set forth.

36,208.—J. S. DeHaven, of Akron, Ohio, for Improvement in Machines for Loading and Pitching Hay :

I claim, first, The combination of the fork handle with the guides, H H′, substantially as set forth.

Second, The combination with shaft, e′, and lever, *, of the screw, m, sliding shifting piece, m′, and cam, m″, for the purposes set forth.

Third, The combination with shaft, e, of clutch, i, pulley, J″, and shipper, K, substantially as and for the purposes set forth.

Fourth, The combination and arrangement of mechanism, substantially as set forth for automatically gathering and loading hay, substantially as described.

36,209.—J. E. Emerson, of Trenton, N. J., for Improvement in Steel Scabbards for Bayonets :

I claim, as a new article of manufacture, an angular bayonet scabbard, constructed of steel formed around a mandrel by pressing and united at its edges, in the manner and for the purpose herein specified.

36,210.—Samuel Etter and R. B. Neuman, of Fayetteville, Pa., for Improved Washing Machine :

We claim the compound lever, F, standards, d d′, and pivots, e e′, in combination with the compound lever, H, pivots, g g′, wrist pins, i i′, hooks, I I′, and rubber, C, when arranged to operate in connection with the wash board, in the manner and for the purpose set forth.

[This invention consists in suspending the rubber within the tub from a shaft, which is journaled at its ends in the upper ends of standards, rising from a compound lever, which is journaled at its back end to the projecting ends of two of the legs of the tub, and connecting the rubber to an oscillating compound lever by rods or hooks, whereby the rubber may be easily detached from its actuating lever, and by a simple movement of the pressure lever be turned up into such a position as to afford convenient access to every part of the tub, to facilitate the handling of the clothes, and the cleansing of the tub and rubber.]

36,211.—C. O. Garrison, of East Saginaw, Mich., for Improved Apparatus for the Manufacture of Salt :

I claim, first, The arrangement of the false metal bottoms, a, inserted into the pans, A B C D, of a salt block, and resting on ribs, b, projecting from the bottoms, c, of the said pans, substantially as and for the purpose described.

Second, The arrangement of the graduation and purifying range, F, in combination with the pans, A B C D, constructed and operating substantially as and for the purpose specified.

Third, Giving to the finishing pans, B C D, a lateral inclination, as and for the purpose set forth.

36,212.—C. L. Getz, of Philadelphia, Pa., for Pantographic Reversing Instrument :

I claim the described pantographic reversing instrument, in which the reverse movement of the copying pencil is derived from the action of the leading pencil, by means of the described combination of levers, H H′ I I′ K K′, links, M and M, with wheels, E E1 E2 E3, and bands, n n, or their equivalents, the whole being arranged and constructed substantially as set forth.

I also claim the employment of levers, P and Q, or their equivalents, when combined with the pencils, L and O, and operating substantially in the manner and for the purpose specified.

36,213.—W. A. Greene, of Albany, N. Y., for Improvement in Sad-Iron Heaters :

I claim, first, When arranged in combination with the fire box, A, and covers, F, the support plate, B, constructed substantially in the manner as herein shown and described, and for the purposes as set forth.

I also claim in combination with the support plate, B, and covers, F, the deflection and lateral support plate, C, when constructed and arranged substantially as herein described and shown, and operating for the purposes as fully set forth.

36,214.—Henry Heckman, of Danville, N. Y., for Improvement in Thrashing Machines :

I claim, first, In a combined clover thrasher and huller, the use of the detachable alternating shutes, F J, substantially in the manner and for the purpose described.

Second, In a combined clover thrasher and huller, I claim the use in combination of the detachable alternating shutes, F J, and the carrier, D1, running close in relation with the top and bottom of the table, D, substantially in the manner and for the purpose described.

Third, In a combined clover thrasher and huller, I claim in combination the use of the detachable shutes, F J, the flat wise arranged carrier, D1, and the fanning device, H I, the whole constructed, arranged and operating in the manner and for the purpose described.

36,215.—Nelson Hornaday (assignor to himself and Z. Stubbs), of West Elkton, Ohio, for Improvement in Portable Fences :

I claim the arrangement of oblique braces, B B′, secured at their lower ends by pivots, C C′, to a sill, A, and provided at their upper ends with notches, D D, running longitudinally of the fence, and forming a seat for the contiguous ends of the rails of two adjacent panels to rest in, the whole being combined in such a manner that the downward stress of the panels continually acts to firmly support and clamp the parts together, substantially as described.

36,216.—W. J. Huckett, of Marshall, Mich., for Improvement in Swings :

I claim the application and use of the pulley blocks, P1 P2, and connecting cord, x, when arranged and connected relatively with each other, and with the frame and swing, in the manner as and for the purposes specified.

36,217.—D. W. Hunt, of San Francisco, Cal., for Improvement in Brakes for Wind Wheels :

I claim, first, The strap, P, applied to the crank pulley, G, as shown and connected with the socket, K, which is placed loosely in the connecting rod, H, the socket being connected to the lever, M, through the medium of the clamp, L, and the lever, M, connected by a rod, j, with a lever, N, which is retained at any desired point by a rack, O, or its equivalent, the above parts being used in combination with a revolving crane, C, and the swivel, J, which connects the rods, H H, substantially as and for the purpose set forth.

Second, In connection with the foregoing, the flanches or ribs, f′, attached to the back parts of the pans, F, to operate as and for the purpose specified.

[This invention consists in a novel way of applying a brake to a wind wheel, whereby the speed of the wheel may be regulated as desired, without having the brake mechanism at all interfere with the operation of the wind wheel, either as regards its rotation or its shifting position, which keeps it in the face of the wind.]

36,218.—William Joslin, of Cleveland, Ohio, for Improved Clothes Wringing Machine :

I claim, first, The springs, F and F2, acting upon the levers, C and C2, as above described.

Second, The right and left hand circular incline planes, G and G2, the toothed mortise, a and a2, b and b2, and the shafts and handles, H and H2, the parts being constructed and operated substantially in the manner and for the purpose set forth.

36,219.—Richard Kitson, of Lowell, Mass., for Improvement in Dust Rooms connected with Machines for Picking Cotton, &c. :

I claim furnishing the dust pipes of the pickers or openers with valves, D D D, closing automatically, substantially as herein specified.

36,220.—G. W. La Baw and P. F. Campbell, of Jersey City, N. J., for Improvement in Carriage Springs :

We claim the toggle bars, c and g, fitted as set forth, in combination with the slide bar, h, and spring, m, in the manner and for the purposes specified.

36,221.—W. C. Leach and M. J. Knox, of Knox Corners, N. Y., for Improvement in Locks :

We claim, first, The slide, G, provided with the notch, g, in its upper edge, in combination with the tumbler, H, provided with the pin, f, all arranged so as to be operated by the key of the main bolt, D, substantially as and for the purpose set forth.

Second, The pin, e, on the slide, G, in combination with the notch, a, in the tumbler, E, and the projection, n, on said tumbler, arranged as shown, so as to admit of the latter being operated either by the key of bolt, D, or the key of the night latch, as set forth.

[This invention relates to an improved slide or guard for the keyhole of the lock, whereby the outer keyhole, when the lock is locked, will be effectually guarded, so that the lock cannot be picked or illegitimately unlocked.]

36,222.—Robert Leitch, of Baltimore, Md., for Improvement in Two-way Stop Cocks :

I claim a stop cock for street and dwelling purposes, constructed and operating substantially in the manner and for the purpose set forth.

36,223.—J. L. Lewis, of Pittsburgh, Pa., for Improvement in Pile or Fagot for Shoe Rail for Gun Carriages :

I claim the manner herein shown and described of arranging or disposing the bars, A B C C′, in forming a pile for the purpose set forth.

36,224.—J. W. Lyon, of Brooklyn, N. Y., for Improvement in Locks :

I claim a spring catch or dog, arranged substantially as described, in combination with a latch bolt and releasing mechanism, so as to seize the bolt when drawn back, for the purpose of opening the door, and to retain it within the lock while the door is open, and until released in the act of shutting the door, by the action of the door jamb against the releasing mechanism, substantially as herembefore set forth.

36,225.—Isaac Marsh, Jr., of Milton, and Griggs Marsh, of Lewisburg, Pa., for Improvement in Tile Roofing :

We claim the grooved tiles and thin strips of metal or other elastic material, made and joined together so as to construct a water-proof and fire-proof roof, in the manner and for the purpose herein fully set forth.

36,226.—Samuel Marshall, of Wilmington, Del., for Improvement in Lamps:

I claim the attaching of the supplemental cap, D, to the lamp, by means of one or more curved or bent plates, E, arranged as shown, so as to support the cap, D, and admit of it being adjusted higher or lower, to suit the hight of the wick tube, and at the same time admit of the wick tube passing through it at its upper part, to prevent any lateral movement or shifting of the cap, as and for the purpose herein set forth.

[This invention consists in adapting, by a simple contrivance, an ordinary fluid lamp to the burning of coal oil, without a chimney, and by such a means that will admit of being adjusted to suit the hight of the wick tube, and be capable of being manufactured and sold separately, and applied to any ordinary fluid lamp in use.]

36,227.—M. J. Martin, of Belleville, Ill., for Improvement in Stump Extractors:

I claim the combination of the frame with shifting braces, r, the screw with grapling hooks, h, and the nut with bent-power levers, C, arranged in the manner described and for the purpose specified.

36,228.—Benjamin Merritt, Jr., of Chelsea, Mass., for Improved Machine for Pebbling or Embossing Leather:

I claim the above-described machine for pebbling or figuring leather, consisting of the indented or engraved roll, C, with the elastic rolls, B and E, above and below it, with their bearings or boxes, d f g, sliding and supported in the housings, A, in the manner specified.

Second, I claim suspending the tables, F and G, and rest, k, on the boxes, f, of the roll, C, so that they shall maintain their proper position with respect to the roll, as it rises or falls.

36,229.—Purches Miles, of New Haven, Conn., for Improved Meat-Mincing Machine:

I claim the cutters, D, united solidly with a metal plate, C, by being cast thereon, in combination with the grooves, d, in the manner and for the purpose substantially as set forth.

36,230.—William Moller, of New York City, for Improved Oven for Re-burning Bone Black:

I claim the arrangement of circular and longitudinal ribs or flanches on the inside surface of a revolving retort, dividing the said surface in compartments, in the manner and for the purpose substantially as specified.

36,231.—Abram Paige, of Springfield, Mass., for Improvement in Electrical Instruments for Medical Purposes:

I claim, for the application of medicaments for curation purposes by electrical agency, the instrument or apparatus substantially as herein before described and represented.

36,232.—J. G. Perry, of South Kingston, R. I., for Improved Sausage Filler:

I claim the combination of the leaves (two or more), with the case, substantially as herein described and for the purpose set forth.

36,233.—J. G. Perry, of South Kingston, R. I., for Improved Sausage Filler:

I claim the combination of the disks with the leaf or leaves and shaft, substantially as herein described and for the purposes set forth.

36,234.—David and John Pollock, of Cleveland, Ohio, for Improvement in Artificial Teeth:

We claim, first, The use of metallic strips or wires, composed of platina or other suitable metal, to be used longitudinally, transversely, or crossing each other like net work, inserted or molded in the plate, gums and base of artificial teeth, composed of porcelain or other substance, substantially as set forth in this specification, and as will best answer the purpose intended.

Second, The use of metallic strips or wires, composed of platina or other metal, to be used in sectional parts of artificial teeth, and also in the teeth, substantially as set forth and for the purpose intended.

36,235.—M. W. Pond, of Elyria, Ohio, for Improved Harness Buckle:

I claim, as a new article of manufacture, a buckle having its outside frame thrown out, Figs. 1 1, with three cross bars and an eccentric clamp, 3, hinged and arranged as herein described.

36,236.—J. P. Schenkl, of Boston, Mass., for Improvement in Concussion Fuse for Explosive Shells:

I claim, first, The arrangement and combination of the holding annulus, b', and the percussion-cup chamber, f, with the plunger, B, and its nipple, e.

Second, I also claim the construction of the inelastic abutment, in such manner as to extend through the metallic bottom or breech of the case, A, and project over opposite sides or surfaces thereof, substantially as explained.

Third, I also claim the formation of the inelastic abutment with a plug hole or passage for receiving a plug, to operate in manner and for the purpose substantially as set forth.

36,237.—J. W. Schreiber, of New York City, for Improvement in Mica Chimneys for Lamps:

I claim, first, A lamp chimney, composed of two conical mica tubes, a a', connected together at their larger ends, and provided with a metal top tube, c, and a perforated metallic base, C, substantially as set forth.

Second, The supplemental draught tubes, F H H, with cap, E, attached and arranged as shown, to form two eduction or escape passages for the draught, when said tubes are used in connection with the chimney, B, for the purpose set forth.

[This invention relates to a new and improved draught chimney and draught tubes connected therewith, constructed and arranged with a view of obviating the difficulty of breakage, and also of insuring a perfect draught, so that lamps provided with burners for burning coal oil and similar fluid hydro carbons, may be used in railroad cars, omnibuses and other wheel vehicles, and a good illuminating flame obtained.]

36,238.—Thomas Shaw, of Philadelphia, Pa., for Improvement in Blow-off Cocks for Pumps:

I claim the combination of a valve and faucet, when applied to a pump, substantially as shown and described.

36,239.—W. B. Shedd, of East Boston, Mass., for Improved Hat Brush:

I claim furnishing the brush with a spring clasp, applied and arranged upon its back, to operate substantially as and for the purpose herein specified.

[The object of this invention is to enable a hat brush to be carried in the hat without inconvenience; and to this end it consists in providing the brush with a spring clasp, suitably arranged on its back and near one end, to attach it to the sweat or head lining of the hat.]

36,240.—W. W. Simrell, of Great Bend, Pa., for Improvement in Auger Handles:

I claim the arrangement and combination of the collar or nut, B, brace, D, spring, P, thumb screw, T, shank, C, plates, L L', and handle, H, as and for the purposes set forth.

36,241.—J. P. Sinclair, of Little Prairie Ronde, Mich., for Improvement in Car Coupling:

I claim the concave clasps, c, connected by pivots or joints, a, to springs, B B, attached to the draw heads or bumpers, A, in connection with the pins, F, and shackle, D, all arranged as and for the purpose herein shown and described.

[The object of this invention is to obtain a simple, economical and efficient car coupling, and one that will be self acting, that is to say, one that will engage itself by two cars coming in contact. The invention consists in the employment or use of two concave clasps, pivoted to springs and fitted in the draw head or bumper, in connection with a vertical sliding pin, all arranged to effect the desired end.]

36,242.—Benjamin Snyder, of Trenton, N. J., for Reading Card:

I claim a reading card formed of two parts, a b, connected by a joint, c, and provided with a flap, B, substantially as set forth.

[The object of this invention is to obtain a simple and cheap device to assist persons in reading in railroad cars, and one which may be readily manipulated or adjusted over the paper or printed page from line to line, be firmly held in position, and, when not in use, capable of being compactly folded and carried conveniently in the pocket.]

36,243.—Edward Spencer, of St. Louis, Mo., for Improvement in Marking Machines:

I claim, first, In combination with the jaws, A A', the die, N, substantially in the manner described, for the purpose specified.

Second, In combination with the jaws, A' A, and die, N, the yielding bottom, r, under the die, as shown and described.

Third, In combination with the jaws, A' A, rollers, H H, and friction wheels, d d, the india rubber friction pieces, L L, as shown and described.

Fourth, In combination with the jaws, A' A, the perforator, C, as shown and described, for the purpose specified.

Fifth, In combination with the jaws, A' A, and perforator, C, the punch, B, as shown and described.

Sixth, In combination with the jaws, A' A, and die, N, the punch, B, as shown and described, for the purpose specified.

Seventh, In combination with the jaws, A' A, the perforator, C, the die, N, and the rollers, H H, as described.

36,244.—E. T. Starr, of New York City, for Improvement in Skates:

I claim having the foot stand, A, made adjustable in respect to the runner, B, substantially in the manner herein shown and described; so that the skate may be adjusted to boot heels of different hights; and the runner be thus readily made to occupy a horizontal position in respect to the bottom of the wearer's foot, all as set forth.

[The object of this invention is to obtain a skate which will admit of being adjusted in such a manner as to compensate for the varying hight of the heels of boots and shoes, and thereby admit of the foot of the skate having a proper relative position with the skate, so as to insure ease and comfort in skating.]

36,245.—C. E. Steller, of Genesee, Wis., for Improvement in Sod Cutters:

I claim, first, The arrangement of two or more vertically-adjustable cutter beams, A B, each being provided with a series of oblique cutters, C C', inclined laterally in opposite directions, in combination with the self-adjusting drag, G, constructed and operating as and for the purpose shown and described.

Second, The arrangement of the notches, i, in the top end of the cutters, C C*, in combination with the buttons, j, as and for the purpose specified.

[An engraving and full description of this invention will soon be published in the SCIENTIFIC AMERICAN.]

36,246.—J. Thompson and D. D. Dalrymple, of Cross Roads, Ohio, for Improved Sawing Machine:

We claim the combination of the frame, J, rollers, l l, and clamp, L, with the pivoted saw, I, bow, h, shank, d, rollers, o e, gate, H, disk, G, and wheel, F, the whole operating together in the manner herein shown and described.

[This invention consists in the arrangement of a horizontally-sliding slotted frame or gate, to which the saw is attached by a pivot, and which receives a reciprocating motion by means of an eccentric wrist-pin projecting from the face of a rotary disk, or by any other convenient means, in combination with a vertically-sliding guide frame, which serves to raise or lower the saw, and the weight of which assists to press the saw down upon the wood, thereby facilitating the operation of cutting.]

36,247.—Stillman Thorp, of Turner, Maine, for Improvement in Car Coupling:

I claim the chambered sliding box or tube, D, attached to buffer, C', applied to and operating in connection with draw bar, B, link, m, and coupling pin, i, substantially as set forth, for the purpose specified.

36,248.—S. E. Tompkins, of Newark, N. J., for Improvement in Hooks and Terrets for Harness Saddles:

I claim, first, Having the frame or body, A, of the hook or terret formed of two parts, a b, connected by screws or rivets, substantially as set forth.

Second, The leather covering, B, inserted between the two part, a b, of the frame or body, A, and fitted around the part, b, with the rivets or screws passing through it, substantially as and for the purpose set forth.

Third, The combination of the frame or body, A, formed of two parts, a b, connected together as shown, with the leather covering, B, when the parts are so arranged that the inner part, a, of the frame or body will form the metal lining of the hook or terret, and also the tip of the hook, all in one piece, without a joint, while the part, b, serves as the body for the leather covering, as set forth.

36,249.—William Tunstill, of Paterson, N. J., for Improvement in Braiding Machines:

I claim the arrangement of the lever, g, catch bar, h, and stop motion lever, k, in combination with the miter gears, d and f, as and for the purposes set forth.

36,250.—W. H. Waldby, of Cooperstown, N. Y., for Improvement in Grain-Cleaning Machines:

I claim the screen, D, and the frustum of a cone, C, provided with the beaters or wings, a a, brushes, b b, and teeth or pins, c, in combination with the fan, G, and spouts, E F, all arranged as and for the purpose herein set forth.

[The object of this invention is to obtain a compact and portable machine for scouring grain and depriving the same of all impurities, such as smut, dirt, &c., whether mixed therewith in a loose state or connected to it so as to form a glazing thereon.]

36,251.—J. B. Watkins, of New Bedford, Mass., for Improvement in Awnings:

I claim attaching the awning, D, to the framing, A, by means of the rings, c, when said rings are used in connection with the stationary board or strip, C, and the sliding board or strip, E, to which the awning is attached, and cords or ropes, d e, connected to the board or strip, E, all arranged as and for the purpose herein set forth.

[The object of this invention is to arrange an awning for store fronts and like purposes, which will be capable of being extended and drawn up with greater facility than those provided with rollers and now quite commonly used, and one which will afford better ventilation for the awning when drawn up, so that it will not be so liable to mildew and decay, and also be capable of being put up and applied at a less expense than the roller awning.]

36,252.—William Webster, of Morrisania, N. Y., for Improved Fire-Damper Regulator:

I claim the combination and arrangement of the cylinder, A A B B, the piston, C C, and packing, D D D D, substantially as shown and described.

36,253.—A. K. Young, of Boston, Mass., for Improvement in Band and Skirt-Hoop Attachments:

I claim my improved band and skirt-hoop attachment, consisting of the metallic clasp, B, and the projection, a, constructed, arranged together and applied to the band and skirt hoop, substantially as described.

36,254.—J. A. Bassett, of Salem, Mass., assignor to the American Steam Gas Company, for Improvement in the Manufacture of Illuminating Gas:

I claim passing superheated steam into a retort containing carbonaceous material partly in an incandescent and partly in a bituminous state, substantially as set forth.

36,255.—S. B. Everitt (assignor to the Thomas Manufacturing Company), of Plymouth Hollow, Conn., for Improvement in Knife Handles:

I claim the construction of the handle of a pocket knife of two shells, A A, stamped or punched out of sheet metal or alloy, and having the ends of their concave interiors filled with fusible metal or alloy, as shown at a a, and herein described, or with an equivalent filling of hard metal.

[This invention consists in the manufacture of the handles of pen and pocket knives of two shells, one for each side of a handle, stamped or punched out of plates or sheets of silver, brass or other sheet metal or alloy, with convex exteriors of any form and design, and having the ends of their concave interiors filled with some metal of more fusible character to make them solid, for the reception of the handles.]

36,256.—J. S. McCurdy, of Brooklyn, N. Y., assignor to Wheeler and Wilson Manufacturing Company, of New York City, for Improvement in Sewing Machines:

I claim, first, The combination of a reciprocating eye-pointed needle for carrying one thread with a rotating hook-pointed shuttle, by means of multiple gearing, operating in such a manner that the shuttle rotates two or more times as fast as the crank pin, or its equivalent, for imparting the reciprocating movement to the needle, substantially as set forth.

Second, I also claim the combination of a spool bobbin with a rotating shuttle by means of a central spindle, substantially as set forth.

Third, I also claim the combination of a rotating shuttle with a thread tension for the shuttle thread that remains stationary within the shuttle, substantially as set forth.

Fourth, I also claim the combination of a rotating shuttle with a thread guard for the needle thread, substantially as set forth.

Fifth, I also claim the combination of a reciprocating eye-pointed needle and rotating shuttle with a positive thread take-up, operated by a rock shaft of the needle mechanism, substantially as set forth.

Sixth, I also claim the combination of the members for operating the needle with the rotating shaft of a sewing machine through the intervention of a crank, in connection with the combination of the spindle for operating the rotating shuttle with the same rotating shaft through the intervention of gearing, substantially as set forth.

Seventh, I also claim the combination of the rotating shuttle with the spindle that operates it, in such a manner that the shuttle is located over the head of the spindle and driven by a driver secured to said spindle, substantially as set forth,

36,257.—Dan Read (assignor to A. A. Taylor), of Boston, Mass., for Improvement in Covering Spinning Rolls:

I claim the combination of a spinning roll by the combination, in solid form, of india rubber with iron or other metal, and in said solid form vulcanized in the part composed of said india rubber, as herein described. Also the obtaining, by the aforesaid means, the harder and compact outer surface combined with an inner elasticity possessing the advantages aforesaid, and such other rolls as are substantially of the same construction, claiming to produce the same improvements.

36,258.—J. H. and A. E. Redstone (assignor to themselves and J. M. Ray), of Indianapolis, Ind., for Improvement in Harvesters:

We claim, first, The device, B, when operated in connection with the master wheel, A, and frame, substantially in the manner and for the purposes set forth.

Second, Operating the sickles of a reaper by means of inclined slots in plates or ears attached to the bar and operated upon by a connection rod, substantially as set forth.

Third, Operating the rake, F, by means of a crank placed over the main axle, and operated between the master wheel and the frame of the machine, substantially as described.

Fourth, The revolving band table, in connection with the arms, K, when operated substantially as set forth.

Fifth, The band twister, V', when constructed and operated substantially as set forth.

36,259.—R. A. Stratton (assignor to G. W. Carr & Co.), of Philadelphia, Pa., for Improvement in Apparatus for Hardening Strips of Steel:

I claim, first, Hardening strips of steel or steel wire by passing them at an uniform speed, and in a red-hot state, vertically through an opening in a trough containing water or other suitable fluids, when a constant stream of the latter is allowed to pass through the said opening in contact with and so as to surround the wire, as herein set forth.

Second, Heating the said strips of steel or steel wire by passing them vertically through guides, and in contact with or adjacent to a series of flames, as herein described.

36,260.—R. A. Stratton (assignor to G. W. Carr & Co.), of Philadelphia, Pa., for Improvement in Joints for Ribs of Umbrellas and Parasols:

I claim, as a new manufacture, the block, D, cast to the rib, A, and arranged for connection to the stretcher, B, as and for the purpose herein set forth.

36,261.—R. A. Stratton (assignor to G. W. Carr & Co.), of Philadelphia, Pa., for Improvement in Tips for Umbrellas and Parasols:

I claim, as a new manufacture, metal tips cast on to the steel ribs of umbrellas and parasols, as and for the purpose herein set forth.

36,262.—Emil Trittin, of Philadelphia, Pa., assignor to David Rice, of New York City, for Improvement in Lamp Burners:

I claim, first, constructing the wick tube of two parts, B E, connected together by the plate, D, and points, e, of the lower part, A, of the burner, with a space, g, between them, substantially as and for the purpose herein set forth.

Second, In combination with the wick tube thus constructed the jacket, G, supported on the burner by the points, d, of the plate, D, as and for the purpose specified.

[This invention consists in forming the wick tube of the burner of two parts, connected together in such a manner that the upper part will be insulated from the lower part, and the wick tube thereby prevented from conducting heat down to the fountain or reservoir of the lamp, so as to present an undue evaporation or volatilization of the oil, and consequently a too copious supply of vapor to the flame. The invention also consists in a novel way of fitting the cone and jacket to the burner, whereby the former is insulated from the latter, and heat also prevented from being conducted below to the fountain.]

36,263.—Turner Williams (assignor to himself and David Heaton, 2d), of Providence, R. I., for Improvement in Cranks for Driving Sewing Machines and other Machinery:

I claim, first, The construction and arrangement of the friction pawls, L M, substantially as herein shown and described for the purpose specified.

Second, I claim the use of a spring connection, k, or an equivalent yielding force, arranged and operating substantially as described for the purpose specified.

Third, I claim the peculiar construction of the connecting rod, l, substantially as herein shown and described.

Fourth, I claim the spring, N, in combination with the connecting rod, l, substantially as described for the purpose specified.

36,264.—H. S. Fisher, of Newburgh, Pa., for Improvement in Preserve Cans:

I claim, first, The can cap, H, constructed with the plane portion, d, and bulge portion, i, in connection with the can top, having a central orifice through it, all substantially in the manner and for the purpose described.

Second, I also claim the combination of the cap, H, constructed as described, can top and clamp, K, substantially in the manner and for the purpose described.

Third, I claim the cap, H, in combination with the orifice elevation, c, and fillet, g, in the manner and for the purpose substantially as described.

CLAIMS OF AUGUST 5, 1862.

36,078.—Christian Dorflinger, of Brooklyn, N. Y., for Improvement in Lamp Chimneys:

I claim, first, The blowing and molding of glass chimneys for lamp neck, bulb and base, oval throughout the entire length, instead of round as at present done.

Second, The blowing of such chimneys in a mold, which insures perfect uniformity of size and a greater weight of glass, in the manner and for the purposes set forth.

36,079.—Christian Dorflinger, of Brooklyn, N. Y., for Improvement in Lamp Tops:

I claim the making of the top of lamp burners oval instead of round so as to receive and fit all oval-base lamp chimneys, in the manner and for the purpose herein set forth.

RE-ISSUES.

1,328.—David Landis, of Lancaster, Pa., for Improvement

in Screens for Flour Bolts. Patented October 23, 1860:

I claim, first, The rotating cylinder, D, and screen, E, the latter being placed within the former, and both arranged essentially as shown to operate as and for the purpose set forth.

Second, The metal lining, a* b*, within the bolt chest, for the purpose herein specified.

Third, The combination of the cylinder, D, screen, E, and metal bolt chest lining, a* b*, as and for the purpose set forth.

1,329.—Adam Lebkücher, of Belleville, Ill., for Improvement in Lubricating Compounds. Patented June 25, 1861:

I claim the use for lubricating purposes of rosin oil, muriate or chloride of zinc, lime and water combined together, as above described.

1,330.—G. W. Scollay, of St. Louis, Mo., for Improvement in Burial Cases. Patented March 18, 1862:

I claim, first, Controlling, disinfecting and deodorizing the gases as they escape from the coffin, by making a tube or valve thereinand combining and continuing with or over said hole or valve the disinfecting and deodorizing material in some part of the coffin, which is to be otherwise air tight.

Second, Making a chamber in combination with the coffin, for the purpose of holding the deodorizing and disintectingmaterial, and causing the gases to pass through said chamber on their way out of the coffin.

Third, The use of the valve, a, in combination with the disinfecting and deodorizing chambers.

DESIGNS.

1,650.—E. J. Ney (assignor to the Lowell Manufacturing Co.), of Lowell, Mass., for Design for a Carpet Pattern.

1,651.—G. J. Mix, of Wallingford, Conn., for Design for Spoon Shanks.

1,652.—Myer Phineas, of New York City, for Design for an Inkstand.

[More than one-third of the patents in the above list were obtained through the Scientific American Patent Agency.]

Notes and Queries

O. B., of N. Y.—Your plan for utilizing the power of the tides by means of the rise and fall of heavy floats is not so good as the plans in common use. The motion of the floats would be so slow—about one foot an hour at this point—that very little power would be obtained. The usual plan is to set the mill on a narrow strait which connects a large pond or lake with the sea, and to construct the wheel so that it will turn in one direction as the tide is coming in, and in the other as the tide is running out. At the Mill Dam near Boston is such a mill, and there are several on Long Island. Some two years since we published the description of an improvement in tide mills invented in France, by which a constant current in one direction is obtained.

M. P. B., of Pa.—It is quite common to construct steamboats of very light draft for the Western waters with paddlewheels at the stern; but this plan would be very unsuitable for sea-going vessels.

P. S., of Mass.—Attaching armor plates to ships' sides by hinges so that the plates may swing, has been repeatsdly suggested; but the plates are so heavy and the motion of the shot so rapid, that we doubt whether the plates would yield quickly enough to prevent them from being broken.

A. H. T., of N. J.—The only way you can get the Patent Office Reports is either from your member of Congress or the Commissioner of Patents. The latter officer is supplied with enough to furnish all patentees whose names are registered in the report. The balance are turned over for general distribution to senators and representatives, who ought to make a judicious distribution of them among their constituents.

F. M., of Pa.—There was once in force a law to prevent the Government from purchasing patented inventions. It originated with Jeff. Davis, but it did not work. Government found out that it could not get along without the aid of patente inventions Send along a sketch and description of your invention and we will examine it.

W. W., of N. Y.—"The History, Theory and Practice of the Electric Telegraph," by George B. Prescott, published by Ticknor & Fields, Boston, will give you the information which you want.

C. J., of Conn.—Sulphureted hydrogen gas is the most sensitive known test for lead in water. One grain of the nitrate of lead dissolved in 500,000 grains of water, when a stream of sulphureted hydrogen gas is passed through it, becomes sensibly discolored. Gold leaf is only about a quarter of a million of an inch in thickness

H. W., of Pa.—Jewelry is colored by what is called "gilder's pickle." It consists of alum and salt, each 1 ounce, saltpeter 2 ounces dissolved in one pint of water. The trinkets are boiled in this for a very few seconds, then lifted out and washed. This treatment imparts to them a rich color.

A. D. H., of Minnesota.—The tincture of arnica is made by macerating the flowers of arnica montana in dilute alcohol. You can obtain the plant in almost any druggist store and make the tincture yourself. It is much used as a liniament for wounds and bruises. An infusion of arnica in water is as suitable for most purposes as the tincture.

W. H. W., of Mass.—A good alloy for casting figures is composed of copper 88 parts by weight, tin 9 parts, zinc 2 and lead 1. Melt the copper first, then add the tin and lead cautiously, and lastly the zinc. When melted run into ingots, and use these for casting your figures. You may cast figures in zinc which melts at a comparatively low temperature, then coat them with a thin pellicate of copper and they will resemble brass.

J. R., of Wis.—Address any of the manufacturers of water wheels and pumps who advertize in the columns of the SCIENTIFIC AMERICAN, stating the fall and quantity of water in your creek, the hight which you wish the water raised, and the distance carried and you will be informed respecting the cost and character of the requisite wheel and pump to accomplish your object.

B. C. M., of N. Y.—If you mix some alum dissolved in water with common mortar you will render it a good fire-proof cement. The plaster of Paris is used as a fire-proof material in safes. Kaolin or the porcelain clay used for making pottery ware, will answer just as well as fire clay for the cement of your furnace, but you should endeavor to obtain good fire brick and fire clay for setting your boilers rather than run any risk in trying a new material.

J. M. Y., of Ohio.—French and Italian peasants sometimes mix roasted chesnuts with their coffee, and they say its flavor is thus improved.

L. McD., of N. H.—The Paynising process for treating timber consists in first filling the pores of wood with muriate of lime, then forcing in a solution of sulphate of iron. This forms an insoluble sulphate of lime in the pores of the wood and renders it fire proof.

J. W. R., of Mass.—Pins are made of brass coated with tin. They are all made by machinery and the head and shank formed in one piece. The old pins were formed with heads and shanks in separate pieces, and most of the operations were executed by handlabor.

Money Received

At the Scientific American Office on account of Patent Office business, from Wednesday, Aug. 20, to Wednesday, Aug. 27. Persons having remitted money to this office will please to examine this list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, and inform us the amount, and how it was sent, whether by mail or express.

I. S. S., of N. Y., $20; A. J., of Conn., $20; A. L., of Cal., $47; H. & C., of N. Y., $22; H. M. P., of Mass., $20; G. M. M., of N. Y., $20; E. B., of Conn., $20; S. A. S., of Mass, $20; B. Z., of N. Y., $20; I. R., of D. C., $22; T. S., of Conn., $45; C. B. M., of Ill., $45; J. W. W., of Mich., $20; A. M., of N. Y., $45; T. V. N., of N. Y., $20; S. A. B., of Conn., $20; D. & K., of Conn., $20; R. H., of N. Y., $20; J. R. P., Jr., of N. Y., $15; C. T. B., of N. Y., $10; E. F. & J. H., of N. Y., $22; T. & S., of Cal., $15; T. J. K., of Ohio, $25; H. A. H., of N. Y., $15; S. F., Jr., of Mass., $25; J. C. C., of N. Y., $15; I. M. S., of Vt., $25; O. B. N., of Conn., $25; J. H., of Pa., $12; G. T. C., of Mass., $15; E. D., of Mass., $10; F. S., of Ill., $20; H. C. H., of Iowa, $40; H. S., of Pa., $15; H. F., of N. Y., $15; J. W., of N. Y., $15; O. S., Jr., of Iowa, $25; J. F. E., of Ill., $25; W. B. E., of N. H., $15; J. M. S., of N. Y., $20; C. & P., of Conn., $15; I. S. R., Md., $25; P. J. B., of Pa., $15; M. T., of Iowa, $30; A. M. B., of Ill., $25; H. H. S., of N. Y., $15; R. L. D., of Wis., $10; J. M., of N. Y., $35; J. L. B., of R. I., $15; T. W. W., of Mich., $15; L. J., of France, $15; S. R., of N. Y., $25; P. McG., of Iowa, $25; G. & C. of Iowa, $25; W. B., of Pa., $5; S. H., of Ind., $25; R. H., of N. J. $25; A. M., of N. Y., $25.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from August 20 to Wednesday, August 27, 1862:—

C. T. B., of N. Y.; S. S. T., of Cal.; I. M. S., of Vt.; H. C. H., of Iowa; T. J. K., of Ohio; O. B. N., of Conn.; C. W. T., of Ill.; S. F., Jr., of Mass.; J. P., of N. Y.; J. L. E., of Ill.; O. S., Jr., of Iowa; J. H., of Pa.; T. S., of Conn.; A. M. B., of Ill.; J. P., of N. Y.; M. T., of Iowa; I. S. R., of Md.; R. H., of N. J.; J. M., of N. Y.; S. R., of N. Y.; J. M. R., of N. J.; G. & C., of Iowa; W. B., of Pa.; S. H., of Ind.; G. C., Italy.

TO OUR READERS.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a *bona fide* acknowledgment of our reception of their funds.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

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

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing $1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of $2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

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

No. 37 Park-row, New York.