

ber next; depositions and other papers relied upon as testimony, must be filed in the Office on or before the morning of that day.

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:—

Machine for Rolling the Seams of Boots and Shoes.—In the manufacture of boots and shoes, particularly of leather or morocco, it is essential, in order to produce good work, to rub the seams well down on the inner side. Up to the present time this operation has been performed entirely by hand, with great exertion and loss of time. The object of this invention is to perform the operation of rubbing down or rolling the seams, by machinery capable of being driven by other than human power, and the invention consists in the arrangement of a roller arm connected by suitable mechanism with a rotary shaft, and working on a curved or straight bed, which supports the material to be rolled, in such a manner that by imparting to the shaft a continuous rotary motion, the roller assumes a reciprocating rectilinear motion, traveling repeatedly over the seam on the bed; the bed is adjustable, to conform to the shape of different seams, and the pressure is increased or decreased by a simple arrangement of springs. John C. White, of Auburn, N. Y., is the inventor of this machine.

Device for turning Crank Pins.—The object of this invention is to obtain a simple and portable device, so constructed and arranged that it may be readily applied to the driving wheels of locomotives, and in such relation with their crank pins as to admit of the latter being turned and made true, without detaching the pins from the wheels or removing the wheels from the locomotive. Socrates S. Cheney and Danforth Cheney, of Galesburg, Ill., are the inventors of this device.

Paddle wheel.—This invention relates to paddle-wheels with series of narrow buckets of a parabolic or curvilinear shape. The principal objection to such paddle-wheels as heretofore constructed, has been, that though in the highest degree effective, when rotating in a direction to act upon the water with the convex faces of their buckets to propel the vessel ahead, they fail to operate as well as is desirable when rotating in the opposite direction, and hence cannot be very successfully used in backing the vessel. The reason for this has been that the buckets, in entering and passing through the water, have divided it and pushed it aside, instead of taking hold of it and acting with a direct pressure. The principal object of this invention is to make the wheel more effective in backing; and to this end it consists in dividing the wheel in a plane perpendicular to its axis by means of a partition ring, thus making the buckets of the form of semi-parabolas, and so setting the said buckets between the said partition ring and two outer rings of a depth equal to the depth of a series of buckets, that the buckets on one side of the partition alternate with those on the other side of the partition, by which means not only is the above mentioned result accomplished, but the wheel is made stronger, and produces less vibration of the vessel when propelling in a forward direction. Addison C. Fletcher, of New York city, is the inventor of this improvement.

Car Brake.—This invention relates to a new and improved railroad car brake, of that class designed to be operated simultaneously on a train of cars, by the engineer or his attendant. The invention consists in the employment of wedges connected by chains or ropes to a shaft, which extends the whole length of the train; the wedges being fitted between drums on the axles of the trucks or the wheels thereof, and inclined plates attached to the trucks, all arranged so as to operate very effectively. Isaac N. Pyle, of Decatur, Ind., is the inventor of this improvement.

Back Numbers and Volumes of the Scientific American VOLUMES I., II., III., IV., V., VII. AND VIII. (NEW SERIES) complete (bound) may be had at this office, and from periodical dealers. Price, bound, \$2 25 per volume, by mail, \$3— which includes postage. Every mechanic, inventor or artisan in the United States should have a complete set of this publication for reference. Subscribers should not fail to preserve their numbers for binding. VOL. VI. is out of print and cannot be supplied.



ISSUED FROM THE UNITED STATES PATENT OFFICE

FOR THE WEEK ENDING AUGUST 11, 1863.

Reported Officially for the Scientific American.

* * * Pamphlets containing the Patent Laws and full particulars of the mode of applying for Letters Patent, 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.

39,455.—Breech-loading Fire-arm.—John S. Adams, Taunton, Mass.:

I claim, first, The pivoting of the breech within the frame by means of the rings, b b, or their equivalents, having combined with them the springs, c c, and the false trunnions, f f, the whole applied and operating substantially as herein set forth.

Second, The packing-piece, k, combined with the movable breech by means of the taper screws, m, m, substantially as and for the purpose herein set forth.

Third, So constructing and applying the sight, E, that it constitutes a rammer to operate in combination with a movable chambered breech, substantially as and for the purpose herein specified.

39,456.—Refrigerating Apparatus.—J. L. Alberger, Buffalo, N. Y.:

I claim an apparatus constructed substantially as herein described for cooling the air of a closed apartment, by causing it to circulate naturally or unforced through the apartment, and through and in contact with pipes or plates which are artificially cooled by an evaporating fluid and a forced current of air, in the manner substantially as and for the purpose described.

39,457.—Universal Chuck.—Manoah Alden, Philadelphia, Pa.:

I claim, first, The combination of the plate, C, and its spiral teeth, with the screw spindle, D, when both are applied to the case, A, of the manner herein described to operate the jaws, a a, substantially in the manner herein described.

Second, The combination of the jaws, a, a, pins, d, and plate, C, with its curved slots, the whole being constructed and arranged within the case substantially as described.

39,458.—Steam Engine.—John Baird, New York City:

I claim, first, In combination with a piston and a cylinder, a stationary rod or rods passing through the piston, and operating substantially as specified, the combination being substantially such as described.

Second, I claim a bush or sliding block and appropriate packing in combination with a piston, a stationary rod and cylinder, the whole acting substantially as described.

Third, I claim in combination a cylinder, a piston, and a stationary rod operating in combination as described, where the latter is likewise combined with the cylinder covers or heads as described, whereby the rod performs the double duty of sustaining the piston and the cylinder heads, substantially as set forth.

39,459.—Dish-heater.—William Brand, Burlington, Iowa:

I claim, first, The combination of chambers, G B, with a stove or stoves, A, and steam-pipes, h, h, and domes, g, g, the whole constructed and operating substantially as and for the purposes described.

Second, In combination with the horizontal chambers or box herein described, the adjustable standards or legs, k k, for the purpose of keeping the water pan level as set forth.

Third, The arrangement of stoves, A, beneath a shallow horizontal box constructed with the dish-holding plate, C, water chamber, G, smoke chamber, B, and a direct steam and smoke escape flue, b, substantially as described.

39,460.—Ambulance.—Clarissa Britain, Saint Joseph, Mich.:

I claim, first, The removable slotted posts, E, in combination with the transverse bars or rails, G & G', springs, H, holding-down bars, J, J, and wagon body, A, all arranged and operating substantially as and for the purposes described.

Second, Suspending the stretchers, E E, upon poles, c c, arranged and supported upon springs substantially in the manner herein described.

39,461.—Fastening for Studs or Buttons.—Laura M. Bronson, New York City. Ante-dated Dec. 31, 1862:

I claim the ring or S-shaped wire of metal with the cross bar and counter eye as shown, and for the purposes set forth as specified.

39,462.—Invalid Back-rest.—William Felix Brown, New Bedford, Mass.:

I claim my improved invalid back-rests as made of a cushioned frame, D, a series of helical springs, F, F, an auxiliary frame, E, a covering of cloth or rattan, b, and the two frames, A B (hinged together and provided with a latching apparatus), arranged in manner and so as to operate as specified.

39,463.—Grain Binder.—W. W. Burson, Atkinson, Ill.:

I claim, first, The combination of the wire-lever, A, and double grooved supports, B B, overhanging the gavel, constructed and operating substantially as described.

Second, The combination of the slide, D, cam-rod, I, and lever, A, acting substantially as described and for the purpose set forth.

Third, The combination of the spring-rod, x, and coil spring, Y, with lever, A, and slide, D, acting as set forth.

Fourth, The combination of the spring pliers, b, slide, D, and twisting claws, e, substantially as described.

Fifth, The combination of the ratchet rods, L L', ratchet pulley, M, springs, O O', and lever, A, acting substantially as described, and for the purpose set forth.

Sixth, The combination of the spool, G, wire-covering belt, H, and bar, Q, substantially as set forth.

Seventh, The combination of the crank, P, spring, U, rod, m, drop catch, W, and wheel, T, acting substantially as described.

Eighth, The combination of the rollers, a, a, and rollers, b, acting substantially as described and for the purpose set forth.

39,464.—Grain Fork.—H. M. & W. W. Burson, Atkinson, Ill. Ante-dated July 3, 1863:

We claim, first, Attaching to a grain fork, the clasp, C, for the purpose set forth.

Second, The combination of the handle, A, fork, B, clasp, C, and pithman, D, acting substantially as described and for the purpose set forth.

39,465.—Lathe for turning Locomotive Crank Pins.—S. S. & Danforth Cheney, Galesburg, Ill.:

We claim the plates, A D, in connection with the revolving tool or cutter frame composed of the ring, l, disk, r, and rods, s, and provided with a sliding combination of the hook, a, a', and rollers, b, acting and operated through the medium of the screw, v, star-wheel, v', and pin, w, all arranged to operate substantially as and for the purpose herein set forth.

39,466.—Grain Dryer.—M. C. Cogswell & A. G. Williams, Buffalo, N. Y.:

We claim a grate or opening made at the side of the case, in such a manner that it will open upwardly and prevent the grain from passing out, and at the same time increase the pressure and effectiveness of the air within; and also allow the evaporation, dust, air, &c., to escape, substantially as set forth.

We also claim the jacket B (with or without its lid, b'), in combination with the case, A, for the purposes and substantially as described. 39,467.—Cane Mill.—D. M. Cook, Mansfield, Ohio:

I claim, first, The matching circular wedges arranged on and constituting the splintering and expressing surfaces of a roller-cane mill, substantially as and for the purposes set forth.

Second, A roller-cane mill constructed to operate upon the cane with the one series of interlocking rolls, in the manner set forth.

Third, Splintering cane, expressing the juice therefrom, driving the ungeared rolls and relieving the journals of the rolls, by means of circular wedges, as set forth.

Fourth, The combination of the rollers, director, C, and scraper, f, all constructed and arranged substantially as described.

39,468.—Fastening for Skates.—C. T. Day, Newark, N. J. I claim operating or adjusting the bars, D, which have the jaws, d, at their ends through the medium of the circular plates, E, arranged so as to turn on pivots, g, and provided with eccentric slots, f, into which pendents pins, e, at the inner ends of the bars, D, are fitted, substantially as and for the purpose set forth.

I further claim holding the plates, E, and consequently the jaws, d, in proper position by means of the pendents screws, j, attached to the plates, C, and passing through concentric slots, l, in the plates and having thumb nuts, F, fitted on them substantially as described.

[This invention relates to an improved fastening for securing the skate to the boot or shoe, and of that class which are composed of jaws for clamping or grasping the sole and heel of the boot or shoe. The invention consists in an improved means for operating the clamps or jaws, whereby the same may be readily adjusted so as to grasp the sole and heel of the boot or shoe firmly and also readily detached or moved therefrom, and firmly held in position when grasping the sole and heel.]

39,469.—Let-off Mechanism for Looms.—George Draper, Milford, Mass.:

I claim a combination consisting not only of the escapement detent lever, k, its wheel, l, and the apparatus as described for depressing or operating such detent lever, but of a stopping mechanism (viz., the lever, G, and its connecting rod, H), to be operated by the lay, or while the lay may be beaten up, the whole being arranged substantially as and for the purpose specified.

39,470.—Construction of Sheet Metal Tanks.—Alfred Edwards, Chicago, Ill. Ante-dated May 18, 1863:

I claim not only the construction of a receptacle with a double bottom, by means of cutting and bending two pieces of the material, &c., in the manner as set forth and described, but also by means of cutting and bending any number of pieces according to the size and shape of the receptacle; the pieces in all cases to be laid crosswise on each other, so as to form a bottom of two or more thicknesses.

39,471.—Lighting Street Lamps.—Hosea Elliot, New York City:

I claim the arrangement of the tilting lamp, A, in combination with the case, C, self-closing door, d, pole, B, and thumb-piece, D, all constructed and operating in the manner and for the purpose substantially as shown and described.

[This invention consists in the arrangement of an adjustable lamp attached to a rod or pole which is provided with a thumb-piece and with a case enclosing the lamp in such a manner, that by depressing the thumb-piece the lamp is tilted and the door of the case enclosing the lamp is thrown open, allowing the flame of said adjustable lamp to come in contact with the burner of a street lamp, and obviating the necessity of climbing up on a ladder in order to light a street lamp, or other lamps or lights which cannot be reached from the ground.]

39,472.—Treating Night Soil for Agricultural Purposes.—R. B. Fitts, Philadelphia, Pa. Ante-dated Dec. 19, 1862:

I claim the process herein described and specified, for the purposes set forth.

39,473.—Paddle Wheel.—Addison C. Fletcher, New York City:

I claim the construction of a paddle wheel with alternating narrow semi-parabolic or curvilinear buckets, D E F, arranged in series as described and rings, C C', outside of and between the said buckets, the whole combined and arranged substantially as herein described.

39,474.—Welt-guide for Sewing Machines.—Hannibal Folsom, Milford, Mass.:

I claim in combination with the gage, B, the welt-guide, C, made with the bearing surfaces, a b c, and with a spring, g, or its equivalent for keeping the welt in lateral position, and for creating tension upon it as set forth.

39,475.—Potato Digger.—E. T. Ford, Stillwater, N. Y. Ante-dated Oct. 28, 1862:

I claim, first, The combination and arrangement of the two rotating wheels, one armed with teeth, a a a, the other with scraper blades, K K, separately or combined, the frame, C, and the divider, D, all constructed and operating substantially as and for the purpose above described.

Second, And in combination with the above, I claim the arrangement of the woks, G, plows, F F, flange, S, lever, H, gage bar, i, double flange, Y, and driving wheels, A A, as and for the purpose above described.

39,476.—Mounting Artificial Teeth.—John C. Fuller, Chicago, Ill.:

I claim, first, Constructing a platina or other metallic base plate for the teeth and gums with grooves and hooks, or other suitable attachments in the trough of this plate, substantially as described.

Second, The combination of continuous porcelain gum, a, having the teeth, b, affixed therein substantially as described, with a vulcanized rubber base substantially as and for the purposes herein described.

39,477.—Spur for Horsemen's use.—Thomas Garrick, Providence, R. I.:

I claim the improved spur for horsemen's use described, consisting of a spur with a screw shank, D, and a compressing and supporting clamp, B, provided with the spur points, a a, or their equivalents substantially as and for the purposes specified.

39,478.—Dumping Wagon.—R. W. Green, Bradford, Pa.:

I claim the box or body of the dumper, constructed with circular sides, J J, and hinged sections, M M, in combination with the pivoted frames, K K, all arranged and operating substantially as and for the purposes specified.

39,479.—Breech-loading Fire-arm.—Henry Gross, Wiffin, Ohio:

I claim, first, As an auxiliary device to a breech-loading fire-arm operating substantially as described, the pivoted guide, E, working in the slot, D, and maintaining during its up and down movement in the path of a circle a close relation between its forward end and the breech end of the gun barrel, substantially as and for the purpose set forth.

Second, Connecting the plug-carrier, F, to the guide, E, substantially as described.

Third, The construction of the slot, D, with its face, a, concentric with the axis, a', of the guide, E, in combination with the auxiliary device, E, and breech-piece, F c, substantially as and for the purpose described.

Fourth, A breech piece, F, with plug, c, on its front end, made so as to receive an eccentric within it and to wholly encircle the same, and also to admit a wedge segment, J, in rear of it, and likewise to admit a guide, E, above it, all substantially as and for the purpose set forth.

Fifth, The combination of the guide, E, sliding segment, F, and eccentric, G, substantially as described.

Sixth, The combination of the lever, H, segment, J, eccentric, G, breech piece, F c, space-closing device, E, and peculiarly formed slot, D, substantially as and for the purpose set forth.

39,480.—Manufacture of Water Gas.—W. H. Gwynne, White Plains, N. Y.:

I claim passing steam super-heated or otherwise through melted metal or ores, for the purposes described and shown.

39,481.—Filling Molds with Vulcanizable Gums.—Joseph Charles Howells, Washington, D. C.:

I claim the introduction of vulcanizable gums into molds or flasks by injection, substantially as set forth and by the apparatus herein described or its equivalent.