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:—

Apparatus for Making Extracts from Tan-bark, Etc., by Means of Exhaust Steam.—The object of this invention is to utilize exhaust steam from steam engines, for the purpose of making extracts from tan-bark and other materials. The invention consists in the arrangement of a box with perforated sides and bottom, in combination with the pipe which conducts the exhaust steam to the vat containing the bark or other material to be extracted, in such a manner that the steam is free to expand and made to condense partially as it passes from the exhaust pipe into said box and all back pressure on the piston is avoided, and, at the same time, the full benefit of the action of the steam on the bark or other material is obtained. S. W. Pingree, of Lawrence, Mass., is the inventor.

Cross-plate Fire Surface for Steam Boilers.—The object of this invention is to increase the heat-transmitting power of the interior or heating surface of all kinds of steam boilers. Experience has shown that the mere providing of a large heating surface is not sufficient to transmit the heat generated in the furnace to the water; when the products of combustion are carried through flues or tubes, the lineal currents pass at right angles to the line of transmission of heat through the plate, the cylindrical mass of air is not equally heated from axis to periphery; while the temperature of the external stratum in contact with the metallic surface of the tube may be sufficiently lowered, the temperature of the interior portion, or cone, will remain nearly the same when it leaves as when it enters the tube. It is, therefore, evident other means must be found than the tubular system, in order to effect an improvement in the construction of the interior surface of steam boilers. To accomplish this is the object of this present invention, and for that purpose it consists in the construction of fire-boxes, flues, or tubes of any desired shape or dimension, with ribs projecting into the tube or flue and also into the water, which ribs have a spiral direction and diminish near the bottom of the flues so as to leave the same smooth to facilitate cleaning. The heated gases in passing through the flues or tubes must follow the spiral direction of the ribs, which continually break them up and cause them to mix so as to successively present fresh particles to the metal. The projecting ribs also vastly increase the heat-absorbing and conducting capacity of the surface, and enable a boiler of greatly reduced dimensions to supply a comparatively large amount of power. These tubes, flues, and fire-boxes, for all sizes of marine and land boilers, are made of cast iron in a peculiar manner, so that their strength will exceed that of the best boiler-iron flue or fire-box without stays, and as the heat-transmitting power of cast iron is to wrought or sheet iron plates as 66 to 39, it is obvious that cast iron is the proper metal for the flue or fire surface of boilers, while wrought iron is the natural metal for the outer shell by virtue of its superior tensile strength. Licenses to manufacture steam boilers, as well as all information on the subject, can be obtained from the inventor, Joseph A. Miller, engineer, No. 58 John street, and No. 614 Broadway, New York.

Machine for Cutting Moldings.—This invention relates to a new and useful improvement in the feed mechanism for cutting moldings, these in which pressure rollers are employed for feeding the stuff to its work. The invention consists in the employment or use of universal joints, applied to the shaft of the lower feed roller, in connection with a swinging frame, in which the shaft of the upper feed roller is placed, and with gearing for operating said machinery, the whole being so arranged that the bed on which one of the cutter shafts is fitted may be adjusted higher or lower, to suit the thickness of the molding to be cut, without at all affecting the operation of the feed rollers; the latter performing their function equally as well, whether thick or thin moldings are being cut, and without requiring any special adjustment to compensate for the variation of the thickness of the moldings. H. B. Smith, Lowell, Mass., is the inventor.

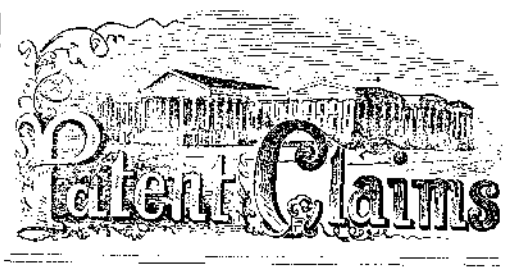
Wheel for Vehicles.—The tires of the wheels of vehicles are very liable to become loose, owing to the shrinking of the fellies of the wheel and the hub, and, more frequently, to the penetration of the ends of the spokes into the fellies and hub. When the tire of a wheel becomes loose, from either of the above causes, it has hitherto been the custom to remove the tire, and either cut it, and remold it, and shrink it again on the wheel, or to contract the tire without cutting it, by upsetting it with a machine, many of which are patented for the purpose. Both of these plans are attended with considerable trouble and expense, which it is the object of this invention to avoid. This invention consists in applying to the spokes of a wheel a nut and sleeve and a screw, arranged in such a manner that the spokes may be expanded or lengthened at will, and the tire always kept tightly on the wheel. C. J. Crane, of Burr Oak, Mich., is the inventor.

Street-sweeping Machine.—These improvements are embraced in two Letters Patent, the first of which principally consists in arranging upon and along the outside of the driving wheels, and upon a common shaft, extending in the same direction with that in which the machine moves, a series of brushes or brooms, made of any material adapted to street sweeping, which brushes, as the machine is drawn forward, revolve in a plane at right angles to the same, so that by guiding the machine along by the edge of the curbstone the bushes are thus brought close to the same, consequently, as they revolve, sweeping or throwing out the dirt and other refuse matters in the street near and within a short distance of the curbstone, toward the central portion of the street, or, at least, a sufficient distance to enable any of the ordinary sweeping machines when afterward drawn over the ground to sweep them up into a wagon therefor, or into suitable heaps, to be easily and readily put into a dirt cart for their removal. And the second, in so attaching that portion of the machine containing the endless belt, upon and by which the dirt, as fast as swept up from the street, is conveyed to the dirt-box of the machine, that it can be readily detached therefrom, or placed thereon, at pleasure, whereby, when the dirt-box has been filled to its utmost capacity, or as much as desired, it can be then drawn away to any convenient place for depositing the dirt, without necessarily carrying with it the sweeping devices of the machine. Andrew J. Roberts, Boston, Mass., is the inventor.

Quartz Crusher.—This invention relates to certain improvements in that class of quartz crushers in which the crushing is effected between a stationary and an oscillating jaw, in combination with suitable crushing rollers. The invention consists in the arrangement of a sieve between the working jaws and rollers, in such a manner that the pieces of rock, on being discharged from between the crushing jaws and while passing over the sieve, are divested from all fine dust adhering to them, and the full benefit of the rollers is obtained, which is not the case if the pieces of rock, enveloped in dust as they are when leaving the jaws, drop directly between the rollers. In order to keep the surface of the rollers clean and prevent the dust adhering to their surfaces, comb-shaped scrapers are applied, which are adjustable, so that their points can always be kept in contact with the periphery of the rollers. M. B. Dodge, of New York City, is the inventor.

It was a curious freak of the late tornado in Minnesota that stretched the telegraph wires sixty feet. When found by a repairer, the wire, though disconnected from any main battery, was so charged with electricity that it communicated a severe shock nineteen hours after the storm had passed. It is supposed that the wire was so overcharged as to become red hot, and in that condition stretched by the sheer force of the wind.—*The Telegrapher.*

CHEMICAL SCIENCE IN GERMANY.—Such is the appreciation of chemical science in Germany, says an English journal, that at the present time two large chemical laboratories on the most complete scale are in course of construction at Berlin and Bonn, at the expense of the State. They will cost, it is said, nearly $400,000. The field open for chemical science in this country is very great, and we expect to witness a great revival of this important science.



ISSUED FROM THE UNITED STATES PATENT-OFFICE
FOR THE WEEK ENDING OCTOBER 24, 1865.
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.

50,546.—Window-blind Fastening.—A. C. Arnold, Norwalk, Conn.:

I claim the plate and attachments, A, the angular-shaped bracket D, pin, C, catch, G, and lip, in combination, for the purpose described when depending on the lower sash being closed to make them effective, substantially as set forth.

50,547.—Rowlock.—M. T. Babb, Cape Elizabeth, Me.:

What I claim as my improvement is the slotted and bulbous headed spindle, c d, in combination with the cylinder, b.

50,548.—Apparatus for Generating Gas.—Joseph Bagot New York City:

I claim obtaining the necessary motive-power to drive the exhausters of gas generating apparatus from the escaping waste heat of the retort furnaces, substantially as herein described.

50,549.—Envelope.—E. L. Barrett, Springfield, Ohio

I claim the herein-described expansion envelope, when constructed as specified, for the purpose set forth, being a new article of manufacture.

50,550.—Sheep Rack.—J. S. Beals, Alabama Center, N. Y.:

I claim the feed board, D D, connected to the sides of the rack, so as to turn thereon, in combination with the boards, E E, attached to the feed board, D D, by hinges or joints, substantially as and for the purpose set forth.

I further claim the revolving standards B, arranged and applied to the rack, substantially as and for the purpose specified.

50,551.—Apparatus for Utilizing Heat from a Furnace.—Silas Bennett, Newcastle, Pa.:

First, I claim the vertical air tubes, H, located in the air heating chamber of the furnace, and used to assist the draught of heated air into the distributing tubes, I I, etc., which lead from the furnace to the place where the heated air is to be utilized.

Second, So inserting the air tubes into the air heating chamber, in connection with, and immediately beneath, the distributing pipes above them, that the apartments of the house may be supplied directly and separately with air from the cold-air duct substantially as described and represented.

Third, The additional air tubes, W, for the introduction of exterior air into the circulation, as described and represented.

Fourth, The arrangement, as described and represented, for conducting the heated air from the furnace to appliances or apparatus for generating steam for culinary or drying operations, baking, etc., whether or not the same be previously or subsequently used for warming apartments.

50,552.—Coke Oven.—Jacob Bowers, Connellsville, Pa.:

I claim placing the opening or doorway for discharging the contents of the oven below the level of the bottom of the oven, in combination with the moving bottom, so constructed and arranged as to make a passage from the interior of the oven to the doorway, when the bottom is tilted, and to close the communication when the bottom is shut down, substantially as and for the purposes herein set forth.

50,553.—Saw.—Ira S. & C. N. Brown, Westerly, R. I.:

First, We claim, in combination with a saw plate and removable tooth, a locking device, adapted to lock or fasten the tooth after being placed in position, and arranged to admit of the removal of the tooth without necessitating the removal of the locking device from the tooth or plate, in whichever it is situated, all substantially as herein described.

Second, We also claim the bolt, a, tumbler, B, and spring catch, c, or their equivalents, in combination with a removable saw tooth and a saw plate, substantially as and for the purpose herein set forth.

50,554.—Broom Head.—J. D. Browne, Cincinnati, Ohio:

I claim the mode of attaching the handle, and also securely fastening the clamp, as herein substantially set forth.

50,555.—Focusing Plate-holder.—S. W. Burgaw, Allentown, Pa.:

First, I claim the adjusting screws, b, in combination with the frames, A B, constructed and operating substantially as and for the purpose set forth.

Second, The springs or screws, or either of them, with or without plates, when used by means of an attachment to adjust the holder without moving the plate in the holder.

[This invention consists in the use of regulating screws, in combination, with or without springs, and with the frame holding the ground glass or focusing plate of a photographic instrument, in such a manner that by means of said screws the ground glass can be readily adjusted and brought into the proper focus without much loss of time, and with the greatest accuracy. It consists, also, in the application of protecting plates, in combination with the regulating screws and with the frame holding the ground glass, in such a manner that the operation of adjusting the ground glass can be effected without springs, simply by turning said regulating screws, and the screws are securely held in place, and not allowed to shift their position spontaneously.]

50,556.—Hand Stamp and Embossing Press.—William Burrows, New York City:

First, I claim the arrangement of a stationary guide, H, for an embossing stamp, and of a horizontally swinging printing stamp, in connection with one standard and bed plate, substantially as herein described.

Second, The opening, C, in the bed plate, A, arranged in relation with the swinging printing head, D, for the purpose and in the manner substantially as herein set forth.

Third, I claim the ink fountain applied directly to the printing head of a hand stamp, substantially as herein described.

50,557.—Horse Rake.—George E. Burt, Harvard, Mass.:

First, I claim the combination of the elevator, P, with the crank, r, and pitman, Q, constructed and operating substantially as described, for the purposes set forth.

Second, The combination of the arms, O O', with the bar, G, constructed and operating substantially as described.

Third, The combination of the tooth, E, with the block, d, and the pin, i, and the arm, D, for the purposes set forth.

Fourth, The combination of the cylinder, W, the bolt, r, and the arm, D, for the purposes described.

50,558.—Well Packing.—James Calkins and J. Fraser, Buffalo, N. Y.:

We claim a seed bag, E, closing the whole aperture of the well,

and provided with a means for attaching and detaching a lowering and raising rod or its equivalent, substantially for the purpose herein described.

Second, We also claim the conical skeleton formed guide, G, in in combination with the rod, A, and bag, E, constructed and operating substantially as and for the purposes set forth.

Third, We also claim elevating the cone, G, and screw-connecting pin, f, so far above the the top of the bag as to allow the accumulation of sediment without detriment to said connections, substantially as set forth.

Fourth, We also claim the application to uutubed wells of a movable seed bag placed between the oil-bearing series of rocks and the veins of fresh water, for the purpose of excluding the latter from entering the fissures which contain the oil, substantially as and for the purposes herein set forth.

50,559.—Car Coupling.—George G. Campbell, Janesville, Wis.:

I claim the application to the link and pin self-coupler of the metallic springs, a and b, substantially as and for the purpose set forth.

50,560.—Wind Guard and Air Heater for Lamps.—John B. Capewell, Gloucester, N. J.:

I claim the wind guard or air heater, C, substantially as herein specified and described.

50,561.—Method of Preparing the Surface of Porcelain to Receive Designs, Etc.—Joseph Cartisser, New York City. Antedated Oct. 14, 1865:

I claim preparing pottery ware, such as porcelain and other fine ware, in the manner substantially as above described.

[This invention consists in preparing the surface or surfaces of pottery ware so as to form designs thereon, and so that they will receive and retain delineations made by painting, drawing, and by the photographic art.]

50,562.—Arrangement of a Welding Furnace and Steam Boiler.—H. J. Davison, New York City:

I claim the arrangement of the two furnaces, C and D, flue, b, openings, g g, and side flues, f, substantially as and for the purpose herein specified.

50,563.—Quartz Crusher.—M. B. Dodge, New York City:

I claim the arrangement of the sieve, D, between the crushing jaws, B C, and crushing rollers, F, and in combination therewith, substantially as and for the purpose set forth.

50,564.—Railroad Switch.—George Douglass, Luzerne, Pa.:

I claim the chairs, C C constructed with transverse grooves, a, and recesses, d, substantially as shown, for the purpose of forming bearings for the rod, D, and forming guards or stops at one side of the switch rails, as set forth.

I also claim the rod, D, provided with projections, c, having ledges, d, on them, two or more, and arranged relatively with the chairs and switch rails, to operate substantially as and for the purposes specified.

I further claim the combination of the lever, E, and rod, F, with the rod, D, provided with the projections, c c, having ledges, d, on them, and the chairs, C C, constructed as described, all for the purpose set forth.

[This invention relates to a new and improved railroad switch, of that class in which means are devised for preventing the switch from casually moving out of proper position. The object of the invention is to obtain a switch of the class specified which may be operated or adjusted with the greatest facility, be strong and durable, and held firmly in position, so that it cannot casually or accidentally moved out of its proper place.]

50,565.—Machine for Millstone Dressing.—William A. Dryden and James H. Montgomery, Monmouth, Ill.:

We claim the carriage, E, provided with a vertically sliding frame, I, to which an adjustable pick, Q, is attached, and also provided with gearing to engage with a rack, F, on the frame or box, B, and with a crank pulley, or its equivalent, to operate the frame, I, all arranged in such a manner that by the turning of a single shaft, G, in the carriage, the pick will be operated and fed along to its work, substantially as described.

We also claim the giving of a positive motion to the pick through the medium of the crank pulley, J, and slide, g, when combined with the adjustable carriage, substantially as described.

We further claim the adjustable frame or box, B, placed on the base, A, and operated through the medium of the screw, C, or its equivalent, when said parts are used in connection with the carriage, E, having the pick, Q, attached, and all arranged to operate substantially in the manner and for the purpose set forth.

50,566.—Hinge.—S. R. Dummer, New York City:

I claim the guide, y, supporting the latch lever, r, between its pivoted point, and the locking point in the disk, m, substantially as described and represented.

50,567.—Lantern.—Rufus Dunham, Portland, Maine:

I claim the combination of the movable shade, B, the parts A and C, and the handle, E, as and for the purposes described.

50,568.—Press for Pressing Gunpowder.—Lammot Du Pont, Wilmington, Del.:

I claim the compressing of powder dust into cakes or slates, by pressure applied horizontally, substantially as and for the purpose herein described.

50,569.—Damper.—Albert E. Elmer, Springfield, Mass.:

What I claim is my improved damper, as consisting of the two perforated plates, A B, and drop valve or plate, C, made, arranged and combined together, and with journals, substantially in manner, and so as to operate as hereinbefore described.

50,570.—Sugar Mill.—Pleasant Fitzgerol, Newport, Ky.:

I claim adjusting the crushing rollers by means of a single screw operating on springs, in such a manner, that through the medium of the rods and steps they will all be adjusted toward or from each other at the same time, substantially as described.

50,571.—Distilling Petroleum.—Huot Fleury, New York City:

I claim the new process of distilling and rectifying petroleum oil above described, taken all together, and of which the apparatus is only a necessary part.

50,572.—Amalgamator.—P. W. Gates, Chicago, Ill.:

First, I claim carrying the ores of metals to be amalgamated into a bath of liquid metal, to a point below the axis of the submerging device, by means of buckets which are so arranged about a shaft or axis that they positively hold the ore upon the submerger, until they have passed said axis a greater or less distance, and then cease to have any positive hold upon the ore, substantially as described.

Second, Dividing both the ore and amalgamating agent in the process of amalgamation by the means and upon the principle, substantially as herein described.

Third, The combination of buckets with a scroll conveyor or submerging machine, substantially in the manner and for the purpose described.

50,573.—Quartz Crusher.—P. W. Gates and D. R. Fraser, Chicago, Ill.:

We claim, First, A double-acting, oscillating crusher, G, which has its journals arranged below the center of a square, rectangular or any other geometrical figure, which would inclose its transverse section circumferentially, substantially as described.

Second, Constructing a double-acting oscillating crusher, C, which has its journals located as described, with a ridge, e, at its highest point for dividing the material to be crushed and ground in its passage into the machine, substantially as described.

Third, The arrangement, consisting of the yoke, G, which takes hold of both ends of the shaft of the crusher outside the bearings of said shaft, and is worked by one crank, the double-acting crusher and double-concave hopper, substantially as and for the purpose described.

50,574.—Propelling Apparatus.—Albert Gemunder, New York City:

I claim, First, A reciprocating frame or its equivalent, constructed and operating substantially as described.

Second, The employment, in combination with the said reciprocating frame or its equivalent, of two or more paddles, so arranged as that either may be used separately to drive backward or forward substantially as set forth.

Third, The employment of two or more paddles, operating in opposite directions) on each side of the boat, to be used separately, substantially as and for the purpose hereinbefore set forth.

Fourth, The combination of a pivoted paddle, with the above-described levers, or their equivalent for lifting such paddle out of the water during the forward stroke, in the manner substantially as herein before set forth.

50,575.—Machinery in Spooling Thread.—A. B. Glover, Yonkers, N. Y.:

I claim, First, In machines for spooling thread, the lever, O, constructed and operated substantially as above described, one arm of which carries one end of the main shaft, B, and another is engaged at certain times by a latch, N, as herein shown.

Second, I also claim the slide, I, constructed substantially as shown, in combination with a change plate, L, substantially as above described.

Third, I also claim the combination of the cam, g, with the slide, I, substantially as above described.

Fourth, I also claim the fingers, r r', in combination with the change plate, L, substantially as above described, the fingers being pressed continually against the plate by a spring, s, or other suitable device.

Fifth, I also claim the toothed wheel, h, in combination with the plate, K, of the swinging frame, substantially as and for the purpose above described.

Sixth, I also claim the shaft, G, with the cam, p, in combination with the lever, O, and latch, N, substantially as and for the purpose above described.

Seventh, I also claim actuating the brake, O', and bringing it against the pulley of the spindle at the instant of the disengagement of the latch, N, from the lever, O, substantially as and for the purpose above described.

[The object of this invention is to produce a spooling machine which will wind a spool of silk, cotton or other thread automatically and stop the instant the spool is full. Among other novel features in its construction, is the mode of disconnecting the spindle from the shaft or pulley which drives it; also a peculiar construction of a slide, the position of which determines the distance to be traveled by the thread guide in laying the courses of thread on the spool.]

50,576.—Rock Drill.—Edward J. Graham, Philadelphia, Pa. Antedated Oct. 6, 1865:

I claim the within-described tubular drill, having on its face sets of cutting edges, arranged substantially, as and for the purpose described.

50,577.—Coal Machine for Mining.—W. W. Grier, and R. H. Boyd, Hulton, Pa.:

We claim, First, The screw shaft, F, provided with the groove, t, in combination with the gear wheel, G, provided with the feather, c', arranged and operating in connection with the movable frame, as and for the purpose herein set forth.

Second, The drum, T, mounted on shaft, L, and cord, r, arranged to operate the movable frame, as shown and described.

Third, The wedge-shaped blocks, c' in combination with the stationary blocks, c, arranged to operate substantially as shown, for the purpose of adjusting the frame, E.

Fourth, The slotted standards, R, in combination with the cam, levers, s, or their equivalents, for the purpose of holding the frame, E, as shown and described.

Fifth, The arrangement of gearing, as shown, by which each series of three drills is operated independent of the others.

Sixth, Attaching the bits to the detachable stem or mandrel, v, as shown and described.

Seventh, Supporting the bits, by means of the guide bars, P and U, arranged as shown and described.

Eighth, The swinging frame, C, provided with the gear wheel, D, arranged to operate in combination with the operating mechanism, and the truck wheels, a, for the purpose of moving the machine, as herein set forth.

50,578.—Powder for Polishing.—Andrew Hamilton, Broad Brook, Conn., and James De Gray, Brooklyn, N. Y.:

We claim the preparation and use of pearl powder for polishing purposes, substantially as herein described.

Second, A mixture composed of pearl powder and whiting, either with or without other substances, substantially as herein described, for the purpose of polishing metals or other materials, or cleaning the teeth.

50,579.—Car Wheels.—John Harris, Marquette, Wis.:

I claim a car wheel constructed of two parts, B D, fitted one upon the other, and the inner parts keyed or otherwise secured firmly on the axle, substantially as and for the purpose set forth.

I further claim constructing the inner part or hub, B, of the wheel with a flange, a, and using in connection therewith a plate, c, bolted to the hub with or without the packing interspersed between, substantially as and for the purpose specified.

[This invention consists in constructing a car wheel of two concentric parts, one part being fitted on the other and arranged in such a manner that a car truck may pass over curvatures in the road without subjecting either the axles or the wheels to any undue strain, as a revolving movement is allowed the outer part of each wheel independent of its axle.]

50,580.—Letter File.—Jotham W. Hauxhurst, New York City:

I claim as an article of manufacture, the combination of the case, B, spring, n, and curved wires, C and D, with the point, e, and cavity, s, with the thumb piece, P, arranged in the manner, and for the purpose set forth.

50,581.—Steam Gage.—Charles F. Henis, Cincinnati, Ohio:

I claim, First, The combination and arrangement of the cage or guard, E, with the float, I, for the purpose set forth.

Second, The combination and arrangement of the screws, D, and K, and nuts M, and N, for the vertical adjustment of the cage and float respectively.

50,582.—Safety Pocket.—Gibbons G. Hickman, Downingtown, Pa.:

I claim a safety pocket closed by a spring catch, said catch being secured by a screw, substantially as herein shown and described.

50,583.—Symmetrical Drawing Board.—Charles D. Hillman, Louisville, Ky.:

I claim the above-described symmetrical drawing board, substantially as and for the purpose described.

50,584.—Fire Tongs.—Birdsill Holly, Lockport, N. Y.:

I claim, First, Constructing fire tongs with their blades and other parts composed of the two flanges, b b', connected together by the central perforated web, c, substantially as and for the purposes set forth.

Second, I also claim the broad circular bearings, e e, in combination with the skeleton blades, A B, and handles, A' B' substantially as and for the purposes described.

50,585.—Trace Fastening.—D. E. Holmes, Halifax, Mass.:

I claim the trace fastening herein described, the same consisting of the right angular slotted shaft or stock, c, and hook, r, placed loosely upon and over the same, the two being arranged and operating together, substantially in the manner, and for the purposes specified.

I also claim in combination with the above, the use of the spiral or other suitable spring, operating as and for the purposes specified.

[This invention consists in forming the ordinary trace-hook in two parts, which are so attached together that when the trace has been placed over the hook, the hook can then be sufficiently turned to bring it at right angles to the trace slit, where it is securely held until desired to unfasten the trace when turning the hook in the proper direction to bring it in line with the trace, the trace can be then easily removed therefrom.]

57,586.—Water-boiling Apparatus.—H. W. Horton, Hamburg, Mich.:

I claim, First, The chamber, B, when arranged in a boiling apparatus substantially as and for the purpose specified.

Second, The fire-box or pan, D, in combination with the chamber, B, and vessel, A, substantially as described.

Third, The combination of the vessel, A, chamber, B, pipe, C, fire-box or pan, D, substantially as herein specified.

[The object of this invention is to provide a vessel for boiling water without placing the same upon a stove or fire. And the invention consists in arranging within the lower part of any suitable vessel capable of containing water or other fluid a chamber having a draft pipe communicating with the exterior of the vessel, and in employing within said chamber a fire-box or pan which can be removed at pleasure, and in which a fire may be made for radiating heat which is caused to pass first through the fire-box, then back through the chamber for its entire length, and finally up through the pipe.]

50,587.—Umbrella.—Horace Hotchkiss, Plainfield, N. J.:

I claim an umbrella or parasol handle of wood or other elastic material, covered with metal, as described.

[This invention consists in the employment or use of a stick of wood or other elastic substance, covered with sheet metal, such as iron, brass or zinc, in place of the ordinary metallic tube generally used for umbrella and parasol handles with metallic frames, in such a manner that the operation of bracing the metal tube, can be dispensed with, and a stronger, lighter, and better handle is produced at less cost than the ordinary metallic handles.]

50,588.—Artificial Fuel.—Samuel D. Hovey, Chicago, Ill.:

I claim the production of artificial fuel, out of any combustible substance which can be improved by aggregation, by combining the same with glue, substantially in the manner and about in the proportion set forth.

50,589.—Scissors.—William Howard, Middletown, Ohio:

The application and use of the spring, A, and loose rivet, B, with the shear blades, arranged and operating in the manner, substantially as described.

50,590.—Deep Well Pumps.—Benjamin J. C. Howe, Syracuse, N. Y.:

I claim removing and replacing the cylinder or working chamber of a pump without taking up the tubing substantially as described.

I also claim the construction and arrangement of the hooks or projections, a a, with the groove, B, in the discharge pipe, substantially as described.

50,591.—Lantern.—John H. Irwin, Chicago, Ill.:

I claim securing a removable lantern top to the upper part of the guard, substantially as herein specified and described.

50,592.—Priming Metallic Cartridges.—Charles Jackson and J. G. Pusey, Providence, R. I.:

We claim a cartridge composed of the case, A, provided with the hollow conical point, a in combination with the disk, B, provided with the recess, e, and slot, c, substantially as shown and described.

50,593.—Self-centering Chuck.—Silas T. Jackson, Sheboygan Falls, Wis.:

I claim, in combination with the movable jaws of a chuck, a differential screw, operating substantially as described, so as to form a self-connecting chuck, as set forth.

50,594.—Car Truck.—Charles F. Janriet, Aurora, Ill.:

I claim, First, Suspending the swing beam, E, from springs, F F, by means of hangers, H H, in combination with the straps, G G, and spring guides, I I, all operating substantially as described, for the purpose of admitting lateral movement and transferring the weight upon the swing beam to the axles, as set forth.

Second, Sustaining the swing beam, E, by means of a pair of suspenders, H, on each side of each spring, substantially as described.

50,595.—File-cutting Machine.—James Jervis, Baltimore, Md.:

I claim, First, The combination of the body of the regulator with the adjustable section, B, connected therewith, substantially as described, whether the latter presses directly upon the shape or through the intervention of the presser, a.

Second, The combination of the body of the regulator, the adjustable section, and the presser, a, hinged to the latter, substantially as described.

Third, Giving to the rotating bed a taper whereby the ability of the regulator to cause the rotation of the bed is made comparatively uniform throughout, and this whether the same bed is used for all shapes, or a separate bed is provided for each shape, or description of file.

50,596.—Fire Escape.—Charles J. Jones and Emma W. Jones, New Brighton, N. Y.:

We claim a ladder, composed of a series of frames, B, each containing one or more folding steps, b, provided with suitable stops, in combination with links, a', and bannisters, e, constructed and operating substantially as and for the purpose set forth.

[This invention relates to certain improvements in that class of fire escapes which are composed of a series of steps arranged so that they can be folded up and stowed away in a comparatively small space when not used, and when they are to be used they are thrown out of the window, the upper end being secured inside the building, and the steps in falling down arrange themselves in the proper position and form a ladder, by means of which persons can escape from a burning building.]

50,597.—Book Clamp.—Joshua W. Jones, Harrisburg, Pa. Antedated April 27, 1865:

I claim the combination of a stationary and movable jaw adjusted by screws, D and E, and worked by an eccentric in the manner before described. I do not claim the stationary and movable jaw, but the manner of working it by an eccentric, and adjusting it to suit the different thicknesses of the book, as before described.

50,598.—Machine for Turning Rim Bases of Cannon.—Edward Kaylor, Pittsburgh, Pa.:

I claim the combination of the shaft, a, carrying a revolving cutter, b, a planing tool, susceptible of feed motion to and from the center of its shaft, with the revolving and sliding pattern or forming block, g, moving at right angles to the shaft, a, and so shaped as to give to the cutter an irregular motion, for the purpose of planing or cutting irregular curved surfaces.

50,599.—Bolt-heading Machine.—Edward Kaylor, Pittsburgh, Pa.:

I claim, First, The use of V-shaped swages for forming the head of bolts in combination with cams for operating them, when so constructed and arranged as that each swage cam shaft shall have a separate bearing in the frame of the machine, and shall be operated by a cog wheel thereon, gearing directly into a central-driving gear wheel, instead of gearing into the cog wheel on either of the other cam shafts, substantially as and for the purpose hereinbefore described.

Second, The combination of the crab, b', and sleeve, d', with the cam projection, i', and post K', with a spring, e', or other device for pressing the sleeve and crab together, for the purpose of a self-acting clutch.

Third, The combination of the self-acting clutch, constructed substantially as described, connected with the pull y, y', by a rope or chain, and the pulley shaft, w, and pulley, y, with its rope or chain, for the purpose of alternately raising and dropping the hammer in the manner hereinbefore set forth.

50,600.—Tool for Cutting Washers.—Charles A. King and Otis A. Smith, Middletown, Conn.:

We claim a tool for cutting washers having either a fixed or adjustable center pin and one or more adjustable cutters, all arranged within the tool, substantially in the manner described.

[This invention relates to a new and very simple but useful tool for the cutting of washers from leather, etc.; and it consists of arranging within the shank of the tool, a center-pin and one or more cutters in such a manner that they can be adjusted with regard to each other, and according to the size of the washer to be cut, by revolving or turning the tool upon its center-pin in the material from which the washer is to be made.]

50,601.—Machine for Bending Wood.—Samuel U. King, Windsor, Vt.:

I claim the machine substantially as described and for the purpose specified, it consisting of the several series of jaw carriers, c d c c, connected together and with their supporting frame, by means

as described, the stationary and movable jaws, f g, of such carriers, the mechanism for simultaneously operating the movable jaws relatively to the fixed jaws in manner as described, and finally, the mechanism for simultaneously actuating the jaw carriers, m manner as explained, the whole being arranged so as to operate on a snath, and bend it with a uniform longitudinal compression or contraction, and in other respects, as hereinbefore specified.

I also claim the combination of the adjusting screws, a', and the nuts, b2,b2, with the jaw carriers to which they are applied, and with the mechanism for actuating the jaw carrier so as to effect the bending of a snath in manner as described, the purpose of such screws and nuts, or the object to be effected by them being hereinbefore explained.

50,602.—Wood-bending Machine.—George Kriebel, Hosensack, Pa.:

I claim the hinged dogs, f, in combination with the mould, G, to which the wood to be bent and strap are fastened by a screw clamp, and with the feed screw, D, constructed and operating substantially as and for the purpose set forth.

[This invention relates to certain improvements in that class of machines for bending fellies, for which a patent has been granted to S. Moyer, March 20, 1860. In his machine, the stick of wood to be bent for a felly is laid into a metal strap, and fastened by means of wedges to a mold, and by imparting to this mold a transverse sliding motion, the metal strap together with the felly are forced round the same by the action of rollers, which are movable, and the position of which is changed as the operation of bending the felly proceeds. The invention which forms the subject matter of this present invention consists in the use of hinged dogs which catch behind suitable shoulders at the ends of the metal strap, and which cause the dampened clamp and felly to bend round the mold without requiring any change m their position.]

50,603.—Blacksmith Tongs.—Charles W. Le Count, Norwalk, Conn.:

I claim the tongs, constructed as and for the purpose described, or their equivalent.

50,604.—Lathe Dog.—C. W. Le Count, Norwalk, Conn.:

I claim, First, The attachment of a dog or carrier to the center chuck of a lathe by means of a ball and socket joint or its equivalent, substantially as and for the purpose herein specified.

Second, Furnishing the so attached dog with two set screws, R R, arranged on opposite sides and in line with each other, substantially as and for the purpose herein specified.

50,605.—Field, Fence, and Gate Combined.—John C. Lee, Seville, Ohio:

I claim the arrangement of the panel or gate, F, in combination with the mortised post, B, post, A, strips, d', slats, d, as and for the purposes set forth.

50,606.—Grinding and Polishing Saws.—William J. Lippincott, Pittsburgh, Pa.:

I claim, in machines for grinding and polishing long saws, the arrangement of a grindstone supported on adjustable bearings, so as to be raised or lowered at pleasure in the manner described, with a rest roller of small diameter, having its axis parallel to that of the grindstone, and with one or more pairs of feed rollers having pressure screws or their equivalent so as to hold and guide the saw in its passage under the stone, such feed rollers being geared together and also connected by gearing with the rest roller, and having a positive and continuous motion on their axes in such direction as to feed the saw plate forward either with or against the motion of the revolving grindstone, substantially in the manner and for the purposes hereinbefore set forth.

50,607.—Hoisting Apparatus.—Samuel M. Longley, Hudson, N. Y.:

I claim, First, The endless screw, J, and worm wheel, H, in combination with the different al or double rooved pulleys, F, G, and the suspended frame, A, substantially as herein described.

Second, In combination with the sheave or frame, A, I claim the guard or covering, f, constructed and operating in the manner and for the purpose substantially as herein described.

Third, The combination in one suspended frame of a differential pulley, F, G, a worm wheel, H, endless screw, J, and a disengaging device for throwing the endless screw out of gear, the whole operating substantially as herein set forth.

50,608.—Mode of Embossing Wood.—Henry May, Bridgeport, Conn.:

I claim the improved article of manufacture herein described, consisting of sheets or cross sections of wood, stamped or compressed into useful or ornamental forms, patterns, or devices, by applying the pressure and producing the device upon the end of the grain, substantially as set forth.

50,609.—Machine for Drawing Belts Together.—Edwin F. Miller, of Williamsburgh, Mass., and Bela Gardner, of Hampshire Co., Mass.:

I claim, First, The clamp, A or B, when constructed in the manner and for the purpose herein set forth.

Second, In combination with said clamp the screws, o p or o' p', for the purpose and in the manner described.

Third, The combination of the clamps, A B, screws, C D, bevel gears, g h k l, and shaft, P, when arranged and operating substantially in the manner and for the purpose herein described.

Fourth, Forming the grooves or flutes, e e, or their equivalents on the projections, f f', and corresponding flutes or grooves, s s, on the bed pieces, a a', in the manner and for the purpose described.

50,610.—Broom Head.—John A. Miller, Somerville, Ohio:

I claim the sheet-metal head, A D R m m n n, furnished with flanges, i, to receive a lock slide, B b, substantially as set forth.

50,611.—Cast-iron Boiler.—Joseph A. Miller, New York City:

I claim, First, The fire-box, B, with ribs or flanges, b, projecting inwardly and outwardly therefrom, substantially as set forth.

Second, The conducting pins, a a, projecting inwardly and outwardly from the shell of the fire-box or flue, substantially as set forth.

Third, The flue, c, with the oblique tapering ribs forming a portion thereof, as and for the purposes specified.

50,612.—Printing.—Charles N. Morris, Cincinnati, Ohio. Antedated April 24, 1865:

I claim, First, Producing lines of shaded metallic letters, or other characters of varying sizes, on cards and other advertising matter, substantially as described.

Second, Shading all the lines on a card or other advertising matter, or the majority of said lines, when the metallic covering, sizing, and the shades are applied, substantially as herein described.

Third, I claim the process herein described of making the impression which succeeds the ink impression and precedes the metallic impression, or covering with a stiff size in combination with other steps of the process herein given, all for the purpose set forth.

50,613.—Adjustable Stove Grate.—Rees Moss, Philadelphia, Pa.:

I claim the adjustable grate, F, with its projections, j, when the said projections are arranged at the edges of the grate, and extend beyond the same toward the sides of the fire place, and towards the spaces between the bars of the vertical grate, D, as and for the purpose specified.

50,614.—Mode of Sinking Wells.—Byron Mudge, Cortlandville, N. Y.

I claim the process or mode of constructing or sinking wells where no rock is to be drilled, viz.: driving a rod down to and into the water, under ground, withdrawing it, and inserting a pipe in its place, substantially as herein described.

50,615.—Thill Tug.—Thomas Neely and Charles Bishop, Tiffin, Ohio:

We claim, First, Applying a tug strap to a metallic eye, B, by passing a portion of the strap around said eye, substantially as described.

Second, A metallic tug eye, which is constructed with flanges, a a, and a tang, b, substantially as described.

50,616.—Door Bell.—C. S. Nickelson, Canton, N. Y.:

I claim, First, The crank arms, n and r, bolt or pin, m, and sliding bar, z, arranged, connected, and operating together, substantially in the manner and for the purpose described.

Second, The combination with the door plate, g, of the sliding or operating bar, z, having a handle, a', for actuating the hammer or hammers of the bell, f, said bar being connected with them through the devices described and arranged within the door plate, as specified.

[This invention relates to improvements in the mode of operating the hammers of bells, which are particularly applicable to door bells.]

50,617.—Suspended.

50,618.—Swing.—Lewis F. Noe, New York City:

I claim a swing with the bottom and back of the seat hinged together, with pendent ropes, A, and brace ropes, C D, arranged and connected with each other, and with the bottom and back of the seat, substantially as herein specified.

50,619.—Pipe Coupling.—James Old, Pittsburgh, Pa.:

I claim, First, Connecting a thin metal pipe to a section of screw coupling by screwing the former with the latter, and otherwise securing them, as hereinbefore described.

Second, Making the coupling for tubing of wells with a valve or valves constructed and arranged substantially as described, for the passage of gas or oil from the exterior to the interior of the tubing.

50,620.—Molasses Pitcher.—John A. Parise and C. W. MacCord, New York City:

We claim, First, The central pouring spout, B, fitted into the neck of the vessel, surrounded by a funnel shaped or enlarged mouth or overflow receiver, f, and having an opening, d, for the return of the overflow to the vessel, substantially as and for the purpose herein set forth.

Second, The internal flange, g, around the mouth or overflow receiver, f, in combination with the central pouring spout, b, substantially as and for the purpose herein specified.

50,621.—Washing Machine.—Calvin Parsons and B. S. Dane, Rome Center, Mich.:

I claim the arrangement described, consisting of the roller, F, in the frames, E, and the rubber, H, operated by means of the cross bar, L, and guided by the bars, S, in the slots, G.

50,622.—Spiral Spring.—F. C. Payne, New York City:

I claim a spiral spring, composed of wire having a twist, substantially as herein specified.

50,623.—Cupola Furnace.—Abid Pevy, Lowell, Mass.:

I claim a cupola having parallel sides and plane ends, the sides being extended to the length desired, for any required capacity of furnace, and the blast being distributed uniformly along their whole length, but not at the ends, substantially as and for the purpose herein specified.

I also claim supplying the air to the wind chest of the tuyeres, through a pipe at each end of the furnace, each provided with a valve, so as to insure thereby a balanced and uniform blast through all the tuyeres, for the purpose herein set forth.

I also claim the construction and arrangement of the tuyeres, substantially as and for the purposes herein specified.

50,624.—Governor for Steam Engines.—T. R. Pickering, New York City:

I claim, First, The springs, S, composed each of two or more leaves, rigidly connected at their ends and centers, and combined with the sleeves, E and G, substantially as herein specified.

Second, The balls, I I, centrally divided into two parts, one of which is grooved to fit the spring, and the two secured together and made to clamp the several leaves of the spring by means of a central screw, O, substantially as herein specified.

Third, The guards, L L, constructed and attached to the balls, and operating in combination with the central spindle, substantially as herein described.

50,625.—Barrel Machinery.—G. W. Pierce, Holley, N. Y.:

In combination with the rotating platform, K, gear wheels, N O, carriage, I, and lever, Q, I claim the elevating device, H F G E, to raise the cutting device, D D' D'', automatically, when the wheel, N, is thrown out of gear with the pinion, O, to allow the barrel to be removed.

[This invention relates to a new and useful machine for cutting the staves of barrels or casks of a uniform length, forming the bevel or chime at the ends of the staves, and cutting the croze therein; all being constructed and arranged in such a manner as to perform the work very expeditiously, and in a perfect manner.]

50,626.—Apparatus for Making Extracts from Tan-bark. S. W. Pingree, Lawrence, Mass.:

I claim the boxes, G, with perforated sides, applied in combination with the exhaust pipe, D, and leach, A, or its equivalent, in the manner and for the purpose substantially as set forth.

50,627.—Sawing Machine.—Tapping Reeves, Albion, Cal.:

I claim the combination of the dog, n, on the traveling platform, and the shipping arrangement and clutch, or their equivalents, with a friction wheel, which drives the said platform, substantially as and for the purpose above described.

[This invention consists in an improved method of moving the feedmg platform of an edging table.]

50,628.—Gas Burner.—Christian Ritter, Reading, Pa.:

I claim a sliding tube, A, of brass or any other suitable substance or material, open at both ends, the upper end being perforated, C, to slide over gas burners, in the manner described, for the purposes set forth.

50,629.—Street-sweeping Machine.—A. J. Roberts, Boston, Mass.:

First, I claim so arranging a series of brooms or brushes, either one or more, to and upon the outside of a suitable wagon frame, in the direction of its length, and so connecting their shaft or shafts to and with the driving or rear wheels thereof that as the wagon is drawn forward the said brushes or brooms shall be made to revolve at right angles, or nearly so, to the direction in which the wagon moves, substantially as and for the purpose specified.

Second, The combination of the angular or inclined horizontal brush shaft, u, with the side brush shaft, t, both provided with a series of suitable brushes or brooms, and arranged together and connected with the driving wheels of a wagon frame, substantially as described and for the purpose specified.

Third, In combination with the above and either, when used separately or together, the use of the horizontal broom shaft, g', substantially as and for the purpose specified.

Fourth, Hanging the frame in which the several broom shafts have their bearings, and all suspended in such a manner that their brushes can be raised from or lowered to the ground at pleasure, and can adjust themselves to the inequalities thereof, as they are revolved, substantially as herein above described.

Fifth, Attaching the driver's seat to and upon the outer end of a lever arm, B', turning upon a fulcrum, y', of the crane neck-shaped bar, E, and bearing by its inner end against a fixed, elastic cushion, or spring, Z', of the wagon frame, as and for the purpose specified.

Sixth, The use of the spring lever, w', having pulley, x, of the wagon frame, in combination with the driving belt or band, N, as and for the purpose described.

Seventh, Attaching the frames in which the broom or brushes used are fastened to their shaft, by means of one or more bent or other suitable metallic springs, for the purpose and substantially as described.

50,630.—Street-sweeping Machine.—A. J. Roberts, Boston, Mass.:

First, I claim so connecting the frame containing the sweeping devices, and the endless dirt-carrying belt or band, to the wagon or dirt-box of a sweeping machine that it can be readily detached therefrom, or attached thereto, at pleasure, substantially as and for the purpose specified.

Second, The combination of the axle ring, G, and ring, H, attached together and to the front wheels of the sweeping machine, and operating substantially as and for the purposes specified.

Third, The arrangement of the worm, g2, pinion, f2, and shaft, d2, lever handle, m, and lifting cords, c2, operating substantially in the manner described, for the purpose of opening and closing the bottom plates of the dirt-box, as specified.

Fourth, The combination of the hooked-shaped lever arms, W, with the fixed projecting plates, A', the arms being so connected to and with a suitable handle lever, S, through rods, v w, that by raising or depressing the said handle the hooked ends of the arms, w, will be correspondingly moved, substantially as and for the purposes described.

Fifth, The employment in street-sweeping machines of an endless dirt-carrying belt or band, made of india-rubber or any of its elastic compounds, and having suitable-shaped ridges, for the purpose described.

Sixth, Forming upon and along each of the interior surfaces or faces of the sides of the frame, M, a guiding groove or channel, S2, in and through which the endless belt, N, moves, for the purpose specified.

Seventh, Inserting between the bent metallic springs, by which the broom frames are fastened to their center shaft, and the said shaft an elastic cushion, d4, in combination with a set screw, f4, for the purpose and arranged as described.

50,631.—Churn.—Wm. Robinson, Bellefontaine, Ohio:

I claim, First, The combination of a driving device, applied to the bottom of the churn, with a hub, D, and tube, C', substantially as described.

Second, Extending the hub, D, and the upper end of the spindle, B, through the top of the churn cover, in combination with the tube, C', substantially as described.

Third, The radial blades e e, applied to a collar, g, which surrounds the central tube, e', and which, together with the blades, can be removed from the churn box at pleasure, substantially as described.

Fourth, The gathering paddle, h, applied to the removable collar, g, substantially as described.

50,632.—Machine for Pressing and Smoothing Photographs.—Daniel and John Rupp, New York City:

We claim our new and improved machine for pressing and smoothing photographs, etc., having its several parts constructed and arranged in relation to each other, and so as to operate together, substantially as shown and described.

50,633.—Dentist's Mallet.—J. N. Scranton, Bennington, Vt., and H. H. Parsons, Hoosick Falls, N. Y.:

We claim, First, The combination of the tool-holder, hammer, spring catch and spring, substantially as herein described, so that by pressing the tool or tool-holder, C, against a resisting object the hammer is forced back against the action of the spring, and then allowed to come down upon the tool-holder, and to produce a blow of more or less force.

Second, Making the tension of the spring, K, adjustable, substantially as herein described, so that the force of the blows of the hammer can be regulated.

Third, The inclined plane, m, in combination with the spring catch tool-holder and hammer, applied and operating substantially as and for the purpose set forth.

Fourth, Making the inclined plane adjustable on the case, A, substantially as and for the purpose described.

[This invention consists in a dentist's mallet, the blow of which is produced by the action of a spring, the hammer being made in the form of a rod of cylindrical or other suitable form, which is guarded in a suitable case, and subjected to the action of a spring. The inner end of said rod or hammer is opposite to the inner end of another rod, which forms the socket intended to receive the tool, said two rods being connected by a spring dog. When the tool is pressed on a tooth, or on the material to be used in filling a tooth, the hammer is forced back against the action of its spring, and at a certain point the dog is released and the hammer is allowed to come down with some force upon the tool holder, thereby producing the action of a mallet.]

50,634.—Track Cleaner for Railroads.—George C. Sharp, New York City:

I claim the combination of a platform on wheels with brooms or brushes, substantially as above described.

50,635.—Cotton Press.—William A. Shepard, New York City:

I claim the combination of the toggle joints or levers, e e and d d, or their equivalents, with the creeping or alternately moving beams, E E', and driving crank, or its equivalent, the whole arranged to operate in the manner substantially as described.

I also claim the employment, in combination with the driving gears and mechanism for moving the beams, E E', of sliding shaft, C, and permanently located driving pulley, B, as and for the purposes set forth.

I also claim the employment, in combination with the beams, ratchets and bolts, of levers, L, so arranged and connected with said bolts as to enable the operator to quickly drop the moving parts, as described.

50,636.—Scale Pan and Tunnel.—Asahel A. Smith, Boston, Mass.:

What I claim as my invention is the scale pan as made with the tunnel or tubular spout, arranged at one end of it substantially as described.

50,637.—Planing Machine.—H. B. Smith, Lowell, Mass.:

I claim the arrangement and combination of the universally jointed shaft, K L, feed roller, G, swinging frame, I, and gearing, M M N N, substantially as and for the purposes set forth.

50,638.—Washing Machine.—Hamilton E. Smith, Cincinnati, Ohio:

I claim the washing cylinder provided with alternate perforations and inwardly projecting pegs, whose extremities form collectively a regular polygon, for the purposes set forth.

50,639.—Swarm Indicator for Beehives.—Wm. W. Snell, Rushford, Minn.:

I claim the employment or use of an alarm or an indicator or signal of any kind applied to or arranged in connection with beehives in such a manner that in case of the swarming of a hive the diminution of the weight thereof produced by the egress of the bees will cause the alarm or indicator to be operated.

I also claim the tilting platform, A, in connection with the arm, D, lever, F, and the alarm, arranged to operate in connection with the hives substantially in the manner as and for the purpose set forth.

[This invention relates to a novel and simple device for giving notice when a hive of bees are swarming, and it consists in the application of an alarm, which may be constructed similarly to an ordinary clock alarm, to a tilting platform, on which two or more hives are placed so as to balance said platform, all being so arranged that when a hive commences to swarm, or shortly after, the platform will have its equilibrium destroyed, and the alarm consequently sounded.]

50,640.—Flour Sifter.—E. Spencer, Philadelphia, Pa.:

I claim a casing having a perforated bottom, in combination with a shaft having any desired number of inclined blades and a brush, a detachable perforated plate or sieve, B, and a detachable cross piece, C, the adjustable nuts, e e', for the purposes described.

50,641.—Treating Diseases by Condensed Air.—Othniel Stone, Rochester, N. Y.:

I claim, First, The employment or use of a condensed atmospheric bath, for the purpose of curing or treating diseases, as set forth.

Second, The purifier, R, constructed, arranged and operating in combination with the bath, substantially in the manner shown and for the purposes specified

Third, The employment or use of a variable escape valve, in combination with the condensed atmospheric bath chamber, substantially as and for the purposes set forth.

Fourth, The arrangement of the escape valve, V, in or near the bottom of the bath chamber, as shown, and for the purposes herein described.

50,642.—Device for Registering the Number of Shoes Soled by a Sewing Machine.—A. J. Tewksbury, Haverhill, Mass. Antedated Oct. 4, 1865:

I claim a device for indicating the number of shoes stitched on shoe-sole stitching machines, composed of one or more wheels, or their equivalents, operated by the motion of the rotating horn on which the shoe is stitched.

I also claim swinging arch, E, or its equivalent, operating as described, and for the purpose specified.

50,643.—Boring Apparatus for Artesian Wells.—John Thacker, New Lexington, Ohio:

I claim the horizontal shaft ending in a screw, by means of which the rope to which the drill is attached falls from the center of the shaft, in combination with a slack spool gaged by the set screw to pay out the rope. The shaft may be of wood or iron, as well also the screw

50,644.—Sirup Boiler and Evaporator.—Lloyd Thomas, New Philadelphia, Ill.:

I claim the hollow grate bars on which the fire and fuel are placed, through which any liquids may pass, for the purpose of heating said liquids and for the preservation of the grate bars and the chambers which form part of the heating furnace, and boiling any liquids that may pass through them; also a skimmer that is placed at the top of chamber 2.

50,645.—Churn.—James Thompson, Vevay, Ind.:

I claim the dasher, L l P P', formed and operating as set forth.

Second, The arrangement of pouch, I i, and drip-way, J.

Third, The pouch, I i, and drip-way, J, when combined with the notch, N, and key, O.

50,646.—Grinding Mill.—Charles T. Weston, Scranton, Pa.:

I claim, First, The universal joint, F F, constructed and arranged substantially as herein described, for supporting the bed stone, B, so as to make it self-adjusting.

Second, The combined bail and driver arranged on the spindle, in connection with the screw collar, to operate in the manner substantially as and for the purpose set forth.

Third, The tubular rod fitted into the upper end of the spindle and attached to a frame which extends over the runner, for the purpose of keeping said end of the spindle in a proper lubricated state, substantially as described.

Fourth, The intermediate plate, G', between the two plates, D G, of the universal joint, provided with pins, a' a', to fit into notches, b' b', in the plate, D, and having slots, c' c', made in it, to receive pins, d', on the plate, G, substantially as and for the purpose specified.

[This invention relates to a new and improved manner of hanging and arranging millstones, whereby the parallelism of the two stones will always be preserved, the pressure of the upper stone or runner, on the grain being ground, regulated as desired, and the spindle kept perfectly lubricated at all times without any trouble or difficulty whatever.]

50,647.—File-cutting Machine.—Milton D. Whipple, Boston, Mass.:

I claim, First, The combination of the lever, f, and elliptic spring, m, elongated journal boxes and rod, l, operating as described, and for the purpose specified.

Second, The combination and arrangement of the arm, n', cam, P, and spring, k', with the rod, l, for the purpose specified.

50,648.—Carriage-axle Box.—Frederick Wood, Bridgeport, Conn.:

I claim the forming of one or more partitions across the oil chamber recess, in the manner described, or in any other manner substantially the same.

50,649.—Applying Solutions to the Interior and Exterior of Oil Barrels, Etc.—James O. Woodruff, Auburn, N. Y.:

I claim the applying of solutions simultaneously to the interior and exterior surfaces of casks, barrels, etc., by placing the cask or barrel, in a suitable warm state, within a vessel, and forcing the solution into and around the cask or barrel, and ejecting the unapplied solution therefrom, by means of steam, substantially as herein shown and described.

[This invention relates to a new and improved process for applying solutions simultaneously to the interior and exterior of casks, barrels, etc., in order to render them air and gas tight, and effectually prevent loss of the fluid they may contain by the evaporation of the same. The invention is more especially designed for coal-oil barrels, but may be advantageously used in all cases where it is necessary to line or cover barrels with a substance that will prevent evaporation or a permeation of the fluid through the wood of the barrel.]

50,650.—Combination Rack for Printers' Use.—Richard Yeomans, Chicago, Ill.:

I claim the making and applying the notches or grooves in the manner and for the purposes substantially as described, in combination with the cross bars, having their ends provided with projecting transverse obtuse edges, or their equivalent round points or pins, for the purposes substantially as described, or any other arrangement embodying the same idea.

50,651.—Hydraulic Engine and Meter.—John S. Barden (assignor to the New England But Company), Providence, R. I.:

I claim as my invention the improved engine, substantially as described, the same consisting of the four cylinders, A A' B B', the two pairs of connected pistons, D D D D, and the eduction chamber, C, arranged as explained, in combination with the main shaft, H, or its equivalent, the valve chest, F, valves, G G, ports, b b b b, and mechanism to operate such valves by the piston, substantially in manner as specified.

50,652.—Letter or Invoice File.—Reinhold Bocklen, Brooklyn, N. Y., assignor to Henry T. Sisson, Providence, R. I.:

I claim, First, The employment of a spring which is disconnected from the cam, crank or eccentric of the axial rod of the binding flap, and applied to a letter file so as to operate in the manner substantially as herein described.

Second, The construction of the binding flap with a shoulder, and from said shoulder to its front edge with a curved form, substantially as described, and for the purpose set forth.

50,653.—Lantern Guard.—Thomas Brown, Jr., and Joseph L. Lowry (assignor to said Brown and James McLain, Pittsburgh), Pa.:

We claim the combination of the ribs, e, hooked or looped at their upper end to the cap piece and at their lower end to the bottom piece of the lantern, with the detached cut ring, f, when so arranged inside of the ribs as to force them outward, and thus tighten the ribs and draw the cap and bottom pieces of the lantern toward each other, with the glass between them, substantially as herein before described.

50,654.—Construction of Privies.—Elizur E. Clarke (assignor to Franklin N. Clarke), New Haven, Conn. Antedated Oct. 13, 1865:

First, I claim the combination of the chamber or reservoir, C, whether attached to the superstructure of the privy or not, with the vault, F, when they are so constructed and combined as to produce by the use of muck the deodorization of the night soil, etc., substantially as herein described.

Second, I claim the combination of the two bars or boards, a and b, with the toothed or spurred shaft, c, when they are so constructed and arranged as to support, pulverize and deposit the muck, etc., substantially as herein described.

Third, I claim the combination of the toothed or spurred shaft, c, with the chamber, C, and vault, F, when constructed, arranged and fitted for use substantially as herein described and set forth.

50,655.—Wheel for Axles.—C. J. Crane (assignor to J. F. Crane), Burr Oak, Mich.:

I claim the construction of the spoke cap, a, and screw rod, b, with the thimble, f, flange, e, and nut, d, arranged and operating as and for the purpose described.

50,656.—Car-brake Shoe.—Samuel D. Danfield (assignor to himself and Henry Wood), Philadelphia, Pa.:

I claim the metal sole, C, with its arms, c c', arranged to embrace the wooden shoe, A, and having holes to receive pins or bolts which pass through the said, block, all substantially as set forth.

50,657.—Seed Planters.—H. V. Davis (assignor to Daniel S. Perkins), Amherst, N. H.:

I claim the combination of the spindle, e, handle, d, the rods, g c, the stud, h, and the arm, b, applied to the charger and the lid, whereby both charger and lid may be operated simultaneously by turning the handle as specified.

I also claim the arrangement and combination of the auxiliary mouth or hopper w, with the hand seed planter constructed substantially as described, and for the purpose set forth.

50,658.—Transparent Composition for Tablets.—Henry J. Griswold (assignor to himself and Henry A. Clark), Boston Mass:

I claim the within described waterproof composition for tablets or other articles upon which a lead pencil is used, consisting of the ingredients in the proportions substantially as specified.

50,659.—Toilet Mirrors.—John Johnson, Saco, Me., assignor to himself and Howard Tilden, Boston, Mass.:

I claim the flexible and adjustable holder, carrying a mirror at each end, combined and arranged substantially as herein described and for the purpose specified.

50,660.—Low-water Detectors for Steam Generators.—Daniel C. Mead and Charles Maggi (assignors to Charles Maggi), Pittsburgh, Pa.:

We claim the combination and arrangement of the metallic expansion bar, rod or tube, inclosed in a case or tube, one end of which is closed, which enables us to protect said expansion bar from any direct contact with steam or water, substantially upon the principle and in the manner as herein set forth.

50,661.—Piston Packing.—James Myers (assignor to himself and Samuel N. Lightner, Alleghany City, Pa.:

I claim the combination of two or more metallic packing rings, d d', and the caps, c c, with the piston ring, a, having passages, e g e', connecting the groove or space back of one ring with the groove or space back of the other ring or rings, so that the steam entering from either side of the piston head back of one packing ring shall have free access to the space or groove back of the other packing ring or rings, substantially as hereinbefore described.

50,662.—Tanning.—James Price (assignor to John W. Tompkins and Stephen S. Tompkins, executors of James Tompkins, deceased, and John W. Tompkins), Edgefield District, S. C.:

I claim the use of the pine leaf in the form of a watery extract or decoction in the process of tanning either separately or combined with the bark or other tanning material, in the manner described, and for the purpose specified.

50,663.—Paper Collar.—Samuel C. Shaw (assignor to himself, F. O. Kendall and F. A. Marshall), Marlboro, Mass.:

I claim as an improved manufacture a paper collar made with the imitation of a cravat printed or formed on it, substantially as specified, or with the same and the two parts of the bow thereof projecting from the opposite ends of the collar, and provided with the locking slits, as set forth.

50,664.—Folding Table.—George G. Small (assignor to himself and Charles H. Drummond), New York City:

I claim so constructing and arranging a table top for tables that it can be increased or decreased in size by folding its central portion below the same, substantially as hercin described.

[This invention consists in certain new improvements in the construction of tables, whereby its top can be readily made smaller or larger without detaching any portion of the same therefrom, the folding leaves being so arranged with regard to the table top that when desired to decrease the size of the table they can be folded together below its surface into a very compact shape.]

50,665.—Cider Press.—Charles H. Thomas (assignor to himself and Hermon Thomas), Milton, N. Y.:

I claim, First, A cider press, consisting of the platform, A, mounted on wheels, and provided with the stationary screw, B, and nut, C, arranged and operating as and for the purpose set forth.

Second, In combination with a press constructed as described, I claim the use of the sacking, as and for the purpose set forth.

50,666.—Rotary Engine.—J. T. Warren, Stafford, N. Y., assignor to himself and Robert A. Chesebrough:

I claim the partition plate or valve, D, combined and arranged with reference to the steam port, C, the exhaust port, F, and the piston, B, substantially upon the principle and in the manner herein set forth.

50,667.—Hand Saw.—Daniel Welch and William W. Armington (assignors to George E. Mitchell), Lowell, Mass.:

We claim the combination and arrangement of the collar, c, the recesses, a b, and the pins, e f, with the socket, c, of the handle, A, and with the shank, d, of the saw blade or tool, B, the whole being substantially as and for the purpose as hereinbefore described.

50,668.—Apparatus for Rectifying Alcohol.—Anastasie A. Foubert, St. Helier, England, and Jean Gustave Bequet, Paris, France:

We claim, First, The plate or diaphragm, A, Fig. 1, sheet, 2, allowing the direction of the alcoholic vapors to be changed whenever required, and at the beginning and end of each charge operated upon substantially as described, and for the purposes set forth.

Second, The slide valve, V, and clack valve, S, on one valve rod, T, Fig. 11, sheet, 2, by which the ports of the diaphragm, A, are opened, and the pipe, H, is shut, or vice versa, at one operation, for the purposes set forth.

Third, The primary condensers, P' and O, Fig. 2, sheet 2 and sheet 1, substantially as described.

Fourth, The self-acting regulator, sheet 3, for controlling the feed of steam to the retort, in combination with the chamber or recipient, A2, in which hot water is made to circulate, in order to prevent the alcoholic vapors from condensing, substantially as described, and for the purposes set forth.

Fifth, The indicator, G, sheet 1, which takes its supply of steam at the first bell plate of the column, B, below the diaphragm, A, by means of a cock, g, substantially as set forth.

Sixth, The cooling condenser, E E', Fig. 3, sheet 2, the worm of said condenser bing divided in two portions at the fifth coil, for the purposes set forth and in the manner herein described.

50,669.—Egg Boiler.—Prosper Malapert, Poitiers, France, and Edward A. Des Courtis, New York City:

We claim the application of a thermometer to an egg boiler for the purpose of indicating the temperature of the water, as herein specified.

50,670.—Breech-loading Fire-arm.—Johann von der Poppenburg, Birmingham, England. Patented in England Feb. 14, 1865:

I claim, First, The construcuion of the spring hinge of the movable charge chamber hereinbefore described, and illustrated in the accompanying drawings.

Second, The arrangement and combination of the parts described and represented for bolting down the charge chamber during the discharge of the gun.

Third, The construction of the snap bolt described and represented for holding the charge chamber in its place when shut down, as well as for assisting in bolting down the charge chamber for discharge; also the arrangement of parts for working the said snap bolt.

REISSUES.

2,095.—Composition for Slate-surface Blacking, Etc.—Isaac Newton Peirce, Philadelphia, Pa. Patented Feb. 10, 1863:

I claim the use of benzine or petroleum spirits and ground feldspar, or emery, or quartz, or other silica, in forming a real stone surface, making use of varnish to make it easier in application and render it more adhesive, and lampblack or other coloring matter for a coloring, substantially as set forth, constituting the surface, and its application in the manner and for the purpose specified.

2,096.—Curing Provisions.—Daniel E. Somes, Washington, D. C., assignee by mesne assignment of himself. Patented Nov. 13, 1860:

First, I claim constructing packing houses and other similar buildings and structures for the purpose of salting, curing, preserving and storing articles of food, hides and other substances, substantially in the manner herein set forth and described.

Second, Salting, curing and preserving ford hides, etc., in shafts and vaults excavated in the earth to a depth sufficient practically to attain the lowest invariable temperature of the earth at the place where they are sunk, as set forth, and for the purpose specified.

Third, Cooling such excavations and shafts by artificial means, in the manner and for the purpose set forth.

2,097.—Shirt-bosom Folder.—John Stevens, New York City. Patented Nov. 9, 1858:

I claim the tins or metal strips aforesaid, when arranged with an adjusting mechanism to admit of wide and narrow plait or plaits, varying in width, being formed with one and the same set of tins or strips, substantially as described, for the purpose specified.

DESIGNS.

2,208.—Emblematic Picture.—James F. Bodtker, Madison, Wis.

2,209.—Ornamenting Paper Collars and Cuffs.—B. W. Burnet, Madison, N. J., assignor to Henry R. Burnett, Morrisania, N. Y.