

CAKE PAN.—William C. Butler, of Louisville, Ky., assignor to himself and W. E. Arnold of same place.—This invention has for its object to furnish an improved pan for baking cake which shall be so constructed that the cake may be removed from the pan when baked without being broken even should it adhere to said pan; and it consists in the detached bottom and tube, constructed to adapt it to be applied to a cake pan.

BELT SHIFTER.—Toppan P. Rodgers, of Taunton, Mass.—This invention relates to the sliding belt hole covers used around belts running through floors to shift from side to side as the belts shift and keep the holes covered; and it consists of raised ribs or ways on the plate, which is attached to the floor for the shifting cover to rest and move on, with guide pins in the said plate projecting upward through slots in the cover to guide the latter, whereby the said cover is not liable to be clogged so as to obstruct its working freely, as when arranged in dovetail guides as heretofore, and is rendered practically successful. This invention also comprises a connection of these raised ribs or ways at each end of the belt hole by other ribs of the same height, both for supporting the ends of the sliding cover and for preventing the escape of the water, used in washing the floors, down through the belt hole.

SAP BUCKET BRACKET.—John J. Pellett, of Oconomowoc, Wis.—This invention relates to a new manner of supporting buckets on maple trees by means of vertically adjustable brackets, which are applied thereto without injuring the trees. The invention consists in the use of brackets, which are fastened to the trees by means of wires or cords that embrace the same. By this means the buckets can be applied in suitable position and shifted to different heights from year to year, as may be found necessary.

ROASTING AND DESULPHURIZING FURNACE.—William Bushnell, of New York city, assignor to himself and Joshua Hunt, of Catawqua, Pa.—In operating this desulphurizing and roasting furnace, the inventor commences by charging carefully a layer of coal upon the grates and placing upon it a layer of ore, and thus alternate with a stratum of coal and a stratum of ore, until the furnace is full up to the lower end of the charging tube; and next he fills the charging tube in same manner, graduating the quantity of coal in accordance with the character of the ore, being careful not to use too much coal. He then makes fires in the fire grates and keeps them up until the coal in the stack is fairly ignited, when they are allowed to go out. The charging of the furnace is thereafter performed through the throats of the charging tube, taking care to keep the tube constantly full. The gases generated in the lower part of the furnace pass up through the ore and coal, gradually intensifying until they reach the surface of the main body of the ore at the commencement of an annular chamber, when they burst into flame, and seizing upon the vaporized sulphur carry it speedily into the atmosphere—a result attained by the use of the charging tube and the open annular chamber surrounding the tube and the boiler, and not reached by any other known plan.

SAWING MACHINE.—Enos Goble Budd, of Budd's Lake, N. J.—This invention relates, first, to a frame for supporting and guiding the saw and its operating mechanism, which is to rest upon and be secured to the log to be sawn; and, secondly, to the arrangement of the said mechanism, the same consisting, in the main, of a novel application of a pair of "lazy tongs," one being always in the act of opening as the other is closing; and, inasmuch as they are connected with the saw, a reciprocating movement of the latter is obtained. There is considerable novelty in this invention and we shall be glad to receive an account of the result when a machine has been put in operation.

PUMP.—James A. Sinclair, Woodsfield, Ohio.—The invention consists in a pump cylinder formed of three tubes, of which the innermost is divided longitudinally, the outermost metallic one is in one piece, and an intermediate one is made of cement. By this construction, the inner sectional tube can readily expand against the cement while the latter furnishes an impermeable enclosure to prevent contact between the liquid and the outer metallic tube.

STEAM BOILER.—Philip Estes, Leavenworth, Kan.—The invention consists in arranging and connecting certain water spaces with a boiler so as to create a heating surface larger than usual, thus economizing fuel and lessening the cost of generating a given supply of steam.

STRAW CUTTER.—John O. Tyler, Roxobel, N. C.—This invention consists of a straw cutter in which the feeding of the straw is effected partly by gravitation and partly by the cutters, which are made to revolve under a hopper with an opening in the bottom, and some of them are provided with hooks on the points or ends for catching the straw and drawing it down to the place for cutting it into short pieces. The invention also consists of a pair of curved slotted plates, combined with the hopper and the cutters for conducting the straw to the place for cutting it; and it also consists of a slotted plate combined with these sliding plates and the cutters.

BUSTLE.—Sherman Smith and Daniel L. Smith, Skowhegan, Me.—In this apparatus the horizontal ribs for swelling or bulging out the dress are supported on one, two, three, or more strong ribs or stays projecting from the waistband and curving downward, and at the waistband they bend downward so as to extend along the back of the wearer a sufficient distance to constitute a rest for a brace for the upper projecting portions. The arrangement of this brace adjustably both on the upper and lower parts of the stays, or either of them, so as to be adjusted to hold the projecting stays higher or lower, and the apparatus for adjusting, comprises the invention.

SAW MILL EDGER.—George Willett, Friendship, N. Y., assignor to himself and J. W. Hilton, of Bradford, Pa.—This invention relates to a new means for adjusting the top frame of a saw mill edger, and also to a new mechanism for regulating the speed of the feed rollers and reversing their motion. It consists, first, in providing the top frame with pendent racks at the ends, and in combining therewith toothed segments on a rock shaft, so that when the latter is turned the frame will be evenly elevated or lowered, to be adjusted to the thickness of the board to be edged.

HEAD BLOCK FOR SAW MILLS.—George Willett, Friendship, N. Y., assignor to himself and J. W. Hilton, Bradford, Pa.—This invention relates to a new mechanism for feeding the head blocks of saw mills in the carriages; and consists in the employment of two reciprocating ratchet bars, which are operated by crank connections with a rock shaft, and with which spring pawls, that are attached to the head block, are in contact, so fashioned that when the ratchets are moved alternately back and forth the one moving forward will actuate the head block in the desired manner, the other ratchet meanwhile moving back to be ready for its next forward movement, during which to actuate the carriage.

STONE SAWING MACHINE.—George A. Davidson, of Malden, assignor to himself and Horace T. Caswell, of Troy, N. Y.—This invention relates to grooved metal bars which are placed on the platform holding the stone under the saw. Said grooves will be deep enough to let the saws, which are not always exactly level, work entirely through the stone from end to end before striking the bottom of the grooves, and thus the inventor saves the damage to the platform or scantlings, placed thereon to hold the stone in the common way, which are so cut up in a short time as to be worthless.

CULTIVATOR.—William R. Robinson, Mattoon, Ill.—This invention consists in the combination of a pivoted step which bolts the handles of a cultivator to the plow beam, also a brace bar which supports the handle at the desired elevation. The middle part of the braces is made flat to rest upon the upper side of the plow beams, and is secured to said beams by a bolt, several holes being formed in said flat or horizontal part to receive the said bolt to enable the handles to be inclined to either side or adjusted in line with the beams, as may be desired.

WAGON STANDARD.—Patrick Sweeney, Cordova, Ill.—In this invention the stake is driven from the cap plate into the socket, and is readily removed by taking out the bolts. The socket and the cap plate being firmly united together and the plate securely attached to the bolster by bolts (one or more) the stake is well supported without mortising the bolster, and is, consequently, readily renewed or changed, as occasion may require.

PAPER CUTTING MACHINE.—Edwin R. Sheridan and Theodore W. Sheridan, of New York city.—In this invention the paper knife is brought down with great force by means of a hand lever, which actuates segments of gear wheels which mesh in the teeth of racks on the bars attached to the blade. The hand lever is released after making a stroke; a weighted lever carries it back and also raises the knife ready to repeat the operation.

SASH HOLDER.—George W. Richardson, of Columbus, Ky.—This invention consists of a long flat spring in a case next to the sash, with a curved bar behind it, and behind said bar a pinion on a knob spindle gearing with the said bar so as to raise or lower it by the turning of the said knob spindle, by which the said bar, which has the ends suitably formed for the purpose, will be caused to wedge at its ends in between the pinion and the spring, and force the latter against the sash; and this spring is faced with roughened india rubber, or other substance, adapted to hold the sash by friction. The upper end of the said bar holds the sash up and the lower end holds it down.

CONVICT'S SHACKLE.—Peter Runquist, of Stellacoom City, Wash. Ter.—This invention relates to the inclosing or boxing of the jaws of the ordinary or Gardner shackle with case hardened or hardened steel boxes; the said boxes closely fitting the jaws, and closing in upon and to the ring or circle of the shackle, and then riveted through and through the box and jaws with a countersunk rivet. The object of the boxes is to prevent the convict from making the steel hardened jaws of the Gardner or other shackle cut their own rivets.

HOT AIR FURNACE.—Wilmot W. Dodge, Boston, Mass.—This invention consists in a hot air chamber and cold air chamber, separated by a partition, having dampers when applied to a hot air furnace, and also pipes passing through the combustion chamber, whereby fuel is greatly economized.

HOISTING ATTACHMENT FOR THE SHAFTS OF WELL AUGERS.—Henry H. Russell, Maysville, Mo.—The invention consists in providing the shaft of the auger with a collar, band, and pivoted arm. The collar is keyed or otherwise securely attached to the shaft. Upon the collar is placed an open band to the ends of which is pivoted the end of an arm, to which arm is attached the lower end of the rope, by which the auger is raised and lowered. The arm, when the auger is being turned, hangs down and thus keeps the rope from being wound upon the shaft, so that it is always ready to raise the auger when required.

PERFUMED OPERA CHAIN.—Solomon Fredrick, New York city.—This invention relates to a method of perfuming jewelry by attaching thereto a vessel or tube closed at one end and containing a piece of sponge saturated with perfume. The open extremity of this reservoir is surmounted by a perforated cover.

BINDERS' ATTACHMENT FOR HARVESTER.—Chauncey G. Price, Anana, Iowa.—The grain, as it falls by the sickles, is caught by a platform, up an upward extension of which it is swept by a rake. It then passes to an inclined plane down which it slides to the trough, from which it is removed by the binders. The platform upon which the binders stand is bolted to the frame work of the reaper. The binder's tables, upon which the grain is laid by the binders to be bound, are attached to the platform; the gavels may thus be conveniently bound before being dropped from the machine.

DOG MUZZLE.—Charles de Quillfeldt, New York city.—This invention consists in having the portion of the frame of the muzzle under the lower jaw to spring downward and allow the dog to open his mouth as widely and nearly as freely as when unmuzzled, the spring returning the said part of the frame again as the mouth closes.

CIDER MILL.—John McGrew, Ravenswood, West Va.—The invention consists in a cider mill which crushes the apples, conveys the pumice through an intermediate space and delivers it between two pressing rolls, where the juice is expressed, the pumice discharged and the cider conducted into a suitable receptacle.

FEED RACK.—Jabez L. Rhodeback, New Way, Ohio.—This invention relates to a new rotary feed rack, the nature of which is explained by its name. It can be turned or reversed, to be cleaned, and is so arranged that the animals can feed from the ends. The invention consists in composing the rack of rods, which cross a horizontal beam or scantling, and form four racks of which either one can at any time be used.

MORTISING CHISEL.—Lawrence S. Shuler and James Carpenter, of Jeffersonville, Ind.—This invention relates to that class of chisels so made as to draw out of a mortise the chips and shavings which it detaches from the block. The invention consists in providing the chisel with a roughened or grooved inner face and with similarly roughened lips or side flanges.

LATH MACHINE.—Oliver C. Meigs, Dubuque, Iowa.—This invention consists of a combination of a pair of toothed drawing or feeding disks or rollers with a pair of bolting saws and the ordinary feed rollers; said toothed rollers are suspended by an oblique frame from an axis over the saws, so as to work on the upper sides of the cut bolts and rise and fall with the irregularities of the surfaces of the slabs, said rollers being driven by machine chains worked by drums on the axis, from which the roller-supporting frame is suspended, and said chains are inclosed in cases to prevent them from being clogged with saw dust. The said swinging frame or support for the rollers has chains or links connecting its lower end with a support above, to prevent the rollers from falling too low when the bolts pass from under them.

SCREW DRIVER.—John S. Armstrong, St. John, Canada.—This invention consists of a split or divided plate or bar, whose ends for entering the nick of the screw are each in the form of a frustum of a wedge, arranged so that the narrow ends meet when the two parts, which are capable of moving toward and from each other, come together; with which said divided bar is a handle, and a suitable means for forcing the said wedge ends to gether when applied to the screw. The said improved screw driver is designed especially for screws with nicks widest at the ends and contracting toward the middle, the object being to hold the screw on the driver by wedging the latter into the nick, so that the screws may be guided by the driver, and the latter will be prevented from slipping off the screws while turning them, as does the common screw driver.

[OFFICIAL.]

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- 976.—SUGAR CURED HAMS, ETC.—H. Ames & Co., St. Louis, Mo.
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SCHEDULE OF PATENT FEES:

Table detailing patent fees: On each caveat \$10, On filing each application for a Patent \$25, etc.

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APPLICATIONS FOR EXTENSIONS.

Applications have been duly filed, and are now pending, for the extension of the following Letters Patent. Hearings upon the respective applications...

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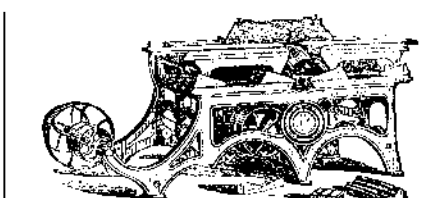
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