Recent American and Foreign Patents.

Improved Method of Softening Umbrella Ribs.

John McAuliffe, New York city.—This improvement relates to the softening of the ends of umbrella ribs, to facilitate the boring or punching of the holes for the wire by which they are fastened to the collars. It consists in standing the ribs in a bath of hot lead, and letting them stand while the bath is cooled down gradually to atmospheric temperature.

Improved Apple Slicer and Corer.

Henry H. Siler and Thos. A. Brooks, St. Lawrence, N. C.—The invention consists in arranging a series of cutters so as to be adjustable to and from the center, to cut out a core of greater or less diameter; in a cutter bed made up of sections that slide upon each other and upon base blocks; also in a ring plate provided with slots and perforations arranged in a circle.

Improved Device for Soldering and Capping Cans.

Richard Henry Smith, Baltimore, Md.—This invention relates to certain improvements in machines for capping cans; and it consists in a soldering iron holder having a rear recess, and adjustable both vertically and horizontally by a sliding support and binding screws. The invention also consists in the combination with a revolving table of separate detachable and independently rotating plates, having clamping devices for holding different sized cans.

Improved Gang Plow.

Stephen S. Scheumack, Victoria, Tex.—The invention consists in combining a crossbar—placed above and having arms that straddle the axle—with another crossbar having a vertical adjustment, whereby the gangplow can be equally well employed for preparing, cultivating, and seeding land.

Improved Soldering Machine.

Wm. D. Brooks, Baltimore, Md.—This invention comprises a series of valuable improvements by which the caps and heads of fruit, oyster, and other cans may be soldered in a rapid, thorough, and economical manner, the cost of manufacture being thereby reduced from twenty to forty per cent, while the joints are close and reliable.

Method of Securing Pins to Artificial Teeth.

Orin S. Bixby, Syracuse, N. Y.—It is well known that in the manufacture of artificial teeth platinum is employed as the material of the pins that fasten the teeth to the plate, because it is the only commercial metal that will not fuse or oxidize in the heat and ventilation to which the teeth must be subjected in baking them. By this invention the pin cavities are made in the inner or back side of the teeth before the latter are baked, and the pins are not set in the cavities until after the teeth are baked, so that material other than platinum may be employed.

Improved Sugar Cane Cutting Machine.

Julius Robert, Gross Seelowitz, Austria, assignor to Dr. Otto Kratz and R. Sieg, New Orleans, La.—This invention relates to a patent granted to same inventor October 30, 1866. It consists essentially of detachable cutter-holding plates for connecting the cutters to the cutter-carrying wheel, contrived for the ready removal of the cutters for grinding, and the application of other plates with sharpened cutters, to be used while the dull cutters are ground and attached to their attaching plates, two sets of plates and cutters being used. These plates are also useful for adjusting the cutters for cutting thick or thin.

Improved Lever Press.

William O. Watson, Albany, Ga.—This improvement in lever presses consists of toggle levers to work the main lever, connected to the capstan by a rope passing over intermediate pulley blocks in a manner calculated to increase the leverage without the corresponding diminution of the speed consequent to the ordinary method.

Improved Butter Worker.

Frank B. Aldrich, Chicago, Ill.—In this butter worker the rollers are so formed as to take hold of the lumps of butter and draw them through the machine, and to prevent the butter from working out to the ends of the rollers, and there sticking. The rollers are grooved longitudinally in such a way that the projections between said grooves are concaved upon the forward side, and rounded upon the rear side, and concaved or beveled upon their end parts.

Improved Dental Reflector.

Francis M. Osborn, Port Chester, N. Y.—This reflector may be applied to a dental clamp to show the cavity of the tooth distinctly, so that the dentist can see just what is to be done, and also watch the progress of the work. The invention consists in a disk provided with a reflecting surface upon its front side, and a ball stem upon its rear side, and the arm provided with a spherical socket upon one end, and spring clamps upon its other end.

Improved Vegetable Slicer.

Aimé Vuillier, Newark, N. J.—This consists of an implement having a spiral cutting blade, with side-extending cutting rings at the upper end, for entering the vegetable and slicing out of the same a twist of two separated spiral pieces. The implement is very simple, and executes its work with remarkable celerity.

Improved Hoof Trimmer.

Andrew Shirran and William J. Givens, Pacheco, Cal.—In operating the knife a disk is given a revolving motion, thereby winding more or less of a band on its surface in cutting, and in releasing the band in every backward movement of the knife. In operating with the machine the shoulder of a slotted head is placed against the outside of the hoof. The bearing surface of this shoulder is faced with a concave piece of brass, which receives the rim of the hoof. This arrangement throws the knife toward the center of the hoof, and by working the lever back and forth the knife will be made to work from the center to the outer edge of the hoof. The knife is convex and attached to the lower end of the handle.

Improved Land Pulverizer.

Angeline Underwood, Carrollton, Ill.—Two strong wooden frames are placed side by side, and to the middle parts of the side bars are bolted bearings for shafts. Upon the shafts are placed a number of circular disks. The two frames incline freely in either direction to adjust themselves to any unevenness in the surface of the ground, and small friction rollers keep the frames from twisting when the machine is in use. The frames turn freely, and at the same time the ends of the tongue crossbar are prevented from dropping down. To the rear bar of the frame are attached scrapers of a width to scrape off any soil that may adhere to the cutters, and which might otherwise prevent the cutters from entering the ground to the required depth. The cutters are designed to enter the ground to the same depth as the plows, so as to cut in pieces all sods, clods, and lumps that may have been turned under by said plows.

Improved Washing Machine.

Gideon Huntington, Toronto, Canada.—In this washing machine a clothes-holding open work drum is arranged to rotate in a tub set over a furnace. The drum is reciprocated by a rocking standard, a horizontal bar pivoted thereto, and straps which are wound in reversed directions around a pulley of the drum shaft, and attached to said bar. By applying the foot to the rocker, the standard is vibrated and the desired motion imparted to the drum.

Improved Animal Hopple.

John D. Wilson, Round Grove, Kan.—The animal is placed within an enclosure formed by a fence made of a single wire, supported at a short distance above the ground. To its leg is attached a hopple on which are devices which catch on the wire fence when the animal attempts to pass over or crawl under the same.

Improved Flour and Middlings Purifier.

George Washington Brown, Metropolis, Ill.—A pressure chamber is arranged at the head of the reel to receive the air from a blast fan. A perforated tube surrounds the shaft, and is considerably larger, to form an air conductor extending along the reel about three quarters of its length, with one end opening into the pressure chamber to receive the air, conduct it along in the reel, and discharge it outward to the cloth, to aid in separating the bran and light matters from the middlings while falling about in the reel. The partition between the pressure chamber and the reel is perforated to allow the air to blow in the reel and along it. Below the reel is a long triangular air conductor over the conveyer, receiving air from the pressure chamber, and delivering into the space below the bolt. Along the top of the case is a wide conductor, and along each side is a narrow one; and under the wide conductors is another one, in triangular form, receiving and discharging air in the same manner, but discharging it more directly upon the cloth, mainly to keep it clear, while from the other conductors it is more particularly designed to fill the space with air to counterbalance that blown into the reel, and prevent the latter from unduly forcing the impurities through the reel. At the top of the fall boards there is a conductor for taking up the impurities from the flour and middlings as the air rises up through them while descending from the reel to the conveyer below.

Improved Saw Set.

Josiah B. Titus, New York city, assignor to himself and John McLean, of same place.—This consists in a sliding jaw piece in a slotted frame or plate having a bridge which supports an adjusting screw. The screw turns freely in the bridge and moves the slide, so that the jaw can be adjusted to suit the thickness of the saw.

Improved Candlestick.

Wells Kilburn, Napa City, Cal.—The invention consists of an improved candlestick, formed of spring jaws and a loose tube, provided with a cross wire in its lower part. In using the candlestick, the candle is placed in the tube, the wire is placed between the jaws, and the tube and candle are pressed down to the saucer. The inclined or rounded side edges of the jaws guide the wire, and enable the said wire to push back and pass said enlarged upper ends, both in passing down and in passing up. When the candle is burned down to the top of the tube, the tube is raised, which brings the wire against the lower end of the candle and raises it. When the candle has been raised sufficiently, the tube is again lowered, leaving the candle supported by the jaws.

Improved Clothes Line Support.

John N. Fuller, Cleveland, O.—The top piece consists of two circular prongs which branch off, with suitable interval between them, from the socket part of the head piece of a pole. The hooks are left open at opposite sides for admitting first the introduction of the rope or line into one hook, and then into the other, so as to be secured rigidly by the same. The pole or supporter is then raised with the clothes line and firmly planted into the ground by the pointed socket.

Improved Toy Arrow Shooter.

John H. Wales, Milford, Mass.—This invention consists of a toy formed of a tube, provided with an open ring upon one side of the arrow and the rubber band. In using the toy the tube is held in one hand, the arrow is passed through the tube from its forward end, and the rubber band is passed over the rear end of the arrow. The rear end of the arrow is then grasped with the thumb and finger of the other hand and drawn back to put the rubber band under any desired tension. The arrow is then released, and the elasticity of the rubber band will throw it from the tube with considerable force.

Improved Stove Grate.

William Walsh, Albany, N. Y.—This consists in a grate made in two parts, one of which parts is vibrated laterally similar to ordinary grates, while the other part is susceptible of a perpendicular movement to raise the fuel from the other part.

Improved Device for Holding Pipe Fittings.

Thomas P. Hardy, New York city.—This improved chuck for holding pipe fittings and other objects while being tapped is so constructed as to allow the fittings to center themselves upon the taps. The device opens its jaws to receive and discharge the fittings, and will move said jaws out of line with the taps to allow the fittings to be conveniently inserted.

Improved Top for Salt and Pepper Boxes.

George D. Paul, Brooklyn, E. D., N. Y., assignor to Paul Brothers & Co., New York city.—A gridiron-shaped stirring and crushing frame is arranged close under the top, to slide on a rod. It is provided with a thumb piece projecting out through one side of the cup, and also with a spring, the thumb piece and spring acting to push the crushing frame along beneath the top of the cup forward and backward, to crush the lumps that may fall upon it and stir the finer particles when packed against the cap, all so that the perforations will always be kept free.

Improved Butter Worker.

Jacob L. Englehart, New York city.—In using the device, the butter is placed upon a cloth, which rests on a bench, and is crushed and worked by a flexibly pendent corrugated block, as it is moved up and down by the revolutions of a crank shaft. The excess of liquid flows down the grooves of the bench. When the butter has been sufficiently worked upon the cloth and bench, it is transferred to the finishing table.

Improved Chimney Top.

Henry Becker, Blauveltville, N. Y.—This is a conical chimney top, whose base plate is provided with outwardly curved lugs, that bind after passing through the corners of the flue opening on the sides of the chimney coping.

Improved Molding Machine.

Aaron Miller, Ringtown, Pa.—This improved foot power molding machine, for working regular or irregular moldings upon the edge of lumber, may be adjusted to run the cutter head in either direction, as may be desired. Devices are provided which serve to drive the cutter head at a uniform velocity.

Improved Cotton Scraper and Chopper.

William H. McClaugherty, Seguin, Tex.—This is an improved machine for scraping cotton and chopping it to a stand, which is so constructed that it may be readily adjusted to leave the hills at any desired distance apart, and to scrape the ridge to any desired depth.

Improved Gun Carriage.

Nels E. Johnsen, Chelsea Naval Hospital, near Boston, Mass.—This consists in the peculiar construction of a compressor or friction bar and compressing device for holding the carriage in position, and for lessening the recoil of the same when the gun is fired; also in a novel device for locking the carriage to the compressor bar, and in a windlass and rope mechanism for running the gun in and out.

Improved Breech-Loading Ordnance.

Nels E. Johnsen, Chelsea Naval Hospital, near Boston, Mass.—The breech block is raised and closed down by a screw, and is hinged to the breech. The screw works through the extreme of breech as through a nut, and when it is turned back the breech block is raised by virtue of a joint bar. The piece to which the joint bar is hinged, and through which the screw works, is fastened by a small sleeve, and is carried back and forth with the screw. The breech piece is carried back and forth by the screw on guides. A piece on the end of the screw is connected with the breech piece by a fork, which allows the screw to turn and move the breech piece back and forth on its ways, and a lip on the end of the breech block closes down into the groove in the screw piece. A spring plunger in the breech block is drawn back by a lever when the breech block is closing, and prevents the block from being blown upward when the piece is discharged. This gun may be loaded at the muzzle, if preferred; but ordinarily the breech block will be elevated to a perpendicular position, and the charge inserted, the screw being drawn back.

Improved Animal Trap.

Isaac V. Newsom, Eatonton, Ga.—The animal enters a dark bait chamber, and, on attacking the bait, pulls down a treadle and shuts the door of the trap behind him. At the same time, he opens an orifice into a light chamber, into which he escapes, and in so doing moves mechanism which sets the trap back to its original condition, ready for another visitor.

Improved Shoe Brush.

Israel Joseph and J. Albert Joseph, New York city.—This is a box made with rounded side edges, and open at the top and one end. The cover is made with rounded sides and open at one end, and the whole is combined with the back of a shoe-blacking brush. Two small brushes have their backs and handles formed to fit upon each other and the blacking box, and into the cavity of the box attached to the back of the blacking brush.

Improved Neck-Tie Shield.

Reginald R. Parker, Indianapolis, Ind.—This invention consists in providing the shield with a strap loop for receiving a neck-tie and and button loop.

Improved Screw Plate.

George R. Stetson, New Bedford, Mass.—The ways are each fixed on a pivot, at the side of the opening next to the adjusting screw, so that they can swing out of the opening freely at the other end to facilitate the changing of the dies. At the opposite side of said opening is a stud, which enters a socket in the back of the die to fasten the dies and the ways in working position.

Improved Watch Case Spring.

Constant W. Wadsworth, Peekskill, N. Y.—The spring is made in two parts, which may be readily adjusted upon each other to bring the screw holes of one part into line with the screw holes of the watch case, so that it may not be necessary to mar said case by forming a number of screw holes. With this construction, also, the spring will not be liable to break when in use.

Improved Peat Molding Machine.

Jean François Bocquet and Victor Alexis Bénard, of Paris, France.—This invention relates to an improved machine for molding peat that has been crushed and mixed or reduced to a homogeneous condition in a grinding or other mill. The peat thus prepared is received into a hopper or box, above a set of traveling molds, formed chiefly of a series of suitably articulated plates, said molds being revolved by and around polygonal drums, and the peat being thus formed into blocks, and deposited on the ground or other surface. The molding machine travels along a rack or toothed rail, whereby the peat blocks are laid regularly and close together in a row.

Improved Smoke and Cinder Conductor.

Daniel Brancher, of Lincoln, and Jacob L. Ring, of Mount Pulaski, Ill.—The conductor is made of separate pieces of pipe slipped together, having flanges and telescopic slides between the cars to allow the cars to move back and forth. Slots in the outside pieces and pins limit the longitudinal motion of the parts. This joint section and flange, made of rubber, gives additional flexibility to the conductor. Spring hooks, placed on the outer slotted pieces in reversed position, hook over the flanges and hold the parts together. This forms the coupling of the conductor, and enables the conductor to be pushed back over the projecting roof of the car when not in use.

Improved Combined Clothes and Quilting Frame.

Melvin Churchill, Helvetia, Wis.—This is a quilting frame combined with a clothes rack, the two being connected so as to be used for either purpose when required, so that they may be folded into a small space for storage, transportation, or when not in use.

Improved Ice Former.

Stephan Krauss, Clifton, N. Y.—A small stream of water is allowed to flow upon the apex of an upper tier of spouts. As the concavities of the spouts of the upper tier fill with ice, the water will drip from their edges upon the spouts of the tiers below. The water will also fall upon pins, and will thus be further subdivided. In this way the water will be exposed to the air in films, drops, and very small streams, and will be very rapidly frozen. When a sufficient quantity of ice has been formed, the apparatus may be covered with a shed, so as to serve as an ice house for storing the ice.

Improved Grain and Straw Lifter.

Donald Crane, Knight's Landing, Cal.—This is composed of ropes interlaced, and forming a kind of net, made in two parts and attached to timbers or bars, and divided in the middle. When the load has been transported to the desired place for unloading, a derrick is provided, on the hook of which rings attached to the ropes are placed, and the entire load is lifted from the wagon and swung round over the place where it is to be discharged. Suitable mechanism then allows the parts of the lifter to separate and discharge the load.

Improved Stencil Cutter.

Patrick L. O'Brien, New York city.—This invention consists of a stencil-cutting device, which is guided longitudinally and laterally on suitable supporting and sliding frames, and adjustable to produce single and double, straight, circular, or curved lines, being readily operated by one hand, while the stencil plate or sheet is fed to the cutting knife with the other hand.

Improved Bag Fastener.

Charles W. Harvey, Waterloo, Iowa.—This bag fastener is formed by the combination with each other of a rubber block, a screw, and two metallic washers. The mouth of the bag is gathered in the usual way, the string is passed one or more times around it, and is then passed once or twice around the outer washer, and is drawn in between the said washer and the body of the bag, where the elasticity of the rubber will hold it securely in place.

Improved Watch Case Spring.

Jules Menegay, Brooklyn, N. Y.—This consists of a watch case spring, made of uniform thickness throughout its length, and fitted in a dovetail groove in the inner face of a section of the rim of the case. The latter is split for a short distance from one end, and is provided with a clamp screw for pinching the split parts upon the edges of the spring, so as to hold it at any point. The spring can thus be shifted to any needed extent for adjusting it to the case after the spring holder has been fixed in the rim of the case, and can thereby be adjusted more accurately.