

## Recent American and Foreign Patents.

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## NEW AGRICULTURAL INVENTIONS.

## IMPROVED BARBED FENCE.

Lyman P. Judson, East New Market, Md.—In this invention a strip of any suitable metal has perforations made at such intervals as may be desirable. In these perforations wire barbs are placed, and, by means of suitable tools, are bent down parallel to the sides of the strip for a small portion of their length, and then are bent outward at right angles to the strip. The wire barb is clasped upon the sides of the strip loosely, so that it will yield sufficiently to not tear the flesh of an animal, or draw wool from sheep.

## IMPROVED ANIMAL TRAP.

Edgar B. Beach, West Meriden, Conn.—This invention is an effective trap for catching animals by killing the same at the moment when they try to take the bait; and it consists of a piston at the end of a pivot arm propelled in a circle by the discharge of a gun barrel, as soon as the spring-acted hammer of the same is released by nibbling at the bait.

## IMPROVED FRUIT DRYER.

William M. Edelman, Wahoo, Neb.—This invention is an improved fruit dryer of simple and cheap construction, that may be used on any stove or furnace without danger of smoking, burning, or charring the fruit. It consists of a double pan having a bottom receptacle filled with water by a funnel-shaped spout, that is surrounded by a dishing plate to catch any water forced out by the steam. The pan is of flat shape, and has a double bottom that forms a receptacle for water and steam below the bottom of the drying pan. The water is filled into the receptacle by a funnel-shaped corner spout, with outward inclination, through which the steam formed in the receptacle may escape. The heat produced by the generation of steam in the receptacle is claimed to dry the fruit in a superior manner, without exposing the same in the least to the danger of being burned or charred, or of obtaining a smoky taste.

## IMPROVED FEED RACK.

William H. Howard, Albany, Wis., assignor to himself, J. F. Tracy, and Jonathan H. Roberts, of same place.—This is an improvement in the class of devices for feeding stock in which the supply is regulated by sliding or swinging valves. It relates to the specific construction and arrangement of valves with reference to the hopper and feed trough proper. A hopper contains grain or other feed, in the bottom of which hopper holes are made through which grain may pass to the boxes that are placed below the hopper in the trough upon each side of a central partition. Slides or valves are placed in the bottom of the hopper and in them holes are made, which correspond with the holes in the bottom of the hopper. These slides are capable of being moved by levers, so as to open or close the holes in the bottom of the hopper. Crossbars extend across the hopper above the slides, and serve the double purpose of keeping the slides in their places and of stirring the grain when the slides are moved.

## IMPROVED HOG CATCHER.

James H. Eames, Emerson, Iowa.—This is an improved device for catching hogs, sheep, calves, and other small animals, and poultry, which holds the animal securely. It consists in the combination of the pivoted curved jaws, provided with shanks of different lengths, the curved bar, provided with a socket to receive the handle, the jointed bar, the sliding cross or T head trippar, the spring, and the cord or strap with each other. The jaws are curved inward or toward each other, and the ends of which overlap each other. The jaws cross and are pivoted to each other, and are widened at their point of crossing to give them a wide bearing, to keep them from turning or getting out of line with each other. The shanks of the jaws are made of different lengths, and to the longer shank and its jaw are attached the ends of a curved bar, to which is attached a socket to receive the handle. The handle, for ordinary purposes, should be about ten feet long.

## IMPROVED BEEHIVE.

Charles J. Sperry and Lyman Chandler, New London, Minn.—The object of this invention is to improve the construction of the beehive for which letters patent No. 143,307 were granted to the same inventors September 30, 1873, so as to make it more convenient in use, enabling the bees to be more readily handled and controlled. The bottom of the hive, the lower side of the forward edge of which rests upon the table, is supported in an inclined position by legs attached to the back of the hive, to the lower edge of which the bottom is attached, and which is vertical, or nearly so. The front of the hive, the upper part of which inclines outward, is attached at the lower edge to the bottom, at a little distance from its edge. The projecting part of the bottom serves as a table for the bees to alight upon. In the middle part of the lower edge of the front is formed a long notch for the ingress and egress of the bees. The size of this passage is regulated by a slide placed in a groove in the lower edge of the front, and which is supported adjustably by two wedges placed beneath it at the ends of said notch. By this arrangement, by adjusting the wedges, the slide may be raised to permit workers and drones to pass in and out, or lowered to shut out the drones, while allowing the workers to pass in and out freely.

## IMPROVED HAY DERRICK AND STACKER.

Richard N. B. Kirkham, Kansas, Ill.—This invention is an improved machine for elevating hay in stacking it in the field, which enables the hay to be raised upon the stack faster, and with less labor of man and horse, than is possible with the machines for this purpose now in use. It consists in the combination of the inclined circular track and its supporting framework, the circular plate and its pivoting shaft, the two parallel semicircular plates, and the two levers and their wheels with each other, and in the combination of the curved drawrod or sweep and its brace with the circular plate, and the two parallel semicircular plates, the two levers, and their wheels.

## IMPROVED METALLIC FENCE CAP.

John D. W. Lauckhardt, Brooklyn, N. Y.—This improved fence cap serves the threefold purpose of a weather protector, an ornamental covering, and of a guard against the inroads of cats and boys; and it consists of a sheet or cast metal cap with tapering sides and spurred top.

## IMPROVED IRON POST FOR WIRE FENCES.

John Plane, Belvidere, Ill.—The post is made of angle iron of any desired length and size, as circumstances may require. In one or both edges of the post are formed inclined notches to receive the wires. The wire is secured in the notches by buttons pivoted to the posts in such positions that they may be turned down upon said wire.

## IMPROVED HAND SEED PLANTER.

Francis B. Preston, Fayette, Mo.—By suitable construction, as the slide is raised enough seed for a hill is taken from said hopper and dropped into the slot of the board, down which it passes and rests in the angle between

plates. When the planter has been thrust into the soil the slide is pushed down, which forces one plate back and forms a space in the soil into which the seed drops. The seed is covered by the falling in of the soil as the planter is raised.

## IMPROVED SLED BRAKE.

Ephraim M. Lawrence, Bryant's Pond, Me.—This is an improved brake for sleds, so constructed that the operation of holding back will apply the brake, and the operation of drawing will raise the said brake, and the device may be readily fastened to allow the sled to be backed without applying the brake.

## IMPROVED FENCE.

James Garrett, Pembroke, N. Y.—This invention consists of two upright pieces, that are secured to a base block by a fastening wire passed around the block and attached by eyes to the upright. The latter carry the rails or intermediate blocks, and are rigidly secured to the ground by a lateral brace wire secured to and keyed by stakes into the ground.

## IMPROVED GRAIN SCOURER.

James S. Hillyer, Rockford, Minn.—This grain scourer consists of an inclined revolving cylinder, the inner face of which is longitudinally corrugated and covered with a coating of emery.

## NEW MECHANICAL AND ENGINEERING INVENTIONS.

## IMPROVED STONE DRILLING MACHINE.

Ferdinand Johnson, Toledo, O.—This is an improved drill for boring holes in rocks for blasting and other purposes. It consists of a connected cylinder and drill, that are lifted jointly by revolving cams, and rotated at the same time by suitable pawl and ratchet mechanism, operated by a pitman and pawl connection with a trap block, ratchet, and rack of a slotted sleeve, through which the cam shaft and lifting roller shaft pass. The drill shaft is vertically adjustable to any depth, and guided by rollers of the bed frame, the drill being readily moved from place to place by a truck under the bed frame.

## IMPROVED GRINDSTONE SHARPENING ATTACHMENT.

Henry F. Bush and Martin L. Bush, Douglassville, Pa.—This invention is designed to provide for common grindstones an improved attachment by which the knives of moving machines may be sharpened in rapid and superior manner, two edges of adjoining knife sections being ground by one stone at one and the same time. It consists of a second grindstone of V diamond shape, that is hung in a suitable frame, centered to the shaft of the main grindstone, and revolved by belt and pulley connection with the same. The knife of the mowing machine is clamped on a base plate and reciprocated toward the oscillating grindstone by suitable mechanism.

## IMPROVED FRUIT PARING, CORING, AND STONING MACHINE.

George Bergner, Washington, Mo.—This invention relates to such improvements on the apple parer, corer, and slicer for which letters patent were heretofore granted to the same inventor under date of January 9, 1872, and numbered 122,553, that the same may be used either for paring, slicing, and stoning or coring peaches or apples, or for the purpose of paring the fruit merely, as required. It consists of a recessed spring fork, that is revolved by a hand crank, in connection with a swinging and spring-acted paring knife, which is operated by a rack rod and gear, and automatically thrown in or out of motion by a worm thread of the fork rod, and a spring-acted rod holder. The fork rod holder is acted upon, respectively by a hook at the end of the sliding rack rod, or by a fixed lug of the revolving fork rod, and retained in or out of gear with the worm by suitable locking devices. A longitudinally sliding and sidewise swinging slicing knife is guided along the base frame and pushed forward for slicing and stoning the fruit. A swinging and spring-acted arm is attached to a short post of the rack rod, and engaged by a fixed lug or pin of the base frame of the apparatus, to throw the fruit off the fork when it is not desired to slice the same.

## IMPROVED MACHINE FOR CUTTING SCREW THREADS.

Louis Bollmann, Vienna, Austria.—This invention relates to machinery for cutting screw threads. It may be applied for cutting regular or irregular forms, besides screw threads, the work receiving always a shape which is an exact counterpart of the acting surface of the cutter. Two or more screws of different pitch, besides any complicated form, can be cut at the same time. To give to the cutter the exact shape required an exact copy of the work is used, and by cutting into it, the teeth make a cutter out of it, which is then hardened. This cutter is then fastened to the lathe spindle in place of the work, while the unhardened cutter which is to be made is fastened on the cutter spindle. By bringing, now, both cutters in contact, the soft cutter will become an exact copy of the form required.

## IMPROVED CAR COUPLING.

David R. Halter, Lee's Cross Roads, Pa.—This invention consists of a drawhead having hinged, spring-acted, and adjustable coupling link, in connection with a drawhead having a pivoted and weighted draw lever and a laterally sliding coupling and uncoupling pin.

## IMPROVED ROLL FOR REDUCING TUBES.

William McKenzie, New York city.—The object is to reduce the size of tubing by drawing it between loose rollers while hot. The device consists in the arrangement of one or more pair of rollers in a hinged frame, which is capable of adjusting itself so that the distance between the rollers may be varied to accommodate pipes of different sizes.

## IMPROVED ORE STAMP.

Thomas Schofield, Grass Valley, Cal.—This consists in the combination of a ring supported and guided by rollers, and carrying a number of cams, and a number of stamp rods having collars that are engaged by the cams as the ring revolves. The device is a portable and efficient quartz battery, which may be worked by horses or other animals, and by them be drawn from place to place.

## IMPROVED CAR STARTER.

Andrew J. Curtis, Monroe, Me.—This is an improved device for attachment to street cars, so constructed as to enable the momentum of the car to be used for stopping it, and the same power to be applied for starting it. It is simple in construction and conveniently operated.

## NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

## IMPROVED CARRIAGE BODY ADJUSTER.

Isaac Wilkins, Jr., Greenpoint, N. Y.—This invention relates to an improvement in carriage bodies whereby the door frame may be quickly and easily adjusted when the body sags so as to bind the door in the door frame.

## IMPROVED DOOR BOLT.

Alpheus A. Dennett, New Britain, Conn.—This invention consists in the combination, with a sliding bolt, of a thumb piece having a crossbar, which, when the bolt is either retracted or projected, is capable of locking said bolt. To this end the crossbar of the thumb piece is turned at right angles to a slot of the guide casing of the bolt.

## IMPROVED WAGON SEAT LOCK.

Charles E. Stone, Salisbury Mills, Mass.—The advantage claimed for this improvement is, that the seat may be readily moved from one position to another on the wagon body, and may be securely clamped. The device is a wagon seat lock provided with the beveled nib on the lower end of a

swiveled plate, the same being arranged to enter a groove in the side board and catch under an iron strip.

## IMPROVED LATHE FOR CUTTING SCREW TAPS.

George R. Stetson, New Bedford, Mass., assignor to himself and Morse Twist Drill Company, of same place.—This relates to improvements in machines for cutting taps or other forms, where a longitudinal slot or depression relieves the tool from work during a portion of the time of its revolution, so that when the cutting tool passes over the longitudinal slot or depression the motion of the blank being cut is more rapid than during the time the tool or cutter is at work.

## IMPROVED ROOFING TILE.

Philip Pointon, Baltimore, Md.—The improvements embodied in this invention are designed principally to prevent the warping and twisting of the tile during the baking operation when arranged horizontally in vertical piles. The improvements consist in the peculiar formation of upper and lower lips on opposite faces and ends of the tile, which serve to couple the tile on the roof and yet permit them to be arranged parallel in the kiln. It also consists in extending the upper and lower lips past each so as to support the tile at the corners, and also in forming a raised ornamental figure in the center which supports the tile in the center during the operation of baking. A further improvement consists in forming the tile with a beveled face upon the lower side in order to strengthen the tile when laid upon the roof.

## NEW MISCELLANEOUS INVENTIONS.

## IMPROVED HOOK FOR HARNESS.

Richard Lowell, Flushing, N. Y.—This is an improved water hook so constructed as to prevent the check from coming off the hook accidentally, and which will not prevent the check from being put on and taken off with facility. It consists in the combination of the U-shaped keeper with the neck formed upon the water hook at its bend. The body of the water hook, which may be of any of the ordinary shapes, is bolted to the saddle tree in the usual way. Upon the forward part of the bend of the hook is formed a neck, around which the check passes. A U-shaped keeper, which is bent to correspond with the bend of the hook, has the arms which fit into recesses formed in the sides of the hook. The arms of the keeper are pivoted to the opposite sides of the hook at the lower part of its bend, so that it may be swung forward. In checking the horse, the keeper is swung forward, the loop of the check is put through it, and passed over the point of the hook, and the movement of the horse's head will draw it into place. In unchecking the horse, the loop of the check is drawn back and passed up over the point of the hook, and the movement of the horse's head will draw it out through the keeper.

## IMPROVED MEDICINE CASE.

Jerome Millard, Pultneyville, N. Y.—This is a convenient and compact case for the use of physicians for carrying remedies. A box of suitable dimensions has a middle partition and covers at each side, that are hinged to the body of the box. The space on one side of the partition is divided longitudinally by a partition, and the space at one side of this partition is subdivided into smaller spaces for receiving bottles by the partitions, the space at the outer side being filled with small phials placed in removable pockets. A number of pockets are formed for receiving the phials, and a tray having pockets for receiving phials is fitted to the box above or outside of the pockets. The entire interior surface of the box and covers is covered with felt, velvet, or other soft or yielding material. The handle of the box consists of an oblong ring, which is pivoted in ears that are attached to the box by means of screws. The case is arranged to accommodate phials of different sizes, and is constructed so that every compartment may be readily opened. The whole forms a compact and convenient case for containing a number of remedies.

## IMPROVED PULP ENGINE.

Edwin Sumner, Baldwinville, Mass.—This improvement consists in arranging within the roll cover or hood of a paper pulp engine an inclined chute that receives the pulp thrown up by the roll, and carries it transversely toward the outside of the curb, the object being to equalize the velocity of the circulation of the pulp in the curb, so that a homogeneous mass of paper pulp is produced.

## IMPROVED PYROTECHNIC SIGNAL CARTRIDGE.

Jacob J. Detwiler, Jersey City, N. J.—This consists mainly in a cartridge having the usual percussion priming, and containing a propelling charge of gunpowder, a perforated wad, and a cylinder or ball of highly combustible composition, capable of giving out a red or white light when burned, and a closing wad, which completes the cartridge. It also consists in forming, on the percussion end of the cartridge, one or more projections, by which the color of the cartridge may be determined in the dark.

## NEW HOUSEHOLD INVENTIONS.

## IMPROVED CHAIR BRACE.

James W. Collins, Laramie City, Wyoming Territory.—This is a brace to be attached to an ordinary chair, to strengthen and stiffen it, and to draw its joints firmly together. It consists of a crosspiece attached to the under side of a chair bottom, and provided with sockets for receiving the upper ends of braces that incline downward and outward, and are attached to the legs of the chair near their lower extremities.

## IMPROVED MILK COOLER.

Rollen C. Greene, Potsdam, N. Y., assignor to himself and Nathan P. Chaney, of same place.—This milk pan is so constructed as to enable the milk while in the pan to be cooled or warmed, as may be required. There is a top tank, a surrounding air chamber, and a bottom tank.

## IMPROVED COFFEE ROASTER.

George W. Tinsley and Amanda Hackman, Blakesburg, Iowa.—This relates to an improved coffee roaster, by which the flavor of the coffee is fully retained, and the same roasted in convenient manner without interfering with the cooking operation of the stove. The invention consists of a drum with end pipes connecting with the stove opening and the chimney pipe, the drum having an interior heating cylinder with detachable heads, in which a revolving wire cloth cylinder is supported.

## IMPROVED VAPOR BATH.

George W. Walker, Guy's Mills, Pa.—This consists of a boiler or vapor generator formed within a metallic cylinder, the lower portion of which is perforated and forms a receptacle for a lamp, while the upper portion is provided with a single row of perforations for distributing the vapor that issues from the central aperture of the boiler top.

## IMPROVED GAS REGULATOR.

Samuel S. Jones, Norristown, Pa.—This device is so constructed that the consumption of gas may be economized, and, if desired, entirely interrupted at any one burner. It consists of a burner socket or base, with exterior threaded issuing tube and slotted cap or valve adjustable thereon. The valve is inclosed by a bulb-shaped outer part, to which the burner is attached.

## IMPROVED STOVEPIPE DRUM.

Jacob Closs, Decatur, Ind.—The construction is such that no ashes can collect in the drum as they must fall through the heads, forming a part of the drum and back into the stove through the stovepipe. The advantages claimed are its efficiency in utilizing the greatest possible amount of heat, in controlling the draft, freedom from choking or clogging, and the facility with which the drum may be taken apart for cleaning or repairs.