

## Recent American and Foreign Patents.

## NEW AGRICULTURAL INVENTIONS.

## IMPROVED GANG PLOW.

Edward S. Beckelhymer and Hugh H. Canaday, Fairfield, Iowa.—This gang plow is so constructed that the draft may be applied directly to the forward ends of the plow beams, bringing the point of the draft attachment close to the points of resistance, enabling the plow to be easily raised from the ground.

## IMPROVED CURD DRAINER.

Jonas Wilder, West Rupert, Vt.—This invention consists in a cheese-curd drainer, in which the sheet metal lining passes through the discharge slot in its bottom, and is secured to or formed solid with the discharge spout, and in a detachable screen, made in sections, in combination with the drainer and the discharge spout.

## IMPROVED SEEDER AND CULTIVATOR TOOTH.

Rufus F. Billings, Kingston, Wis.—This tooth is so constructed that it will swing back should it strike an obstruction, will return to its place as soon as the obstruction has been passed, and will allow the seeder or cultivator to be backed without raising the teeth from the ground.

## IMPROVED CALF WEANER.

Alvord M. McLeran, Onawa City, Iowa.—This is a combination of a folded plate, on bent and knobbed wire, and spikes with each other. The plate prevents the animal from getting hold of the teats with its mouth; and should it attempt to suck, the spikes will be thrust into the cow and prevent her from standing still. At the same time the device does not prevent the animal from putting its mouth to the ground and eating freely.

## IMPROVED MILK-STRAINING CAN.

Albert P. Knapp, Randolph, N. Y.—The usual flat side of the strainer is made round, so that the appliance is more easily kept clean. A hoop is applied to the lower end which may be applied to pans, and which has eyes to catch on hooks on top of the pail. A breast prevents the milk from slopping over, and is contrived so as to serve as a handle to the strainer. The bottom is struck down in concave form, and the strainer is fitted in the middle portion considerably smaller than the top of the can, so that plenty of space may be had, around the stream of milk flowing into the can from the strainer, for the escape of the animal heat.

## IMPROVED STALK PULLER.

George W. Butler and Timothy P. O'Connell, St. Antonio, Tex.—This is a machine designed especially for pulling cotton stalks. There is a cylinder provided with the curved and bearded V teeth, which take hold of the stalks, pull them, and carry them over. Another cylinder has rows of curved teeth, in such positions as to pass up between the teeth of the first cylinder to detach the stalks from said teeth. A slotted plate removes from the teeth any stalks that may adhere to them, to keep the said teeth always clear.

## NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.

## IMPROVED PAVEMENT.

Joseph R. Abrams, Greenville, Ala.—This invention consists in a series of receptacles, in dimensions of about 10 inches depth, 8 inches diameter, and 1½ inches thick, made of artificial stone, terra cotta, or other analogous earthenware, capable of disintegration and wear, which said receptacles are filled with tightly rammed macadamized material, or broken stone, with a top dressing of sand and gravel. The said receptacles are placed upon a smooth road bed, and the interstices between the same are also packed with the same material and in the same way, so as to present a perfectly smooth upper surface, the receptacles operating as binders to prevent loosening of the materials.

## IMPROVED HAND SUPPORT.

George R. Knapp, Vinton, Iowa.—This is a book rest, having shoulders of different sizes at both ends of the hand rest and a sliding extension rest for the arm. It furnishes thus a better support for the hand and arm, and admits of the neater and easier keeping up of account books, etc.

## IMPROVED FRUIT DRYER.

William Aram, San Jose, Cal.—This invention pertains particularly to the combination and arrangement of vertical sliding partitions and registers in a case or oven, provided with suitably located openings for passage of hot and cold air, whereby the application and degree of heat are controlled at will in the several compartments of the case or oven, through which the fruit is conveyed on wheeled frames.

## MACHINE FOR PACKING FRUIT AND OTHER ARTICLES.

George W. Deitzler, San Francisco, Cal.—This consists of one or more vertically reciprocating pistons, that press the articles by means of guide boxes into suitable packages, which are supported on movable and spring-acted bottoms, that are intermittently locked by sliding latch pieces actuated by lever connection with the driving shaft.

## IMPROVED BUCKLE.

Warren T. Reaser, Centralia, Wis.—This buckle has its central cross bar provided with a stud, which constitutes the means for securing one end of the strap to which the buckle is applied, and also supports the free end of the tongue, which passes through the end of the strap.

## IMPROVED BREASTPIN FASTENING.

Charles O. Hood, Pawtucket, R. I.—This is an improved breastpin fastening for the cheaper kinds of jewelry; and consists of a pin bent at a right angle at the end, and set into the longer end of a socket hinge, formed by bending a perforated plate around the end of the pin, the shorter socket section serving to retain the same. The elasticity of the pin is obtained by the contact with a shoulder formed between the socket sections.

## IMPROVED NECKTIE FASTENER.

Michael D. Levy, New York city.—This consists of a metal hook, adapted to hook to the neck of the collar stud from above, and so arranged, relatively to the top of the bow, that it is prevented from rising by the collar turned over the bow, so that the hook cannot work off from the stud.

## IMPROVED BOTTLE STOPPER.

Augustus E. Rich and Charles S. Sawyer, Fall River, Mass., assignors to themselves and James H. Crittenden, of same place.—This consists of a yoke hinged to a ring of wire fixed around the neck of the bottle, in which yoke a nut is pivoted, which has a thumb screw for screwing down on the rubber stopper after it has been pressed in.

## IMPROVED PAINT.

John Fetzer, Rolla, Mo.—This is a paint consisting of fireproof clay, sulphate of lime, sulphate of barium, calcined magnesite, bleached glue, tragacanth gum, alum, linseed oil, shellac, and water. The paint thus prepared mixes well, and adheres as well as any oil paint, gives a fine polish, and admits of being marbled. It congeals at 80° Fah., and should be put in a warm water bath to be applied.

## IMPROVED GLASS-LINED REFRIGERATOR.

James H. Collingwood, Poughkeepsie, N. Y.—This consists in a refrigerator lining formed of glass plates jointed and cemented together at their edges, and secured to the bottom, sides, top, and doors of the box.

## IMPROVED BARBED WIRE FENCE.

Myron W. Colwell, Dunlap, Iowa.—This is a combination, with a fence wire, of four pointed barbs, formed of two short pieces of wire twisted together between their ends, and secured to the fence wire by turning the prongs around the shoulders formed by offsets in the fence wire.

## IMPROVED GAGE ATTACHMENT FOR SQUARES.

Edward Kuhns, St. Clair, Pa.—This invention consists in a device made in U form to fit upon the edge of a square, and overlap its sides, and provided with pointers and set screw to adapt it for use. The device is very useful in laying out stairs.

## IMPROVED GRAND PIANOFORTE FRAME.

Charles F. Chickering, New York city.—In order to strengthen the pin block and prevent it from being drawn upward by the tension of the strings, the webs and plate are formed in one solid piece, with the longitudinal bars and the plate attached to the pin block, in combination with the belly rail and pin block.

## IMPROVED MACHINE FOR CANCELLING STAMPS.

William H. Bowyer, Philadelphia, Pa., assignor to John J. Ridgway, Jr., of same place.—This is a revolving grinding roller, to which the stamps are exposed for cancellation on a spring-acted board with a rubber feed roller, corresponding in length to the grinding roller.

## IMPROVED ADDING PENCIL.

Marshall M. Smith and Fletcher W. Potts, Verdi, Nev.—This invention consists of a spirally-grooved revolving cylinder in a slotted case, numbered consecutively in the coil up from the lower end, ten numbers to each coil. It carries an index by the groove, with contrivances in the lower part of the case to revolve the cylinder, by pressing a pointer into the case against a spring, as many numbers as a pointer in the pencil case is pushed back along a scale at the lower end, and carrying the index along the spiral column a corresponding number of figures. The pencil is then relieved of the pressure and the spring forces it out again, when it is ready to repeat the operation. This invention was illustrated and fully described on page 214, volume XXXIII.

## IMPROVED HAT VENTILATOR.

Francis P. Flanagan, Springfield, Mass.—This inventor proposes a gauze cover for the ventilating hole, applied so as to cover and hide the eyelet used to bind the hold and keep the gauze in shape, thus making a neater construction.

## NEW HOUSEHOLD ARTICLES.

## IMPROVED COOKING VESSEL.

John B. Jones, Brooklyn, E. D., N. Y.—This is simply a second or false bottom for cooking vessels, secured in place by a beaded flange, which fits the sides of the main vessel. This forms an air chamber, and protects the contents of the vessels from being burned.

## IMPROVED VEGETABLE CUTTER.

Martin Gillespie, East Palestine, Ohio.—The novel feature in this is the hopper, which being pivoted at its lower end in front of an opening in the case, may be used either as a horizontal or as an oblique self-feeding hopper.

## IMPROVED SLOP BUCKET.

Benjamin P. Walker, Macon, Ga.—This invention relates to slop jars, which are provided with flaring top rims, to prevent the liquid poured thereinto from slopping out, and consists particularly in making on the flaring rim an upward extension that rests against the wall, and thereby prevents the latter from being splattered.

## IMPROVED LAMP STOVE.

John Ward Cole, Brampton, Canada.—This consists mainly of water compartments for cooling the wick tubes arranged above the oil receptacle, and provided with air chambers between and at each side of the wick tubes, for the increased supply of air to the flames. A self-feeding water reservoir keeps up the supply of water around the wick tubes.

## IMPROVED VEGETABLE CUTTER.

Friedrich Rentschler and John Keck, Ann Arbor, Mich.—This is formed of a plate having inclined transverse slots formed in it, bent in opposite directions at the opposite sides of said slots, and also of wires having loops formed in them at the ends of the plate. In using the device, it is laid upon a table, the loops supporting it in a slightly inclined position. The vegetables to be cut are then placed in the box, and the said box is pushed back and forth upon the plate, slicing the vessels quickly and evenly.

## IMPROVED LAMP STOVE.

Joseph Irving, Chicago, Ill.—This consists of a removable non-conducting disk, provided with a metallic sleeve extending up around the burner, between which and the sleeve a portion of the draft passes; also on its lower surface, with a shallow cup of foraminous metal to protect the flame from sudden blasts. The disk rests on the non-conducting top of the oil chamber, to which a drum containing a hot air chamber and metallic chimney is hinged.

## NEW WOODWORKING AND HOUSE AND CARRIAGE BUILDING INVENTIONS.

## IMPROVED DRAFT EQUALIZER.

Amos O. Rowley, Bassett, Iowa.—This is a three-horse evener, contrived so that the single horse may work on the short arms, and the two horses on the long arms, as is required for plowing and working reapers and mowers and the like.

## IMPROVED CAR VENTILATION.

Charles G. Lea, Alton, Ill.—This is a monkshood blower, with a pipe extending into a water tank, and another pipe for conducting the air from the tank into the car, together with similar blowers for effecting exhaust to aid in inducing an active current of fresh air into the car.

## IMPROVED DOME SUPPORT FOR CISTERNS.

Adam Snider, Pierceton, Ind.—This is a cone-arch skeleton on which to build cement or other arched covers for cisterns and the like. The said frame is constructed with a base ring and arch in sections, contrived for putting them up and taking them down conveniently, to allow of removal through the manhole of the arch after the latter is completed.

## NEW TEXTILE MACHINERY.

## IMPROVED WARP TENSION REGULATOR.

John F. Morley, Waterloo, Canada.—This is a contrivance of compound levers, and an adjustable fulcrum, for adjusting the tension to warp of different sizes and strengths, and a novel contrivance for shifting the weights of the friction strap levers as the size of the warp roll diminishes.

## NEW MECHANICAL AND ENGINEERING INVENTIONS.

## IMPROVED BOILER CLEANER.

John L. Lloyd, Williamston, Mich., assignor to himself and Oscar McCausey, same place.—This is a strong broom for cleaning the dirt and sediment from the bottom of steam boilers, and consists of wood bristles clamped between arc-shaped and screw-connecting pieces that are screwed to a handle.

## IMPROVED SANDING MACHINE.

Jehiel Baker, Westport Point, Mass., executor of John H. Baker, deceased.—This is an apparatus for spreading sand over cranberry bogs. In using the machine, the lower edges of the hinged sides of the box are swung together and fastened, to prevent the sand from falling through while being shoveled into said box. When the box has received the desired amount of sand, a latch lever is unfastened, which allows the hinged sides of the said box to swing apart, and the sand to fall in a body upon the wire bottom, whence it is fed out, as the machine is drawn over the bog, by oscillating a frame and its toothed bars.

## IMPROVED BRICK YARD PLANT.

Joseph L. Irby, Grenada, Miss., assignor to himself and J. H. Campbell, same place.—This consists of a system of rails and cars for conveying the molded bricks from the mill to the drying ground, and from the latter to the kiln, more economically than it is done by the common method, and also of a simple contrivance for covering the drying ground with movable sheds, when necessary, to protect the drying bricks in wet weather.

## IMPROVED SWITCH SIGNAL.

Thomas W. Peeples, Elizabethport, N. J.—The invention consists in fitting the switch lever on a shaft in the opening of the lamp case, so that the lamp will be turned only a quarter while the shaft makes a half revolution.

## IMPROVED ADJUSTABLE STAND FOR DANDY ROLLS.

Archibald McDermid, West Fitchburg, Mass.—This is an improved stand for the dandy rolls used in paper machines for making the impression or water mark on letter and bank note paper. It has an adjustable lower arm and journal bearing for carrying any size of dandy roll, and an adjustable top arm and screw clamps for supporting the cloth-holding stick or flag in the proper position to the roll.

## IMPROVED SPINDLE STEP LUBRICATOR.

Henry Whorwell, Paterson, N. J.—This invention consists of a collar on the spindle in the oil cup, with projecting arms and flanges on the wall of the cup, to prevent the collar from turning with the spindle. The object of the collar is to prevent the oil from being forced around rapidly by the spindle, which causes it to overflow and waste.

## IMPROVED TIRE-HEATING FURNACE.

Nathaniel Crank, Winslow, Mo.—In using this device, the fuel and tires are placed in a sectional ring box, the fuel is set on fire, and the covers of the box are closed. The box is then rotated by means of a crank and rod, which, through openings in the box, causes the fire to burn furiously, heating the tire very quickly and with a comparatively small amount of fuel. The covers are then turned back, and the tires are taken out and set.

## IMPROVED SHAFT COUPLING.

Samuel Moses Guss, Reading, Pa.—This improved coupling comprises a solid hub, with a central hole for the shaft, which is enlarged for part of the circumference at each end. In this enlargement is fitted a bush, which is keyed firmly against the shaft, so as to press it very firmly against the part of the hole in which it is keyed, thus making a firm coupling. The parts of the solid hub are cast together with the key ways.

## IMPROVED ELEVATOR HOISTING MACHINE.

Volney W. Mason, Providence, R. I.—The novel features in this device are a shipper bar, by which either pulley may be made to drive the machinery, or both may be allowed to run loose, a new means of enabling the brake to be automatically applied whenever the clutches are unshipped, and the arrangement of friction clutches and loose pulleys, so that the belt strain is equalized.

## IMPROVED RAILROAD SIGNAL.

John W. Hawley, Warsaw, N. Y.—This invention consists of a wire connection extending from the signal box at the crossing to some distance from the same, to be operated by the locomotive depressing a spring-acted crank rod and releasing the signal.

## IMPROVED POST HOLE AND WELL DIGGER.

Isaac M. Perry, Slate Cut, Ind.—This is an arrangement of two semi-oval blades, bolted to opposite sides of the head. The handle is formed in sections. In using the device, it is thrust into the ground and then raised, bringing its contents with it, which are jarred or shaken out, and the tool is again thrust into the soil.

## IMPROVED BRICK MACHINE.

Newton J. Wolfe, Canal Winchester, Ohio.—This is a contrivance by which the mud is pressed into shaping dies, which move forward into the brick molds when the presser goes back for another batch of mud; and when the dies go back to receive the next batch from the presser, the shapes made by the dies are left projecting into the mold, and are cut off at the surface of the molds, forming bricks. The filled molds are then removed, and empty ones put in to be filled as before, and so on. An essential advantage of the projecting of the dies into the molds consists in the delivering of the brick in the molds without disturbing the sand with which the sides are sanded.

## IMPROVED MILL-FEEDING APPARATUS.

Robert B. Van Onner, Mifflintown, Pa., assignor to himself and James M. Van Onner.—This consists of a stationary tube, extending down from the hopper a suitable distance. A revolving disk in the bottom is turned by a damsel, which works up and down through it freely as the stone is raised or lowered, so as not to alter the feed. The said tube has openings through the lower part, out of which the feed is thrown by the disk, and has an outside tube on it, which is raised and lowered by a shaft to regulate the feed.

## IMPROVED DEVICE FOR CONVERTING MOTION.

Charles E. Willis, New York city.—This invention relates to means for producing motion in any direction at the will of the operator. It consists of a cam in a support capable of turning on its axis, and surrounded by a reciprocating ring, to any part of which the cam is presented by the turning of the tube, so as to be worked in any direction. The motion is transmitted in some cases from the cam by an arm to which one end of a bar is attached, which is mounted so as to both vibrate and reciprocate, and which works the feed of other device by its other ends; but as this contrivance does not in all cases give the motion in straight lines, a combination of compound parallel bar mechanism is used with the cam, by which the device operated is moved in straight lines in all cases.

## IMPROVED THROTTLE VALVE LEVER.

Charles W. Garland and George W. Garland, Lancaster, N. H.—This invention consists of a swinging throttle valve lever, with supplementary fulcrum handles, that release spring dogs from double arc-shaped ratchet bars, but lock the lever securely when not taken hold of.