Recent American and Foreign Patents.

NEW AGRICULTURAL INVENTIONS.

IMPROVED COTTON PLANTER.

Thomas R. Wallis, Egg's Point, Miss.—The novel feature in this consists in the axes of the seed cylinders (which are placed within a diamond-shaped harrow frame), being secured to bars, and these last being attached to two standards on said frame, thus forming a new mode of sustaining said cylinders.

IMPROVED GRAIN DOOR.

Joshua W. Merriman, Wells, Minn., assignor to himself and Benjamin F. Smith, same place.—This consists of a vertical catch bar mounted at its upper end on an eccentric stud of a hand lever. At the lower end there is a slot working on a stud pin, the slot being so inclined that, when the eccentric stud is worked to raise and draw back or lower and push forward the upper end of the catch bar, the lower end will work in the same manner. The bar thus holds one end of the grain door by being pressed into a groove in the door frame, binds the door fast, and prevents it from shaking, and at the same time locks the door against rising.

IMPROVED ROTARY CHURN.

Israel Solt, Lithopolis, O.—This invention consists in using with a square churn a dasher having its blades straight on outer edges, concave on inner edges, and provided with concavo-convex slots, the same being applied to cross bars. This dasher, by its inner concave and outer straight edge, catches all the cream and throws it to the center of the churn, so that the butter globules are forced back and forth through the slots and quickly broken.

IMPROVED COLTER.

Kinyon W. Manwaring, Council Bluffs, Iowa.—It is here proposed to mount the colter, between two right and left nut collars, on a shaft which revolves on end bearings in the yoke which attaches the colter to the plow. The objects are to adjust the colter along the shaft readily for wide or narrow cuts, and to arrange the bearings so as to withstand wet and exclude the dust better than when the colter revolves on a stationary shaft, as commonly arranged.

IMPROVED HORSE HAY RAKE.

Daniel D. Dunn, Greenwich, Conn.—This relates to improvements in horse hay rakes, by which the different operations of the rakehead-governing parts may be accomplished in a simpler manner. The invention consists, first, in applying the swinging rakehead in front of the supporting axle; secondly, in attaching the clearer bar; thirdly, in combining the rakehead-operating lever rod and back piece with a treadle, in such a manner that the horizontal position of the same is secured during its motion; and lastly, in the combination of the rakehead-operating lever rod with a fulcrumed foot lever, for securing the rake in raised or lowered position.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED ENVELOPE MACHINE.

Henry D. Swift and Daniel W. Swift, Worcester, Mass., assignors to G. Henry Whitcomb & Co., same place.—This machine includes thirteen new devices, mainly improvements upon an apparatus which was the subject of a previous patent granted to the same inventors. The edges of the blanks rest on a raised form, and the blanks are removed by a gummed lifter. There is new apparatus for applying the gum very smoothly, for keeping the gummed flap separate from other parts during folding, and for adjusting the mechanism to envelopes of varying thickness, beside novel constructive details of much ingenuity, which would require the aid of engravings for their proper elucidation.

IMPROVED TYPE WRITER.

Philander Deming, Albany, N. Y.—This relates to such an improvement in the type writers lately introduced into use that the same may be made available for verbatim reports by a separate marking lever, that prints outside of the printing point of the common type levers, and is operated by an adjustable button attacked to the space key. As soon as the marker is joined to the space key, it may be worked by the palm of the hand simultaneously with the striking of the initial key, and thereby verbatim reports made in stenotypic manner by means of the simple and inexpensive marker arrangement.

IMPROVED MAGNETIC MACHINE.

Jerome Kidder, New York city.—This invention consists in hinging the support of an electrical coil in its relation to a galvanic battery in such a manner that, when the coil is turned or swung in one direction, the circuit will be closed with the galvanic battery and when swung in the other direction, the said circuit will be opened.

IMPROVED PAINTERS' SCAFFOLD.

William Hoehn, New York city.—This platform may be carried from place to place and mounted without injury to the stiffening brace rods. The novel feature consists in longitudinal brace rods that are applied by tightening screws by supporting end clips, and to laterally braced arms or stays, which are hinged to the platform to fold with the rods to the under side of the same.

IMPROVED COAL BREAKER.

David Clark, Hazleton, Pa.—The construction of this breaker is such that, should a substance harder than coal or slate get into the breaker and break the safety devices, a roll will be thrown out of gear, and will remain out of gear until the damage is repaired and the said roll again adjusted in place.

IMPROVED WAGON JACK.

Albert E. Van Horn, Sebewaing, Mich.—A ratchet wheel operated by the lifting lever has a slotted projection in which enters a pin on the movable bar of the jack. The pawl falling out, the teeth of the wheel hold the load at any desired position.

IMPROVED JIG SAW.

Peter Hughes, New York city.—This is a novel spring contrivance and an elbow foot treadle for working the saw gate, whereby a simple and efficient mechanism is provided for working a jig saw.

IMPROVED ROCK DRILL.

William H. Wright, Sunbury, Pa., assignor to himself and John Wright, same place.—The object of this invention is to provide for miners a drill for boring coal and rock, that is attached directly to the material to be drilled, without props or supports, and which allows the change of drills to suit the depth of bore hole and material without removing the frame. A frame is provided with stationary or adjustable prongs and a sectional screw nut with link for interchanging the drill.

IMPROVED FRICTION CLUTCH.

Edwin F. Williams, Bald Mountain, Col. Ter.—This invention consists of brakes which are drawn against the face of a disk wheel by wedges, moved by the sliding head on a shaft, which in turn is moved by levers.

IMPROVED GRINDER FOR MOWERS.

Walter B. Grosh, Reading, Pa.—This consists of a supporting frame for the grinding wheel, fixed on pivots so as to shift readily to let the stone run in different angles of the opposite edges of the cutters. The frame has articulations whereby the grinding wheel may be moved forward and backward along the edges of the cutters at the same time that it is rotated for grinding them. There is, besides, a new clamp for holding the cutting bar so as to adapt the face of the grinding wheel to edges of different bevels.

IMPROVED JOINERS' BENCH VISE

George H. Wheeler, Great Barrington, Mass.—In this invention, a jaw is fitted to slide in a plate attached to the end of the bench, and connected with a foot lever for closing up on the work by foot power. A ratchet bar is arranged in connection with the lever for fastening it to keep the jaw closed. The jaw can be opened and closed much quicker than when worked by a screw, and it is always parallel to the work and the bench. The slide is connected to the lever by a rope passing over a pulley, which will, in practice, be mounted on the plate on which the jaw slides.

IMPROVED PLUG TOBACCO MACHINE.

Thomas F. Morrin, Jersey City, N. J.—This is an improved machine for pressing tobacco leaves to form plug tobacco, splitting it into strips of the required width, and cutting said strips into pieces or plugs of the desired length.

IMPROVED MACHINE FOR MAKING TACKLE BLOCKS.

Frederick S. Burr, Brooklyn, N. Y.—This is a combination of apparatus whereby the sides of wood tackle blocks may be bored and dressed to shape, either for rope or metal hangers, automatically in one machine, so as to economize largely in labor of repeatedly handling them.

IMPROVED MACHINE FOR MAKING TWIST DRILLS.

Edward S. Taber, New Bedford, Mass.—This is a machine for making twist drills with increasing pitch or inclination of the grooves. A spiral groove is made in the mandrel which revolves the blank, and advances it along the cutters which make the spiral or twist grooves. In said groove the key of the wheel which turns the mandrel works, so that, as the mandrel rises along the key, its rotation diminishes proportionately to the advance, and so increases the pitch of the twist.

IMPROVED VALVE COUPLER FOR OIL WELLS.

William Walker, Baldwin, Pa.—By this device, two or more valves may be coupled and worn out before the drawing of the sucker rods is required. A coupling section is screwed to the top of the lower plunger, which is lowered into the barrel and connected by a threaded top stem, with an interior threaded section that is applied to the bottom part of the next plunger to be screwed to the lower section, when the reserve valve is to be brought into operation. A jam nut with notches is placed on the stem of the lower section, and engaged by lugs of the upper coupling section to be screwed down with the same, for connecting the sections.

NEW HOUSEHOLD ARTICLES.

IMPROVED WASHING MACHINE.

Leander Becker, York, Pa.—This invention relates to certain improvements upon the patent granted to the same inventor June 29, 1875, and numbered 165,058: and it consists in the particular construction of the rubber, which is made of corrugated boards fastened in metallic end frames by lugs and screws, and provided with studs by which the rubber is supported in the oscillating frame.

IMPROVED STEP-LADDER.

Silas C. Blauvelt, Blauveltville, N. Y.—This device may be readily arranged for use as a step-ladder or as an ordinary ladder, and may be folded together for storage and transportation, and, when adjusted for either purpose, will be held securely in place. In the curved edge of semicircular blocks on one part are formed three notches, in such position as to receive a pin and lock the parts together.

IMPROVED SCRUBBER.

John Deasey, Fall River, Mass.—To a scrubbing brush are attached side pieces that are supported by wheels. The action of a handle on the side pieces produces, in connection with the supporting wheel, considerable lever power on the brush, so as to press the same firmly on the surface to be scrubbed, and clean the same effectively.

IMPROVED WASHING MACHINE.

Benjamin Tarr, Evanswood, Wis.—This consists of an octagonal vessel made of slats into which the clothes are introduced and revolved in the suds box. Inside the vessel are several hard wood blocks. There is a novel arrangement for supporting the cover which constitutes an additional washtub when thrown back.

IMPROVED PRIVY SEAT.

Branch Tanner, Cheneyville, La.—This consists of an oscillating seat with swinging front and rear aprons, of which the front apron is used for watercloset purposes when the seat is swung back below a stationary inclined cover at the rear.

NEW AGRICULTURAL INVENTIONS.

IMPROVED SHADE FOR HOP BOXES.

Hiram Niles Harrington, Wilson Place, N. Y.—This invention consists of the connection of the hop box by upright standards with adjustable shades, supported and braced so that the hops and pickers are protected against sun, rain, and wind.

IMPROVED COTTON PLANTER.

Augustus T. Hatcher, Mansfield, La.—This is an improved cotton planter, the operating mechanism of which may be applied to the stock of an ordinary scooter. It combines improved devices for opening a furrow to receive the seed, dropping the seed, and covering it.

IMPROVED OX YOKE.

Eli A. Farr, Cedar Springs, Mich.—This invention combines with the main beam of a double neck yoke, a central draft staple, and brace rods, vertically adjustable to greater or less depth on the beam, to regulate hight of draft.

IMPROVED MILK COOLER OR WARMER.

David D. Whitaker, Carthage, N. Y.—This consists of a milk pan set into a rack with air space all around, which is cooled by zigzag bottom pipes and side pipes, connected to an ice water dish above the pan. The whole is covered by a cloth screen, to keep the cold air confined.

IMPROVED ROOT-CUTTING PLOW.

John S. Swaney, Marengo, Iowa.—This plow is adapted for cutting off the bottom and side roots of hedge, apple, and other seedlings and trees in taking them up.

IMPROVED EXPANSION REEL FOR REAPERS

Alfred W. Shaw, Chatham Center, Ohio.—This reel is so constructed that it may be conveniently expanded and contracted to work closer to and farther from the cutter bar and ground, without stopping the machine and without changing the tension of the driving belt.

IMPROVED PLOW.

Robert A. J. Armstrong, Knoxville, Tenn.—This consists in a mold board, having oblique sockets for share and point, in combination with a triangular share keyed thereto, and a bifurcated point without fastening, but supported by the share. With this construction, when the lower side of the edge of thesh are and point become worn, they can be easily detached and reversed, so that they will be self-sharpening, and when worn thick they can be easily sharpened and tempered separately.

IMPROVED HULLING MACHINE.

George H. Peabody, Brooklyn, N. Y.—This invention consists in the combination of disks, provided with alternate concaved and flat emery surfaces and wheels provided with alternate convexed and flat emery surfaces. The disks and the wheels are revolved in opposite directions and at different velocities, so as to rub off the hulls as the kernels pass through the machine.

IMPROVED INSECT-DESTROYING COMPOUND.

George Thomas Johnson, Pittsylvania Court House, Va.—This invention contemplates the application of a finely divided poison to the leaves of the tobacco plant, in order that it may be taken by the insects and destroy their lives. In consists in mixing kerosene oil, turpentine, and sulphur, in such proportions that it will not be refused by the insects, while its effect will be their certain and inevitable destruction.

IMPROVED PLOW.

Peter G. Johnson, Hoopeston, Ill.—This invention is an improvement in the class of riding or sulky plows whose trucks are provided with a bent or cranked axle. The improvement relates particularly to attaching the plow to a bail-shaped lever which is pivoted to the truck and raised and lowered as occasion requires.

NEW CHEMICAL AND MISCELLANEOUS INVENTIONS.

IMPROVED BRONZING MACHINE.

Christian Landolt and Frederick Wichser, Tell City, Ind.—This bronzing machine consists of a flexible stencil combined with a sliding work table, bronze box, and bronzing pads, in such manner that the stencil rolls down and lies on the work at the same time that it is moved under the bronzing pads, and rises off as the table is moved back to take off the work, when the bronze box moves up to the pads and supplies them. It is a simple contrivance whereby cards, bills, etc., may be wholly or partly bronzed.

IMPROVED BOTTLE STOPPER.

Albert Freygang, New York city, assignor to Frederick Knief, same place.—This consists of a swinging bail that carries at its top part a stopper head with slotted vertical top plate and a recessed eccentric cam lever. The latter forces the stopper head down and retains it in the mouth of the bottle by its straight part bearing across the stopper head. The lever is taken hold of by the hand, holding the neck of the bottle when emptying the same, and the stopper is thereby retained easily without any chance of dangling about the mouth of the bottle and interfering with the pouring out of the contents.

IMPROVED BOTTLE STOPPER.

Adolph Luthy, New York city.—This is a stopper applied by the neck band, and made of one piece of rubber, extending from the neck band to and over the mouth of the bottle, so that the swinging yoke with loose sleeve, fitting in a top groove of the stopper, readily closes and opens the same.

IMPROVED BURIAL CASE.

Oscar J. Case and Edwin R. Richardson, Auburn, N. Y.—An improved glass burial case has the lid made in two sections, which are secured by side lugs and pins to guide projections at the outside of the case. The handles or knobs are made in one piece with the sides.

IMPROVED SHIRT.

William H. H. Tracy, Troy, N. Y., assignor to himself and Frederick Spaulding, same place.—This shirt is so constructed that the parts of the bosom will not be drawn out of position and shape by the working of the side parts of the front. The bosom is left free at its side edges, but attached to the body at the top and bottom edges and along the central line.

IMPROVED SHIRT.

Morris Popper, New York city.—This invention proposes to furnish partly made shirts, in which the parts that require skill in putting them together shall be properly sewn, while the long seams of the sides and sleeves, that require no particular skill, shall be left unsewn. The sleeves are to be without cuffs, so that they may be cut to the length required for the arms of the wearer.

IMPROVED MIDDLINGS PURIFIER.

Edwin N. Lapham and Joseph Lapham, Peru, N. Y.—A hollow trunk, which stands nearly upright, has stationary beaters extending across and located in groups along the upper portion. The lower side has passages for the escape of the middlings into a spout for conducting them away, the passages being regulated by valves. The trunk bends over into a horizontal portion, in which are other stationary beaters, and below them is a hopper for returns. From the inlet the middlings are blown up along the trunk against the beaters by a fan, the light particles being separated and carried off to the bran bin, while the heavier portions fall through the valves, and the returns go back to be worked over again.

IMPROVED NECKTIE HOLDER.

Max Rubin, Brooklyn, E. D., N. Y.—To the inner side of the tie is secured a metallic plate, which has a transverse slot formed in it. One end of the slot is made large enough to receive the head of the stud or button of the shirt neck band. The middle part of the slot is made of only sufficient width for the stem of the stud to pass through. The other end of the slot is made wider, but not wide enough for the head of the stud to pass through. A piece of elastic is interposed between the plate and the tie to hold the head of the stud pressed against the inner side of the plate, and keep it from sliding.

STICK FOR DIPPING STAMENS FOR ARTIFICIAL FLOWERS.

Ambrose Giraudat, Neuvy (Norwood P. O.), N. J.—The two parts of the sticks are made of the usual size. To the end of the lower part is attached a hook, which enters and fits into a slot in the end of the other part to lock the said ends together. Through transverse holes are passed strips of spring metal, the ends of which are bent upward so as to lock the two parts. To the face of one part, near its side edges, and to the face of the other part, at its center, are attached cords, to hold the threads securely. With this construction, the stick can be readily and quickly applied to the threads, and will hold them securely while being dipped in the paste.

IMPROVED APRON.

Joseph Malonzo, Great Falls, N. H., assignor to himself and Frank Malonzo, same place.—This consists of a sheet of patent leather, constructed in the form of an apron, but contracted in the portion to fit the waist by gore slits cut in it and sewn up. A waist band is attached so as to serve for a holder for the weaver's shears and reed hooks. The device is designed to protect the clothes of the weaver from the wear of the front beam.