Recent American and Foreign Patents.

Improved Stone Crusher.

Joshua Comly, Philadelphia, Pa.—This stone crusher has one stationary and one vibrating jaw. There is a toggle-bar contrivance in combination with the crank shaft and the rod connecting it with the movable bar in a manner calculated to apply very great force; also another device for giving vertical or endwise motion to the movable jaw, to be used or not, as may be found desirable.

Improved Wire Barb Pinchers.

John Dobbs and Benjamin F. Booth, Victor, Iowa.—This invention consists in the pinchers made with curved and notched jaws, and provided with projections upon the inner sides of said jaws, to adapt it for use in applying barbs to fence wires. In using the pinchers, an ordinary wire staple is placed in the space between its open jaws, with its arms resting in the notches in the inner edges of the faces of said jaws. The jaws of the pinchers and the arms of the staple are then placed around the wire of the fence, and the pinchers are closed. This forces the arms of the staple past each other until they rest upon stops and project in opposite directions, and the formation of the barb is completed.

Improved Combination Cotton Press.

John F. Taylor, Charleston, S. C.—The object of this invention is to produce a press of great power, especially adapted to compressing cotton bales to the smallest possible dimensions for shipment, and that with the greatest possible speed, and with the least possible consumption of fuel. It consists in the particular construction of a toggle lever press operated by steam, in combination with a hydraulic press, the steam in the cylinder that operates the water piston being used a second time in a cylinder which operates the toggle lever through the instrumentality of an equalizing part in the slide valve of the first steam cylinder.

Self-Discharging and Re-Setting Lumber Car.

James L. Ridgely, Jr., Harrisonville, Md.—This invention relates to cars or trucks whose wheels run upon a track to transfer lumber out of the way, after it has been sawn, to a convenient place for piling it up; and it consists in the combination of a truck running upon a suitable track of a load-receiving frame, having cross bars that form the bearing of the load, and pivoted on a median axis to said truck, whereby the lumber may be dumped by its own weight.

Improved Candlestick.

John B. Gribble Grass Valley, Cal.—The core or shuttle has a screw thread cut on it. On the movable part of a tube, threads of a screw are made, which fit the pitch of the screw on the shuttle. The candlestick rests upon the upper end of the shuttle, and the latter is made fast in the stationary part of the tube. By this arrangement, the movable portion of the tube is adjusted to the candle, and the end of the shuttle prevents the tallow from running down.

Improved Self-Acting Blowpipe.

John Martin Hancock, Lansing, Iowa.—This is a self-acting blow pipe for hard and soft soldering, by which the flame would be fully and instantly controlled, and the power of the same regulated without interrupting the working of the blowpipe. The invention consists of a pipe attached sidewise and projecting to some distance from the alcohol vessel, which is exposed to the heat of a small flame, being about the same distance from the main flame of the lamp as the bottom of the alcohol vessel is from the outermost end of the blowpipe.

Improved Buffer for Steam Rock Drills.

Joseph C. Githens, New York city.—As the piston in its upper movement strikes the upper head, it forces the said head upward against the packing, and the blow is finally sustained by long bolts, which draw against the lower head. As the piston, in its downward movement, strikes against the lower head, the said head moves downward a little, and, through the long bolts, draws a plate down upon the packing, relieving the head from the force of the blow. By this construction, a single buffer at one end of the cylinder relieves the head from the force of the blows at both ends of the cylinder.

Improved Wagon Rack.

Joseph Bolt, Warsaw, Ill.—The object of this invention is to so improve the wagon rack heretofore patented to the same inventor, under date of February 10, 1874, that the loading, conveying, and unloading of corn may be accomplished by one person in an easy, quick, and secure manner. The invention consists of separate tilting frames, which are arranged on the supporting rack frame to swing to opposite sides, and carried back and retained with the load by cords with hooks and pulley blocks passing over pulleys to winding-up rollers, and ratchets operated by a hook lever. The rack frame is braced in rigid position by inclined bars extending from seat blocks at opposite sides through lateral guide pieces of the rack to the ground.

Improved Harrow.

Isaac W. Hutchin, Clinton, Ill.—Each of the two triangular sections of the harrow is composed of converging bars connected by transverse straps. The teeth are in suitable manner fastened in the bars. The two sections are hinged together so that their inner bars are parallel. The hinges are raised above the surface of the sections, and their connecting pivot is thereby brought high enough from the ground to clear corn of ten or twelve inches in hight. Each section has a projecting handle, and the two handles are united by a chain, which can be shortened so as to slightly raise the outer sides of the sections. This will cause the harrow to cut more in the center when harrowing corn stalks. By slackening the chain, the sections will be brought flat upon the ground.

Improved Vehicle Spring.

Christen Nielsen, South Brooklyn, N. Y.—The rear springs are attached to the rear axle, and their forward ends are pivoted to brackets attached to the wagon body. To the rear ends of the springs are pivoted links, the upper ends of which are pivoted to bracket. The shackles allow the springs to expand as they are brought under the pressure of the load. The couplings are kept parallel with each other to keep the springs from being twisted by brace bars. The forward springs are connected with the forward axle, and the forward ends are pivoted to brackets attached to the platform. The rear ends are connected by a bar, the middle part of which is bent upward, and has a hole to receive a bolt, which also passes through the bent down middle part of a bar pivoted to the ends of the bars of the platform and to the ends of bars which are pivoted to the springs.

Improved Device for Destroying Bugs upon Plants.

Robert M. Clark, Nisbet, Pa.—In using the device, Paris green or other suitable poison is put into a vessel suspended from the shoulders of the operator, either by taking off the cover or by pouring it in through a funnel in the same. A suitable quantity of water is then poured into the vessel through the funnel, in which may be placed a filter in case the water be so dirty that it would clog the perforated nozzle, which is attached to a faucet by a flexible tube. The poison and water are mixed by operating a perforated dasher, and are kept mixed by occasionally operating said dasher. The faucet enables the escape of the poison to be prevented when charging the vessel and when carrying it from place to place. The mixture is directed upon the plants from the nozzle.

Improved Apparatus for Destroying the Cutting Ant.

Ferdinand A. Fenner and John H. Power, Mission Valley, Tex.—In using this apparatus, the main cell of the ants' nest is found by means of an iron probe of suitable length, and a hole about eight inches in diameter is sunk to such a depth that its lower end may be a little below the lowest cell. The perforated and covered iron cylinder is then lowered into it, the collar of said cylinder resting upon the surface of the ground and closing the mouth of said hole. A fire is then built in the cylinder, and a blast of air is forced into it by a bellows connected with the end of a pipe which enters the side of the cylinder near the bottom pipe. When the fire is fully kindled, six or eight pounds of sulphur are poured into the cylinder, and the cover is put on. The bellows is then worked for from thirty to forty-five minutes, which forces the fumes of the sulphur through all the cells and passages of the ant nest and kills all the ants of the colony.

Improved Cotton, Corn, and Pea Planter.

Dwight W. Bristol and John F. B. Searcy, Pleasant Hill, Miss.—A drum, having twelve salient and as many re-entrant angles, revolves in bearings attached to the side bars of the frame. Within the drum is secured a smaller drum, in the middle part of which is secured a wheel, from which six radial tubes lead out through the faces of the drums. In the wheel, at the inner ends of tubes, are formed recesses, into which the seed passes through holes in the side plates attached to the sides of the said wheel and forming a part thereof. Upon the opposite sides of the wheel are placed circular plates, in which are holes corresponding in position with the holes in the side plates of the wheel, so that, by turning the disks, the size of the holes leading into the recesses in the wheel may be adjusted to allow more or less seed to enter the said recesses and pass out through the tubes.

Improved Vehicle Hub.

Joseph H. Lindsay, Freehold (Woodside P. O.), Pa.—The inner part of the hub has a ring flange to project over the collar of the axle arm, to serve as a mud band. Upon the outer side of the ring flange part are formed wedge-shaped projections, the spaces between which are dovetailed in form, so as to prevent the spokes, the inner ends of which are fitted into said spaces, from being drawn out. Upon the outer parts of the projections are formed segments of a ring flange, which enter a ring groove in the outer part of the hub, and thus strengthen the connection between the part of the hub. In the body of the hub is formed a chamber to receive the oil, from which chamber a hole leads into the bore. The hole is surrounded with a recessed projection, in which is placed a ball to act as a valve to prevent the oil from flowing through the hole when the wheel happens to stop with the oil chamber upward. From the oil chamber a hole leads out through the hub, through which the oil is poured into said chamber.

Improved Earth Auger.

Oscar Rust, Macon City, Mo.—The body of the auger is made elliptical in its cross section, and in two parts, the plane of division passing through the longer axis of the ellipse. To the lower end of each part is secured a jaw. The jaws project downward and forward, and are slightly concaved, and their lower ends pass each other. To the forward ends of the jaws are secured the bits, the edges of which are made oval, and have their corners rounded off. The outer ends of the bits are curved upward, and project outward a little beyond the walls of the pods, so as to cut a bore a little larger than the bucket, so that the said bucket can be readily raised and lowered through said bore. Braces are attached to the turned up outer ends of the bits. The parts are further secured together near their lower ends by hasps.

Improved Trace Carrier.

William H. Townsend, Goodland, Ind.—This is a frame adapted for attachment of harness straps, having rigid trace-supporting arms extending inward from its rear corners in a plane parallel to the side bars, and spring arms pivoted to a transverse bridge piece and coinciding with the arms. The trace-connecting straps are in this manner quickly applied and taken off.

Improved Wind Power.

Austin Lowe, Salina, Kan.—The invention relates to a portable wind power, which is designed for propelling wheeled carriages used for transporting loads and for furnishing a prime motor for operating thrashing machines, churns, plows, and other agricultural machines. The principal feature of the invention consists in the provision or relative arrangement to each other of a pair of wind wheels, which are of such a construction that both are brought into action simultaneously, and caused to revolve in reverse directions for transmitting motion to a vertical or main shaft, which is connected with the machinery to be operated.

Improved Plow Attachment.

Almerrin P. Allen, Denmark, Iowa.—The invention consists in combining with an ordinary plow a machine adapted for acting on the soil which has been turned by the plow, in such manner as to reduce, level, or pulverize the same, or plant it with seed, the side draft of the machine being opposed to the tendency of the plow to crowd in the opposite direction (laterally) against the vertical landside portion of the furrow, so that the power which would be otherwise uselessly expended or absorbed, in excessive friction between the landside of the plow and the contiguous wall of the furrow, will be all, or nearly all, neutralized and utilized in completing the operation of preparing the soil for reception of seed. The invention also includes a peculiar combination or arrangement of seed hopper, harrow, and roller, to form a plow attachment of light draft and great efficiency.

Improved Vise.

George W. Millner, Charlottetown, P. E. I.—This invention relates to certain improvements in vises especially adapted to holding bolts or pipes; and it consists in a screw bolt having a T-shaped head and a handle nut, in combination with the extended handles of a pair of pipe tongs, constructed respectively with an oblong hole and an open slat.

Improved Animal Poke.

Samuel N. Gustin, Mexico, N. Y.—This invention relates to certain improvements in animal pokes, which, as usually constructed, have a yoke pivoted at the lower ends to a tongue, upon the rear end of which is a breast block provided with points, the whole being attached to the necks of unruly animals to prevent them from jumping fences, and to keep them within bounds generally. It consists in the improved construction of the pivot plate that attaches the yoke to the crosshead, the said plate being made with a tapering eye to facilitate the connecting of the said devices. It also consists in the means of attaching the crosshead to the tongue.

Improved Bottle Stopper.

George E. Reed, Brooklyn, N. Y.—The lower part of the stopper is provided with a shallow ring groove to receive a rubber band, which comes in contact with the mouth of the bottle. Around the upper part of the stopper is a metal band, in the upper edge of the opposite parts of which are inclines, the shoulders of which serve as handles for turning the said band. At the lower ends of the inclines are slots to receive a loop, to allow the stopper to be removed from the mouth of the bottle. Its ends are secured to the opposite sides of the bottle's neck by a wire band passed around the said neck. The stopper is fastened, when pressed into the mouth of the bottle, by turning the band, so that the inclines may press against the bend of the loop.

Improved Seed Cotton Cleaner.

Manassah C. Cheek, Mansfield, Tenn.—This invention consists of a secondary spiked fan cylinder and open concaves formed of wire rods, in combination with the ordinary spiked fan cylinder to counteract the air blast from the first cylinder, and direct it down through the open concaves, and also to detach the cotton from said cylinder and pass it along to the discharge opening through the case, thus cleaning and delivering the cotton better than the ordinary cleaners will. It also consists of a suction fan in the dust chamber below the spiked fan cylinders, to increase the draft through the dust chamber.

Improved Chair.

Henry Reupke, Chicago, Ill., assignor to himself and Frederick W. Krause, of same place.—The seat rails pass through the uprights of the chair back by a tenon, and are fastened therein by keys. The lower ends of these uprights are toed into the rear legs, thus bracing the back securely. Stretchers pass through the legs (front and rear) by means of tenons, are secured by keys, and are connected together by a center bar. The front and rear legs are slotted at their upper ends, and gains are cut in the seat rails, so that the rails and legs fit together, and are flush on each side. The back of the chair is filled in by an upright bar and a cross bar. The head piece is let into slots in the upper ends of the side pieces, and is fastened by screws, while tenons on the cross bar pass through the side pieces and are secured by keys. This chair may be taken to pieces by removing the keys and screws, so that it may be packed in a small space for storage or transportation.

Improved Die for Forming the Eyes for Tools.

John R. Thomas, Hamilton, Ohio.—This is an improved adjustable punch and die for forming the eyes of agricultural and other tools, such as a hoe, axe, adze, etc., so that the diameters and shapes of the eyes may be varied without the necessity of having a corresponding number and variety of dies and punches for the purpose. The stock of the punch is slitted transversely, and the divided parts may be expanded or spread more or less by means of a tapering pin. A tapering nut screws on the stock or body of the punch, and constitutes the punch proper. The punch is employed with a die, the size of aperture of which is adjustable.

Improved Machine for Rolling Nail Plates.

Hiram Woods, Newcastle, Pa., assignor to himself and William F. Merriman, of same place.—A movable table fetches the plate from the roughing rolls, and presents it to a self-feeding roll, above the upper roll, to be carried over the roller's side and on to an inclined feeding table. Besides taking the plate from the movable table without the aid of the hooker-up, the roll delivers the plate without the aid of the hand.

Improved Washing Machine.

John W. McQuillin and John A. Knepper, Delta, Ohio.—By suitable construction, as either end of a lever is pressed downward, a presser connected with that end is forced down upon the clothes, forcing the water out of them, which water escapes downward through a grate, upward through the presser, and laterally through the other part of the clothes, which are relieved from pressure by the upward movement of a second presser, and so on. One of the pressers always moves downward as the other moves upward, thus washing the clothes in a short time.

Improved Straw Cutter.

Leopold Schellinger, Mishawaka, Ind.—The invention is an improvement in the class of straw cutters in which the rollers for feeding the straw and the bar for clamping the same while being cut are operated from the shaft of the hand wheel, to which the knives are attached. By suitable construction a saddle, at each revolution of the eccentric, will be drawn upon the substance in the feed box and then raised. The fly wheel and the eccentric wheel are so arranged that the saddle will be drawn down as the knife begins to cut, and will be raised as the cut is completed. By other devices the rapidity of the feed may be regulated as may be required. The feed rollers revolve toward each other to feed the substance forward, and the upper roller moves up and down to adjust itself to the thickness of the substance without being thrown out of gear. The feed mechanism is so arranged as to stand still when the saddle is pressed down, and to operate when the said saddle is raised.

Improved Apparatus for Measuring Liquids, etc.

Emile E. P. Clausolles, Barcelona, Spain.—This apparatus consists of bellows, formed of annular disks, which are in communication with the ingress and egress passages formed in the foundation plate of a box. The bellows are united by the arms of a compound lever, which vibrates in a spherical recess in a fixed stand, and the lower end of the axis of this compound lever communicates a rotary motion to a circular valve, which opens and closes the ingress and egress ports. The upper end of the axis gives motion to the index dials or to a rotary shaft for transmitting power or to pumps. The bellows are made to contain a certain fixed quantity of liquid, and the pressure on the liquid to be measured causes the said bellows to expand and collapse alternately.

Improved Gas Regulator.

Joseph Adams, Washington, D. C.—This invention relates to certain improvements upon the gas regulator for which letters patent were granted to the inventor May 5, 1874; and it consists in the construction of the valve, which is of a funnel shape and provided with an outer covering of flexible material secured by a nut and funnel-shaped clamp upon the inner and lower side of the valve. It also consists in the particular construction and arrangement of the hollow valve stem with the flexible diaphragm and the balloon.

Improved Heating and Ventilating Register.

John B. Oldershaw, Baltimore, Md.—This invention relates to that class of heating and ventilating registers that are inserted in the chimney jamb when the chimney flue is employed for conducting the hot air. It consists in an extensible flue stopper, adapted to be inserted in the chimney flues of different sizes, to deflect the current through the register, and in the particular construction of the register frame having openings for giving access to the flue, either above or below the flue stopper plate, for cleaning off soot and examining and adjusting the stovepipe connections.

Improved Horseshoe.

Joseph H. Dorgan, Plattsburg, N. Y.—A strap is made in three parts. A piece laps on the central part on each side, and is fastened thereto by bolts. A series of holes is made through the central part, which allows the pieces to be adjusted, so as to make the strap fit hoofs of different sizes. A bolt passes up through the shoe, and through a hole in the front part of the strap. The ends of the flexible plate or band may be expanded or contracted to accurately fit hoofs of different widths, while the lap pieces may be adjusted according to the length of the hoofs.

Improved Water Elevator.

Jesse Chandler, Barry, Ill.—This invention relates to endless chain and bucket elevators. The buckets have a block on the under side to throw up the bottom, when passing over the one upper wheel, high enough to discharge readily. The second top wheel is placed a little lower than the first, also to tilt the buckets so as to empty readily. The flanges of the wheels are also employed to utilize those of the wheel, to conduct the water first emptying from the buckets over sufficiently to run into the trough.