

Recent American and Foreign Patents.**Improved Spring Bottom Cot.**

Francis E. Lord and Herman K. Blanchard, Cambridgeport, Mass.—The frame consists of two side bars connected at their ends by two cross strips and near their ends by two cross bars. The legs are pivoted to the side bars, and the lower parts of each pair are connected by a cross strip. In the ends of the cross strips are formed slots, the inner parts of which are made sufficiently large to receive the heads of the braces, and their outer parts are made narrow to fit upon the necks of said braces. The latter are pivoted to the side bars in such a position that their heads, when the legs are extended, may pass through the larger parts of the slots in the cross strips. The braces are then slipped close up to the legs, which brings their necks into the narrow parts of the slots in the cross strips, and securely fastens the said legs in place. This construction enables the legs and braces to be turned up along the inner sides of the side bars, so as to be entirely out of the way, and adapt the cot for use as a bed bottom, or enable it to be compactly packed for transportation or storage.

Improved Sawing Machine.

Harvey Morey and Samuel H. Bellah, Cameron, Tex.—A frame, mounted on a low truck, has horizontal ways for a saw frame to slide forward and backward in, the saw projecting at one side of the frame. The frame is also provided with vertical ways, into which the saw can be shifted when it is desired to saw felled trees into blocks. This saw frame has a forked pitman rod attached to each end, one of which is connected directly to the crank of a driving shaft, and the other is connected to a rock lever, which is connected to another crank on said shaft, the two cranks being arranged at opposite sides of the axis. The saw frame has a feed screw, so arranged that it can feed the frame forward and back, while said frame reciprocates to work the saw.

Improved Device for Emptying Carboys.

Hugh R. F. Koehling, New York city.—This is an improved device for removing acids and other liquids from carboys and other vessels by atmospheric pressure, and without agitating said liquids or disturbing any sediment that may be in said vessels. By suitable construction, when the piston of an air pump is drawn upward, an upper valve is closed by the pressure of the air within the bottle, preventing the escape of the air from the latter. A lower valve is then raised by the pressure of the air, allowing said air to enter the barrel of the air pump. As the piston is forced downward, the pressure of the air forced out of the barrel closes the lower valve, and, opening the upper valve, passes into the bottle, where its pressure will force the liquid contained in said bottle out through a siphon-shaped tube into the receiver.

Improved Cultivator and Plow.

James B. Lucas, Pella, Ill.—The axle is bent four times to form a middle bow. The tongue is secured to the hounds, and the rear part of the latter to the axle, near its outer ends. Braces are attached to the axle and to the hounds. To the forward end of the plow beam are secured the ends of two bars, which are pivoted to couplings, by which they are connected with the axle. Another brace bar is pivoted to a coupling, by which it is connected to the axle, and is placed upon the mold board side of the beam, its rear end being bent to lie along the side of the said beam, and to pass through the loop of the coupling attached to the plow beam. This construction allows the plow to have enough lateral movement to pass around stones and other obstructions, and to enable it to be raised and swung beneath the framework of the machine. By operating a lever, the forward end of the plow beam may be raised from the ground, allowing the plow to run upon its foot or heel.

Improved Packing Box.

William D. Woodruff, Louisville, Ky.—The bottom has cleats fastened upon the upper side along the edges, and projecting at the ends. The top of the box has similar cleats on the under side. The side pieces extend beyond the ends of the top and bottom boards as far as cleats do, and they also have a cleat extending across the inside at each end. The end boards have a cleat at the lower end, extending across the inside. To set up the box, the bottom is laid at the ends on the cleats of the end pieces, which are set upright; the side pieces are then laid at their lower edges on the bottom, between the edges of the end pieces and cleats. Then, after filling the box, the top is laid on between the upper projecting end of the end boards, with its cleats outside of and containing the upper edges of the side boards; then binding cleats are put on between the upper ends of the end pieces and the upper side of the top, and fastened by screws screwed obliquely into the end pieces. To take it apart after unpacking it, the screws are taken out, after which all the parts can be readily separated and packed away in a small pile.

Improved Flour and Middlings Purifier.

George W. Brown, Metropolis, Ill.—The general idea of this invention is to enable the attendant to force any amount of air that may be required into the chest or inside the reel, or both, and withdraw it, as may be required for the different kinds, quantities, and conditions of grain, suitable valves being employed to regulate and control the currents. By long trunks along the top of the chest communicating with two air chambers, air may be blown into the reel space with the pressure fan, or sucked out to draw out impurities with the other. By trunks along the sides of the reel above the fall boards, air is to be forced in below the reel to clean the fall boards and facilitate the descent of the flour to the conveyer below, also to act on the under side of the reel. A perforated tube on the shaft facilitates the separation of the material bolted by the jets of air it lets in from the pressure chamber. Coarse wire wings on the perforated tube separate the material falling on them. A smooth ring, fitted in the enlarged portion of the reel at the mouth of the funnel, carries the remaining unbolted material quickly under or beyond the mouth of the funnel to the coarse tall screen beyond, or to be passed out at the tail end to a receiver below. The funnel is for drawing the impurities out of that portion of the reel through which the fine matters are bolted, while preventing the escape of the coarser particles from the tall portion. The material collecting in the suction chamber is removed from time to time through a suitable aperture therefor in the case, having a gate for closing it.

Improved Cane Harvester.

Felix L. Cervantes, Cardenas, Cuba.—This invention consists of a harvester cutter adapted for cutting a single row of cane, with an endless bottom carrier and two or more side carriers between two high sides of a supporting case. The cane is held vertically, and carried against a series of horizontal saws on a vertical shaft, which cut the cane into short sections for convenience in handling. The tops are also cut off and delivered into a receptacle for fodder, while the cane is passed into a wagon to be conveyed to the sugar mill.

Improved Knit Legging.

Samuel Baron, New York city.—This invention consists of knit leggings for ladies and children, having an extension above the knee with an elastic in the top, and also having a contracted portion immediately below the knee, formed by shortening the stitches, in which elastics may or may not be used. The object is to provide leggings which will cover the knee and a portion of the leg above, and retain their position.

Improved Oil Stone Holder.

Ezra C. W. Hull, Hoosick Falls, N. Y.—This invention consists in an oil stone holder made to revolve on pivots, and having three faces, with adjustable clamps and screws for securing the oil stones. By making the cylinder to hold two or more stones, which may be of different degrees of fineness, it is a great convenience in sharpening tools.

Improved Steel for Sharpening Knives.

Owen W. Taft, Brooklyn, N. Y.—This invention relates to a knife-sharpening steel possessing peculiarities of construction calculated to render it much more efficient and for a longer period than other steels. It consists in a series of blades set radially around a rod or stock, which is attached to a handle of suitable form. These blades are employed for the benefit of the angles of their outer edges for knife-sharpening purposes which are more efficient than can be formed on a steel rod by the concave flutes or grooves, or the file surfaces with which steels are armed

their form is better adapted for action on the knife edge; and it is such that the edges do not become dulled by wear, but are adapted to be self-sharpening, or if necessary they can be filed or ground sharp. A patent for this device has also been applied for in England.

Improved Fruit Masher and Sifter.

Charles S. Bucklin, Red Bank, N. J.—This invention is an improved machine for rubbing tomatoes and straining out the seeds in making catsup. The tomatoes are introduced through a hopper, and fall into a semi-cylindrical wire cloth screen, through which they are rubbed by a cam on a longitudinal shaft. They then pass to a lower screen which may be suitably inclined, which is sufficiently fine to prevent the passage of the seeds.

Improved Press.

John W. Fields, Sherman, Texas.—The press case is arranged horizontally, and contains a follower which has guide pulleys on its rod. Ropes pass over these pulleys and around a fixed wheel, by rotating which a to-and-fro motion is imparted to the follower.

Improved Electrode Handle for Medical Use.

Jerome Kidder, New York city.—This invention provides, for electro-medical purposes, an improved double electrode for facilitating the adjustment of the amount of surface required, and the convenience of manipulating the current. It consists of a double electrode, so constructed that both poles of the electric current can be brought to it, and still be insulated from each other, so that one pole of the current will be received in the hand that holds the electrode, while the other pole may be applied to other parts of the body, thus using the same with one hand, leaving the other free for other purposes.

Improved Cultivator.

Isaac Cory, Dalton, Ind.—An arched bar is secured to the driver's seat, so that both may be moved forward or back, to adjust the seat so that the weight of the driver may properly balance the machine. Stirrups for the driver's feet are secured to the rear ends of side bars by the clamps that secure the ends of the arched bar, and may be raised or lowered, as the length of the driver's legs may require. The middle parts of the side bars are connected by an arched bar, the ends of which are secured to said bars, and its middle part depressed to bring it into proper position for the rear end of the tongue to be attached to it, the side bends giving space for the plow handles when the plows are raised from the ground. The forward ends of the side bars are connected by another bar, the end parts of which are horizontal, and the middle part arched to allow the plows to be pivoted in front, the handles to rise up, and the implements to be moved laterally or vertically.

Improved Axle Nut Fastening.

Rolla R. Jones, Pillar Point, N. Y.—This invention consists of a circumferential groove, extending about half around the axle near the end, a pawl in a recess in the bore of the nut, adapted to fall into said groove when the nut is fitted on the axle, and a slide bolt in the nut, adapted to slide over the pawl by the action of a spring, after it has fallen into the groove, and lock it fast, obviating screw threads. The nut is fastened more securely than it can be by screwing on.

Improved Razor.

George A. Whitmarsh, Colton, N. Y., assignor to himself and F. E. Miner, New York city.—This invention has for its object to improve the construction of razors, so that they may be more conveniently and safely held in position to be used. It consists in a razor blade made with a short cutting part and a long shank having a thumb rest formed upon it.

Improved Fountain Pen.

David L. Latourette, New York city.—The penholder consists of a tubular base, which screws to the end of a tubular handle, which is the ink fountain. The ink is shut off from the base by a disk and packing, or ground metallic joint, near the upper end of the latter. A feeding tube extends from this disk down through the base, along the back of the pen, to deliver the ink upon it. A capillary feeder of thread is arranged in the orifice of the feeding tube, and in connection with the back of the pen, to cause an even flow. An adjustable cap is screwed on the lower end of the feeding tube to regulate the flow of ink, and a spring of peculiar construction is combined with the base piece for holding pens of different sizes and forms. The invention was illustrated and described on page 178 of our current volume.

Improved Chair Seat.

Thomas W. Moore, New York city, assignor to Fannie N. Moore, Plainfield, N. J.—A series of springs are arranged parallel to each other, and fastened at each end to opposite sides of the frame. These springs are crimped or corrugated to allow for a proper degree of contraction and expansion, and also are bent at intervals to form spaces for the reception of flat transverse pieces. The latter are interlaced with the springs at regular intervals, are parallel to each other, and secured by fastenings, if desired. The flat pieces give a smooth face to the seat or back of a chair, but others of a different shape may be employed to prevent the projection of the corrugations from being unpleasant to the sitter.

Stop Mechanism for Spinning and Doubling Machines.

George Kraink, Paterson, N. J., assignor to himself and John Francon same place.—The first part of this invention consists of the bolster projecting below the bolster rail, and having the loose pulley of the spindle on it, so that the spindle will be freed from the friction of the pulley when the belt is running on it, and thus will always stop when the belt is thrown off. The second part consists of mechanism such that, when a thread breaks and one of the faller wires falls, it will swing a tongue forward into the path of a projection on a reciprocating bar. The tongue will thus be removed powerfully by the latter, so as to release the trip rod to stop the machine. The third part of the invention consists of a piece of cloth or other substance, and a slide with wedge-like prongs, combined with the bobbin on which the thread winds from the spindle, the friction roller which turns the bobbin, and the falling rod by which the spindle belts are thrown off when a thread breaks, so that, when the rod falls, the cloth and the wedges will be moved forward between the bobbin and the friction roller. The cloth then stops the bobbin, so that it will not continue to draw the thread from the spindles after they are stopped. The wedges go under the journals or pivots of the bobbin to lift it, so that it will not press the cloth on the friction roller during the stoppage, and thus protect it as much as possible from wear by the roller.

Improved Spool Box.

Benjamin F. Carpenter, Roselle, N. J.—A stand is rigidly attached to the bottom of a rotary spool box. The thread from the spools, of which there are a number disposed on pivots on the bottom of the box, is carried up through a disk plate level with the top of the cover. The holes in this disk are numbered on the top to indicate the number of the thread. There is a wheel formed of plates, around the periphery of which is placed a close spiral wire for holding the thread when it is being cut. The thread, as it is carried up from the plate, is passed between two of the convolutions of the spiral, and is compressed sufficiently to hold it for cutting. The cutter is semicircular in form, and is attached to the top of the wheel disk, at its ends, and is covered by a spiral. The thread is carried over the latter and forced down between two of the convolutions on the edge of the cutter, and is thus readily severed. In thus cutting the thread, the fingers of the operator are protected by the spiral.

Improved Check Valve.

Marshall T. Davidson, Brooklyn, N. Y.—This invention consists in the combination of a globe-shaped elbow having a horizontal valve seat, with a screw cup arranged vertically above the seat, with a ring-shaped extension for guiding the valve in a vertical direction. The globe-shaped elbow forms an annular chamber around the cup-shaped seat, through which the steam or water is easily conducted to the exit pipe, their return being checked in an effective manner by their vertical downward pressure exerted on the valve, securing it more tightly in its seat. The valve works thus easily in both directions, and forms, by its position at the elbow joint of the pipes, a convenient and efficient connection.

Improved Dress Protector.

Edward G. Kelley, Brooklyn, N. Y.—This invention consists of a dress protector of spiral wire, bent in such shape as is found most convenient for attachment and protection, and attached, either directly to the trail of the dress or to a piece of cloth to be applied to the dress.

Improved Ice-Snow Scraper.

Henry Little, Middletown, N. Y.—This is a machine for scraping the snow from the surface of ice, preparatory to sawing and harvesting it. The two side boards of the machine are of such dimensions as will enable them to contain enough snow for a load. Their rear ends meet at an angle. To the lower part of one of the side boards is attached a bar, the rear end of which projects, and has an eye formed in it to receive the pintle formed upon the rear end of a lever, which is pivoted to the other of the side boards. To the inner side of the rear ends of the side boards are attached two vertical bars, the upper ends of which project above the upper edges of said side boards, and are hinged to each other, so that the lower parts of the said ends may spread apart to discharge collected snow. The forward ends of the sideboards are connected and held at the proper distance apart by a rod, and the boards are kept from spreading too far apart by stop bars. There is a platform for the driver to stand upon, the ends of which pass through keepers attached to the upper edges of the side boards, so that the said platform will not interfere with the proper operation of the said side boards. In using the scraper, it is drawn to the place whence the snow is to be scraped; the side boards are then brought into a vertical position; the lever and bar are connected together; and the scraper is drawn to the place where the snow is to be deposited. The lever is then operated to disconnect it from the bar and discharge the collected snow, and the scraper is drawn back for another load.

Improved Binders' Attachment for Harvesters.

Wesley C. Dentler, Palmyra, Neb.—This invention is an improved bundle-carrying attachment for harvesters for receiving the bundles when bound, and enabling them to be dropped together when a sufficient number has been collected. To curved braces are pivoted the carriers, the inner ends of which are bent upward to rest against the edges of the tables, and the outer ends are similarly curved to prevent the bundles placed upon them from slipping off. The carriers are connected with cranks formed upon the ends of a shaft. To the latter is attached an arm, the end of which is bent at right angles to be caught by a spring catch, to hold the carriers in place when raised into position to receive the bundles. The spring catch is so formed that one of the binders, with his foot, can readily detach it, and allow the carriers to be lowered by the weight of the bundles, which bundles then slide off. A curved spring is so arranged with the arm as to raise the carriers into position to receive the bundles, when the arms are caught and held by the spring catch, locking the carriers in position. By this construction the bundles can be dropped in rows, so that they can be readily shocked, and so that the shocks can be more conveniently and quickly loaded upon a wagon. This construction also prevents the waste of grain from scattering, and from its being shelled out by throwing the bundles upon the ground as they are bound.

Improved Cattle Stanchion.

Hosea Willard, Vergennes, Vt.—There is a pivoted revolving frame, consisting of two stanchions connected together by horizontal pieces. One stanchion is movable in a slot, so as to admit the head of the animal, and is longer than the other, so that it may be slipped into slots in the cap to make the frame fast. At other times the frame is allowed to revolve in either direction, according to the position of the animal.

Improved Saw Jointer.

Edwin Gowdy, Pottsville, Ohio.—This invention is an improved machine for dressing and truing the teeth of circular and other saws. It consists of a base piece, with a longitudinal screw for carrying a file holder with files firmly secured by a key and washer. After the teeth of the saw have been swaged, and the shorter teeth raised sufficiently to strike the first file, the file holder is adjusted on the saw so that the same runs steadily between end screws. By turning, then, the saw backward, the first file acts as a gauge and files on the circumferential edge of the teeth, dressing them smoothly and evenly. The key is then loosened and taken out with the front file and washer. Then the holder is then screwed forward and the side files adjusted to the saw, which is then passed several times along the same until the rough side edge of the teeth is taken off, and a smooth and square edge is produced. The file holder is then carried back, requiring, after being once set, but little adjustment, which is, however, easily obtained by detaching the sliding file holder and adjusting the bottom set screws.

Improved Three Cylinder Engine.

Philip T. Brownell, Elmira, N. Y.—This invention is an improved bushing for the crank pin of a three-cylinder engine, and an improved oiling device for the same. The sectional bush for the wrist or crank pin of the engine is cut longitudinally into four equal parts, which are arranged around the pin within the eyes of radial sliding rods, and are secured to said eyes, one to each, in such positions as to give the proper bearing upon the pin. The inner surfaces of the eyes are so formed as to permit a free movement over the parts of the bush that are fastened to the other eyes. The shaft has a disk attached to its inner end, and the wrist pin projects therefrom in a plane eccentric, but parallel to said shaft. Thus at each revolution the pin describes a circle, whose center is the axis of the shaft. The oil for lubricating the bushings is held in and supplied from a cup which is attached fixedly to the pin, but is arranged eccentrically thereto, and concentrically with the shaft. When the engine is at rest, the oil remains in the lower portion of the cup. When in motion, the oil is distributed in the cup and carried around by centrifugal force, finding its way to the bearings.

Improved Mud Fender for Equestrians.

Austin P. Speed, Louisville, Ky.—This is a device for protecting the boots and legs of persons riding upon horseback from being splattered with mud. It consists in a steel frame, to which is attached a boot of such size as to receive the foot of the rider, and within which the stirrup hangs free. The boot consists of a sole having an upwardly projecting flange attached to it, except at one side, which is left open, and the upper edge of its closed side is attached to the covered frame.

Improved Ear Cleaner.

Moritz Leiner, New York city.—This invention is an instrument for cleaning the ear, and it consists in a twisted stem of metal, having a swab or bulb of some soft elastic substance at one end, attached by an eye in one end of the stem, and a spoon or scraper at the other end of the stem.

Improved Seed Planter.

Thompson Pressly, Sweet Home, Tex., assignor of one half his right to D. E. Hicks.—The roller, which runs upon the ground and presses the earth on the seed, is supported by curved side bars and straps, which are adjustable on the beam and standard, so as to throw the roller up or down. The friction of the roller on the ground rotates the axillator in the seed box. The plow is attached to the end of the standard, so that it can be raised or lowered, and thereby regulate the depth of furrow.

Improved Neck Tie.

Reginald R. Parker, Indianapolis, Ind.—The object of this invention is to furnish an improved neck tie or bow, the ends of which are stiffened in such a manner that they are prevented from becoming limp, or wrinkled or curled to the outside, protecting, also, the raw edge, and imparting to the whole bow a neater and better shape. The invention consists in a neck tie or bow provided at the under side of the corners with protecting and stiffening facings, of paper or other suitable material.

Improved Sweep for Cultivators and Plows.

Elias Hatman, Columbus, Ga.—The middle part of the sweep has a ridge formed along its central line and extending from the bolt hole in the stem to, or nearly to, the point, while the side edges of the stem are bent to form flanges extending along the upper edges of the wings. These two corrugations, being thus relatively placed, prevent the sheet from being bent in either a vertical or horizontal direction, and allow of the employment of thin metal that is more easily worked and makes a cheaper article.

Improved Safety Pin for Thill Couplings.

Joseph G. Dance, Long Green, Md.—This invention relates to a peculiar construction of safety pin by which a thill may be coupled to a vehicle with great facility, and yet so securely that no jolting or ordinary casualty will displace it.

Improved Ship.

A. John Bell, Ashland, Ky.—This invention consists in a ship or vessel having its lower deck made in three parts, the middle one resting upon bulkheads bracing the sides of hull, and easily removable.