Recent American and Foreign Patents.

Improved Non-Interfering Fire Alarm Telegraph.

Joseph W. Kates, Richmond, Va.—The object of this invention is to provide an improved electric fire alarm, in which is avoided the interference and confusion of signals caused by the sending of two separate signals from different points at the same time. It consists in a method of connecting the instruments at the different signal stations by a second electric circuit, which circuit is opened or closed automatically to operate the armature of an electromagnet, which serves as a stop for a clock mechanism, and locks, by means of the said second circuit, all of the instruments at the signal stations except the one in operation, for the prevention of all interference between the different instruments. It also consists in the method of automatically operating the armature, having a stop for the clock gearing for the locking or unlocking of the other instruments, by a non-conducting tape placed upon the same drums with the signal tape, and passing between contact rollers that form the electrodes of the second circuit, and perforated at its extremities, so that the second circuit is closed for this particular instrument whenever the tape is entirely wound up or entirely run down, and is opened during the operation of the instrument to lock the other instruments. The invention further consists in the combination with the main drum or spring shaft carrying a pinion of a rack bar that engages with a shoulder upon the stop of the armature, to prevent the operating instrument from locking itself.

Improved Water Wheel.

Stephen R. Jenner, Milltown, Ind.—The object of this invention is to utilize a larger per cent of motive power than is usually obtained in common turbine wheels. It consists in placing stationary water ways in between two or more turbine wheels attached to the same shaft, the said water ways being detached from the shaft, alternating with the turbine wheels, and running in direction transversely to the spiral flanges of the turbine buckets. It also consists in the combination with the said wheels and water ways of a cylindrical cut-off and a counterbalance to render the said cut-off sensitive to the action of a governor.

Improved Wire Fence Tightener.

Warren L. Brown and Joel B. Cramer, Dunlap, Iowa.—The object of the invention is to provide, for farmers and others having occasion to construct wire fences, a compact, portable, and efficient device for tightening or straining the wires of such fences, the same being adapted for convenient attachment to and detachment from a post. The wire is attached to a pronged bar, which is adapted to slide on another bar secured to a post. The sliding bar is adjusted by a nut, and the wire is clamped by jaws attached to the stationary bar.

Machine for Handling Straight-Cut Tobacco.

Francis S. Kinney, New York city.—This is a machine for removing straight-cut tobacco from the cutting machine, and boxing or bunching it, without allowing its fibers to become disordered or entangled, and enabling it to be boxed or bunched with the straightest fibers upward.

Improved Grate.

Charles C. Gates, Albany, N. Y., assignor to J. L. Mott Iron Works, New York city.—This consists of a grate, in combination with an outer vibrating ring, the ring being corrugated on its upper surface, which is in the plane of the grate. The concave parts of the corrugations incline downward radially to the periphery, to facilitate the throwing off of the refuse when shaken. The ring is rigidly attached at the lower side to arms, intersecting at the grate's center with a center pin, on which the ring oscillates to shake the grate. The pin is pivoted in a center bearing, rigidly supported by arms of the base of the stove. The invention also consists of a dumping hook for the grate, attached to the center of the ring, in which a journal of the grate rests. The bearing is forward of the grate's center on the depressing side, to lessen the dip of the grate in the ash pit when dumping, and thus affording more freedom for removing the ash pan.

Improved Stud Fastening.

John C. W. Jefferys, Tottenham Court Road, London, Eng.—This invention relates to articles of jewelry or fastenings for dress; and consists in the combination of a flat oblong shank, with the well known crescent shaped-back, capable of being inserted in the button hole by a rotary movement. The back is so constructed as to be turned in either direction, the shank being either flat or consisting of two or more pillars.

Improved Tram Staff.

Samuel B. Williams, Bridgeport, Ohio, assignor of one half his right to Seymour C. W. Dunlevy, of same place.—A tram staff about equal in length to the diameter of the mill burrs is adjustably attached by rectangular brackets to the ends of arms of an upright standard. Sleeve-shaped projections at the central part of standard fit on a center shaft that is provided with a tripod-shaped part to be applied to the spindle of the bed stone. The center shaft is set into a perfectly vertical position to the face of the burrs by revolving the staff at some distance above the same, and adjusting a crank screw at the top of the standard until a regulating quill or piece of steel at the outer end of the staff forms an even contact at the circumference of the burr. In this manner the center shaft may be set by the adjusting screws more readily into vertical position on the burrs.

Improved Washing Machine.

Charles E. Ross, Lincoln, Ill.—By tightening up the nuts of bolts, the staves or strips will be drawn closer together to take up any shrinkage of the wood, and thus keep the suds box always tight. Curved cleats of the suds box and curved cleats of the rubber are placed in reversed positions with respect to each other, the result of which construction and arrangement is that the clothes will not be rolled up in the middle part of the bottom of the suds box.

Improved Hay Press.

William Henry Penniston, Fox, Mo.—By this construction, when the doors of the baling box are unfastened to remove the bale, the same operation releases the lower part of the box, so that the bale, being released from both side and end pressure, may be easily removed.

Improved Cracker Machine.

Adam Exton and John Exton, Trenton, N. J.—This invention relates to an improved cracker-molding machine. The basis of the claims is the mechanism whereby the crackers are conveyed or fed to the docker, and cleared from the table upon which the molding process is completed.

Improved Portable Fence.

Joseph L. Welshans, Mo.—This is a portable fence panel, composed of rails pivoted in posts and secured in a central clamp, which is tied near top and bottom. Braces are arranged to support the rails and uprights.

Improved Calendar.

L. L. Kellogg, Leon, N. Y.—The invention relates to modes of exhibiting on clocks the day of the week, the month, and the day of the month; and consists in combining a loose lift bar having end hooks and notches with an hour hand shaft and lever, as well as an intermittent pin wheel with a fixed disk, an adjustable disk, and a stationary hand.

Improved Car Starter.

George Hunter, Payson, Ill.—To the inner side of one of the wheels is rigidly attached a small gear wheel, and to the inner side of the other wheel is attached a large internally toothed gear wheel. A shaft placed parallel with the axle is made in three parts, connected with each other by universal joints. To the middle part of the shaft is attached one end of the spring, which is coiled around the said shaft. The end parts of the jointed shaft engage by gears with the gearwheels above mentioned. Devices are provided which lock the levers, which hold the gear wheels in gear and out of gear. When the car is to be stopped, the apparatus is so regulated that the forward movement or momentum of the car may wind up a spring. When the car is to be started, the power of the spring may be applied to the wheel near its rim, and thus, with a great advantage of leverage, assist in starting the car. In the same way the spring may be coiled by the advance of the car when upon a level or down grade, and held, to be applied to the car when upon a short upward grade, to assist in its propulsion.

Improved Weed-Covering Attachment.

Joseph W. Dysard, Michigan City, Ind.—A wheel, which runs in the furrow last plowed, is pivoted to the end of an adjustable bar, which is curved to correspond with the position of the furrow slice as it is being turned by the mold board. By this construction the bar, as the plow is drawn forward, will bend down the grass, weeds, and stubble that may be upon the furrow slice longitudinally with the furrow, so that they may be wholly covered.

Improved Peg Cutter.

Matthew Buhler, Lamolile, Ill.—This is an adjustable cutter and rasp, by which the pegs may be removed from any part of the bottom of a boot or shoe. The face of the wheel is rigidly attached to the stem. There are two mortises for the stem, which unite at the end of the shank, and branch obliquely therefrom through opposite sides of the latter. By turning over the shank, the position of the cutter and rasp is changed to enable the operator to cut the pegs from any part of the bottom. Cutters are arranged at both ends of the tool. The rasp follows the forward cutter. An aperture at the heel of the tool has a sharp edge for smoothing off the pegs in the heel of the boot.

Improved Car Brake.

John E. Worthman, Mobile, Ala.—This invention relates to certain improvements in car brakes; and it consists in the combination with a worm or screw thread upon the car wheel shaft, of an adjustable pin attached to a lever arm provided with right angular arms which are connected with the traction rod through which the brakes are applied. The said pin is adjusted so as to be raised above the worm upon the shaft, or depressed so as to register therewith and move the lever arm, in which it is contained, laterally, for the purpose of applying the brakes through the right angular arms as elbow levers. It also consists in the devices for operating the adjustable pin, consisting of a rock shaft which has an arm that is attached to a sliding collar that raises the lever carrying the pin, and a second arm that is attached to an indented disk, so combined with a ratchet wheel and pawl as to apply or remove the pin by the same movement.

Improved Check Valve.

H. P. Buffon, Cleveland, Ill.—The invention consists in combining, with a hollow plug valve, a check valve having its seat in a partition of valve case.

Improved Earth Auger.

John T. Kemper, Hannibal, Mo.—This consists of a cast iron auger pot or body with open sides, having outer reaming plates, and detachable cap sections that close the sides, and are attached to top by a set screw.

Improved Car Coupling.

George W. Kyle, Mylo, Ohio.—The coupling pin is suspended to the front arm of an angular frame that slides in suitable guides of the wall of the car. A lateral piece is supported on the front arm of the frame, and is provided with guide slots for vertical rods, which are pivoted at their upper ends and at their lower ends below the drawhead to a lateral rod that is attached to the longitudinal swinging arm of a flat guide spout. An arm carries the spout up into inclined position along the lower part of the drawhead on raising the pin-supporting frame. The spout serves then for taking up the coupling link of the approaching car, and for conveying it into the cavity of the drawhead simultaneously with the concussion and the carrying back of the slide piece. The pin and pin frame drop thereby, and carry the spout to some distance below the drawhead suspended on the spring rods, but out of the way of damage by the concussion of the drawheads. The pin couples in dropping the link.

Improved Faucet.

Robert L. Hallett, Brooklyn, N. Y.—This is an improved faucet for drawing hot and cold water, or two kinds of liquids, either at the same time and mixed or separately, and discharging them through the same discharge pipe. The invention consists in the combination, with a spherical case having two inlets and a single outlet, of a spherical valve contained within said case, and operated by a stem connected with a hand wheel. The said valve has an orifice which is narrow in the middle and broad at the outer edge, so that the two inlets of the case may be opened either singly or both at a time.

Improved Regulator for Hemp-Spinning Machines.

Christopher Herschaft, Brooklyn, N.Y.—In this invention a countershaft, having two driving pulleys of different sizes, is belted to the driver for the gill bars, and the main driver belt is contrived to be automatically shifted by the upper condensing roller from one to the other of the pulleys on the countershaft for turning the aforesaid pulleys. The arrangement is such that, when the sliver is too large, the rising of the condensing roller will shift the belt on to the pulley for slow speed to feed slower, or on to the loose pulley to stop the gill chain in case the sliver is very much too large. When the sliver is too small, the belt will be shifted so as to increase the speed of the gill bars and feed faster.

Improved Horse Power Link.

Barnard L. Olds, Highgate, Vt.—Many portable horse powers for thrashing grain and other purposes consist of an endless chain revolving over pulleys composed of tread pieces of wood united together by metallic links, which links are connected by rods, and have cogs on one side, which mesh into pinions, to produce the rotary motion required. The present invention consists in forming the links of a combination of the two. It is composed of a cast iron body and wrought iron back, the latter terminating at each end in a curve, forming a bearing for a journal within it.

Improved Extension Table.

James Poolman, Providence, R. I.—This invention consists of a couple of pairs of toggle bars and a right and left threaded screw for working them, combined with an extension table, for extending and contracting it by the turning of the screw. The object is to lessen the labor, so as to accomplish it by one person, and to draw the table tightly and rigidly together, and stiffen up the middle portion, so as to dispense with the middle leg.

Improved Stopping Mechanism for Spinning Jacks.

Frederick H. Crocker, Gonic, N. H.—This is a device which throws off the driving belt in case the squaring band breaks or becomes too loose, and thus prevents the carriage being thrown off the track.

Improved Clothes Pin.

Edmund F. Krelwitz, Humboldt, Mich., assignor to himself and Joseph Mitchell, same place.—This invention consists of a clothes pin made of one piece of sheet metal, bent and corrugated to form spring jaws for retaining the clothes on the line.

Improved Base-Burning Stove.

Melville C. Hawley and William Lennox, Mattoon, Ill.—The bars of the grate are made hollow to allow air to circulate through them. The grate is provided with four hollow arms, which project out through the wall of the stove, some of which may be curved upward and some downward, to promote the circulation. This construction of the grate heats air and discharges it into the room. A conical chamber, placed in the lower fire chamber just below the grate (from which a pipe leads out through the center of the bottom of the base to admit cold air), projects the products of combustion toward the walls of the stove, so as to heat said walls, and thus withdraw the heat from the products of combustion and radiate said heat into the room.

Improved Rotary Churn Dasher.

James J. Robinson, Gibson City, Ill.—The object of this invention is to improve the construction of the churn dasher for which letters patent were issued to the same inventor December 5, 1865. The invention consists in a churn dasher in which bars provided at their ends with cross bars and disks are attached to the shaft in an inclined position, and are so arranged that the upper cross bar and disks of each lower bar may be upon a level with the lower cross bar and disks of the next upper bar; and in the combination of an adjustable gathering board with the dasher shaft. This construction makes the cost of manufacture less, and lessens the labor of operating the dasher.

Improved Sulky Cultivator.

Burton C. Cox, Cooper Hill, Mo.—To the inner side of the inner beams is secured a half keeper, to which and the said beam is pivoted the end of a bar, which is bent inward and downward, and projects beyond the rear part of the said beam. To the rear part of the bar is bolted a guard, to prevent clods, lumps, and other rubbish from being thrown against the young plants and injuring them. The plates have sets of holes formed through them to receive the bolts, so that they may be readily adjusted higher or lower to let more or less soil pass to the plants. Upon the upper edge of the bars is formed a projection, which rests upon the upper edge of the beam and serves as a stop to prevent the fender from dropping down too low.

Improved Cautery Electrode, Vesicular Electrode, and Reservoir Electrode.

Jerome Kidder, New York city.—These are three new inventions, devised by a well known inventor of electro-medical apparatus. The first has for its object so to improve the galvano-cautery instruments for excising tumors, etc., that they may conveniently be operated and the circuit closed and interrupted by the use of one hand only, leaving the other hand at liberty for holding some instrument or for other purposes. It consists of a cautery electrode, with the usual vulcanized rubber handle and slide ring for drawing the incandescent cutting loop, but having the handle extended far enough back of the lower fixed ring that the hand may be applied for firmly holding the instrument, while the spring button for closing and interrupting the circuit is placed in front of the fixed ring, to be operated by the forefinger jointly with the drawing back of the slide and loop by the thumb. The second invention consists of a vesicular electrode, with solid non-conducting head into which the ends of the battery-connecting wires are embedded in such a manner as to be readily brought in contact at the side and end, admitting the application of electricity by a more easily manipulated device than with the vesicular electrodes hitherto in use. The third invention is an improved electrode, for common exterior application, by which the disagreeable feeling or shudder produced by the contact of the cold metallic or sponge surface with the body is obviated. It consists of a common electrode, provided with a reservoir for hot water, and a tightly closed orifice for keeping the contact surface warm for application.

Improved Vegetable Dish.

Mrs. Ella Portington, Factoryville, N. Y.—This invention consists of a vessel provided with radial partitions, forming subdivisions, and a tubular center part, for being placed and rotated on a stand. A number of dishes are thus combined in one.

Improved Bush Hammer.

Charles Littlefield, Vinalhaven (Carver's Harbor P. O.), Me.—Upon the ends of the sides of the head are formed flanges, the inner edges of which are curved upon the arcs of circles, and the ends of which project a little beyond the edges of the said head to form a seat for the cutters. The side plates have curved recesses formed in them to receive and fit upon the flanges. In the side plates, near their ends, are formed holes to receive bolts, by which the cutters are secured to the said plates, and the cutters and side plates are secured to the head, binding the various parts of the hammer firmly together.

Improved Coal Chute.

Robert Dunbar, Mansfield Valley, and John Keegan, McDonald, Pa.—This consists of a chute with laterally swinging end scoop, connected by curved adjustable guard plates to the sides of the chute section, to be set to any angle thereto, for conveying the coal without shoveling to any part of the car or boat.

Improved Portable Fence.

Stark Olmstead, Brooks, Ind.—This consists of panels of sawn stuff, having two cross pieces a little distance apart at one end, so that openings are left between. There is one cross piece near the other end, beyond which the slats extend so as to be fitted in the holes between the two cross pieces of another panel. The parts are locked and bound fast by adjusting the panels so connected as nearly in a straight line as may be, making a zigzag fence, which stands upright without posts or stakes in consequence of that form. Besides the binding of the panels together by the coupling effect of straightening the line, a pin is driven diagonally through the projecting end of one of the slats against the cross pieces.

Improved Hoisting Machine.

Victor Duhamel, Easton, Pa.—This invention is a machine which is put in operation by means of a pendulum and ratchet and pawls. It consists of a hoisting drum, which is turned by a pawl operated by the oscillation of the pendulum, when the latter is held to its work by a spring. The drum remains motionless when the pendulum takes its return stroke.

Improved Coal Shovel.

James D. Tallmadge, of Chicago, Ill.—Four wires, more or less, are bent into shape, and are then forced into a wedge-shaped ferrule. The projecting ends of the wires are then bent by hand or upon a properly shaped block into the shape of an ordinary ash shovel.

Improved Machine for Moistening Oleaginous Seeds.

Alfred B. Lawther, Chicago, Ill.—This invention consists of a common or steam-heated reservoir, arranged with one or more revolving perforated stirrer arms, by which the seed is thoroughly mixed and moistened under the admission of hot or cold water or steam.