

RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

CORN-HARVESTER.—W. E. KOCH, Duvall, Ohio. This machine in passing alongside a row of corn advances the lifters that guide the stalks into passageways. Endless chains with lateral arms force the stalks back until pressed and cut by disk cutters. Star-wheels then come into action and move the cut stalks inward, when the pushers force them backward into passage-ways on the rear of the platform. When thus moved backward, retarders resist the advance of the stalks, so that they are compacted to form a shock. Then the binding cord is drawn off and when enough stalks have heaped, the machine is stopped, and the cord cut and tied around the shock ready for discharge. Means are now provided for sliding the shock downward and resting it on the ground, whereupon the machine advances, leaving the shock braced in standing position.

Engineering Improvements.

ROTARY ENGINE.—J. C. WHARTON, Nashville, Tenn. This engine is of the type in which two cylinders put side by side are provided, respectively, with oppositely-moving pistons, which are rigidly connected by a diaphragm, which passes through from one cylinder-chamber to the other, the induction and exhaust ports being located on opposite sides of this diaphragm, one above, the other below it. This diaphragm connecting the rolling pistons has a tilting movement, as a lever upon a fulcrum, and also a sliding movement through the opening from one cylinder to the other, to accommodate the reverse rolling of the pistons under influence of steam pressure.

Hardware.

PRUNING IMPLEMENT.—H. A. HILL, Lawrence, Mass. This tool is so constructed that by the manipulation of opposing hinge-connected handles a spring-controlled blade will be operated in a sheath having a recess in its side to receive the twig to be cut, and across which recess the blade passes through the action of the handles with a positive end thrust, making a clean cut. There is a readily detachable sheath for the knife, and a short knife concealed within and protected by the sheath and means whereby the knife when injured or worn can be removed and replaced.

Heating Apparatus.

HEATING-STOVE.—C. MATTHEWS, Columbia, Mo. By novel details of construction in the make-up of this stove, the inventor secures an increased and more effective heating surface. An essential feature of the invention resides in the facility afforded for cleaning out passage-ways through a compartment door. Any suitable grate may be used, and well-known raking devices or attachments employed.

PETROLEUM-OIL BURNER.—A. F. DEMORY, Nacogdoches, Texas. Mr. Demory's useful improvement is in the nature of a novel construction and arrangement of burner for utilizing crude petroleum to furnish heat, power, and light for the use of heating and cooking stoves, bake ovens, furnaces, for hot air, steam, or water, the boilers of ships and locomotives, and various other uses to which it may be applicable.

Mechanical Devices.

PLATE-PRESS ATTACHMENT.—R. TURNER, New York, and B. R. CORLEY, Brooklyn, N. Y. The patent in this case relates to copper and steel plate printing; and the purpose of the invention is to provide a new and improved plate press attachment in which the simple and durable construction, thorough effectiveness in operation, and the automatic arrangements to stop the plate-press after each impression, are the recommendatory features.

COPYING-PRESS.—H. L. DAVIDSON, Louisville, Ky. The mechanism employed in this device is that in use in copying-presses where rollers are used; and the objects of the improvement are to furnish a press not complex in construction, very effective in use, doing its work rapidly in copying on detached sheets or on a continuous strip or in a book, and all at a small cost.

EYELET-MACHINE.—I. W. GILES, New Bedford, Mass. The usual manner of producing eyelets has been improved by the present method, wherein the edges of the eyelets have been upset—that is to say, the metal has been crowded back upon itself. The eyelet-rims thus formed require to be polished by a subsequent operation with a separate machine. Mr. Giles's device performs the double function of upsetting the lateral edge of an eyelet and also burnishing and polishing it at one operation.

SPIRAL ELEVATOR.—D. E. CONDON, San Francisco, Cal. The inventor of this traction device has for his object the provision of a new spiral elevator for use in observation-towers, rotundas of high buildings, and the like designed for pleasure-trips, for business, industrial, and other purposes, and arranged to insure perfect safety to every one using the elevator.

SPOKE-FINISHING MACHINE.—G. A. ENSIGN, Defiance, Ohio. This invention relates particularly to spoke-finishing machines, such

as one patented by Mr. Ensign in 1901. The present machine embodies improvements whereby ordinary wagon-spokes or Sarven spokes are accurately and uniformly finished at the throat, it requiring only an unskilled workman to attend the machine—that is, to remove the finished and to place the unfinished spokes in the automatically-turning spoke-holder.

WINDMILL.—J. HENDERSON, Millgrove, Mo. This form of windmill has the wings vertically placed, transversely curved, and pivoted at their ends in a circular group, one wing overlapping the other. The mill also has means for limiting the movement of the wings. A governor is provided which regulates the speed of the wheel by directing the extent to which the wings shall open. The stopping of the wheel is done by completely closing the wings one upon the other.

SPROCKET-WHEEL.—C. C. KEYSER, Newport News, Va. This description of sprocket-wheel is particularly adapted for use in connection with motor-bicycles or motor vehicles. It is simple in construction and is provided with spring-yielding parts, whereby jarring or vibration is avoided while riding, starting or stopping.

CHIME-RINGING DEVICE.—H. A. WENDE, Buffalo, N. Y. Mr. Wendé in this invention provides improvements in devices for ringing or controlling the ringing of a chime of bells. He employs a simple electrically-released hammer-actuating mechanism which may be located close to the bells. After installation no adjustments are required.

BRAKE ATTACHMENT FOR ELEVATORS.—G. W. CHAMBERLAIN, Atlanta, Ga. The purpose of this contrivance is to supply a brake mechanism which can be manually operated at any time, but which is especially adapted to be automatically operated to apply the brake when the elevator reaches predetermined points at the top and bottom of the shaft, thereby preventing shocks or accidents at such points by the operator failing to act on the check-rope quickly at the proper time. The device provides for the automatic stoppage of the car at any floor, for which the means are set.

Railway Improvements.

RAIL-BENDER.—C. A. DAVIS, Rockvale, Colo. The inventor in this improvement has designed an apparatus for bending metallic bars, particularly railway-rails, and by its means railway-rails may be straightened, or, if straight, they may be bent to form curves therein, adapting the rails to curved tracks.

RAIL-FASTENING FOR RAILROAD-TIES.—F. FOSTER, Columbus, Ohio. Mr. Foster's invention relates to rail-fastenings for that type of railroad-ties known as "metallic ties," and has for its object to provide a tie and fastening which shall be durable, simple in construction, by means of which the rails may be firmly clamped, easily adjusted or removed, and which will permit contraction and expansion of the rails.

CAR-FENDER.—J. P. THOM, New Orleans, La. In designing this improvement in fenders, the object is to provide one of simple construction that will automatically move to safety position upon coming in contact with a person or object, and, further, to provide a wheel-guard that may be instantly lowered should the fender not strike a person or object and therefore not be thrown outward.

CAR-COUPLING.—B. BRAND, Braila, Roumania. This coupling is operated from the side of the car. The coupling hooks or links, as the case may be, are rigidly connected with toothed sectors pivotally secured in the fork-shaped end of a draw-rod moving in guides and pressed backwardly by springs and so actuated by means of a toothed eccentric disk on a shaft provided with a crank-handle at the side of the car that a rotation of the disk forwardly may be effected, and therefore a turning of the sector carrying the hook for the purpose of effecting the coupling.

RAIL-JOINT.—C. A. SNIDER, New York, N. Y. In working out this project of an improvement in rail-joints, Mr. Snider has succeeded in providing a simple and novel construction whereby the rails will be securely united at their junction and in which the joint-sections will be clamped together by a wedging action.

RAILWAY-SWITCH.—A. YOUNGBLOOD, North Augusta, S. C. Mr. Youngblood has invented an improved railway switch which can be operated by the engineer from the cab of the locomotive. An "operating projection" is provided at each side of the pilot of the engine. Either of these may be brought into contact with its respective co-operating cam rail along the track to throw the switch in the corresponding direction.

SWITCH-DEVICE.—L. HORINKO, New York, N. Y. The operation of this switch is from a moving car; and a mechanism is provided for shifting a switch-point, which mechanism is located below the road-bed and is protected against inclement weather, initial points only of such mechanism appearing at the tread of the rails. A rocking roller-trip device is provided for the switch-shifting mechanism, which device is carried by the car-motor or engine and is operated to engage with either exposed initial point of the switch-operating mechanism to automatically throw the switch point in the desired direction.

Vehicles and Their Accessories.

DUMPING-WAGON.—A. TUFANI, New York, N. Y. The purpose of this invention is to provide a new and improved dumping-wagon which is simple and durable in construction and easily manipulated for moving the wagon bed or box into an inclined dumping position or back to a non-dumping position.

TRACE-BUCKLE.—J. B. BUNKERS, Remsen, Iowa. In the design of this improved trace-buckle, the inventor's object is to provide a buckle that holds the tucked-in portion of the trace by two pins, thus rendering it much stronger and saving material in the trace, and also one in which there will be no wear on the cross-bars of the buckle upon the trace.

BICYCLE-BRAKE.—A. E. WAHLIN, Fairview, Utah. This new and improved bicycle device belongs to that class of brake which is arranged to work against the rim of a bicycle wheel as contradistinguished from the tire thereof. Two brake shoes are employed which are arranged one at each side of the rim of the rear wheel and are operated by a cord connection from the handle bars.

Miscellaneous Inventions.

NOZZLE.—W. C. OBERWALDER, New York, N. Y. This invention provides a nozzle for water-hose which shall be furnished with means to eject a stream of water of any desired form—for example, a concentrated or direct stream or a spraying stream—thus adapting the device to a multiplicity of uses. This is attained by features of construction embodying a conical divider, placed in the mouth of the nozzle and longitudinally thereto, to determine the form of the stream ejected.

MOVABLE FIRE-ESCAPE BALCONY.—MARTHA L. CRONIN, New York, N. Y. The object of the invention is to furnish a new movable fire-escape balcony arranged ordinarily within a room as a piece of furniture and adapted to be held in place on the outside of the window as a balcony in case of fire to allow a person or persons to take refuge on the balcony for protection from the flames and smoke in the room and for convenient reach by the firemen.

FOLDING CRATE.—A. A. SMITH, Ewart, Mich. In the production of this knock-down receptacle, the object in view is to offer to shippers a new and improved crate, plain and durable in construction, cheap to make, easily set up, and arranged to fold into a relatively small space for convenient transportation without danger of losing or misplacing any of the parts.

FLOATING FISH-TRAP.—A. C. BURDICK, Seattle, Wash. The purpose of this contrivance is to provide a pot-seine to be used with or without scows and adapted to fish only with the tide and to be held by leads or guides, one at each side. The seine can be made of variable depths, according to the species sought to be caught. The especial purpose is to furnish a seine with a central pot and pockets at each side of the pot, passages leading to the pockets, and central pockets at the rear of the pot communicating with the side pockets and with a tunnel common to the rear pockets.

CANDY-DIPPER.—F. C. SPANG, La Crosse, Wis. This invention relates to improvements in devices for dipping candy in chocolate or other coating material, the object being to provide a dipper of simple construction by means of which candies may be rapidly dipped and uniformly coated.

EXHIBITOR.—A. G. and D. H. McCULLOCH, Winnebago City, Minn. This mechanism provides a cabinet especially adapted for the display of laces, but which may be also used to show ribbons or similar articles capable of being wound upon and unwound from spools or reels. The cabinet is made to consist of a body-receptacle having doors, for example, on three sides, for the display of samples within the cabinet, and one or more rack-sections capable of withdrawal from the body-receptacle, each of which rack-sections have shafts operated from the exterior of the rack-sections of the cabinet, on which shafts spools of any size and number needed are mounted, turning with the shafts, to display and render accessible any piece or pattern of goods. Guide or feeding strips for lace, etc., prevent articles from folding or creasing while being wound or unwound.

AUTOMATIC TOY.—R. H. and R. D. ADAMS, Minneapolis, Minn. These inventors have designed an automatic toy representing a vehicle conveying articles from one point to another. It comprises a chute, on which is mounted a movable vehicle, a revoluble roller, a weight heavier than the vehicle and connected thereto by a cord over the roller, a magazine with a movable stop, a number of bodies to be placed loosely within the magazine at will, and a trigger controllable by movements of the vehicle for discharging the movable bodies one at a time into the vehicle.

DOUBLE-SEAT KNOCKDOWN CHAIR.—H. MORTON, Thomasville, N. C. This furniture device provides a new and improved double-seat knockdown chair arranged to permit of packing into a comparatively small space for shipping, storing and other purposes, and to allow the user to readily set up and connect the several parts to form a chair of great durability and strength.

STRAINER.—G. L. WACKEROW, Millette, S. D. Mr. Wackerow is the inventor of an improvement in automatic strainers intended es-

pecially for use on water-supply pipes of steam-boilers, pumps, etc., but it may be used wherever it is desired to strain sediment or other substances out of water.

DESIGN FOR A SIGN-BOX.—J. N. EARLY, New York, N. Y. This design relates to signs for giving the names of streets on which the signs are located. It consists of an ornamental base resting on brackets, radiating from a capital, and from this base rise paneled sides, surmounted by an ornamental head, from which rises centrally a short post, carrying a cap.

GARMENT-HANGER.—A. F. BARNUM, Binghamton, N. Y. The purpose of this invention is to provide means for hanging trousers so that the proper shape is retained. The device comprises a supporting member and independently-mounted hanger-frames which are capable of being folded back against the support or of extending outward into active position. The whole may be supported from a single hook.

TOY GUN.—J. B. POPENHAGEN, Chicago, Ill. In the invention of this article, the object is to provide a new and improved toy gun which is simple and durable in construction, not liable to get easily out of order, and arranged to propel beans and similar projectiles with great force and accuracy.

TRAMMEL.—C. M. VAN HORN, Princebay, N. Y. The purpose of this instrument is to accurately describe arcs and radii of circles, particularly large circles in architectural work. A peculiarly-constructed marker is employed, to which is connected one end of a tape, the other end being connected with a center pin and holding device. By running the marker along the tape any radius may be attained and the arc described by sweeping the marking device around the center pin.

DENTAL CHARCOAL POINT.—L. ARNDT, Jersey City, N. J. This invention relates to charcoal points for dentists' use. The purpose is to provide a pure charcoal point for introduction into the nerve or root canals of teeth to be filled or capped in order to completely close the canals and to provide a support for the filling at the entrance of the canals and, further, to so shape the points that they will be curved to conform to the curvature of the canals. The invention also provides a process for making charcoal points by first shaping them in plain wood, then carbonizing the wood into charcoal.

JOINT FOR SHEET METAL PIPES.—J. B. WALLACE, Camden, S. C. In this improvement, meeting sections of pipe may be easily overlapped and locked immovably, thus preventing the sections from pulling apart at the joints. The union of the lengths and the uncoupling can be made without special tools and by unskilled labor, and the pipe manufactured rapidly. The construction allows close packing for favorable storage and shipping.

PORTABLE PLEASURE-TENT.—C. U. KRIEG, Sr., Nashville, Tenn. For purposes of comfort, rest, recreation, or advertising, the inventor furnishes this pleasure-tent. It is especially adapted for the use of invalids and children, and is suitable as a studio for literary or artistic work or for games, as well as a protection against insects and inclement weather, and is well adapted to receive a swing, a hammock, automatic fans, etc.

PRESERVING-JAR.—MARY E. PERLEY, Perris, Cal. To avoid the tendency of the top layer of preserved fruits or vegetables to become moldy and spoiled, and to escape the necessity of inverting the jar, means are adapted in the present case for keeping the topmost layer of preserves below the level of the syrup or liquid matter in the substance. The improvement resides in a displacer forming a part of the cover of a jar or other vessel. It is fastened removably to the cover so that the parts may easily be separated for cleansing.

PIPE CONNECTION.—L. G. COLLINS, Alice, Texas. Mr. Collins is the inventor of an improved means of connecting the T which joins the pipe of a windmill-operated pump to a cistern-pipe, although it may be used where any T or elbow is to be joined to a pipe. The invention solves many difficulties encountered by present methods of connection.

OIL-BURNER.—C. W. SIEVERT, Los Angeles, Cal. This invention is allied to that class of apparatus intended for burning oils, particularly the heavy oils, such as crude petroleum, and comprises certain novel features of construction by which Mr. Sievert is enabled effectively to gasify the oil and mix it with air so as to obtain thorough combustion.

RETURN-BALL ATTACHMENT FOR POOL TABLES.—P. LAPP, Brooklyn, N. Y. In this case, runways are provided at each side of a table extending from one corner-pocket at a side to the other at the same side and beneath the center pockets. These ways incline downward toward the front end of the table where the ways are connected by a box to receive the balls. The attachment does not extend beyond the vertical plane of the side and end sections of the table bed, to interfere with players. Devices are provided to prevent stoppage of one ball on the ways by a second ball quickly following.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.