

RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

SEED-PLANTER.—SAMUEL M. LITTEL, Pleasanton, Kans. The planter comprises a seed-plate having a number of rows of seed-containing holes and a slide having a single hole therein. The slide is adjustable beneath the seed-plate so as to bring its hole in register with holes in any one of the rows in the seed-plate, whereby the number of seed dropped may be varied while the planter is in use. The machine is of special service in fields having ground of varying richness, the more fertile portions being able to support a larger number of plants.

HARROW-FRAME.—LOUIS G. HELMBOLD, Bucyrus, Ohio. The harrow-frame is rigidly constructed and is provided with a means whereby its supporting-wheels may be quickly raised or lowered by the driver. The levers adapted to raise and lower the wheels are so located that they may be conveniently manipulated, and that one wheel may be raised and the other wheel left in its traveling position when necessary. The machine, it is claimed is not only simple and durable, but will effectually pulverize the earth over which it is passed.

POTATO-DIGGING ATTACHMENT FOR PLOWS.—OLIVER C. CAMPBELL, Coldwater, Mich. This device is designed to be attached in place of the point to the moldboard of any plow. The attachment is so constructed that a series of spring tines or fingers, forming a portion of the detachable share or point, will receive the earth, potatoes and plants thrown up by the plow, sift the dirt from the potatoes, and distribute the potatoes and plants in separate rows upon the ground.

Bicycle-Appliances.

BICYCLE.—J. CARLYLE RAYMOND, Old Bridge, N. J. This improved bicycle is arranged to permit a rider to change the gearing from a high speed to a low speed, or vice-versa, by means of a novel arrangement of gear-wheels and pinions in combination with the drive-wheel. The inventor has also devised an ingenious electrical attachment by means of which it is possible for the rider to operate the bell and brake, and by means of which danger signals can be displayed in the rear to prevent collisions at night.

Engineering-Improvements.

COMPOUND ENGINE.—WILLIE H. JOHNSON, Navasota, Tex. In the use of compound expansion-engines a difficulty is experienced by reason of the back pressure of the exhaust from the action of the primary cylinder on its piston. The present invention seeks to avoid this difficulty, by cutting off the exhaust after it has passed into the secondary cylinder, and retaining it in that cylinder. Simultaneously with this cutting off, an exhaust-port is opened to release the exhaust from the piston of the primary cylinder, so that the exhaust will act expansively in the secondary cylinder and will be freed from the back of the piston in the primary cylinder.

Electrical Apparatus.

ELECTRIC MOTOR.—ALFRED HINMAN, Forest City, Mo. The object of the inventor has been to arrange the armature with relation to the field so that the tendency to draw the armature transversely to the armature-shaft will be reduced to a minimum, thus preventing binding or wearing between the shaft and its bearing-boxes. The armature comprises a frame consisting of two end sections attached to the armature shaft. These end sections are of non-magnetic metal and have outwardly-extending flanges to which the armature-magnets are attached. Each core of an armature-magnet consists of a number of iron plates arranged closely together and parallel, the middle ones being of the same width, the outer, however, being made progressively narrower from the inner to the outer edge of the core. An improved construction of gear for the armature-magnets is provided and also an improved construction of field-pole pieces.

Mechanical Devices.

HAND PRINTING-PRESS.—WALTER E. VAN VALKENBURGH, Manhattan, New York city. The press has a carriage having sliding movement. Arranged for locking engagement with the carriage is a form which receives the type. A platen located above the carriage moves to and from the form, and is tension-controlled in an upward direction. A hand-operated gear has rack-and-pinion connection with the carriage and is connected with a cam which operates a compressing device for the platen. The simplicity of making desired changes in bills of fare and the like, without a knowledge of type-setting, and the accuracy and rapidity of operation should recommend this machine to hotel-proprietors.

CASH-REGISTER.—CHARLES J. FAUVEL and NORMAN COLLINS, London, England. The improvements in this device relate first to key-operated mechanisms, wherein the mechanism for recording sums of one denomination of coin is actuated through the medium of a set of keys and of a barrel which always makes a complete revolution for each sum of money registered, there being as many drums and sets of keys as there are denominations of coins. The keys are so coupled that the simultaneous partial depression of two or more keys belonging to different sets will be completed for all those keys by the continued pressure of the finger on only one key, and the whole sum will be recorded, notwithstanding that the pressure on one or more keys is relaxed before complete depression.

DOUBLE MACHINE-TOOL.—IGNAZ ROEDERER, Prague, Austria-Hungary. This inventor has produced a double machine-tool arranged so that from a main driving-shaft the two tools are moved independently of each other and so that the tool on one side of the machine is given a rotative movement while the tool on the other side is given a reciprocating motion. The tool frames may be brought into a vertical, horizontal or slanting position, and are so arranged that different tools may be affixed to them. The machine so constructed is capable of performing all operations such as boring, turning, cutting, planing, shaping, key-grooving, and the like. The same blank, when once secured, may be variously treated.

CARPET STRETCHER AND TACKER.—CHARLES P. KNAPP, Deposit, N. Y. This invention provides a device on which a hammer is mounted whereby to drive a tack fed from a magazine or belt to a point just behind the head of the stretcher, and in a position to be engaged by the driving devices. The action of the stretching-head is especially effective, and the tacks are so fed when the desired point is reached, that they will be in a direct line with a plunger adapted to be impelled against the tack by the hammer. The blows of the hammer may be repeated as often as necessary, without moving the device or allowing more than one tack to come in line with the driving-plunger.

Railway-Contrivances.

SWITCH.—PAUL O. E. BOUDREAU, Theriot, La. This switch is so constructed that the locomotive or car of a train engages and operates the switch-throwing mechanism to switch the train automatically from the main track to a siding, and vice-versa. It has been the purpose of the inventor to construct the switch-throwing mechanism so that it may be effectually operated by the train under all circumstances, and that the possibility of accidentally derailing the train by running on or off an open switch may be avoided.

RAIL.—DANIEL MINTHORN, Watertown, N. Y. The rail comprises a triangular casing having the upper end of its inclined sides bent outwardly to form flanges, and a head formed at its under side with longitudinal grooves for engagement by the flanges. No fish-plates or like devices are necessary; the several parts can be readily assembled without any special fastening devices; and the casing securely fastened in position on the ties by means of a spike.

Miscellaneous Inventions.

WIRE-TIGHTENER.—NIELS J. RASMUSSEN, Neola, Kans. The wire-tightener consists of a body comprising a handle and a loop-head. A lever is pivoted in the body and is adapted to extend within the loop-head. A plunger is pivoted to the lever. The wire to be tightened is secured to the loop-head, and the lever operated to take up the slack in the wire.

BEER-COOLER.—HENRY REININGER, New Orleans, La. The cooling liquid is received by inner pipes which are surrounded by outer pipes adapted to conduct the beer to be cooled. Spaced heads located at the ends of the outer pipes form closed chambers communicating with the outer pipes. Bends or elbows within the chambers connect the ends of adjacent inner pipes. It is claimed for this device that it is simple in construction, effective in operation, is economical in the use of cooling liquids, is arranged to permit cleaning, and reduces the loss of the liquid under treatment to a minimum.

DETACHABLE TIE-FRAME.—WILLIAM J. SMITH, Brooklyn, New York city. This tie-frame, designed to facilitate the forming of the bow of a tie, consists of a plate having a large opening in its middle for the reception of a portion of the tie and the collar-button. The plate has prongs projecting upwardly, which prevent the movement of the frame. The device is simple and can be very cheaply manufactured and readily arranged in place while applying the necktie on the collar to prevent the shifting and disarrangement of the bow.

APPARATUS FOR MOLDING OR PRESSING BUNCHES OF CIGARS.—ASHER WOOLFE, 21 Victoria Park Road, London, E. England. The apparatus consists of a two-part mold having a swinging spring-bar centrally pivoted to one part of the mold and having its ends projected beyond the mold. Presser-slides are mounted at the ends of the other part of the mold and have end portions capable of engaging respectively with the ends of the swinging bar. Each presser-slide has a portion projected outwardly from the mold. In the mold-section a rock-shaft is mounted carrying the presser-slides. Cams on the rock-shaft coact with the outwardly-projecting portions of the presser-slides.

TYPE-WRITER.—ROBERT C. LITTLE, Pittsburg, Pa. The present invention provides an improvement in type-writers having the type-levers disposed in the arc or segment of a cylinder, the impression-point being at the axis of the cylinder. With this construction as it now exists, the type-keys are spread over a large surface, radiating as they do from the axis of the cylinder. The present invention provides an arrangement for such machines by which the keys may be located close together, occupying the same relative positions as in the Remington machine.

GRATE.—WILBERT BLACK, New Orleans, La. The purpose of this invention is to provide a fireplace grate in which the draft may be more effectually controlled than in grates as hitherto constructed, which purpose the inventor accomplishes by arranging above the grate a peculiarly-constructed damper acting with the blower-shield to regulate effectually the draft in the flue and thus control the combustion of the coal in the grate.

WHEEL-RIM.—EDGAR M. BIRDSALL, Buffalo, N. Y. The wheel-rim is formed of two strips, one of which has two longitudinally-extending undercut grooves between which is a longitudinal tongue, the other strip being provided with two longitudinal tongues located one on each side of a longitudinal groove, the tongues and grooves of the second strip being respectively adapted to engage with the grooves and tongues of the first strip in such a manner as to form a dovetail connection.

ACETYLENE-LAMP.—MARIUS DREYFUS, 109 East 75th Street, New York city. The carbide is contained in a cylindrical holder surrounded by a jacket. Within the holder projects a perforated tube containing a wick, the entrance of the water to the bottom of the tube being controlled by a plug valve. The water is absorbed by the wick by capillary attraction and gradually distributed to the carbide. Devices are provided to stop the generation of gas when it is so desired. The lamp possesses the merit of having no small tubes or valves to become obstructed or clogged.

GATE FOR DRAWBRIDGES.—JOHN P. COWING, Cleveland, Ohio. The gate is carried by a shaft mounted to slide and to turn. Mechanism operates in conjunction with the opening and closing of the bridge to impart an upward sliding motion to the shaft after the closing movement of the bridge is completed, to cause the shaft to turn in its bearing and move the gate into an open

position. The shaft, when released by the mechanism slides and turns back to its former position by its own gravity, to move the gate across the roadway and close it before the opening movement of the bridge.

CIGAR-HOLDER.—HUOH H. COOTE, Bisbee, Arizona Territory. This holder is so constructed that the cigar need not have its tip removed, the cigar being held in connection with the holder through the medium of a needle-point and clamping-arms projecting on opposite sides of the needle-point. It is claimed that this is the only holder through which a cigar can be smoked without cutting off the tip. The holder has a strainer for filtering the smoke, and a cell for receiving the nicotine.

PAPER-HOLDER.—THOMAS J. PATON, Limestone, N. Y. To provide a paper-holder especially designed for securing a train-order back upon a support, or for fastening sheets of paper to any desired object, is the purpose of this invention. The device consists of a clamp adapted to be attached to a suitable support. The clamp comprises a body-bar terminating in arms and provided with an arch between its ends. Connected with a locking-bail pivoted in a bearing and with the arch of the clamp is a spring-yoke. The clamp is firmly held in locking position by the bail and the spring-yoke.

TALLYING APPARATUS.—CHARLES L. STURGES, Escondido, Cal. The present invention provides a device in which the voter himself sees his votes counted, without, however, knowing the count of votes that others have effected. The apparatus used consists of a box carrying 288 tallying sections; the voter's ballot, not his hands, is the means of operating the mechanism. The duplicate sections are arranged so that a ballot stretched from end to end of the box, will bring the name of a candidate in juxtaposition with a pin adjusted in the turret. If the ballot be perforated above the pin, the pin passes up through the ballot and permits the tally of a vote, as the box with its 288 sections rotates on its axle; but all the pins over which the ballot stretches will be held down to suppress a tally in instances where there is no perforation.

CUPBOARD-CATCH.—FRANK B. MALLORY, Flemington, N. J. The catch comprises two parts, a bolt and a strike-plate, including a keeper, each of which parts consists of a single piece. Both parts of the catch are so constructed that while they may be brought together into firm and comparatively noiseless engagement, the wear upon the plate and keeper will be comparatively slight.

ASTRONOMICAL SCALE.—STEPHEN R. KIRBY, Manhattan, New York city. In transforming units of time into units of longitude, it is necessary ordinarily to perform much figuring, which with this device is rendered unnecessary. Moreover, in transforming astronomical time into civil time, it is often confusing to determine exactly the hour and day. The device used to obviate these difficulties comprises two opposing scales indicating respectively the two units in proper proportion, a vernier-slide having a vernier for each scale, a scale having oppositely marked thereon the corresponding hours of the astronomical and the civil day, and a scale graphically representing the yearly equation of time.

BLACKING-BRUSH.—JOHN J. HOWE, Wilmington, Del. The blacking-brush comprises a dauber superposed upon a polishing-brush. The handle of the dauber is made hollow to form a receptacle for storing liquid blacking. By opening a valve the blacking is allowed to flow over the boot; by closing the valve the blacking is cut off. It is evident that the blacking, by means of this brush, can be conveniently applied without danger of soiling the hands.

TIMBER-FASTENING.—JOHN C. HOBAN, Cincinnati, Ohio. The object of this invention is to provide a fastening especially adapted to join sections of timber and to permit their disconnection without tearing out or fracturing any of the parts. The fastening has a plug adapted to be secured to one section of the timber and formed with a transverse passage and with a longitudinal passage in its outer end leading to the transverse passage. A wedge can be passed through the transverse passage to engage the other section of the timber.

VEHICLE-FRAME.—THOMAS HILL, Jersey City, N. J. This frame for dumping wagons has continuous hollow side-bars provided at their inner sides with openings for the reception of the ends of the cross-bars. To the side-bars, draw-bars are pivoted at their forward ends, the rear ends being connected with the rear axle. The draw-bars are arranged so as to make them adaptable to the carrying of leaf springs midway of their ends. The springs may be engaged at their arch portion with the draw-bars and secured by means of clips, while their upper ends are in contact with the side-bars, so as to yield readily to the pressure of the load.

ATTACHMENT FOR STRINGED INSTRUMENTS.—FRANK GRAUS, Jersey City, N. J. This invention provides an attachment for stringed musical instruments, such as guitars, banjos, and mandolins, which attachment permits the performer, by pressing a single key, to hold a number of strings to the proper frets on the finger-board and to pick the strings in order to sound a chord. The range of the attachment comprises fifteen different chords, and therefore nearly all the chords used in the performance of ordinary music. Some of the chords, owing to the complicated fingering of the finger-board, would be difficult to play if the attachment were not used.

DEVICE FOR ATTACHING METAL SEALS TO WOOD, ETC.—ALBERT H. FRANKEL, Manhattan, New York city. It is customary to secure a metal seal containing a trade-mark over the bung of a barrel. The present invention provides a simple and comparatively inexpensive device by means of which sharp teeth or prongs formed on a seal may be driven into the wood of a barrel without bending. The device consists of a driving portion carrying at its lower end a metal ring having an extension and flange, which ring strongly reinforces the lower end of the driving portion; to prevent the splitting of the end a metal collar is used, held in place by coil springs and guide pins.

STOCK-QUOTATION INDICATOR.—RUDOLF EINGLER, Manhattan, New York city. In offices where stock is sold, the quotations are usually written with chalk upon a blackboard. The inventor of this device dispenses with the use of chalk by employing a plate having an opening to expose numerals on a series of

drums loosely mounted on a shaft on the back of the plate. Any of the drums may be rotated to disclose a new numeral or fraction; and since each drum is independent of the others, any one of the figures may be changed without changing the others.

POCKET.—CHARLES DOUGLIS, Manhattan, New York city. This invention provides a made-up or complete garment-pocket so constructed that it may be introduced into a garment through a single slit made in the outside fabric and that the fabric may be completely concealed and protected by a combined shield and flap. A binding for the edges of the pocket is provided, and also a bellows construction which permits the side walls of the pocket to lie closely together when empty.

TILE.—CHARLES C. ALEXANDER, Bayonne, N. J. Glazed tiles are liable to craze either before or after they are set in the embedding material. To overcome this defect the inventor has glazed or enameled the entire surface of the tile to render the body portion impervious to water and has embedded in the back of the tile broken unglazed pieces. Tiles thus made, not being porous, require no soaking in water, and the cement bedding will set naturally against the back without having its strength impaired.

HEATER.—CHARLES T. WISE, Sr., New Bridge, Ore. The heater devised by this inventor is designed to be used as a hot air or water heater. The heater has a casing in which a jacket is located separated from the walls of the casing. A water-circulating tube is extended into the casing through the jacket and is formed into a vertical coil within the jacket. The tube is extended from the vertical coil to the front portion of the casing and is there formed into a horizontal coil. From this horizontal coil the tube passes without the casing and is bent into vertically-disposed loops extending around the casing to form connected radiators.

PIPE-WRENCH.—ROBERT WILLIS, Manhattan, New York city. To provide a wrench designed for turning plated or highly-polished pipes without marring the finish is the purpose of this invention. The wrench consists of a head having side-bars, the front ends of which are connected by a grip-bar. A strip of yielding material is provided to engage around the pipe and around the grip-bar. A wedge secures the yielding material to the rear portion of the head.

SUSPENDER-BUCKLE LOOP.—HERMAN WEISS, Manhattan, New York city. The suspender-buckle loop comprises a loop adapted to be engaged by the suspender-web, and a double U-shaped strap-holding loop formed of a single bent wire and with arms of different lengths connected at their upper ends by bends which embrace and pivot upon one portion of the first-named loop. Rollers are carried by the arms which support the straps.

AWNING-FRAME.—ROBERT H. WEAVER, Jersey City, N. J. In this awning-frame the guide-rods usually attached permanently to the window casing are dispensed with, and by means of a peculiar construction the frame is attached directly to the window-casing, enabling one to distend or fold the awning at will. The construction comprises a fixture having a horizontal lug with a laterally-extended portion, a rod mounted to swing on the fixture at a point inward from the laterally-extended portion, a tubular awning-bar mounted to slide on the rod, and a member carried on the bow and adapted to engage with the laterally-extended portion of the lug of the fixture when the bow is in horizontal position.

HARNESS.—J. CARLYLE RAYMOND, Old Bridge, N. J. This improved harness is designed to be used on farm-teams and is arranged to obviate all chafing and rubbing and to prevent the flexible pole or drag-chain from striking and injuring the horses. The harness includes a hame, comprising top and bottom cross-bars arranged for pivotal connection at their middle portions with a supporting frame. Each cross-bar is formed at its ends with eyes in which hame-rods are adjustably secured. A strap-rod on each of the hame-rods extends transversely beyond both sides of the hame-rods.

MEANS FOR CHECKING AND REGISTERING ACCOUNTS.—WALTER N. SIMPSON, Chicago, Ill. This invention provides a checking system for hotels and restaurants whereby the separate and collective accounts of employes may be readily determined and any dishonesty detected. The system comprises a cashier's sheet, an improved and distinctive checker's sheet, and waiters' slip, all numbered consecutively with corresponding numbers, the bar and cigar department requisition slips being used in conjunction with the waiters' slips and as an adjunct thereto. The result is a complete combination whereby registering, checking, and auditing accounts is considerably simplified.

Designs.

SKATE.—ANTON FOLLSTAD, Elcho, Wis. The special purpose of the invention is to furnish a snow-skate or street and coasting-skate. The skate-body is inwardly curved at its middle in opposite sides; the runner or blade presents a broad surface in cross-section, extends in advance of the body, and has the upper edge of its forwardly-extended portion curved inwardly, its edge-plate conforming with the edge curvature of the blade and overlapping the upper front edge of the body.

SLEEVE-BLANK.—ROBERT PHILLIPS, New Albany, Ind. The blank is formed with oppositely-sloped edges, a point, and a notch.

FABRIC.—ISRAEL FISHER, Manhattan, New York city. The leading feature of the design consists of a number of mounted officers and foot-soldiers in marching order, with standard bearers in the van carrying American and Cuban flags. The standard bearers are followed by a commanding officer representing General Maximo Gomez.

BUSTLE.—MARY E. WETHERELL, Boston, Mass. The leading features of the design consist in side strips which converge at the top of the bustle and diverge at the bottom and are longitudinally curved from the center. An arched skeleton frame connects the bottom and side strips.

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.