

path of an incoming coin, and automatic merchandise-delivering mechanism connected therewith, substantially as described. 4th. In an automatic merchandise-seller, the combination of the rotary disk or wheel having coin bearings, a yielding arm having a slot, and the incline A, the spring O, and reel F, operated by the rotation of the wheel L, substantially as described. 5th. In an automatic merchandise-seller, the combination of a casing having a delivery aperture, the offset G, and a slot formed partially in the vertical and partially in the horizontal walls of the casing, the rotary disk having segmental circular coin-bearings opposite the vertical portion of the slot, the yielding arm M, head N, forming a stop for the wheel L, stop P, incline A, spring O, and reel F, substantially as described. 6th. In an automatic merchandise-seller, the combination of the following elements: the casing A, having aperture E therein, door A', inclined partition D, guards H, reel F, and coin-operated mechanism for turning the reel, substantially as described. 7th. In an automatic merchandise-seller, the combination, with a rotary disk, of a yielding locking-arm normally held in contact with the disk and arranged to be disengaged by the direct contact of a coin therewith, substantially as described.

**No. 37,789. Method of Utilizing the Waste of Distilleries, Breweries, Starch and Glucose Works, etc.**  
(*Méthode d'utiliser les rebuts des distilleries, brasseries, des ouvrages d'amidon et glucose.*)

Alexander Parks, Martinsburg, West Virginia, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The method herein described of reclaiming and preparing for use the waste of distilleries, etc., consisting in running off the surface liquid from the hot waste while the solid matter therein is settling, and then discharging this semi-liquid precipitated matter upon a bed of porous material, where it is permitted to drain, this porous bed serving to extract most of the remaining liquid from the mass, substantially as and for the purpose described. 2nd. The method herein described of reclaiming and preparing for use the waste of distilleries, etc., consisting in first separating the liquid and solid matter therein, then discharging the semi-liquid solid matter upon a layer of broken coal, coke, or other fuel, where it is permitted to drain, and finally mixing the drained waste with the porous body of fuel, whereby the waste is converted into fuel, substantially as described.

**No. 37,790. Air Moistening Apparatus.**

(*Appareil pour humecter l'air.*)

William Virgil Wallace, Westfield, Massachusetts, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. In an air moistening apparatus, the combination with a valve case provided with inlet and outlet ports, of a turning plug fitted therein and provided with a groove partially surrounding its circumference in the plane of the ports and of length sufficient to establish communication between the ports, and a deflector plate secured in front of the outlet port in the path of the outflowing stream, substantially as and for the purpose set forth. 2nd. In an air moistening apparatus, the combination with a valve case provided with inlet and outlet ports, of a turning plug fitted therein and provided with a groove partially surrounding its circumference in the plane of the ports and tapering from the inlet toward the outlet port and of length sufficient to establish communication between the ports, and a deflector plate secured in front of the outlet port in the path of the outflowing stream, substantially as and for the purpose set forth. 3rd. In an air moistening apparatus, the combination of a valve casing communicating with a water supply pipe, the combination of a valve casing communicating with a water supply pipe, and provided with a side opening G, a rotary valve in said casing, having a peripheral groove arranged to coincide with said opening and discharge a stream of water therethrough, and a wiper V, in yielding contact with the periphery of the valve, as set forth. 4th. In an air moistening apparatus, the combination with a valve case having an outlet port and an inlet port, of a revolvable valve fitting said case and provided with a groove in its periphery adapted to be brought into communication with said ports or moved across the outlet port by revolution of the valve, and a deflector arranged to be in line with a jet of water flowing from said groove, as and for the purposes described. 5th. In an air moistening apparatus, the combination with a valve case having an outlet port and an inlet port, of a revolvable valve provided with a groove in its periphery adapted to be brought into communication with said ports, said valve having an internal chamber and a port communicating therewith located adjacent to the outlet end of said groove, as and for the purpose described. 6th. In an air moistening apparatus, the combination with a valve case which has a groove on its inside circle adapted to communicate with the inlet and outlet ports, of a close fitting valve that can be revolved within said case and thus free any lodgement of dirt and admit it to be blown out by water forced through the groove, and a deflector, substantially as described.

**No. 37,791. Screw Propeller.**

(*Helice de propulsion.*)

Charles Myers and Matthew Wells, both of Manchester, Lancaster, England, 14th November, 1891; 5 years.

*Claim.*—1st. A screw propeller having blades each in the form of a severed loop provided at the tip with a flat vertical surface which extends beyond the opening in the blade and at the center with two arms one placed in advance of the other upon the boss and helically disposed relatively to the axis of the central opening and angularly arranged relatively to the longitudinal axis of the boss to which the two arms are separately attached. 2nd. A screw propeller having

blades provided at the centre with two arms set angularly on the boss one in advance of the other which decrease in pitch towards the periphery provided with a flat vertical segmental connecting piece which connects the two arms together and forms a looped blade, substantially as described. 3rd. A flat looped screw propeller blade provided with a vertical propelling surface c, at the tip and two radial arms a, and b, extending therefrom to the center and increasing in pitch one attached to the boss in advance of the other, substantially as described. 4th. In a looped screw propeller blade, the combination with the boss B, of the two radial arms a, and b, of varying pitch set angularly thereon one in advance of the other provided at their outer end with a flat vertical segmental connecting piece c, which forms a flat screw blade with a central opening C, substantially as described.

**No. 37,792. Square. (Equerre.)**

James Harvey French and Henry John Smith, Defiance, Ohio, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The square 1, 2, having slots 3, each enlarged at one of its ends, in combination with a slotted bar 5, angular in cross section, screws 7 and nuts 8, substantially as described and for the purpose specified. 2nd. The combination, with the slotted square 1, 2, of the slotted bar 5, the set screws 7, having points formed on the ends of their shanks, and the nuts 8 engaging the threads of the screws, said bar 5, having a depending flange serving the double purpose of stiffening said bar and preventing the points of the screws from scratching when the same are used as set screws, substantially as described.

**No. 37,793. Combined Sash Holder and Tightener. (Arrête-croisée.)**

The Richmond Sash Holder Company, (assignees of Algernon L. Wilkinson), all of Richmond, Virginia, U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The combination with a jamb and the fixed guide strip thereon, of a sliding sash having a longitudinal recess formed in one of its angles or corners, the face or plane of said recess being oblique to the angle formed by the edges or faces of the sash, a friction plate located in the recess of the sash and connected thereto, and a single leaf spring arranged longitudinally between the sash and friction plate, within the recess of the sash, to force both the right angled exposed faces of the friction plate beyond the corresponding faces of the sash and directly in contact with the jamb and the guide strip, substantially as and for the purpose described. 2nd. The combination of a sash having in the corner of one of its stiles a recess whose plane or face is oblique to the angle formed by the exposed faces of the stile, a friction plate loosely connected to the sash and capable of a limited play thereon, both edgewise and laterally of said sash, and a single leaf spring interposed longitudinally between the sash and the friction plate, substantially as described, for the purpose set forth. 3rd. The combination of a sash having longitudinal recesses at suitable intervals in an angle or corner of the stile thereof, a slotted laterally movable friction strip loosely connected by suitable devices to the sash, within each recess thereof, and held from endwise movement in said recess, and a spring interposed between the sash and each friction strip to normally force said friction plate away from the sash, so that its right angled exposed faces extend beyond corresponding sides of the sash, substantially as and for the purpose described. 4th. The combination of a sash having a recess in one of its angles or corners, a friction plate fitted in said recess and having transverse slots which are formed in parts thereof that lie in rear of or out of line with the exposed right angled faces of the plate, a spring interposed between the sash and friction plate, and fixed screws which pass through the transverse slots of the friction plate whereby the heads of the screws lie in rear of the exposed faces of the friction plate and are prevented from coming in contact with the jamb, substantially as and for the purpose described. 5th. The combination of a sash having at one of its angles or corners a longitudinal recess whose plane is oblique to the angle formed by the exposed faces of the sash, a friction plate fitted in said recess and capable of play both edgewise of itself and laterally of the sash, a single leaf spring interposed between the plate and sash, and adjustable devices fixed to the sash and connected to the friction plate whereby the friction plate can be positively forced toward or from the sash to vary the tension of the spring, and at the same time is capable of the necessary play, substantially as described. 6th. The combination, with a recessed sash, of a laterally movable friction plate carried by the sash at one angle or corner of the stile thereof and having the ribs on its rear face, and a spring interposed between said friction plate and sash and having its face ends fitted between the ribs on the plate, substantially as and for the purpose described.

**No. 37,794. Ball Cock. (Flotteur pour robinets.)**

Thomas McAvity & Sons, (assignees of William McShane), all of Saint John, New Brunswick, Canada, 14th November, 1891; 5 years.

*Claim.*—A ball cock having a tubular body A, straight throughout and provided with lugs K, K, and terminating in a valve chamber E, provided with a discharge orifice J, at the side, a plug valve H, filling said chamber and closing an inlet throat F, and having contact with a ball lever provided with wings N, P, said lever pintled between the lugs K, K, one of said wings engaging the plug valve and the other limiting the drop of the lever by contact against the outside of the cock, said lever being reversible, as set forth.

**No. 37,795. Cash Register.**

(*Registre de monnaie.*)

Almy Le Grand Peirce, Grand Rapids, Michigan, and Charles Edward King, Cincinnati, Ohio, both in U.S.A., 14th November, 1891; 5 years.

*Claim.*—1st. The combination of the push-rod F and lever G, hav-