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INVENTIONS PATENTED.

NOTE—Patents are granted for 15 years. The term of years for which the fees have been paid, is given after the date of the patent.

No. 18,973. Plough Gauge and Guide.

(*Jauge et Guide de Charrue.*)

William H. Ammons, Little Rock, and William J. Montgomery, Marion, S.C., U. S., 1st April, 1884; 5 years.

Claim.—1st. As an improvement in plow gauges and guides, a gauge and guide provided with a slotted convex bearing side, and a slotted wedge-block having a concave side adapted to serve as a seat for the convex side of the gauge and guide, as set forth. 2nd. The combination of the gauge E, having a convex side provided with a longitudinal slot E^r with the wedge-block D, provided with a longitudinal slot D^r, and having one of its sides made concave to form a seat for the gauge and guide, the whole adapted to be secured to the plow standard by the same bolt which secures the plowshare, as set forth.

No. 18,974. Roller Grinding Mill.

(*Moulin à Blé à Cylindre.*)

Thomas Pringle, Montreal, Que., (Assignee of Richard Birkholz, Milwaukee, Wis., U.S.), 1st April, 1884; 5 years.

Claim.—1st. The combination of the standard, the roll mounted in fixed bearings in the standard, the hopper-frame pivoted to the standard and the movable roll journaled in, and supported by the hopper-frame, as described and shown, whereby a proper relation is maintained between the hopper and rolls and the weight of the hopper applied to aid in forcing the rolls together. 2nd. The combination of the standard, the roll mounted in fixed bearings thereon, the swinging hopper-frame, the movable rolls sustained by the hopper-frame and a spring applied, substantially as described, to urge the hopper downward. 3rd. The combination of the standard, the fixed roll, the swinging hopper-frame, a second roll sustained by the hopper-frame and a stop device, substantially as shown, to limit the swinging motion of the hopper-frame. 4th. The combination of the standard, the roll mounted in fixed bearings therein, the hopper supporting frame having a pivoted connection with the standard, the second roll sustained by the hopper-frame, the spring tending to swing the hopper-frame downwards, and an adjustable device, substantially as shown, to limit the movement of the hopper under the action of the spring. 5th. The combination, with the standard, the stationary roll mounted therein, and the movable roll, and a pivoted hopper-frame or casing adapted to inclose the two rolls. 6th. The combination of the forked standard, the roller-casing mounted within the casing and supported one by the standard and the other by the casing, substantially as described and shown. 7th. In combination with the grinding-roll mounted in fixed bearings, the second roll mounted in a support which swings from the centre above the axis of the stationary roll, and pinions connecting the two rolls, as shown, whereby motion is imparted from the first roll to the movable roll downward. 8th. The combination of the standard, the fixed roll, the movable roll, the swinging roll-supporting frame encircling the shaft of the stationary roll, and the frame-supporting bolt E proportioned in relation to the other parts to break or give way, when the mill is subjected to excessive strain.

No. 18,975. Roller Grinding Mill.

(*Moulin à Blé à Cylindre.*)

Thomas Pringle, Montreal, Que., (Assignee of Hans Birkholz, Racine, Wis., U. S.), 1st April, 1884; 5 years.

Claim.—1st. The combination, substantially as before set forth, of the fixed roller-supporting standard, the movable roller-carrying casing pivoted thereto, the adjustable gauge-rod, the nut thereof held by the standard, and the spring connected with said rod and adjustable in tension independently thereof. 2nd. The combination, substantially as before set forth, of the fixed roller-supporting standard, the movable roller-carrying casing pivoted thereto, the adjustable gauge-rod, the swivelling nut thereof held by the standard, the spring, the sliding cap, the hand-lever for rotating the gauge-rod detachably locked to the sliding cap, and the nut for adjusting the tension of the spring.

No. 18,976. Grinding Roll and Method of Manufacturing the Same.

(*Cylindre de Moulin à Blé et Methode pour le Fabriquer.*)

Thomas Pringle, Montreal, Que., (Assignee of Richard Birkholz, Milwaukee, Wis., U.S.), 1st April, 1884; 5 years.

Claim.—1st. As an improvement in the art of manufacturing grinding-rolls, the method consisting in first casting the roll in a chill with teeth or ribs thereon, and subsequently grinding away the points or edges of the teeth to complete the roll. 2nd. As a new article of manufacture, a cast-metal grinding-roll having thereon chilled ribs or teeth portions of the edges of which are of softer metal than the remainder, as described and shown. 3rd. As a new article of manufacture, the cast-metal roll having thereon, and integral therewith, the chilled teeth or ribs with ground points or extremities.

No. 18,977. Coal Car.

(*Wagon à Charbon.*)

John D. Madeira, Chillicothe, Ohio, U. S., 1st April, 1884; 5 years.

Claim.—1st. A car-body having one or more discharge-openings, each of which has hinged respectively to its upper and under edges, two overlapping shutters of which the inner shutter is held by the outer one when closed, and of which the outer shutter becomes when open the floor of a discharge-chute, substantially as set forth. 2nd. In a railway car for transporting coal and like materials, and having one or more discharge-openings, two overlapping shutters at each opening of which the inner shutter is hinged by its upper edge to the top of the opening, so as to be capable of closing it, and of which the outer shutter is hinged to the bottom of the openings and is combined with external side wings, to form an extension platform or discharge-chute, substantially as set forth.

No. 18,978. Shot Case.

(*Boîte à Munition.*)

Quincy A. Ellis, Gatesville, Texas, U. S., 1st April, 1884; 5 years.

Claim.—1st. A case tapering toward its spout, a charger fitting said spout to slide therein, and a rod passing through said case to support it, the case being hung upon the rod to balance the spout upward, substantially as described. 2nd. The combination, with a case tapering toward its spout and means for hanging the same to balance the spout upward, of a drawer fitting said spout to slide therein, said drawer having a bottom, two sides and two ends and an opening in its top, said case having an offset in the upper side of its spout extending over the rear end of the drawer when inserted, as described, whereby communication is made between the interior of the case and the interior of the drawer.

No. 18,979. Street Car Fare Box.

(*Tronc de Char de Tramway.*)

John R. Hare, Baltimore, Md., U. S., 1st April, 1884; 5 years.

Claim.—A car-fare box which consists of the following essential elements in combination, viz: an inclosed casing having glass plates at the front and rear sides thereof, and an aperture in the rear side for the deposition of fares, a vertical inwardly-opening and gravi-