

No. 7846. Improvements on Earth Augers.*(Perfectionnements aux tarières de sonde.)*

Charles D. Pierce, Philadelphia, Pa., U.S., 3rd September, 1877, for 5 years.

Claim.—1st. An earth auger having pods A A' expanded at the lower ends, where the cutting blades are located, 2nd. An earth auger having pods and cutters, and provided with side plates E E bent outwards at their lower ends; 3rd. The pods A A' having arms D D' pivoted together, 4th. The combination of the pods A A', the pivoted arms D D' carrying the same, the sleeve a and the key b, 5th. The arms D D' having lower ends d bent to conform to the lower bent ends of the pods, 6th. An earth auger having cutters arranged in respect to each other and to the axis of the auger; 7th. The cup shaped plate f, secured to the pods so as to stiffen and strengthen the same at the lower ends, 8th. An earth auger composed of two independent sections, arranged parallel to each other and carried by adjustable arms D D', 9th. The pods A A' provided with side plates E made in two parts lapping in the centre; 10th. The pods A A', their slotted arms D D', the recessed block F and retaining bolt i; 11th. The combination of the block F and its pinion m with the arms D D' having racks n; 12th. The segmental rings G adapted to the body of the auger and carrying cutters B; 13th. The cutting plates B having hollowed upper faces, forming curved or mole-shaped passages for the earth, 14th. An earth auger provided with a rod g and the pivoted spring valves w opening upwards, 15th. The combination of the valves w with the operating rods y; 16th. An earth auger having a body provided with a valve composed of two or more hinged sections, 17th. The combination of the hinged sections w to w' of the valve with the stop z.

No. 7847. Invalid Chair and Lounge.*(Chaise-caususe d'invalid.)*

Antonete M. S. Goldschmidt, Preston, Ont., 3rd September, 1877, for 5 years.

Claim.—1st. The removable sliding commode seat L, cushioned seat N and an adjustable back E; 2nd. The removable retaining bar H and table J, sliding on the arms B and held by a spring fastening; 3rd. An adjustable back E and a lounge attachment O, adapted to replace the removable seats L and N.

No. 7848. Fire Escape Ladder.*(Echelle de sauvetage d'incendie.)*

Peter Lord, St. John's, Que., 3rd September, 1877, for 5 years.

Claim.—1st. A frame A mounted on wheels B carrying a reel C, and ladder H constructed in sections hinged together, winding on said reel, and elevated by a windlass, or cog-wheel, 2nd. In combination with the ladder H winding on a reel C, the down haul rope N and windlass O preventing the bucking of the ladder; 3rd. The escape basket P in combination with the ladder H winding on the reel C and operated by the rope R, pulley S and windlass T.

No. 7849. Shoe Sole Buffing Machine.*(Machine à polir les semelles des chaussures.)*

Josiah W. Rogers, Salem, Mass., U.S., 3rd September, 1877, for 5 years.

Claim.—The combination of the driving pulley I, leading pulleys d e, single band H, pivoted arm E, furcated shaft C, pulley a and buffer spindle B; the combination of the rotary brush N, its pulley M and driving band L with the double grooved pulley c, driving pulley I, leading pulley d, band H, pivoted arm E, furcated shaft C, pulley a and buffer spindle B; the combination of the stationary arm G, the spring F, carrying arm E, furcated arbor C and the buffer spindle B provided with mechanism for revolving it; the combination of the spring S, the furcated arbor C, carrying arm E, buffer spindle B and mechanism for revolving it.

No. 7850. Grind Stone for Mower Knives.*(Meule à aiguiser les couteaux des moissonneuses.)*

Henry F. Bush and Martin L. Bush, Douglassville, Pa., U.S., 3rd September, 1877, for 5 years.

Claim.—The combination of a driving main grind-stone with a second revolving grind-stone, turning in bearings of a swinging frame, centered to shaft of main grind-stone, and with a reciprocating knife, supporting bar or plate.

No. 7851. Revolving Roasting Furnace for Ores. *(Fourneau rotatoire pour griller les minerais.)*

Robert G. Leckie, Actonvale, Que., 3rd September, 1877, for 5 years.

Claim.—1st. The roasting or oxidizing of oxidizable substances in a revolving cylinder, in such manner that the reducing gases from the fire-place do not come into contact with the materials to be oxidized, 2nd. The heating of the air for the aforesaid purpose by the waste heat or escaping gases from furnace, by means of the pipes F or in a separate fire-place by fuel, 3rd. The arranging of the shelves or ridges with a screw pitch, by which the ore is gradually carried forward from the feeding to the discharging end while the cylinder itself sits level, 4th. The discharging ports M with covers and guide pieces N, with screw for raising or lowering same, 5th. The combination of the cylinder or furnace A with the chamber and pipes D D, and channel or main-pipe E E or their equivalent.

No. 7852. Improvements on Tramways.*(Perfectionnements aux chemins à orniers.)*

George F. Deacon, Liverpool, Eng., 3rd September, 1877, for 5 years.

Claim.—1st. The novel combination of the washer a, the concrete or sleeper b, the bolt c, the sleeper d, the rail e, the nut h, all arranged part to part and operating in the manner described; 2nd. The mode of fastening tramway rails such as c, to the substructure, or foundation such as b, by a bolt such as c, which is free to move except in relation to the rail, and by which the rail is fastened to the underside of the substructure, 3rd. The novel section of rail e furnished with a central web and a double tread, 4th. The improved point with narrowed and raised groove.

No. 7853. Improvements in Hoisting Machines. *(Perfectionnements aux monte-charges.)*

Thomas Mann, Portland, Oregon, U.S., 3rd September, 1877, for 5 years.

Claim.—1st. In combination with two pairs of parallel guiding posts I E and F G, each of which serves to guide a sliding frame or carriage V and both of which carriages are suspended by the same rope, the upper cross timber H made in two parts so that the frame can be adjusted to any desired angle to each other, 2nd. The combination and arrangement of the supporting and guiding frame rope I, and carrying frames V V, and one or more pulleys U; 3rd. The double cross-timbers H H with side notches arranged to receive the pulleys J J, 4th. The bars K, provided with V-shaped notches as seats to receive the bottom of the hods, and with a detachable safety box K' to receive droppings from the hods.

No. 7854. Combined Clothes Wringer and Wash Bench. *(Essoreuse-banc de buander.)*

Peter E. Rudel, Grand Rapids, Mich., U.S., 3rd September, 1877, for 5 years.

Claim.—1st. The combination with a central self-supporting standard A of the frames B C hinged to opposite sides thereof, and thus adapted to fold against the standard; 2nd. The combination of the frame A, pressure bar F, and lever G with the rollers D and sliding water-table J, 3rd. The combination of the frame A, roller D and sliding water-table J.

No. 7855. Improvements on Vehicle Springs.*(Perfectionnements aux ressorts de voitures.)*

William Foote, Fillmore, N.Y., U.S., 3rd September, 1877, for 5 years.

Claim.—The supporting block M M in combination with equalizing bars L L, lower springs I I and upper springs J J, pivotally attached to the rear axle and head block, the springs I I being arranged under the sides of the body and inside the springs J.

No. 7856. Improvements on Door Thresholds. *(Perfectionnements aux seuils de portes.)*

Robert B. Hamar, Eden, Me., U.S., 3rd September, 1877, for 5 years.

Claim.—A door-threshold having its open chamber provided with a series of ribs, and a trough arranged in combination with a flanged cover arranged with and applied thereto, and provided with studs to enter elongated cavities in the ribs.

No. 7857. Improvements on a Tea-kettle.*(Perfectionnements à une théière.)*

Jacob Keller, Chatham, Ont., 4th September, 1877, for 5 years.

Claim.—A tea-kettle made of sheet metal, the spout of which is formed from, and is a part or continuation of the sheet, or sheets which constitute the outer rim or body of the tea-kettle.

No. 7858. Improvements in Clothes Dryers.*(Perfectionnements aux séchoirs à linge.)*

Hiram W. Coulter, Bingham Road, Ont., 4th September, 1877, for 5 years.

Claim.—1st. The standard A provided with a rod C having a cap D, in combination with the moveable clothes frame formed by the ropes E, arms F and centre piece G; 2nd. The rope or chain H attached to the centre piece G and passing over the pulley I in the cap D, in combination with the drum J provided with a handle K and ratchet wheel L, engaging with pawl M.

No. 7859. Improvements on Churns.*(Perfectionnements aux barattes.)*

William Pettis, Port Greville, N. S., 4th September, 1877, for 5 years.

Claim.—The elliptic upright milk chamber, in the iron frame for holding the driving gear, in combination with metal heads and the clamps and screw.

No. 7860. Improvements in Door Fastenings.*(Perfectionnements aux fermetures de portes.)*

Jacob Wright, Toronto, Ont., 4th September, 1877, for 5 years.

Claim.—The bolt A inserted into the stile B or other convenient part of the door, and provided with a projecting handle C having an ornamental head or knob D, in combination with the plate F having a slot E with a recess F or its equivalent.

No. 7861. Improvements on Pulp Engines.*(Perfectionnements aux piles à cylindre.)*

Simeon L. Gould, Gardiner, Me., U.S., 4th September, 1877, for 5 years.

Claim.—1st. The annular stationary grinding bed B and rotary disc, in combination with the case or curb A, when the contiguous faces of the two are flat and the whole so arranged that the "stuff" in circulation takes a course through the centre of the bed B, passes between the latter and the disc D, and is discharged at the circumference of the two, the said bed being secured to the walls of the case as stated, and the disc supported upon a shaft which passes through the bed, 2nd. The water box F containing a quantity of water which surrounds the end of the shaft and stop, and maintains a low temperature of the same, as well as constituting a lubricant thereto, 3rd. The general construction of a paper pulp engine, consisting of the case A, annular flat faced grinding bed B, rotary flat faced disc D and water box F; 4th. The hollow annular grinding bed provided with water inlet and outlet ports.

No. 7862. Improvements in Steam Engines.*(Perfectionnements aux machines à vapeur.)*

Ward Clubine, Goodwood, Ont., 4th September, 1877, for 5 years.

Claim.—A cylindrically shaped steam chest C provided with posts E F F and D D, in combination with the piston valves B B' keyed or otherwise fastened to the spindle A.