

No. 4691. THEODORE FITZ RANDOLPH, Morris-town, N. J., U. S., 28th April, 1875, for 5 years: "Ditching Machine." (Machine à fossoyer.)

*Claim.*—1st. The combination of the sliding block P, screws Q, S, arm R, and shoe O, the latter being pivoted between its extremities and near the middle thereof, to the sliding block, and rigidly secured to or formed in one piece with the arm R; 2nd. The ball-bearing D, pivots K, and lugged plate F, in combination with the king bolt G, the forward axle H, and the forward draft bar C, of the ditcher; 3rd. The combination of the two drums I, the two screw wheels H, the two swivelled screws I, J, and the two cords or chains K, with the frame work B, of the ditcher and with the axle L, swivelled to the rear end of the rear draft bar K, of the ditcher; 4th. The combination of the swivelled screw rod D, the two swivelled screw wheel nuts C, and the two screws A, with the front and rear draft bars C, K, and with the frame work H, B, and ditching wheel A.

No. 4692. ALLAN CUMMINGS, New York, U. S., 28th April, 1875, for 5 years: "Improvements on Screws." (Perfectionnements aux vis.)

*Claim.*—1st. A screw or bolt of any form or shape, the head of which is provided at its centre with an angular, oval, oblong or round cavity or hole, either with or without the use of the usual slot; 2nd. A screw or bolt provided in its head with a half round slot, either with or without a cavity extending below it, to take the place of the ordinary slot; 3rd. A screw or bolt provided in its head with a V shaped slot, either with or without a cavity extending below it, to take the place of the ordinary slot.

No. 4693. EBENEZER HILL, Jr., South Norwalk, Ct., U. S., 28th April, 1875, for 5 years: "Improvements in Linings for Cylinders." (Perfectionnements des renforts de cylindres.)

*Claim.*—The combination of a lining B, having a flange b, and a stuffing box C, provided with a screw thread to secure the lining in a cylinder A.

No. 4694. ALEXANDER MITCHELL, Wilkesbarre, Pa., U. S., 28th April, 1875, for 5 years: "Spark Arrester." (Arrête-flammèches.)

*Claim.*—1st. A spark disintegrating screen in which notched bars G, G, are combined with two sets of rods; 2nd. In a locomotive smoke box, the tubes I, having flaring lower ends and communicating above with the chimney in combination with nozzles m, from which jets of live steam may be projected into said tubes.

No. 4695. JOHN J. COBB, Grand Rapids, Mich., U. S., 28th April, 1875, for 5 years: "Improvements on Sides and Wings for Cutter Sleighs." (Perfectionnements aux caisses de traveaux.)

*Claim.*—1st. The metallic cutter sides U, R, L, with flanges S, and mouldings N, E; 2nd. The body-sill G, bent at the joint M, forming an arch either of one half or of the entire back of cutter; 3rd. The metallic wing B, with flanges A, A, divided near the centre of wing B, and each flange bent at right angles with the concave portion of the same.

No. 4696. RANDALL BENTLEY, Owen Sound, Ont., 28th April, 1875, for 5 years: "Improvement on Roofs for Buildings." (Perfectionnements aux toitures de bâtiments.)

*Claim.*—1st. The cutting of square scantling diagonally in two E, E. 2nd. The cutting of the rectangular troughs and pieces A, B, C, D, A, B, C, D, from each of the triangular pieces E, F, E, E, F, E. 3rd. The combination of the rectangular troughs and pieces A, B, C, D, A, B, C, D, in the construction of roofed buildings.

No. 4697. JAMES E. WISNER, Friendship, N. Y., U. S., 28th April, 1875, for 5 years: "Fertilizer Sower." (Distributeur d'engrais.)

*Claim.*—1st. The combination of two independent wheels and axles with the two independently moving feed-rollers F, G; 2nd. The feed-rollers F, G, combined with the adjustable inclined plates or blocks I, arranged with their rear edges, over the centres of the rollers.

No. 4698. CHARLES R. SNYDER, Minneapolis, Ma., U. S., 28th April, 1875, for 5 years: "Ladies' Work Table." (Table à ouvrage.)

*Claim.*—A lady's work-table constructed with compartments or drawers, and provided with the top A, removable from the frame by means of side arms B, or other manner, whereby the top can be drawn over and adapted for use as a lap-board.

No. 4699. HENRY BEHNIN, and JUSTUS DIEHL, New-York, U. S., 28th April, 1875, for 5 years: "Improvements on Pianos and Organs." (Perfectionnements aux pianos et aux orgues.)

*Claim.*—A name board for pianos or organs having a longitudinal concave groove cut into the front or outer side.

No. 4700. CHARLES W. JENKS, Somerville, Mass., U. S., 28th April, 1875, for 5 years: "Shirt Bosom." (Devant de chemise.)

*Claim.*—1st. An open front or open side shirt on which the lower half or portion of the bosom is unattached to the shirt front, except by the upper portion or rest of the said bosom, being sewed or connected at its edges to the front; 2nd. In combination with the bosom B, made whole or in pieces of one or more solid backs D, E, of linen or other proper material.

No. 4701. CHARLES KENNEDY, Aurora, Ill., U. S., 28th April, 1875, for 5 years: "Wire Fence." (Cloture en fil métallique.)

*Claim.*—1st. A fence wire provided with indentations c or bonds d, to prevent the barbs from slipping or turning on the wire; 2nd. A barb for a wire fence having a slotted or open cylinder or extension a; 3rd. A wire fence consisting of posts A, wires B, and barbs E, secured to the wires by pressure.

No. 4702. PETER GENDRON, Toledo, Ohio, U. S., 29th April, 1875, for 5 years: "Carriage Wheel." (Roue de voiture.)

*Claim.*—A vehicle wheel having its hub A, B, J, cast in one piece with sockets for receiving the hubs d, in combination with the caps b, nuts h, and spokes D, having hooks h.

No. 4703. SAMUEL MORRELL, and CHRISTOPHER REINHARDT, Montreal, Que., 29th April, 1875, for 5 years: "Spring Bottom Bedstead." (Couchette à fond à ressort.)

*Claim.*—1st. In combination with any bedstead, the rods E, E, holding the ends of the slats F, and secured by springs to the head and foot of the bedstead; 2nd. In combination with the longitudinal framing of any doubling up bedstead the combination of the rods C and E, springs D and slats F; 3rd. In combination with a y bedstead, the bars I, carried at both ends by springs K, attached to the rails L, and supporting bars H, on which the slats F, rest.

No. 4704. JOHN MOULTON, Ossipee, and SAMUEL R. THOMPSON, Portsmouth, N. H., U. S., 29th April, 1875, for 5 years: "Bark Rasping Machine." (Machine à triturer l'écorce.)

*Claim.*—1st. The combination of the drum D, having spirally arranged cutters and journaled in the bed-plate B, with the hinged frame K, having screws c, and spring-bars c, c, c, c, the latter carrying the drum L, and rollers M, N, of the spurred bars d, the drum D, being rotatable in an opposite direction to the rotation of the drum L, and rollers M, N; 2nd. In combination with rotating endless spurred bars and rotating cutter drum of a bark rasping machine, an adjustable sectional bed plate B, supported by a lever T; 3rd. The combination of the belt-pulley S, hand lever R, notched flange v, and belt pulley F.

No. 4705. EDWARD W. GRANT, (Assignee of H. Niemann), Ypsilanti, Mich., U. S., 29th April, 1875, for 5 years: "Improvements on Step-ladders." (Perfectionnements aux échelles à queues.)

*Claim.*—1st. The combination with a step-ladder, having rear legs hinged thereto, of the plates E, provided with longitudinal slots e, and transverse slots d, and brace G, pivoted to the lower end of the rear legs, and connected at its upper end by rods; 2nd. The feet h, h, pivoted on the lower ends of the legs D.

No. 4706. JOHN DOMAN, Owen Sound, Ont., 30th April, 1875, for 5 years: "Snow-plough." (Charrue à neige.)

*Claim.*—1st. The inclined plane A, with sides C, C, in combination with the slotted guides H, H, and lifting screw K; 2nd. The projecting wings B, B, with sides C, C, C, C, C, C, hinged or stationary as may be found most suitable and convenient; 3rd. The vertical knives E, E, and horizontal knife F, in combination with the inclined plane A, and sides C, C; 4th. The guide D, hinged in combination with the wings B, B, and sides C, C, C, C; 5th. The combination of the whole.