

No. 4138. JAMES B. BALDWIN, Toronto, Ont., 9th December, 1874, for 5 years: "Hot Water Reservoir for Stoves." (Reservoir à eau chaude pour les calorifères.)

*Claim.*—A reservoir A, with a downwardly projecting tube C, in combination with a fire pot D, or its equivalent, as specified.

No. 4139. IRA P. MERWIN, Syracuse, N. Y., U. S., 10th December, 1874, for 5 years: "Improvements in Drain-pipe Moulding Machines" (Perfectionnements aux machines à mouler les tuyaux de drainage.)

*Claim.*—1st. In combination with the core standard having head H, and base E, the crotchet wedge bar F, arranged to slide in suitable supports or on the underside of the platform A, as described. 2nd. The combination with the flask of the core L, having the base lugs M, the core standard having lugs K, the same being thus adapted for connection and disconnection as specified.

No. 4140. DANIEL MORTIMER, Ottawa, Ont., 10th December, 1874, for 5 years: "Art of Ruling Paper." (Art de régler le papier.)

*Claim.*—A pattern sheet, Fig. 2, laid upon the sheet to be ruled when passing through the ruling machine, having openings C, to allow the pens of the ruling machine to strike upon the underlying sheet to be ruled, the pattern sheet receiving the continuation of the lines from "stop" to "strike" in the manner set forth.

No. 4141. ERASTUS W. EVANS, Boston, Mass., U. S., 10th December, 1874, for 5 years: "Car Washer." (Laveuse de wagons.)

*Claim.*—A car washer or sash brush, composed of the united parts, and of the combination of the parts A, and A', having bristles or other suitable material fastened in A, the said parts A, and A', being provided with a furrow C, with an india rubber band D, secured in the furrow in the manner described.

No. 4142. WHITNEY E. CALHOUN, St. Johns, N. B., 10th December, 1874, for 5 years: "Corn-sheller." (Egreoir à blé-d'inde.)

*Claim.*—1st. The combination of the revolving disc D, with the sheller bars S, S'; 2nd. The combination of the hollow cylinder C, with the revolving disc D, tongue t, and groove g; 3rd. The combination of the revolving sheller bars S, S', with the knives or spurs t, t'; 4th. The combination of the sheller bars S, S', with the pivots i, i, and springs u, u'; 5th. The revolving sheller arms S, S', set spirally to feed the ear as it is shelled; 6th. The concave and fluted guide L; 7th. The combination of the fluted guide L, and the dated and receiving cylinder U; 8th. The combination of the guide J, the spring M, and the adjusting screw S, and arm N; 9th. The combination of the spring R, with the posts e, and sheller bars S, so arranged that the spring can be removed as described; 10th. The combination of the main frame A, arms B, B, cylinders C, driving gears I, H, G, and F, revolving disc D, sheller arms S, S', springs u, u, feeder O, guide L, and spring m, all arranged and operating together as described.

No. 4143. CARLOS SKINNER, Waterloo, Que., 10th December, 1874, for 5 years: "Drum Heater." [Poele sound.]

*Claim.*—The drum A, constructed with inlet and outlet smoke apertures E, F, having internally a series of longitudinal air tubes B, and open ended cap C, forming a cold air distributing chamber for connection with a cold air duct D, as set forth.

No. 4144. JACOB KAISER, York, Ont., 10th December, 1874, for 5 years: "Grain or Corn Crusher and Spice Mill." (Mouture pour grain ou blé-d'inde et pour les épices.)

*Claim.*—1st. The frame A, shaft B, pulley B', handle B'', and bevel wheel B'', the upright spindle C, level pinion C', and tared disc C'', with under grinder C'', the concave cylinder D, with springs d', and upper grinder D, hopper H, shoe S, and bracket L, as set forth; 2nd. The dress upon the face of the grinders D, and C'', in the mill, and also the various other kinds of dress, as shown in the drawings marked Figs. 8, 11 and 14, and illustrated by models marked Nos. 8, 11 and 14, which accompany the model of the machine.

No. 4145. OREN S. OSMER, Boston, Mass., U. S., 10th December, 1874, for 5 years: "Darning Machine." (Machine à repriser.)

*Claim.*—1st. The combination of a series of needles supported by a sliding carriage and operating to lay a series of yarns in parallel directions with a suitable clamp for changing the positions of these yarns and presenting them at right angles to the axes of the needles and into such a position that the next series of yarns laid shall interlace with them; 2nd. The combination with a series of needles mounted and operated as explained of a pair of upright guides or cases for supporting or clamping the work while being operated upon, and a plunger sliding within each guide under such an arrangement that when the first series of yarns is laid the faces of the plungers are detached and when the second course of yarns is laid the plungers meet and compel the second to interlace the first at right angles as stated; 3rd. The combination of the guide J, plunger C, cam block e, and sloping abutment; 4th. A sliding carriage and a series of needles in combination with devices for shifting the positions of the yarn; 5th. The combination with a machine for darning various objects or effecting analogous results organized as shown of a tension device essentially as stated; 6th. The combination with a machine for darning various objects or effecting analogous results organized as explained of a device for cutting the refuse ends of the yarn essentially as stated; 7th. A needle having one boundary of its eye reduced to a sharp edge for cutting the yarns; 8th. Placing the guide plate through which the needles pass at an angle to or obliquely with the path of movement of the needles in order to sever but one yarn at a time, or the series of yarns in succession; 9th. The combination with one of the guide cylinders or plungers of a device for locking the latter in position and preventing breaking of the needles; 10th. In combination with the stem of the plunger of the notched disc m, and bolt k, or their equivalents as stated; 11th. The arrangement of the teeth of the plungers as described, whereby the yarns are caused to travel or be laid in a path similar to the teeth saws; 12th. The combination with one of the plungers and guide cylinders preferably the upper of a means of adjusting the relative height of such plunger with respect to its mate; 13th. The employment of the tubular sleeve I, as a means of adjusting the height of the plunger as stated.

No. 4146. JOB JOHNSON, Brooklyn, N. Y., U. S., 10th December, 1874, for 5 years: "Improvements on Ball Castors." (Perfectionnements aux roulettes de meubles sphériques.)

*Claim.*—1st. The cylindrical socket a, open at both ends, and containing the ball b, in combination with the plate c, resting at its edges against a bearing within and around the ball-socket and the anti-friction bearing d, secured into a recess in the said bearing plate as set forth; 2nd. The separate bearing plate c, provided with a recess and a hardened anti-friction bearing, in combination with the cylindrical socket and ball of the castor as specified.

No. 4147. HENRY B. STOCKWELL and EDWARD L. MCGILL, Brooklyn, N. Y., U. S., 10th December, 1874, for 5 years: "Self-lighting Gas Burners." (Bees à gaz à allumage automatique.)

*Claim.*—1st. The combination of the magazine G, guide J, anvil r, swinging hammer D, spring d, cam E, cock B, and the burner of its tip C, as specified; 2nd. One or more feeding wheels k, in combination with the gas-cock B, and ribbon magazine G; 3rd. The shield or shields t, on the hammer D; 4th. The percussion or priming ribbon I, having its fulminate m, composed of the described ingredients or their equivalents, in or about the proportions named and for the purpose specified.

No. 4148. GABRIEL DESGEORGES, Montreal, Que., 10th December, 1874, for 5 years: "Apparatus for the Storage and Transportation of Petroleum." (Appareil pour l'emmagasinage et la transportation du pétrole.)

*Claim.*—An apparatus for the storage and transportation of petroleum, &c., composed of an outer chamber A, provided with discharge cock G, and inner chamber B, with opening C and plug D, discharge cock E and gauge F, as described.

No. 4149. THOMAS GALBRAITH, Port-Hope, Ont., 10th December, 1874, for 5 years: "Lock-Nut Bolt." (Boulon à noix de sûreté.)

*Claim.*—A slit or parting A in the point of a bolt B, so that the said point can be expanded as specified.