

No. 4072. EDWIN BEARD, Chicago, Ill., U. S., 19th November, 1874, for 15 years: "Machine for Nailing Boxes." (Machine à clouer les boites.)

*Claim.*—1st. Two simultaneously operating machines arranged as described with relation to each other, for the purpose of operating together along the ends or sides of the parts of the same box, one of the said machines being adjustable with relation to the other, for the purpose of thereby nailing together boxes of different sizes; 2nd. Two simultaneously operating machines connected to each other by means of the rods of bars M, M, adjustably attached to one of the machines and operating in connection with cams in the other as described for the purpose of thereby rendering the machines adjustable with relation to each other, and tightening the grip of the machines upon the parts of the box during the operation of nailing; 3rd. Two or more box supporting tables horizontally adjustable with relation to each other as specified; 4th. Dies or nail-holders and corresponding punches or drivers arranged as described with relation to one or more edges of the box, one or more of the said dies and punches being horizontally adjustable in a line at, or nearly at, right angles to the line or lines occupied by other like parts, as specified; 5th. The combination of the table O, rack L, pinion J, vertically adjustable pin T, and the gate P, provided with projections arranged for contact with parts of the box during the upward movement of the table; 6th. The combination of the clip supports E, and E', resting freely in horizontal grooves in the frame, clips L, L', dies D, D', bars A, A', and A'', resting freely in the horizontal ways in the gate P, and pins K, K', as specified; 7th. The combination of the screws F, F', wheels G, G', horizontally sliding clip supports E, E', crank shaft H, and wheels I, I', as specified; 8th. The combination of bars A, A', gate P, dies or nail holders D, D', supports E, E', clips L, L', and spindles N, N', as specified; 9th. The rod Z, connected to the clutch operating mechanism and provided with the vertically adjustable temper screw e, in combination with the gate P, provided with a stop arranged to strike the point of the said screw during the upward movement of the gate as specified; 10th. The clips provided with one or more punches, in combination with the spindles passing freely through the clips and provided with one or more dies or nail holders rigidly attached thereto and arranged to receive the punch or punches as specified; 11th. The combination and arrangement of the shafts C, and G', friction wheel I, pinion J, wheel K, pinion J', and vertically adjustable rack L, provided with the table O, all as specified; 12th. The self-feeding attachment provided with the yielding jaws U, U', in combination with the lever V, provided with the V-shaped stop V, as specified.

No. 4073. ROBERT M. EVANS, Buffalo, N. Y., U. S., 19th November, 1874, for 5 years: "Number Printer." (Mode d'impression des nombres.)

*Claim.*—In combination with the type-wheels of a consecutive numbering apparatus, the pivoted lever L, lever J, with its lugs M, spring O, pawl H, and ratchet wheel J', all constructed and operating as described.

No. 4074. JOHN F. COLLINS, and JOHN W. CUMMING, Montreal, Que., 19th November, 1874, for 5 years: "Process of Separating Animal from Vegetable Matters." (Procédé de séparation des substances animales des végétales)

*Claim.*—1st. The application of diluted sulphuric acid, chloride of sodium, and bicarbonate of soda for the purposes specified; 2nd. The process of excessive heating of the solution and stock in combination with pulverized charcoal and guano; 3rd. The restoration of the animal matter to its natural texture by the use of bicarbonate of soda and alum, in the manner described.

No. 4075. EUGENE T. DUCHARME, Montreal, Que., 19th November, 1874, for 5 years: "Automatic Oil Can." (Bidon automatique à l'huile.)

*Claim.*—The combination of the body A, spout C, and inner tube D, all working together as described.

No. 4076. FREDERICK PROUDFOOT, Toronto, Ont., 19th November, 1874, for 5 years: "Stove-Pipe Drum." (Poêle sourd.)

*Claim.*—The stove-pipe drum A bearing a close bottomed internal air and water chamber B, suspended by side contact therewith and perforated to allow a through circulation of external air. 2nd. A stove pipe drum A, having a close bottomed internal air and water chamber B, in contact at opposite sides both having corresponding perforations D, or openings. 3rd. A stove pipe drum A, having a close bottomed internal air and water chamber B, in contact with one side and provided with perforations at top or at top and sides as set forth.

No. 4077. CHARLES P. CHISHOLM, Oakville, Ont., 19th November, 1874, for 5 years: "Plant Box." (Boite à plantes.)

*Claim.*—The oblong plant box A, with sides and ends splayed from the bottom outward, constructed of wood veneer, and consisting of the pieces A and A', bonds B and B', and angle pieces C, arranged as described.

No. 4078. SILAS P. LITTLEFIELD, Lynn, Mass., U. S., 20th November, 1874, for 5 years: "Railway Carriage Way Meter." (Compteur de voiture de railroute.)

*Claim.*—The combination of the movable seat A, the register E, and one of the wheel axles g, with the clutch k, l, the mechanism for operating the clutch as described by means of the seat (viz. the spring e, the shaft f, and its arm g, h,) and with the mechanism for revolving the clutch shaft m, by the said axle, which ever way the latter may be in revolution, this latter mechanism consisting of the gears n, o, shaft p, worm gear q, worm r, shaft s, bevel gears u, v, shaft n, universal joint x, tubular shaft y, shaft z, gear b, collar c, gears e, f, screw i, shoulders k, l, shaft m, bar n, and the rod o, with its arm p, and spring k-z, all arranged and combined as specified: in the registering mechanism described, the seat provided with the flanges a, a, in combination with the supporting frame C, provided with the chamber B, underneath the seat.

No. 4079. ELIJAH LEONARD, London, Ont., 20th November, 1874, for 5 years: "Still and Process of Distilling Petroleum and other Fluids." (Alambic et procédé de distillation du pétrole et autres fluides.)

*Claim.*—1st. The use of flues or tubes 2, in an oil still when the heat from the furnace passes directly through them; 2nd. Passing the condensing pipes a a a through a tank or still H containing crude oil; 3rd. The use of one or more stills in combination with the refining still B, for the purpose of separating the benzine and more volatile elements than refined oil and all foreign matter from the crude oil before it passes into the refining still; 4th. Operating two or more stills by the heat from the same furnace; 5th. Heating the furnace of an oil still by means of a tar burner drawing its supply of tar directly from the still; 6th. The combination of the tank benzine still and refining still when arranged to operate in the constant and regular manner set forth.

No. 4080. GEORGE S. BRUCE, Cincinnati, Ohio, U. S., 20th November 1874, for 5 years: "Coal Box." (Boite à charbon.)

*Claim.*—A coal box A, provided with the lump coal chamber E, having outlet D, and slack magazine F, (the cover B, common to both) channel G and door H at the bottom as described.

No. 4081. RICHARD T. BOOTH, Trumansburg, N. Y., U. S., 25th November, 1874, for 5 years: "Automatic Gas Light Extinguisher." (Ex-tincteur automatique des lumières de gaz.)

*Claim.*—1st. The combination of the sliding bar adapted to be connected with the cock of a gas burner, and the spring I, pawl N, and index shaft O, operated by a clock train for shutting off the gas; 2nd. The combination of the adjusting shaft C, leading screw S, index shaft O, and stud M, for operating pawl N, to release the slide connected with the gas cock; 3rd. The index shaft O, having stud M, and cog wheel T, in combination with the leading screw S, pawl N, slide E, stud M, spring I, link H, and a train of gearing as described; 4th. In combination with the sliding bar E adapted to be connected to a gas cock, the arm A and spring B, with the balance wheel D, in order to stop the clock work when the sliding bar is released as described.

No. 4082. ALBERT EAMES, Bridgeport, Ct., U. S., 25th November, 1874, for 15 years: "Pattern Moulding Machine." (Machine à faire les modèles.)

*Claim.*—1st. A carriage with segmental wheels in combination with a cross-platen, and head plate, the combination being and acting as described. 2nd. In combination with a platen and head block, a carriage with segmental wheels, provided with connecting rods, or the substitute therefor, for causing all the wheels to move through the same arc, the combination being as set forth; 3rd. In combination with a platen and head block, and a carriage with a hole in it, the stopper and its attached plate; the combination being such as described. 4th. In combination with a carriage