

No. 4036. JAMES BIRD, Naugatuck, Ct., U. S., 7th November, 1874, for 5 years: "Eccentric Pulley-block." (*Moufle de poulie à excentrique.*)

*Claim.*—1st. The annular sheave D, fitted upon an eccentric coak or bushing C, so that it may serve for binding the rope; 2nd. The combination of the lever E, with the eccentric bushing C, and annular sheave D, of a pulley-block and with the cam b, of the shell as specified.

No. 4037. JUNIUS JUDSON and WILLIAM A. COGSWELL, Rochester, N. Y., U. S., 7th November, 1874, for 5 years: "Steam Governor." (*Régulateur de vapeur.*)

*Claim.*—1st. The combination of the spring E, with the driving pulley J, and shaft D, for the purpose of preventing the impulses of the engine from being transmitted to the governor; 2nd. The combination with the spring E, of the ring or collar c, resting within the spring and loosely upon the shaft; 3rd. The combination with the spring pulley J, and shaft D, of the stop s, and pin f, as specified.

No. 4038 JOHN B. ORR, Glasgow, Scot., 7th November, 1874, for 5 years: "White Enamel Paint." (*Peinture blanche à émail.*)

*Claim.*—The division of the barium sulphide liquor into different equal portions, the precipitation by zinc chloride or by zinc nitrate, and thereafter by zinc sulphate, also the calcination of the mixed precipitates at a bright red heat and the sudden chilling of the same whether pressed or not, and thereby producing the white pigment as described.

No. 4039. MERRILL CHASE, Jr., and CHARLES S. MUIR, St. John, N. B., 14th November, 1874, for 5 years: "Shingle Machine." (*Machine à bardeau.*)

*Claim.*—1st. The combination of the polygonal sided bolt carrier A, toothed cog wheel P, and bevelled gears L, M, O; 2nd. The arrangement and combination of the tapering belt shafts J, K, for driving the saw, and bolt-carrier; 3rd. The friction roller R, and its pivotal frame Q, operated by hand lever S, in combination with the tapering belt shaft J, K, for controlling the stoppage of the bolt-carrier; 4th. The combination with the revolving bolt carrier of a fixed circular disc K', having a peripheral cam groove f, for operating the pushing pawls H, and the feed rollers G; 5th. The combination of the fixed and moveable bolt clamping arms d, d', with the feed rollers G, and polygonal bolt carrier; 6th. The arrangement of the feed roller G, with saw U, and planer I; 7th. The combination of the clamping d, duplex cam lever D, standard C, and springs F, all operating as described.

No. 4040. MICHAEL CALLEN, Innerkip, Ont., 14th November, 1874, for 5 years: "Lime Kiln." (*Fourneau à chaux.*)

*Claim.*—1st. The fire places A, placed side by side in combination with a corresponding pair of fire places A, on the opposite side of the kiln, 2nd. The oval shape of the conical shaft or cupola F, in combination with the fire places A, as set forth.

No. 4041. DAVID W. LONG, Parkersburg, W. Va., U. S., 14th November, 1874, for 5 years: "Surety Hinge." (*Penture de sûreté.*)

*Claim.*—1st. The leaves A, A, united by means of a link pintle C, 2nd. The combination with a link pintle C, of the leaves A, A, having arms or wings B, B, formed on them; 3rd. Washers c, combined with the link pintle C, and wings A, A, as described.

No. 4042. SETH WILMARTH, Malden, Mass., U. S., 14th November, 1874, for 5 years: "Water Motor." (*Moteur Hydraulique.*)

*Claim.*—The two horizontal cylinders A, A, each provided with an inlet chest i, on its upper side and outlet chest k, on its under side and with inlet ports l, m, placed a short distance from its end and outlet ports v, w, in combination with the elongated pistons u, connected with a single shaft A, and the slide valves p, q, all constructed and arranged to operate together in the manner set forth.

No. 4043. ALEXANDER RODGERS, Muskegon, Mich., U. S., 14th November, 1874, for 5 years: "Machine for Moving logs." (*Machine à remuer les billots.*)

*Claim.*—1st. The log moving mechanism, consisting of the spring knees, in combination with the carriers, their operating devices

and sustaining parts as described; 2nd. The spring knee C, or its equivalent as specified.

No. 4044. JAMES W. UPSON, Sallmadge, Ohio, U. S., 14th November, 1874, for 5 years: "Apparatus for Screening and Loading Coal." (*Appareil à cribler et charger le charbon.*)

*Claim.*—1st. The gate a, and gate carrier C, in combination with a coal chute; 2nd. The swing K, secured to the frame of the chute to open the gate of the carrier at the lower mouth of the chute and check the impetus of the carrier gained in the descent in the manner described; 3rd. The combination of the gate a, and bar s, bar k, and swing K; 4th. The combination of the gate a, and bar s, with the incline l; 5th. The screen bars consisting of the head A, and web B; 6th. The combination of the screen bars consisting of the head A, web B, strips D, and bolt C; 7th. The brake consisting of the windlass or wheels m, n, straps or rubbers n, n, arm o, shaft p, and lever r, in combination with the coal carrier cord c, and weight w; 8th. The moveable track consisting of the rails B, B, supported in front by the axle H, and wheels I, I, and in the rear by the axle E, and wheels G, G, in combination with the inclined rails K, K; 9th. The adjustable apron J, in combination with the moveable track E, and coal chute; 10th. The moveable track E, when arranged in relation to the tramway B, B, that the car may pass from said tramway on to said moveable track, and be carried forward and the load discharged from the car into the chute automatically, 11th. The moveable track E, drum L, rope S, rope W, weight V, pulley P, rope O, and hand wheel Q, all arranged and combined to operate in the manner described.

No. 4045. WILLIAM GOLDING, New Orleans, La., U. S., 14th November, 1874, for 5 years: "Steam Generator." (*Générateur de vapeur.*)

*Claim.*—1st. The method of generating steam in steam boilers by means of previously heated masses of metal or equivalent substances; 2nd. A steam generator having within its water space a close chamber A, for the reception of heated masses of metal as specified.

No. 4046. THEODORE L. HUBBARD, ISAAC HUBBARD, CHAUNCEY B. HUBBARD & JOSEPH M. HUBBARD, Port Huron, Mich., U. S., 14th November, 1874, for 5 years: "Ship's Winch." (*Grue de navire.*)

*Claim.*—The combination with ratchet wheel C, and shaft B, journalled in the bits by the bolt a, and provided with pinholes C, to vary the throw of the plates F, F, the lever socket E, and the dog plates F, F, pivoted to the ends of the plates D, the several plates being constructed and arranged to operate as set forth.

No. 4047. MARK A. CUSHING, Aurora, Ill., U. S., 14th November, 1874, for 5 years: "Tubular Hot Air Furnace." (*Calorifère tubulaire.*)

*Claim.*—1st. The tubular fire-pot built up of single tubes C, secured between the perforated flange of the cone B, and the perforated annular plate D, 2nd. A tubular fire-pot C, cast in one piece, or in sections having one or more tubular air passages moulded in them; 3rd. The combination chamber E, of the pendient air flues i, passing through the said combustion chamber as set forth.

No. 4048. DANIEL P. DIETERICH, Philadelphia, Pa., U. S., 14th November, 1874, for 5 years: "Improvements on Gum Shoe." (*Perfectionnement des souliers de caoutchouc.*)

*Claim.*—The combination of a strip or strips of woollen or felted fabric d, with the outer and innersoles of a gum boot or shoe.

No. 4049. FRANKLIN BARBER, Detroit, Mich., U. S., 14th November, 1874, for 5 years: "Improvements on Rocking chairs." (*Perfectionnements aux fauteuils à bascule.*)

*Claim.*—The combination of a rocking or tilting chair, of the spider A, boxes B, spring C, fulcrum h, set-screw m, and buffers n, as set forth.

No. 4050. WILLIAM BECK, Batavia, N. Y., U. S., 14th November, 1874, for 5 years: "Metallic Hoop-lock." (*Entaille de cercle de métal.*)

*Claim.*—A metallic hoop-lock formed by slitting the hoop transversely to interlock as described, and indenting the overlapping parts, in the manner set forth.