

No. 2368. CHRISTOPHER LOCKMAN, Hamilton, Ont., 15th May, 1873, for 5 years: "A Machine Hand or treadle power." (Une pédale de machine.)

*Claim.*—1st. The arrangement and combination of the loose pulleys, D, D', on a solid or hollow driving shaft, A, outside or inside of the stand with spring H, H', bracket G, ratchets and pawls, I, operated by the lever arms G', G', and lever, L, as shown, or by a treadle or treads, for driving sewing or other machines to which it may be applied; 2nd. The arrangement of the slot O, in the stand for the admission of the lever U, as specified.

No. 2369. WILLIAM W. RICHARDSON, Ypsilanti, Mich., U.S., CUTLER LAFLIN, and GEORGE L. LAFLIN, Westfield, Mass., U.S., 20th May, 1873, for 5 years: "A Whip Holder." (Un fourreau de fouet.)

*Claim.*—1st. In combination with the socket N, the friction springs B, B, and flexible fastenings C, C, constructed and arranged as described; 2nd. In combination with the socket H, the friction springs B, B, constructed and arranged in the manner set forth; 3rd. In combination with the socket H, the flexible fastenings straps C, C, with metallic re-inforcements D, D, constructed as described.

No. 2370. HENRY BUSHNELL and ELIAS P. MERIMAN, New Haven, Ct., U. S., 20th May, 1873, for 15 years: "A Compressed Air Motor." (Un moteur à air comprimé.)

Consists in the means employed for injecting into the escape from the engine a jet of hot air sufficient to prevent the crystallizing or freezing which takes place under the ordinary processes.

*Claim.*—1st. A motor employing a compressed gaseous medium, the injection of heated air or its equivalent into the exhaust passage, from the said motor; 2nd. In combination with the cylinder A, and its exhaust passage N, B, the air pump E, and pressure valve H; 3rd. In combination with the cylinder A, and its exhaust passage N, B, inclosed by a jacket C, a valve F, opening from the chamber formed by the said jacket into the valve chamber D. 4th. In combination with the cylinder A, and its exhaust passage N, B, inclosed by a jacket C, a passage, L, leading from the chamber formed by the said jacket to said exhaust passage.

No. 2371. GEORGE WALKER, Hamilton, Ont., 20th May, 1873, for 5 years: "A Railway Chair." (Un coussinet de chemin de fer.)

The object of the invention is to adapt the chair to be used in combination with what is known as the V rail so as to cause the said rails to fit with a perfect joint and prevent them from breaking at their weakest point.

*Claim.*—A flanged solid chair B, constructed as shown, to fit the V rail, and to be used in combination with it as specified.

No. 2372. GEORGE N. SANDERS and GEORGE N. SANDERS, Jr., New York, U. S., 20th May, 1873, for 5 years: "Improvement in spikes, pins, bolts, &c." (Perfectionnement des clous, chevilles, boulons, etc.)

*Claim.*—1st. In the combination of the shoulder, neck peninsula and bevel of all or any of them whether of curved or plane surfaces regulating the curvature point of inflexion, and degree of tenacity rendering insertion and extraction non-destructive to the fibre, &c. 2nd. The shoulder, cut out of the shank and either plane or curved so as to reduce the volume and weight to a minimum whilst retaining all the strength required to resist the transverse strain, and so as to force the hook of the head firmly against the base of the object to be fastened and to form a tighter joint; 3rd. The peninsula cut out of the shank and smaller than it is at the top and curved so as not to tear the fibre, to be easy of insertion, difficult of extraction and to form a tight chamber to itself; 4th. The curved bevel at the extremity of such curvature so as to exert a greater deflecting force and to make no edge with the side of the spike; 5th. The neck commencing below the reach of the transverse strain, and tapered and bevelled so as to curve and hold as described.

No. 2373. IRA ELLIS TYLER, Texas, U. S., 20th May, 1873, for 5 years: "Safety Harness." (Harnais de cheval de sûreté.)

Designed to enable the horse to be released therefrom instantaneously, &c.

*Claim.*—1st. The harness A, when the sides thereof are hinged together at the top, and its ends connected by the fastening, d, and lever H; 2nd. In combination with the shafts D, and harness A, the cap B, the sliding bar E, and springs F, and G, connected and operating as set forth; 3rd. In the bridle of the harness, when its bit is connected at one end by the spring catch G, and the throat strap by spring catch F; 4th. In combination with the shafts D, and cross pieces N, and O, the lever M, with handle m, and foot rest n.

No. 2374. SAMUEL W. SHORRY, Boston, Mass., U. S., 20th May, 1873, for 5 years; "Seam for Leather Work." (Couture pour les objets en cuir.)

*Claim.*—It consists in the improved staple and wire seam, formed of metal fastenings driven or inserted and twisted together as described.

No. 2375. WILLIAM A. HOLWELL, Quebec, Que., 20th May, 1873, for 5 years: "Construction of Pulleys." (Fabrication des poulies.)

*Claim.*—The construction of a pulley or roller, composed of three distinct but conjoined portions or divisions, the middle portion or division having a larger diameter than that of the two outer or end portions, together with a spiral, or other suitable groove or channel leading from each of the said outer or end portions to a division of smaller diameter into the middle portion or division of larger diameter as set forth.

No. 2376. CYRUS W. SALADEE, St. Catharines, Ont., 20th May, 1873, for 5 years: "Mode of Suspending Railway Car Bodies." (Manière de suspendre les voitures de chemin de fer.)

*Claim.*—1st. In the independent frame-work B, C, Figs. 1 and 2, within or upon which to support the body of the car; 2nd. In combination with the ends of the body A, the springs J and J'; 3rd. In combination with the bottom of car bodies A, and frame B, the equalizing shafts D, D', 4th. The springs J, or their equivalents, when placed above the frame work B, or bottom of the car body and provided with suitable hangers or connections L, on which to suspend the body A, or interior frame and bottom B, 5th. In the interior frame work B, B', supported within the body, upon suitable springs, and provided with sides and ends P, Figs. 4 and 5, the whole suspended by the hangers L; 6th. The springs S, Figs. 4 and 5 so arranged in relation to the sides and ends of the bottom of the body as to diminish as far as may be, side and end jar to the load carried thereon.

No. 2377. ALEXANDER MCCALLUM and THOMAS MOFFAT, Dundas, Ont., 20th May, 1873, for 5 years: "Monumental Grave Tablet." (Pierre tumulaire.)

*Claim.*—The outer casing a, the back d, and the marble slab B, combined as set forth.

No. 2378. HERBERT H. WHITE, Leominster, Mass., U.S., 20th May, 1873, for 5 years: "An Ice Creeper." (Un crampon.)

*Claim.*—The combination of the metal plate C, constructed as described with the rubber heel calk a, when the former is imbedded in the latter during the process of vulcanization as specified.

No. 2379. JOHN C. HODGINS, Toronto, Ont., 20th May, 1873, for 5 years: "Lock-up Safety Valve" (Soupape de sûreté à ressort.)

*Claim.*—1st. The valve C, shaped with an angular projection in combination with the valve seat-casting B, found to correspond as described, so as to protect the entire bottom surface of the valve when closed from the pressure of the steam save and except that portion which covers the steam passage or passages O; 2nd. The combination of the valve C, and lever N; 3rd. The combination of the valve casting I, spindle D, spiral spring E, cap F, diaphragm L, and nuts C', 4th. In the combination of the protection cap J, and cover or cap L, arranged as specified.

No. 2380. ISAAC BROWN, Edinburgh, Scotland, 20th May, 1873, for 5 years: "Apparatus for Watering Streets and Roads." (Appareil pour arroser les rues et les chemins.)

*Claim.*—1st. The application and use to and in the watering of roads, streets, footpaths and other places open to traffic of the punctured lead or other soft metal pipes A, arranged as described and illustrated in the drawings; 2nd. The combination with the said punctured lead or other soft metal pipes A, of the perforated metal or othershields D, as described and illustrated in the drawings.

No. 2381. CYRUS W. SALADEE, St. Catharines, Ont., 20th May, 1873, for 5 years: "Compound Spiral Spring." (Ressort spiral combiné.)

The spring is formed of a number of thin plates laid together and bent into the required form at one operation so that such complete spring is formed of two or more plates instead of a single one as is now the custom.

*Claim.*—A compound spiral or scroll spring made up of two or more plates, bars, rods, or strands a, as set forth.