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INVENTIONS PATENTED.

No. 11,375. Improvements on Smelting Ovens.

(Perfectionnements aux fourneaux de fusion.)

Riley P. Wilson, New York, U. S., 14th June, 1880; for 15 years,

Claim .- 1st, The combination of a furnace A with upright retorts B, set Claim.—Ist. The combination of a furnage A with upright retorts B, set in nests of two or more and attenuately against the sides of the furnace, the black flue D and lower return flue E. 2nd. A furnace A with upright retorts B, arranged as described and provided with one or more openings a d near the bottom of each retort, for the purpose of withdrawing the metal bullion and slag. 3rd. In combination with the retort, B, the connecting branches a d leading from the lower part of the retort, through the furnace wall, into the bullion and slag receivers. 4th. In combination with a retort B the apening or branch mean through mean its constraint of the second or with a retort B, the opening or branch m near its upper end, connected to the pipe we, for the passage of gases and oxides from the retort into the condensing receiver M. Sth. The combination of retorts B, furnace C, flue D, return flue E and connecting pipes w, in connection with the gas and oxide con-

No. 11,376. Apparatus for Felting Hat Bodies.

(Apparatus à feutrer les chapeaux.)

John T. Waring, Boston, Mass., U. S., 14th June, 1880; for 5 years.

Claim—1st. A sizing cloth for felting hat bodies or other articles, having an uneven or irregular raised surface. 2nd. The combination, with a sizing cloth for felting hat bodies or other goods, of a weight W, adapted to be contained within a roll of articles to be sized or felted in such cloth and to produce, automatically therein, a pressure outwards from the interior thereof. 8rd. The combination, with a sizing cloth, of an attached weight W.

No. 11,377. Improvement in Paint Brushes.

(Perfectionnement des pinceaux.)

James Russell, Napanee, Ont., 14th June, 1880; for 5 years.

Claim—1st. The bulged or irregular handle α in one piece, the case b fitted to re zeive the handle a, and the art or process of driving a and b, in combination through the bristles and ferule of a paint brush.

No. 11,378. Improvements on Car-Couplers.

(Perfectionnements aux attelages des chars.)

Jesse T. Rice and Frank J. Hubbard, Grand Rapids, Mich., U.S., 14th June, 1880; for 5 years.

June, 1880; for 5 years.

Claim—1st. The drawhead C, provided with a circular socket and socket offset an, respectively, and curved socket l, coupling hook D having circular inner end, shoulders c and curved socket k, spiral spring E and U-shaped pivot b. 2nd. The combination, with the socketed and shouldered coupling hook D, of the spiral spring E, whereby said hook D is made to couple and is held coupled. 3rd. As a mean for uncoupling the hook D and in combination therewith, the tope or chain G and brake rod F. 4th. As a means for uncoupling the hook D and in combination therewith, the bent pivot c, inclined lever H and rocking lever I.

No. 11,379. Improvements on Wood Grinding Machines. (Perfectionnements aux machines à triturer le bois.)

Albert Fickett and Albert M Hastings, Rochester. N.Y., U.S., 14th June. 1480; for 5 years.

Caim—1st. A hollow cylindrical disintegrating stone, made up of stayes or sections. 2nd. The oblique troughs h capable of being laterally

adjusted with reference to the inner surface of the stone. 3rd. The weights l_i with suitable means to raise and lower the same, in combination with troughs h. 4th. The saf-ty stops d!, for the weights, in combination with the troughs h. 5th. The pulp receiver, or stock pan P, provided with a central sl-eve b!, for the spindle a. 6th In combination with a pan P provided with a sleeve b!, an annularly grooved hub d, upon the spindle

No. 11,380. Improvements \mathbf{on} Concrete Pavement. (Perfectionnements au pavage en beton.)

Hilaire Couillard and Richard McKeown, Montreal, Que., 14th June, 188); for 5 years.

Claim-1st. As a foundation or underlayer of concrete pavement, Claim—lst. As a foundation or underlayer of concrete pavement, a composition of one part of pitch to two pirts of coal tar, mixed with coarse gravel, small stones or spawls, and laid down. 2nd. A composition for concrete paving consisting of two parts of pitch to one part of coal tar, with this being incorporated tine gravel or coarse and in a highly heated condition, the whole being rolled when spread, and finished by passing over it a heated roller. 3rd. C increts paving osmposed of two layers of a mixture of pitch and coal tar in differing proportions, and combined respectively with coarse and fine gravel.

No 11.381. Improvements on Washing Machines. (Perfectionnements aux laveuses mécaniques.)

James G. Walker, Cataraqui, Ont, 14th June, 1880; for 5 years.

Claim—1st. The spring C attached to the box A and by means of side rods D, connected to the cross bars F of the rubbing trame, exerts a yielding pressure on the clothes, on the roller frame G. 2nd. The swinging rubber frame having a yielding pressure on the roller frame G connected by a spring or springs C attached to box A, and connecting rods D. 2rd. The rubbing frame constructed of rubbing board H, base pieces I I, posts g.g., cross | ar F and rods L L, supporting hand bar K. 4th. The roller trame G baving bar M covered with jacket N, ia combination with rollers having metal journals. having metal journals.

No. 11,382. Improvements in Railway Brakes. (Perfectionnements aux freins des chemins de

Thomas W. Stanford and Samuel Milligan, Melbourne, Australia, 14th June, 1880; for 15 years.

Claim—lst The application of electricity, in the shape of electromagnets, to the wheel of railway rolling stock as a brake power. 2nd Railway brakes, so constructed in making the cases which contain the electro-magnetic brake blocks, automatically release themselves by their own weight.

No. 11,383. Improvements in Mowing and Reaping Machines. (Perfectionnements aux faucheuses moissonneuses.)

Charles Taylor and George W. Kendall, Montreal, Que., 15th June, 1880; for 5 years.

for o years.

Claim—1st. The combination, for operating the knife, of the following elements, viz.: the compound lever formed of the arc e pivoted by a link to the frame, the link G pivoted to said arc and attached to arc F, carrying arm connected with pitman, said arcs having their sides parallel and their edges of obtuse angles, and being moved laterally in either direction by the rotation of two wheels mounted on main axle, and having their edges made of corresponding obtuse angles set with their salient points opposite to each other. 2nd. The combination of central plates with edges formed of indented lines parallel to each other, and revolving side plates or surface; similarly indented, but with salient points opposite each other operating same. other operating same.

No. 11,384. Improvements on Balance Slide Valves. (Perfectionnements aux tiroirs de vapeur équilibrés.)

Edgar Robinson, Robert F. Burt, John M. Pugh, William V. McCraken, Harrison B. Beymer and John W. Moore, Columbus, Ohio, U.S., 15th June, 1880; for 15 years.

Claim-1st. The combination, with a slide-valve and lifting stem in-