

side pipes in conjunction with the fillets I, cast round the pipes as applied to a continuous water space L, as described and shown by fig. 7; 6th. The combination with the socket A, and spigot B, of the collar D, claws M, and fillet N, as described and shown by figs. 8, 9, and 10; 7th. The combination with the spigots B, of a fixed or loose collar D, and worm and thread O, plain metal ring K, and elastic rings C, as described and shown by fig. 9; 8th. The combination with a series of triangular tubes of the joint fig. 11, in conjunction with the blank sockets P, and T-shaped iron Q, as described and illustrated by figs. 10 and 11; 9th. The combination with a T-shaped connection of the T-shaped iron Q, with worm at the long end passing through a gland in the branch connection as described and illustrated by figs. 12 and 13; 10th. The combination with a branch connection of the cross iron Q, with two screw ends, and two glands and collars, and packing figs. 14 and 15; 11th. The double cylindrical conjoint I, as shown in figs. 16 and 16a.

No. 3059. J. D. MARSBANK, Harrisburg, Penn., U. S., and J. R. ANNETT, Montreal, Que., 3rd February, 1874, for 5 years: "Improvements in a Cupola Furnace for Melting Iron." (Perfectionnements à un fourneau à manche pour la fonte du fer.)

*Claim.*—1st. The interior lining B, of a cupola for foundry purposes, when made in oval oblong form thrown back in egg-shape above the tuyeres and contracted at the top just below the charge door; 2nd. In combination with the interior lining B, constructed as described, the tuyeres D, D', D, D, D, arranged on opposite sides of the cupola so as to alternate.

No. 3060. JOHN M. ARMOUR, Syracuse, N. Y., U. S., 3rd February, 1874, for 5 years: "Improvements in Knitting Machines." (Perfectionnements aux machines à tricoter.)

*Claim.*—1st. The cam-wheel provided with the cams 4 and 5, operating in connection with cams 1, 2 and 3; 2nd. The cam-wheel having cams described and the fixed or adjustable gate G, between cams 1 and 5; 3rd. The feeder G, when operated in connection with the needle or needles and stitching hooks as described.

No. 3061. ELISHA C. GODDARD, Sweetsburgh, Que., 3rd February, 1874, for 5 years: "Improvements on the Ithaca Wheel Rake." (Perfectionnements au râteau à cheval dit "Ithaca.")

*Claim.*—The combination of the joints B, Q, and I, as set forth.

No. 3062. JOSEPH V. BROWN, New York, U. S., and ROBERT P. FIDLAR, Stirling, Ont., 3rd February, 1874, for 5 years: "Improvement on Mucilage Bottles." (Perfectionnement des pots à mucilage.)

*Claim.*—1st. The combination of the sponge E, and the tube G, together with the cork H; 2nd. The combination of the sponge E, and tube G, and cork H, together with form of air tight cap and shape of bottle.

No. 3063. SAMUEL COLLINSON, St. Catharines, Ont., 3rd February, 1874, for 5 years: "Machine for Cutting Sickles." (Machine à tailler les faucilles.)

*Claim.*—The sliding and rolling bed A, the yoke B, through which screw C passes and the bed plate D, as shown in drawing.

No. 3064. SAMUEL COLLINSON, St. Catharines, Ont., 3rd February, 1874, for 5 years: "Improvement on Tongs Used in Machinery." (Perfectionnement aux tenailles à l'usage des mécaniciens.)

*Claim.*—The inner jaws marked B, on the drawings

No. 3065. ELIAS SAHM, Greenville, Penn., U. S., 3rd February, 1874, for 5 years: "Combined Square and Gauge for Carpenter's Use." (Équerre-jauge combinées à l'usage des charpentiers.)

*Claim.*—The graduated arm A, in combination with the points 1 and 2, and the sliding rod B, the head F, and the graduated arm E, constructed as described.

No. 3066. WILLIAM TODD, Portland, Me., U. S., 3rd February, 1874, for 5 years: "Improvements on Car-couplings." (Perfectionnements aux attelages de wagons.)

*Claim.*—1st. The combination of the draw bar Z, provided with

projection C1, hook t, and plate f; 2nd. The combination of the coupling hook t, with lever h, link i, and lever j; 3rd. The draw bar Z, provided with recesses m, and attached to car by strap K, secured to collar j; 4th. The combination of the latch i, with draw bar provided with pocket d2, and hole e2, as described.

No. 3067. GARDENER M. SKINNER, Gananoque, Ont., 3rd February, 1874, for 5 years: "Improvements on Spoon Baits for Fishing." (Perfectionnements aux cuillères-appâts pour la pêche.)

*Claim.*—1st. The fluted or corrugated spoon A, applied and used as described; 2nd. The ring B, attached within the concavity of the spoon, in combination with the main wire D, applied and operating as set forth.

No. 3068. WILLIAM GOWAN, Wausau, Wis., U. S., 3rd February, 1874, for 5 years: "Improvements on Saw Mills." (Perfectionnements dans les scieries.)

*Claim.*—1st. The bevelled pinion C, and gears D, D1, shaft E, ratchet wheels G, F, lever H, pawls I, I1, and quadrant L, in combination, all operating for rotating the set screw B; 2nd. The saddles M, applied to the jock hounds for supporting the dogs N; 3rd. The combination of the friction pulleys N, lever O, hanging frame P, shafts Q, E, and gears R, R1; 4th. The friction brake S, applied and used as set forth; 5th. The combination of the cam slot ted dog bars U, and lever T, for operating the dogs as set forth; 6th. The scale Fig. 7, graduated with allowances for saw cuts and side boards for different thicknesses of lumber from one inch upwards; 7th. The lever J, and ring J1, in combination with the quadrant L, for adjusting the lever G1, to the different thicknesses of lumber to be cut; 8th. Providing the quadrant L, with a graduated scale K; 9th. The loose pin I, having a cam recess or flat side to engage with the lug Z, for tripping the pawl Z1; 10th. Providing the quadrant L, with a screw Z2, for its adjustment in the manner set forth.

No. 3069. G. BOUCHER DE BOUCHERVILLE, Quebec, Que., 3rd February, 1874, for 5 years: "Fire-escape." (Sauveteur d'incendie.)

*Réclame.*—Une forte corde H, H1, le cylindre creux A. At, les blocs B, et D, la tige C, Cl, les trous F, F1, la roue à rochet J, avec son cliquet K, et son frein L, la vis M, la noix N, la corde 2, avec sa poignée P, son noué coulant Q, et ses étriers R, R1, le noué Z, tous combinés ensemble pour les fins réclamées.

No. 3070. JAMES A. GREEN, Hamilton, Ont., 3rd February, 1874, for 5 years: "Improvements in Railway Switches." (Perfectionnements aux aiguilles de chemin de fer.)

*Claim.*—1st. The combination of the bed-plate A, sliding V-slotted plate B, and sliding plate C, and connecting rod Q, operated on by the rods H, J, and crank I, by the wheel of a locomotive; 2nd. The pin L, of the plate C, in combination with the slot of the plate B, for pushing the switch rail over its place on a line with the main-rail; 3rd. The arrangement for operating the signal disc S1, by the combination of the pin or screw B, and slotted arm T, disengaged S, with the sliding plate B; 4th. The arrangement of the connecting rods H, and J, and crank I, for pushing the slotted sliding plate backwards and forwards as specified.

No. 3071. WILLIAM HAMILTON, Neversink, N. Y., U. S., 3rd February, 1874, for 15 years: "Machine for Making Ox Shoes." (Machine à faire des fers à bœufs.)

*Claim.*—The combination with a trip-hammer having a socket die or anvil B, and a hammer die E, constructed as described, of a die C, arranged and operating as specified.

No. 3072. DANIEL T. CASEMENT, Painsville, Ohio, U. S., 3rd February, 1874, for 15 years: "Improvements on Seal Locks." (Perfectionnements aux cadenas à cachet.)

*Claim.*—1st. The combination of the hasp or slide bolt and the locking bolt in the manner described for locking self-actually; 2nd. The combination with said locking bolt and hasp or slide bolt of the push pin as specified; 3rd. The combination of the seal holder, seal punch, and the push pin with the locking bolt and hasp or slide bolt in such manner that the punch may be thrust out through the seal by the push pin when it disengages the locking bolt; 4th. The slide bolt or hasp having the slot O, hole K, and inclines L, in combination with the locking bolt having the extension N, and the inclines M; 5th. The combination of the seal guard I, with the harper slide bolt, and the seal holder H; 6th. The seal holder having notched edges; 7th. The arrangement of the lock case push pin and seal punch to prevent ingress of the broken pieces of the seal and other matters; 8th. The arrangement of the mouth or opening of the lock case for the hasp or slide bolt for the escape of water, ice, &c., as described.