

No. 4051. WILLIAM BECK, Batavia, N.Y., U. S., 14th November, 1874, for 5 years: "Tire Tightener." (Appareil à serrer les bandages des roues.)

*Claim.*—The combination of jaws A, A, grooved to receive the spoke intermediately, the nutted clevis D, jack screws B, B, clamping screw F, and plate E, arranged and operating as set forth.

No. 4052. JOHN E. DUSTIN, ALSON L. BROWN and WARREN G. BROWN, Whitefield, N. H., and AARON ORDWAY, Lawrence, Mass., U. S., 14th November, 1874, for 5 years: "Spark Arrester." (Arrête-flammèches.)

*Claim.*—1st. In combination with the stack or chimney *a*, and the perforator deflector *b*, arranged as described, the reservoir *d*, when said reservoir is supplied by a continuous stream of water from a stationary head through supply pipe *f*, and provided with a discharge pipe *g*, to preserve the water at the proper level in the reservoir and to float off, by a continuous current, the sparks, cinders, &c. 2nd. The combination with the stack perforated deflector, and the reservoir *d*, supplied from a continuous stream from a stationary or elevated head, with a discharge pipe of a water supply pipe located within the smoke stack, as set forth.

No. 4053. HERMENEGILE B. CASGRAIN, Ottawa, Ont., 14th November, 1874, (Extension of Patent No. 150), for 5 years: "Paper-yle." (Serre-dossier.)

*Claim.*—1st. The art of superposing the *f*'es independently or combined as described for easy reference: 2nd. The arrangement and combination of the block B, with the cover board A, and tape C, and the mode of attaching the binding tape C, to the board A, substantially as described for the purpose set forth.

No. 4054. DANIEL SULLIVAN, Bangor, Me., U. S., 17th November, 1874, for 5 years: "Steam Boiler." (Chaudière à vapeur.)

*Claim.*—In combination with the casing *a*, and boiler *b*, having the space *g*, between them at one end, the tubes *i*, and in stop *h*, supplemental head *j*, and passages *l*, constructed and operating as set forth.

No. 4055. FRANK A. HIBBARD, Stanbridge East, Que., 17th November, 1874, for 5 years: "Steamer and Heater." (Appareil de cuisine à vapeur.)

*Claim.*—1st. The combination of the steamer A, drawers or sliding chambers B, slides D, and heating chamber F; 2nd. In combination with any steamer A, the drawers B, resting on moveable or fixed slides D; 3rd. In combination with any steamer, the drawers B, having perforations C, and C, and with the ends or one side thereof arranged to lift up or let down as set forth.

No. 4056. ALFRED DE GARIS, New York, U. S., 17th November, 1874, for 5 years: "Apparatus for Fattening Fowls." Appareil à engraisser des volailles.)

*Claim.*—1st. The cylinder A, piston B, flexible tube C, with mouth piece *d*; 2nd. The drum *h*, with hand *j*, dial K, and chain *l*, in combination with the piston B, as set forth.

No. 4057. EDWARD B. MEATYARD, Geneva Lake, Wis., U. S., 17th November, 1874, for 5 years: "Elastic Railway Car Wheel." (Roue de voiture de railroute élastique.)

*Claim.*—The rim A, or the hub C, and the curved radially cut disc B, secured to the rim *d*, of the rim A, and to the hub C, by suitable means all combined as specified.

No. 4058. JACOB BOWMAN, Harrisburg, Ont., 17th November, 1874, for 5 years: "Hot Air Drum." (Poêle sourd à air.)

*Claim.*—1st. The combination with the drum A, of the dampers D, D, D, more or less placed and arranged at three angles to each other in the drum as shown in Figs. 2 and 3: 2nd. The arrangement of the rods G, H, I, with holes *a*, and pins Q, attached to and operating the said dampers D, D, D, respectively; 3rd.

The arrangement of the openings K, false bottom P, and slide L, when combined with a drum heater A, as specified: 4th. The arrangement of the dampers D, D, D, when combined with a common stove pipe.

No. 4059. JOSEPH M. GROOVER, Oxford, Mich., U. S., 17th November, 1874, for 5 years: "Binding Attachment to Harvesters." (Disposition des moissonneuses pour lier.)

*Claim.*—1st. The driving shaft D, pulley F, crank pin *a*, pitman *b*, cross-head *c*, link *d*, lever *e*, block G, ways H, shaft I, ho ked sector *h*, flange *i*, racks I, I, gears *j*, *j*, shaft *k*, gripping plate *h*, spring bale *k*, hook *k*, rail *l*, parting post *l*, frame *m*, *m*, and spring *m*, constructed and combined with the sills A, A, table B, bottom board B<sub>2</sub>, platform B<sub>3</sub>, and adapted to be driven by the mechanism of a reaper for forming a straw band; 2nd. The combination with the lever *e*, of the levers J, J, J, J, J, J, rods *n*, *n*, and guides *o*, *o*, for carrying the ends of the band to the carriers L, L. 3rd. The combination of the jointed carriers L, L, each provided with a bell crank *r*, clamp plate *r*, and spring *r*, the levers L<sub>1</sub>, L<sub>2</sub>, L<sub>3</sub>, L<sub>4</sub>, belt crank *l*, and rod P, with the frame P<sub>1</sub>, and lever P<sub>2</sub>, for wrapping the band around the bundle; 4th. The combination of the shaft O, clutch pulley O<sub>1</sub>, clutch box O<sub>2</sub>, vertical shaft N, gears N<sub>1</sub>, N<sub>2</sub>, slotted arms N<sub>3</sub>, hooks *q*, shafts *q*, studs *q*, and springs *q*, with the pulley E for twisting the ends of the band. 5th. The shaft *s*, hook *s*, bearings *u*, *u*, springs *v*, *v*, segment T, cam W, treadle Q, lever R, crank shaft *u*, and pinion E<sub>1</sub>, combined with the spur wheel E, and standards M, M, for tucking the ends of the band under itself as described.

No. 4060. SAMUEL RUE, Philadelphia, Pa., U. S., 17th November, 1874, (Extension of Patent No. 2849), for 5 years: "Improvements on Injectors for Steam Generators." (Perfectionnements aux injecteurs de vapeur.)

*Claim.*—1st. A single casting with two chambers at the ends thereof or plug in each chamber, and an intermediate tube extending from one chamber to the other; 2nd. The tapering bores of the plugs and intermediate tube diminishing from the steam pipe to the delivery tube; 3rd. A jet of steam introduced into the overflow; 4th. The lever M, applied as described and adapted for a right or left hand injector; 5th. A valve in the overflow as set forth; 6th. The steam pipe *s*, in combination with the tube H, and over-flow chamber; 7th. The tubular passage T, with opening T<sub>1</sub>, and the valve V, in combination with the over-flow tube H, and plug D<sub>1</sub>.

No. 4061. SAMUEL RUE, Philadelphia, Pa., U. S., 18th November, 1874, (Extension of Patent No. 2849), for 5 years: "Improvements on Injectors for Steam Generators." (Perfectionnements aux injecteurs de vapeur.)

No. 4062. ELIPHALET S. SCRIPTURE, Brooklyn, N. Y., U. S., 18th November, 1874, for 5 years: "Adjustable Wrench." (Clé à écrou mobile.)

*Claim.*—1st. In combination with the soft metal rack bar A, the moveable jaw B, provided with the hard steel nut E; 2nd. The rack-bar A, having the relief groove *i*, formed in its face, in combination with the hard ratchet-nut E, attached to the moveable jaw B, and provided with the notches *h*; 4th. The unalterable iron rack bar A, provided with the recessed sides and the rounded back as described.

No. 4063. JOHN E. WATSON, Louisville, Ky., U. S., 18th November, 1874, for 15 years: "Water Gauge." (Indicateur du niveau d'eau.)

*Claim.*—1st. In combination with the float F, and its rods F<sub>1</sub>, E, the arm C, springs *a*, *a*, and magnetic battery wires, as described; 2nd. The needle *h*, on oscillating bar *f*, combined with crank *e*, and an arm which is actuated by a float F, inside of a boiler as described.

No. 4064. ARCHIBALD HADDEN, Goderich, Ont., 18th November, 1874, for 5 years: "Machine for Cramping." (Serre-joints.)

*Claim.*—The arrangement of lever No. 2, in combination with the spring No. 4, connected with and applied to block No. 3, as described, also the two legged horse and the clevis No. 8, in combination with No. 7, and lever No. 2, as specified.