No. 29,936. Car Coupling. (*Attelage de chars.*)

John Clarridge, Senr., Libertyville, Iowa, U. S., 1st October, 1888; 5 years.

Claim.—1st. The combination, with the draw-bar A, of the spring pressed follower G, adapted to support the coupling pin I, and having a transverse link slot *e*, and a second coupling pin at the rear end of the draw-head recess, substantially as specified. 2nd. In a car coupling, the combination, with the draw-bar A provided with the chamber B and shoulders *a*, *b*, of the follower G adapted to support the coupling pin I, and having a transverse link opening *e*, the spring D arranged to press the said follower forward against the shoulders *b*, and the link extending through the slot and the spring, and connected with the draw-head at the rear of the spring, substantially as shown and described. 3rd. In a car coupling, the combination, with the draw bar A, provided with the chamber B, shoulders *a*, *b* and holes *f*, *h*, of the follower G, provided with the aperture *e*, and received in the chamber B, the spring D adapted to press the said follower forward, the link C extending through the aperture *e*, and the pin H passing through the link C, and the pin I arranged to be supported and released by the follower, substantially as described. 4th. The combination, with the pin I, of the roller J, the chain *k* and spring K, substantially as specified.

No. 29,937. Manufacture of Boots and Shoes. (*Fabrication des chaussures.*)

Luke E. Scafe, Leeds, Eng., 1st October, 1888; 5 years.

Claim.—1st. The india rubber plate or middle sole *e*, and heel lift *g* having projecting studs, respectively *c* and *i* thereon, as described. 2nd. The outsole *b*, or clump and top heel piece *h*, with perforations or holes respectively *d* and *f* through the same, for receiving the studs, respectively *c* and *i*, as described. 3rd. The combination of outsole *b* and clump india rubber plate or middle sole *e*, with its studs or projecting pieces *c*, arranged and applied to the soles of boots and shoes. 4th. The combination of top piece *h* and india rubber heel lift G, with its studs or projecting pieces *i*, arranged and applied to the heels of boots and shoes, as set forth.

No. 29,938. Straw Burning Attachment for Boilers. (*Foyer à consumer la paille pour chauffer les chaudières.*)

The Waterous Engine Works Co. (assignee of Charles H. Waterous, Jr.), Brantford, Ont., 2nd October, 1888; 5 years.

Claim.—1st. The combination, with a steam boiler, of an auxiliary combustion chamber, having the end by which it is attached to said boiler entirely open, substantially as and for the purposes set forth. 2nd. The combination, with a steam boiler, of an auxiliary combustion chamber attached thereto and opening into its fire-box, and a funnel-shaped feeding chute attached to said auxiliary combustion chamber, and opening into the upper part thereof, substantially as and for the purposes set forth. 3rd. The combination, with a steam boiler, of a combustion chamber having corrugated walls attached thereto, and opening into the fire-box of said boiler, and a feeding chute opening in the outer end of said combustion chamber, substantially as and for the purposes set forth. 4th. The combination, with a steam boiler, of the chamber B attached to said boiler, and open at the end adjacent thereto into the same, and the perforated frame and shield D, substantially as and for the purposes set forth. 5th. The combination, with a steam boiler, of the chamber B attached to said boiler, and opening into the same at the end adjacent thereto, feeding chute C and plate G, substantially as and for the purposes set forth. 6th. The combination, with the steam boiler, of the chamber B attached to said boiler, and open into the same at the end adjacent thereto, feeding chute C and plate I, substantially as and for the purposes set forth.

No. 29,939. Fire Alarm Box.

(*Boîte d'avertisseur d'incendie.*)

The Northern Auxiliary Fire Alarm Co., Portland, Maine (assignee of Brown S. Flanders, Boston, Mass.), U. S., 2nd October, 1888, 5 years.

Claim.—1st. In a fire alarm signal box, a signal transmitting mechanism and motor therefor, an actuating lever for said motor, an auxiliary motor for moving the said actuating lever, and a releasing device for the auxiliary motor, combined with a device as a bar controlled by an electric magnet for setting the said releasing lever free, to permit the auxiliary motor to operate, and with locking devices for engaging the releasing lever after it has been set free. 2nd. In a fire alarm signal box, a signal transmitting mechanism and starting lever for operating it by hand, combined with an auxiliary motor operatively connected with the signal transmitting mechanism, and releasing lever for the auxiliary motor, a bar controlled by an electro-magnet for setting the releasing lever free to start the auxiliary motor, said bar and releasing lever being so constructed that each shall lock the other when the releasing lever is set free, substantially as described. 3rd. In a fire alarm signal box, a signal transmitting mechanism and starting lever for operating it by hand, combined with an auxiliary motor operatively connected with the signal transmitting mechanism, a releasing lever for the auxiliary motor, a bar controlled by an electro-magnet for setting the releasing lever free to start the auxiliary motor, a locking device for locking the releasing lever out of the limit of movement of the bar employed to set it free, and means for moving said releasing lever into engagement with the said locking device, substantially as described. 4th. In a fire alarm signal box, a signal transmitting mechanism and starting lever for operating it by hand, combined with an auxiliary motor operatively connected with the signal transmitting mechanism, a releasing lever for the auxiliary motor, a bar controlled by an electro-magnet for setting the releasing lever free to start the auxiliary motor, said bar and releasing lever being so constructed that each shall lock the other when the releasing lever is set free, and a pivoted latch *n*, and means for moving the releasing lever into position to be engaged by the latch, substantially as described.

No. 29,940. Door Check. (*Arrête porte.*)

William F. Lewis (assignee of Fred W. Fobey, Waterbury, Conn., U.S.), 2nd October, 1888; 5 years.

Claim.—1st. A door closer and buffer, consisting essentially of a closing arm pivoted to the jamb, and connected to the door and provided with lugs 19 and 20, a buffer and a slide upon the jamb, and a pivoted dog upon the slide. 2nd. The base plate, having extension 10, the closing lever pivoted thereto and having lugs 19 and 20, and a closing spring, in combination with the buffer, a slide engaging said buffer and carrying a pivoted dog, having an enlargement which engages the edge of the extension, and a head which is engaged by said lugs, as and for the purpose set forth. 3rd. The base plate, having ways 5, the buffer secured to the waist plate and the slide moving in said ways and having a plate 8 adapted to engage the buffer in combination with the pivoted dog carried by the slide and having a head 12, the closing lever having lugs 19 and 20, and a closing spring, substantially as described.

No. 29,941. Wooden Shovel. (*Pelle de Bois.*)

Xavier Filion and Alphonse Valiquette, Montreal, Que., 2nd October, 1888; 5 years.

Résumé.—Comme nouvel article de manufacture, une pelle en bois dont le manche est séparé et ajusté sur un épeson T, formant corps avec la pelle A, tel que decrit et indiqué.

No. 29,942. Car Windows.

(*Croisées des voitures de chemins de fer.*)

William H. Dawson, Lawrence, Mass., U. S., 3rd October, 1888, 5 years.

Claim.—A window sash, having flexible strips *c* projecting from its edges, combined with a casing having grooves of less depth than the width of the projecting portions of the strips, and provided with narrow bottom or seats 2 of the same width as the outer edges of the strips, and with inclined sides which converge from the outer ends or mouths of the grooves to the seats 2, said sides guiding the outer edges of the strips *c* to the seats 2, and keeping said edges in close contact with said seats, as set forth.

No. 29,943. Earth Auger. (*Sonde à tarrière.*)

Thomas W. Glenny, Stevensville, Ont., 3rd October, 1888, 5 years.

Claim.—The combination, with the tubular shaft A having a handle and hole J at one end, and a cross-bar D provided with blades *b*, E1 at the other end, of the rod F having a head G fitting into the tube of said shaft, and provided with a point I, having a shoulder H closing against the end of the shaft, said rod passing lengthwise through the shaft and provided with a handle extending beyond the handle of the shaft, substantially as set forth.

No. 29,944. Tension Device for Making Picket Fences. (*Machine à tendre le fil de fer pour clôture de pals.*)

Charles E. Wintrode, Huntington, Ind., U.S., 3rd October, 1888, 5 years.

Claim.—1st. The combination of the plate provided with the bent end C, a pivoted lever connected thereto, and provided with a flange to bear against the wire and a regulating-screw, substantially as shown. 2nd. The combination of the plate A having the bent ends B, C, the lever pivoted upon the end C, and provided with a flange to bear against the wire, and having a slot through its free end, the screw-rod and the thumb-nut, substantially as described.

No. 29,945. Dish Washer. (*Laveuse de vaisselle.*)

William D. Miller, Florence, Mass., U.S., 3rd October, 1888; 5 years.

Claim.—1st. A dish-washer consisting of a series of metallic chains and a handle, to one end of which said chains are secured by their ends, substantially as set forth. 2nd. A handle A having arms a attached to a ring B, in combination with short iron chains C1 attached to the ring, substantially as described.

No. 29,946. Thill Coupling. (*Armon de limonière.*)

Samuel Mirfield, Hastings, Ont., 3rd October, 1888; 5 years.

Claim—1st. A thill coupling consisting of the body B having jaws C, C1, provided with screw-threaded holes in alignment, a thill iron D having conical indentations, and the screws E, E1 fitting into the screw-threaded holes in the jaws, and having a conical point to impinge the conical indentation in the thill iron, as set forth. 2nd. In a thill coupling, the combination of the body B having jaws C, C1, provided with screw threaded holes in alignment, the thill iron D and screws E, E1, impinging the thill iron with or without jam nuts G, as set forth.

No. 29,947. Air-Feeding Device.

(*Fourneau fumivore*)

Frederick Leadbeater, Detroit, Mich., U.S., 3rd October, 1888, 5 years.

Claim—1st. The combination, with a furnace having an aperture with parallel sides leading into the ash-pit of the plurality, of vertical division strips dividing said apertures into separate passageways, a corresponding series of vertical perforated tubes arranged outside said apertures, one opposite the space between each two strips, and a cross-head communicating with all of said tubes and connected