No. 29,971. Crutch Attachment.

(*Tampon pour béquille.*)

William J. Donald, Tunnel, Wis., U.S., 10th October, 1888; 5 years.

Claim.—1st. An attachment for crutches consisting of a piece to be attached to the lower end of a crutch, formed with a screw-threaded projection having a pointed end, an elastic buffer having a perforation through which the screw-threaded projection extends, and a screw-threaded connection by means of which the buffer is vertically adjustable on the screw-threaded projection, substantially as shown and described. 2nd. An attachment for crutches consisting of an attaching piece formed with a screw threaded projection having a pointed end, and a polygonal elastic buffer screwing onto the screw-threaded projection extending through the buffer, and vertically adjustable over its point, substantially as shown and described. 3rd. An attachment for crutches consisting of the aportured polygonal elastic buffer 8, provided with plate 12 having threaded hole 10, substantially as shown and described. 4th. The combination, with the threaded end of a crutch having spur 7, of the apertured polygonal elastic buffer 8, provided with plate 12 having threaded hole 10, substantially as shown and described.

No. 29,972. Hinge. (*Penture.*)

Ernest Bourne, London, Ont., 10th October, 1888; 5 years.

Claim.—1st. As a new article of manufacture, a hinge formed with one or more braces B, substantially as and for the purpose set forth. 2nd One or more braces B, in combination with the traps S, S, knuckle K, and pin P, substantially as and for the purpose set forth.

No. 29,973. Whiffletree. (*Palonnier.*)

Stephen Baltzly, Livingston, Cal., U.S., 10th October, 1888; 5 years.

Claim—1st. In a whiffletree, the combination, with a whiffletree-bar composed of tubular metal and having open ends, of a brace-rod having its ends bent inwardly toward each other, substantially as described, the said bent ends being secured within the opening of the said whiffletree-bar, and draft rings embracing the ends of the brace-rod and bar and secured to said parts, substantially as set forth. 2nd. In a whiffletree, the combination, with a tubular whiffletree-bar having open ends, of a bow-shaped brace or bracing-truss having a portion of its ends bent inwardly to enter the open ends of the said bar, a brace-collar encircling the whiffletree-bar, and bracing-truss and draft-rings secured on the outer ends of the brace and bar, substantially as set forth. 3rd A whiffletree composed entirely of metal and consisting of a bar and brace, the whiffletree-bar being of tubular metal open at both ends to permit of the introduction of the inwardly-bent portion of the bracing-strip, the ends of the bar and brace being secured together by welding, and draft-rings secured on the outer ends of the bar and brace by welding, substantially as set forth.

No. 29,974. Movable Horse Shoe Calkin.

(*Crampon mobile de fer à cheval.*)

Maximilian Von Maltstein, Breslau, Prussia, German Empire, 12th October, 1888; 5 years.

Claim.—The mode of securing movable calkins in horse-shoes, by cans of providing a groove in one of the side faces of the calkin, and a corresponding groove on or in the legs of the horse-shoe, a nail forced into said grooves when in line serving to firmly hold the calkin within the shoe, substantially as and for the purpose set forth.

No. 29,975. Carriage Axle. (*Essieu de voiture.*)

Florian Lebel, Levis, Que., 12th October, 1888; 5 years

Claim.—1st. The combination in a carriage axle, of the rod J playing loosely in the opening *g*, with the spiral spring *l* holding said rod against the end of a chamber in the cap H substantially as shown and specified. 2nd. The combination of the axle C, with the cap H secured to the box A, having the interior of its end wall indented, or otherwise uneven, substantially as specified and for the purpose set forth. 3rd. The combination of the chambered cap H having an indented interior surface, and an opening fitted with a screw plug i with the rod J lying loosely in the opening *g* in the axle, and held against the uneven wall of the cap H by the spiral spring *l*, as shown and described.

No. 29,976. Machine for Making Cigars.

(*Machine pour faire les cigares*)

Conrad L. Driefer and Charles D. Shaw, London, Ont., 12th October, 1888; 5 years.

Claim—1st. In a machine for making cigars, the intermittent gear wheels G having only part G1 of their circumference provided with cogs, and shaft D1, in combination with the frame H, and toothed racks H1, substantially as shown and described and for the purpose specified. 2nd. In a machine for making cigars, a table K shaped on its face approximately to the form of the cigar, a reciprocating frame or table H carrying a roller M, and an apron L, in combination with the racks H1, intermittent gear wheels G having only part G1 of their circumference provided with cogs, and shaft D1, for the purposes set forth. 3rd In a machine for making cigars, the combination of the frame or table K, reciprocating table H, and the knives B2, B1, mounted respectively on said fixed frame and reciprocating table, and serving to shear off the surplus tobacco, substantially as explained. 4th. In a machine for making cigars, a table K shaped on its face approximately to the form of the cigar, in combination with a reciprocating frame or table H carrying a roller M, and an apron L substantially as and for the purposes set forth 5th. In a machine for making cigars, the table K, apron L and frame H, in combination with roller M, and shaft D2, substantially as shown and described and for the purpose specified. 6th. In a machine for making cigars, the frame H, table K, apron L and roller M, in combination with shaft D2, ratchet R, and dog Q, substantially as shown and described and for the purpose specified. 7th. In a machine for making cigars, the lever T, treadle T1 connected thereto, the shaft D1 carrying toothed wheel E, the toothed wheel E1, the shaft D3 carrying the pulley U, belt T2 and pulley U1, in combination with the rollers W, W1, W2, elastic bands X3, and frame X1, substantially as and for the purposes set forth. 8th. In a machine for making cigars, the frame X1 formed with elongated concentric slots X2, levers X4 and tension bands X3, in combination with the concaved rollers W, W1, W2, substantially as shown and described and for the purpose specified. 9th. In a machine for making cigars, the concaved rollers W, W1, W2, in combination with the tension bands X3, substantially as shown and *described and for the purpose set forth. 10th. In a machine for* making cigars, the concaved rollers W, W1, W2, in combination with the frame X1 formed with elongated concentric slots X2, a retreating lever X4, anti-friction roller X7 and elastic bands X3, substantially as and for the purposes set forth. 11th. In a machine for making cigars, the rollers W, W1, W2, in combination with the table X, and frame X1, substantially as and for the purposes set forth. 12th. In a machine for making cigars, the thimble A formed with a concave A, in combination with an upright A2 and held in place by said upright, and a set screw or other suitable securing or supporting devices, substantially as shown and described for the purpose specified. 13th. In combination with the rollers W, W1, W2, the thimble A formed with a semicircular concavity A1 permitting the cigar point to enter it laterally, as explained 14th. The reversible concave rollers W, W1, W2, and the tip forming thimble A mounted in a suitable standard A2, and reversible in position so as to adapt the machine to work with right or left wrappers, as explained. 15th. In a machine for making cigars, the combination, of the frame *a*5, tube *a*1 provided with a funnel *a*2, the spring *a*6, and the roller *a*4, substantially as and for the purposes set forth. 16th. In a machine for making cigars, the combination of the frame X1, provided with the concentric slots X2 with two sets of flexible rollers W, W1, W2, each set having bearings in said concentric slots, substantially as and for the purpose set forth. 17th. In a machine for making cigars, the combination, with the frame X1, of two sets of hollow rollers W, W1, W2, one set being situated on each side of said frame, and said rollers having a pliable elastic or flexible covering *d*8, substantially as and for the purpose set forth. 18th. In a machine for making cigars, the combination, with the frame X1, of two sets of hollow rollers having parts *d* mounted in said frame, and formed with grooves at each side of said frame to receive the elastic bands X3, and having screw-threaded sockets *d*3 and *d*4 at each end, in which the tube *c* and screw bar *c*1 are secured with bearing *d*7 and nuts *d*5 and *d*6, and flexible coverings *d*8 on said rollers adapted to be clamped at the inner ends between said nuts *d*5 and *d*6 to secure the flexible covering, substantially as and for the purpose set forth.

No. 29,977. Steam Engine. (*Machine à vapeur.*)

Anselme H. Larochelle, Levis, Que., 12th October, 1888; 5 years.

Résumé.—1o La combinaison de la roue alluchonnée M, la commande inte de la couronne alluchonnée N, la commandée de l'e staille K, de la clef d'arrê D, du couvert S et du moyen J, tel que ci-dessus decrit et pour les fi is indiquées. 2o. La combinaison de la roue friction E, la commandante de la roue friction F, la commandée de la rainure T, du levier a la main R, de la clef longue O, tel que ci-dessus decrit et pour les fins indiquées. 3o La combinaison de l'arbre porte excentriques H, de la roue à la main L, des excentriques a, b, c, de la roue alluchonnée la commandée et la roue friction F, tel que ci-dessus decrit et pour les fins indiquées.

No. 29,978. Brick Machine.

(*Machine à Brique.*)

Daniel Woodbury, Minneapolis, Minn., U. S., 12th October, 1888; 5 years.

Claim—1st. In a brick machine, in combination for tempering the clay and assisting in feeding the same to the presses, the clay receptacle D, the rack E consisting of the pair of central vertical side bars *e*, tied together by suitable cross-rods and pivoted within the clay receptacle on the shaft *e*111, said bars *e* extending from above top of receptacle D to near the bottom of the same, the pairs of side bars *e*1 and *e*11 attached to the central bars at or near the pivotal point of connection with shafts *e*111, and diverging and extending upwardly to a level with tops of bars *e* and connected by suitable cross-rods, the three bars *e*, *e*1 and *e*11 being connected by longitudinal ties at the top, and suitable means, substantially as described, for imparting a rocking motion to said rack 2nd. As a forced feed for brick machines, the combination of a rocking tempering rack pivoted within the clay receptacle, and a vertical cross-plate secured to the lower extension of said rack on a line with the mouths of the press-boxes, substantially as described. 3rd. In a brick machine, the combination of the rack E pivoted within the clay receptacle, as at *e*111, and provided with extensions of its vertical side bars *e* below the pivoted shaft *e*111, the vertical cross plate F pivoted between and to said bars *e*, and suitable stops, as *f*, *f*, *f*1, *f*1, for limiting movement of plate F, substantially as described. 4th. In a brick machine, in combination, the rocking rack E, the vertically adjustable fulcrum O, P, *p*, *p*1, as described, the lever bar L pivoted to said fulcrum attached at one end to the rack E, and provided at the other end with a vertical slot, the lever L1 rigid with shaft W, provided with a pin on its upper extremity working in the slot of lever L, the crank-shaft W, the crank-bar *w* and the mould driving roller *w*1, all arranged substantially as described for the purpose set forth. 5th. In a brick machine, the vertically adjustable fulcrum described, consisting of horizontal bars O, P, bolts and blocks *p*, *p*1, vertical bars N, N1, provided with vertical slots, and screw-bolts passing through the slots and the bars O, P, substantially as described. 6th. The toggle levers I, I1, *i*, *i*1, in combination with the rack E and shafts J, J1, substantially as described. 7th. The toggle levers I, I1, *i*, *i*1, the rack E, the shaft J, J1, the cranks K, K1, the plunger rods R, R1, *r*, *r*1, and the plungers T, T1, in combination, substantially as described for the purpose set forth. 8th. In a brick machine, provided with a double set of presses, as described, the roller-frame B provided with