posite sides of said recess, and resting in the recesses of cap L, the recesses being of greater width than the tapering arms, the clips N fitting in the recesses of lugs O and holding the cap and knee together, substantially as set forth. 3rd. The combination, with the knee E having the longitudinal recess, of the rave H resting in the bottom of recess I and bent downward at opposite sides thereof, the cap L provided with the projection R fitting in recess I and resting on the rave H, the cap being recessed to receive the arms K and rock and oscillate laterally thereon, substantially as set forth. 4th. The combination, with the runners A and the cross-beam M, of the knees E having longitudinal recesses I, and rounded outward tapered arms K on opposite sides of said recesses, the rave-bolts extending upward from the runners in front and rear of the knees E, the raves H resting between their ends on the bottom of the recesses I apertured to receive the upper ends of the rave-bolts, and bent therefrom downward and secured to the runners, the caps L having central projections R resting on the raves within the recesses I, rounded recesses receiving the arms K and grooved lugs O on opposite sides, the ends of said grooved portions and the clips N passed upward through the grooves in said lugs and secured to the beam M, substantially as set forth.

## No. 26,417. Lasting Jack for Holding Boots. (*Machine à enformer les chaussures.*)

Joseph Beaulieu and Lévi Beaulieu, Worcester, Mass., U. S., 7th April, 1887; 5 years.

*Claim.*—1st. The lasting-jack described consisting of the standard B, supported and braced as set forth, the swivel C with its joints at each end, and the arm D carrying a spring-pin and rest for supporting the work, all constructed and operating as and for the purpose set forth. 2nd. The combination of the standard B, supported and braced as set forth, the swivel C joined thereto by a movable joint held by a spring-bolt and notch, and connected to the arm D by a friction joint at right angles to the other, and the arm D carrying the holding mechanism for the work, all constructed and operating substantially as described and set forth

## No. 26,418. Treatment of Milk.

(*Traitement du lait.*)

Abraham Forssell, Stockholm, (assignee of Alexander T. Pfeiff, Vik, Flen), Sweden, 7th April, 1887; 5 years.

*Claim.*—A mode of preparing a milk that will keep and is fit for every use, by cooling the milk yet warm from the cow, immediately after the milking, as fast as possible, down to between X 40 and OoC, whilst it is stirred gently and without interruption, during about an hour, and without any particular admission of the air, substantially as and for the purpose set forth.

## No. 26,419. Adjustable Packing for Piston Rods. (*Garniture mobile pour tiges de pistons.*)

McGinnis Gildersleve, (assignee of William Pohlman), Middletown, N.Y., U.S., 7th April, 1887; 5 years.

*Claim.*—1st. The combination of the cylinder head A, casing C, spring G, solid ring E and sectional rings D, F, the ring D having the dowels *d*, all arranged substantially as set forth. 2nd. The combination of the cylinder head A, casing C, packing *e*, spring G, solid ring E and sectional rings D, F, the ring D having the dowels *d*, all arranged substantially as set forth. 3rd. In a piston-rod packing, the cylinder head A, casing C and packing *e*, combined with the spring G, solid ring E and sectional rings D, F, substantially as set forth.

## No. 26,420. Bead Fastener for Window Frames. (*Clou pour baguettes de châssis de fenêtre.*)

Charles R. Nelson, New York, N. Y., U. S., 9th April, 1887; 5 years.

*Claim.*—The combination, with a stop-bead having suitably shaped apertures, of washers placed over the apertures, which washers can completely cover said apertures, and of screws passed through the washers and the apertures into the casing, the diameter of the screws being equal to about one-third of the diameter of the apertures, to permit of moving the bead slightly in all directions without changing the positions of the screws, substantially as herein shown and described.

## No. 26,421. Braces. (*Bretelles.*)

Henri Beaudry, Montreal, Que., 9th April, 1887; 5 years.

*Claim.*—In combination, with a suspender strap provided with a button hole, a metal plate extending close up to the button hole on one side of the strap, and having its edge portion clamped upon the opposite side edges and end of the strap, all as herein set forth.

## No. 26,422. Machinery for Feeding Rollers and Purifiers in Roller Flouring Mills. (*Appareil d'alimentation des cylindres et blutoirs des moulins à blé à cylindres.*)

William Barnard, Galt, Ont., 9th April, 1887; 5 years.

*Claim.*—1st. The combination of the frame C, the thumb-screws and bolts *a*, *a* and the slot or opening *b*, and the springs *e*, *e* with the feed boxes B, B, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the frame C, and the feed boxes B, B, with the shaking rod D and the eccentric shaft E, substantially as and for the purpose hereinbefore set forth.

## No. 26,423. Drain Plough. (*Fouilleuse.*)

James Harper, Chamois, Mo., U.S., 9th April, 1887; 5 years.

*Claim.*—1st. In a drain plow, the combination of the frame K, the plate R hinged to its front end, and provided with an opening for the reception of the king bolt of a waggon gear, whereby the frame may be trailed from the front axle, the rotating cutter journalled in the frame, the plow in rear of the cutter, and the chute supported upon the front end of the frame and having its rear end bearing upon the upper side of the rotating cutter, for the purpose set forth, substantially as described. 2nd. The combination, with the running gear of a waggon, of the frame K pivotally connected to the front axle and trailing from the same, the rotating circular cutter journaled in rear of the cutter, the curved chute having its rear end bearing against the front upper side of the cutter, and the lever V fulcrumed to the rear axle of the waggon and connected to the rear end of the frame R, for the purpose set forth substantially as described. 3rd. In a drain plow, the combination of a frame K, a plate R, hinged to the front end of the frame and adapted to be connected with the front axle of a waggon gear, to thereby trail the frame from the front axle, a rotating cutter journaled in the frame, the plow carried by the frame in rear of the cutter, a chute resting at the rear end on the cutter, and a belt S connecting the chute to the plate R to thereby support the front end of the chute and prevent the displacement of the same, as and for the purpose set forth.

## No. 26,424. Oven Light for Bakers' Ovens.

(*Lumière pour Fours de Boulangerie.*)

Frank H. Van Houten, Matteawan, N.Y., U.S., 9th April, 1887; 5 years.

*Claim.*—1st. The combination, with the case and the revolving cut off, of the burner mounted thereon having the gas supply pipe provided with main and auxiliary channels, and the regulating screw in the auxiliary channel, the slotted guide plate attached to the casing, the cock in the main channel of the supply pipe and the arm depending from the cock and engaging the slotted guide plate, substantially as specified. 2nd. The combination of the case and the revolving cut-off, provided with the pin and the spring having a recess engaging the pin the spring being secured to the case, substantially as specified. 3rd. The combination, with the case and the revolving cut-off having the lever F, of the burner, the supply-tube leading to the burner having the main and auxiliary channels, the slotted plate attached to the casing, the cock in the main channel and the arm depending from the said cock, substantially as specified.

## No. 26,425. Boot or Shoe. (*Chaussure.*)

Frank P. Woodbury, Salem, N.H., U.S., 9th April, 1887; 5 years.

*Claim.*—1st. A boot or shoe having a portion of the heel composed of a layer or layers of compressed wood pulp, and the remainder of leather or other suitable material, as set forth, 2nd. A boot or shoe having the lower layer *d* of the heel composed of leather or other suitable material, and the remainder of layers *c* of compressed wood pulp, as set forth. 3rd. A boot or shoe having a portion of the sole composed of a layer or layers *g* of compressed wood pulp, and the remainder of leather or other suitable material, as set forth.

## No. 26,426. Car-Coupling. (*Attelage de Chars.*)

Patrick F. Duross, Long Island, N.Y., U.S., 9th April, 1887; 5 years.

*Claim.*—In a coupling device, substantially as herein shown and described, the combination, with a draw head, of coupling hook C, gravity latch D and link-director E, and arranged and operating as set forth.

## No, 26,427. Hydraulic apparatus for Raising or Forcing Water and other Liquids, or Air and other Gases. (*Appareil Hydraulique pour Elever ou Refouler l'Eau et autres liquides, ou l'Air et autres Gaz.*)

Howard D. Pearsall, London, Eng., 9th April, 1887; 5 years.

*Claim.*—1st. In hydraulic rams, the combination of a receiver *c* into which some of the water from the flow-pipe flows during the closing of the main valve, and a passage *h* through which air enters the receiver *c* escapes from the receiver *c* during the closing of the main valve. 2nd. In hydraulic rams, the combination of a receiver *c* into which some of the water from the flow-pipe flows during the closing of the main valve, a passage *h* through which air enters the receiver *c* and also escapes from the receiver *c* during the closing of the main valve, a valve *i* closing the passage *h* and a float *b*. 3rd. In hydraulic rams, the combination of a receiver *c* into which some of the water from the flow-pipe flows during the closing of the main valve, a passage *h* through which air enters the receiver *c* and also escapes from the receiver *c* during the closing of the main valve, a valve *i* closing the passage *h*, and a float *b* and a screw *g* by which the distance of the float from the top of the receiver *c* is varied at will. 4th. In hydraulic rams, the combination of a receiver *c* into which some of the water from the flow-pipe flows during the closing of the main valve, a passage *h* through which air enters the receiver *c* and escapes from the receiver *c* during the closing of the main valve, and a main valve *m* through which water from the receiver *c* and also water coming direct from the flow pipe *f* is discharged. 5th. In hydraulic rams, the combination of a single valve *m* acting as main and waste valve, and a valve rod *l* which is moved by external power instead of the valve being moved directly by the current of water in the flow-pipe. 6th. In hydraulic rams, the combination of a single valve *m* acting as main and waste valve, a valve rod *l* and a motor such as A actuated by the fluid under pressure in the air vessel *a*, or a water-wheel driven by the waste water. 7th. In hydraulic rams, the combination of a main valve *m* through which water from the receiver *c*, and also water coming direct from the flow-pipe *f* i$_s$