the supply with the inlet and outlet chambers, whereby either main may be used as supply or return, substantially as described. 3rd. In a four-way valve, a casing divided into chambers g^1, l^1, i^1, and f^1, of valves k^1, k^{11}, and double valve l, substantially as described. 4th. In a four-way valve, a casing divided into chambers g^1, l^1, i^1, f^1, of valves k^1, k^{11}, held normally open by a spring, a double valve l, secured in plugs in the casing, substantially as described.

No. 37,500. Plow Coulter. (*Coutre de charrue.*)

Charles M. Smith, Lanark, Ontario, Canada, 1st October, 1891 ; 5 years.

Claim.—The combination of a plow coulter A, having lip B, and chain C, substantially as and for the purpose hereinbefore set forth.

No. 37,501. Waggon Step.

(*Marche-pied de wagon.*)

Horace Raford Roden, Liberty Hill, Louisiana, U.S.A., 1st October, 1891 ; 5 years.

Claim.—1st. In a waggon step, a vertical portion which rests against the outer side of the waggon body, having its upper end extending inward and catching over the upper edge of the waggon body, its lower end extending outward, and a clamp vertically adjustable upon this vertical portion to engage the under side of the waggon body, combined substantially as described. 2nd. In a waggon step, a vertical portion having its upper end bent inward and catching over the upper end of the waggon body, its lower end bent outward, and a clamp which is vertically adjustable upon the said vertical portion, the inner end of the clamp extending under the waggon body, and its outer end extending outward to form an upper or second step, substantially as specified. 3rd. In a waggon step, a vertical portion having its upper end extending inward and catching over the upper edge of the waggon body, and its lower end bent outward, a horizontal plate secured to this outwardly bent end, a clamp having a vertical opening through which the said vertical portion passes, and a screw which passes through the clamp and engages the vertical portion, substantially as shown and described.

No. 37,502. Baby Jumper. (*Escarpolette.*)

Clarence L. Barnhart, Flint, Michigan, U.S.A., 2nd October, 1891 ; 5 years.

Claim.—1st. The combination, in a baby jumper, of a base supporting a standard from one end thereof, the standard having an overhanging arm, and a crib supported from said overhanging arm, the connections between the crib and said arm including a spring, substantially as described. 2nd. The combination, in a baby jumper, of a skeleton base having the sides thereof extending upwardly and inwardly and supporting a standard, the latter having an overhanging upper end, a spring depending from said arm, a hanger depending from said spring, and a crib carried by said hanger, substantially as described. 3rd. The combination, in a baby jumper, of a standard having an overhanging arm and a base provided with casters, a spring depending from said arm, a hanger depending from said spring, and a crib supported on said hanger, substantially as described. 4th. The combination, in a baby jumper, of a standard having an overhanging arm, and a base provided with casters, a spring depending from said overhanging arm, a hanger depending from said spring and formed with a horizontally ranging lower end, and a crib secured to said horizontal arm and having a block or enlargement at its underside at the point of connection with the hanger arm, substantially as described. 5th. In a baby jumper, the combination, with a suitably supported standard, of a crib suspended therefrom, the connection including a spring formed of double strands of wire, substantially as described. 6th. In a baby jumper, the base A, formed at its rear end with upward inclined bars, which terminate in and support a vertical, overhanging standard, substantially as herein shown and described. 7th. In a baby jumper, the base A, having the front cross bar a, and having its side arms a^1, continued inwardly and upwardly to form the standard A^1, the said standard overhanging at its upper end as at A^2, a spiral spring D, suspended from said overhanging end, a hanger arm C, suspended from said spring, and formed with a rigid horizontal seat which extends and is supported at one side of said hanger arm, and a crib E, secured to said horizontal seat, all in combination, substantially as described.

No. 37,503. Cover for Butter Tubs and Firkins, and Art of Covering.

(*Couverture de tinettes, ou quart de barril et art de les couvir.*)

David Ivor and John Ivor, both of Strathroy, Ontario, Canada, 2nd October, 1891 ; 5 years.

Claim.—1st. An inside cover of white ash with edge adjusted perfectly to the inside of the butter tub at the opening thereof, with rubber or cotton bands, substantially as and for the purpose hereinbefore set forth. 2nd. The rubber or wooden bearings or rubber springs, used to keep the such inside cover in position in case of shrinkage of the butter.

No. 37,504. Pneumatic Door Check.

(*Arrête-porte pneumatique.*)

Alfred Dudden, San Francisco, California, U. S. A., 2nd October, 1891 ; 5 years.

Claim.—1st. The outer cylinder 5, inserted in the door jamb and provided with internal threads at its front end, and the internal smaller cylinder mounted therein, said smaller cylinder being provided at its front end with a flared mouth terminating in a securing plate and in rear of the same provided with an external annular threaded boss or shoulder engaging the threads of the outer cylinder, substantially as specified. 2nd. The combination with the cylinder 5, provided at its front or inner end with a stop, the rod 12, mounted therein and terminating in a head, and the spring 23, interposed between the stop and the head, of the arm 15, for connecting the front end of the rod to the door, said arm being provided with a transverse perforation, as 42, and the rod or bar 43, in said perforation, substantially as and for the purpose specified. 3rd. The combination of the face plate 24, provided with opposite lugs 25, having perforations, the arm 15, longitudinally slotted at 13, and exteriorly threaded at its outer end, the nut 27, transversely perforated to agree with the slot and the perforations of the lugs and threaded upon the rod, and the pintle 28, passing through the perforations of the ears, nut, and rod, substantially as specified. 4th. The combination with the cylinder 5, plugged at its lower end and provided above the same with a narrow slot 29, extending for some distance along the cylinder, of a rod 12, mounted in the cylinder and provided with a piston head, a spring 23, interposed between the head and the outer end of the cylinder, and an arm 15, pivotally connecting the rod with the door, substantially as specified. 5th. The combination with the cylinder 5, mounted in the recess of the door frame and provided at its rear end with a plug 31, having a valve opening provided with an inwardly opening valve 35, and a tapering slot 29, formed in the wall and extending for a considerable portion of its length at one side of the path traversed by the piston, of a tension rod 12, having a piston head mounted for sliding in the cylinder, a spring 23 for retracting the rod, and an arm 15, pivotally connecting the door with the outer end of the rod, substantially as specified. 6th. The combination with the cylinder 5, mounted in the recess of the door frame, and having an internal rear threaded end 30, of a valve plug 31, threaded in the end of said cylinder and having a central opening 32, provided with a conical seat, and a countersunk recess 37, at the front end of the seat, and an annular flange 34 at the rear end of the opening, a valve 35, having a conical body mounted in the seat, and a circular head 36, fitting the recess and terminating at its rear end in a stem 38, projecting through the opening and the annular flange and provided with a stop or head, a spring 41, mounted between the head and the plug, encircling the stem, and adapted to maintain the valve normally out of its seat, a tension rod 12, mounted in the cylinder and provided with a piston head, an arm 15, connecting the rod with a door, and a coiled spring 23, interposed between the head and the front end of the cylinder, substantially as specified. 7th. The cylinder 5, having valve plug 31, provided with a spring pressed valve, and a narrow tapered slot formed in the wall of the cylinder in front of the plug 31, and having its lower or enlarged end adjacent to said plug, combined with the rod 12, having a piston head working in the cylinder and pivotally connected at its outer end with the door, as set forth. 8th. The combination with a cylinder provided at its outer end with a stop, of a rod mounted in the cylinder and terminating at its rear end in a piston head, and near its outer end provided with a transverse perforation, occurring within the cylinder when the rod is in its normal position, and the removable pin adapted for insertion in the perforation and to retain the rod withdrawn from the cylinder against the tension of the spring, substantially as specified.

No. 37,505. Road Cart. (*Désobligeante.*)

States De Groat Palmer, Marshalltown, Iowa, U.S.A., 2nd October, 1891 ; 5 years.

Claim.—1st, The combination, with the axle, the shafts, and the body of a vehicle, of a pair of bars, connected at their rear ends to the axle, at their front ends to the body and provided at such points with elastic cushions to permit horizontal vibration, and springs connecting the middle parts of said bars with the shafts, substantially as shown and described. 2nd. The combination, with a vehicle body, its shafts, and the axle, of a pair of bars connected to the axle at the rear, connected at intermediate points to the shafts by means of springs, and having at their front ends a laterally yielding connection with the body, substantially as shown and described. 3rd. The combination, with the axle, the shafts and the body of the vehicle, of a pair of bars connected at their rear ends to the axle, at their front ends to the body, and having at an intermediate point a spring connection with the shafts made adjustable along the length of said bars, substantially as and for the purpose described. 4th. The combination, with the vehicle body and the bars G, of a plate attached to the vehicle body and provided with a long bearing, a bolt or rod extending through the same and also through the ends of the bars, and elastic washers or cushions arranged about said bolt on each side of the bars, substantially as and for the purpose described. 5th. The combination with the axle, with clip d, thereon, of the clip plate d^1, formed with ears, a bolt passing through the same, the bar G, hung upon said bolt, and elastic washers or cushions arranged on each side of the bar between the ears, substantially as shown and described. 6th. The combination, with the axle and the shaft, of the bracket having a broad base seated upon and extending longitudinally along the axle for sustaining the shaft above the axle, the bar G, and clip d, d^1, securing the base of the bracket at one end, and the longitudinal brace K, and clip e, e^1, securing the base of the bracket at the other end, substantially as shown and described.

No. 37,506. Device for Opening Envelopes.

(*Appareil pour ouvrir les enveloppes.*)

Edouard Lefebvre, Montreal, Quebec, Canada, 2nd October, 1891 ; 5 years.

Claim.—An envelope opening device comprising a slab or base plate, a blade carried above it at one end thereof and with its edge facing same, a table or carrier pivoted to said slab and provided with a shearing edge, and a gauge for determining the extent of cut as set forth.