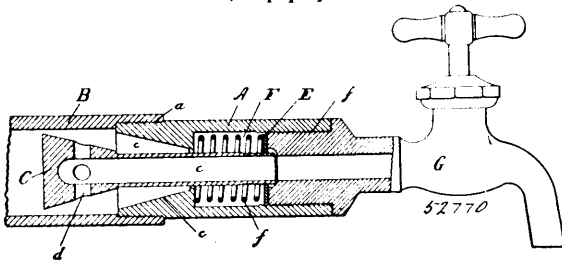


concave at each end, and a front cut or opening, i^3 , leading into this slot, link-rod, L , hinged or pivoted at one end to the supplemental axle, and link-arm, K , hinged or pivoted at one end to a support on the main frame and provided with a series of apertures, k , with either of which the front end of the connecting-rod may be engaged, substantially as described. 7th. In disk harrows, the disk-shafts, in combination with the supplemental axle, H , and carrying-wheels h , arms I , mounted at one end on said supplemental axle and at their forward, free, ends constructed with a vertical enlargement, i^1 , having a vertical, oblong opening i^2 , concave at both upper and lower ends, and a front passage, i^3 , into said opening, with a short stud, i^4 , projecting outward slightly about midway of the back, and a link-rod L hinged or pivoted at one end of the supplemental axle and adjustably and detachably connected at its other end to the main frame, substantially as described. 8th. In a harrow, a wheeled attachment comprising a supplemental axle, wheels loosely mounted on the said axle, arms rigidly attached to the said axle and pivotally and detachably connected to the harrow, a lever-arm mounted on the said supplemental axle rigidly and adapted to rotate the same, whereby the harrow is raised or lowered, and means for locking the said supplemental axle when the harrow is raised. 9th. In a harrow, a wheeled attachment comprising a supplemental axle, wheels loosely mounted on the ends thereof, arms rigidly attached to the said supplemental axle and pivotally and detachably connected to the harrow, a lever-arm rigidly mounted on the said supplemental axle, a lever device connecting the said lever-arm and the harrow and adapted to rotate the supplemental axle, and means for locking the said lever device. 10th. The harrow, a supplemental axle connected to the harrow by elevating arms, wheels carried by the said supplemental axle, a lever, K , pivotally connected to the harrow-frame, an arm, M , rigidly connected to the supplemental axle, and an arm pivotally connected with the arm, M , and the lever, K , for elevating the harrow and throwing its weight upon the supplemental wheel-carried axle. 11th. The non-rotatable axle, R , the adjustable boxes, O , loosely adjustable on the end of the axle, the boxes being provided with flanges at one end and mechanisms on the opposite end for securing them to the axle in any desired position, and the wheels, G , mounted and revolving on the said boxes. 12th. In a wheeled attachment for a harrow, substantially as described, the supplemental axle, R , having elevating arms, H , adapted to be connected to the harrow by means of their front ends being bifurcated, the flanges, S , on said bifurcated arms, and pins, I , for locking said bifurcated arms to the harrow.

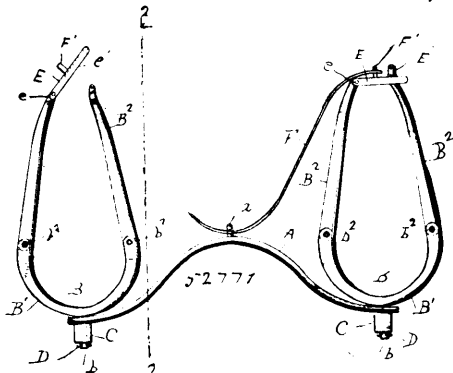
No. 52,770. Valve. (Soupape.)



Thomas Alfred Ryan, Lowell, Massachusetts, U.S.A., 26th June, 1896; 6 years. (Filed 4th Jan., 1896.)

Claim.—The combination, with a valve casing provided with means for attaching it to a pipe or barrel, and having a conical valve seat, and an internal chamber provided with a screw-threaded portion at its front end, of a conical valve provided with a hollow stem and holes for the passage of liquid when the said valve is off its seat, a plate secured on the end of the valve stem, and spring arranged in the said chamber and bearing against the said plate, whereby the valve is held on its seat, substantially as set forth.

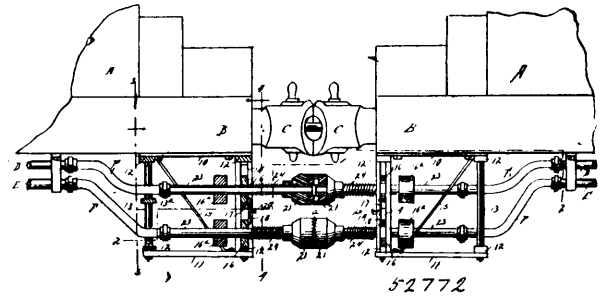
No. 52,771. Neck Yoke. (Volée de boutte timon.)



Henry W. Wilcox, Whitesboro, New York, U.S.A., 26th June, 1896; 6 years. (Filed 5th June, 1896.)

Claim.—1st. The combination with the yoke, of the hames mounted on the ends thereof to swivel and having a portion hinged and provided with a fastening device carrying an upwardly-projecting pin, and a spring yoke supported by the first mentioned yoke with its ends engaging said pin, substantially as described. 2nd. The combination with a yoke provided at the centre on its upper face with draft-attaching means and at its ends on its lower face with depending hollow portions, of hames in hinged sections, one of which is provided at its upper end with a hinged bar adapted to receive the end of the opposite hinged portion, said hames having depending portions passed through the ends of the yoke and through said hollow depending portions and mounted to swivel therein, and keys passed through the ends of pintles on the hames beneath the said depending portions, substantially as specified. 3rd. The combination with the oppositely-disposed yokes united at their centres by the swivel connection, the upper yoke being of spring material, of the hames having studs at their upper and lower ends and mounted to swivel in the ends of the yokes, and bars carrying the upper studs and hinged to one portion of the hames and at the other end having openings to receive the upper end of the opposite portions of the hames, substantially as described.

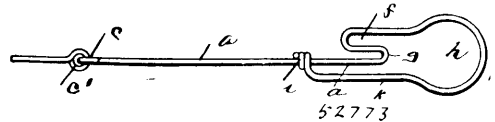
No. 52,772. Automatic Pipe Connection. (Joint de tuyau.)



Harrison Reed, Logansport, Indiana, U.S.A., 26th June, 1896; 6 years. (Filed 8th June, 1896.)

Claim.—1st. The combination, with a car, of a depending support on same, two coupling-head sections, a pipe-section projecting from each coupling-head section, the said pipe and head sections being respectively arranged one above the other, two cross-heads vertically movable on the depending support and by which the pipe-sections are respectively held in connection with the cross-heads, and a lifting lever, substantially as described. 2nd. The combination, with a car, of a depending support, two coupling-head sections having serrated front ends, two pipe-sections respectively connected to the coupling head sections, two cross-heads movable in the support and with which the pipe-sections are connected and a lever adapted for lifting the cross-heads, substantially as described. 3rd. The combination with a car, of a depending and vertically-elongated support, two transversely-extending cross-heads movable in the support, a link connecting the cross-heads, means attached to the link for operating the cross-head, and a coupling head section connected to each cross-head, substantially as described. 4th. The combination of an elongated support, two cross-heads movable in said support, coupling-head sections respectively in connection with the cross-heads, and means for moving the cross-heads in the support and in unison with each other, substantially as described.

No. 52,773. Bale Tie. (Lien de ballot.)



Samuel Holister Cochran, Westerville, Ohio, U.S.A., 26th June, 1896; 6 years. (Filed 5th June, 1896.)

Claim.—1st. A binding or baling device consisting of a wire girdle composed of a series of links connected to each other by means of interlocking eyes or loops e and e^1 , in combination with a hook having a mouth g^1 of less diameter than the eyes, and capable of receiving the body portion of the links, and a hand-loop h , consisting of an enlargement at the head of the hook, substantially as described. 2nd. The combination in a binding or baling device, of a strand or section of wire having knot-like projections arranged at intervals thereon, a hook f having a mouth g^1 narrower than the diameter of said projections and being bent out of or connected with said wire, a loop h by which one end of the device is held, and a suitably shaped ring or link b on the opposite end of the wire, substantially as and for the purpose specified.

No. 52,774. Car-Coupler. (Attelage de chars.)

Charles E. Ward, West Milford, West Virginia, U.S.A., 26th June, 1896; 6 years. (Filed 8th June, 1896.)