

flanges of the sprocket wheel and plate forming bearings for the axle supporting the cart body, substantially as set forth. 9th. The combination, with the body D, pivoted upon the axle B, as shown, of means, as the sprocket wheel G, chain H, sprocket wheel J and lever J¹, for operating said body, substantially as set forth. 10th. The combination, with the sprocket wheel J, mounted in a suitable supporting frame and connected with body D, as shown, of the cover L having perforations therein, and means, as the pins P¹, for fixing the position of the sprocket wheel, substantially as set forth.

No. 38,212. Holding Device for Spring Actuated Shades. (*Bâton de rideau à ressort.*)

Horace Leonard Hall, Manchester, New Hampshire, U. S. A., 3rd February, 1892; 5 years.

Claim.—1st. In combination with a spring actuated shade roller and shade thereon, channeled shade-stick attached to the free end of said shade, provided with a slot connecting with said channel, spring actuated rods mounted therein having pendants attached to their adjacent ends and projecting through said slot in the shade stick. 2nd. A shade stick provided with a pendant and a shouldered channel opening in a slot adjacent to said pendant; a shouldered rod in said channel provided at its inner end with a pendant which projects through said slot and is movable toward and away from the pendant on the stick, and a spring on the rod between its shoulder and the shoulder of the channel, all substantially for the purpose set forth.

No. 38,213. Spring Mattress. (*Sommier élastique.*)

George W. Murray, Minneapolis, Minnesota, U. S. A., 4th February, 1892; 5 years.

Claim.—1st. The combination in a mattress, of a base, with a flexible mattress top, coiled springs interposed between the same, and curved spring braces provided in connection therewith, said braces having their lower ends fixed on said base and each alternate brace a group of braces curved in opposite directions to the adjoining brace or braces, whereby each spring brace of the mattress is counterbalanced by another, thereby preventing lateral or twisting movement of the top with respect to the base, substantially as described. 2nd. The combination in a spring mattress, of a base, with a woven wire fabric mattress top, the end strips, the side wires 9, 10, the cross wires 11, coiled springs interposed between said base and top, the outer row of said coiled springs provided with ogee spring braces, each alternate brace or group of braces curved oppositely to the adjoining brace or braces and each brace constituting a constant supporting-and-spring brace, whereby pressure upon one portion of the mattress is compensated by a counter action at a corresponding opposite point, substantially as described. 3rd. The combination in a spring mattress, of a base, with a woven wire fabric top, the side wires 9, 10, the cross wire 11 provided with loops or eyes, coiled springs interposed between said base and top, the outer row of said springs having their upper coils provided with prolongations forming ogee curved braces, said braces having their ends secured on said base, eyes formed in said upper coils and rivets or bolts 12 passing through the loops in said cross ties between said wire and through said eyes in said coiled springs, substantially as and for the purpose specified. 4th. The combination in a spring mattress, of the base, with the fabric, the said wires 9, 10, and the flexible cross wires 11 embraced by the said fabric, said side wires passing through the selvages thereof, the coiled springs having crimps whereby said coils engage said cross wires, the outer row of said coils, each alternate coil or group of coils thereof provided with spring braces, each arranged oppositely to the adjoining brace or braces, and means for securing the outer edges of the upper coils thereof to the said side wires and the ends of the mattress, substantially as and for the purpose specified. 5th. The combination in a coil spring mattress, of the base and the springs 25, with the wires or rods 26, 27, the cross ties 28, a wire fabric, coil springs interposed between said base and said cross ties and fabric, means for securing the same thereto, the compensating ogee spring and supporting braces provided in connection with the outer row of coiled springs, and means for suspending the whole beneath an ordinary spring mattress, substantially as and for the purpose specified. 6th. The combination with a spring mattress, of an auxiliary support consisting of the bars 29, with the bars 30, the coiled springs, the auxiliary wire fabric top provided above the same, the side wires 27 and 26, the cross ties 28, and the curved spring braces provided in connection with the outer row of said coiled springs and arranged in opposing positions, and hooks 35 adapted to engage the side bars 26 of an ordinary spring mattress, substantially as described. 7th. The combination with the bars 29 and the bars 30, secured transversely across the middle of said bars 29, of the loose truss wire 38 and staples for guiding said wire 38 depending below and normally free from engagement with the bar 30, said wires being arranged to engage the bar 30 when said bars 29 are sprung down, substantially as described. 8th. The combination in a spring mattress, of the base with the mattress top, coiled spring interposed between the same, the end pieces and edge wires 9, 10 and curved spring braces extending from said end pieces and said side wires and having their lower ends secured on said base, and alternate braces or groups of braces being arranged in opposing and exactly counterbalancing positions, substantially as and for the purpose set forth.

No. 38,214. Spring Bed Bottom. (*Sommier élastique.*)

Ozello R. Hunt, Minneapolis, Minnesota, U. S. A., 4th February, 1892; 5 years.

Claim.—1st. An adjustable support for a woven wire mattress, comprising a series of wires having their ends secured to the mattress frame and their middle portions crossed, in combination with cross-bars adapted to slide on the wires and carrying re-enforcing springs, and means for varying the distance between said bars for adjusting the tension of the wire, substantially as set forth. 2nd. The combination, with a woven wire mattress and its frame adjustable transverse bars carrying springs for re-enforcing the mattress, crossed wires attached to the mattress frame on which wires said bars are adjustably supported, and means for varying the distance between said bars for adjusting the tension of the wire, substantially as set forth. 3rd. An adjustable support for a bed bottom, comprising crossed wires and bars carrying re-enforcing springs arranged to be adjusted on the wires to vary their tension, substantially as and for the purpose set forth.

No. 38,215. Portable Siphon. (*Siphon portatif.*)

Sylvanus F. Bowser and Augustus Bowser, both of Fort Wayne, Indiana, U. S. A., 4th February, 1892; 5 years.

Claim.—1st. A case connecting with which is the inlet-limb of a siphon and the inlet and outlet passage-way of a suction and forcing pump, the said inlet-limb of the siphon and the said inlet and outlet extremity of said pump having one common inlet-valve entrance, which entrance is adapted to be opened by the exhausting action of a piston-head in said pump, and closed by the ejecting action of said piston in said pump, by which means the said pump mechanism is adapted to discharge its contents into the inlet end of the siphon, substantially as described. 2nd. A valveless pump-tube and a valveless siphon-tube, in combination with a piston rod and a chambered case, the said chamber in said case being adapted to serve a connecting passage-way between the interior passage-ways of the said tube and siphon, and the said case having an inwardly opening valve adapted to serve as a common entrance valve to the interior passage-ways of said pump-tube and siphon, substantially as shown and described.

No. 38,216. Holder for Pencils and Crayons.

(*Porte-crayon.*)

William W. Climenon, Borough of Honeybrook, Pennsylvania, U. S. A., 4th February, 1892; 5 years.

Claim.—1st. In a pencil and crayon holder, the combination with a slotted sheath, of a pencil fitted therein and having an annular groove, and an external sleeve provided with the compressible clamps or fingers, which are arranged within the sheath and fitted in the groove of the pencil, substantially as and for the purpose described. 2nd. In a pencil and crayon holder, a clasp made of a single piece of sheet metal of uniform width, which is bent into annular form to provide an external clasp 10, having the ends recurved upon itself, substantially concentric with said annular external ring and arranged within the same to form the fingers 11, said fingers having the edges flush with the edges of the annular external ring and adapted to clasp a pencil or crayon and to ride against the internal surface of a sheath, for the purpose described, substantially as set forth. 3rd. In a pencil and crayon holder, the combination with a slotted sheath, of a clasp consisting of the external ring 10 and the recurved pencil clasp fingers 11, arranged wholly within said external ring, substantially concentric therewith, and out of lateral contact with the same, whereby said fingers are adapted to clasp a pencil or crayon and to ride against the internal surface of the slotted sheath, for the purpose described, substantially as set forth.

No. 38,217. Wire Fence. (*Clôture en fil de fer.*)

Isaac K. Hollinger, Covington, Ohio, U. S. A., 4th February, 1892; 5 years.

Claim.—1st. In a wire fence, the combination, with the runners, of a stay secured thereto and a stop straddling the stay and secured on the outer sides thereof to a runner, substantially as specified. 2nd. In a wire fence, the combination with a runner, of the stay comprising two linked sections and a stop on the runner at each side of the stay, substantially as specified. 3rd. A stay for wire fences, formed from two pieces of wire bent in looped form and having eyes on the opposite ends of the branches of the loop and terminating in two reversibly disposed transverse loops, which embrace the branches of a main loop adjacent to the eyes thereof, substantially as specified. 4th. The combination with the runners of a wire fence, of a stay composed of two wires bent in looped form and linked together and having their ends terminating in eyes to receive the runners and a stop for limiting the longitudinal play of the stays on the runners, substantially as specified.

No. 38,218. Steam and Vacuum Pumps. (*Pompes à vapeur et à vide.*)

Ernest Korting, of Hanover, Prussia, 4th February, 1892; 5 years.

Claim.—1st. The combination with a steam and vacuum pump having two chambers, of two injection pipes passing into the respective pump chambers, a valve-box having two apertures commu-