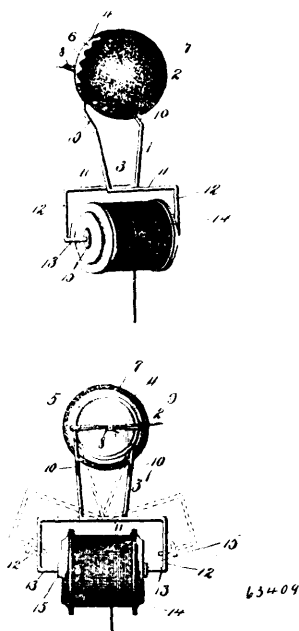


tions of said forces of resistance, substantially as set forth. 4th. In a steering gear for ships, the combination with the rudder, the steering wheel spindle and the rudder chain winding drum or wheel geared to said spindle, of a balancing weight displaced by the rotation of the steering wheel spindle and operating to balance or substantially balance the forces of resistances transmitted through the rudder to the steering chain and winding drum, for the purpose set forth. 5th. In a steering gear for ships, the combination with the steering mechanism, of the two intergeared cams d^2 d^3 , transmitting gearing connecting cam d^2 , with the steering spindle, and a weighted lever, the fulcrum spindle of which is connected with and revolved by cam d^3 , substantially as and for the purpose set forth. 6th. In a steering gear for ships, the combination with the steering wheel spindle and the steering chain winding drum geared to said spindle, of the two intergeared cams d^2 d^3 , transmitting gearing connecting cam d^2 , with said steering wheel spindle, and a weighted lever on the spindle of cam d^3 , substantially as and for the purpose set forth.

No. 63,409. Needle and Thread Holder.

(*Porte aiguille et fil.*)



George Adams, Franklin Centre, and Claude Adams, Hull, both in Quebec, Canada, 8th July, 1899; 6 years. (Filed 6th February, 1899.)

Claim.—The combination with a needle holder having a securing pin, of a spool holder, comprising a single piece of spring wire secured at its central portion to the said needle holder, the arms of said wire being bent at their central portion at substantially right angles and extending towards each other and overlapping and then downwardly, the extremities of said arms being bent inwardly, and a spool removably supported upon said extremities, substantially as described.

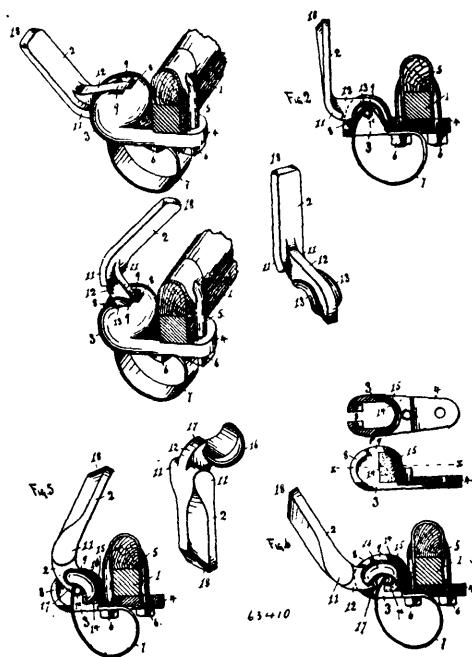
No. 63,410. Thill or Pole Couplings.

(*Armon de limonière.*)

Charles Nash Bell, St. Paul, assignee of John Marshall Bryant, Minneapolis, both in Minnesota, U.S.A., 8th July, 1899; 6 years. (Filed 4th February, 1899.)

Claim.—1st. A thill or pole coupling, comprising the cup-like socket section having an upper slot, the web or blade, means for interlocking the two portions together and the cushion buffer located in the rear portion of the socket, as and for the purpose specified. 2nd. A thill or pole coupling, comprising the cup-like socket section provided with the slot having notched lug passages and the co-acting web or blade provided with the lock flanges and the cushion buffer located in a recess in the back of the socket and designed to abut the rear end of the web or blade, as and for the purpose specified. 3rd. A thill or pole coupling, comprising the cup-like socket section 3, provided with the slot 8 formed with notches or lug passages 9, and the web or section 12 provided with the segmental lock flanges 13, which parts are adapted to be interlocked, substantially as described. 4th. A thill or pole coupling, comprising a cup-like socket section provided with an extended slot formed with expanded notches or lug passages, a web or male section provided with segmental lock flanges projecting from its opposite sides, which parts are adapted to be interlocked, and a

spring pressing against the inner surface or surfaces of said segmental lock flanges, substantially as described. 5th. A thill or pole



coupling, comprising a cup-like section 3, provided with the slot 8 formed with notches 9, the web or section 12 provided with segmental lock flanges 13, which parts are adapted to be interlocked, and the hammer spring 7 secured to said section 3 and pressing against the concave surface of said section 12, said parts operating, substantially as described. 6th. A thill or pole coupling, comprising an inverted cup-like socket section having a slotted perforation through its upper face, a web or blade section, means for interlocking the socket and the web or blade section together, and a cushion buffer located within and in the rear portion of the socket section between the two sections, substantially as and for the purpose specified. 7th. A thill pole or coupling, comprising an inverted semi-globular cup-like section having a thill or pole tip or pole eye perforated passage-way through the rear portion of its upper face with said passage-way continuing as a narrower elongated slot or opening forward through said upper face, and through the upper portion of the forward face of said socket section, a thill or pole tip with its upper face semi-globular in form and with its lower face concave in form and adapted to enter the semi-globular perforated passage-way of the socket section and interlock therewith, a cushion buffer located within and in the back of the socket section, substantially as described. 8th. A thill or pole coupling, comprising an inverted semi-globular cup-like section having a thill eye or pole tip perforated passage-way through the rear portion of its upper face with said passage-way continuing as a narrow elongated slot or opening forward through the length of said upper face, and through the upper portion of the forward face and face of said socket, a semi-globular thill or pole tip with its lower face concave in form and adapted to enter the semi-globular perforated passage-way of the socket section and interlock therewith, a cushion buffer located within and in the back of the socket section, a spur or stop 17 located at the forward end of the lower face of the thill or pole tip and formed integral therewith, a spring pressing upwardly against the concave lower face of the thill or pole lip, said parts interlocking and operating, substantially as described. 9th. A thill or pole coupling, comprising an inverted semi-globular cup-like section 3, having a thill or pole eye passage-way 9 through its upper face, a thill iron with the welding stem 18 and the semi-globular wearing tip 16, and a contracted portion 12 forming shoulder 11 between the welding stem and the wearing tip, which parts are adapted to be interlocked, the spring 7 secured to said section 3, the free end thereof pressing against the concave lower face of the wearing end 16, the spur or spring stop 17, the cushion 14, said parts arranged and operating, substantially as described. 10th. A boltless, quickshifting, anti-rattling, self-cleaning thill or pole coupling, adapted to automatically take up its own wear, comprising an inverted cup-like socket section, having a slotted perforation through its upper face, a web or blade section, which sections are adapted to be interlocked, a cushion buffer located within and in the rear portion of the socket section and between the two sections a fulcrum acting spring pressing against the lower face of the blade section and holding the interlocked sections in continuous frictional engagement, substantially as described.