(No Model.)

J. C. ORCHARD.

EMBROIDERY HOLDER.

No. 601,523. Patented Mar. 29, 1898.

Fig. 1.

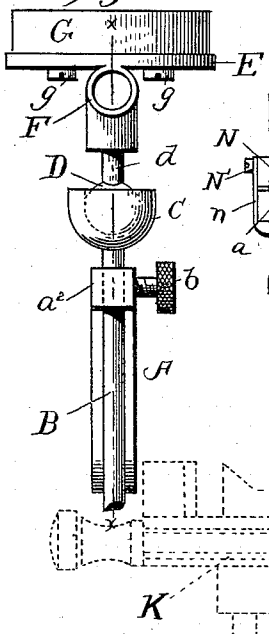


Fig. 6.

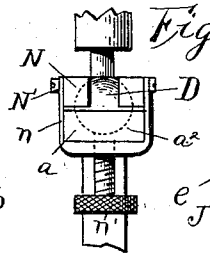


Fig. 3.

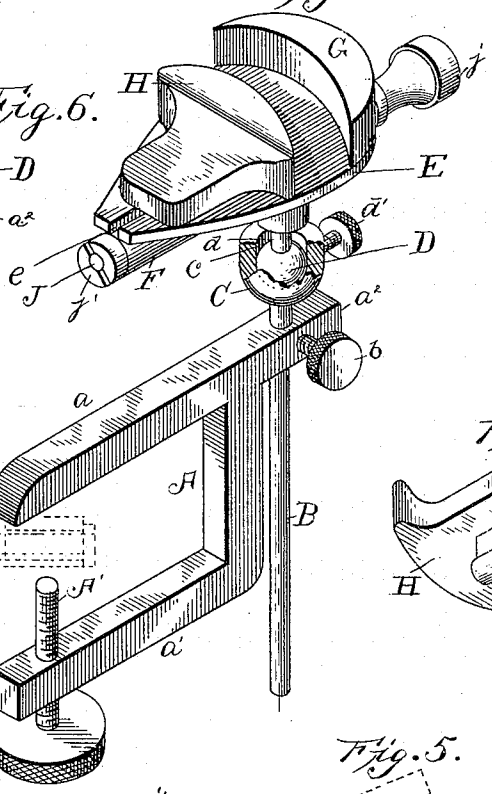


Fig. 4.

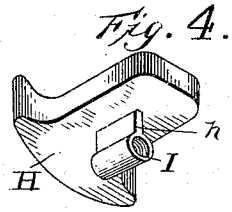


Fig. 2.

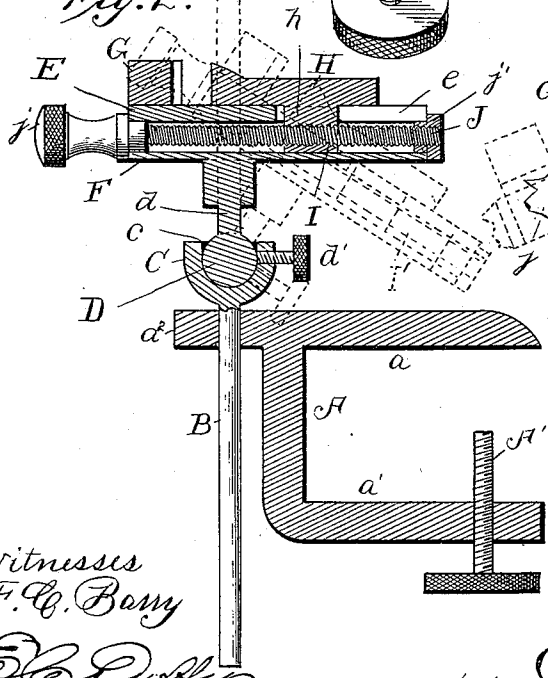
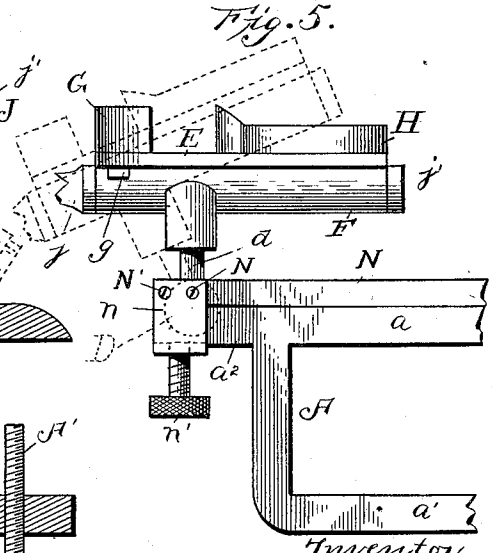


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES C. ORCHARD, OF TACOMA, WASHINGTON.

EMBROIDERY-HOLDER.

SPECIFICATION forming part of Letters Patent No. 601,523, dated March 29, 1898.

Application filed April 2, 1897. Serial No. 630,434. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. ORCHARD, of Tacoma, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Embroidery-Holders; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to holders for embroidery-hoops, and has for its object to furnish a device of this nature which shall be simple, cheap, durable, and effective.

With this object in view my invention consists in the improved construction, arrangement, and combination of parts, which will be first fully described, and afterward specifically pointed out in the claims.

In the accompanying drawings, Figure 1 represents a view in front elevation of a holder constructed in accordance with my invention. Fig. 2 represents a sectional view of the same on the line $x\ x$ of Fig. 1. Fig. 3 represents a perspective view of the same, with a portion of the ball-socket broken away. Fig. 4 represents a detail view in perspective, showing the movable jaw of the clamp removed. Fig. 5 represents a view in side elevation of a modified form of device embodying my invention. Fig. 6 is a detail view, in end elevation, of the ball-and-socket joint shown in Fig. 5.

Like letters of reference mark the same parts throughout the different views.

Referring to the drawings by letters, A is an ordinary table-clamp consisting of the usual connected bars $a\ a'$, the one to lie on the table and the other under it, the screw A' being the operative clamping means. This device clamps my improved holder to any table, chair-arm, shelf, or similar support. The upper arm a of this table-clamp is outwardly extended at a^2, and in the device as illustrated in Figs. 1, 2, and 3 this extension is provided with a hole, in which is placed a vertical bar B, which may be vertically adjusted or swiveled on its own axis and secured in any adjusted position by a set-screw b. (See Fig. 3.) Upon the upper end of this bar B is secured a head C, in which is formed a socket c to receive a ball D on the lower end of a bar d, extending downward from the frame which carries the fixed jaw of the clamp. A set-screw d' secures the ball D in any position to which it may be adjusted.

The frame referred to as carrying the fixed jaw of the clamp consists of a plate E, substantially kite-shaped and provided with a slot e, extending from its point inward a considerable distance. Rigidly secured to the under side of this plate E is an open-ended tube F, having a slot which coincides or registers with slot e.

The fixed jaw G of the vise is rigidly but removably secured to plate E by means of screws g, said jaw being concave or formed in the shape of an arc of a circle on its inner face. The movable jaw H is formed convex on its face to conform to the concavity of the fixed jaw G. The jaw H has a drop-bar h extending from its lower surface, which passes through slot e and carries at its lower end a circular interiorly-threaded sleeve or nut I. This nut fits slidably in the tube F and is adjustable longitudinally therein by means of the screw J, which passes loosely through tube F, passes through and engages the thread of the nut I, and has on its opposite ends the head j and nut j', which loosely fit the tube and permit the screw to swivel therein.

The operation of this device will be readily understood from the foregoing description and is as follows: The ordinary hoop upon which embroidery is stretched being clamped in the circular-faced jaws H and G, the work is adjusted to the proper height by loosening screw b, moving vise and work up or down, as desired, and tightening screw b. Then by loosening screw d' the work may be universally adjusted as to position (except as to height, already provided for) and secured in such position by screw d', thus leaving the operator both hands free to work on the embroidery, increasing the capacity of work, and also further increasing the capacity by relieving the operator of the burden of holding the hoop in one hand while working with the other.

In Fig. 2 I have shown at K in dotted lines the parts of the holder in their upper adjustment and at I' in dotted lines the parts ad-

justed by means of the ball and socket to an inclined position.

In Figs. 5 and 6 the device is shown with a different construction of ball-and-socket joint and without the means for vertical adjustment. On the upper bar *a* of the table-clamp is secured a bar N. In this bar and in the extension a^2 of bar *a* is formed the socket to receive the ball D. A **U**-shaped yoke *n* is secured to bar N by screws N′ and passes under extension a^2 of bar *a*, said bar N and extension a^2 being arranged to normally remain a short distance apart.

The **U**-shaped yoke *n* is threaded below bar a^2 and has engaging it a set-screw *n*′, which bears against the bottom of extension a^2 of bar *a*, forcing it up against ball D and thus holding the ball in position as adjusted. The outer end of the bar N is forked, as shown in Fig. 6, to facilitate the insertion of the ball into the socket. The normal positions of bars *a* and N are slightly apart, as before stated, and their elasticity will cause them to open sufficiently when the set-screw *n*′ is loosened to permit the ball to be readily adjusted in the socket.

By securing the tube F under the plate E the latter can be made much lighter with less danger of its being bent out of shape or broken, the tube serving to stiffen and strengthen the plate.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described holder for embroidery-hoops consisting of the fixed and sliding circle-faced jaws the plate to which the fixed jaw is removably but rigidly secured slotted longitudinally as described, the tube secured under said plate and having a longitudinal slot coinciding with slot in said plate, the drop-bar depending from the sliding jaw, the threaded nut at lower end of said drop-bar, the screw passing through said nut and loosely held in said tube, all the parts being combined substantially as and for the purpose set forth.

2. The combination with the embroidery-hoop clamps consisting of curved plate jaws, the slotted plate upon which they are mounted, the one rigidly and the other slidably, the tube secured under said plate and coincidentally slotted, the drop-bar on the sliding jaw, the nut carried thereby and the adjusting-screw engaging said nut and a ball-and-socket joint, one member of which is secured to said tube and the other to the table-clamp, all substantially as set forth.

3. The combination of a clamp or holder for embroidery-hoops having fixed and sliding jaws, one of said jaws being convex and the other concave, with a ball-and-socket joint, a vertically-adjustable rod carrying said joint and a table-clamp having an extension in which said rod is vertically adjustable, all substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES C. ORCHARD.

Witnesses:
C. C. SAGETT, Jr.,
JOHN A. PARKER.