No. 707,353. Patented Aug. 19, 1902.

J. H. POST.

EMBROIDERY FRAME AND HOLDER.

(Application filed Apr. 6, 1899.)

(No Model.)

Fig. 1

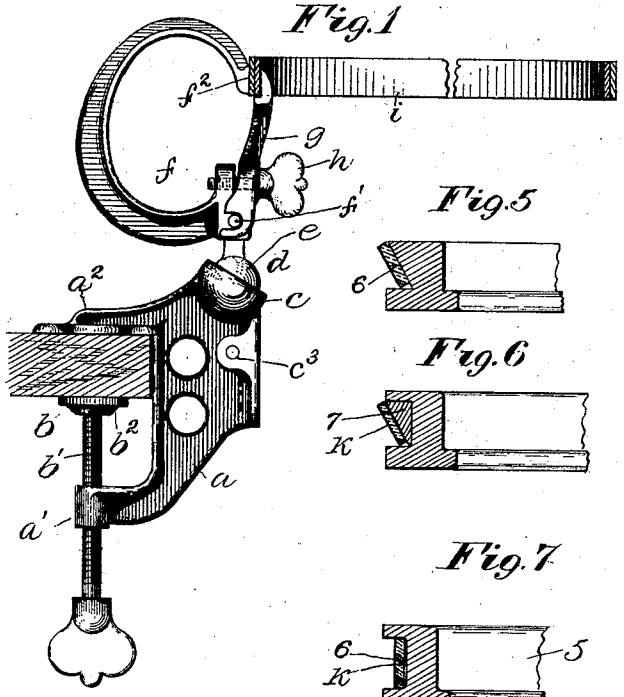


Fig. 5

Fig. 6

Fig. 7

Fig. 2

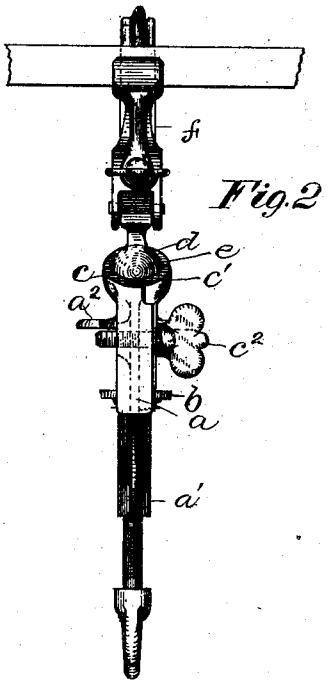


Fig 3

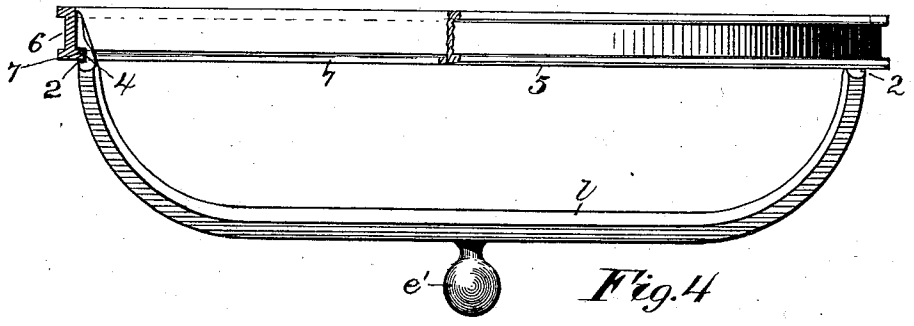
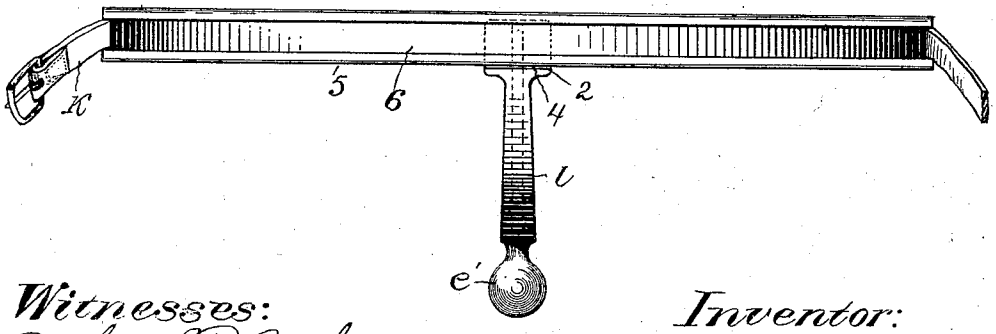


Fig. 4



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UNITED STATES PATENT OFFICE.

JOHN H. POST, OF HARTFORD, CONNECTICUT, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE LEADER MANUFACTURING COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

EMBROIDERY FRAME AND HOLDER.

SPECIFICATION forming part of Letters Patent No. 707,353, dated August 19, 1902.

Application filed April 6, 1899. Serial No. 711,905. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. POST, a citizen of the United States, and a resident of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Embroidering Frames and Holders, of which the following is a full, clear, and exact description, whereby any one skilled in the art can make and use the same.

My invention relates to the class of devices used to hold a fabric while it is being embroidered and with the surface under a sufficient tension to clearly show the pattern and permit of the free passage of the needle and thread.

The object of my invention is to provide a device of this class in which the several parts shall be free from thread-catching projections, shall be comparatively light and capable of such adjustments as to position as to insure the greatest utility.

Referring to the drawings forming part hereof, Figure 1 is a view in side elevation of my improved device with parts broken away to show construction. Fig. 2 is a view in front elevation of the same device. Fig. 3 is a view in side elevation of a modified form of holder with parts broken away to show construction. Fig. 4 is a like view in elevation of the modified form of holder, showing the yoke in end elevation. Fig. 5 is a detail view, on enlarged scale in cross-section, of a modified form of the hoop. Fig. 6 is a detail view, in cross-section, of a modified form of a hoop; and Fig. 7 is a detail view, on enlarged scale in cross-section, showing still another modification.

In the accompanying drawings the letter *a* denotes a bracket having a clamp *b* for securing the device to a table or like structure and a clamp *c*, which is the socket member of a ball-and-socket or like universal joint *d*.

The clamp *b* comprises a threaded shaft *b'*, extending through a threaded socket in the arm *a'* of the bracket, with a broad bearing-head b^2 on the inner end of the shaft and a flat thumb-piece on its outer end to present a proper grasping-surface to enable the clamp to be manipulated. The shaft *b'* is located at substantially right angles to the flat shoulder on the under side of the arm a^2 on the bracket, which rests on the surface of the table.

The universal joint *d* is made up of the socket member *c* and a ball member *e*, the latter being on or fast to the holder *f*. In the form shown in Figs. 1 and 2 the holder *f* is a yoke curved so as to form an almost complete circle, and in the opening between the ends is located an arm *g*, which forks at one end, with recesses in the branches, in which rest pins *f'*, serving as fulcrums on the body of the holder, and at the other end has a grasping-face coöperating with the fixed jaw-face f^2 on the opposite end of the holder, with a thumb-screw *h* as an operating device for fastening or releasing the hold of the jaws upon a hoop *i*, placed edgewise in the holder. The clamp *c* is formed by making one wall *c'* separable as to about half the diameter of the socket and forming an opening in about the center of the section, through which a clamp-screw c^2 extends into the threaded socket c^3 in the solid part of the joint.

The hoop *i* may be of any suitable material, as wood or iron, and is either double, with the two parts nested, so as to hold the fabric to be embroidered between the two sections of the hoop, or else it may have a leather strap *k*, arranged to embrace the hoop and bind the fabric to it.

In the form of my improvement shown in Figs. 3 and 4 the holder 1 is of yoke shape, with the ball member *e'* of the joint projecting from the center of the yoke, adapting it for use with the bracket shown in Fig. 1, and each end of the holder terminating in jaws 2, each having a bearing-face and a transverse socket 4, adapted to press against and engage corresponding attaching parts on the inner surface of the hoop 5. The hoop 5 is preferably of metal, as cast-iron, with a strap-socket 6 in the periphery and a flange 7 on the inner surface, which engages the socket 4 in the faces of the holder-jaws. It is obvious that the interengaging parts on the inner surface of the hoop and the face of the holder-jaws may be reversed in position without departing from my invention, the only

important condition being that the flange and the socket shall adjustably engage, so as to permit the hoop to revolve in the holder by sliding it across the face of the jaws, which hold the hoop with a yielding grasp or frictional hold, and by the term "frictional hold" as used in the claims herein is meant to describe that function whereby the hoop is securely held for the purpose of embroidering, but is allowed to turn on its support by the action of some force, and as distinguished from those devices of the prior art in which the hoop is positively held by a clamp.

In Fig. 5 the hoop is shown as provided with a groove of triangular shape, the upper edge being undercut on a sloping line, as indicated at 6, this inclination of the surface of the groove affording simply another form of engaging means for the strap and the fabric. In Fig. 6 the square groove is provided with a triangular filling-piece 7, of leather or like material, with a somewhat rough and comparatively soft face, into which the fabric may be pressed by the binding hold of the strap.

In both forms of the structure containing my improvement it is obvious that the holder may be arranged at any desired angle with reference to a horizontal plane, that the hoop may be revolved conveniently in the holder, the positive clamp in the form shown in Figs. 1 and 2 permitting the hoop to be moved sidewise in substantially the same manner as the frictional clamp formed by the outward thrust of the holder against the inner surface of the hoop.

I claim as my invention—

1. A holder and an embroidering-hoop having as elements an interengaging groove and flange, one of said elements being located on and extending circumferentially of the hoop, whereby a rotary movement of the hoop on its support is permitted.

2. A holder for embroidery-hoops or the like including branching arms, and a hoop, said hoop and arms having as elements an interengaging groove and flange, one of said elements being located on and extending circumferentially of the hoop, whereby a rotary movement of the hoop on its support is permitted.

3. An embroidering-hoop holder including branching arms, and an embroidering-hoop adapted to be adjustably secured to said holder, one of said parts having a groove and the other a projection each adapted to engage the other whereby the hoop is frictionally held by and adjustable in a circumferential direction on said arms.

4. An embroidering-hoop holder having branching arms, recesses formed in the outer face of said arms, and a hoop having a rib extending circumferentially about the hoop and adapted to engage said recesses.

5. In an embroidering-hoop holder, in combination, a bracket having means of attachment to a fixed object, a holder adjustably secured to the bracket, and an embroidering-hoop, said hoop and holder having as elements an interengaging flange and groove, one of said elements being located on and extending circumferentially of the hoop, whereby a rotary movement of the hoop on its support is permitted.

6. In an embroidering-hoop and holder, in combination, a bracket having means of attachment to a fixed object, a holder adjustably secured to the bracket and having branching arms, and an embroidering-hoop supported by the holder, said holder and hoop having as elements an interengaging flange and groove, one of said elements being located on and extending circumferentially of the hoop, whereby a rotary movement of the hoop on its support is permitted.

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