Jan. 23, 1934. J. D. KARLE 1,944,690

EMBROIDERY HOOP

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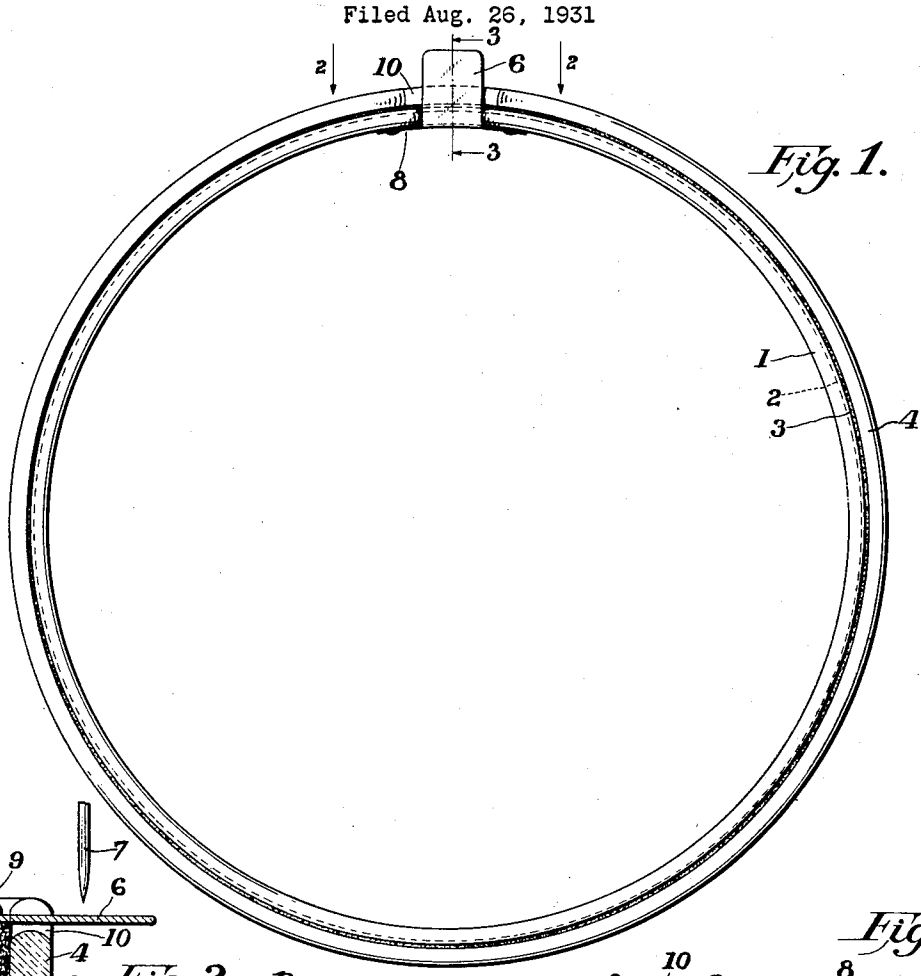


Fig. 1.

Fig. 3.

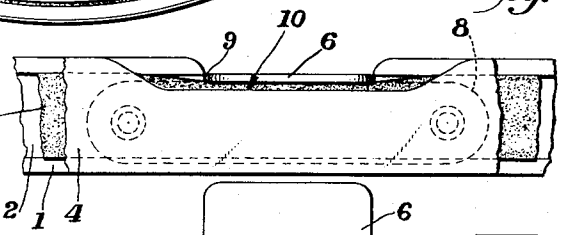


Fig. 2.

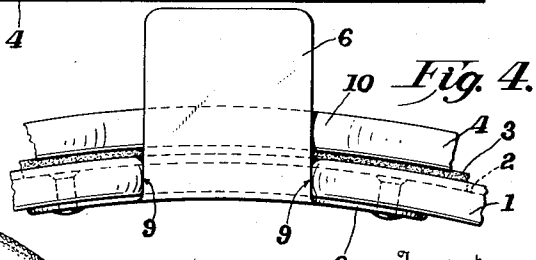


Fig. 4.

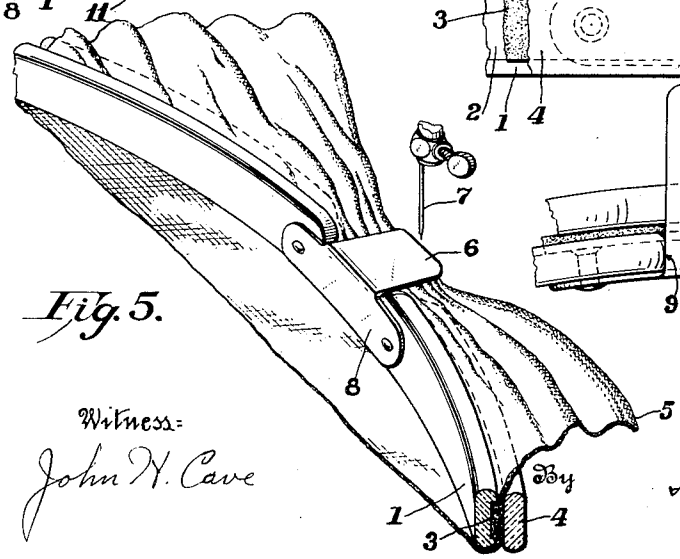


Fig. 5.

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UNITED STATES PATENT OFFICE

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EMBROIDERY HOOP

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4 Claims. (Cl. 112—121)

This invention relates to that type of work-holding devices known as embroidery hoops and comprising two telescoping rings such as are commonly used by sewing machine operatives for holding a piece of fabric in taut condition as it is shifted by hand to-and-fro in various directions over the bed of a sewing machine for reception of embroidering stitches.

The point of the needle of a sewing machine, at the end of the up-stroke of the needle-bar, is commonly spaced from the plane of the sewing machine bed or throat-plate a relatively short distance. Hence it is difficult to pass the assembled rings and fabric under the sewing machine needle, preparatory to a stitching operation, without snagging the work on the point of the needle. The same difficulty is encountered in removing the work from the machine.

The present improvement has for an object to provide an embroidery hoop with means for overcoming the difficulty referred to without in any way impairing the efficiency of the hoop as a work-holder for embroidery operations.

With the above and other objects in view, as will hereinafter appear, the invention comprises the devices, combinations, and arrangements of parts hereinafter set forth and illustrated in the accompanying drawing of a preferred embodiment of the invention from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

Fig. 1 of the drawing is a plan view of an embroidery hoop embodying the invention. Fig. 2 is a fragmentary side elevation looking in the direction of the arrows 2, 2, at the top of Fig. 1. Fig. 3 is a section on the line 3—3, Fig. 1. Fig. 4 is a plan view on a large scale of the upper portion of the device shown in Fig. 1, and Fig. 5 is a perspective view of the assembled hoop-rings and work ready for passage under the sewing machine needle.

1 represents the inner ring which is formed in its outer cylindrical surface with a groove 2 in which is cemented a strip of felt 3 which is somewhat thicker than the depth of the groove 2 and protrudes slightly beyond the outer cylindrical surface of the ring 1. The ring 1 is telescopically received within the outer ring 4 with the fabric 5 clamped between the rings and held taut over the lower rim of the inner ring 1, as shown in Fig. 5.

The inner ring carries a needle-guard in the form of a thin lip 6 which overlaps the outer ring 4 and preferably extends beyond the ring 4 a short distance permitting the free marginal portion of the fabric beyond the rings 3 and 4 to be gathered by hand beneath the lip 6, as shown in Fig. 5, preparatory to passing the rings and guard under the raised needle 7 of the sewing machine. The danger of snagging the work on the needle-point is thus entirely avoided.

The guard 6 may conveniently be made from a piece of sheet metal in the form of a T, the head-portion 8 of which is riveted to the inner cylindrical face of the ring 1. The stem or lip-portion 6 is bent at right angles to the head-portion and extends across both rings, as shown in Fig. 3. The upper rim of the inner ring 1 is preferably recessed at 9 to receive the lip 6, and the outer ring 4 is more deeply and widely recessed at 10 to afford clearance for the lip 6 and the marginal fabric-portion below such lip. The vertical distance from the lower edge of the rings to the top face of the lip is sufficient to clear the point of the needle 7 while inserting and removing the holder. In other words, the distance from the plane p of the lower edges of the rings 1 and 4, Fig. 3, to the top face of the lip 6 is less than the distance from the usual sewing machine throat-plate 11 to the point of the raised needle 7.

Having thus set forth the nature of the invention, what I claim herein is:—

1. An embroidery hoop comprising inner and outer hoop-elements engageable with and disengageable from one-another by relative endwise telescopic sliding movements, and a needle-guard carried by the inner hoop-element and overlapping the outer hoop-element, said needle-guard being spaced above the plane of the lower edges of said rings a distance less than the distance from the usual sewing machine throat-plate to the point of the raised sewing machine needle.

2. An embroidery hoop comprising inner and outer telescopically fitted cylindrical rings, the upper edge of each ring having a recess, and a needle-guard lip carried by the inner ring and extending across both rings and disposed in said recesses.

3. An embroidery hoop comprising a work-holding ring adapted to be passed under the raised needle of a sewing machine, and a needle-guard lip secured to said ring, said lip being spaced above the plane of the lower edge of said ring a distance less than the distance of the point of the raised sewing machine needle from the sewing machine throat-plate.

4. An embroidery hoop comprising a work-holding ring having a recess in its upper edge adapted to be passed under the raised needle of a sewing machine, and a needle-guard lip secured to said ring and located at said recess.

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