

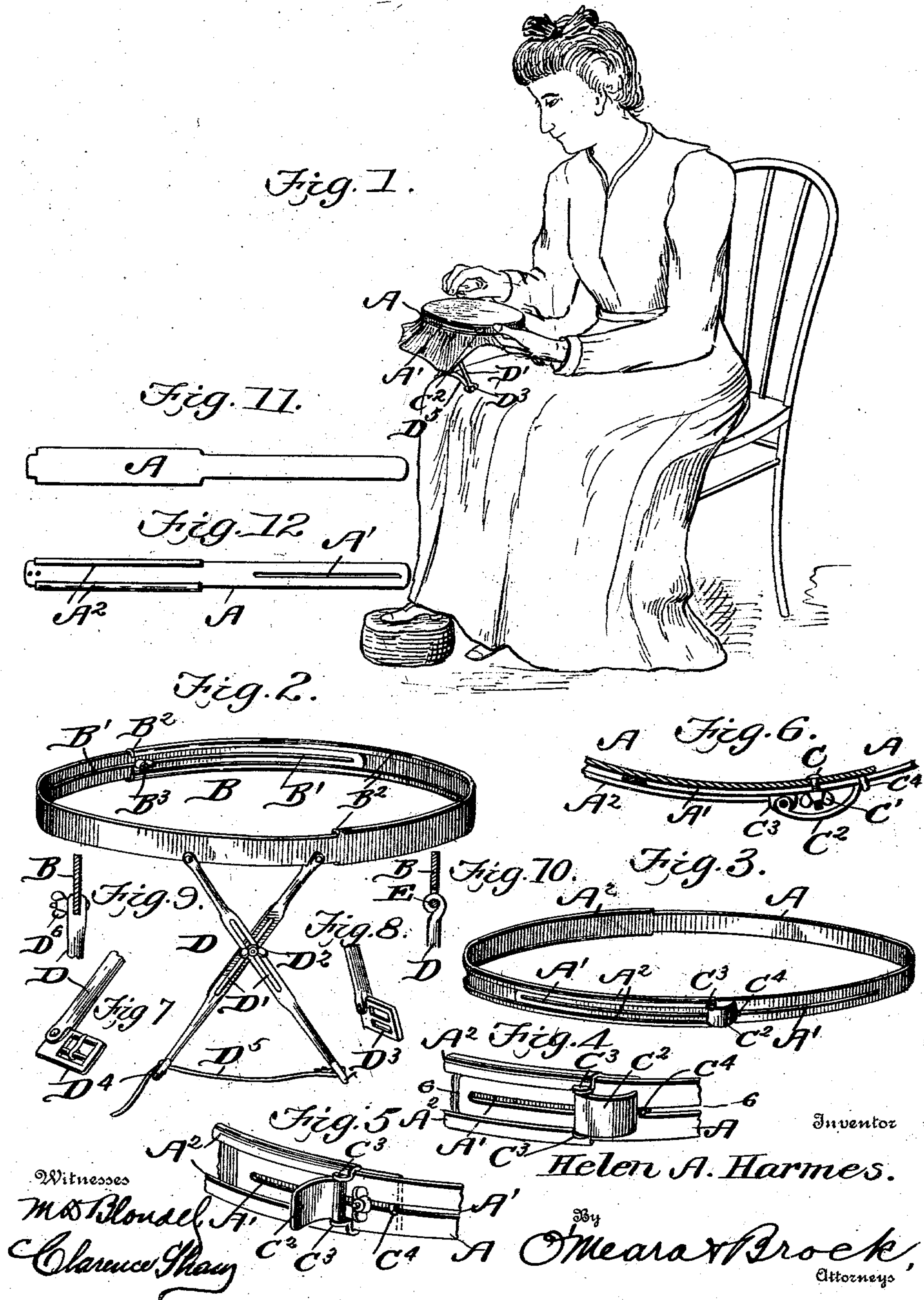
No. 744,070.

PATENTED NOV. 17, 1903.

H. A. HARMES.  
ADJUSTABLE EMBROIDERY HOOP.

APPLICATION FILED NOV. 25, 1902.

NO MODEL.





# UNITED STATES PATENT OFFICE.

HELEN A. HARMES, OF WASHINGTON, MISSOURI.

## ADJUSTABLE EMBROIDERY-HOOP.

SPECIFICATION forming part of Letters Patent No. 744,070, dated November 17, 1903.

Application filed November 25, 1902. Serial No. 132,825. (No model.)

*To all whom it may concern:*

Be it known that I, HELEN A. HARMES, a citizen of the United States, residing at Washington, in the county of Franklin, in the State of Missouri, have invented a new and useful Adjustable Embroidery-Hoop, of which the following is a specification.

My invention relates to adjustable embroidery-hoops, and has for its objects to produce a device which will hold the material firmly, that is adjustable in size, and that can be supported easily by one hand while in use.

My device consists, essentially, of an inner and outer ring, both having means whereby their diameters may be varied and one of which is adapted to fit closely around the other, and a rest or support carried by the inner ring.

In the drawings, Figure 1 is a view of my device in use, showing the mode of holding the same. Fig. 2 is a perspective view of the inner ring and support. Fig. 3 is a similar view of the outer ring. Fig. 4 is a detail view of part of the outer ring. Fig. 5 is a similar view showing the cap raised. Fig. 6 is a horizontal section on about the line 6 6 of Fig. 4. Figs. 7 and 8 are detail views of the supporting means. Fig. 9 is a detail showing the manner of fastening the supporting-leg to the ring. Fig. 10 is a modification hereinafter described. Fig. 11 is the blank from which the rings are formed, and Fig. 12 is a view of the blank when ready to be bent into circular shape.

In the drawings, A represents an outer and B an inner ring, the rings being slotted at A' and B', respectively. As shown in Figs. 11 and 12, which may here be considered as views of the outer ring only, the blank A is enlarged intermediate its central portion, and one end and the sides of this enlarged portion are turned back on themselves to form flanges A<sup>2</sup>, the slot being longitudinally produced in the non-flanged portion. When the ring is bent into circular form, the slotted end is adapted to slide past the opposite end between the flanges. It will be observed that in the outer ring, Fig. 3, the flanges are on the outside of the ring, while the inner ring is bent so as to bring the flanges B<sup>2</sup> on the inner side of the ring, and as a result the slotted end B' slides past the opposite end on the inner side, and

the contacting faces of the two rings are smooth surfaces.

In the flanged end of A is an aperture, through which passes a threaded bolt C, said bolt being adapted to pass through the slot A' and receive a thumb-screw C' on its outer end, by means of which the slotted portion may be firmly clamped to the flanged portion, and it is obvious that the farther the slotted end is passed into the flanges the smaller the diameter of the band thus formed and that the diameter can be increased by loosening the thumb-screw and drawing the ends nearer together. A somewhat similar bolt and thumb-screw B<sup>3</sup> is secured to the ring B. The thumb-screw C' being upon the outer ring, the thread would be liable to become entangled on the thumb-pieces of the screw, and to prevent this a curved spring-cap C<sup>2</sup> is hinged between the lugs C<sup>3</sup>, produced on the ends of the flanges, Figs. 4 and 5, and at the same end of the band is formed a knob or stop C<sup>4</sup>, adapted to project through the slot and against which the arched spring-cap bears, the cap being held in place by means of its resilience. To the outer side and adjacent the lower edge of the inner ring is pivoted the supporting-legs D, longitudinally slotted in their central portion at D'. The slotted portions of the legs are crossed and clamped together by a suitable thumb-screw D<sup>2</sup>. The lower end of one leg carries a bracket D<sup>3</sup>, (shown in detail in Fig. 8,) and the other leg carries a buckle D<sup>4</sup>. A strap D<sup>5</sup> is secured to the bracket and passed through the buckle.

In Fig. 9 I have shown the preferred form of securing the legs D to the lower edge of the ring, the thumb-screw D<sup>6</sup> being located on the inner side. In Fig. 10 I have shown another way of securing the supporting-legs to the inner ring, which consists in forming a suitable aperture in the ring near its lower edge, reducing the upper end of the leg, inserting same in the aperture, and bending it in the form of an eye, as shown at E.

From the above description the operation of my device will be readily understood. The cloth to be embroidered is stretched tightly over the inner ring, which has previously been set by means of its thumb-screw to the required diameter. The outer ring is then placed



over the inner ring, and the thumb-screw C' being loosened the slotted end of the ring is forced as far beyond the opposite end as possible and the thumb-screw tightened. The  
 5 cloth will then be firmly held like a drum-head between the two rings.

As shown in Fig. 1, the legs and strap form a support, the strap by reason of its flexibility being especially adapted to accommodate itself to the knee of the user, and by  
 10 drawing the lower ends of the legs together the rings are raised. By means of the thumb-screw D<sup>2</sup> the rings can be held at any desired height, while the buckle permits any desired  
 15 tension to be given to the strap.

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

1. In an embroidery-hoop, the combination  
 20 with an inner ring having a smooth outer face, an outer ring having a smooth inner face, outwardly-projecting flanges on the outer ring, inwardly-projecting flanges on the inner ring, one end of each ring sliding be-  
 25 tween the flanges on said ring.

2. An embroidery-hoop comprising an outer

ring slotted at one end and having outwardly-  
 turned flanges adjacent the opposite end, said slotted end sliding between the flanges, an inner ring slotted at one end and having  
 30 inwardly-turned flanges adjacent the other end, the slotted end sliding between the flanges, means for clamping the ends of each ring together, and an adjustable support secured to one of the rings.  
 35

3. An embroidery-hoop comprising inner and outer rings, each ring being reduced and slotted adjacent one end, and having inwardly and outwardly turned flanges respectively on the non-reduced portions, the reduced portions being adapted to slide between the flanges, a thumb-screw secured adjacent one end of each ring and adapted to slide in the slot of said ring, a lug carried by the outer ring adjacent the thumb-screw, and a  
 40 hinged cover-plate adapted to close over the screw and engage the lug.  
 45

HELEN A. HARMES.

Witnesses:

A. A. HUPPERT,  
 JOS. F. KAHMANN.