

No. 884,279.

PATENTED APR. 7, 1908.

F. E. KOHLER.
EMBROIDERY HOOP.
APPLICATION FILED JAN. 22, 1908.

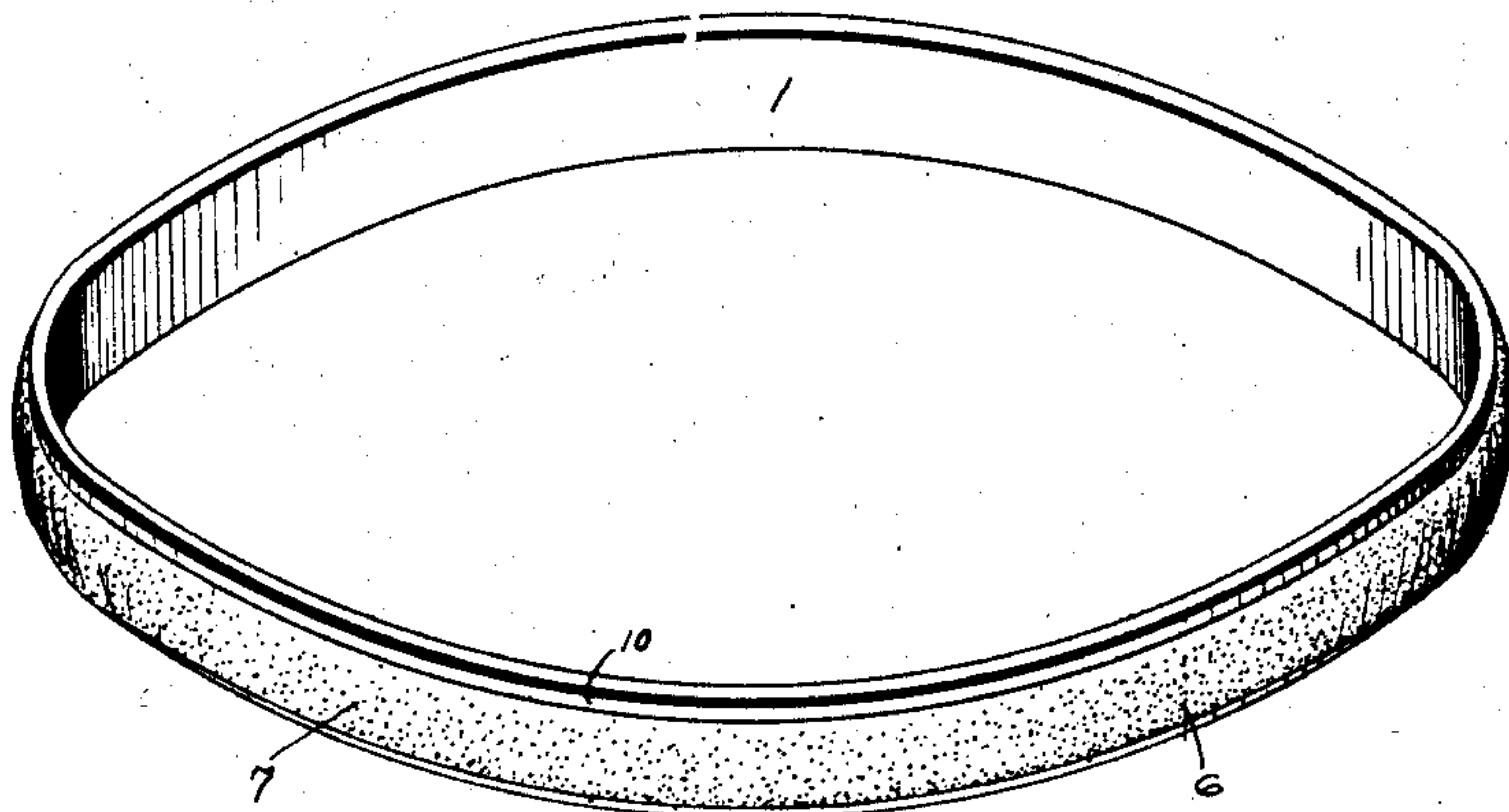


Fig. 1.

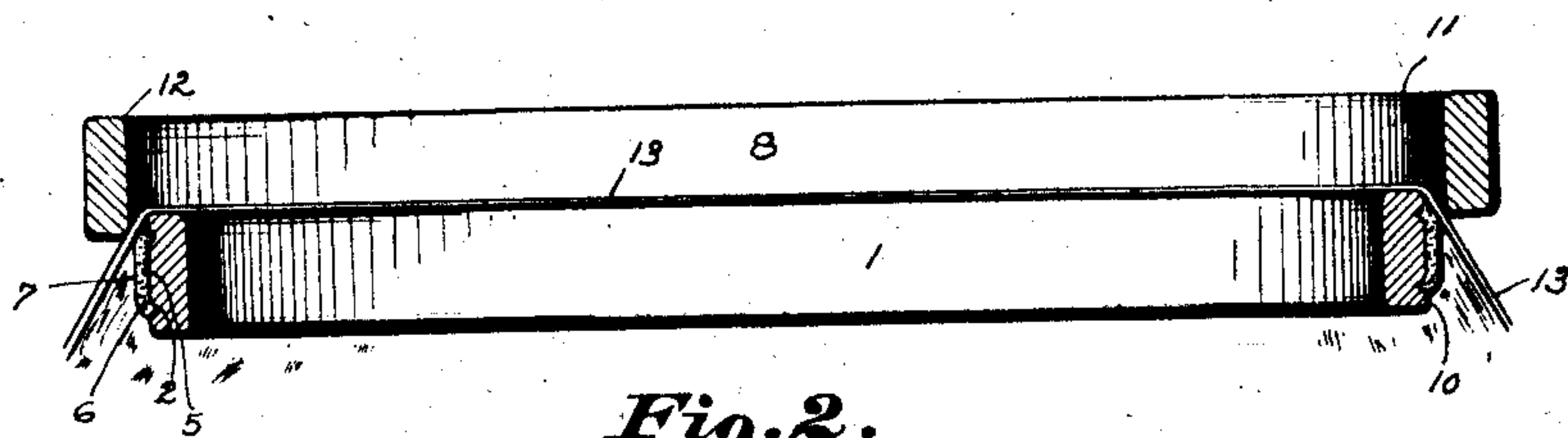


Fig. 2.

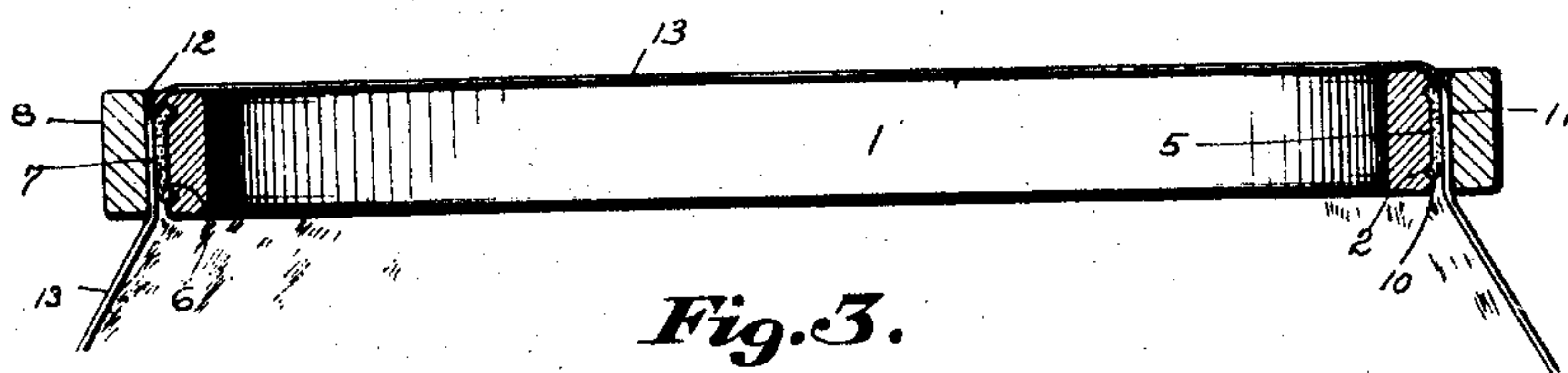


Fig. 3.

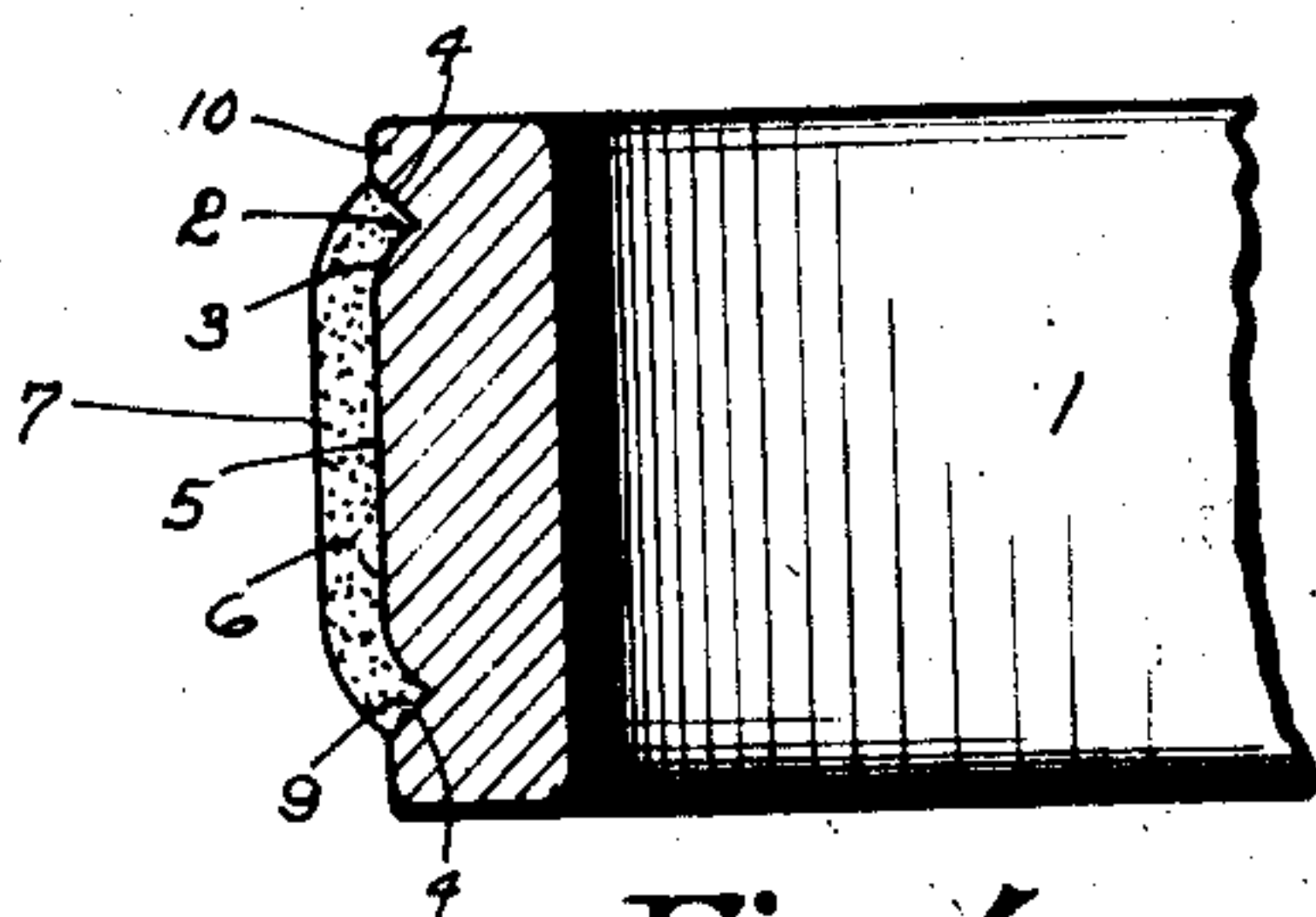


Fig. 4.

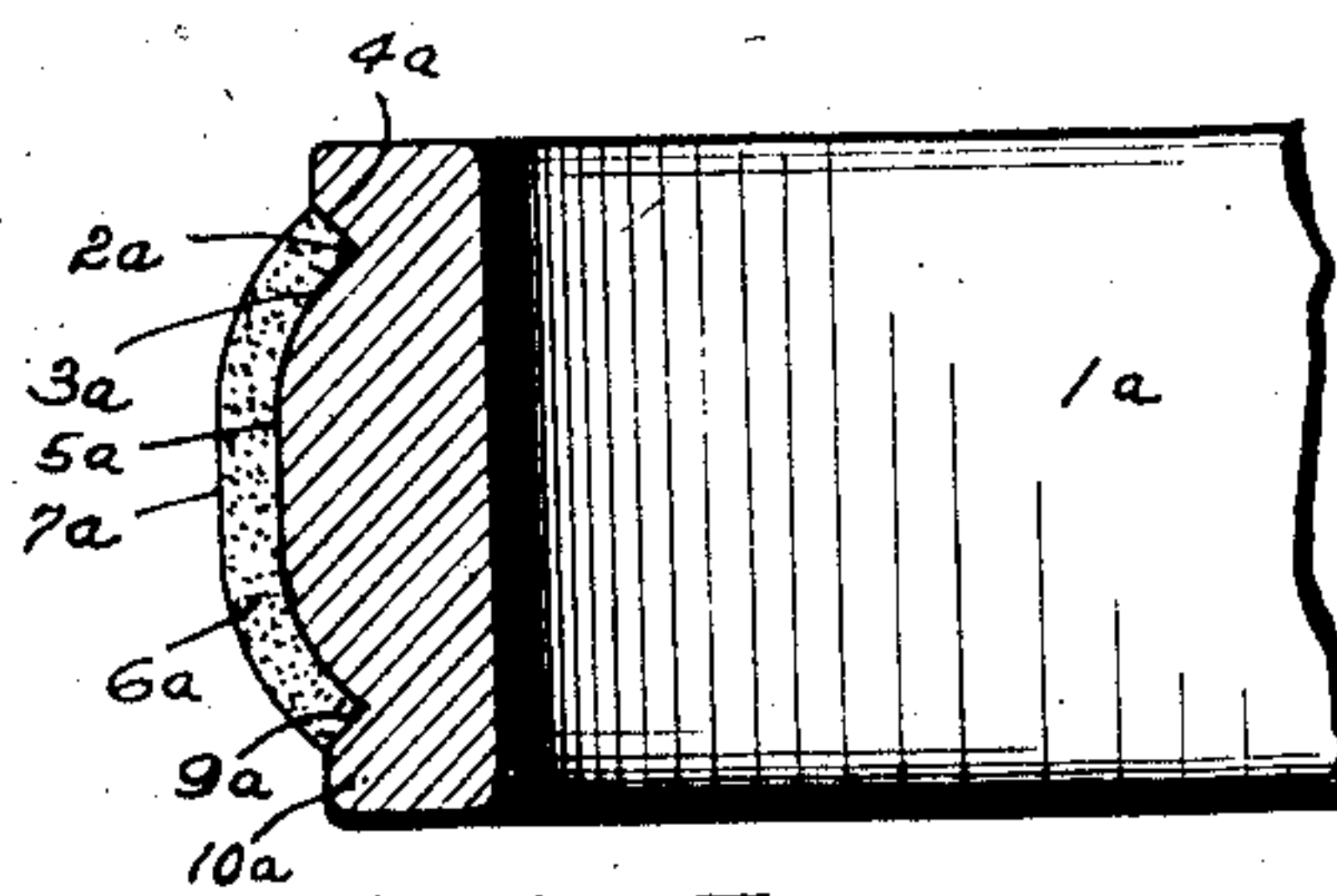


Fig.5.

Inventor

Witnesses
Harry O. Rastetter
Ruth A. Miller

Frederick E. Kohler
 by Harry Freese.
 Attorney

UNITED STATES PATENT OFFICE.

FREDERICK E. KOHLER, OF CANTON, OHIO.

EMBROIDERY-HOOP.

No. 884,279.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FREDERICK E. KOHLER, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Improvement in Embroidery-Hoops, of which the following is a specification.

The invention relates to a hoop composed of two rings, one adapted to telescope loosely outside the other for the purpose of holding a piece of fabric taut over the inner ring, for conveniently embroidering the same.

When the rings are made entirely out of wood or other relatively hard and smooth material, and no means are provided for a change in the diameter of either ring, such hoop is not well adapted to hold fabrics of different thicknesses and consistencies; and for the purpose of increasing the resilience and friction of the holding surfaces, a rubber band has been wrapped around or applied longitudinally along a flat holding surface on one or both of the rings, and a flexible fibrous band or cord has also been partially countersunk in the same. Serious objections pertain to each of these appliances. When a rubber band is wrapped around a ring, it makes the hoop quite cumbersome and takes away the neat and light condition so desirable in a hoop of this character, and the band is apt to wear off at the edges of the ring and requires frequent renewal. When a band of soft rubber is applied longitudinally along the flat surface of the ring, the edges become loosened from the wood by use and stretch or fold out of place, and the hoop soon loses its efficiency. And finally, when a resilient frictional band or cord is partially countersunk in the face of the ring, the hoop soon becomes inefficient by reason of the ordinary wear and use which either abrades the protruding portion of the countersunk material down to the plane of the hard body of the ring, or overcomes the resilient qualities of the frictional material and compresses it entirely into the countersink in the ring; and furthermore, when a band is countersunk, unless and until the protruding edges of the same are worn off by the abrasion of use, they are apt to be loosened and either stretched or folded out of place like the edges of a band which is merely laid on a flat surface.

The object of the present invention is to overcome all of the objections which have been noted as pertaining to the devices which

have been employed to increase the resilience and friction of the holding surfaces of the rings, and this object is attained by forming at least one ring, preferably the inner ring, with two annular grooves adjacent to the edges of its holding surface, and by rounding or beveling the sides of the middle portion of the holding surface, into the respective grooves; and then by gluing or otherwise securely attaching a resilient frictional band, preferably of somewhat soft and pliable leather, on the middle portion of the ring, with the edges of the band extended over the sides thereof and abutted in the grooves against the inner sides of the flanges formed along the edges of the hoop outside the grooves, as illustrated in the accompanying drawing; in which—

Figure 1 is a perspective view of the improved inner ring, showing the resilient frictional band applied thereon; Fig. 2, an axial-sectional view, showing the fabric laid over the inner ring and the outer ring in position for telescoping over the same; Fig. 3, a similar view, showing the outer ring telescoped over the inner ring with the fabric stretched and held taut over the inner ring; Fig. 4, an enlarged sectional view of the inner ring, showing the details of construction; and Fig. 5, an enlarged sectional view, showing an alternate form of the inner ring in which the middle portion of the holding face of the hoop is raised outside the plane of the flanges on its edge.

Similar numerals refer to similar parts throughout the drawing.

The inner ring 1 is made of wood, hard rubber or other relatively hard material, and is formed with the annular grooves 2 in its periphery adjacent to the edges thereof. The inner sides 3 of the grooves are preferably rounded or inclined, and the outer sides 4 thereof are preferably inclined to form right angles with the inner sides at the bottoms of the grooves. The middle portion 5 of the periphery of the ring, between the grooves, is preferably formed flat, so that when the resilient frictional band 6 is glued or otherwise attached thereon, the flat surface 7 is presented to the inner face of the outer ring 8. The edges 9 of the band are curved or extended over the sides of the middle portion into the respective grooves, and are preferably abutted against the square shoulders 4 on the inner sides of the flanges 10 formed by the groove on the pe-

ripheral edges of the inner ring. The thickness of the band and the shape of the grooves are so proportioned and arranged that the face of the band at the edges will be flush with the peripheral faces of the flanges.

The outer ring 8 is likewise made of wood or other suitable material, and as shown, is preferably formed with its inner face 11 smooth or flat, excepting only as the corners 12 may be slightly chamfered or rounded; and when the fabric 13 is placed over the inner ring, as shown in Fig. 2, the outer ring is placed over and then forced downward around the inner ring, which stretches and holds the fabric taut over the inner ring. The resilience and friction of the band on the inner ring serves to give a resisting pressure against the outer ring, and to prevent a slipping of the fabric as against an ordinary strain, but nevertheless permits the fabric to be forcefully pulled and adjusted into any desired position.

It is evident that by reason of the edges of the resilient frictional band being entered in the grooves and abutted against the inner sides of the flanges on the outer sides of the grooves, these edges will be protected by the flanges from any contact which will tend to loosen or detach them from the ring. It is also evident that the band will continue to be effective until it is worn entirely off the ring between the grooves, for its edges are protected against being loosened from the ring, and there is no countersink in the ring into which the band can be compressed.

It will be understood that the form and shape of the grooved ring may be considerably varied without departing from the general idea of the invention; as for instance, the face of the ring between the grooves can be somewhat raised from the

faces of the flanges outside the grooves, as shown in Fig. 5, wherein the respective parts are designated by the reference numerals 1^a, 2^a, 3^a, etc. And it will also be understood that the invention is not limited in scope to the use of leather as the material for the resilient frictional band, nor to the application of the invention to hoops having rings of unvarying circumferences.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An embroidery hoop comprising two rings one adapted to telescope within the other, one of the rings having annular grooves in its holding face adjacent to the edges thereof, and a resilient frictional band attached on the face of the ring between the grooves and having its edges extended into the grooves and abutted against the outer sides thereof.

2. An embroidery hoop comprising two rings one adapted to telescope within the other, one of the rings having annular grooves in its holding face adjacent to the edges thereof and the face of the ring between the grooves being raised above the portions outside the grooves, and a resilient frictional band attached on the raised portion of the face and having its edges extended into the grooves.

3. An embroidery hoop comprising two rings one adapted to telescope within the other, one of the rings having annular grooves in its holding face adjacent to the edges thereof, and a resilient frictional band attached on the face of the ring between the grooves and having its edges extended into the grooves.

FREDERICK E. KOHLER.

Witnesses:

HARRY FREASE,
JOSEPH E. FREASE.