

No. 763,113.

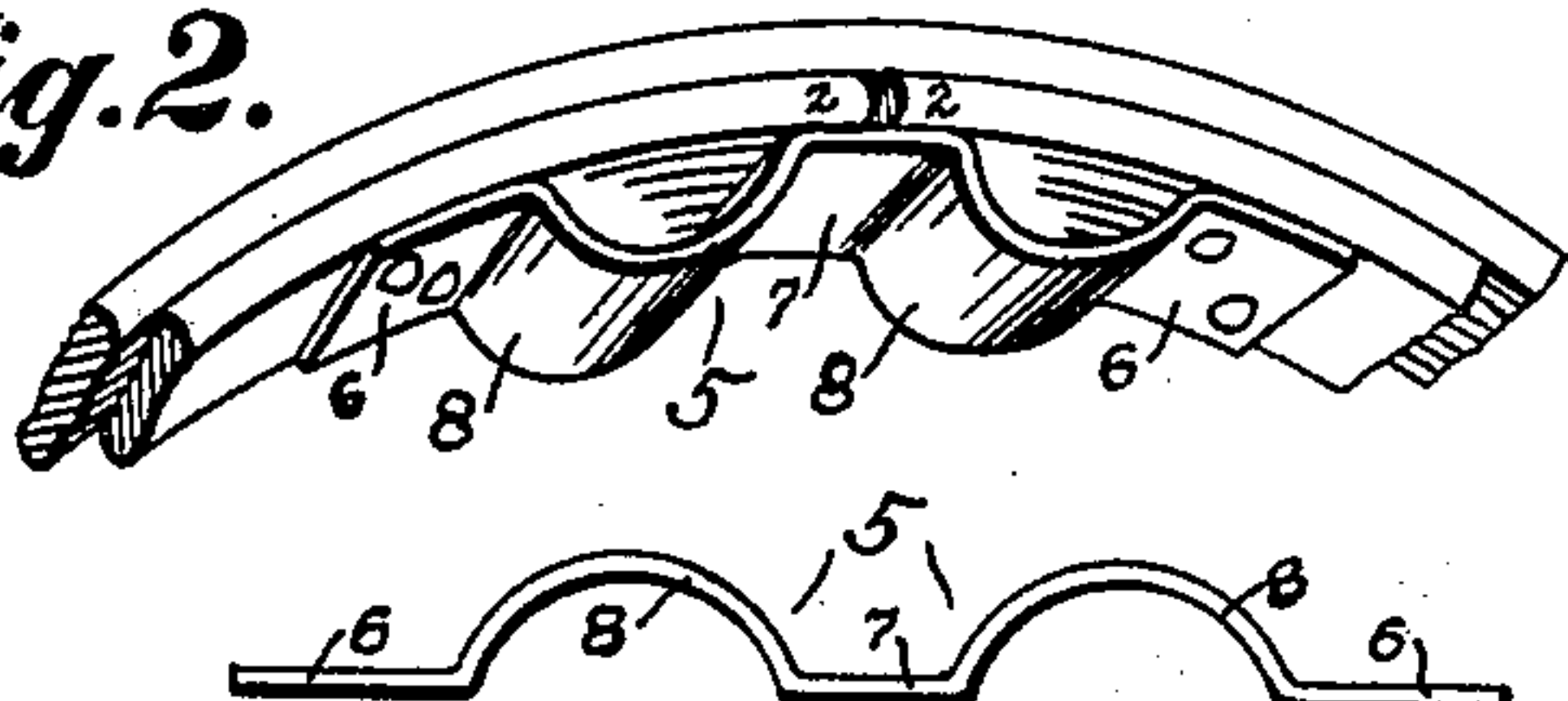
PATENTED JUNE 21, 1904.

W. J. REINHART.  
EMBROIDERY HOOP.

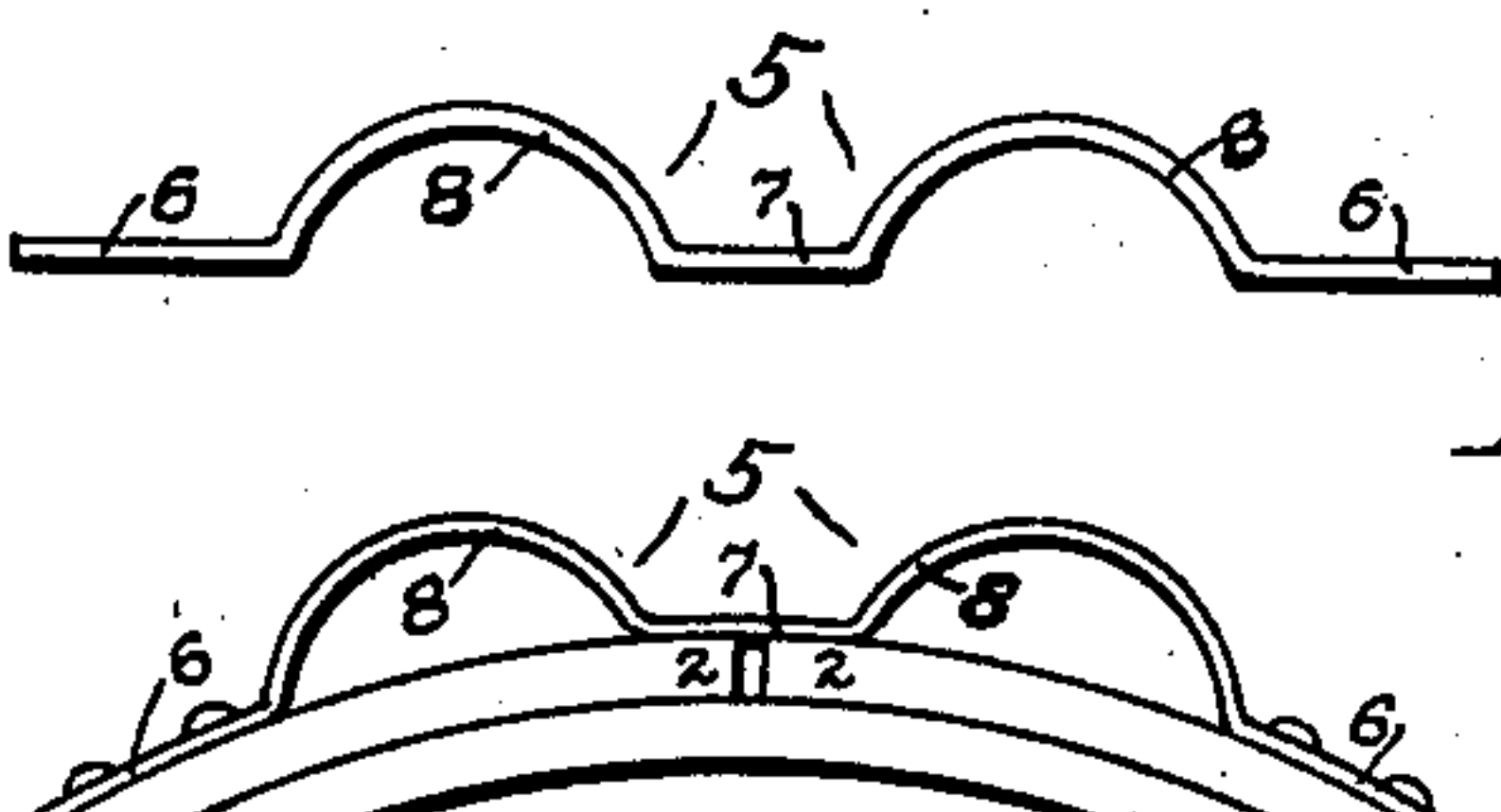
APPLICATION FILED MAR. 15, 1904.

NO MODEL.

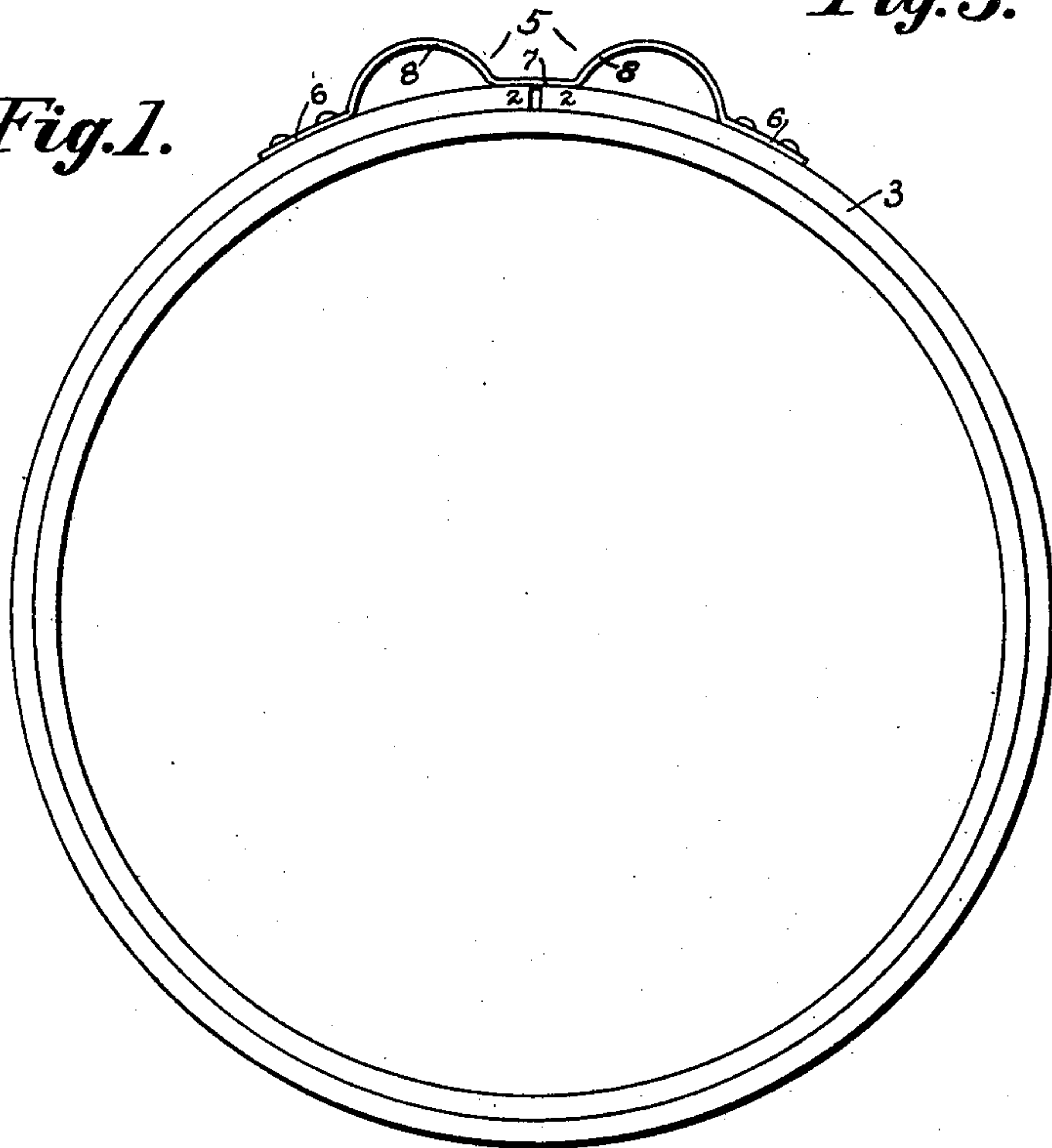
*Fig. 2.*



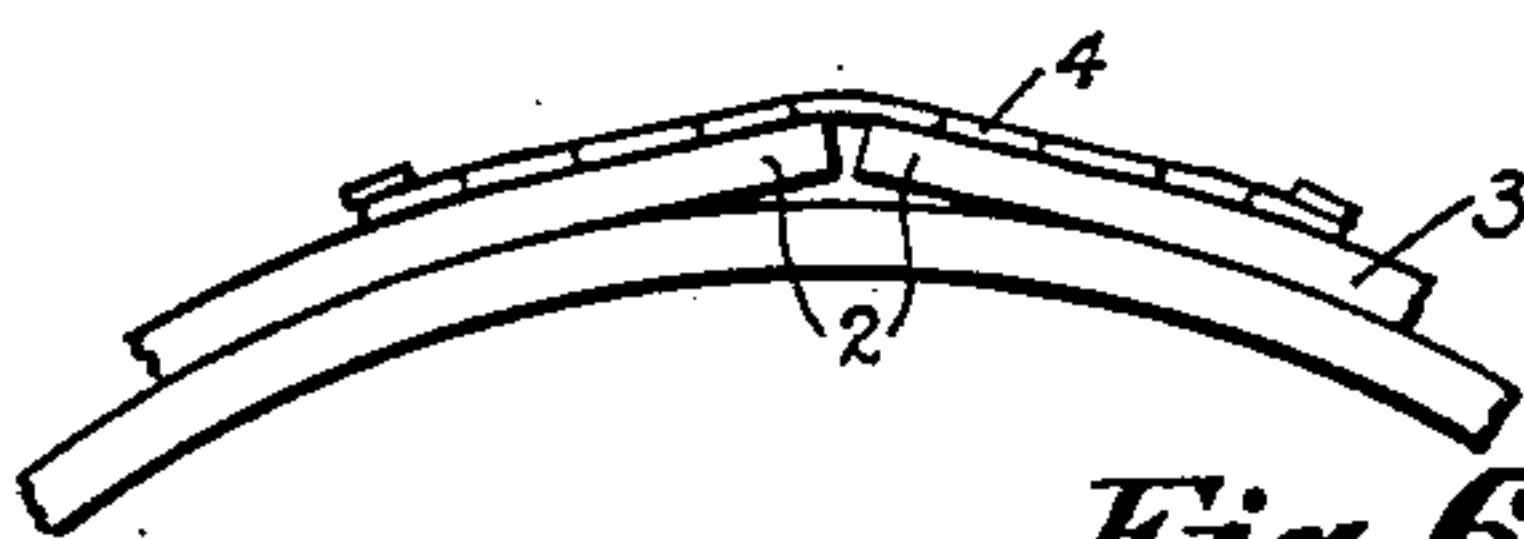
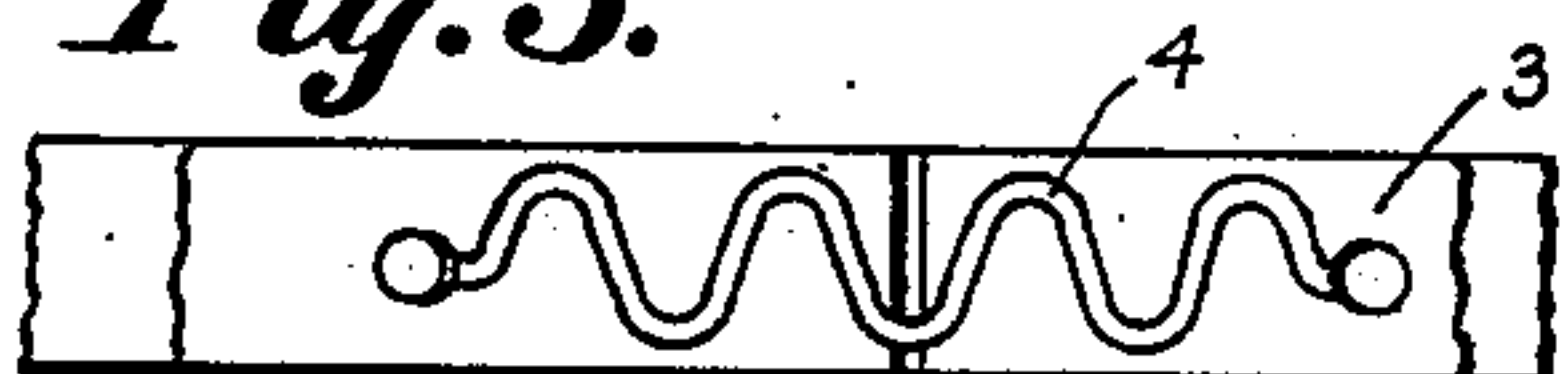
*Fig. 3.*



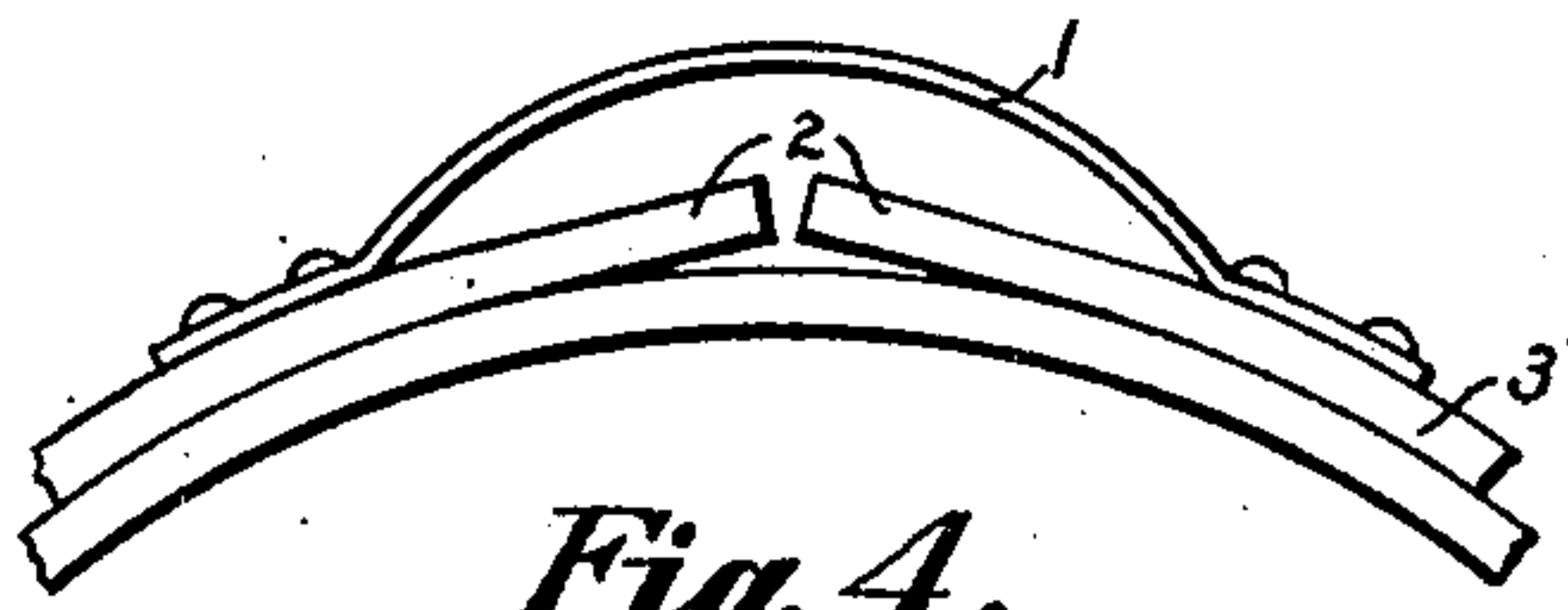
*Fig. 1.*



*Fig. 5.*



*Fig. 6.*



*Fig. 4.*

WITNESSES

*Geo. J. Hosler.*  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

WILLIAM J. REINHART, OF CANTON, OHIO.

## EMBROIDERY-HOOP.

SPECIFICATION forming part of Letters Patent No. 763,113, dated June 21, 1904.

Application filed March 15, 1904. Serial No. 198,228. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM J. REINHART, 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 pair of hoops, one telescoping in the other, by means of which a piece of linen or other similar material is stretched and held for embroidering or other work, and of that particular class of hoops in which one is cut and the severed ends thereof are connected by a spring for giving this hoop an expansive or a contractive elasticity, as the case may be, to permit its being forced outside or inside of the other one; and the object of the improvement is to provide a spring connection which will give the cut hoop such required elasticity and at the same time will press the severed ends against or toward the other hoop just as firmly and as positively as any other part of the hoop is so held by its expansive or contractive elasticity, to the effect that the linen is held equally secure at all points in the circumference of the stretcher. This object is attained by the construction and arrangement illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a pair of hoops having the outer one cut and the severed ends connected and compressed by the improved spring; Fig. 2, a fragmentary perspective view of the spring as applied when the inner hoop is cut; Fig. 3, a side view of the preferred normal shape of the spring; Fig. 4, a fragmentary side view illustrating the natural tendency of the severed ends of the outer hoop when connected by an ordinary single bow-spring, and Figs. 5 and 6 are fragmentary plan and side views illustrating the same defect when the so-called "compound" connecting-spring is used.

Similar numerals refer to similar parts throughout the drawings.

When the single bow-spring 1 is used, the natural tendency of the severed ends 2 of the outer hoop 3 is to straighten out, as shown in Fig. 4, and even if the hoop is curved by steaming or otherwise any outward pressure against

the unsupported ends will not be resisted with the same positive firmness which is exerted by the other parts of the hoop, which is also true of the unsupported severed ends of an inner hoop, and the same feature of weakness and imperfection occurs when the compound spring 4 is used, as shown in Figs. 5 and 6. This difficulty is successfully overcome by the use of the double or compound bow-spring 5, which is preferably normally shaped with the two flat ends 6 and the middle flat section 7 all in the same line with the intermediate bowed portions 8, as shown in Fig. 3. The spring is then applied to the cut hoop by butting the middle section against the severed ends of the hoop and bending the end sections and attaching them to the hoop, as shown in Fig. 1, for a cut outer hoop and in Fig. 2 for a cut inner hoop. The spring is preferably made out of a strip of flat metal, so as to give lateral stiffness to the joint. With such a spring it is evident that whether it is applied on the outer side of a cut outer hoop or inner side of a cut inner hoop the abutting middle section of the spring will bear against the severed ends of the cut hoop and act to positively press them toward the other one, and, furthermore, this pressure will be increased as the energy of the spring is brought into greater play by an expansion or contraction of the hoop, as the case may be.

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

1. A pair of hoops adapted to be telescoped, one of the hoops being cut to form adjacent ends, and a double bow-spring having its middle section butted against the severed ends and its end sections attached to the hoop.

2. A pair of hoops adapted to be telescoped, one of the hoops being cut to form adjacent ends, and a connecting-spring having bowed sections on each side of the severed ends, and a middle section butted against the same.

3. A pair of hoops adapted to be telescoped, one of the hoops being cut to form adjacent ends, and an endwise-elastic connecting-spring standing away from the hoop on each side of the severed ends and having a middle section adapted to bear against the same.



4. An embroidery-hoop cut to form adjacent ends, and a double bow-spring having its middle section butted against the severed ends, and its end sections attached to the hoop.
- 5 5. An embroidery-hoop cut to form adjacent ends, and a connecting-spring having bowed sections on each side of the severed ends and a middle section butted against the same.
- 10 6. An embroidery-hoop cut to form adjacent ends, and an endwise-elastic connecting-

spring standing away from the hoop on each side of the severed ends and having a middle section adapted to bear against the same.

In testimony whereof I have signed my name 15  
to this specification in the presence of two subscribing witnesses.

WILLIAM J. REINHART.

Witnesses:

HARRY FREASE,  
JOHN WACK.