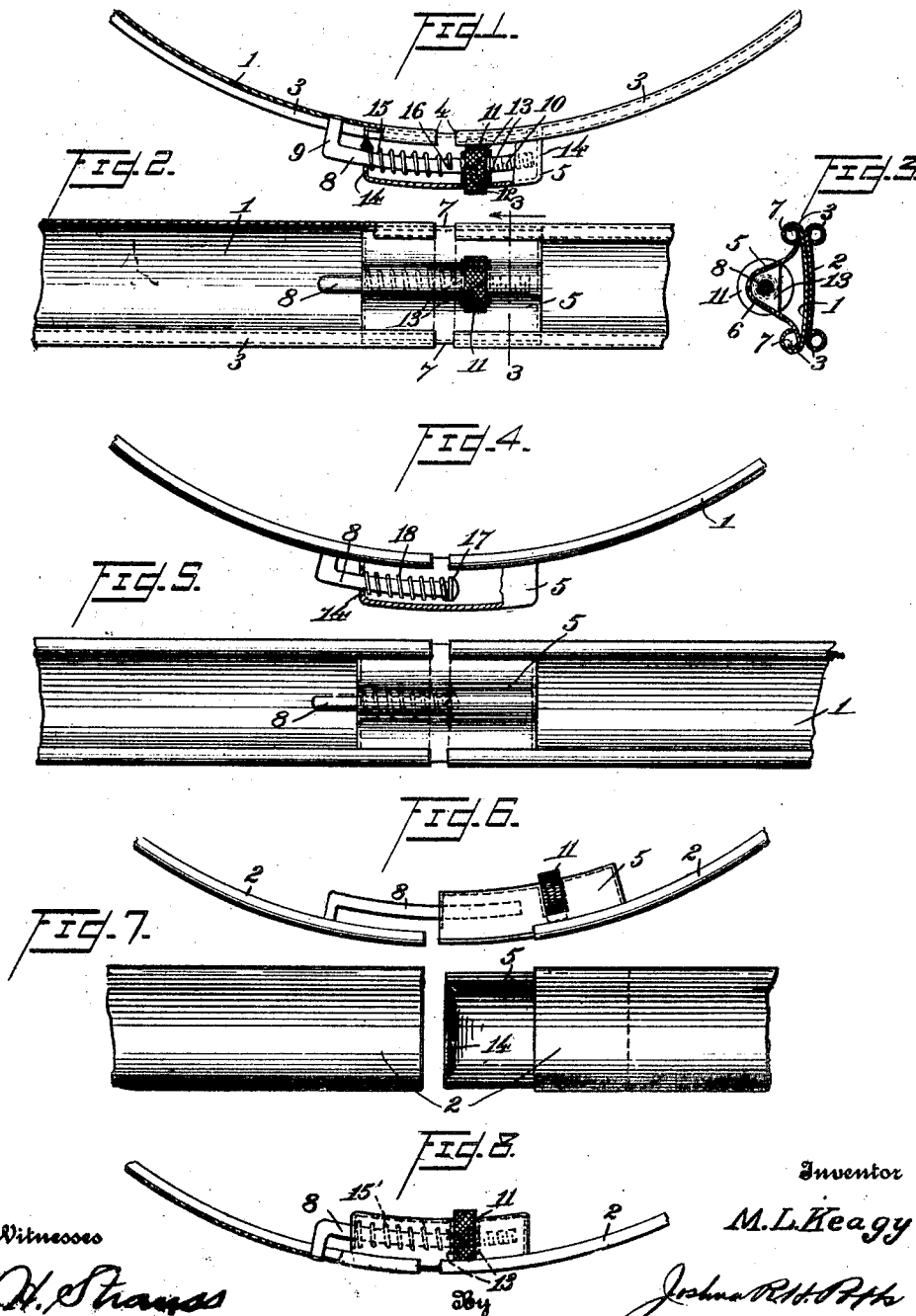


M. L. KEAGY.
EMBROIDERY HOOP.
APPLICATION FILED JAN. 18, 1911.

1,039,141.

Patented Sept. 24, 1912.



Witnesses

H. S. Thomas
H. S. Austin

Inventor

M. L. Keagy

Joshua R. H. P. H.

Attorney

UNITED STATES PATENT OFFICE.

MARTIN L. KEAGY, OF CANTON, OHIO.

EMBROIDERY-HOOP.

1,039,141.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed January 18, 1911. Serial No. 603,241.

To all whom it may concern:

Be it known that I, MARTIN L. KEAGY, a citizen of the United States, residing at Canton, county of Stark, and State of Ohio, have invented certain new and useful Improvements in Embroidery-Hoops, of which the following is a specification.

My invention relates to embroidery hoops and particularly to embroidery hoops formed of sheet metal.

More specifically, my invention relates to improved means for connecting the ends of the hoops.

The object of my invention is to provide a sheet metal embroidery hoop wherein the two rings may be freely passed one over the other and then securely clamped to hold the work.

A further object of my invention is to provide a device of the class mentioned whereby the clamping action of the rings may be adjusted or regulated at will to suit the nature of the work.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in an embroidery hoop ring formed of a strip of material bent into circular form and clamping means adjustably connecting the ends of the strip.

My invention further consists in an embroidery hoop comprising a pair of telescopic rings, one or both of the rings being split and provided with means whereby it may be clamped upon the other ring.

My invention further consists in various details of construction and arrangements of parts all as will be fully described hereinafter and particularly pointed out in the claims.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a plan view, partially in section, of a connection between the ends of the ring embodying my invention in its preferred form, Fig. 2 is an elevation of the same, Fig. 3 is a transverse section on the line 3—3 of Fig. 2, Fig. 4 is a view similar to Fig. 1 illustrating a modified form of my invention, Fig. 5 is an elevation of the device shown in Fig. 4, Fig. 6 is a plan view of a device similar to that shown in Fig. 1 but applied to the inner ring of an embroidery hoop and illustrating the ends of the ring partially separated, Fig. 7 is an

elevation of the same, and Fig. 8 is a plan view of the same with the ends connected in normal position.

Referring now to the drawings 1 indicates the outer ring of an embroidery hoop and 2 the inner ring, each formed of sheet metal and having the edges rolled forming beads 3, and preferably curved in transverse cross section as shown in Fig. 3, the rings having convex and concave co-acting faces respectively as indicated. The rings are what are known as split rings and their ends are well rounded on the inner side as at 4 to prevent injury to the work.

To one end of the ring is secured a guard or casing 5. This comprises a body portion 6 having its edges curled to form base flanges 7 which fit within the beads 3 as clearly shown in Fig. 3. The casing 5 projects beyond the end of the ring to which it is secured and the base flanges 7 of the projecting portion telescopes freely within the beaded portion of the opposite end, whereby a sliding connection is had between the ends of the ring.

Fixed to the opposite end of the ring from that to which the casing 5 is secured is a rod 8. This is preferably curved concentrically with the ring and its free end extends into said casing. The opposite end of the rod 8 is turned inwardly as at 9 and is secured to the ring by riveting or soldering. The outer end portion of the rod 8 is threaded as at 10 and upon this threaded portion is a knurled wheel or nut 11 the periphery of which extends slightly beyond the outer face of the casing 5. The casing is stamped out of sheet metal and formed with a recess 12 for the nut 11 and with inturned flanges 13 forming the walls of said recess and end flanges 14. The walls or flanges 13 form thrust members for the nut 11 and it is obvious that by turning said nut the ends of the ring may be readily moved toward or from each other as desired thereby enlarging or contracting the size of the ring. The flanges 13 and the outer flange 14 are apertured to receive the rod 8 and the inner flange or wall 14 constitutes a stop to limit the inward movement of the rod.

15 indicates a spring fixed to the outer wall or flange 14 at one end and having its opposite end extending through a perforation 16 in the rod 8 adjacent the inner end of the threaded portion thereof. The spring normally tends to draw the rod out of the

casing and therefore to expand the ring. The casing 5 prevents the thread with which the operator is working from catching in the rod or spring.

5 In Figs. 6, 7, and 8 I have illustrated a device similar to that above described but arranged upon the inner ring of the hoop. It is obvious that when used upon the inner ring it must be located upon the inner face thereof. The construction is identical with that described for the outer ring except that the spring 15' is a compression spring instead of a tension spring, whereby the tendency of the spring is to contract the inner hoop.

10 In Figs. 4 and 5 I have illustrated a modified form which may be applied to either the inner or outer ring but have illustrated it in conjunction with the outer ring only. In this form the nut 11 is dispensed with and the rod 8 instead of being threaded is provided with a head 17 between which and the outer wall 14 of the casing is interposed a compression spring 18. The tendency of the spring 18 is to draw the rod within the casing to contract the size of the ring. When the adjusting nut 11 is used the clamping action of the ring may be varied at the will of the operator, but with the form illustrated in Figs. 4 and 5 the clamping action is due entirely to the spring. Either or both rings of an embroidery hoop may be provided with a clamping device as desired. In operation, when a device embodying the nut 11 is used, the nut is turned until the ring is the proper size to pass freely over or within the other hoop as the case may be and after the hoops are tele-

scoped with the work between them the nut is turned in the opposite direction to clamp the hoops one upon the other. With the form shown in Figs. 4 and 5 the hoop is merely expanded against the tension of the spring and after being passed over the other ring and the work is released, the spring quickly clamping the same on the other ring.

Having described my invention what I claim as new and desire to secure by Letters Patent is:

1. In an embroidery hoop, a split ring, a casing fixed to one end of said ring, a threaded rod fixed to the opposite end of said ring and extending into said casing, there being a recess formed in said casing, a knurled nut in said recess and threaded upon said rod and flanges formed on said casing constituting thrust members for said nut, substantially as described.

2. In an embroidery hoop, a split ring, a casing fixed to one end of said ring, a threaded rod fixed to the opposite end of said ring and extending into said casing, there being a recess formed in said casing, a knurled nut in said recess and threaded upon said rod, thrust members for said nut upon each side thereof, and a spring having one end secured to said rod and the other end secured to said casing and adapted to expand said ring, substantially as described.

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

MARTIN L. KEAGY.

Witnesses:

JOS. A. PIERO,
H. C. DENBLE.