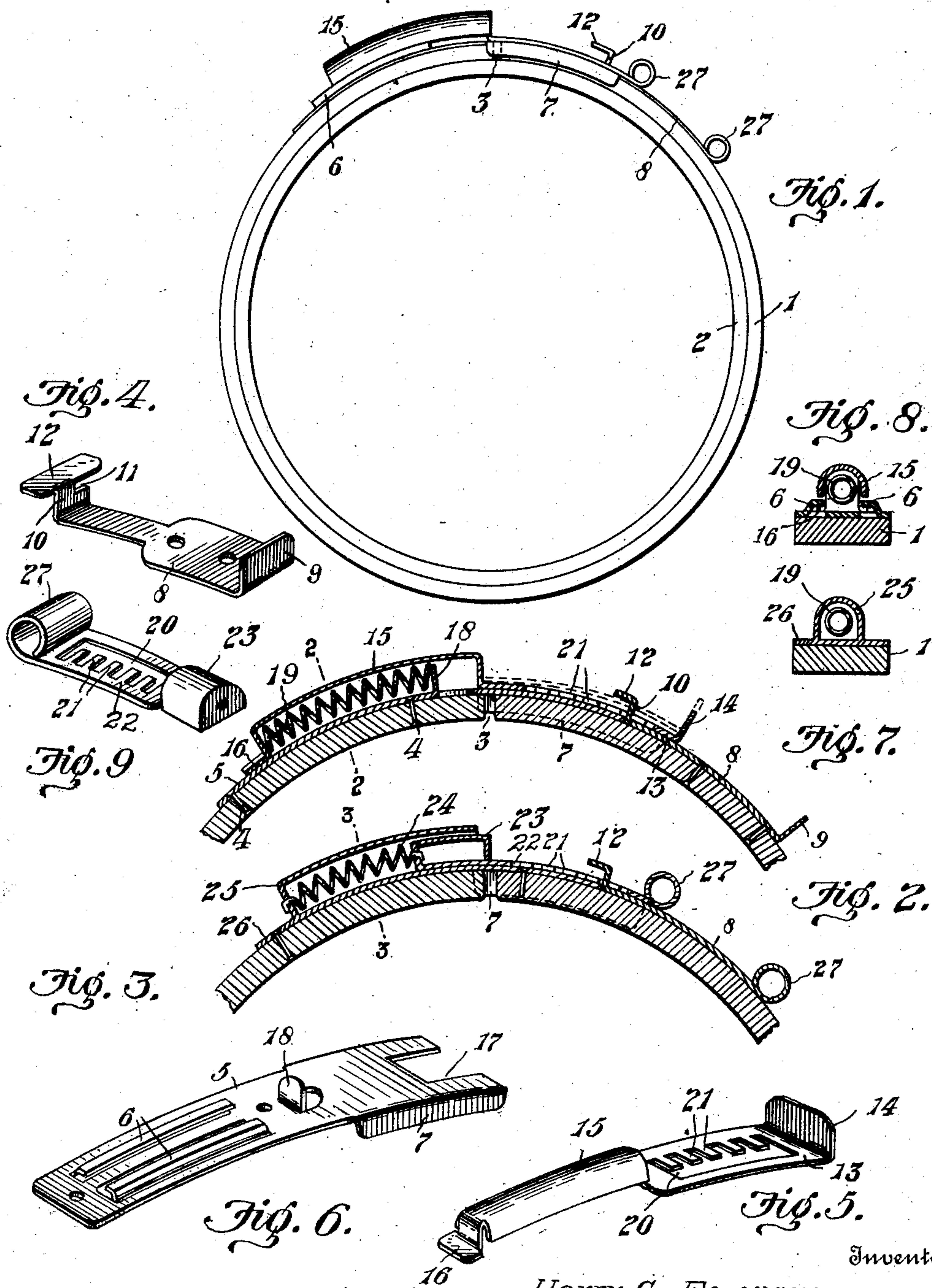


H. C. FERGUSON.
EMBROIDERY HOOP.
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Patented Oct. 25, 1910.



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EMBROIDERY-HOOP.

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To all whom it may concern:

Be it known that I, HARRY C. FERGUSON, 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 telescoping within the other by means of which a piece of linen or other fabric or thin material is stretched and held for embroidering or other work and the particular class of hoops in which one is cut and the ends thereof brought to and from each other so that the outer hoop can be clamped upon the inner hoop, thereby clamping the material designed to be embroidered between the inner and outer hoops or rings.

The invention further consists in providing means for holding the outer ring when brought into position to clamp the fabric.

The invention is illustrated in the accompanying drawing forming part hereof, in which—

Figure 1 is an edge plan view of a hoop having a cut outer ring, a connecting case, a spring housing connected to said outer ring, also showing the inner ring in proper relative position. Fig. 2 is a view showing a longitudinal section of a portion of the outer ring and the different parts connected thereto. Fig. 3 is a similar view showing a slight modification. Fig. 4 is a detached view of the fixed holding plate. Fig. 5 is a detached view of the combined spring housing and the slotted and toothed sliding plate. Fig. 6 is a detached view of the guide plate. Fig. 7 is a transverse section on line 3—3, Fig. 3. Fig. 8 is a transverse section on line 2—2, Fig. 2. Fig. 9 is a detached perspective view of the sliding toothed plate showing a slight modification from that illustrated in Fig. 5.

Similar numerals of reference indicate corresponding parts in all the figures of the drawing.

In the accompanying drawing, 1 represents the outer ring or hoop and 2 the inner ring or hoop, which are normally located concentrically to each other. The outer hoop is cut or severed and is cut or severed as illustrated at 3 for the purpose of providing means of drawing the outer hoop so that it can be clamped upon the inner hoop

2 or can be released from the said inner hoop so that the material designed to be clamped between the inner and outer hoops can be held in a clamped position or released for the purpose of adjustment or removal.

To the outer hoop 1 is attached by means of the rivets 4 or their equivalents the guide plate 5, which guide plate is provided with the parallel guide flanges 6, which flanges are spaced from each other as illustrated in Fig. 6, which guide flanges are formed by cutting the metal in such a manner that the guide flanges are left integral with the guide plate. For the purpose of assisting in holding the guide plate 5 in proper alinement with the outer hoop 1, said guide plate is provided with the flanges 7, which flanges are located upon the edges of the outer hoop 1. One of said flanges being best illustrated in Fig. 1. Owing to the fact that the guide plate 5 bridges the cut 3, said guide plate can only be attached to the hoop 1 upon one side of the cut 3 and hence the importance of providing the guide flanges 7, so that the free end of the hoop 1 will be held in proper alinement with the end of the hoop to which said guide plate is attached.

To the outer hoop 1 is attached the plate 8, which plate is provided at one of its ends with the right angled member 9 and its opposite end provided with the right angled member 10, which right angled member is provided with the cut out portion 11. The top or upper end of the right angled member 10 and above the cut out portion 11 is provided with the lip 12, which lip is for the purpose of limiting the upward movement of the free end of the slotted and toothed plate 13, which notched and toothed plate is provided with the right angled portion 14 and the opposite end provided with the spring housing 15, from which spring housing extends the integral guide plate 16, which guide plate is located between the guides 6.

For the purpose of providing sufficient room and also bringing the parts in a more compact relationship with reference to each other, the guide plate 5 is provided with the notch or recess 17, which recess is for the purpose of providing room for the right angled portion 10 formed upon the plate 8. The guide plate 5 is provided with the lip 18, which lip is for the purpose of providing an abutment for one end of the spring 19, which spring is located in the housing 15

as best illustrated in Fig. 2, the opposite end of the spring 19 abuts against the end of the housing 15. The plate 13 is provided with the elongated slot 20 and the teeth 21, which teeth are so located and arranged that the slot 20 is continuous or of a length substantially of a length equal to the plate 13. When it is desired to compress the outer hoop the free end of the plate 13 is lifted up as illustrated in Fig. 2 so as to bring the teeth 21 into position to clear that portion of the right angled portion 10 below the cut out portion 11 at which time the plate 13 together with the spring housing 15 can be moved endwise thereby compressing the spring 19 and drawing the severed ends of the hoop 1 toward each other, until the said outer hoop has been sufficiently clamped upon the inner hoop to clamp or hold the fabric, after which the plate 13 is moved toward the outer hoop at its free end until the lower part of the right angled portion 10 engages the proper notch or recess between two of the teeth 21, thereby holding the outer hoop in its adjusted position.

In Fig. 3 I have illustrated a slight modification and also Fig. 9 shows a modified form of notched and toothed plates. In Fig. 9 the toothed plate 22 is provided with the semi-circular portion 23 to the inner end of which semi-circular portion is attached the spring 24 and the opposite end of said spring attached to said housing 25, which housing is formed integral with the plate 26, which plate takes the place of the guide plate 5. In the construction shown in Fig. 3 the spring is expanded or stretched when the severed ends of the outer hoop are drawn toward each other while in the construction shown in Fig. 2 the spring 19 is compressed. The plate 8, however remaining the same in both instances and the slot 20 and the teeth 21 being arranged substantially the same in both instances and also in Fig. 3 and in Fig. 9 loops 27 are shown which take the place of right angled portions 9 and 14.

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

1. A hoop composed of two telescoping rings, one of the rings cut, a guide plate secured to the outer ring, said guide plate adapted to bridge the cut and provided with flanges adapted to embrace the edges of said outer ring, said guide plate provided with guide flanges, a slidable plate mounted upon said guide plate, said slidable plate consisting of a toothed and slotted plate, a spring

housing and a guide flange, a fixed plate provided with a knob or pull at one of its ends and its opposite end provided with a flange having a cut out portion and a stop plate and a spring located in the housing and means for confining said spring, substantially as and for the purpose specified.

2. A hoop composed of two telescoping rings, one of the rings cut, a plate adapted to bridge the cut, said plate secured to the cut ring, a slotted plate provided with teeth and a slot adjacent the teeth, said plate slidably mounted upon the plate adapted to bridge the cut, a spring adapted to be actuated by the sliding plate, a fixed plate located at one side of the cut in the ring, said fixed plate provided with means adapted to engage the teeth in the slotted plate, substantially as and for the purpose specified.

3. A hoop composed of two telescoping rings, one of the rings cut, a guide plate secured to the cut ring upon one side of the cut and extended over the cut, said plate provided with a recess at its end and guide flanges, a slotted and toothed plate slidably mounted upon the fixed guide plate, a spring adapted to be actuated by the movements of the toothed and slotted plate, a fixed plate provided with a knob at one of its ends, its opposite ends provided with a right angled flange, said right angled flange adapted to extend through the recess in the end of the guide plate and a spring adapted to be actuated by the movements of the notched and toothed plate, substantially as and for the purpose specified.

4. A hoop composed of two telescoping rings, one of the rings cut, a guide plate adapted to bridge the cut, said guide plate provided with guide flanges upon its outer face and its edges respectively, a plate slidably mounted upon the guide plate, said slidable plate provided with means for guiding the movements of the slidable plate and a spring adapted to be actuated by the movements of the slidable plate, a fixed plate and means for holding the slidable plate in fixed adjustment, substantially as and for the purpose specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

HARRY C. FERGUSON.

Witnesses:

F. W. BOND,
SYLVIA BORON.