

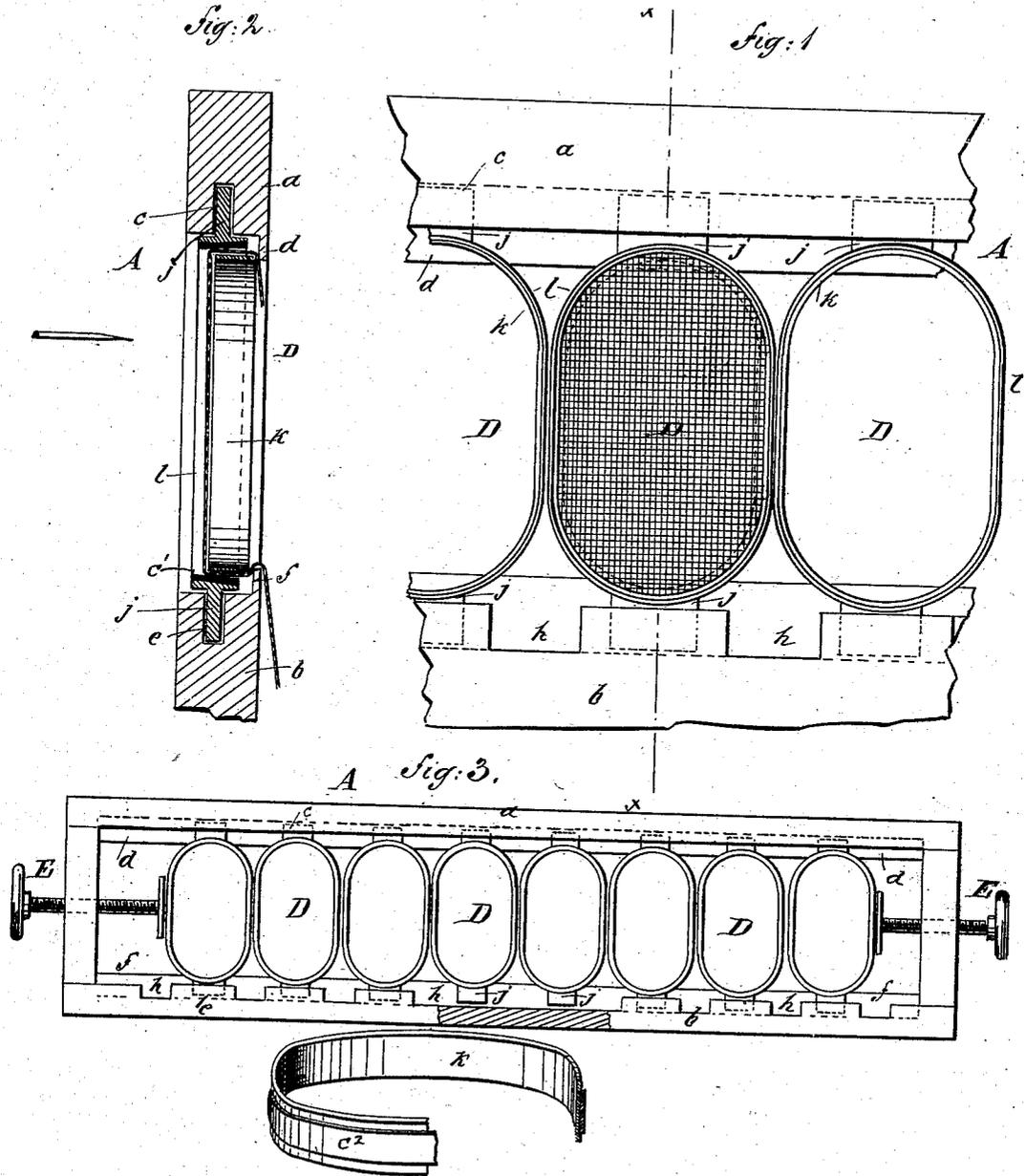
(No Model.)

B. F. ROBINSON.

HOLDING RING AND FRAME FOR EMBROIDERING MACHINES.

No. 274,034.

Patented Mar. 13, 1883.



WITNESSES:

Chas. Nida
C. Sedgwick

INVENTOR:

B. F. Robinson
BY *Wm. H. C.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

BENJAMIN F. ROBINSON, OF NEW YORK, N. Y.

HOLDING RING AND FRAME FOR EMBROIDERING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 274,034, dated March 13, 1883.

Application filed December 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. ROBINSON, of the city, county, and State of New York, have invented certain new and useful Improvements in Holding Rings and Frames for Embroidering-Machines, of which the following is a full, clear, and exact description.

My invention relates to that class of embroidering-machines that have a plurality of needles; and it consists of suitable rings or clamps for holding the fabric to be embroidered, and of the frame for holding the clamps, whereby a greater number of pieces may be embroidered at a time than by the method of holding the fabric heretofore employed.

Heretofore it has been the practice to sew the pieces of fabric to be embroidered together and to wind them as one piece upon rollers, which were then secured in the frame of the embroidery-machine. The objection to this is that when all the parts of the fabric to be embroidered cannot be brought in front of the needles by shifting the frame some of the needles must remain idle, thus causing a loss of time. By my invention the pieces or parts of the fabric to be embroidered can be so held that all the needles in the machine can be worked, and the putting on and removing of the articles from the machine are attended with practically no delay and with but little labor and expense.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of a portion of my improved embroidery-frame, showing some of the holding-clamps in place therein. Fig. 2 is a sectional elevation of the same, taken on the line *xx* of Fig. 1. Fig. 3 is a broken front elevation of the frame and holding-clamps, and Fig. 4 is a broken perspective view of a modified interior ring.

A represents the embroidery-frame, which is moved by the pantograph of the embroidery-machine in the ordinary way, which frame is formed with the parallel upper and lower bars, *a b*. There may be several sets of these bars in the frame. The upper bar, *a*, is formed with the gutter *c* and back flange, *d*, as shown clearly in the drawings, and the lower bar, *b*, is formed

with a similar gutter, *e*, and flange *f*, as shown clearly in Fig. 2, and this lower bar has the notches *h* cut through from the front to the gutter *e*, as shown clearly in Figs. 1 and 3. The flanges *d* and *f* serve to hold the inner sections, *k*, of the clamps D in place in the outer sections, *l*, for clamping and holding the fabric between them while being embroidered, as illustrated in Fig. 2. The clamps D are composed of the said inner section or ring, *k*, and outer section or ring, *l*, which latter is by preference slightly beveled on its inner surface, as shown in Fig. 2, and is formed with the lugs *jj* upon its outer surface. The outer surface of the inner section, *k*, is by preference slightly beveled to fit the interior of the outer section or ring, *l*. The outer section, *l*, of the clamps may be wound with rubber; but by preference I line them with the lining *c'* of soft rubber or similar material secured to them, as shown in Fig. 2, which serves to hold and draw the fabric tight over the rings *k* when the rings are pressed one within the other.

Instead of winding or lining the outer section or ring, *l*, with rubber, the inner section, *k*, may be wrapped with rubber or provided with the strip *c''* of rubber or similar material around its outer surface, as shown in Fig. 4; or the rubber may be omitted entirely, if desired.

In use the piece or pieces of fabric to be embroidered will be placed over the ring or sections *k*, so that the spots or portions to be embroidered will come near the center of the sections, and then the outer rings, *l*, will be placed over the sections *k* on the fabric. The two sections will then be placed in the frame A from the front through the slots *h*, so that the rearedge of the inner rings, *k*, will come against the flanges *d* and *f* of the rails *a* and *b*, and so that the projectious or lugs *jj* will come in the gutters *c* and *e* of the rails, as shown in Fig. 2, thus causing the rings to be forced one within the other for clamping and holding the fabric between them, and drawing it straight and tight over the ring *k* in proper condition for embroidering. After being put in the frame the rings or clamps D will be moved along in the gutters *c* and *e* in front of the needles, and will be held in place in the frame by means of the set-screws E E at the ends of the frame A, and by means of these screws the clamping-

rings may be shifted in a body in the frame to bring them in proper position in front of the needles.

The clamps D may be of any desired form or size, and they may be made of metal, hard rubber, celluloid, or any other suitable material, and they may be applied to any kind of embroidery-machine.

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

1. The clamps D, formed of the inner and outer rings, for holding the fabric to be embroidered, in combination with the frame A for holding the clamps, substantially as described.

2. The clamps D for holding the fabric to be embroidered, composed of the outer ring, *l*, formed with the lugs or projections *j j*, and of the inner ring, *k*, that fits in the outer ring, substantially as shown and described.

3. The combination, with the clamps D, formed of the outer ring, *l*, having lugs, and the inner ring, *k*, of the guttered bars *a* and *b*, formed or provided with flanges *d f*, as and for the purposes set forth.

4. The frame A, formed with the gutters *c e*, and flanges *d f*, and slots *h*, in combination with the rings *k* and *l*, the latter being provided with the lugs *j j*, as and for the purposes set forth.

5. The frame A, formed with the gutters *c e*, and flanges *d f*, and slots *h*, and provided with the screws E E, in combination with the clamps D for holding the fabric to be embroidered, as and for the purposes set forth.

BENJAMIN F. ROBINSON.

Witnesses:

H. A. WEST,

C. SEDGWICK.