

(No Model.)

A. HEAVEN.
EMBROIDERING MACHINE.

No. 254,967.

Patented Mar. 14, 1882.

Fig. 1

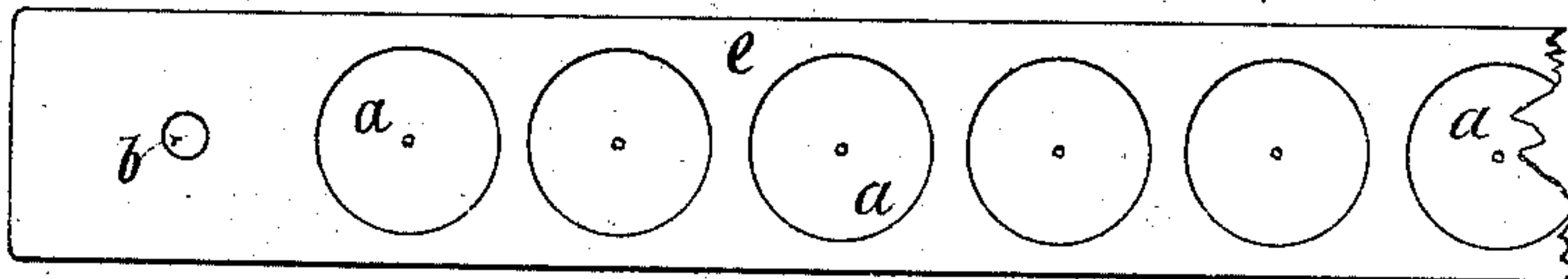


Fig. 4.

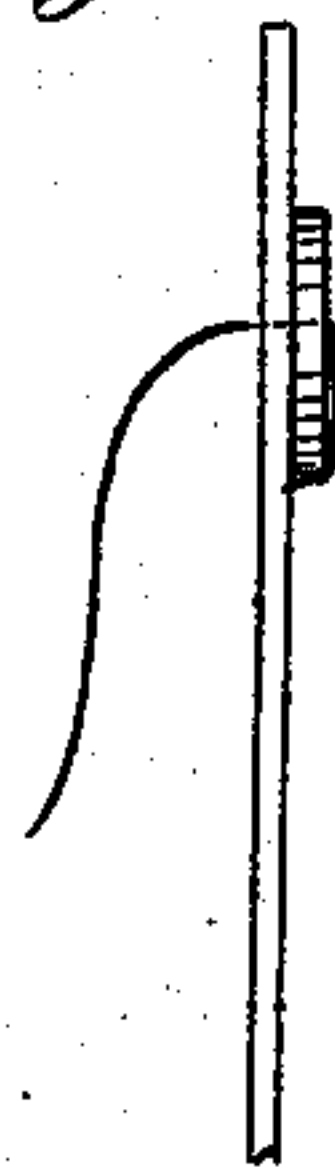


Fig. 2.

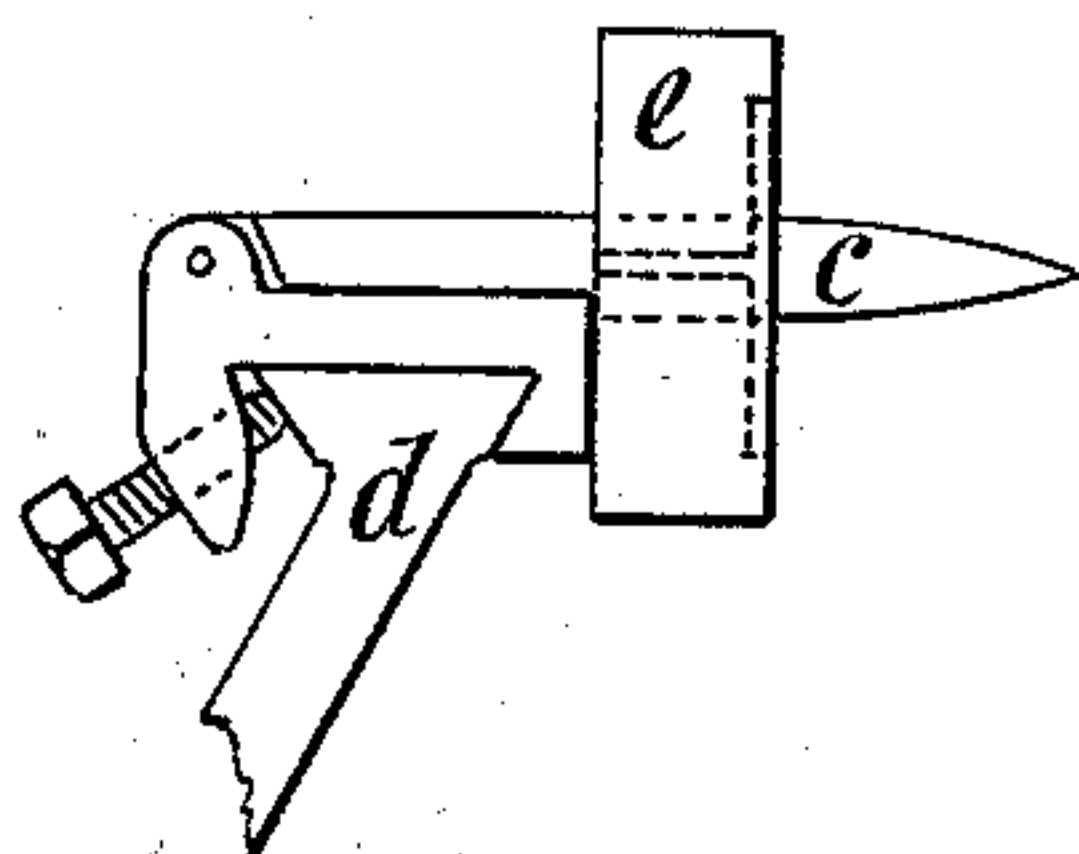


Fig. 3.

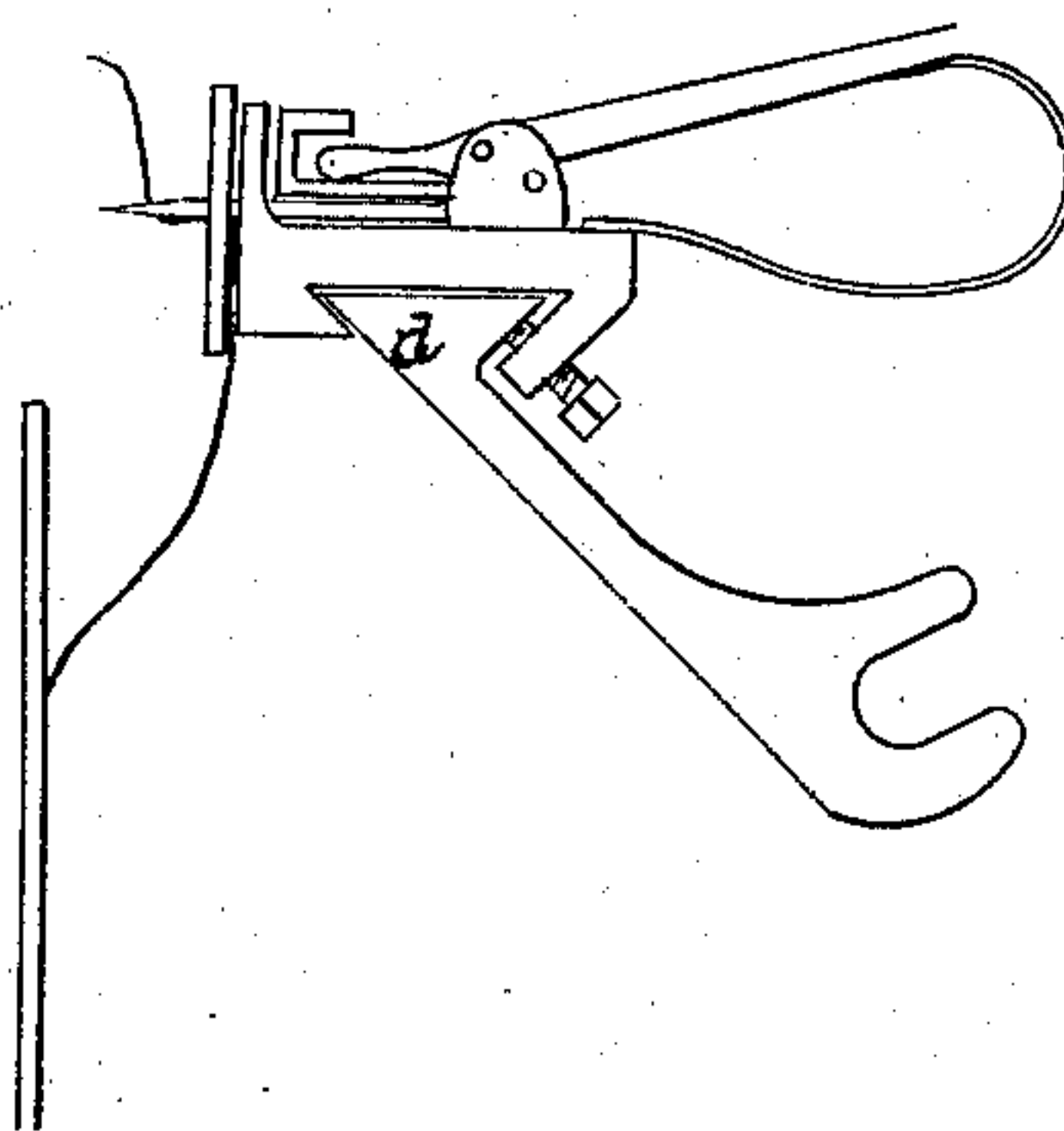


Fig. 5.

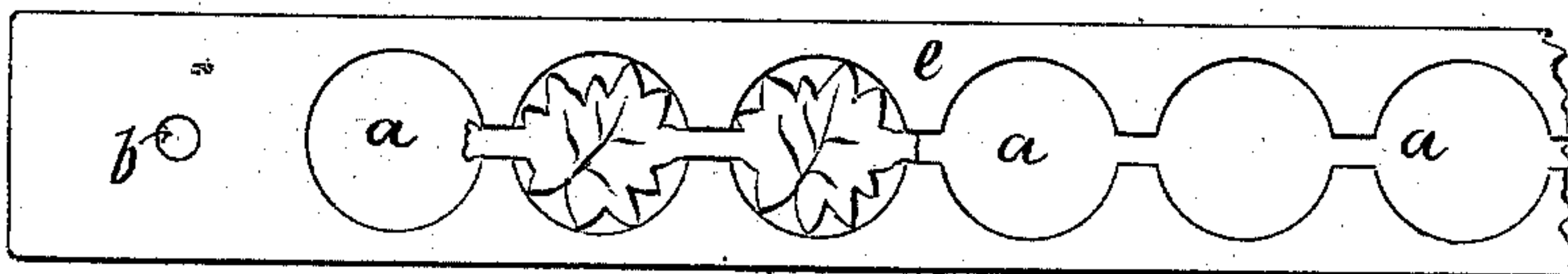


Fig. 6.

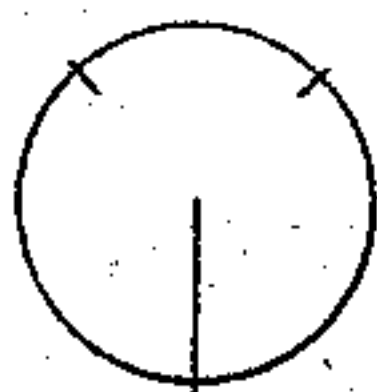


Fig. 7.



Fig. 8.



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UNITED STATES PATENT OFFICE.

ALFRED HEAVEN, OF MANCHESTER, COUNTY OF LANCASTER, ENGLAND.

EMBROIDERING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 254,967, dated March 14, 1882.

Application filed October 1, 1881. (No model.) Patented in England November 4, 1880.

To all whom it may concern:

Be it known that I, ALFRED HEAVEN, of Manchester, in the county of Lancaster, England, have invented an Improved Device for
5 Automatically Placing Ornamental Figures upon the Needles of an Embroidering-Machine, (for which I have obtained a patent in Great Britain, No. 4,525, bearing date November 4, 1880,) of which the following is a specification.

10 The object of my invention is to secure circular, oval, or other figures of velvet, satin, or other material to cloth, so that the said figures may be embroidered by an ordinary embroidery-machine.

15 The invention consists of a guide-bar provided with a series of recesses having central apertures, and also in the combination, with the guide-bar provided with recesses and end apertures, of pins hinged to the carriage of the machine which carries the needle-holders,
20 and adapted to enter the end apertures of the said guide-bar, whereby a series of figures is adapted to be held in alignment with and to be placed automatically upon the needles, as hereinafter fully described.

25 When I use circular shapes the velvet or other material to be attached is stamped or cut the exact size required, and when the silk or other thread has been fastened to the cloth in the machine I place on each needle at the front of the machine a piece of stamped velvet, the needle entering the center of the stamped velvet. The needles are then passed
30 through the fabric in the machine, and each piece of stamped velvet is fastened on the fabric by the machine exactly in the right position, no cutting and no adjusting by hand being required. When I attach a strip of velvet or other material to the cloth in the machine I mark a line along the center of the strip and place the strip on the needles which
35 pierce the strip at the center line. I can in this manner attach figures of any shape of velvet or other material to the cloth in the machine. I also attach in this manner material of any figure or shape to the cloth in the machine to serve as padding for the embroidery. In this case the whole of the figure is covered
40 with embroidery-stitches. The figures or shapes of velvet are fastened to and embroidered with

the cloth by the ordinary action of the machine.

In performing my invention I use an ordinary embroidery-machine; and I prefer to
55 make use of guide-bars to place the velvet or cloth on the needles, in which bars recesses are formed to receive the figure of velvet or cloth to be stitched on the fabric in the machine. These bars hold the velvet exactly in the right
60 position, and in the center of each recess, where the velvet or other material is placed, a hole is made in the bar for the needle to enter when it pierces the cloth. When a guide-bar is used the stamped velvet or other material need not
65 be marked or punched where the needle is to enter.

And in order that my invention may be fully understood and readily carried into effect, I will describe the accompanying sheet of drawings, reference being had to the figures and letters marked thereon.

Figure 1 is a front elevation of part of a guide-bar or cloth-holder. Fig. 2 is an end view of the same, showing a guide-pin and part of the carriage. Fig. 3 is a side view of the carriage
75 and needle-clamp, showing a figure upon the needle ready to be attached to the cloth; and Fig. 4 is a side view of the cloth and figure, showing the manner of attaching the latter.

80 *e* is the guide-bar, in which are circular recesses *a* exactly the size of the circular pieces of velvet or cloth to be placed on the needles, and the small holes in the center are for the needles to enter when they pierce the cloth. At each end of the guide-bar is a hole, *b*, which
85 fit on guide-pins *c*, hinged to the front carriage, *d*, of the machine which supports the needle-holders.

The mode of operation is as follows: A circular piece of velvet or cloth is placed in each
90 recess in the guide-bar, the needles being stationary at the front of the machine, one end of the piece of embroidery-thread in each needle having been fastened to the cloth in the machine where the lower edge of each figure
95 to be embroidered will be placed. The guide-bar is then pressed onto the needles over the threads or cords, and the needles pierce the center of each circular piece of velvet or cloth. The guide-bar is then removed, and the
100 velvet remains on the needles. The machine

is then put in motion, and the needles pass through the center of each figure, as shown in Fig. 3, thus fastening the circular pieces of velvet to the cloth in the machine, as shown in Fig. 4. The needles are then drawn through at the front, just above the edge of each figure, and returned through the edge of each figure to the back of the machine. This operation is again repeated to secure the velvet on the cloth, and then the embroidery is proceeded with as desired.

Fig. 6 shows a circular piece of velvet with the three fastening-stitches which secure it to the cloth in the machine and are cut away when the embroidery is finished, when desirable. Fig. 5 shows a guide-bar with the recesses connected by slots to receive figures of velvet or other material connected by a strip of the same material. Figs. 7 and 8 show figures completely embroidered.

Velvet or other material of any color, figure, or design may be placed on the needles by suitable guide-bars, to be attached to the cloth in the machine and partly covered with embroidery, or to serve as padding and be wholly cov-

ered with embroidery; or the velvet or other material may be placed on the needles by hand without the use of guide-bars.

What I believe to be new, and claim as my invention, is—

1. The combination, with the guide-bar *e*, provided with the recesses *a*, and the end apertures *b*, of the pins *c*, hinged to the carriage *d*, which carries the needle-holders, and adapted to enter the apertures *b* of the said guide-bar, whereby a series of figures is adapted to be held in alignment with and to be placed automatically upon the needles, substantially as herein shown and described.

2. An improved device for placing the figures upon the needles of an embroidering-machine, consisting of the guide-bar *e*, provided with a series of recesses *a*, having central apertures, substantially as shown and described.

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