W. D. HEYER.

HEMMER, MARKER, &c., FOR SEWING MACHINES.

No. 74,533. Patented Feb. 18, 1868.

Fig. 1.

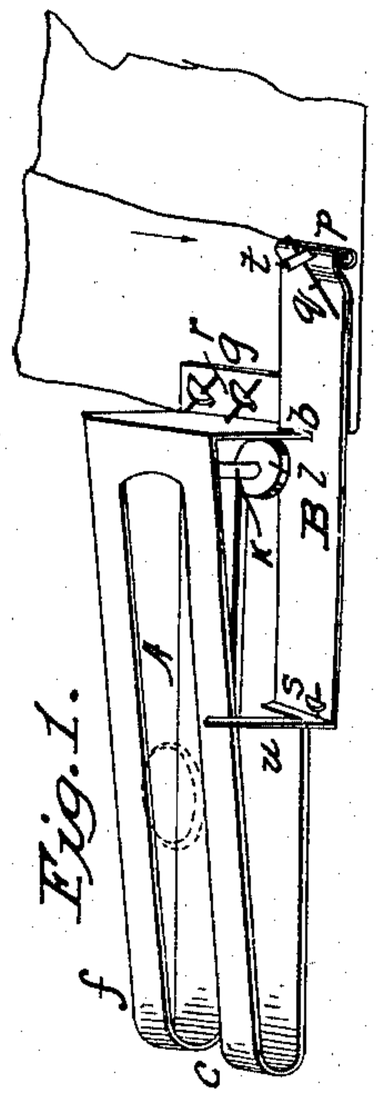

Fig. 2.

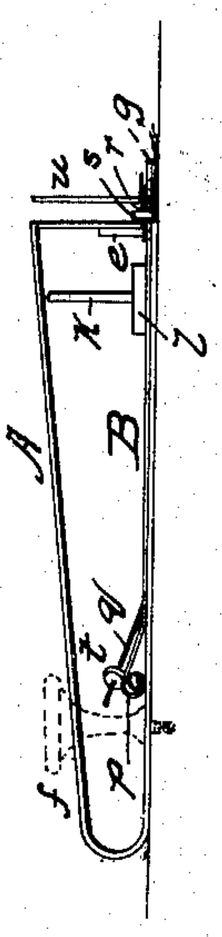

Fig. 3.

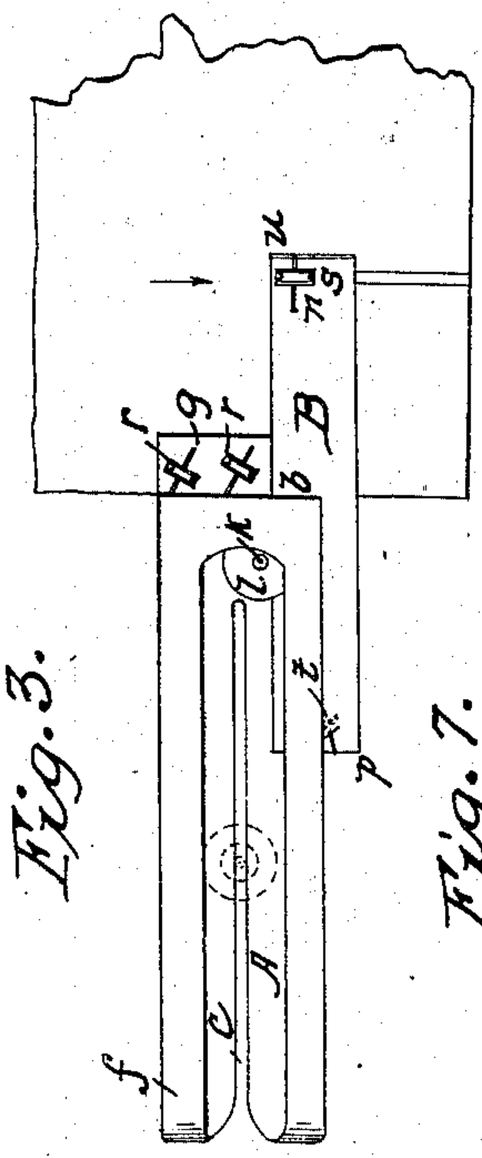

Fig. 4.

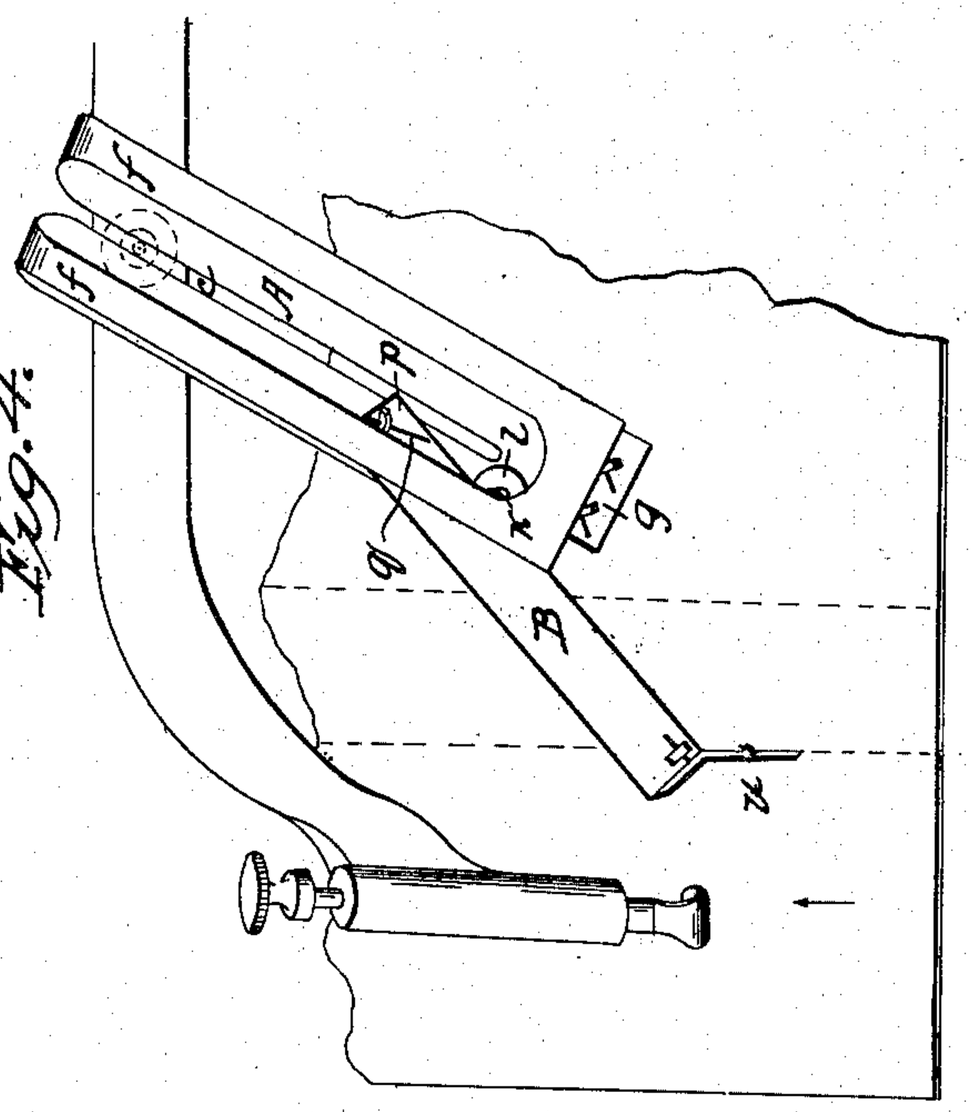

Fig. 5.

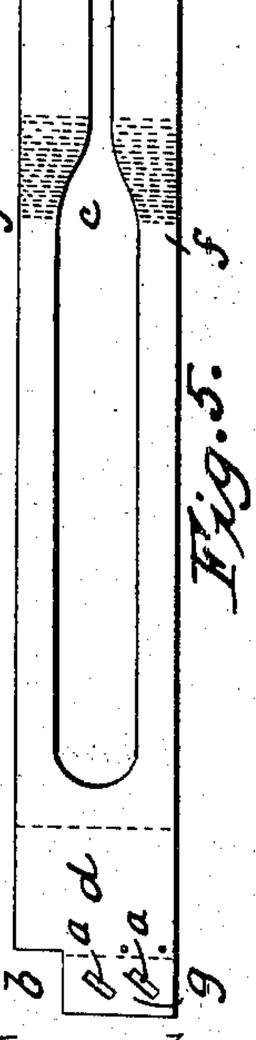

Fig. 6.

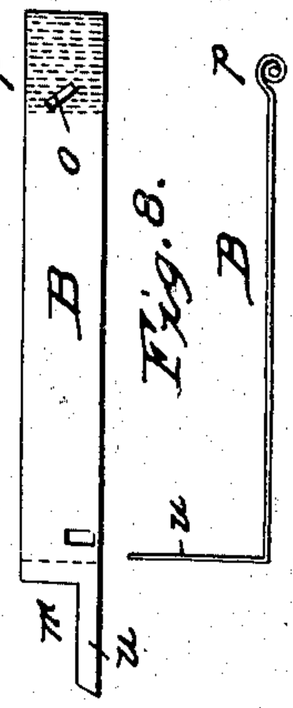

Fig. 7.

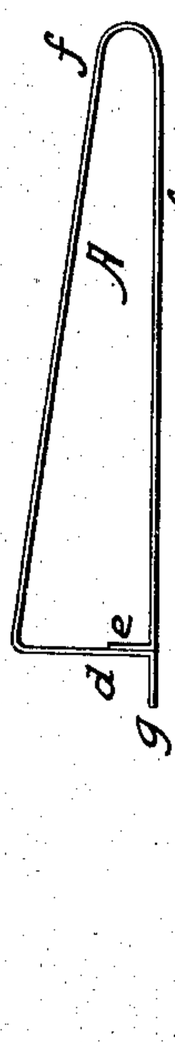

Fig. 8.

Witnesses:

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Letters Patent No. 74,533, *dated February* 18, 1868; *antedated February* 7, 1868.

IMPROVEMENT IN HEMMER, MARKER, &c., FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same

TO ALL WHOM IT MAY CONCERN:

Be it known that I, W. D. HEYER, of the city of New Orleans, in the parish of Orleans, and State of Louisiana, have invented a new, useful, and improved Attachment for Sewing-Machines, for the purpose of guiding, marking, or creasing, and preparing the cloth for hemming, tucking, cording, and quilting; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machine, showing also the cloth prepared for hemming.

Figure 2 is a vertical section, taken at right angles to the line of sewing, showing also the cloth prepared for cording.

Figure 3 is a top view, showing also the operation of tucking and creasing.

Figure 4 is a perspective view of the machine, attached to the stationary arm of a sewing-machine, showing the manner of using it as a quilting-guide.

Figures 5 and 6 are plans of pieces of metal, of which the main portions of the machine are made.

Figures 7 and 8 are vertical sections, showing the metal strips bent into shape.

Similar letters indicate corresponding parts in the several figures.

This invention consists in a novel and very simple arrangement of the various attachments to sewing-machines, so that they may be all combined in one machine.

It also consists in forming the hemming-device with a concentric groove, and a roller running in an oblique slot, for keeping the edge of the cloth to be hemmed always in the groove.

It also consists in forming the quilting-guide by a projecting edge, making a part of the same machine.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, fig. 5, represents a long, narrow flat piece of metal plate, having a portion cut out at *b*, and being perforated with oblique slots at *a a*, and having a middle longitudinal slot, *c*, half of which is much wider than the other part. This metal plate is bent, at the dotted lines, into the form shown at fig. 7, the part *d* coming before *e*, which forms a straight-edge or gauge. The portion *f* forms a spring, which keeps the horizontal part, *g*, down on the cloth. The plate is also provided with rollers, *r r*, having either grooved or flat faces running in the oblique slots *a a*, and is also provided with a screw at *k*, fitted with a nut, *l*, as shown in figs. 1, 2, 3, 4. A second flat metal plate is shown at B, fig. 6, having a portion cut out at *m*, and being perforated at *n* and *o* with two rectangular slots, one being placed straight and the other obliquely. This piece is bent, at the dotted lines, into the form shown at fig. 8, the portion *p* being bent into a concentric form. It is also provided with a grooved roller, running in the slot *n*, and with another, either grooved or flat, running in the slot *o*, and provided with an elastic axis, *q*, to allow it to rise or fall according to the thickness of the cloth operated upon. This is shown in figs. 1, 2, 3, 4. The piece B is attached to the part A by inserting it at *b*, and clamping it in any position by the nut *l*. The machine is now complete.

I do not limit myself to constructing the machine of sheet metal, and bending it into shape, for it may be constructed by casting, or other means, of any suitable material, and the concentric groove in B may be cut out of the solid material; nor do I limit myself to making the concentric groove circular, for it may be flat or angular.

The manner of using my invention for the different operations of which it is capable is as follows:

The machine is secured to the plate of a sewing-machine, at right angles to the line of sewing, by a screw passing through the slot *c*, and into a screw-hole in the plate. To use the machine as a guide for sewing, it is merely necessary to insert the cloth under the horizontal piece *g*, and pass it to the feeding-mechanism of the machine. As the cloth is drawn along, the oblique-placed rollers, *r r*, revolve by the friction of the cloth and force it always up to the gauge, as shown in fig. 3. If desired, the part B can be turned out of the way, or entirely removed. To tuck and crease the work, the cloth is placed as before, and the piece B is clamped to the portion A by the nut *l*, the end containing the grooved roller *s* projecting over the cloth at such a distance that the grooved roller will mark the place of the next tuck. When the cloth is moved along, the grooved

roller will mark a narrow double crease, and the cloth will rise slightly between the two creases, so that it can be readily bent by the fingers and folded for the next tuck. The operation is shown in fig. 3. To cord, the machine is arranged in the same manner, but the grooved roller *s* is moved close up to the guide; as shown in fig. 2, and the piece of cloth containing the cord is placed under the plate, the portion covering the cord passed under the groove in the wheel *s*, and drawn through, as before. To hem, the machine is arranged as shown in fig. 1, the concentric portion, *p*, being projected sufficiently beyond the gauge for the width of the hem required. The cloth is placed doubled under the horizontal piece *g*, and the edge is then laid in the concentric groove of *p*, and drawn through, as before. The obliquely-placed roller *t*, revolving by the friction of the cloth, always keeps it close up to the end of the groove. To quilt, the machine is attached, by a screw, to the stationary arm of a sewing-machine, as shown in fig. 4, the portion B being clamped to A obliquely, and the edge, *u*, is placed over a line of stitching at the distance from the needle required, and the cloth, while being stitched, is guided by this edge.

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

1. The hemmer *p*, formed with a concentric groove, and provided with a roller, placed obliquely, for keeping the work in the groove, and constructed substantially as specified.

2. The combination, in a single machine, of a sewing-guide, hemming-device, tucking and creasing-device, cording-device, and quilting-guide, constructed and operating substantially as specified.

W. D. HEYER.

Witnesses:

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RICH'D MOLONY.