(No Model.)

W. R. SOMERS.

RIGHT AND LEFT CORDER FOR SEWING MACHINES.

No. 322,074. Patented July 14, 1885.

Fig. 1.

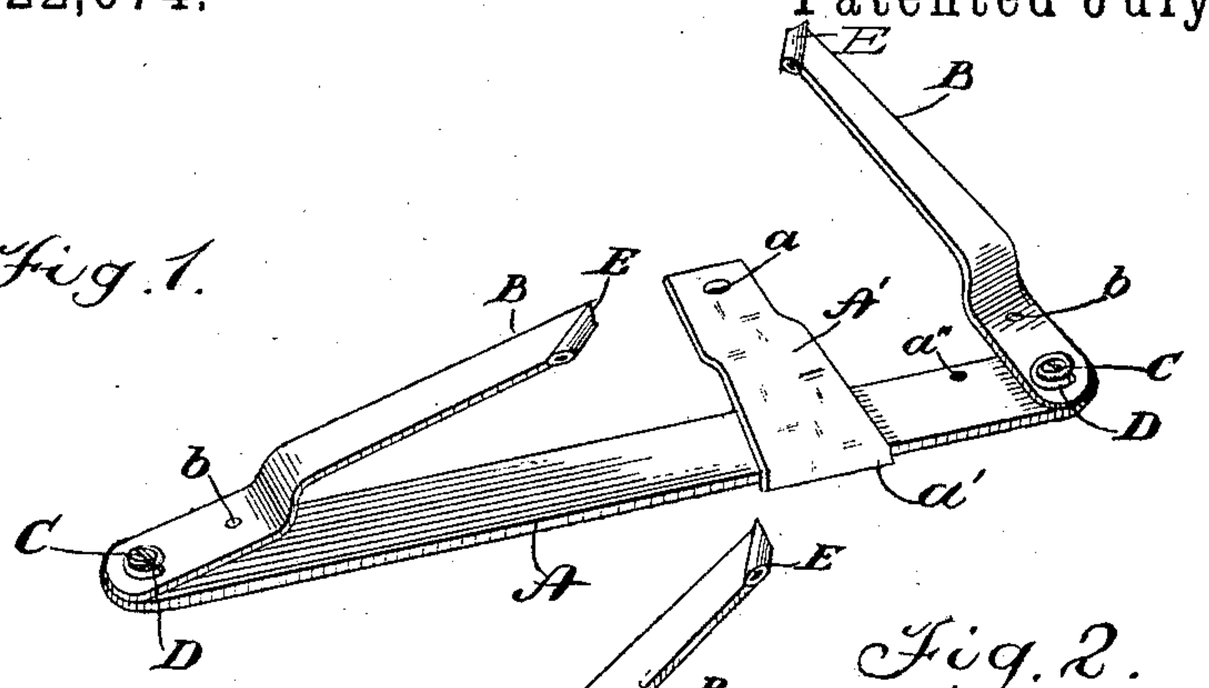

Fig. 2.

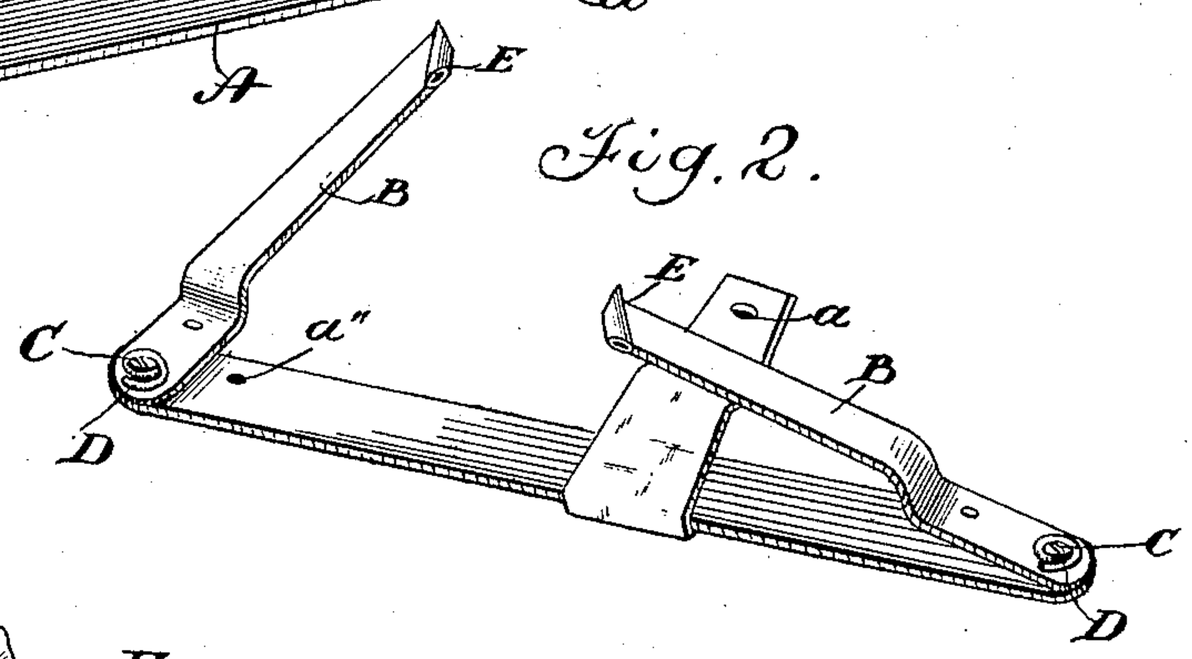

Fig. 3.

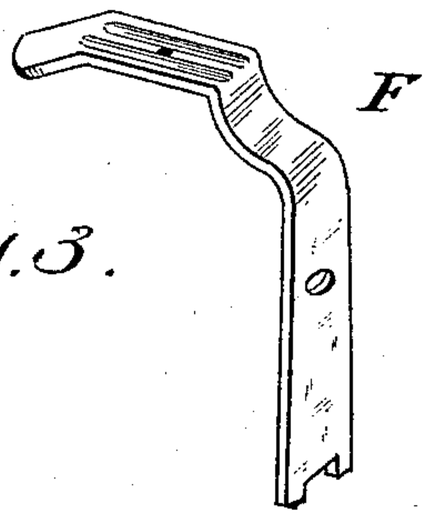

Fig. 4.

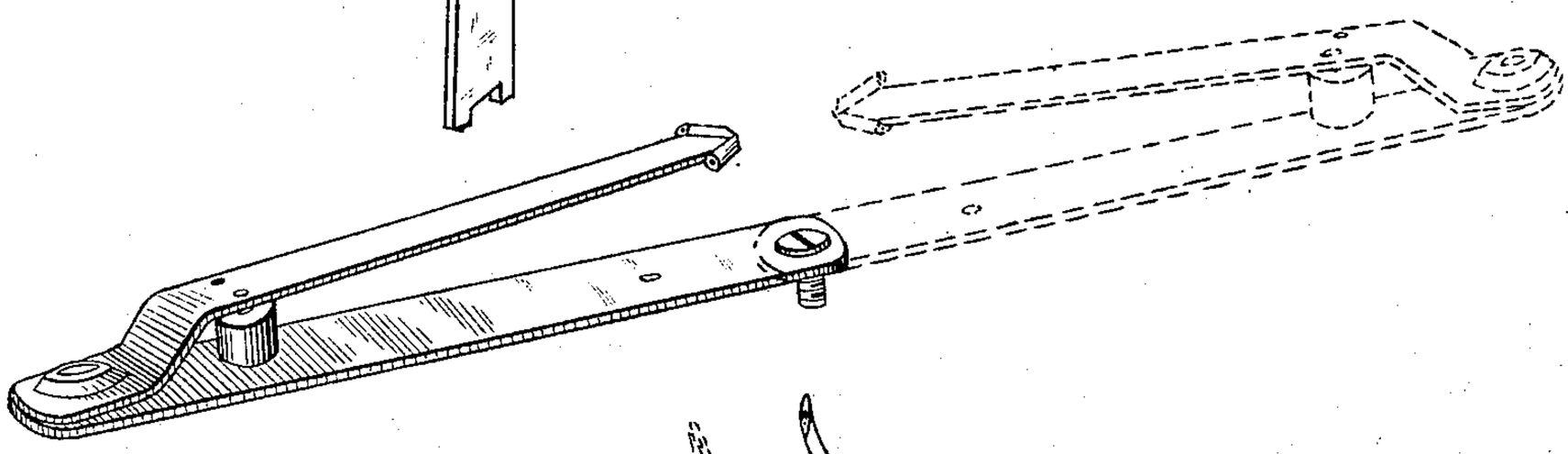

Fig. 5.

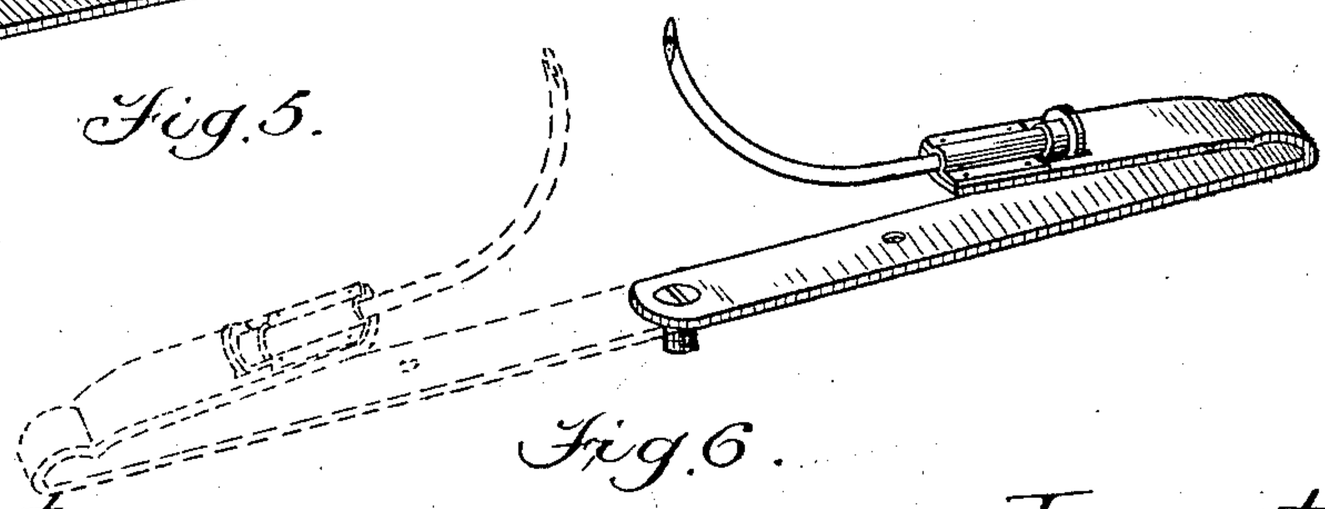

Fig. 6.

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RIGHT AND LEFT CORDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 322,074, dated July 14, 1885.

Application filed March 23, 1883. Renewed May 8, 1885. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. SOMERS, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Right and Left Corders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to corders for sewing-machines, and is particularly adapted for use in the manufacture of corsets, ladies' underwear, shirts, &c.

The principal object of my invention is to prevent the waste of material which is unavoidable in the use of corders as at present constructed, in which the material to be corded can pass through on one side of the needle only, the result being that each time the material passes through the upper piece is slightly retarded or held back by the presser-foot of the machine, so that by the time eight or ten cords have been stitched in, the upper piece or pieces of material will be drawn back from one-fourth to one-half an inch behind the lower ones, which necessitates an additional operation of trimming and causes a serious loss of material. I have demonstrated by actual experiment in the manufacture of corded corsets that this loss will amount to two full sizes—that is to say, supposing parts to be cut for an eighteen-inch corset, after cording, the upper layer will be found to have been drawn back so far out of line with the under one that the necessary trimming will reduce the corset to a sixteen. I overcome this difficulty by the use of a double or reversible corder so constructed that the material may be passed through on either side of the needle.

For the purpose of enabling those skilled in the art to which my invention relates to make and use my improved corder, I will proceed to describe the same, referring by letters to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a corder embodying my invention and ready for use as a left-hand corder, the right arm being turned out of the way. Fig. 2 is a similar view showing the device ready for use as a right-hand corder, the left arm being turned out of the way. Fig. 3 is a presser-foot having a groove each side of the needle-hole, which is used in connection with my improved corder. Fig. 4 is a modification of my device in which a single-cording arm is used, which is spear-pointed at its outer end, and is provided on each edge with a short tube, which serves as a guide for the cord. The base-plate is secured by a set-screw in front of the needle, and is reversed each time a change is made. Fig. 5 is another modification in which the base-plate is also reversed in changing from right to left, or vice versa, the cord passing through a reversible curved tube. Fig. 6 shows the spring detached, which is used in Fig. 1 to hold the arms in operative position.

Similar letters indicate like parts in the several figures of the drawings.

A is the base-plate, which may be attached directly to the bed-plate of the machine; but preferably a cross-plate, A′, is attached to the base-plate and extends forward, and is perforated at *a* for a set-screw, which enters the ordinary gage-screw hole in the bed-plate of the machine. The outer end of the cross-plate is provided with a flange, *a′*, which engages with the front edge of the bed-plate of the machine and steadies the corder when in use, no perforation of the base-plate being required other than the usual hole for the gage-screw.

B B are arms attached to the base-plate, each of which is a complete corder.

The screws or bolts C C, which secure the arms to the base-plate, project slightly above the arms, and their heads serve to confine springs D D, which press the arms against the base-plate. Volute springs such as shown in Fig. 6 are preferred for this purpose.

b b are lugs or pins on the under side of the arms, which engage with holes *a″* in the base-plate, to hold the arms or corders in operative position. The position of lugs and holes may of course be reversed. Just beyond the pins *b b* the arms are bent upward, then forward again, so that the cord-guides E do not come in contact with the base-plate or with the bed-plate of the machine.

The operation of my improved corder is as follows: In the manufacture of corsets, un-

derwear, shirts, &c., it is customary to make a large number of similar parts at the same time. After stitching in the first cord, with the corders now in use, it is necessary to begin back at the starting-point for each successive cord and run the material through continually on the same side of the needle; but with my right and left corder the arm first used is turned out of the way, the other arm placed in operative position, and the material is passed through on the opposite side of the needle, beginning where the last seam ended, the operation being repeated until the desired number of cords is stitched in. By this means any drawing of the upper piece is corrected, and a second trimming of the parts and consequent loss of material are rendered unnecessary.

F represents a presser-foot having two grooves on its under side, one on each side of the needle-hole. This presser-foot will be found necessary in connection with my improved corder.

In the modification shown in Fig. 4 the base-plate is fastened by a set-screw in front of the needle, and is also provided with a pin or lug on its under side, which engages with holes in the bed-plate of the machine to hold it in either of its operative positions. But one arm is used, which is spear-pointed, and is provided on each of its edges with a cord-guide, but one of which can be used at a time. Near its opposite end, where it is attached to the base-plate, are two holes. which are engaged by a pin or lug projecting upward from a block on the base-plate. After passing the fabric to be corded under the needle the first time, the set-screw is slightly loosened, the base-plate turned half round, as on a pivot, and the arm shifted so as to bring the other cord-guide into operative position. The material is then run through on the opposite side of the needle, the same as in the preferred form.

In the modification shown in Fig. 5 the base-plate is fastened by a set-screw at one end, as in the former modification, and is turned half round the same way in making a change; but the arm, instead of turning on a pivot, is made as a curved tube and turns on its own axis in bearings provided.

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

1. In corders for sewing-machines, two independent movable arms, each of which is provided with a cord-guide, and means whereby said arms may be adjusted on opposite sides of the needle, whereby alternate cords may be stitched in opposite directions and on opposite sides of the needle to prevent drawing of the upper fabric.

2. The arms having cord-guides at their inner ends and downwardly-projecting pins near their outer ends, in combination with the base-plate having perforations, as shown, the headed bolts, and the springs, substantially as and for the purposes set forth.

3. A presser-foot having a groove each side of the needle-hole, in combination with a cord-guide adapted for adjustment either side of the needle, substantially as and for the purposes set forth.

4. The arms B B, in combination with the presser-foot F, having grooves *f f*, for the purpose set forth.

5. Base-plate A, arms B B, and bolts C C, in combination with volute springs D, for the purpose set forth.

6. Base-plate A *a''* and cross-plate A' *a'*, in combination with arms B, screws C C, springs D, and lugs *b*, all as described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM R. SOMERS.

Witnesses:
W. T. HAVILAND,
F. W. SMITH.