

No. 689,343.

Patented Dec. 17, 1901.

R. G. WOODWARD.

BAR STITCH ATTACHMENT FOR SEWING MACHINES.

(Application filed Apr. 19, 1898.)

(No Model.)

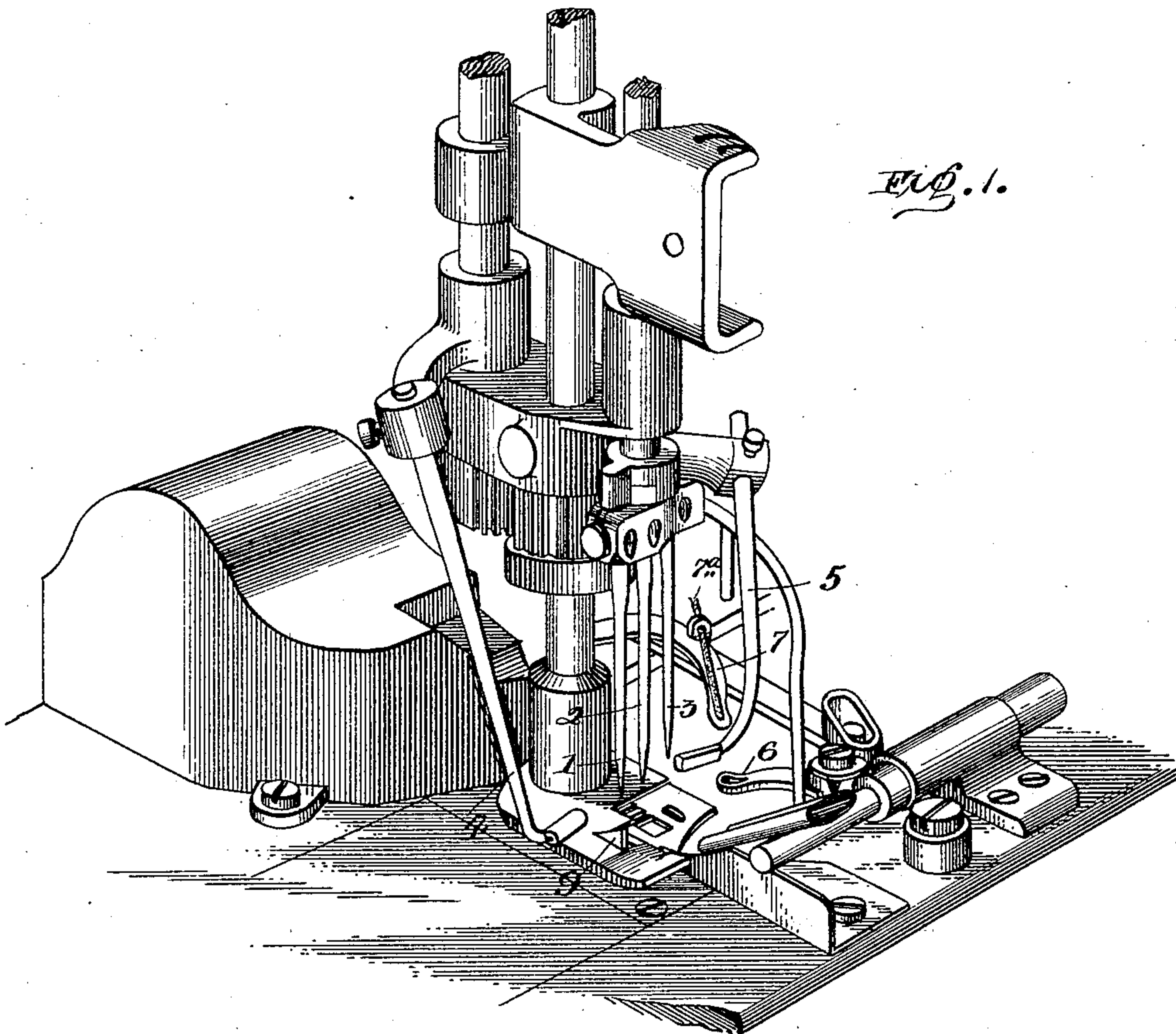


Fig. 1.

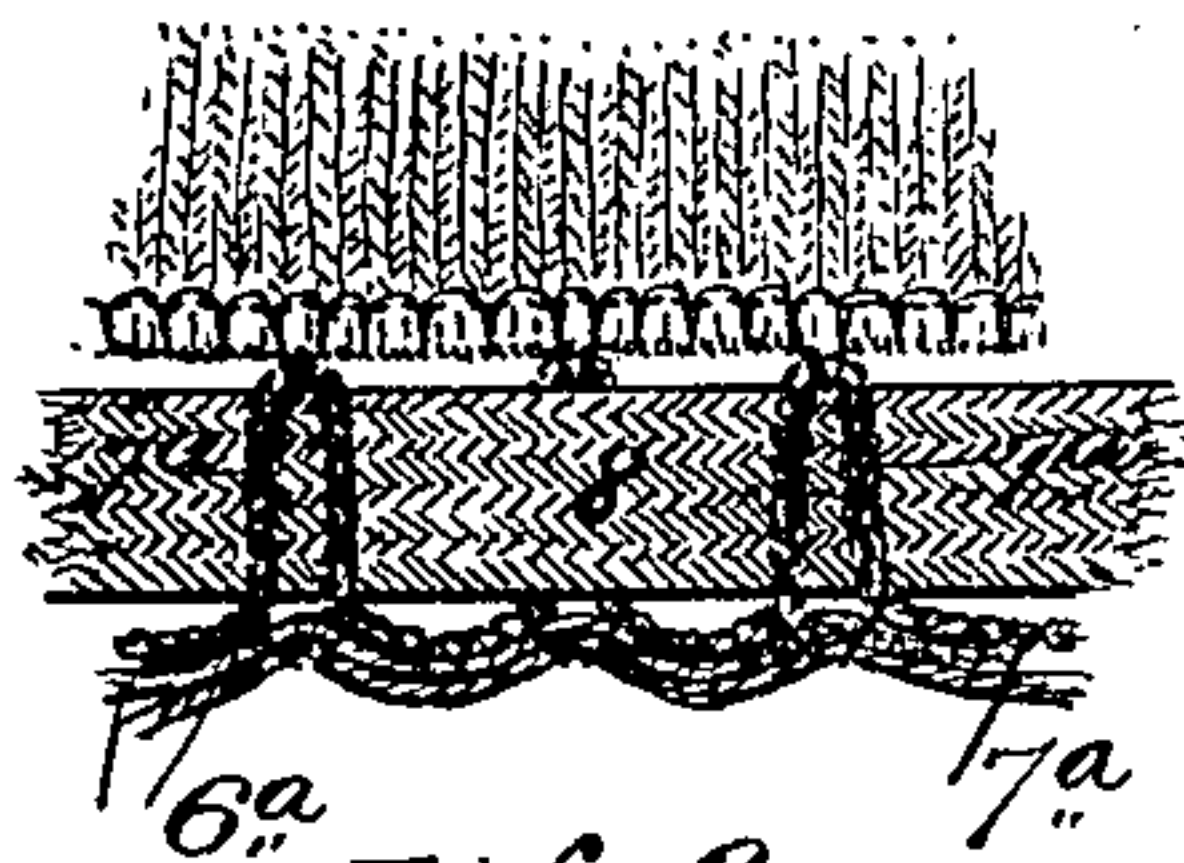


Fig. 3.

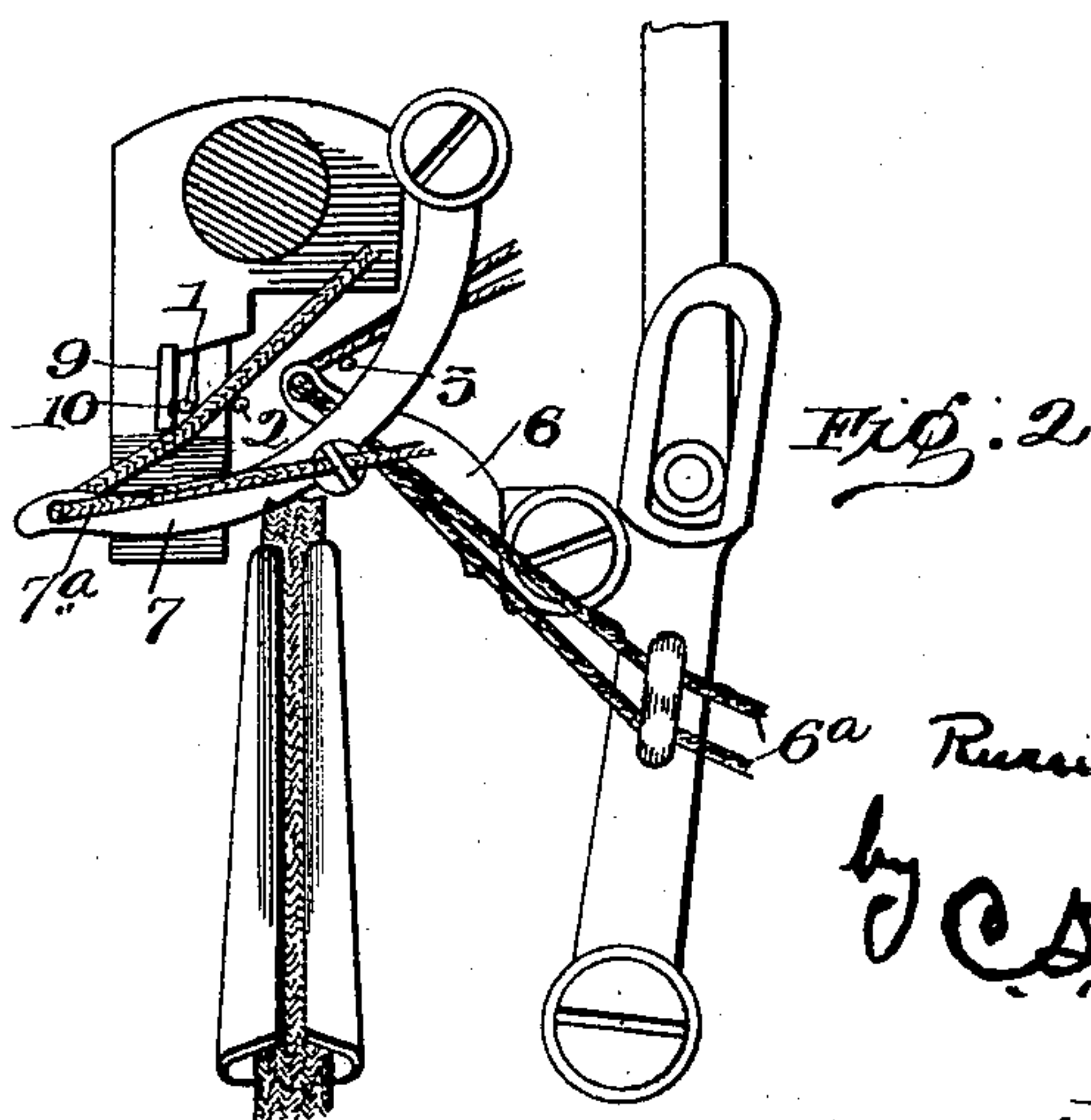


Fig. 2.

Witnesses:

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RUSSEL GREEN WOODWARD, OF WAUKEGAN, ILLINOIS, ASSIGNOR TO THE UNION SPECIAL SEWING MACHINE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BAR-STITCH ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 689,343, dated December 17, 1901.

Application filed April 19, 1898. Serial No. 678,124. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL GREEN WOODWARD, a citizen of the United States, residing at Waukegan, in the county of Lake, State of Illinois, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a description, reference being had to the accompanying drawings, and to the figures of reference marked thereon.

My invention relates to an improvement in sewing-machines, and especially to what is called a "bar-stitch" machine for applying a festooned and taped edging to fabrics.

The object of the invention is to provide an attachment for such machines whereby all danger of skipping stitches is avoided and the cord making up the edging is kept out of the path of the needle and prevented from being sewed through and through.

The invention consists in providing a guide or stop for the cord, which is looped to form the bars between which the tape is inserted, so that the said cord will always pass between a pair of loops made by the two needles which finish the edge of the fabric proper.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view of a portion of a machine to which the invention is applied. Fig. 2 is a view of the presser-foot and guide detached. Fig. 3 is a view of the work done on this machine.

In the drawings the feed, looper mechanism, and certain other parts are of the well-known "Union Special" type. The needles are shown at 1 2 3 and two thread-carrying fingers at 4 5, the parts 1, 2, 4, and 5 operating as in the patent to Munsing of May 25, 1897, No. 583,387. The needle 3 is set some distance from and back of the other two, and two other levers 6 and 7, carrying cord 6^a and 7^a, are provided, as illustrated. The cord 7^a is carried forward and its loop is caught between a pair of loops or stitches formed by needles 1 2 and is then carried back and with cord 6^a is caught by stitches made by needle 3, the cord 7^a forming bars, over and under which alternately passes a tape 8.

As heretofore constructed the cord 7^a would not be accurately guided between the

needles 1 2, but in some instances would miss them altogether and in others would be sewed through by one of them, while in other instances by reason of the failure to properly guide this cord stitches would be skipped. To avoid this is the object of my invention, and I therefore provide adjacent to the outer needle 1 and preferably on the presser-foot a vertical lip or guide 9, against which the cord-carrier 7 carries the cord 7^a and holds the same taut, so that it lies at the proper angle between the two needles 1 2, neither of which will engage the cord, but will make stitches or deposit loops upon opposite sides of it.

By referring to Fig. 2 of the drawings it will be seen that the front end or operative portion of the guide 9 is arranged in advance of the needles relative to the front of the machine and between said needles and the path in which the active or cord-carrying end of the cord-carrier 7 is caused to move or reciprocate. Said Fig. 2 also shows by a heavy line or dot 10 a groove in the side of the guide 9 adjacent the needle 1, the same being provided for the passage of said needle to avoid breaking the latter should it become deflected.

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

1. In a sewing-machine which includes a plurality of needles, a cord-carrying device, means for actuating the same, and a guide for the cord so disposed relative to the needles and said device that the cord will be certainly directed between a pair of the needles; substantially as described.

2. In a sewing-machine including mechanism for depositing rows of loops upon opposite sides of the line of feed, a cord-carrying device, means for actuating the same and a guide for the cord so disposed relative to the mechanism which deposits the rows of loops upon opposite sides of the seam that the cord will be to a certainty directed across the line of feed and deposited between a pair of loops; substantially as described.

3. In a sewing-machine which includes a plurality of needles, a cord-carrying device, means for reciprocating the same across the

line of feed, and a guide for the cord, the operative portion of which is disposed in advance of the needles and between the latter and the path of movement of said device; substantially as described.

4. In a sewing-machine which includes a plurality of needles arranged transversely to the direction of feed, a cord-carrying device, means for reciprocating the same across the line of feed, and a guide for the cord, the operative portion of which is disposed in advance of the needles and between the latter and the path of movement of said device; substantially as described.

5. In a sewing-machine comprising a plurality of needles, a presser-foot, a cord-carrying device, and a cord-guide, the latter being carried by the presser-foot and so disposed thereon relative to the needles and said device that its operative portion will direct the cord across the line of feed and between a pair of the needles; substantially as described.

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

RUSSEL GREEN WOODWARD.

Witnesses:

CHESTER MCNEIL,
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