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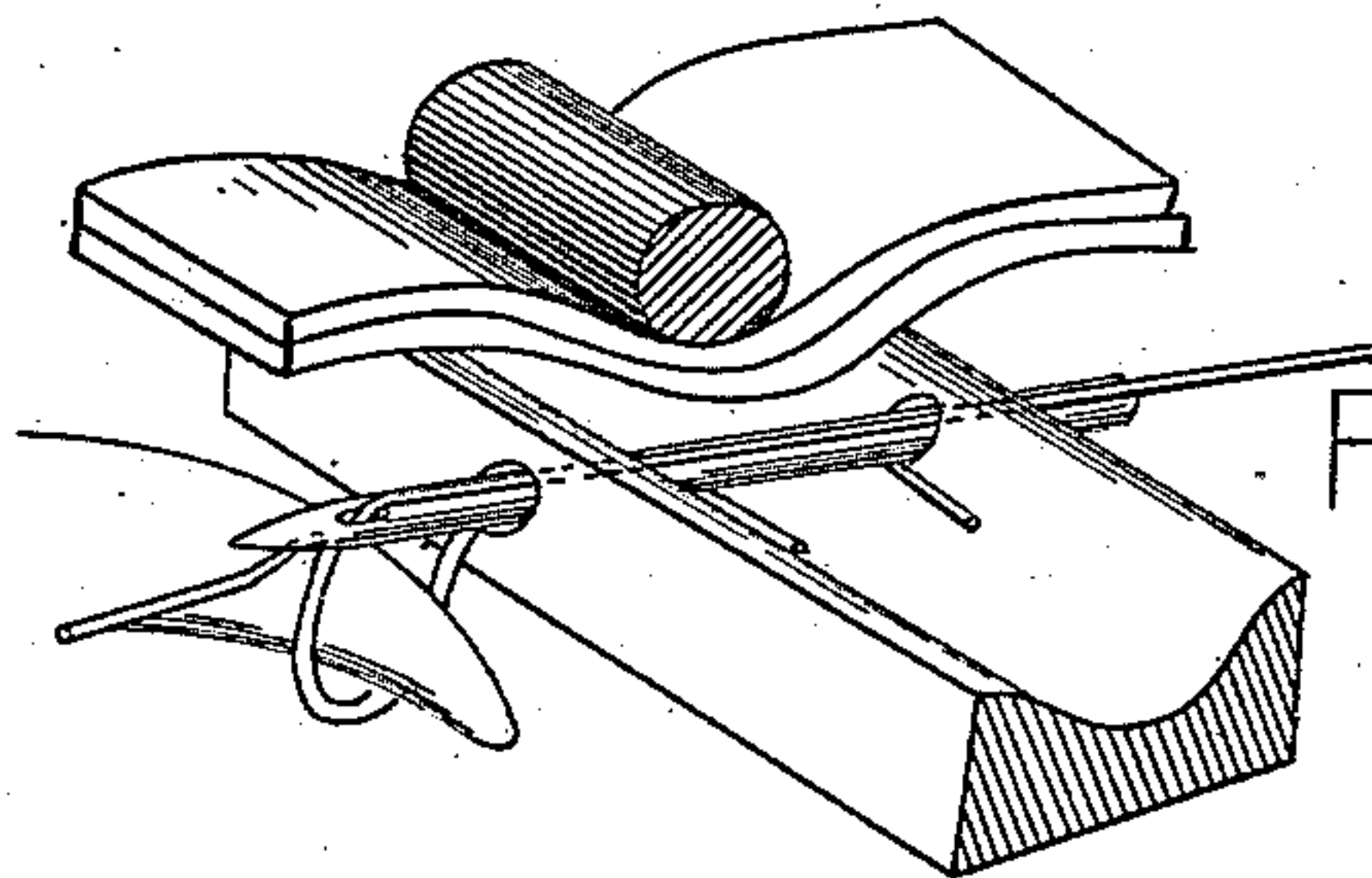
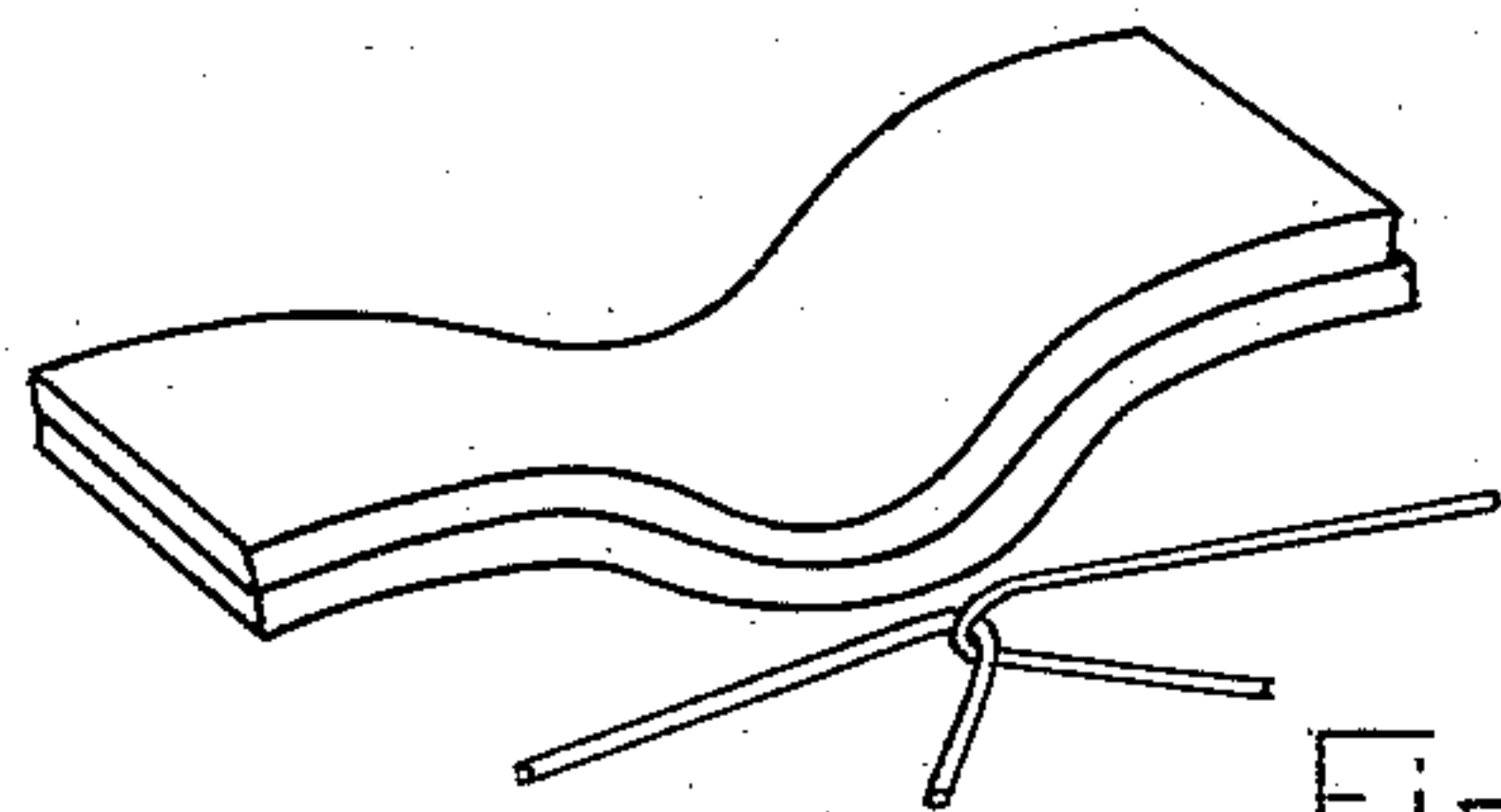
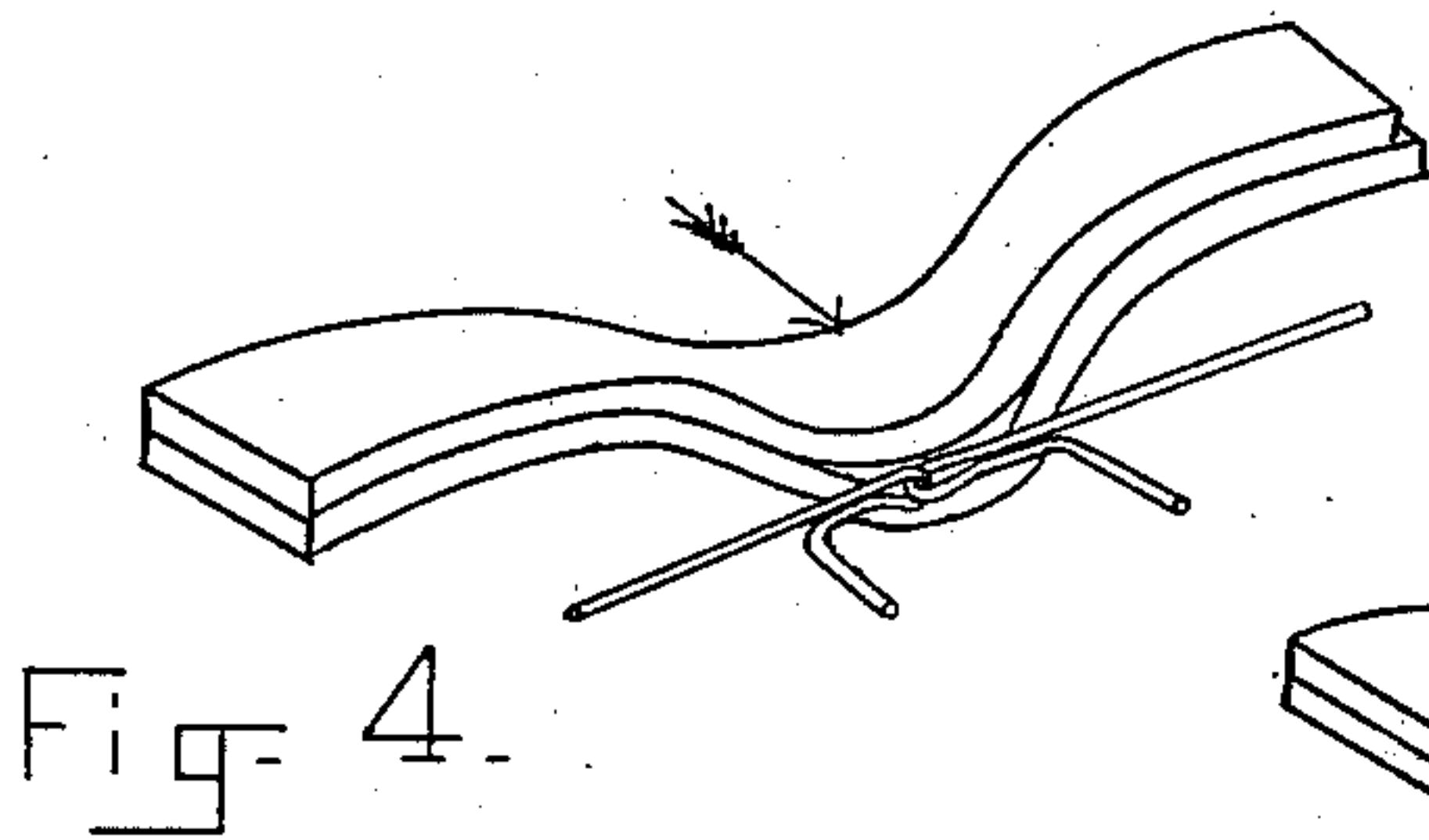
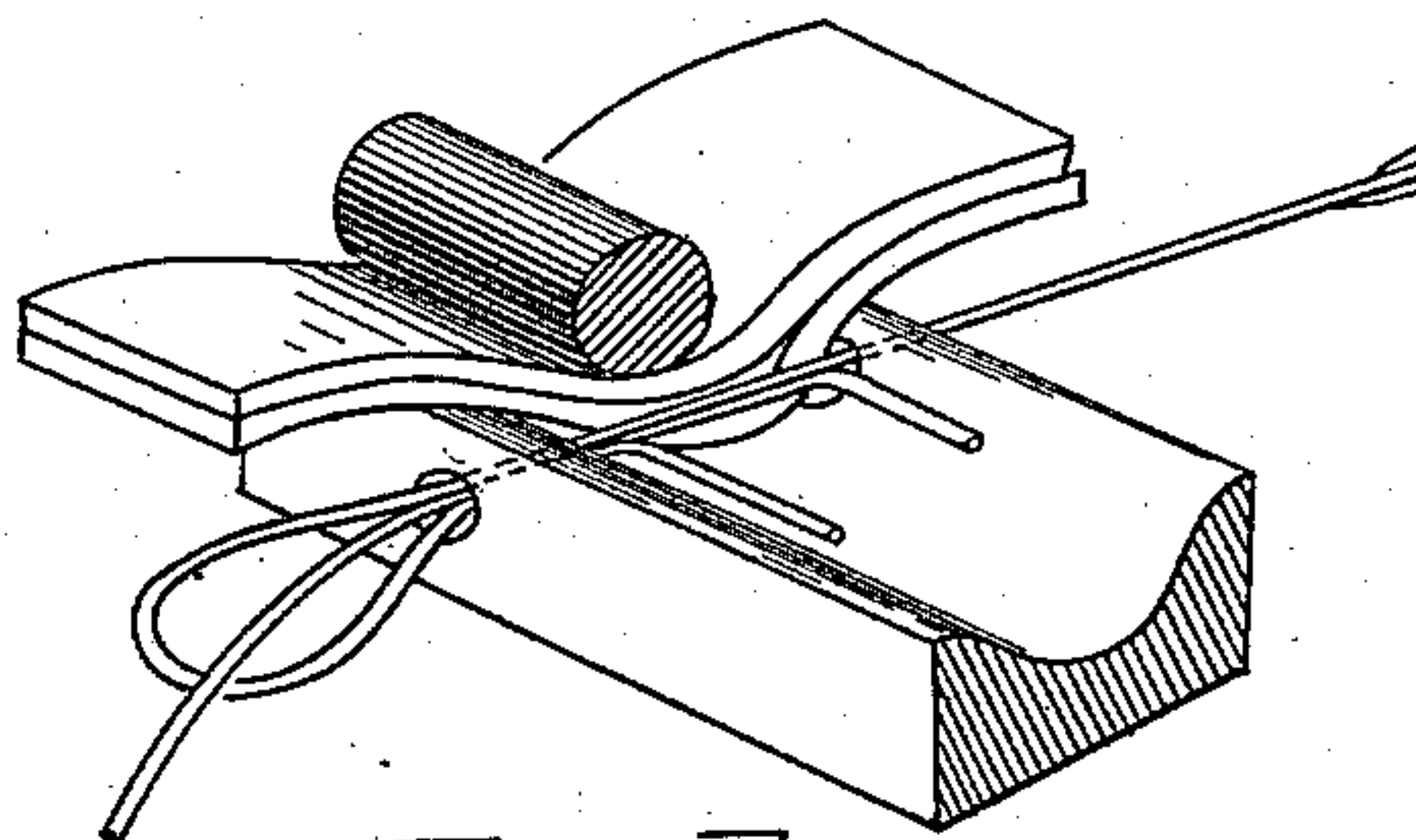
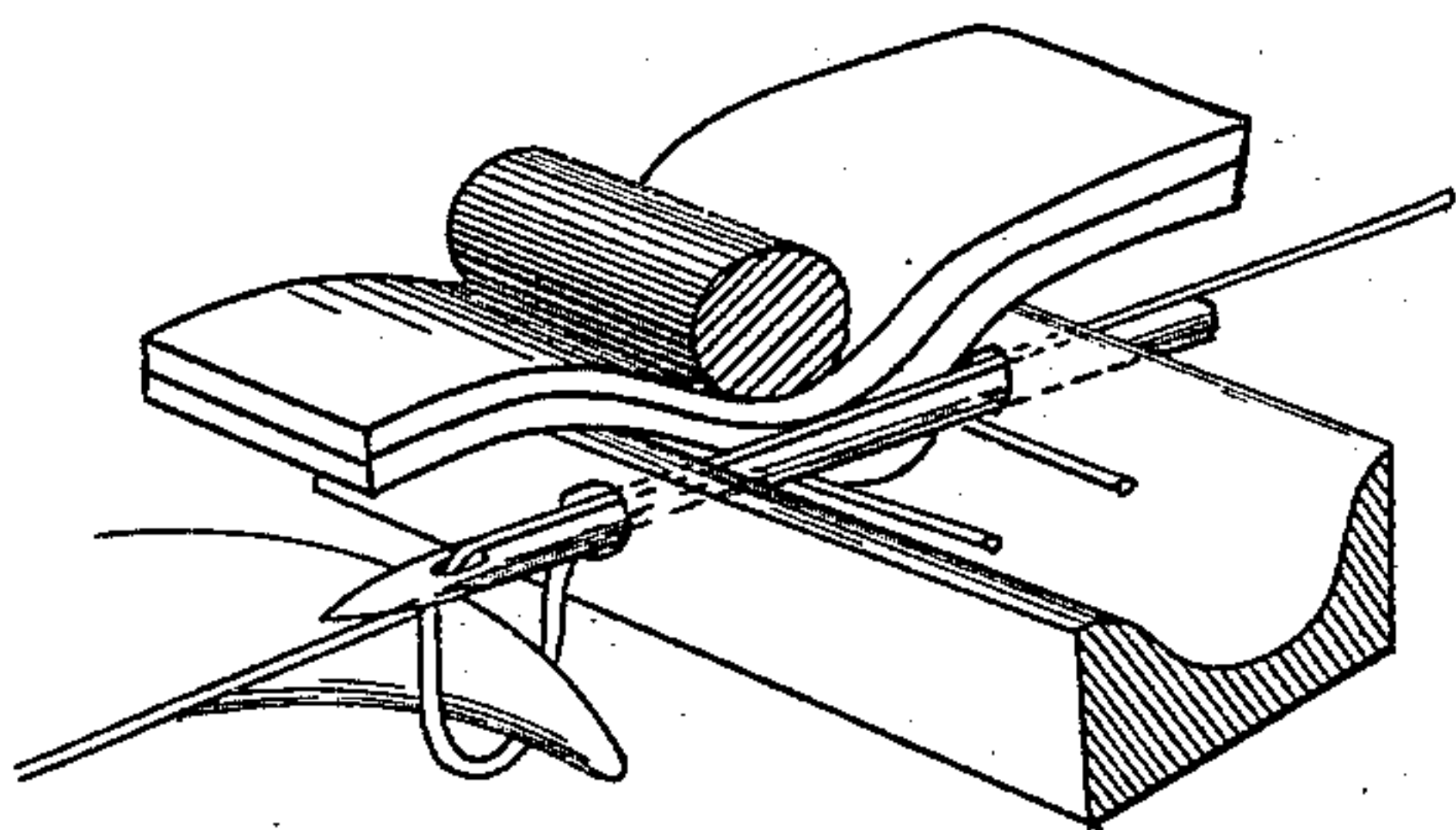
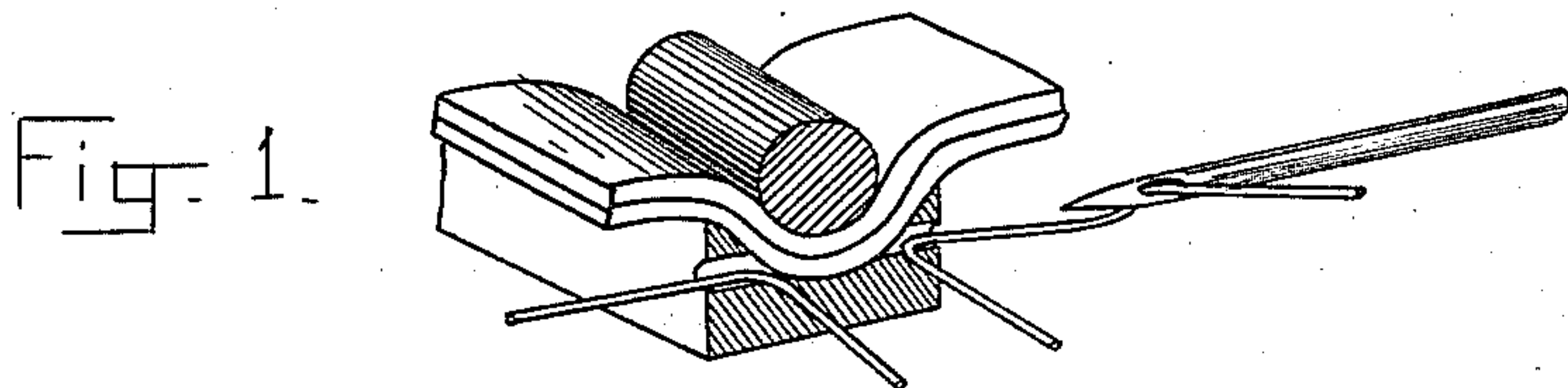
2 Sheets—Sheet 1.

R. W. THOMSON & E. M. PHELPS.

METHOD OF FINISHING BUTTON HOLES.

No. 379,497.

Patented Mar. 13, 1888.



WITNESSES:

W. H. Worsson,
E. C. Hamill.

INVENTORS:
R. W. Thomson,
and
E. M. Phelps.

By *C. B. Dutton*
ATTY.

(No Model.)

2 Sheets—Sheet 2.

R. W. THOMSON & E. M. PHELPS.

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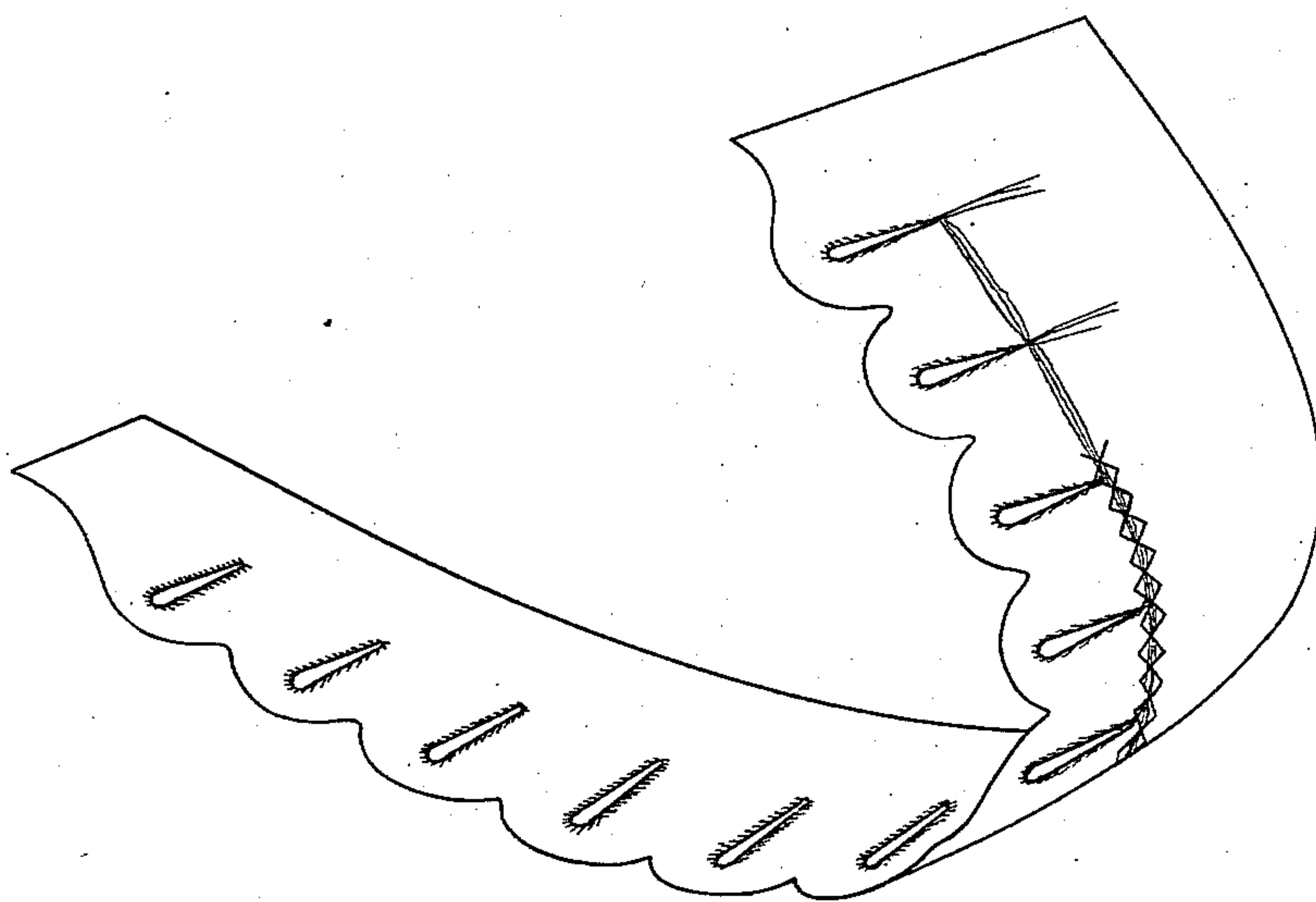


Fig. 7.

WITNESSES:

C. H. Worsen.

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By

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UNITED STATES PATENT OFFICE.

ROBERT W. THOMSON AND EUGENE M. PHELPS, OF LYNN, MASSACHUSETTS, ASSIGNORS TO SAID PHELPS AND CALVIN B. TUTTLE, TRUSTEES, OF SAME PLACE.

METHOD OF FINISHING BUTTON-HOLES.

SPECIFICATION forming part of Letters Patent No. 379,497, dated March 13, 1888.

Application filed September 1, 1887. Serial No. 248,435. (No model.)

To all whom it may concern:

Be it known that we, ROBERT W. THOMSON and EUGENE M. PHELPS, both of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented a certain Improved Method of Finishing and Staying Button-Hole Pieces, of which the following, taken in connection with the accompanying drawings, is a specification.

10 This invention relates to the method of finishing and overseaming the bar-cord and thrum ends of button-holes. The nature thereof will be fully described hereinafter, and then specifically claimed.

15 In the drawings, Figures 1, 2, 3, 4, 5, and 6 represent the successive steps followed in finishing button-holes by this method. Fig. 7 represents a button-hole piece when finished by this process.

20 It will be understood that in making button-holes by the ordinary button-hole-working machine the bar-cord is continued from one button-hole to the next succeeding one, and so on throughout the entire series, and that portion of the bar-cord which extends from one hole to the other is unattached and hangs more or less in the manner of a loop; also, the thread employed for overseaming the bar-cord around the edges of the button-hole is cut after the completion of each particular button-hole, and the ends of this thread are left hanging from the small end of the button-hole, and it is the purpose of this invention to provide a method of gathering into line and overseaming these thread ends and bar-cord 35 without penetrating to the face side of the button-hole piece.

To this end, in carrying the invention into effect upon a sewing-machine, we pass the 40 needle provided with a single thread through the material on one side of the bar-cord and thrum ends and bring it out of the material on the opposite side of said bar-cord and thrum ends. There we engage the needle-thread with the shuttle-thread of the machine 45 and draw the needle back to its original position. The two threads are interlocked and

drawn into the material directly under the bar-cord and thrum ends, as represented in the drawings. Next we pass the needle over 50 the bar-cord and thrum ends and re-engage the needle-thread with the shuttle-thread and again draw the needle back to position. The material is then fed one step forward and the operation of the needle and engagement of 55 said thread is repeated, and this operation is continued and the bar-cord and thrum ends are overlaid and tied down to the material by the threads crossing and recrossing over the same. We have devised a mechanism par- 60 ticularly adapted for finishing button-holes by this method, and have described the same in an application for Letters Patent of the United States therefor, filed August 27, 1887, No. 247,556, and to that application reference 65 may be had for a description of the mechanism we prefer to employ in carrying out the work of finishing button-holes by the method herein described. It will be observed that the needle does not penetrate through to the 70 face side of the button-hole piece, and no stitching is apparent on that side of the material.

We claim as our invention—

1. The method of finishing and staying the 75 bar-cord and thrum ends of button-holes, which consists in passing a thread into the material on one side of the bar-cord and thrum-lines and bringing it out of the material on the opposite side of the bar-cord and thrum- 80 line without penetrating through to the face side of the material, there engaging it with a second thread and drawing it back through the material, then passing it over the bar-cord and thrum-lines and again engaging it 85 with the second thread and drawing it back to the first position, and then moving the material forward and repeating the operation of engaging the two threads above and below the bar-cord and thrum-lines at each forward move- 90 ment of the material until the whole of said bar-cord and thrum-lines is overlaid and tied down, substantially as described.

2. The method of finishing bar-cord and

thrum ends of button-holes, consisting in stitching through the under surface of the material and over the said cord and ends by causing the needle to enter the material on
5 one side of the said cord and ends and to come out on the other side of the same and then to pass over said cord and ends, thereby securing them without stitching through to the up-

per surface of the material, substantially as described.

ROBERT W. THOMSON.
EUGENE M. PHELPS.

Witnesses:

E. E. HAMILL,
C. B. TUTTLE.