

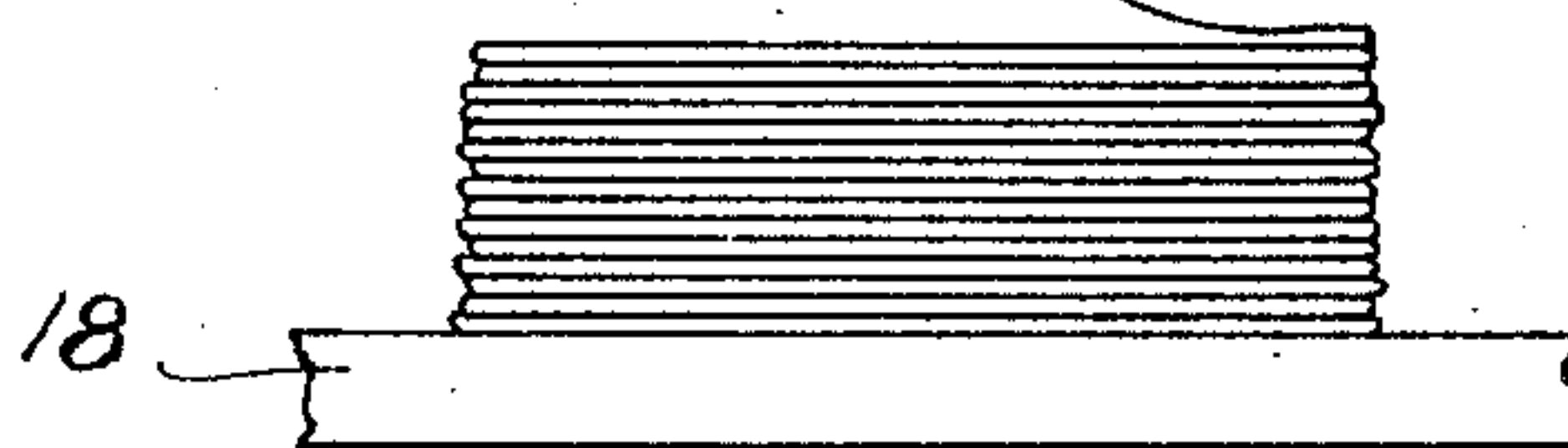
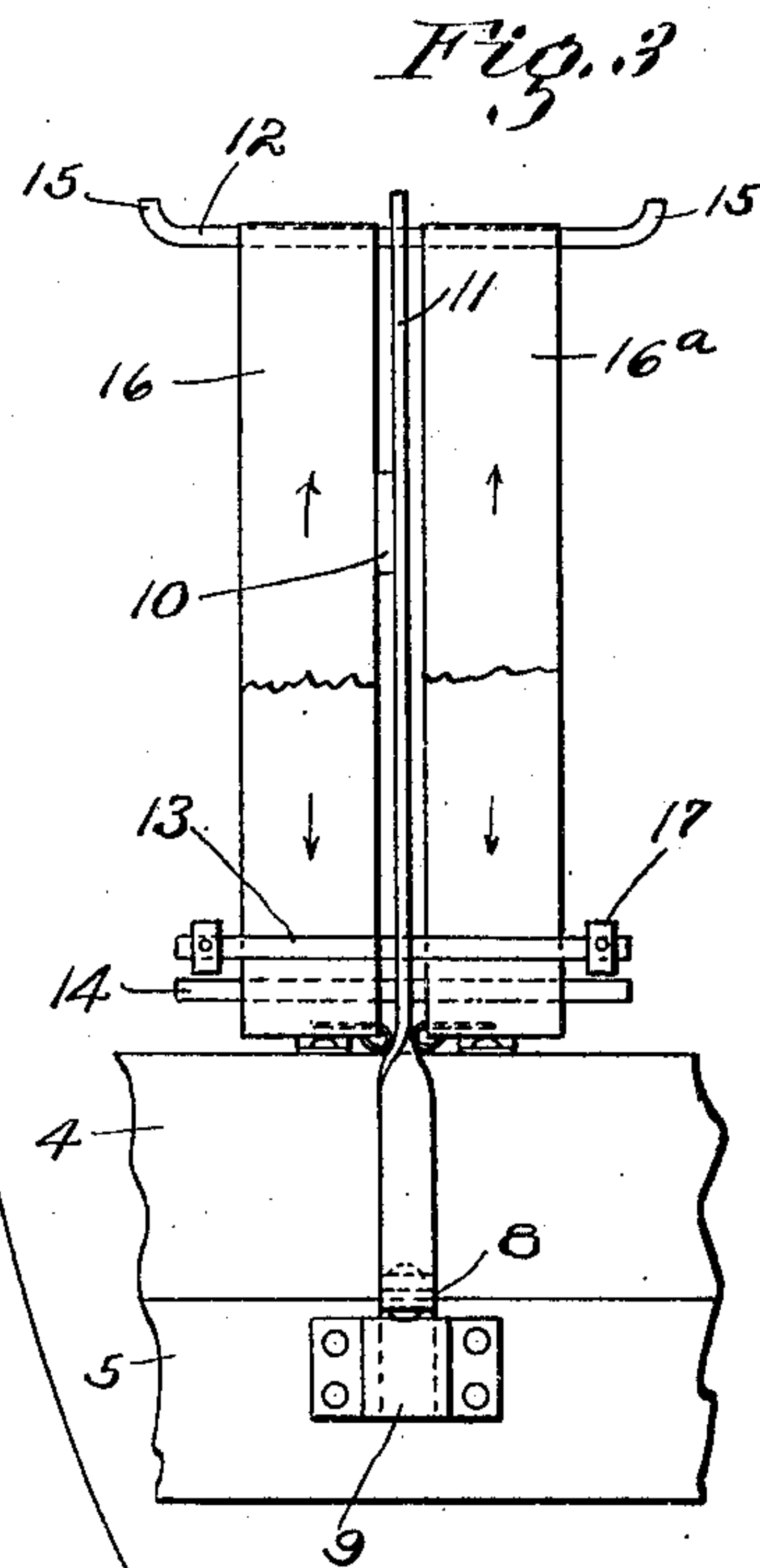
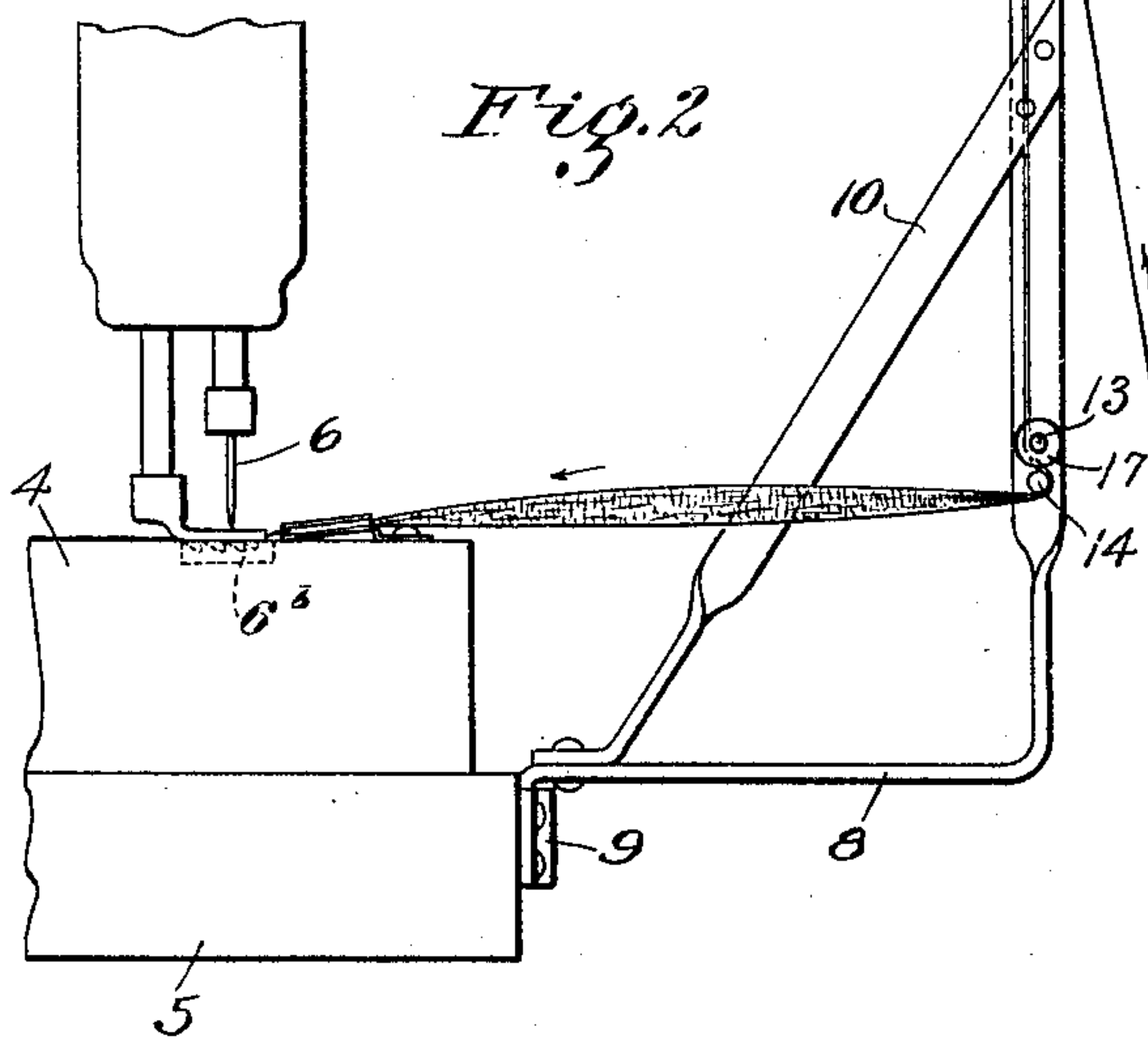
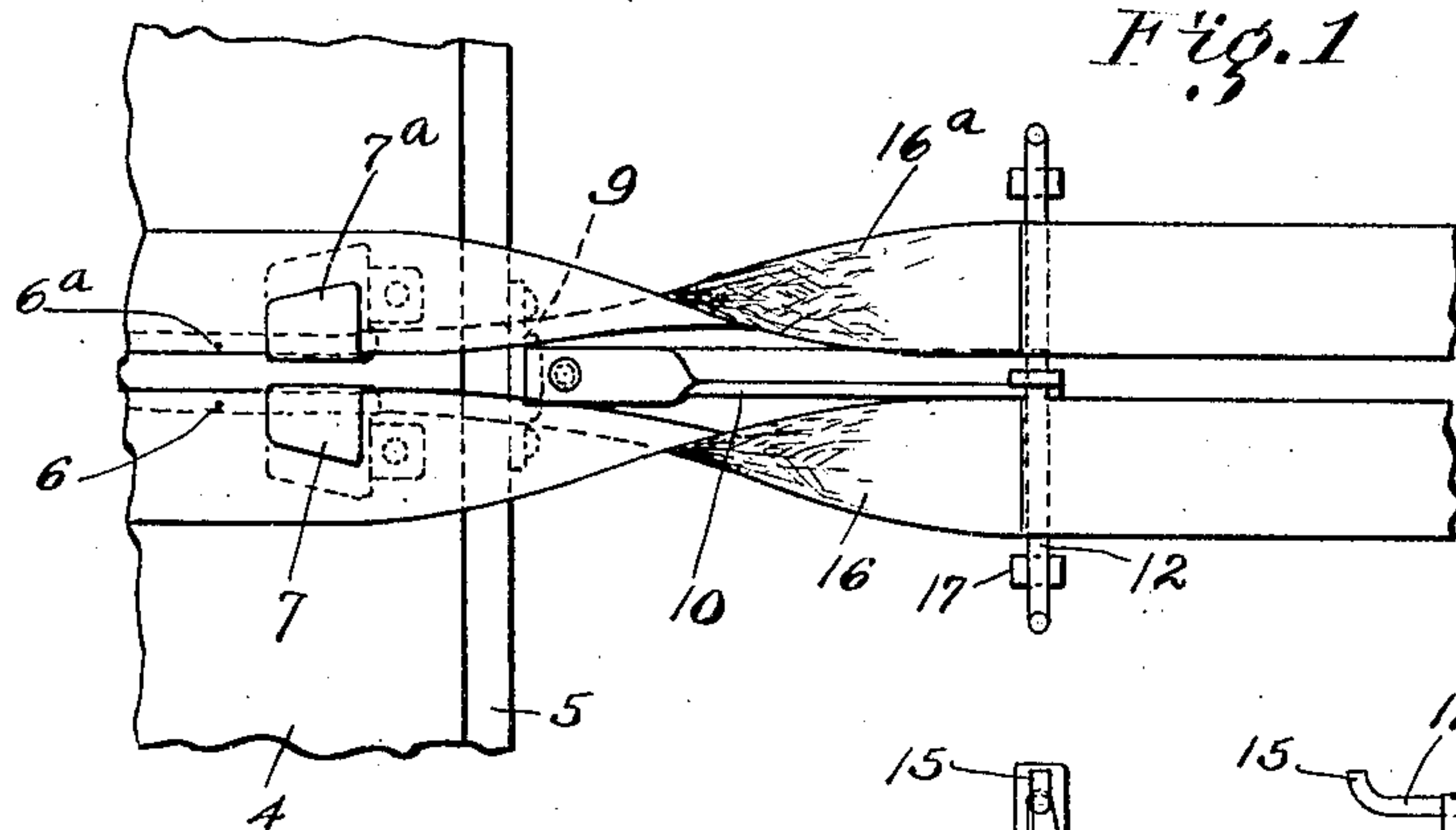
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SEWING MACHINE ATTACHMENT

Filed July 27, 1926



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UNITED STATES PATENT OFFICE.

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SEWING-MACHINE ATTACHMENT.

Application filed July 27, 1926. Serial No. 125,181.

This invention relates to sewing machines and more particularly to means for guiding and tensioning strips of fabric as they are fed to the double hemmers or guides of a duplex sewing machine.

In the operation of a single needle sewing machine, the strip of fabric is customarily straightened and guided to the hemmer by the hands of the machine operator, but in a duplex sewing machine it has been found that a single operator can not satisfactorily operate the machine and properly guide two strips of fabric to the respective hemmers. In order that a single operator may satisfactorily operate a machine of this type, it has been found necessary to provide means for guiding and tensioning the strips as they are fed to the machine so that the hands of the operator may be free to control the sewing machine.

To this end the present invention contemplates the provision of a suitable support and a plurality of substantially horizontal tensioning bars carried thereby, said bars being arranged one above another in approximately the same vertical plane. The strips of fabric are fed over the uppermost bar and under the lowermost bar and thence to the respective hemmers or guides of the sewing machine. By this means the fabric strips are fed under uniform tension and in straight paths to the needles of the machine.

A preferred embodiment of the invention is illustrated in the accompanying drawings in which:

Fig. 1 is a plan view of the tensioning device attached to a duplex sewing machine;

Fig. 2 is a side elevation thereof; and

Fig. 3 is an end view looking toward the sewing machine.

A portion only of a duplex sewing machine is shown in the drawings, the base 4 of the machine resting upon a table or other support 5. The needles 6 and 6^a feed dogs 6^b and hemmers 7 and 7^a are of usual construction and arrangement as in the ordinary duplex needle machine.

The support for the tensioning bars comprises an angle frame 8 fixed to the table 5 at 9 and braced by the tie member 10, and comprises an upstanding portion 11 which is substantially vertical. Parallel bars 12, 13 and 14 are fixed intermediate their ends in openings in frame portion 11, said bars be-

ing arranged in substantially the same vertical plane and extending parallel to the plane of the needles. The uppermost bar 12 has upwardly hooked ends 15 to prevent the fabric strips 16 and 16^a from slipping laterally therefrom, and is spaced a substantial distance above the intermediate bar 13. The latter is arranged a short distance above the lowermost bar 14, and is provided adjacent to its ends with collars 17 also adapted to prevent the fabric strips from sliding laterally outward.

The fabric strips move in the direction of the arrows from a table 18 or basket, up over bar 15, downwardly to bar 13, passing forwardly thereover, then rearwardly and beneath bar 14, and thence to the respective hemmers. The strips are spaced apart by the frame portion 11 and tie 10, and are guided by hooks 15 and collars 17 as aforesaid.

The fabric tensioning function of said bars requires no explanation, for it is obvious that the strips 16 and 16^a will be fed under even tension and in straight paths, and unwrinkled, to the hemmers 7 and 7^a respectively where they will be edge-turned for stitching.

The apparatus described has especial utility when the fabric consists of rather sleazy strips of loosely woven material, for it is difficult evenly to control the tension of such strips when they are fed to the hemmers by hand. The tensioning device is simple and economical of construction and has been found to be extremely efficient in operation. It is apparent, however, that details of construction may be varied to suit particular requirements without departing from the spirit of this invention so defined in the following claims.

I claim:

1. In combination with a sewing machine having two needles, means for feeding a strip of fabric to each of said needles to be hemmed, a single support for tensioning bars in the plane bisecting the space between the needles, and a plurality of substantially parallel tensioning bars arranged substantially horizontally on and symmetrically with respect to said support, the uppermost of said bars being spaced a substantial distance from the lowermost bar, each bar guiding both strips of fabric which pass over the uppermost bar

and under the lowermost bar and thence to the respective needles, said support being positioned intermediate the ends of said tensioning bars so that the strips of fabric will pass one on either side thereof.

2. In a guide device for use with a sewing machine having two needles, and means for feeding a strip of fabric to each of said needles to be hemmed, a single support for tensioning bars, and a plurality of substantially parallel tensioning bars arranged substantially horizontally on and extending symmetrically in opposite directions from said

support, the uppermost of said bars being spaced a substantial distance from the lowermost bar and an intermediate bar being spaced adjacent said lowermost bar, the opposite extensions of said bars being adapted to receive and guide a strip of fabric to pass over the uppermost bar, forwardly of the intermediate bar, rearwardly beneath the lowermost bar, said bars having their ends free for threading strip material into the device.

Signed by me at Boston, Massachusetts, this 20th day of July, 1926.

ARTHUR G. KAY.