

No. 673,490.

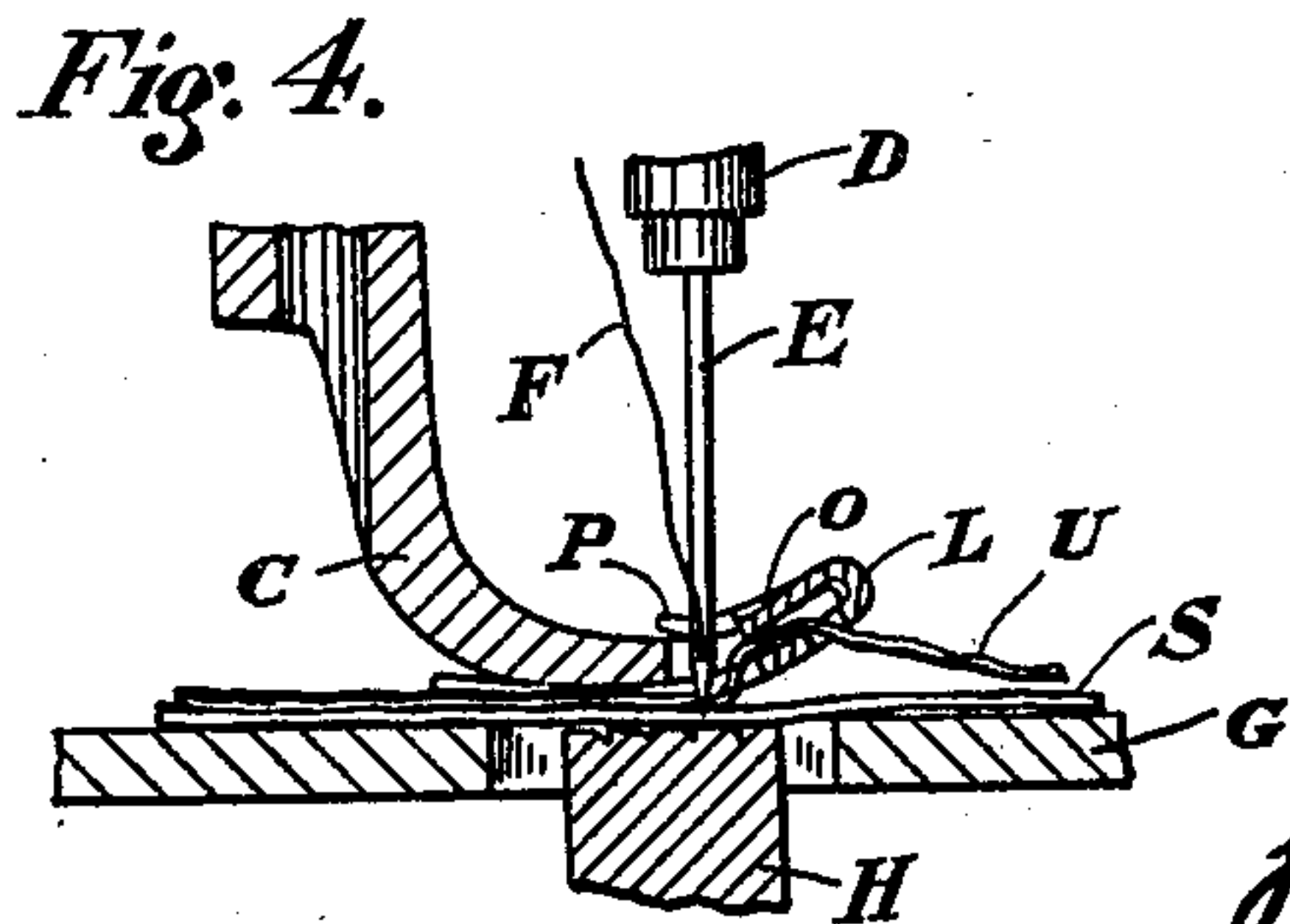
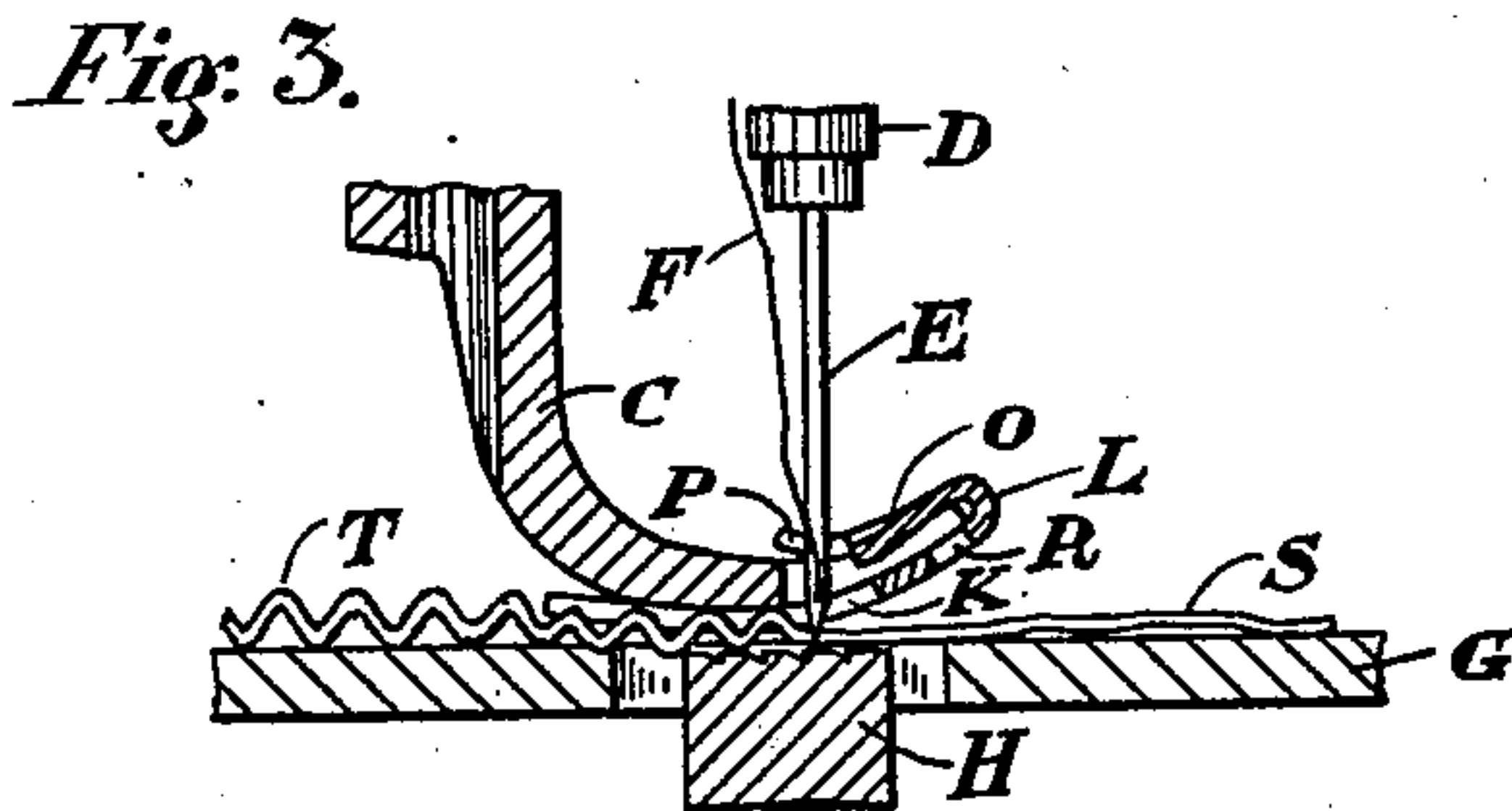
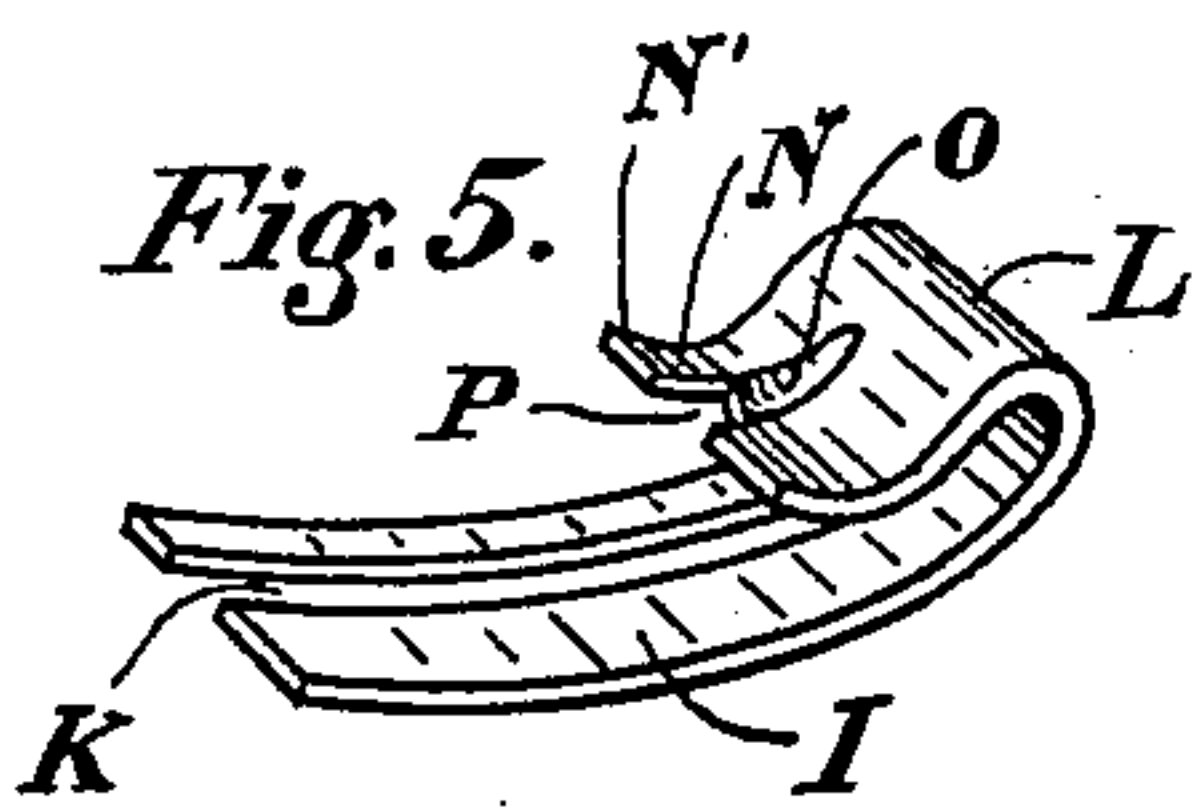
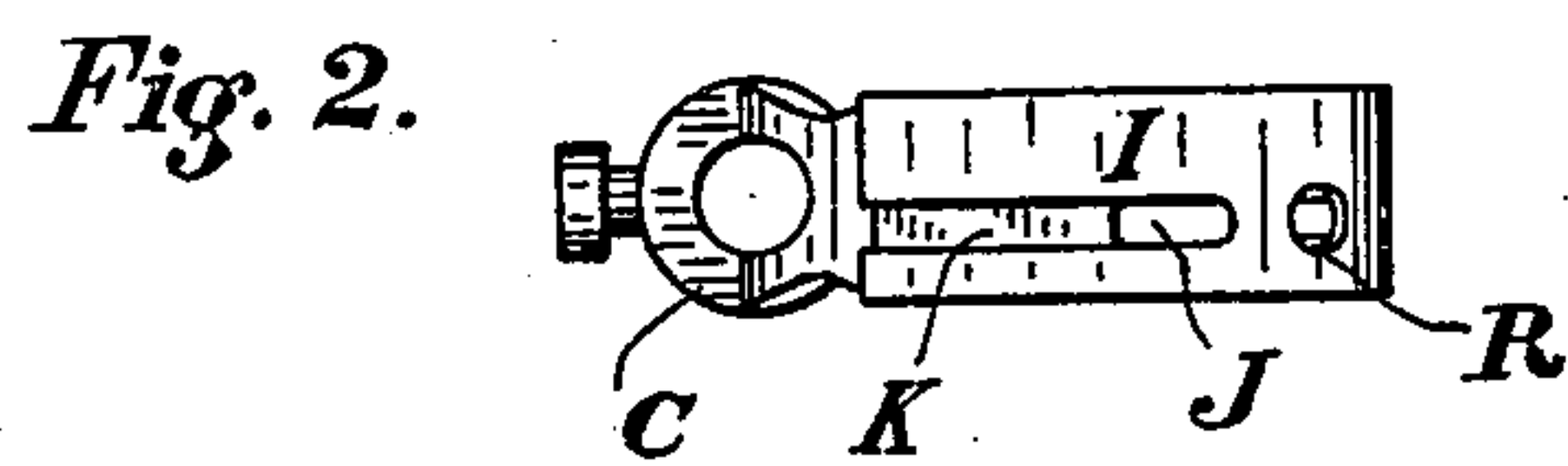
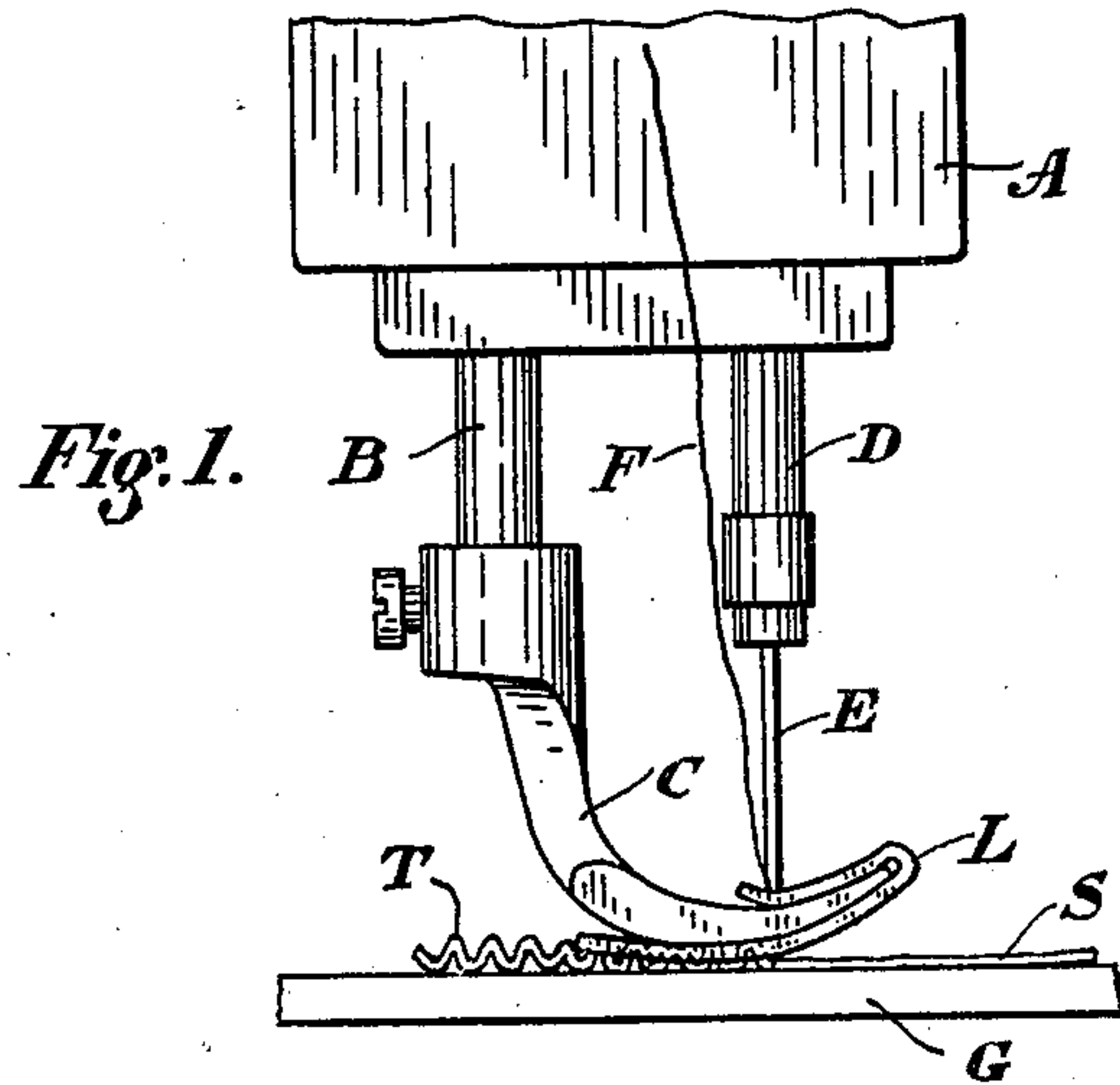
Patented May 7, 1901.

J. YOUNCE.

COMBINED RUFFLER AND BRAIDER ATTACHMENT FOR SEWING MACHINES.

(Application filed Oct. 8, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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COMBINED RUFFLER AND BRAIDER ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 673,490, dated May 7, 1901.

Application filed October 8, 1900. Serial No. 32,324. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH YOUNCE, a citizen of the United States, and a resident of Muncie, in the county of Delaware and State of Indiana, have invented a new and useful Combined Ruffler and Braider Attachment for Sewing-Machines, of which the following is a specification.

The aim and purpose of this invention is to provide an attachment for either ruffling or braiding which can be easily attached to or detached from the presser-foot of a sewing-machine. This attachment can be used without in the least changing the foot, the only necessary change from the ordinary working of the machine, being after the attachment is in place and it is desirable to gather the goods, to slightly tighten the upper tension and increase the feed lengthening the stitch. When the device is used as a braider, no change whatever is necessary.

A further object is to provide an attachment which will be securely held in place on the foot without injuring the same and an attachment which can be cheaply manufactured and easily made.

These and other objects not hereinbefore mentioned are accomplished by the construction illustrated in the accompanying drawings, wherein like letters of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a side elevation of a portion of the face-plate, showing the needle, presser-foot, and my attachment applied to the foot. Fig. 2 is a bottom plan view of the same. Fig. 3 is a vertical central longitudinal section through Fig. 1 with the face-plate omitted, showing the needle in elevation and the attachment gathering the goods. Fig. 4 is a view similar to Fig. 3, showing the attachment used as a braider; and Fig. 5 is a perspective view of the attachment removed from the foot.

In the drawings, A designates the lower portion of the face-plate of a sewing-machine; B, the presser-bar; C, the presser-foot, of ordinary construction; D, the needle-bar; E, the needle; F, the thread; G, the table, and H the feed-dog. All these parts are of the usual

construction found in the ordinary sewing-machines now in use.

The attachment consists of a single piece of metal having sufficient resiliency to keep its shape and at the same time firmly engage the foot when placed thereon. As more plainly shown in Fig. 5, the attachment has a curved lower portion I, corresponding to the curve on the bottom of the presser-foot. This bottom portion is also provided with a slot K, arranged parallel with but on one side of its longitudinal center. This slot when the attachment is placed upon the foot coincides and registers with the slot J, which is found in all ordinary presser-feet. The front portion of the attachment is bent upwardly, as shown at L, and then rearwardly, forming the bifurcated lip N. This lip is adapted to fit closely over the end of the presser-foot. As the attachment is made of metal slightly resilient, this lip will firmly grasp the end of the foot and hold the attachment in place. To prevent any lateral movement of the attachment on the foot, the lip is provided with a lug O, which is stamped out of the metal. As before stated, the end of the lip is bifurcated, forming a hole or aperture P. The projection O is located at the rear end of the bifurcation which forms the hole P. This projection extends downwardly and is adapted to fit within the slot J in the foot, as plainly shown in Fig. 3. This projection is also in a parallel line with the slot K in the bottom portion and the hole P in the lip. This I regard as an important feature of my invention, for the reason that the projection being in line with the slot K and hole P and the projection fitting between or within the slot J in the foot it will make the various slots and hole P coincide and register, so that there will always be an aperture for the needle to pass through. This feature of having the projection and slot and hole P in a parallel line is also important, as it allows my attachment to be secured in position, so that the slots and hole will register on any ordinary foot. It is a well-known fact that the position of the slot in the various presser-feet varies. In some feet the slot is in the middle, while in other feet the slot is placed to one

side of the longitudinal center; but with this construction and placing the projection where it is the attachment will always be guided to its proper position and held in place on the foot. This hole extends backward a sufficient distance to be above the slot K. When the attachment is on the foot, the needle is adapted to pass down through the hole P and slot K into the goods to be sewed, as shown in Figs. 3 and 4. The lower front portion of the attachment is formed with an aperture R, which is in a longitudinal line with the slot K. The end of the bifurcated lip N is slightly turned up, as shown at N', to form a rounded surface for the lip, so that the attachment can be readily slipped over the end of the presser-foot.

When it is desired to form ruffles, the attachment is placed upon the presser-foot, the upper tension tightened, and the stitch lengthened. I do not show any mechanism for tightening the tension of the thread or lengthening the stitch, as such mechanisms are well known to every person skilled in the art and to all users of sewing-machines. As my attachment can be applied to any sewing-machine, the feet of all machines being substantially alike, and as the tension and feeding devices vary, it would be impractical to show these mechanisms without confusing the drawings.

By referring to Fig. 3 it will be seen how the gathering of the goods is accomplished and the ruffles formed. In Fig. 3 the attachment is applied to the foot, the foot in its lower position ready for sewing, the tension of the thread F tightened, and the stitch lengthened. As the lower or bottom portion of the attachment will rest directly upon the goods, it would act in the same manner as the presser-foot were it not for the slot K in the attachment. Where this slot is over the goods, there is no pressure thereon. As the stitch is lengthened, feeding in the goods faster than ordinary, and the upper tension tightened the thread with the upward stroke of the needle will gather the goods which lies between the slot K or that portion of the goods whereon there is no pressure. Were it not for this slot the thread would break with this tight tension, but with the slot relieving all pressure on the goods that portion of the goods under the slot will be drawn backward, gathering the goods and forming the ruffles, as plainly shown in Fig. 3 and in dotted lines, Fig. 1. The fullness of the ruffles can be varied by changing the length of the feeding-stroke of the feed-dog and the amount of the tension.

In the drawings, S designates the goods being fed into the machine, and T the goods after passing from the machine gathered and formed in ruffles.

If it is desired to use the attachment simply as a braider, the tension and stitch are changed to their normal condition—that is to say, they will be the same as in ordinary sew-

ing. The goods S are fed to the machine in the usual way, and the braid U passes through the aperture R and over the goods, so that the needle can sew the braid to the goods. The braid then passes along through the slot K, as shown in Fig. 4, preventing the foot from pressing the braid out of place and also at the same time preventing the portion of the goods under the slot, which are not under pressure, from gathering.

As the under or bottom side of the attachment is perfectly smooth, having no flanges on either side, it is possible to gather or braid goods on their extreme edge or at their center or any other part desirable.

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

1. A ruffling or braiding attachment for sewing-machines, adapted to be secured to the presser-foot, the attachment consisting of an integral piece of metal provided with a longitudinal slot in its lower portion beneath the foot, the slot being adapted to register with the slot in the presser-foot, an upwardly and rearwardly extending lip adapted to fit over the end and top of the foot, and a downwardly-extending projection adapted to fit between the slot in the foot, the projection being positioned in a parallel line with the slot in the bottom of the attachment.

2. A ruffling or braiding attachment for sewing-machines, adapted to be secured to the presser-foot, the attachment consisting of an integral piece of metal provided with a longitudinal slot in its lower portion beneath the foot, the slot being adapted to register with the slot in the presser-foot, an upwardly and rearwardly extending lip adapted to fit over the end and top of the foot, the rear end of the lip being bifurcated, the bifurcation extending over the slot in the lower portion, and a downwardly-extending projection adapted to fit between the slot in the foot, the projection being positioned in a line parallel with the slot in the bottom of the attachment and also in a line parallel with the bifurcation in the lip.

3. A ruffling or braiding attachment for sewing-machines, adapted to be secured to the presser-foot, the attachment consisting of an integral piece of metal provided with a longitudinal slot in its lower portion beneath the foot, the slot being adapted to register with the slot in the presser-foot, an aperture in its front portion in line with the slot, an upwardly and rearwardly extending lip adapted to fit over the end and top of the foot, and a downwardly-extending projection adapted to fit between the slot in the foot, the projection being positioned in a line parallel with the slot and aperture in the attachment.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

JOSEPH YOUNCE.

Witnesses:

WILLIAM A. THORNBURG,
WM. DU VAL BROWN.