

No. 685,825.

Patented Nov. 5, 1901.

T. F. DENNISON.

ADJUSTABLE HEM ATTACHER FOR SEWING MACHINES.

(Application filed Sept. 19, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

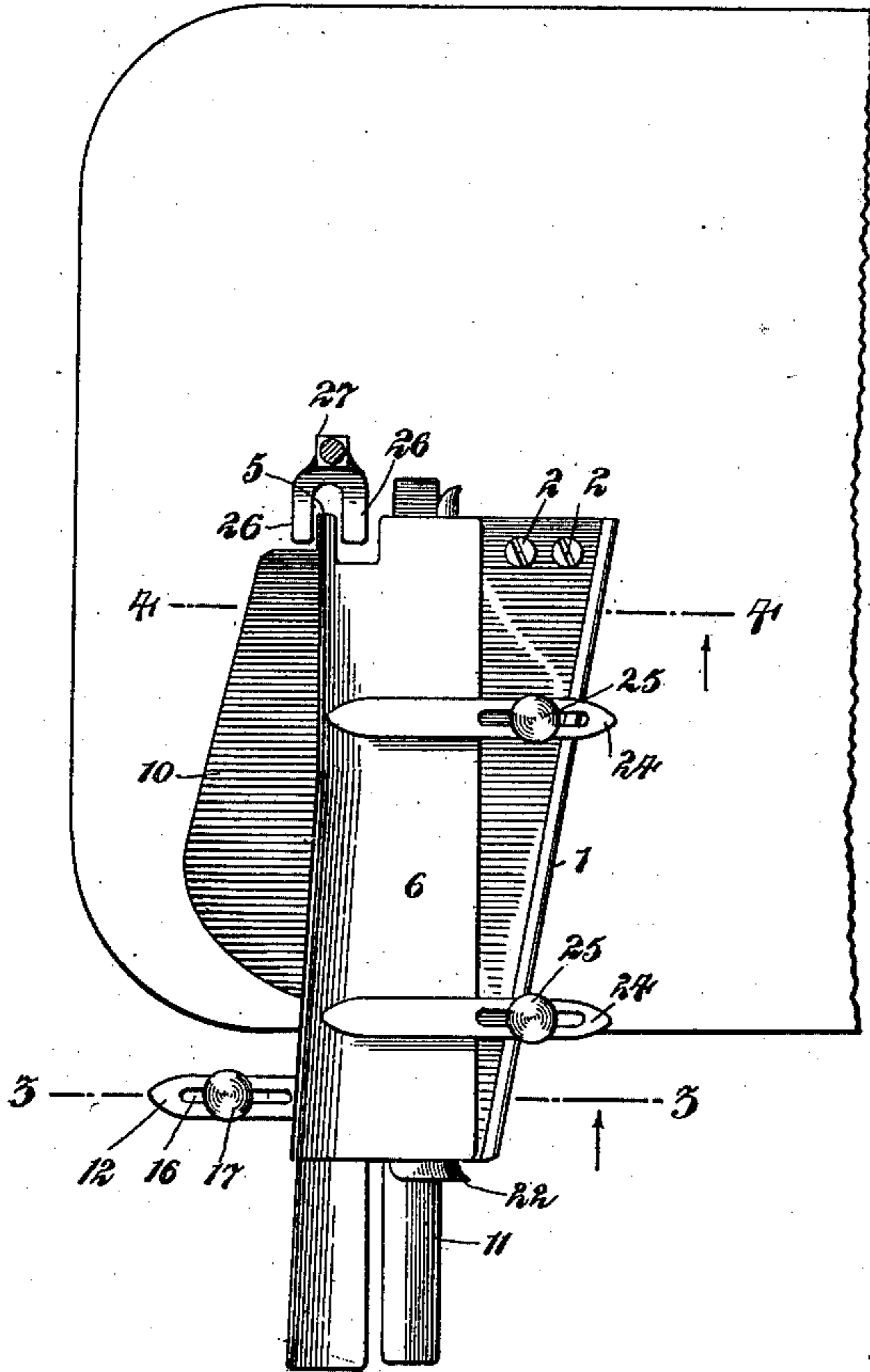


Fig. 2.

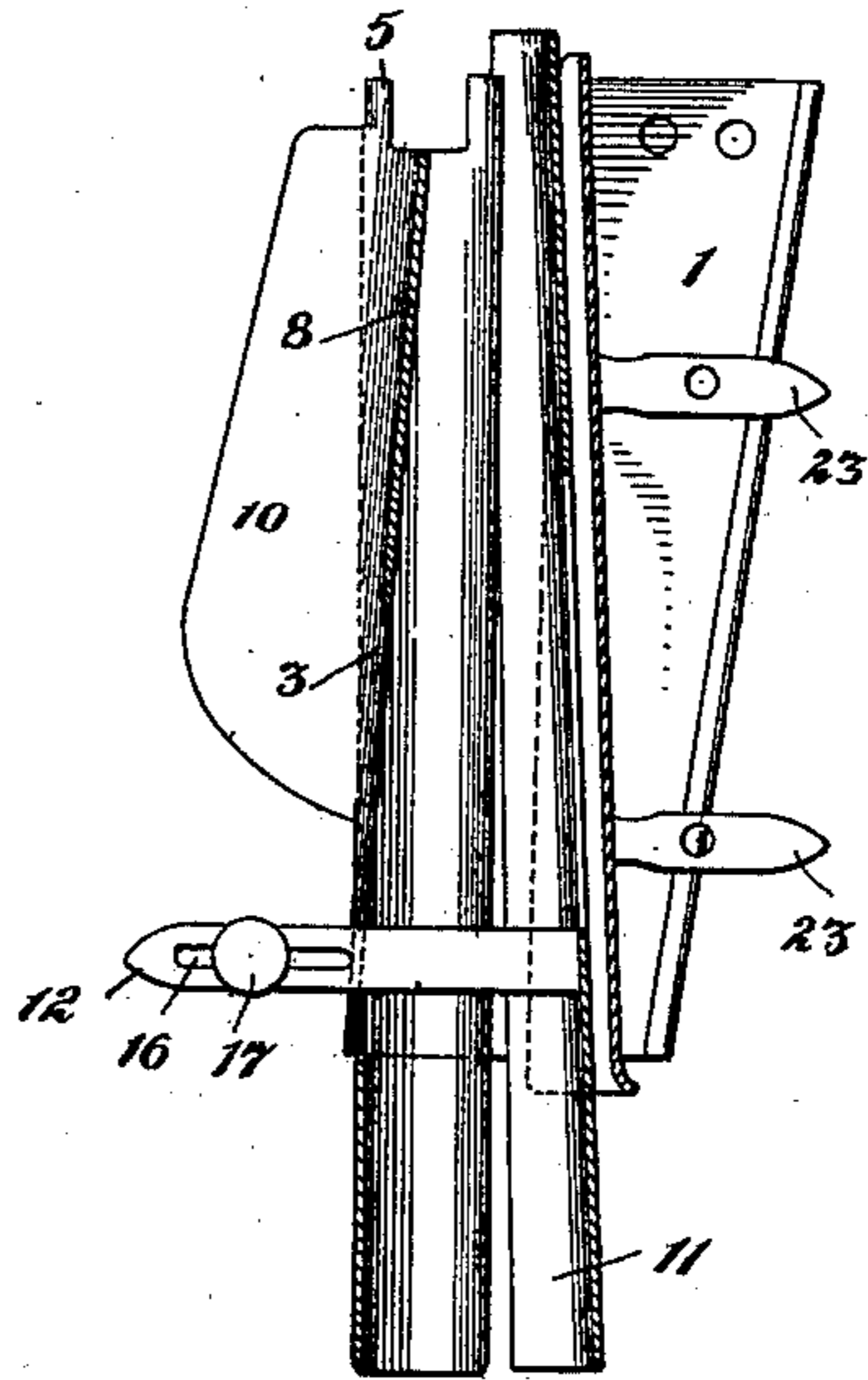


Fig. 3.



Fig. 4.

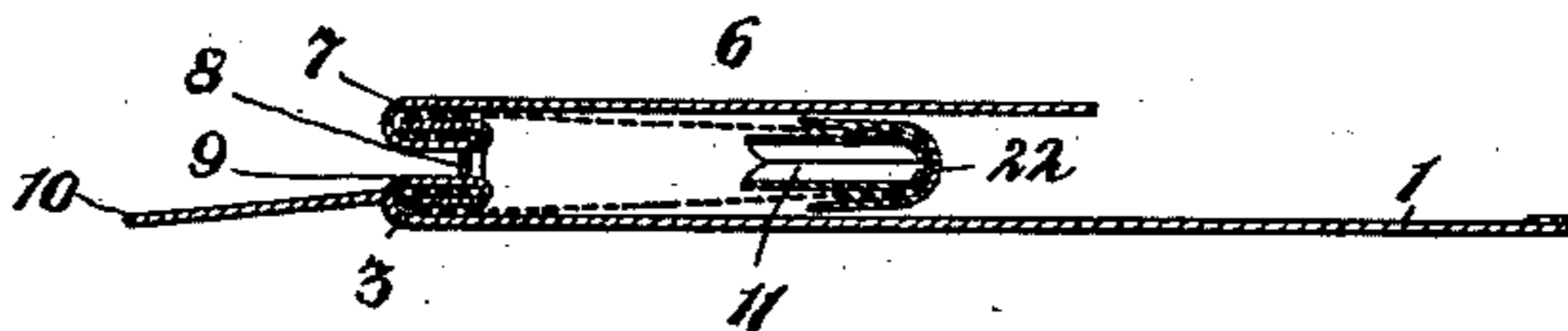
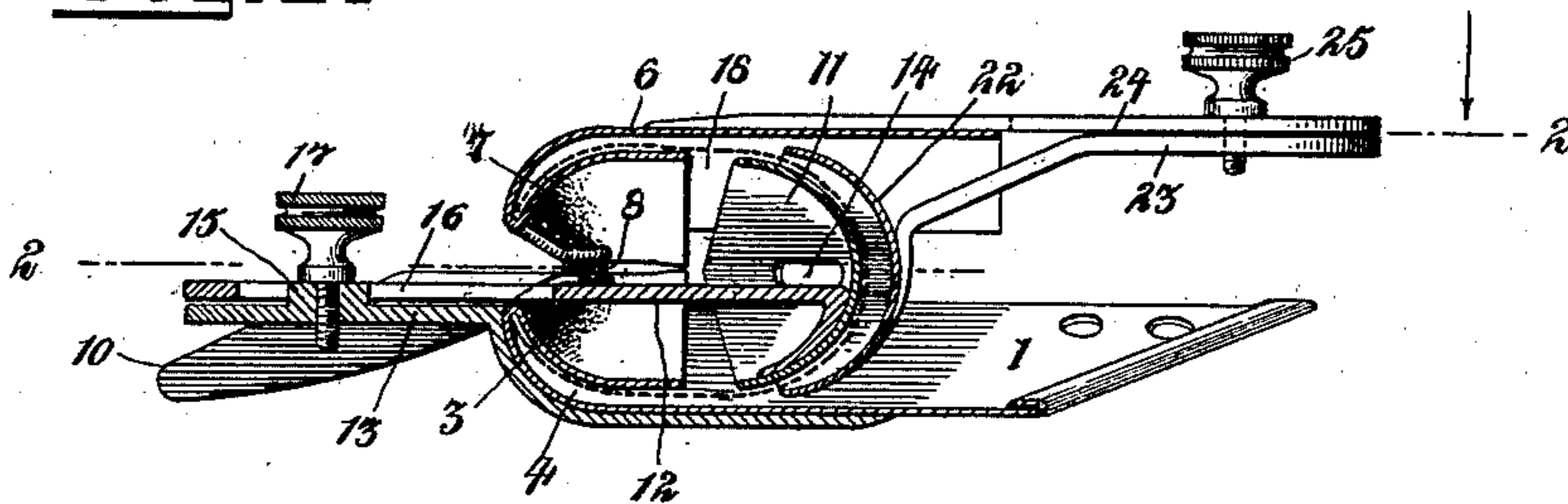


Fig. 5.



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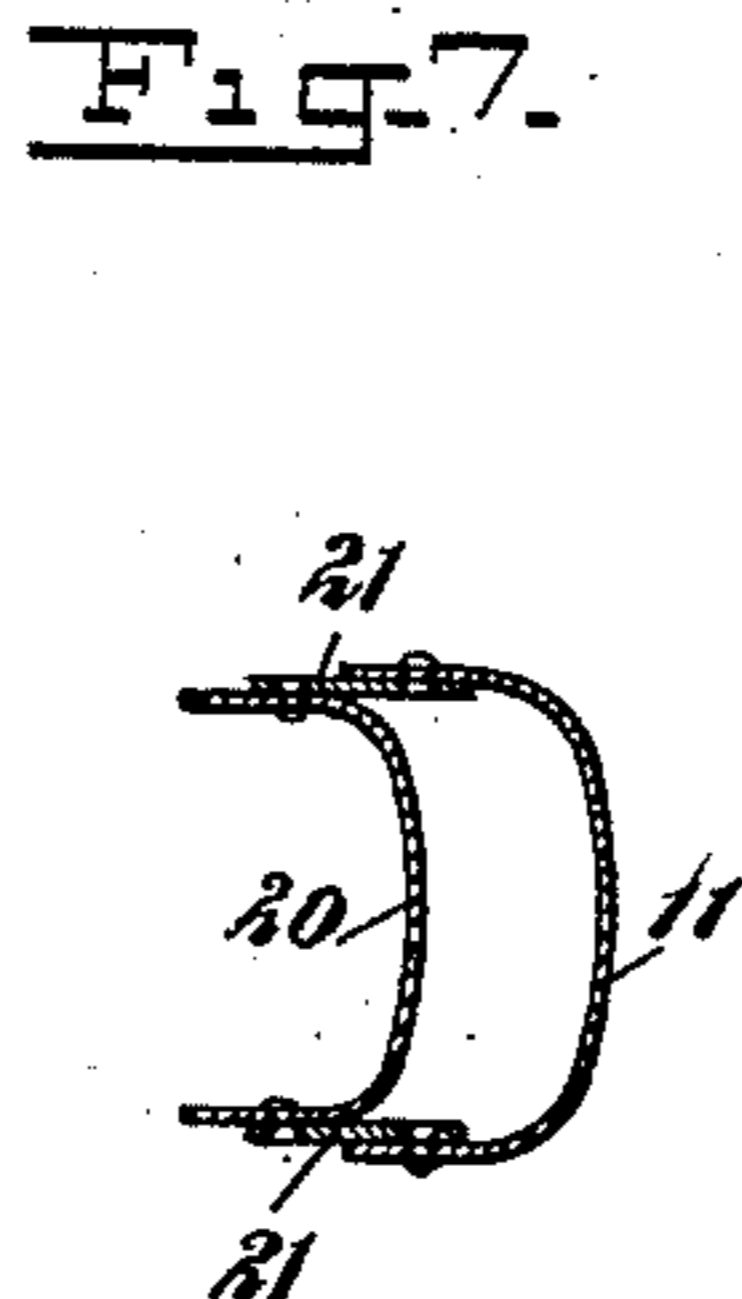
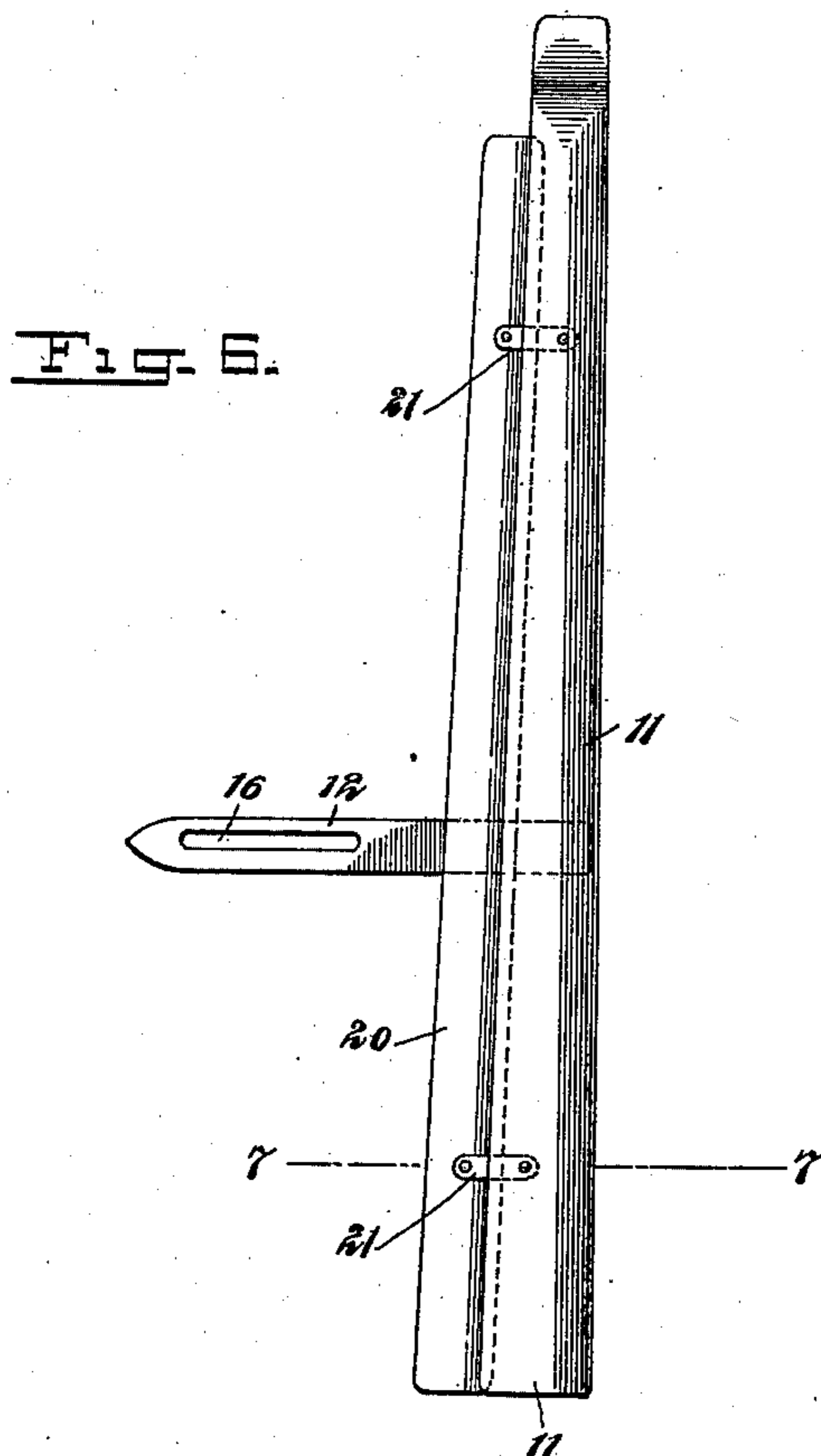
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(Application filed Sept. 19, 1899.)

(No Model.)

2 Sheets—Sheet 2.



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# UNITED STATES PATENT OFFICE.

THOMAS F. DENNISON, OF NEW YORK, N. Y.

## ADJUSTABLE HEM-ATTACHER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 685,825, dated November 5, 1901.

Application filed September 19, 1899. Serial No. 731,003. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS F. DENNISON, a subject of Her Majesty the Queen of Great Britain, and a resident of the borough of Manhattan, in the city, county, and State of New York, have invented a new and useful Adjustable Hem-Attacher for Sewing-Machines, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof.

This invention relates to improvements in that class of sewing-machine attachments adapted for folding a hem and guiding the same and the goods to which it is to be attached in proper relation to each other when presented to the stitching mechanism of the machine, the object of the invention being to improve the construction of this class of attachments, whereby they may be rendered more efficient and desirable for the purposes intended. This object I secure by means of the new and novel construction and arrangement of parts, as hereinafter set forth in detail, and pointed out in the claims.

Referring to the drawings, Figure 1 represents a plan view of an attachment embodying my invention, the same being shown in operative position upon the cloth-plate of a sewing-machine and in proper relation to the presser-foot. Fig. 2 is a horizontal section taken through line 2 2 of Fig. 3. Fig. 3 is an enlarged transverse cross-section taken through line 3 3 of Fig. 1. Fig. 4 is an enlarged transverse cross-section taken through line 4 4 of Fig. 1, the position taken by the goods in passing through the attachment being indicated by dotted lines in both Figs. 3 and 4. Fig. 5 is a section taken through a portion of a piece of goods and its attached hem, showing the method of folding and uniting the parts as secured by my improved attachment; and Figs. 6 and 7 are detail views, to be hereinafter referred to in detail.

In the drawings, 1 is the base or supporting plate, which is adapted to rest upon the cloth-plate of the machine and be detachably secured thereon by screws 2 2, as shown in Fig. 1, or by any other suitable fastening means. One edge of this supporting-plate is formed with a folding or hemmer scroll 3 for forming and turning a hem, such scroll being formed in substantially the usual manner

with an enlarged mouth or receiving end 4, into which one edge of the material to be turned and folded is entered, and a reduced delivery end 5, through which the folded material passes out of the scroll. A second plate 6, also formed at one edge with a folding-scroll 7, corresponding in form to the scroll 3 of the supporting-plate, is supported above the latter with its scroll in line with the scroll 3 and rigidly united therewith through the medium of an intermediate connecting web or plate 8, which latter extends from a point adjacent to the delivery end of the scrolls backward about one-half the length of the latter, as shown in Fig. 2, separating the same and forming a guide to receive the edge of the material to which the hem or border is to be stitched and deliver the same between the upper and lower folded edges of the hem or border being fed from the scrolls. As the guide or channel way 9 between the scrolls through which the material passes is located above the cloth-plate of the machine, I have provided the attachment with a guiding bed-plate 10, which extends at an incline from one side thereof at a point near the lower wall of the guideway 9 outwardly and downwardly, with its lower edge resting upon the cloth-plate of the machine, whereby the goods to which the border is to be attached may be fed from the cloth-plate over and upon said bed-plate when being passed through the guideway 9.

A plate 11, termed the "hem-adjuster," is supported between the upper and lower scroll-supporting plates in a position at one side of and substantially parallel with the scrolls. This plate 11 is curved in cross-section opposite the receiving end of the scrolls, as more clearly shown in Fig. 3, and gradually tapers toward its opposite or front end adjacent to the delivery end of the scrolls, where its upper and lower edges are brought together, as shown. An arm 12, rigidly attached at one end to the plate 11 and at its opposite end having a sliding connection with a fixed arm 13 of the supporting-plate, serves to support said plate 11 in a laterally-adjustable position relative to the scrolls. In entering the strip of goods forming the hem or border into the attachment its leading end is passed over or around the outer surface of the curved

plate 11 and into the channel-ways of the upper and lower scrolls. After the strip of goods has been thus entered the plate or adjuster 11 is adjusted laterally, so as to insure the strip passing closely thereover, with its edges in near contact with the guiding edge of the scrolls, as indicated by dotted lines in Fig. 3. The plate 11 now being properly adjusted, the operator engages the end of the entered strip through an elongated slot 14 in the plate 11, by means of a long needle or other suitable device, and so forces the same through the attachment until its forward end reaches a position between the presser-foot and feed of the sewing-machine, after which it is fed by the said feed in the usual manner. In lieu of the slot 14 in the plate 11 the scrolls might be provided with a slot or opening at any suitable point, through which the strip might be engaged to be forced through the same. As the plate 11 is supported by the single arm 12, I have provided the lower fixed arm 13 with an elongated projection 15, which fits closely between the sides of the elongated slot 16 in the said upper arm 12, so as to hold the latter in parallel alinement with the lower arm, and thereby plate 11 in the proper position throughout its length relative to the scrolls. The plate 11 is held in adjusted position relative to the latter by means of an adjusting-screw 17, which locks the arms 12 and 13 in clamped engagement.

In case a very wide strip is to be passed through the attachment, so that it becomes necessary to set the adjuster or plate 11 a considerable distance to one side of the scrolls, a space of more or less width is thereby produced between the adjacent edges of such parts, as at 18 in Fig. 3. This space is sufficient in the case of very thin or soft goods to permit the latter to sag at such point, and so cause the edge of the strip to be drawn back from the inner edge of the scrolls, and so interfere with the uniform width of the folded border. To avoid possibility of such sagging, I sometimes employ an additional plate, (indicated at 20 in Figs. 6 and 7,) which may fit within the adjuster-plate 11 and be connected therewith through the medium of pivoted links 21 21, whereby it may be moved laterally outward from the plate 11, as shown in said Figs. 6 and 7, so as to occupy the space between said plate 11 and the adjacent edge of the scrolls to support the goods at such point or be swung back into the plate 11 when not required for use. The said plate 20 is provided with an elongated slot therein, (not shown in the drawings,) through which the arm 12 may extend without interfering with the movement of the plate when moved outward and inward, as described.

In order that the strip entered into the attachment will be held in proper position and prevented from moving laterally off the adjuster-plate 11 and out of the scrolls, I have provided a so-called "guard-plate" 22, which is curved in cross-section to conform to the

plate 11 and supported in a position parallel therewith with a space between the same, such space being just sufficient to permit of the ready passage of the goods therethrough. This guard-plate 22 is supported in an adjustable position, so as to be capable of being moved or adjusted with the plate 11, by means of two arms 23 23, which are rigidly attached at one end thereto and at their opposite end held in adjustable clamped connection with two arms 24 24 of the plate 6 by means of two adjusting-screws 25 25.

In hemstitching if there is any considerable distance between the delivery end of the scrolls and the needle the goods are liable to be drawn laterally out of a straight line, and so produce an irregular line of stitching. To avoid possibility of this, I have cut away the front end of the attachment at opposite sides of the delivery ends of the scrolls, so that such inner ends may extend forward into the space between the opposite toes 26 26 of the presser-foot 27 and adjacent to the path of the needle, as clearly shown in Fig. 1. Such construction insures the stitching being at the right point under all conditions of sewing.

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

1. A sewing-machine attachment, comprising two plates, each being provided with a folding-scroll arranged one above the other and rigidly connected by an intermediate guiding-web, a guide-plate and a guard-plate arranged with a space or guideway between the same and each being provided with a supporting-arm, and means for engaging with said arms and holding the supported plates in an adjustable stationary position, for the purpose set forth.

2. A sewing-machine attachment, comprising a base or supporting plate provided with a folding-scroll at one edge thereof, a second plate provided with a folding-scroll at one edge thereof arranged above and connected with the lower scroll, a laterally-adjustable guide-plate having connection with the lower scroll-plate, and a laterally-adjustable guard-plate located adjacent to said guide-plate with a guideway between the same and having connection with the upper scroll-plate, substantially as and for the purpose set forth.

3. A sewing-machine attachment, comprising two folding-scrolls located one above the other, a laterally-adjustable guide-plate located at one side of said scrolls with its edges substantially in line with the inner edges of the upper and lower scrolls, and a plate supported to be movable to and from a position to occupy the space between the adjacent edges of said guide-plate and scrolls, for the purpose set forth.

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Witnesses:

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