

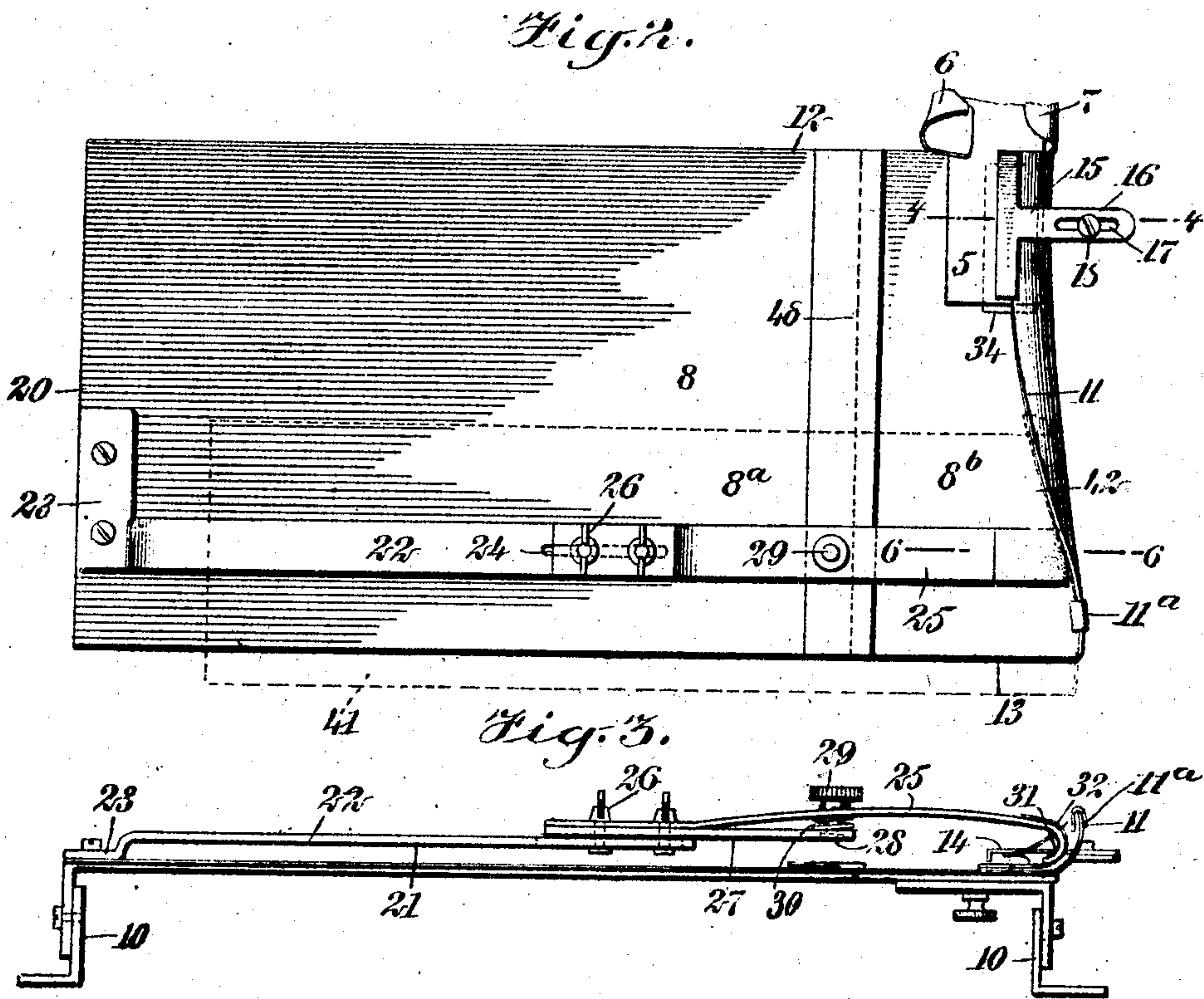
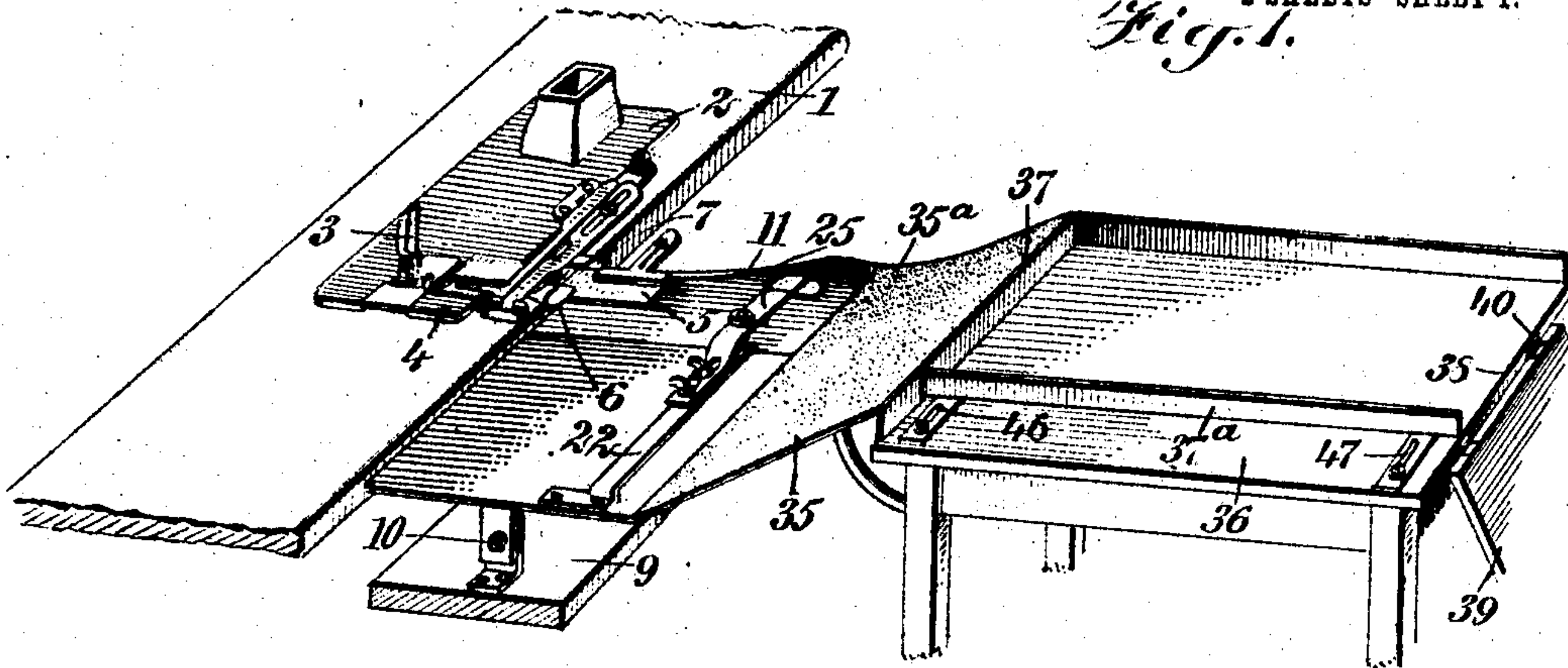
No. 846,742.

PATENTED MAR. 12, 1907.

E. F. GIBBONS.
FOLDER ATTACHMENT FOR HEMMERS.

APPLICATION FILED OCT. 24, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2

Fig. 4.

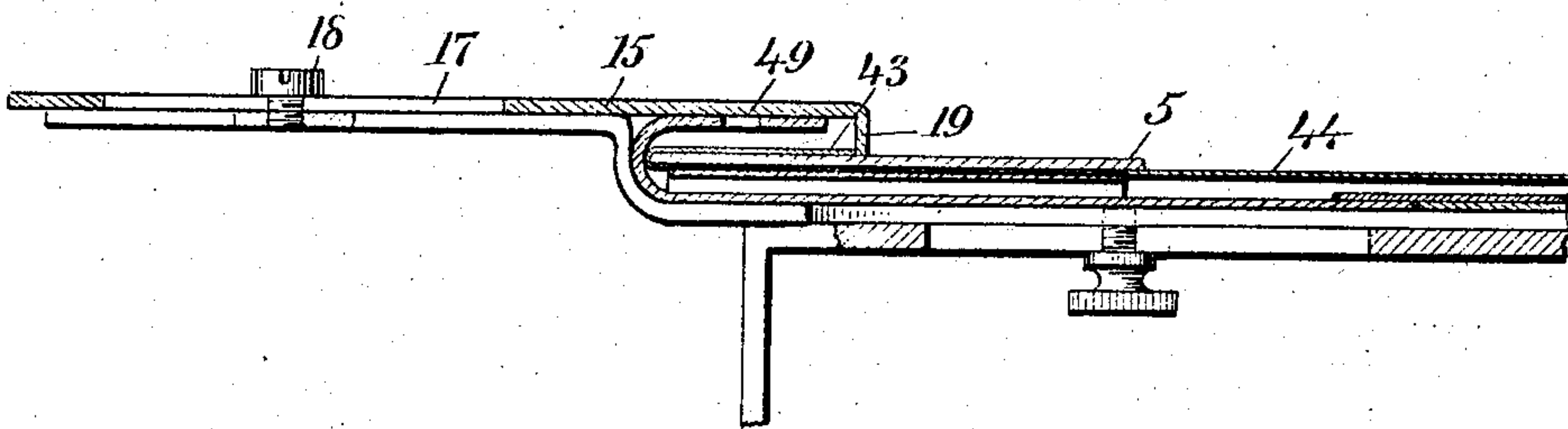


Fig. 5.

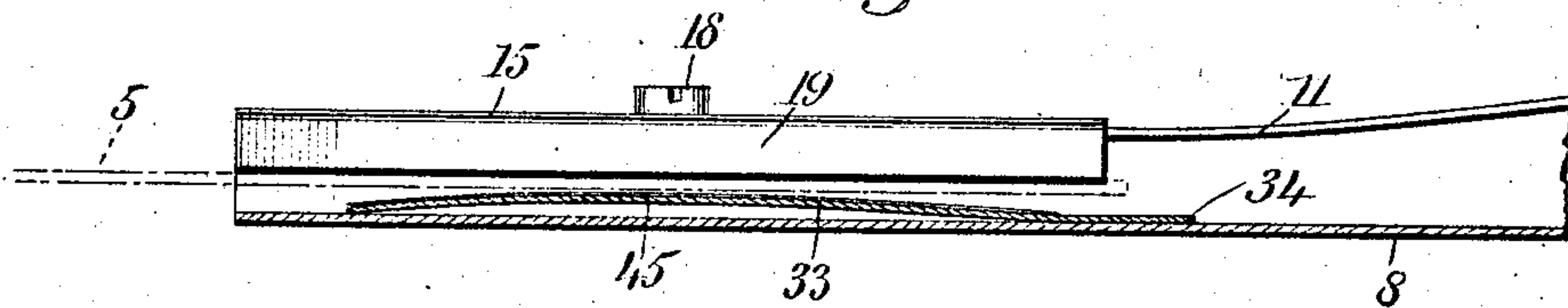


Fig. 6.

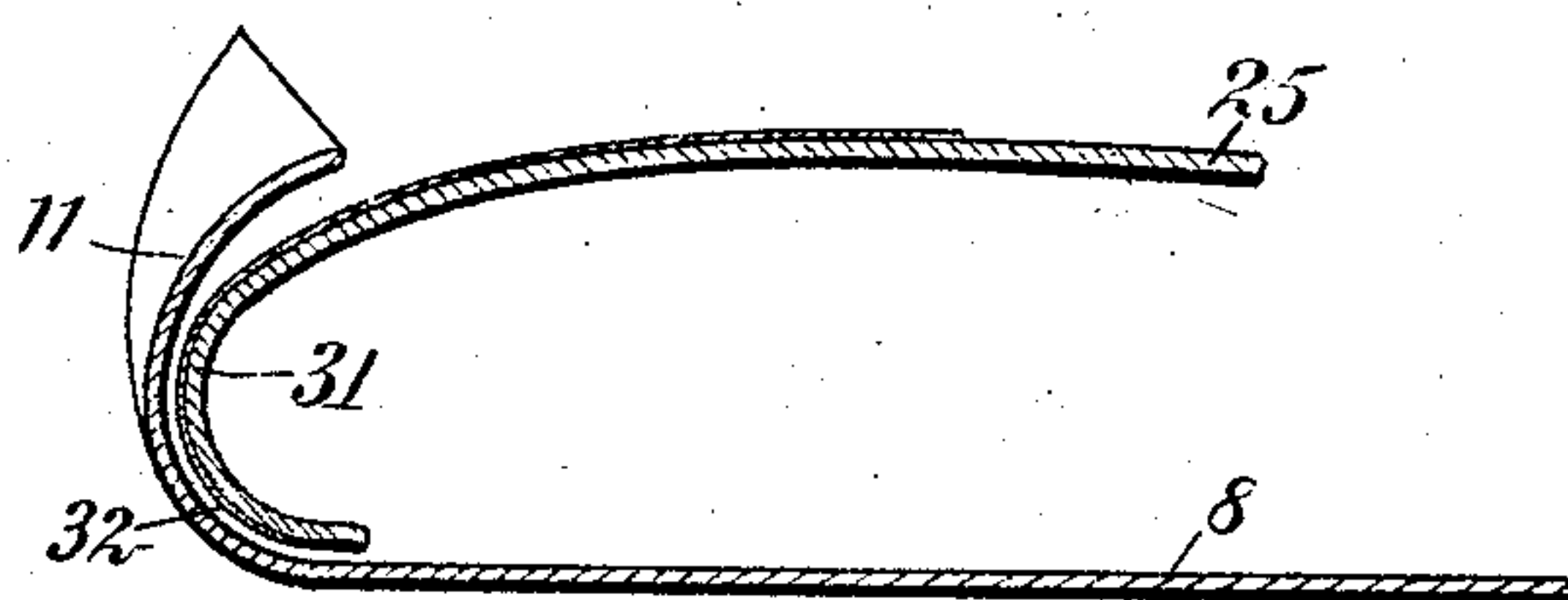
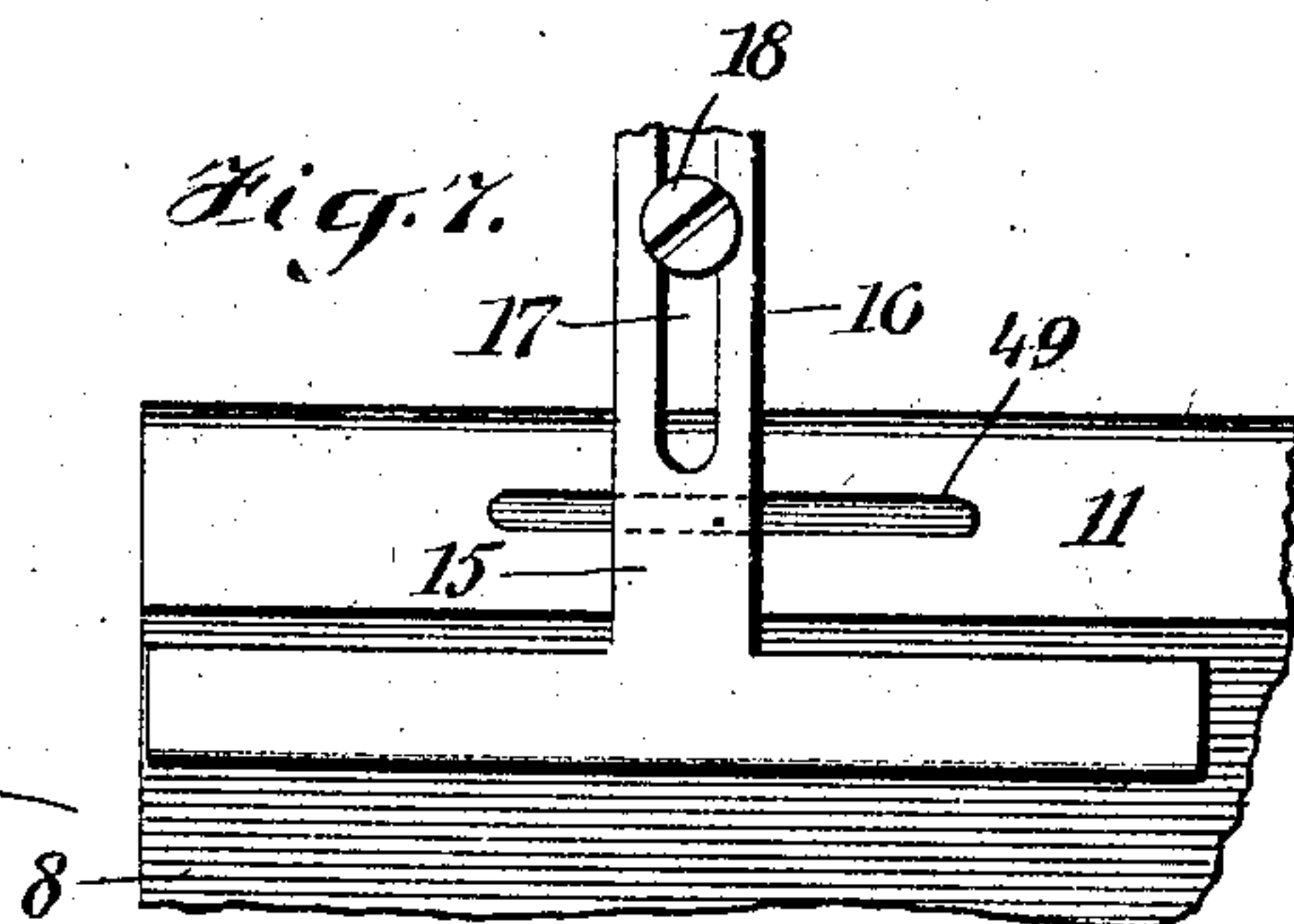


Fig. 7.



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FOLDER ATTACHMENT FOR HEMMERS.

No. 846,742.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed October 24, 1905. Serial No. 284,145.

To all whom it may concern:

Be it known that I, EDWARD F. GIBBONS, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and Improved Folder Attachment for Hemmers, of which the following is a full, clear, and exact description.

This invention relates to sewing-machines, and especially to such machines when used with hemmers.

The object of the invention is to provide an attachment for such machines affording means for folding the material before presenting the same to the hemmer, the general purpose being to dispense with hand operators, who fold the goods in the same manner.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

Figure 1 is a perspective view showing a portion of a sewing-machine to which my invention has been applied, certain parts being broken away. Fig. 2 is a plan view of the folder. Fig. 3 is an end elevation of the folder. Fig. 4 is a vertical cross-section through a part of the folder, taken on the line 4 4 of Fig. 2 and on an enlarged scale. Fig. 5 is a longitudinal section through the same part of the folder in a plane substantially at right angles to the line 4 4. Fig. 6 is a cross-section on the line 6 6 of Fig. 2 and upon an enlarged scale; and Fig. 7 is a fragmentary plan showing a portion of the folder as represented in Fig. 2, and showing the guide in an adjusted position, exposing a slot in the plate which facilitates the passing of the goods to the folder.

Referring more particularly to the parts, 1 represents the table of a sewing-machine upon which the usual base-plate 2 is attached. This base-plate is provided with the usual mechanism, which is not shown, the same being for the purpose of operating a needle-bar 3. Adjacent to this needle-bar a hemmer or hemming mechanism 4 is attached in the usual manner, said hemmer comprising a tongue 5, which projects bodily from the table 1, and receiving-lips 6 and 7, disposed on opposite sides of the said tongue, as indicated.

The body 8 of the improved folder attachment consists of a substantially horizontal plate suitably supported on a shelf 9 by

means of adjustable brackets 10, as shown. One extremity of the plate 8 is formed with a scroll or roll 11, the same increasing toward the edge 12, which is adjacent to the sewing-machine and beginning substantially at the edge 13, which is remote therefrom, as indicated most clearly in Figs. 2 and 3. Near the edge 12 and near the overhanging edge 14 of this scroll I attach an adjustable guide-plate 15, the same having an elongated shank 16 with a slot 17 therein, through which a clamping-bolt 18 passes. The construction of this guide-plate is shown very clearly in Fig. 4. It is substantially T-shaped in plan, as indicated in Fig. 2, its body being disposed longitudinally of the edge 11 and fitted at its outer edge with a downwardly-bent flange 19, as indicated most clearly in Fig. 4.

Preferably at the edge 20 of the plate 8, which lies opposite the edge 11, I attach a holder 21, the same consisting of an elongated arm 22, provided with a laterally-disposed foot 23, which is attached rigidly to the plate, as indicated. At its outer extremity the arm 22 is provided with a longitudinally-disposed slot 24, at which point a tongue 25 is attached by means of suitable bolts 26, passing through the aforesaid slots. This tongue 25 is attached to a base-plate or body-plate 27, disposed therebeneath and through which the bolts 26 also pass. The base-plate 27 projects in the same direction as the arm 22, so as to constitute an extension thereof. The tongue 25 extends, however, beyond the extremity of the plate 27 and is preferably curved or bowed upwardly, as shown. Through the body of the tongue 25 an adjusting-bolt 28 passes upwardly, the lower extremity of the said bolt being attached to the extremity of the body-plate 27. A threaded thumb-nut 29 is attached on the extremity of this bolt above the tongue, and a spring 30 is arranged between the tongue and the body-plate 27, which tends to incline the tongue upwardly, as will be readily understood. Evidently by adjusting the thumb-nut 29 the tongue 25 may be elevated or depressed, as desired. The extremity of the tongue 25 is bent over, so as to form a curved shoe 31, as indicated most clearly in Fig. 6, and the curvature of this shoe conforms substantially to the curvature of the scroll 11, near which the shoe is held. The outer face of this shoe 31 is preferably covered with a facing 32 of canvas or similar material.

On the upper side of the plate 8 and preferably substantially beneath the guide 15 I provide a leaf-spring 33, attached rigidly to the plate at its edge 34 which lies remote from the hemmer. The spring is of substantially rectangular form and extends longitudinally under the body of the guide 15, as indicated most clearly in Fig. 2. The body of this spring 33 is preferably inclined upwardly toward its middle, as indicated most clearly in Fig. 5. Adjacent to the plate 8 an inclined chute or slide 35 is provided, the edge whereof rests against the edge 13 of the plate 8. The chute 35 is attached adjustably to the upper edge of a rail 37 of a suitable feed-table 36, which is adapted to receive the goods before passing through the machine. The end 38 of the table, remote from the sewing-machine, is preferably provided with an inclined shelf 39, hinged thereto, as shown at 40. The upper face of the chute 35 is preferably provided with a covering of canvas or similar material, and the edge 35^a of the chute is slightly curved so as to fit the curve of the roll 11 and so that the folding of the goods is initiated in a manner to be hereinafter described as the material passes on the folder-plate.

It is to be understood that in using this attachment a considerable length of the goods will be fed continuously to the machine, so that a continuous hem is made on its edge. After both edges are treated in this way the goods may be cut up into suitable lengths to form handkerchiefs or similar articles and the cut edges will be hemmed afterward.

The goods will be fed to the folder, as indicated in Fig. 2, where a portion of the incoming material is indicated in dotted lines at 41. From an inspection of this figure it will be seen that the right edge 42 of the material conforms itself as it advances to the shape of the scroll 11. When the material arrives at the guide 15, the raw edge 42 will lie substantially against the inner side of the flange 19 of the guide, as indicated most clearly in Fig. 4. The hemmer-tongue 5 being placed just beneath this guide 15 and under the scroll 11 receives the goods, as indicated in Fig. 4. The fold 43 of the goods lies on the upper side of the tongue, while the body 44 of the goods passes under the same. The spring 33 operates at this time to hold the body of the goods up against the under side of the tongue, as will be readily understood. In this way as the goods advances to the hemmer it is presented in a neat fold. The width of this fold is determined by the position of the guide 15. As indicated in Fig. 2, the guide is adapted to make a fold of mean width. Evidently if the guide were moved into an adjusted position toward the left the width of the fold would be increased.

The function of the tongue 25 is to press the material by means of the shoe 31 against

the entrance to the scroll or roll 11, which assists in maintaining the goods in its proper position and alinement as it advances. By means of the thumb-head 29 the degree of pressure at the shoe 31 may be nicely adjusted, and evidently by reason of the slot 24 the tongue may be adjusted bodily, so as to be advanced toward or withdrawn from the scroll 11.

In Fig. 2 the relation of the folder with respect to the hemmer-tongue is very nicely shown. It should appear from this figure that the hemmer-tongue lies under the edge of the roll 11 just beneath the guide 15 and in position to take the folded goods as the operation progresses.

The spring 33, referred to above, is preferably covered on its upper side with a facing-strip 45 of canvas or similar material.

I prefer to make one of the side rails 37^a on the table 36 adjustable, and for this purpose I provide the same with laterally-projecting arms 46, provided with slots 47, which receive clamping-bolts, as shown.

In practice where the folder is to be used to turn folds varying greatly in width I prefer to make the plate 8 in sections 8^a and 8^b, rigidly connected along a transverse line 48. From this arrangement the sections 8^a 8^b may be given any suitable construction adapting them to the particular widths assigned to that plate.

As indicated most clearly in Fig. 7, the roll 11 of the folder-plate 8 is provided with a longitudinally-disposed slot 49, the purpose of which is to facilitate the passing of the goods through the folder when the machine is about to be set in operation. Evidently by reason of this slot a pointed instrument, such as a stout pin, can be inserted so as to engage the goods and advance the same longitudinally toward the hemmer. Near the edge 13 on the roll 11 I attach a clip 11^a, which presents an overhanging lip adapted to engage the side edge of the advancing goods. This clip thus operates as a stop to assist in keeping the material in proper alinement.

While I have described the folder-plate 8 as being substantially horizontal, I prefer in practice to arrange it slightly depressed at the edge where the roll 11 is formed. From this arrangement the material manifests a tendency to work slightly toward the right, and this tendency operates to keep the edge of the goods constantly against the flange 19 of the guide 15 and against the clip 11^a. In this way a fold of constant width is maintained as the sewing operation progresses.

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

1. A folder for sewing-machines, comprising a plate having a roll formed at one edge thereof, presenting a space adapted to

receive the hemmer-tongue of said machine, a spring attached on said plate under said hemmer-tongue, and a guide attached to said plate and presenting a downwardly-projecting flange adjacent to said roll.

5 2. A folder-attachment for sewing-machines, comprising a plate presenting a scroll adapted to fold the goods at one edge, and a holder having a body attached to said plate
10 opposite said scroll, a tongue attached to said body and pressing the goods against the inner side of said scroll, a resilient member constraining said tongue, and means for adjusting said tongue toward said resilient
15 member.

3. A folder attachment for sewing-machines, comprising a plate adapted to fold the goods at one edge, and a holder having a body, a tongue attached to said body and pressing the goods against said plate, a resilient member constraining said tongue, and means for adjusting said tongue toward said resilient member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDWARD F. GIBBONS.

Witnesses:

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PATRICK J. MCGOVERN.