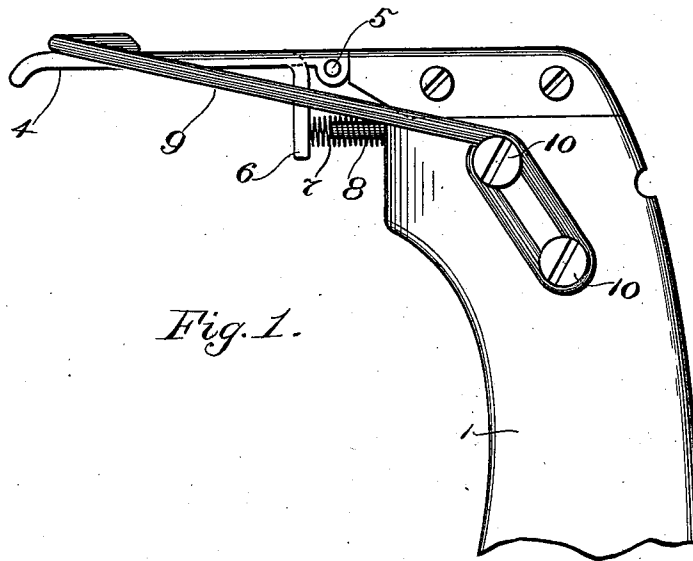
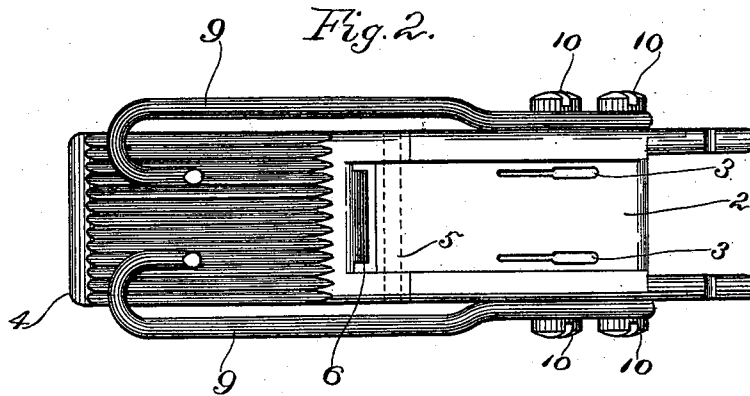


(No Model.)

F. W. MERRICK.
STAY GUIDE FOR SEWING MACHINES.

No. 570,037.

Patented Oct. 27, 1896.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK W. MERRICK, OF BOSTON, MASSACHUSETTS.

STAY-GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 570,037, dated October 27, 1896.

Application filed August 18, 1896. Serial No. 603,118. (No model.)

To all whom it may concern:

Be it known that I, FRANK W. MERRICK, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Stay-Guides for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to stay-guides for sewing-machines; and it consists in an improved stay-guide which is designed more especially for machines that are adapted to sew leather.

In the construction of boots and shoes and 15 the like strips of leather or stay-pieces frequently are employed, they requiring to be secured in place by sewing. While being sewed to the leather the stay-piece should be properly guided, so that it may be placed 20 evenly and neatly. In the case of stay-pieces of uniform width they have been guided by means of a slot in the work-rest or table of the machine, or in a device applied thereto, but this mode of guiding is objectionable because the stay-piece cannot readily be inserted 25 into the slot. Such a guiding means is not adapted to receive stay-pieces of irregular shape. Therefore it has been common heretofore not to employ a guide in sewing on 30 such a stay-piece, but to rely upon the operator being able to hold and guide the stay-piece properly with his thumb and finger while the sewing was being effected. This is difficult for the operator properly to perform. 35 It imposes an unnecessary strain upon him, and otherwise is objectionable.

The aim of the present invention is to obviate the objections above noted and to provide a device of such character that stay- 40 pieces of any shape may be inserted readily into the guide without causing delay or trouble to the operator, while stay-pieces of irregular shape will be guided properly.

The invention consists in a stay-guide of 45 improved and novel construction which is shown in the accompanying drawings, and which first will be described fully with reference to the said drawings, after which its distinguishing characteristics will be more particularly pointed out and distinctly defined in 50 the claims at the close of this specification.

Figure 1 of the drawings shows in side ele-

vation part of the work-post of a sewing-machine with a stay-guide embodying my present invention applied thereto. Fig. 2 is a 55 view showing in plan the devices which are represented in Fig. 1.

1 designates the work-post, only the upper portion thereof being shown.

2 is the throat-plate at the upper end of the 60 work-post.

3 3 are the needle-holes which are formed through the throat-plate.

4 is a table or support over which the stay-piece is drawn as it passes along to the needles which work in the said needle-holes 3 3, 65 the said table or support being pivotally supported at the end thereof which is next the throat-plate, as shown at 5.

6 is a depending lug with which the table 70 or support 4 is provided.

7 is a spring which is placed between the said lug and a suitable fixed abutment, the latter being constituted in the present case by the upper end of the work-post 1. 8 is a 75 pin projecting from the work-post and into the said spring 7 to retain the latter in place.

9 9 are arms which are secured to the opposite sides of the work-post 1 by screws 10 10. The free ends of the said arms extend 80 inwardly over the upper surface of the table 4, and are recurved, as shown, so that their extremities extend for a short distance in the direction of the length of the said table. These portions of the said arms bear against 85 the said upper surface on lines which are parallel with the line of feed of the stay-piece as it passes forward to the needle-holes 3 3, and they are symmetrically disposed with reference to the said needle-holes; that 90 is to say, they are at equal distances on opposite sides of a line extending midway between the latter. When a stay-piece is to be secured in place, its leading portion is brought over the throat-plate, with its end or ex- 95 tremity adjacent to the needles. The operator, having with one hand hold of the other portion of the stay-piece at or near the free extremity thereof, meanwhile pressing upon or holding fast the advance portion, so as to 100 keep it in place on the throat-plate, then forces the rear extremity of the stay-piece downwardly, so as to carry the portion of the stay-piece which is directly over the curved

ends of the guide-arms downwardly into line with the said arms. A continuation of the pressure will force the middle portion of the stay-piece downwardly between the ends of the said arms, first carrying the said middle portion into contact with the upper surface of the table 4 and then bearing the outer portion of the said table downwardly. At first the side edges of the stay-piece will be caused to curl upwardly by the free ends of the guide-arms 9 9, but as soon as the table 4 has been depressed sufficiently to permit the said edges to pass downwardly between the free ends of the guide-arms the said edges will spring outwardly under the said ends of the guide-arms and the stay-pieces will flatten out smoothly against the upper surface of the table 4. As soon as the strain upon the stay-piece is relaxed the table 4 is caused to rise by the action of the spiral spring 7 until it assumes its normal position, and thereby the stay-piece is gripped at two points, namely, between the free ends of the guide-arms and the proximate surface of the table 4. The pressure of the yielding support is such as to produce enough resistance to the forward feed of the stay-piece to hold the stay-piece taut, while at the same time allowing it to be drawn over the table as the work is fed forward. Since the two points at which the stay-piece is engaged by the ends of the guide-arms are disposed symmetrically with reference to the line of feed, the forward feeding of the work operates to draw the stay-piece forward evenly, so that it is guided evenly and held in proper position while being sewed in place.

The device described operates equally well with stay-pieces which are of uniform width throughout their length and with stay-pieces

which are larger at one end than at the other, that is, the sides of which flare outwardly at one end, as commonly is the case with stay-pieces such as are used to cover the back seam of a shoe-upper. Preferably I corrugate the upper surface of the table 4 in order to enable it to engage better with the material of the stay-piece and guard against lateral swerving of the same as it advances to the needles.

I claim as my invention—

1. The combination with the work-post, and the throat-plate applied thereto, of the table 4 pivotally supported at the end thereof which is next adjacent to the throat-plate, the spring acting to press the said table upwardly, and the guide-arms 9, 9 having the free extremities thereof arranged to overlie the said table and engaging with the upper surface of the latter on lines parallel with the line of feed, substantially as set forth.

2. The combination with the work-post, and the throat-plate applied thereto, of the table pivotally supported at the end thereof which is next adjacent to the throat-plate, the said table having longitudinal grooves or corrugations therein to engage with the material of the stay-piece, the spring acting to press the said table upwardly, and the guide-arms 9, 9, having the free extremities thereof arranged to overlie the said table and engaging with the upper surface of the latter on lines parallel with the line of feed, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK W. MERRICK.

Witnesses:

CHAS. F. RANDALL,
WM. A. MACLEOD.