

No. 610,323.

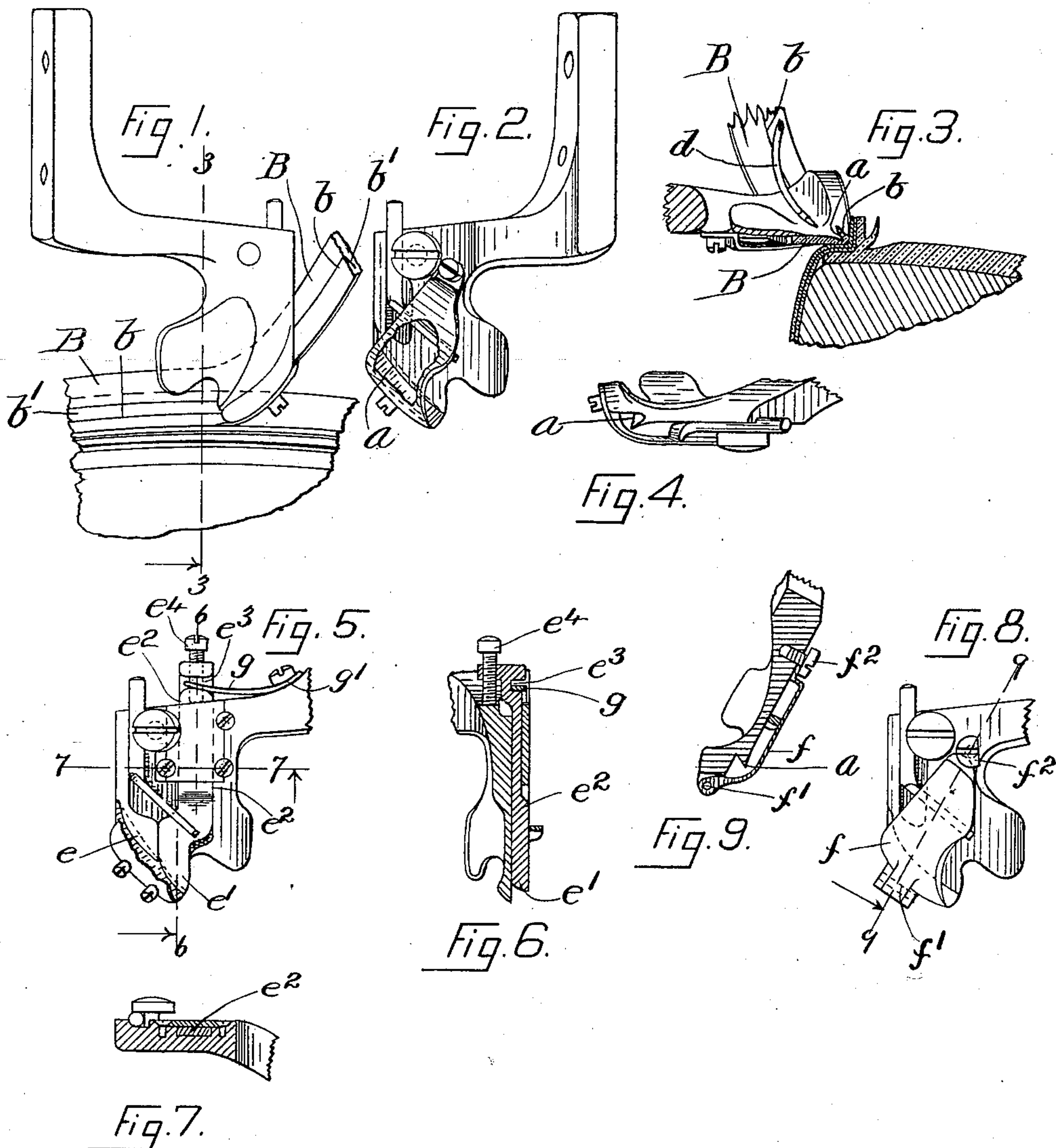
Patented Sept. 6, 1898.

W. J. DREY.

WELT GUIDE.

(Application filed June 11, 1897.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

WILFRED JOHN DREY, OF PHILADELPHIA, PENNSYLVANIA.

WELT-GUIDE.

SPECIFICATION forming part of Letters Patent No. 610,323, dated September 6, 1898.

Application filed June 11, 1897. Serial No. 640,280. (No model.)

To all whom it may concern:

Be it known that I, WILFRED JOHN DREY, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Welt-Guide, of which the following is a specification, reference being had to the accompanying drawings.

The present invention relates to sewing-machines for sewing the welt to the under side and upper of a boot or shoe, and more particularly to an improved welt-guide for use in such machines.

The object of the present invention is to guide a channeled welt to the stitch-forming mechanism of the machine and to so arrange said welt-guide that it will gradually open and turn up the channel lip or flap of the welt in such position that as said welt emerges from the welt-guide the channel lip or flap will be raised up to open the channel, so that the stitches of the inseam may be placed in such channel.

To the above end the present invention relates to the devices and combinations of devices which will be hereinafter described and claimed.

The present invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan showing my new welt-guide and a portion of a shoe. Fig. 2 is a view of the under side, partly broken away. Fig. 3 is a section on line 3 3 of Fig. 1, showing also the needle of the sewing-machine. Fig. 4 is an edge view. Fig. 5 is a like view to Fig. 2 of a modified form. Fig. 6 is a section on line 6 6 of Fig. 5, looking in the direction indicated by the arrow. Fig. 7 is a section on line 7 7 of Fig. 5. Fig. 8 is a view of the under side, showing another feature of my invention. Fig. 9 is a section on line 9 9 of Fig. 8.

In Figs. 1 to 4 I have shown the simplest form of my invention. In this form the welt-guide is the same in its construction as the ordinary welt-guide, except that it is provided with the lip-turner *a*, fastened to or integral with the body of the guide. This lip-turner is shaped like a plowshare, being nearly parallel with the body of the guide at one end and rising gradually until it is nearly perpendicular to the body of the guide at the other.

The shape of the lip-turner *a* serves to turn

the lip *b* of the channel *b'* in the welt *B* back, so that when the welt emerges from the guide the lip *b* will be held almost perpendicular to the surface of the welt and allow the needle *d* to enter the welt at the bottom of the channel, as will be clear from Fig. 3.

I am aware that a projection on the body of the welt-guide to cause the welt to bend is old and well known, but I am the first, so far as I know, to provide a welt-guide with a projection adapted by its shape to turn back the lip of a channel in the welt, and this is the main feature of my invention.

It sometimes happens that the channel or the welt is deeper at one place than at another, and in order to have the lip-turner follow these irregularities in the channel I make the lip-turner as shown in Figs. 5 to 7. In these figures the lip-turner is made in two parts *e e'*, which are normally in line and form together a lip shaped similarly to the lip-turner *a* of Figs. 1 to 4. The part *e* of this lip-turner is fast to the body of the welt-guide, while the part *e'* is mounted in a slide *e²*, which slides in a groove cut in the body of the welt-guide. The leaf-spring *g*, one end of which is secured to the body of the guide at *g'* and whose other end fits into a transverse slot *e³* in the slide *e²*, allows the part *e'* of the lip-turner to move in and out as the irregularities in the depth of the channel occur, and the inward motion of part *e'* is limited by screw *e⁴*, screwed into the end of slide *e²*, the end of which is arranged to engage a fixed portion of the welt-guide, and this construction of the lip-turner in two sections, one of which is fast to the body of the guide and the other is free to move in and out, is another feature of my invention.

In Figs. 8 and 9 I have shown another feature of my invention. In these figures the shield *f*, which confines the welt in the guide, is hinged to the body of the guide at *f'*. The screw *f²*, whose head is partly cut away, serves to hold the shield *f* closed, and by turning the screw until the cut-away portion of the head comes over the shield the operator is enabled to open the shield and lay the welt in place on the guide. This feature of my invention is one of great practical importance when my channeled welt is used, as the construction of the lip-turner and the channel

on the welt renders it extremely difficult to tuck the welt into the guide, as has been the practice in all welt-guides known to me.

What I claim as my invention is—

- 5 1. A welt-guide provided with a channel-opener to engage the channel of a channeled welt and raise the channel lip or flap as said welt is drawn through the guide, substantially as described.
- 10 2. A welt-guide provided with a lip-turner comprising a fixed part and a movable part, substantially as described.
3. A welt-guide provided with a lip-turner comprising a fixed part and a movable part,

a slide carrying the movable part, a spring 15 acting upon said slide and an adjustable stop to limit the movement of said slide in one direction, substantially as described.

4. A welt-guide provided with a shield hinged to said guide at its outer end to swing 20 in a plane at right angles to the plane of the guide, and means to hold the shield closed, substantially as described.

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Witnesses:

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