(No Model.)

W. J. DIX.

SEWING MACHINE ATTACHMENT.

No. 590,091. Patented Sept. 14, 1897.

Fig. 1.

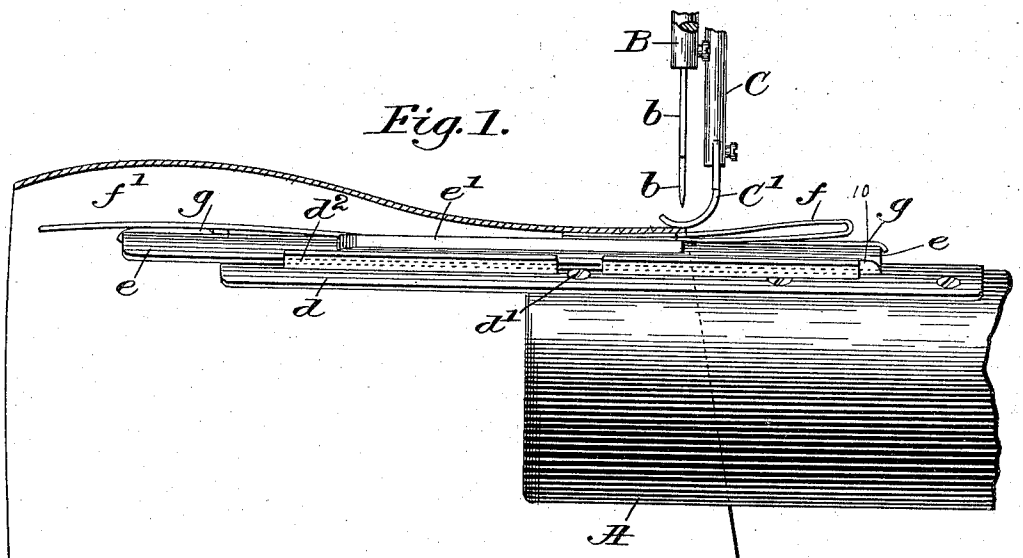


Fig. 4.

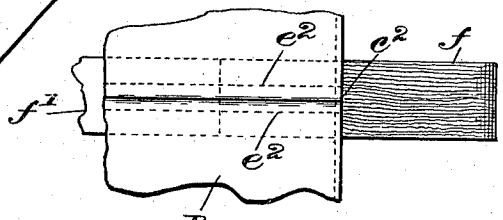


Fig. 2.

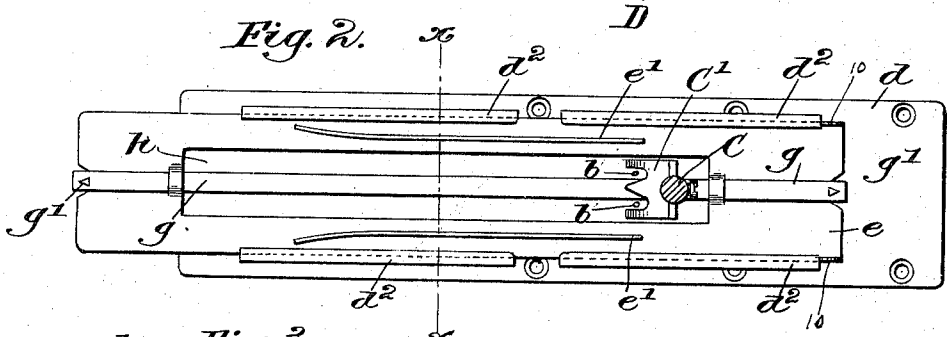


Fig. 3.

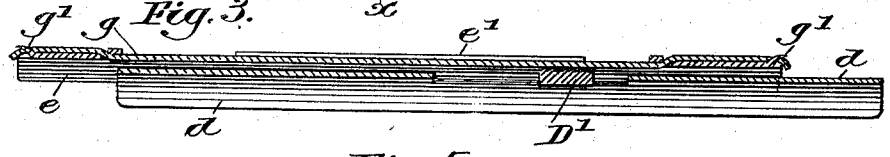


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM J. DIX, OF MILFORD, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WILLIS B. TEMPLE.

SEWING-MACHINE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 590,091, dated September 14, 1897.

Application filed May 19, 1897. Serial No. 637,183. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. DIX, of Milford, county of Worcester, State of Massachusetts, have invented Improvements in Sewing-Machine Attachments, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of a novel attachment for sewing-machines whereby a pulling-on or boot strap and its attached stay may be applied to a boot or shoe.

In accordance with my invention I have devised a traveling guide in which the strap and stay is laid, and the said guide is moved by the action of the usual feeding device, it having imparted to it usual movements, the said feeding device working against a strip attached to the guide and occupying a position between the two needles used on the needle-bar, the said strip preventing the contact of the feeding device with the stay, thus avoiding marring and scratching the same, so that said stay where it is exposed within the boot or shoe presents a neat and smooth appearance.

Figure 1, in side elevation, represents a portion of a sewing-machine of well-known construction with my improvements added to enable my invention to be understood, the figure showing the boot or shoe and strip and stay in position. Fig. 2 is a top or plan view of the attachment. Fig. 3 is a longitudinal section of Fig. 2. Fig. 4 illustrates part of the boot with its attached strap to show the two rows of stitches used; and Fig. 5 is a section in the line x, Fig. 2.

The arm or cylinder A, the needle-bar B, it being provided with two needles b b, one of which is shown as partially broken off in Fig. 1, they entering two suitable needle-holes at b' b' in any usual throat-plate, the presser-bar C, it having a presser-foot C', having two notches (see Fig. 2) to permit the passage of the two needles, the central part of the said presser-foot in practice having a guiding projection or keel to enter the seam-crevice c^2 at the back seam of the boot or shoe upper D, (see Fig. 4,) and the feeding device D' (see Fig. 3) are and may be all as usual and common in any usual sewing-machines adapted to sew parallel seams. To this arm or cylinder A, of whatever form, I attach a raceway d, using suitable screws d'. This raceway has suitable ears d^2, within which is placed the guide e, it being free to be slid back and forth in the said ears.

The guide has strap-holding walls e', which are so shaped and located as to permit the boot-strap f and its stay f' to be laid between them smoothly and evenly, the said walls preventing any lateral displacement of the said strap and stay while it is being stitched to the boot or shoe by the two rows of stitches e^2 e^2, one each side the seam-crease c^2.

The guide has suitably connected to it a feed-engaging strip g, it being composed, preferably, of a non-metallic material, such as leather, the ends of the strip, as herein shown, being caught over prongs g', connected with or forming part of the guide. (See Figs. 2 and 3.)

To attach a strap and stay, the guide will be drawn to the left, viewing Fig. 1, and the strap and stay will be laid in between the walls e', leaving the paper-covered end loop of the strap extended out to the right beyond the right-hand ends of the said side walls, and then the boot or shoe, its back seam having been united, will be put on the arm and over the raceway and laid on the combined strap and stay, and the presser-foot having been lowered on the boot or shoe the machine will be started, and the usual feeding device, contacting with the feed-engaging strip, will act to feed the guide longitudinally through the raceway used and with it the strap and stay and the boot or shoe until the two rows of stitches e^2 e^2 have been completed to the lower end of the heel-seam of the quarter or top, the said two rows of stitches being made through the strap and stay, thus uniting them firmly to the boot or shoe. Heretofore this strap and stay have had to be guided by hand, and the boot or shoe has had to be frequently lifted or turned up during the stitching operation to see whether or not the strap and stay was in just the proper position; but by the

use of this guide this is entirely unnecessary and the work can be done better, much more quickly, and by an unskilled operator.

The feeding-strip *g* is stretched in the space *h* from one to the other end of the guide.

The outward movement of the guide may be limited by stops 10 (see Figs. 1 and 2) at its end, which may contact with the ends of the ears d^2, thus leaving the guide in position to receive another strap and stay and boot or shoe.

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

1. A sewing-machine attachment for controlling boot straps and stays, the same consisting of a raceway and a guide free to be slid therein, the said guide having side walls to receive and position the side edges of the strap and stay to be presented to the boot or shoe to be stitched thereto, substantially as described.

2. A sewing-machine attachment for controlling boot straps and stays, the same consisting of a raceway and a guide free to be slid therein, the said guide having side walls to receive and position the side edges of the strap and stay to be presented to the boot to be stitched thereto, and a feed-engaging strip which may be engaged by the usual feed device of a sewing-machine to thereby slide the guide in the raceway, substantially as described.

3. The raceway, a guide free to slide therein and having an elongated central slot, and a non-metallic feed-engaging strip stretched longitudinally through the central portion of the said slot leaving a space at each side of the said strip in which the needles may work, combined with a presser-foot adapted to enter the slot of said guide and bear on the said non-metallic strip during the feeding operation, substantially as set forth.

4. A sewing-machine attachment for controlling boot straps and stays, the same consisting of a raceway and a guide free to be slid therein, the said guide having side walls to receive and position the side edges of the strap and stay to be presented to the boot to be stitched thereto, and a non-metallic feed-engaging strip which may be engaged by the usual feed device of a sewing-machine to thereby slide the guide in the raceway, substantially as described.

5. A sewing-machine attachment for controlling boot straps and stays, the same consisting of a raceway and a guide free to be slid therein, the said guide having side walls to receive and position the side edges of the strap and stay to be presented to the boot to be stitched thereto, and a feed-engaging strip which may be engaged by the usual feed device of a sewing-machine to thereby slide the guide in the raceway and having a stop to limit the extent of outward movement of said guide, substantially as described.

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

WILLIAM J. DIX.

Witnesses:
WILLIAM K. COOMBS,
ERNEST H. ADAMS.