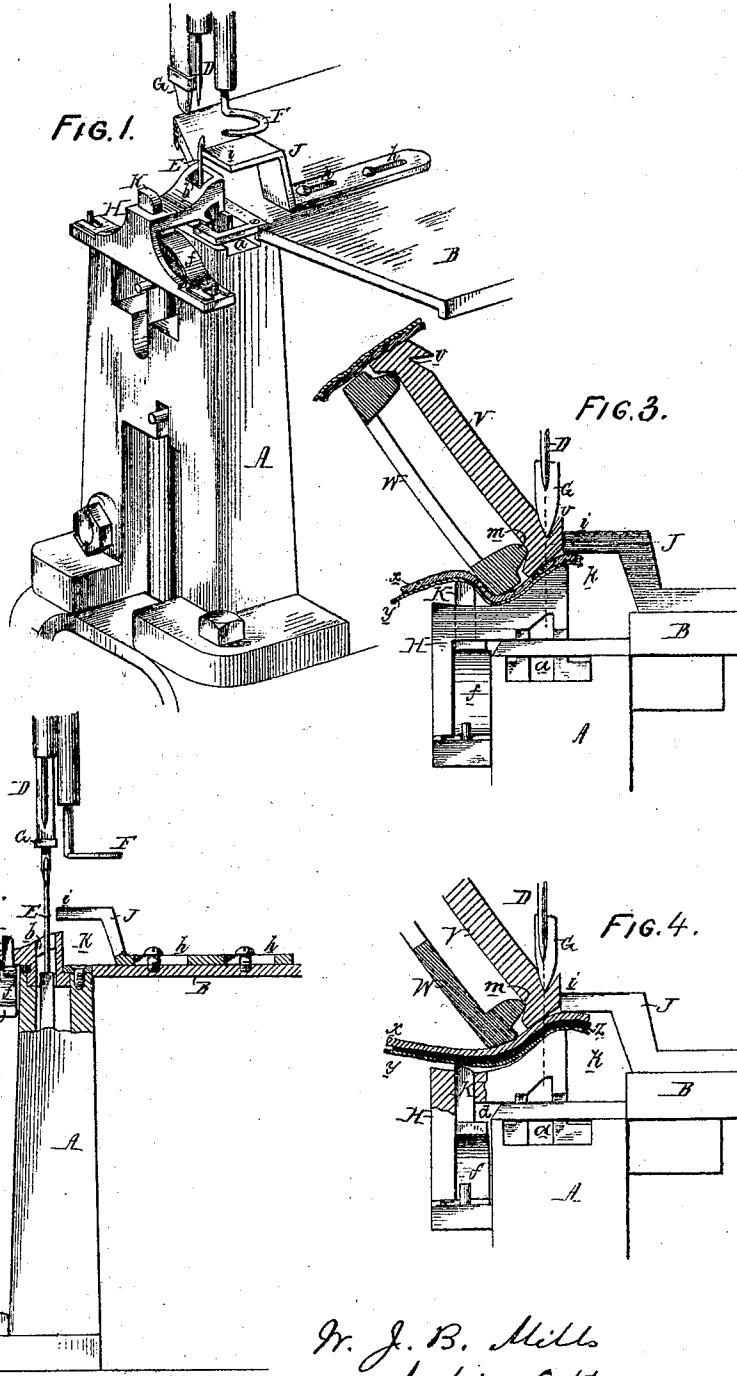


W. J. B. MILLS.

Sewing-Machine for Boots and Shoes.

No. 131,291.

Patented Sep. 10, 1872.



WITNESSES,

John Dexter
Thomas McSwain

W. J. B. Mills
by his Atty.
Stowman and son

UNITED STATES PATENT OFFICE.

WILLIAM J. B. MILLS, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO DE WITT C. TAYLOR, TRUSTEE, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 131,291, dated September 10, 1872.

Specification describing an Improvement in Machines for Sewing Shoes, invented by WILLIAM J. B. MILLS, of the city and county of Philadelphia and State of Pennsylvania.

Improvements in Machines for Sewing Shoes.

My invention consists of certain improvements, too fully explained hereafter to need preliminary description, in the supporting, guiding, and guarding devices of a wax-thread sewing-machine.

In the accompanying drawing, Figure 1 is a perspective view of sufficient of a shoe-sewing-machine to illustrate my improvements; Fig. 2, a vertical section of Fig. 1; Fig. 3, an enlarged view illustrating the operation of that part of the machine to which my invention especially relates; Fig. 4, the same as Fig. 3, showing the position of the parts when operating upon any projecting portion of the shoe.

A represents a pedestal, and B a horizontal plate secured to the same, both forming part of the fixed frame of a wax-thread sewing-machine, and D is the awl; E, the hooked needle; F, the thread-guide; and G, the wedge-shaped presser-foot adapted to the channel in the sole of the shoe to be operated upon.

All of the above parts are well known and form no part of my invention, which consists of a throat or rest-plate H on the pedestal, and of a guard, J, secured to the plate B, or any other convenient support. The throat or rest has a vertical slot, *b*, for the passage of the awl and needle. The top of the rest is, in the present instance, perfectly smooth and plain, and is curved upward, in the manner plainly shown in the drawing, from its outer edge toward the needle, the slot for the passage of the latter being formed in the highest portion of the said rest. The face of the rest may be made to correspond with the shape of the work presented to it. A recess, *d*, is formed in the outer and lower portion of the rest for the reception of a spring, *f*, which has a constant tendency to elevate a stud, K, adapted to a slot in the rest and caused to project above the latter. The guard J, before referred to, is of the peculiar shape best observed in Fig. 1, and is secured to the plate B by screws passing through slots *h* in such a manner that it can

be adjusted longitudinally toward or from the rest. The outer end *i* of this guard is situated at a short distance above and slightly overlaps the throat-plate, and is so constructed that a recess, *k*, shall be formed beneath it for the reception of that portion of the edge of the upper and lining of the shoe which projects beyond the sole during the stitching operation. The upper and sole are applied to the last and the work presented to the machine, as shown in Figs. 3 and 4. The rest, the guard J, and guide K form together a recess or pocket, in which the shoe, as it is fed to the needle, is retained at such an inclination and in such position laterally that the open channel shall always be directly in the range of the awl and needle. It will be observed, on referring to Figs. 3 and 4, that the portion of the sole for receiving the stitches is confined between the border *m* of the last and the outer end *i* of the guard J, the latter bearing against the sole between the channel V and the feather-edge below the channel. By this arrangement the work is effectually held in the best possible position for forming the stitches. It will also be observed, on reference to Fig. 3, that the portion of the edge of the upper and lining, which projects beyond the edge of the sole and beyond the line of stitching, is turned down by the guard J into the recess *k* beneath the said guard, and is thus prevented from intervening between the latter and the edge of the sole. This is an important feature of my invention, for the interposition of the irregular and puckered border of the upper and lining between the guide and sole would cause irregular sewing but for the said recess *k*.

The importance of the yielding stud will be understood when it is borne in mind that some parts of the shoe project more than others, and that the stud will accommodate itself to these variations in the shape of the shoe. The rest, with its yielding guiding-stud, could be used independently of the guard J, and the latter could be used in connection with the ordinary throat-plates; but I prefer to combine the improved throat-plate and guard in the manner above described.

I claim as my invention—

1. The combination of the rest H and a sta-

tionary guard, J, overhanging the rest, but free from contact therewith, all adapted to a sole and upper carried by a last, W, constructed as described.

2. The combination of the rest, adapted to the shape of the work substantially as described, and the yielding stud K.

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

WILLIAM J. B. MILLS.

Witnesses:

WM. A. STEEL,
JOHN K. RUPERTUS.