

UNITED STATES PATENT OFFICE.

FRANK D. WALDEN, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO BRADLEY & METCALF, OF SAME PLACE.

BRACING OR STAYING ATTACHMENT FOR BUTTON-HOLE SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 326,811, dated September 22, 1885.

Application filed January 27, 1885. (No model.)

To all whom it may concern:

Be it known that I, FRANK D. WALDEN, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Bracing or Staying Attachments for Button-Hole Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in button-hole sewing-machines, whereby button-holes may be stitched and bracing or staying stitching also may be done.

The object of my improvement is to provide a device for bracing or staying the slit and button-hole lap of shoes. Heretofore the so-called "brace" or "stay" of shoes, which in laced shoes is formed at the lower end of the slit, and in button shoes is formed at the junction of the lap and quarters, has been made by hand. To dispense with such hand labor, I have made an attachment to be used with a button-hole sewing-machine, by which I am enabled to easily and rapidly accomplish such work.

My invention is explained by reference to the accompanying drawings, in which Figure 1 represents a perspective view of my device attached to the head of a button-hole sewing-machine. Fig. 2 represents a sample of the work performed with my attachment. Fig. 3 is a detail showing a plate or shield which forms a flat surface for the fabric beneath the presser-foot.

When stitching button-holes of shoes, no presser-foot is used, but instead a rotating clamp, which is operated by the mechanism below, is used to hold and guide the upper of the shoe while the hole is being worked. Beneath the rotating clamp thus used in stitching button-holes is a permanently-affixed flange or elevation, (shown in section in Fig. 3,) which projects above the bed-plate in such a manner as to interfere with the work of staying or bracing shoes, and to overcome the difficulty arising from such flange for such special work,

and to provide a smooth level surface, as required for the work, it becomes necessary to provide a leveling-plate, (represented by A,) the upper surface of which is flush with the top of said flange, whereby a level surface is formed for supporting the work while being braced or stayed as mentioned. The leveling-plate A is provided with a central opening, *a*, for the reception of the flange or elevation, to which it is nicely fitted, which forms a level surface for the fabric to rest upon while being stayed. In the center of the plate A is formed an opening, *a*, through which the needle passes.

When bracing or staying a shoe, as described, and as shown at *x* in Fig. 2, the work is not moved, but instead it is necessary to hold the work at a fixed point with the part to be braced or stayed directly over the opening *a* and beneath the needle, and that the work may be properly performed it becomes necessary to provide a device which will thus rigidly hold the work in place. To accomplish this end, I provide the bar B, having the broad bearing plate or foot C, at the front end of which is formed a wide slot or recess, D, and arms *d d*. The width of the slot D is such as to permit of the right-and-left movement made by the needle as it pierces the material upon the respective sides of the contiguous edges of the quarter and button-lap, or, as the case may be, when doing similar work upon any fabric or wearing-apparel.

The bar B is attached to the head of the machine by the temporary retaining-bracket E within the lugs F and G, through which lugs it is moved upward and downward, as required, when inserting or removing the work. The bar B is pressed down upon the work by the spiral spring H, and is raised by the cam I, which cam is affixed to the bar B by clasp J and pin or screw K.

A guide-slot, L, is formed in the lower lug, G, for the reception of the lug M, which serves to prevent the bar B, with its foot, from turning, while it permits of their free vertical movement.

The bracket E is temporarily attached to the side of the machine-head by screws *b b*.

When desirous to use the machine for working button-holes, it is necessary to remove the presser-foot C and the plate A only, and to sub-

stitute for the plate A the rotating clamp mentioned, when the machine is ready for working button-holes.

I am aware that presser-bars and presser-feet, in connection with a spring and lifting-cam, have long been in use with ordinary sewing-machines, and I therefore do not claim such devices.

What I do claim as new, and desire to secure by Letters Patent, is—

In a button-hole sewing-machine, the combination, with the presser-foot affixed to the head of the machine, and with the bed of the machine having an elevation or upward-projecting flange around the needle passage or

opening, of a stationary leveling-plate having a central opening for the reception of said elevation or flange, said plate serving to form a stationary level surface flush with the top of said flange or elevation upon which the work is rigidly held in a stationary position by said presser-foot while being stitched or stayed, substantially as and for the purpose set forth.

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

FRANK D. WALDEN.

Witnesses:

JAS. B. ERWIN,
C. T. BENEDICT.