

Sewing Machine.

No. 50,451.

Patented Oct. 17, 1865.



Witnesses.

J. W. Coombs
A. W. Reed.

Inventor:

Chilcott
per Brown.

UNITED STATES PATENT OFFICE.

JOHN CHILCOTT, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 50,451, dated October 17, 1865; antedated October 4, 1865.

To all whom it may concern:

Be it known that I, JOHN CHILCOTT, of No. 70 Fulton street, in the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are vertical sections at right angles to each other of portions of a sewing-machine illustrating my invention.

Similar letters of reference indicate corresponding parts in both figures.

In closing the uppers of shoes and gaiters, and in many other kinds of work performed by the sewing-machine upon leather and other hard materials, it is very desirable to obtain a depression of the exposed surfaces of the stitches below the surface of the leather or other material for the purpose of protecting them from wear and producing a neater appearance. This cannot be done in a sewing-machine of ordinary construction without giving the thread such an excessive tension as to render it liable to frequent breaking in the sewing operation, and even then is only imperfectly done in many cases.

The object of my invention is to obtain this depression in a more perfect manner and without the breakage of the thread; and to this end it consists in the attachment to the needle-plate or needle-die or to the work-plate and to the presser-foot of what may be termed "furrowing-pieces," which, without cutting the leather or other material, and by simple pressure, may produce therein in the line of sewing continuous furrows or indentations for the reception of the exposed portions of the stitches.

To enable others skilled in the art to make and use my invention, I will proceed to describe it with reference to the drawings.

A is the work-plate of the sewing-machine, B the needle-die, C the stationary arm, D the presser-foot, E the needle-bar, and *n* the needle, all constructed and arranged substantially as in sewing-machines in common use.

F is the upper furrowing-piece for producing the furrow or continuous indentation in the upper surface of the leather or other material, and G is the lower furrowing-piece for

producing the furrow or continuous indentation in the lower surface of the same. These furrowing-pieces consist of flat plates of steel, furnished with lugs *a*, to attach them, respectively, to the presser-foot and bed-plate. The lower edge of the piece F and upper edge of the piece G are made thin, but not sharp enough to cut, and are slightly rounded longitudinally, as shown in Fig. 2, to enable the leather or other material to pass freely under or over one of them or between both of them, as the case may be. The piece F is fitted to an upright dovetail groove in the presser-foot, and the piece G is fitted to an upright groove in the exterior of the shuttle-race or other part of the bed-plate and to a slot, *c*, in the needle-die, and the two pieces are so arranged that the center lines of their edges are both in the same plane with the axis of the needle, parallel with the feed movements, and on that side of the needle toward which the material is carried by the said movement, the direction of which is indicated by an arrow in Fig. 2.

The piece F is attached to the presser-foot by a thumb-screw, *b*, which screws through a tapped hole in its lug *a*, and which is attached to the presser-foot in such manner as to be capable of turning freely, but not moving longitudinally; and the piece G is attached to the work-plate by means of a screw, *d*, which screws through a tapped hole in its lug *a*, and which is attached to the work-plate in such manner as to be capable of turning freely, but not moving longitudinally.

By turning the screw *b* the edge of the piece F can be adjusted to project below the face of the presser-foot, and by turning the screw *d* the piece G can be adjusted to project above the face of the needle-die, needle-plate, or work-plate, the adjustment being such that the projections of the said edges are equal to the desired depths of the furrows or indentations in the upper and lower surfaces respectively of the leather or other material for the reception of the exposed portions of the stitches.

When the furrowing-pieces have been adjusted, as above described, the work put into the machine, and the machine set in operation, the movement of the leather or other material toward the needle, produced by the feeding device, causes the said material to be drawn between the furrowing-pieces, and thereby

causes its upper and lower surfaces to be furrowed or continuously indented by the edges of the said pieces in the line in which the sewing is to be performed as the said material approaches the needle, and the stitches being formed within the furrow or continuous indentation so formed are protected from wear.

For some purposes only one of the furrowing-pieces F G may be required, as it may only be necessary to furrow or continuously indent one surface of the material. In such case one of the furrowing-pieces, either the upper or lower one, as the case may be, can be dispensed with altogether or so adjusted by its screw *b* or *d* that its edge is brought flush with or within the face of the presser-foot or the needle-die, needle-plate, or work-plate. When the machine to which these pieces are applied is to be used for cloth or other material for which their use is not necessary they may be so adjusted that their edges are flush with or within the faces of the presser-foot and needle-die, needle-plate, or work-plate.

In some cases, when the machine is only required to be used for one kind of work, the furrowing-pieces may be permanently attached to the presser-foot and needle-plate, needle-die, or work-plate instead of being so fitted as to provide for their adjustment.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The attachment to the presser-foot of a sewing-machine of a furrowing-piece, F, which, without cutting, will produce by pressure in

that surface of the leather or other material to be sewed which passes in contact with said foot, and immediately in front of the stitches being made, a furrow or continuous indentation for the reception of the exposed portions of the stitches on that surface, substantially as herein described.

2. The attachment to the needle-die, needle-plate, or work-plate of a sewing-machine of a furrowing-piece, G, which, without cutting, will produce by pressure in that surface of the leather or other material to be sewed which passes in contact with said die or plate, and immediately in advance of the stitches being made, a furrow or continuous indentation for the reception of the exposed portions of the stitches on that surface, substantially as herein described.

3. The combination of the furrowing-pieces F G, applied as described, to operate by pressure on opposite sides of the leather or other material to be sewed, substantially as and for the purpose herein specified.

4. Making the furrowing-piece G, which is attached to the needle-die or needle-plate of the sewing-machine, adjustable relatively to the said die or plate by a set-screw, or its equivalent, substantially as and for the purpose herein specified.

JOHN CHILCOTT.

Witnesses:

HIPPOLYTE MALL,
I. W. COOMBS.