G. L. DULANEY.

Improvement in Tuck-Markers for Sewing-Machines.

No. 114,276. Patented May 2, 1871.

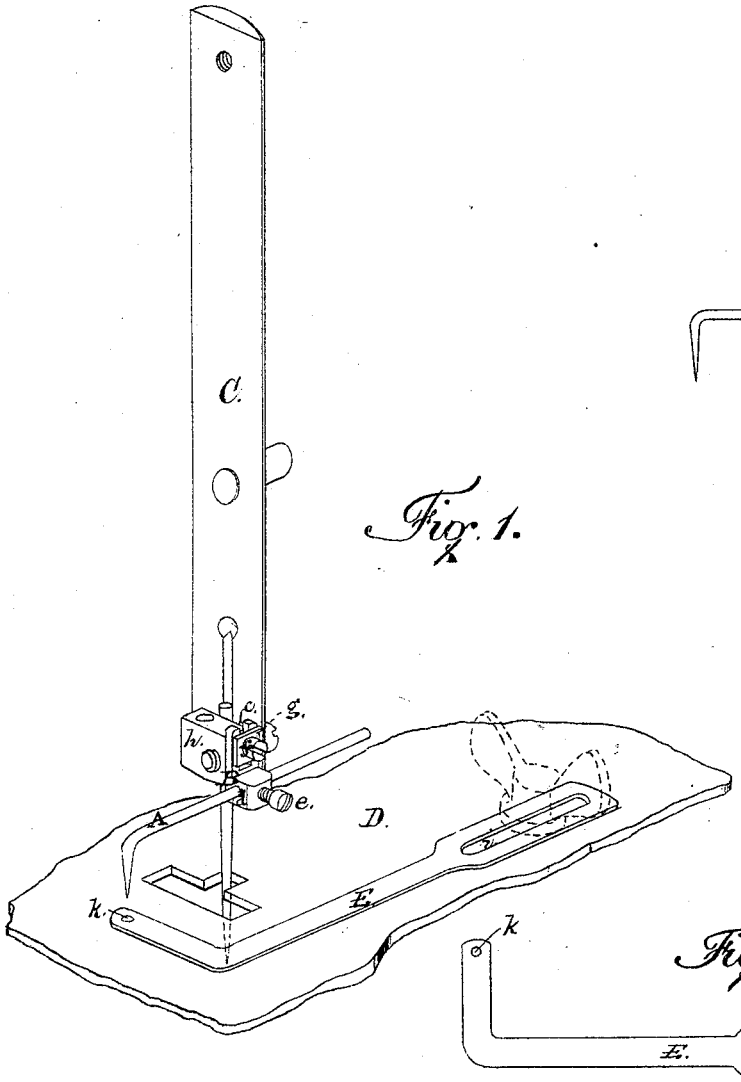

Fig. 1.

Fig. 2.

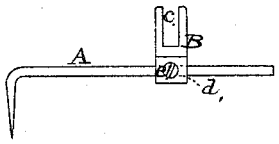

Fig. 3.

Witnesses.
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George L. Dulaney Inventor
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United States Patent Office.

GEORGE L. DU LANEY, OF NEW YORK, N. Y.

Letters Patent No. 114,276, dated May 2, 1871.

IMPROVEMENT IN TUCK-MARKERS FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE L. DU LANEY, of New York, in the county of New York and State of New York, have invented certain Improvements in Marking Attachment for Sewing-Machines; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

Marking devices for marking the fabric simultaneously with stitching a seam, and parallel therewith, have heretofore been made in which a pencil is employed; this is objectionable, because it soils the goods, and the pencil is constantly wearing away and shortening or breaking, and needs frequent sharpening.

Others have been made to crease or indent the fabric by pressing the goods into a notch or groove; this is apt to cut the goods, and is not always efficient for marking, as in some light materials the crease made is almost if not quite imperceptible, and therefore of but little utility either as a guide for a seam or for a folding place for a tuck or hem.

To remedy these and other existing defects of any markers known to me, and at the same time to produce a very simple, cheap, and practicable implement, easily applied to machines of any class in which either a reciprocating or vibrating needle-arm is used, is the object of my invention; and

It consists in an adjustable perforator moving with the needle-bar, and operating, in connection with an adjustable perforating-plate, as a means for automatically marking in the cloth a line parallel with the seam being stitched and fed in a sewing-machine.

In the drawing—

Figure 1 is an isometrical view of a marking apparatus made in accordance with my invention, shown as applied to a needle-bar of a Singer machine, and in working position relatively to the cloth-plate of a machine.

Figure 2 shows, detached from the needle-bar, the perforator and a means for its attachment and adjustment.

Figure 3 shows the perforated plate to be secured to the cloth-plate of the machine.

A is the marking device, being a horizontal rod or wire, the forward end of which when in place is bent downward and sharpened to a needle point so that it may readily puncture a hole in the goods. This perforator I attach to the needle-bar or arm in such manner and with its point at such a distance above the point of the perforating-needle that when the latter shall be at its lowest point the point of the perforator shall not quite reach low enough to touch the metal of the cloth-plate, and with provision for adjustment higher or lower.

I also attach it so that it shall project laterally in a line at right angles to the plane in which the feeding device moves, and so that its perforating point may be adjusted nearer to and further from such plane, as may be desired, in order to perforate a line at any required distance from the seam being sewed.

A simple means for attachment I have shown, as follows:

B is a piece of metal having an open-ended slot at its upper end, as seen at *c*, and having a hole, *d*, to receive the perforator, and a set-screw, *e*, entering a threaded hole to fasten the perforator to place.

The slot *c* is made to embrace a set-screw, *f*, and a washer, *g*, is, preferably, placed between the head of the screw and the piece B.

The tightening of the screw *f* fastens the perforator at the height desired.

C is a needle-bar to which I have applied these devices, the screw *f* entering the metal block *h*, which holds the needle to the bar.

D represents the cloth-plate of a sewing-machine.

E is the perforated plate which I use in conjunction with the above, a slot, *i*, therein permitting it to be adjustably secured to the cloth-plate by a set-screw, and *k* being a hole made therein to receive and protect the point of the perforator, as above stated.

This plate I make of such thickness at its eye or perforation that it will allow for all variations in the throw of the point of the perforator which may be incident to the varying spring or slight flexibility of a needle-bar or arm, which variation though small always exists more or less, being caused by the varying degrees of speed at which the machine may be run.

When a creaser is employed and adjusted so as to make a proper and distinct mark at a given rate of speed, it will either make too faint a crease or none at all when run at a slower rate of speed, or will at a higher rate come into such violent contact with the bed-plate as to cut the goods.

These serious difficulties are entirely obviated by my automatic perforator, which will always make its perforation, and cannot cut the goods at any rate of speed, and which, with a sufficient depth first being given to the hole into which its point enters, cannot blunt such point by ever coming in contact with anything except the cloth or material which it punctures.

My sharp-pointed perforator also has a marked advantage over any blunt or conical-pointed instrument employed to force down the cloth into a conical depression in the bed-plate of the machine; for such an instrument strains and distorts and puckers the fabric or material at every stitch by compelling it to bulge

and assume the form of such depression. A series of such bulges would be ruinous in many kinds of fine and costly goods and in patent and other leathers, and would render them unfit either to be folded or to be stitched in the line of such bulges. Thin woven fabrics would also with such an implement have their threads forced permanently out of their true relative positions and could never again resume them; none of these consequences result from the use of my improved devices.

It will now be seen that, the parts being adjusted as required, the downward movement of the needle-bar will carry the point of the perforator quite through the cloth so as to make a visible mark equally well defined on either side of the cloth, and without any cutting, wedging, soiling, or dragging of the fabric, and that however coarse or fine the fabric the line of perforations will be equally distinct.

I am aware that in heavy work like leather an awl has been employed in advance of a hooked needle and in the line of the seam being stitched for the purpose of making a hole for the needle and to relieve it from the duty of making its own perforation, the awl in such case passing through the table. This I do not claim; nor do I claim a cloth-perforator operated by hand, or which is not used to mark cloth as it is being moved by the feeding device of a sewing-machine; but

I claim—

The combination, with a laterally-adjustable perforator attached to and moving with the needle-arm, of a laterally-adjustable plate E, having a perforation therein to permit the point of the perforator to enter it and puncture the cloth without reaching down to and coming in contact with the bed-plate of the sewing-machine.

GEORGE L. DU LANEY.

Witnesses:
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