(No Model.)

J. P. LAVIGNE.

TUCK MARKER.

No. 343,464. Patented June 8, 1886.

Fig. 1.

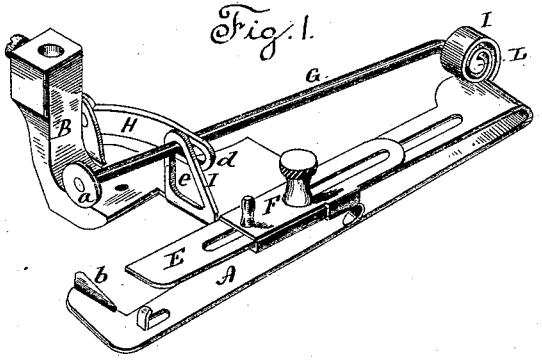


Fig. 2.

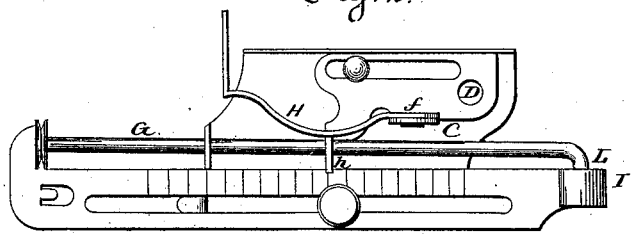


Fig. 3

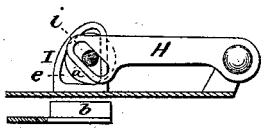
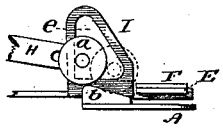


Fig. 4



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UNITED STATES PATENT OFFICE.

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TUCK-MARKER.

SPECIFICATION forming part of Letters Patent No. 343,464, dated June 8, 1886.

Application filed October 12, 1885. Serial No. 179,630. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH P. LAVIGNE, of New Haven, in the county of New Haven and State of Connecticut, have invented new Improvements in Tuck-Markers; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the marker as attached to or forming a part of the presser-foot; Fig. 2, a top or plan view of the marker as applied to the base for attachment to the cloth-plate; Fig. 3, a modification whereby the advance of the roller is imparted through the actuating-lever H; Fig. 4, an end view showing the rib *b* and the operation of the marking-roller *a* in connection with the slot *e*.

This invention relates to an improvement in the attachment for sewing-machines designed to crease fabric in the formation of tucks, a second crease being formed while the preceding tuck is being stitched, and commonly called "tuck-markers." The marking is usually produced by means of a sharp edge and a corresponding V-shaped pressing device.

The object of my invention is to give to the marker a rubbing effect, whereby a better crease will be formed than can be done simply by pressure; and it consists, principally, in constructing the marking device to consist of a rib and a creasing-roller adapted to work over the edge of the said rib upon the fabric introduced between the two, and so that the roller will work over a considerable length of surface of the fabric, and crease it over the rib; and it also consists in details of construction, as more fully hereinafter described, and particularly recited in the claims.

A represents the base, which, as illustrated in Fig. 1, is attached to or made a part of a presser-foot, B, but it may be made a part of a base, C, Fig. 2, to be attached to the work-plate by the usual set-screw through the hole D.

E represents the bar between which and the base the fold passes to be stitched in the usual manner. This bar E is made as a continuation of the base A, the bar being doubled over the base, and, as seen in Fig. 1, the bar E carrying the guide F.

G is the tuck-marker arm, which is hung at one end of the base, its other end extending toward the opposite end of the base, and at the said opposite end the roller *a* is hung directly to the arm, the axis of the said roller being parallel with the axis of the said arm.

On the base immediately below and in the same plane as the roller is a rib, *b*. This rib is preferably inclined downward and forward, the normal position of the roller being over the highest or forward end of the rib.

H is a lever hung to the presser-foot, provided with a slot, *d*, at its free end, and so as to embrace the marker-arm G. The lever H stands in the path of the descending needle-bar, or some extension therefrom in the usual manner for tuck-markers, unnecessary to be described in this specification. The arm G is hung to the base by a spring-connection, hereinafter described, and so that the spring tends to raise and hold the roller in its up position. The arm G extends through a slot, *e*, in an upward projection, I, from the base. The forward edge of this slot inclines downward and forward. The place of rest or normal position of the bar is at the upper end of the slot. The fabric passes over the rib *b* in the usual manner for tuck-markers, and as the needle descends it forces the arm G down until the roller strikes upon the rear end of the rib *b*, as indicated in Fig. 4, and striking upon the fabric the further descent or pressure of the needle-arm will cause the roller to descend the incline, thus rolling over the upper edge of the rib, as indicated in broken lines, Fig. 4, and until the arm C arrives against the front edge of the slot *e*. Then left free the arm G rises under the action of its spring and strikes the inclined side of the slot *e*, and as it continues to rise follows up that incline, carrying the bar rearward until it arrives at its place of rest and ready for the next operation. In case the marker is attached to the work-plate, as in Fig. 2, the lever H is hung to the base, as at *f*, and so as to receive the action of the needle-bar in the usual manner for this class of markers, and the extension *h* from the lever embraces the arm G to impart the

downward-pressing movement to the marking-roller. The advance movement may be imparted to the marking-roller by an inclined slot, *i*, in the arm of the actuating-lever H, as seen in Fig. 3, and so that as the lever is forced downward as soon as the roller comes to a bearing on the fabric or the rib the inclined slot will impart movement to the arm G, to cause the roller to pass over the rib. In this case the upper edge of the rib *b* may be in a horizontal plane. This modification will be sufficient to show that the advance or rolling movement may be imparted to the roller by an incline at any point between the actuating-lever and the rib on the base. I, however, prefer to make the upper edge of the rib inclined, as before described. The periphery of the roller and the edge of the rib must be the one sharp and the other grooved. Thus it may be the roller grooved and the edge of the rib sharp, as shown, or vice versa.

To give the requisite spring to the marker-arm G, and so that it will automatically return after it has been forced down by the needle, I construct the base A with an extension, I, which I bend into a volute-shaped spring. The metal from which the base is made being elastic, the coiled or volute spring is sufficiently elastic for all practical purposes. The arm G is attached to the inner end of the spring, as at L. This construction and arrangement of spring is but a trifling matter in the manufacture of the marker, and is not liable to break or become displaced, as is frequently the case with attached springs.

I am aware that tuck-markers have been constructed in which a stationary rib is provided, upon which a grooved roller is adapted to work under the action of the needle-bar, and so that the said roller will in such action of the needle-bar not only come down upon the rib, but roll thereon. I therefore do not wish to be understood as claiming, broadly, a tuck-marker having such characteristics.

I claim—

1. In a tuck-marking attachment for sewing-machines, the rib *b* on the base in the line of the mark to be produced, combined with the marker-arm G, the said arm supported by a spring at the end of the base opposite said rib, and so as to work up and down under the action of the needle-bar, a roller, *a*, hung directly upon the end of the said arm as its axis, the said axis being parallel with the arm and the plane of the roller parallel with the plane of the said rib, and adapted to be forced downward upon said rib, and an inclined or bearing surface, substantially as described, and whereby said marking-roller is forced to travel over said rib, substantially as described.

2. The combination of the base A, constructed with the rib *b*, the spring-arm G, the roller *a* on the free end of said arm and in the plane of said rib, a lever, H, in connection with said arm G, and through which vertical movement is imparted to said arm G, the upward projection I on the base, having slot *e* therein, and through which slot the said arm G passes, the rear edge of said slot inclined downward and forward, and an inclined surface between the said lever H and the base, substantially as described, and whereby in the descent of the arm G the said inclined surface causes the said roller to travel over the surface of the said rib, substantially as described.

3. The combination of the base A, the inclined rib *b* thereon, the spring-arm G, the roller *a*, hung directly upon the free end of the said arm, the axis of the roller being parallel with said arm and the plane of the roller in the plane of the said rib *b*, and the lever H, fixed to the base and in connection with said arm G, substantially as described.

4. The combination of the base A, constructed with the inclined rib *b*, the spring-arm G, the roller *a* at the free end of the said arm and in the plane of the said rib, the lever H, hung to the base, and in connection with said arm the upward projection I on the base, constructed with the slot *e*, through which slot the said arm G passes, the rear side of said slot inclined downward and forward, substantially as described.

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