A. JOHNSTON.

TUCK-MARKER.

No. 184,472. Patented Nov. 21, 1876.

Fig. 1.

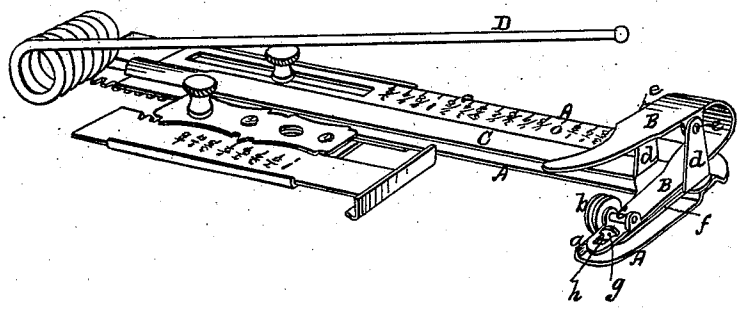


Fig. 2.

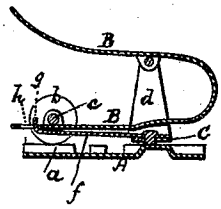
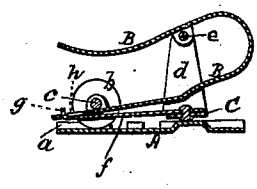


Fig. 3.



Witnesses:

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Inventor:

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by actys Poole & Bailey

UNITED STATES PATENT OFFICE.

ALLEN JOHNSTON, OF OTTUMWA, IOWA.

IMPROVEMENT IN TUCK-MARKERS.

Specification forming part of Letters Patent No. **184,472**, dated November 21, 1876; application filed August 17, 1876.

To all whom it may concern:

Be it known that I, ALLEN JOHNSTON, of Ottumwa, Iowa, have invented certain new and useful Improvements in Tuck-Marking Attachments for Sewing-Machines, of which the following is a specification:

My invention relates to that part of a tuck-marking attachment for sewing-machines which, during the sewing of the folded tucks, marks on the goods the line of fold for the succeeding tuck. The devices by which the marking is effected have usually heretofore consisted of a notch and a point or blade, between which the cloth passes, the mark or crease being made by the notch pressing upon the point or blade during the descent of the needle-bar.

In lieu of the notch and point or blade, I employ, in combination with the blade, a grooved wheel, operated by the descent of the needle-bar, to bear or press upon the goods, and having, when so operated, a to-and-fro movement over the stationary blade or edge. By thus rolling the creasing-wheel over the goods the cloth is more perfectly and readily marked than by the use of a point and notch, by which the goods, at each descent of the needle-bar, are struck but once and in one place. Under my invention, also, less pressure is required to make a crease than by striking with the notch and point, and hence the sewing-machine will run with more ease and more lightly.

The nature of my invention, and the manner in which the same is or may be carried into effect, will be understood by reference to the accompanying drawing, in which—

Figure 1 is a perspective view of a tuck-marker embodying my invention. Figs. 2 and 3 are longitudinal vertical central sections of the marker proper in different positions.

My invention is applicable to tuck-marking attachments of various kinds.

The attachment shown in the drawing is one made under my Letters Patent No. 170,375 of November 23, 1875, and No. 180,035 of July 18, 1876, more particularly the latter, in which will be found a full description of the attachment represented in the drawing, excepting, of course, that part of it in which my present invention is found. I shall therefore confine this specification to the part last referred to—viz., the marker proper.

The blade or point *a* of the marker is, as usual, affixed to the end of an adjustable bar, A, in a position parallel with the line of feed. The blade is made a little longer than heretofore customary, for the purposes hereinafter mentioned. Above the blade is the creasing-wheel *b*, provided in its periphery, as shown, with a groove or notch, which is located immediately above the blade, so that the latter will enter it when the wheel is depressed. The wheel revolves freely on a stud or arbor, *c*, suitably supported on the lower part of the spring-wheel-carrying frame, which consists of a bent spring-arm, B, the upper part of which is pivoted at *e* to uprights *d*, attached to the end of the spring-strip C, that is, as usual, fixed at its rear end to the adjustable marker-bar A. The creasing-wheel-carrying frame B can thus vibrate to some extent upon the pivots *e* as an axis. To prevent, however, the creasing-wheel from lifting away too far from the blade, or from having its adjustment disturbed relatively thereto, I form or provide the spring-strip C with an auxiliary strip, *f*, which extends below the lower part of the creasing-wheel frame, and is provided at its free end with a headed stud, *g*, which extends up through a slot, *h*, in the frame of sufficient length to allow requisite movement to the wheel. The head on the stud prevents the frame from unduly rising. The creasing-wheel is shown in its normal position in Fig. 2. When, however, during the descent of the needle-bar, the extended upper arm of the spring-frame B is struck by the rod D, with which the needle-bar is connected in the usual way, the frame is tilted and compressed, as shown in Fig. 3, the creasing-wheel, by this movement, being pressed down on and drawn along over the blade. When the needle-bar rises, the spring-frame, in proportion as it is relieved from pressure, reassumes its normal position, and, in so doing, causes the creasing-wheel to retrace its path over the blade rising therefrom as it returns to its first position. The creasing-wheel thus is caused to work back and forth, as well as up and down, at each stroke of the needle-bar.

The wheel each time rolls farther than the

length of the stitch, as ordinarily made, and thus creases more of the cloth each time than is fed forward for the next stitch. Consequently the wheel, when operated by the descent of the needle-bar, comes down on the cloth where it has already been creased, and rolls from there to where it has not been creased; moreover, the wheel is thus caused to roll over the cloth several times, making, for this reason, a better and more perfect crease than otherwise could be made.

I have described what I deem to be the best way of carrying my invention into effect. It is manifest, however, that the construction of the device may be varied considerably without departure from my invention. I do not limit myself, therefore, to the particular mechanism herein shown and described in illustration of my improvements; but

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

1. In a tuck-marking attachment for sewing-machines, the combination, substantially as set forth, with a stationary blade or edge, of a grooved or notched creasing-wheel, exercising, when in operation, a yielding pressure on the blade, and actuated at each descent of the needle to bear upon and at the same time move along upon the blade.

2. The combination, substantially as set forth, of the stationary marking blade or edge, the creasing-wheel, and the pivoted spring-frame carrying the said wheel.

3. The pivoted spring-frame and the creasing-wheel carried by the same, in combination with the flexible or yielding strip supporting said frame, and the auxiliary strip, connected with the frame by a slot-and-pin connection, substantially as and for the purposes set forth.

In testimony whereof I have hereunto signed my name this 4th day of August, A. D. 1876.

ALLEN JOHNSTON.

Attest:

W. T. MAJOR,

A. G. HARROW.