A. JOHNSTON.

Tuck-Marking Attachment for Sewing-Machines.

No. 215,060. Patented May 6, 1879.

Fig. 1.

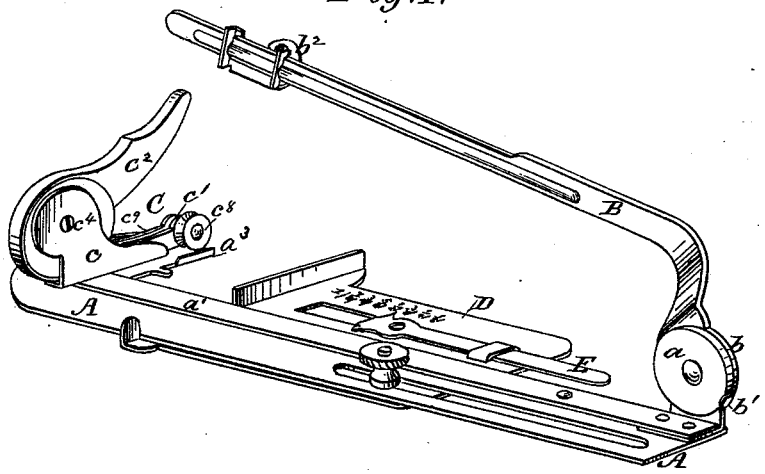


Fig. 2.

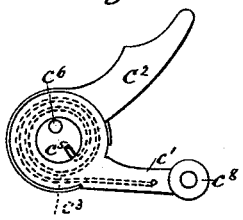


Fig. 4.

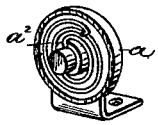
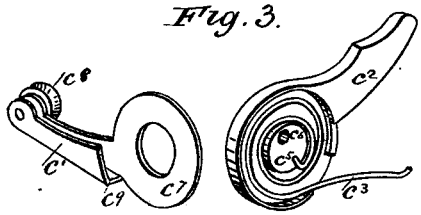


Fig. 3.



Witnesses:

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E. F. Dick

Inventor:

Allen Johnston by

A. Pollok

his attorney.

UNITED STATES PATENT OFFICE.

ALLEN JOHNSTON, OF OTTUMWA, IOWA.

IMPROVEMENT IN TUCK-MARKING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **215,060**, dated May 6, 1879; application filed February 10, 1879.

To all whom it may concern:

Be it known that I, ALLEN JOHNSTON, of Ottumwa, in the county of Wapello and State of Iowa, have invented a certain new and useful Improvement in Sewing-Machine Attachments, of which improvement the following is a full, clear, and exact specification.

This invention relates to an attachment for sewing-machines known as a "tuck-marker," for making, as one tuck or seam is sewed, a crease or mark at a suitable distance therefrom, to serve as a guide for another seam or tuck. An attachment of this character was patented to me November 21, 1876, No. 184,472; and the present invention has more particularly reference to improvements thereon, the object being to impart to the marker, in forming the crease, a positive motion in the direction of its length with reference to the marking-edge as well as pressure downward, and also, generally, to produce a more efficient and durable attachment.

The following description will enable those skilled in the art to which it appertains to make and use my invention, reference being had to the accompanying drawings.

Figure 1 represents a perspective view of my improved attachment complete; Figs. 2, 3, and 4, detail views, showing the manner of constructing and combining certain parts.

A represents the main plate, to which the other parts are attached. To this plate is secured at one end an upright, a, and also the end of a flexible bar, a^1, of the same length as the plate A. The main plate A at the proper point, near the other end, is bent upward to form a marking-edge, a^3.

The vibrating arm B turns on a pivot centrally attached to the enlarged upper portion of the upright a, which is recessed and contains a volute or spiral spring, a^2, ordinarily of steel or piano wire. One end of this spring is fixed in a slot on the side of the pivot, Fig. 4, and the other is bent outward and rests in a small eccentrically-placed hole in the enlarged end, b. A small projection or stop, b^1, limits the upward movement of the arm B.

At the outer end of the flexible bar a^1 the movable marking devices C are secured in a sheath or shield, c. These devices consist of the marker c^1, the vibrating marking-arm c^2, and the spring c^3. The vibrating marking-arm turns on a pivot, c^4, and at its inner end is a circular enlargement which is recessed, but has a cylindrical projection, c^5, in the center. The pivot c^4 passes through an eccentrically-placed hole, c^6, in this central projection. The marker c^1 has a circular enlargement, c^7, Fig. 3, at one end, which fits within the recessed enlargement of the marking-arm c^2, the projection c fitting within a central aperture of the enlarged end c^7 of the marker c^1. A small grooved roller, c^8, is carried by the marker just above the marking-edge a^3.

The volute or spiral spring c^3 is placed between the enlarged ends of the marker and the vibrating marking-arm. One end of this spring is placed in a slot in one side of the projection c^5, and the other in a recess or channel, c^9, formed in the upper side of the marker c^1. The enlarged end of the marking-arm c^2 is cut away, as shown in Fig. 3, at one side, to allow the end of the spring to project, and to permit the proper movement of the marker and vibrating marking-arm relative to each other, the shoulders formed serving to limit this movement.

D is a work-guide, which is adjustable on the plate A by means of a slot and screw-nut and pin, as clearly shown in Fig. 1. E is a sliding piece with a perforation, through which the screw for securing the attachment to the cloth-plate of the sewing-machine passes. A scale on the work-guide indicates its position with reference to the securing thumb-screw.

The motion of the needle-bar is communicated to the vibrating arm B by means of the small slide b^2, through an aperture in which the needle passes.

In operation, the vibrating arm B, depressed by the needle-bar, strikes against the vibrating marking-arm c^2, near its outer end, and forces it to turn about its pivot c^4. By reason of the eccentric position of the pivot c^4 with reference to the projection c^5, the marker c^1 is moved in the direction of its length by the movement of the marking-arm c^2, and at the same time it is pressed downward, so as to form a crease or mark in the fabric sewed between the grooved wheel c^8, attached to the marker c^1, and the projection a^3.

Instead of using a wheel, a grooved projec-

tion on the marker might be used with good effect. Various other changes and modifications in details of construction might be made without departing from the spirit of this invention. Instead of placing the spring a^2 in the recessed upper portion of the upright *a*, the enlarged portion, *b*, of the arm B may be recessed to contain it.

Having thus described my said invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the main plate and a flexible bar secured thereto at one end, of the marking devices composed of the marker, pivoted marking-arm, spring, and shield, secured at the free end of said flexible bar, substantially as described.

2. In a sewing-machine attachment, the movable marking devices composed of, first, the vibrating marking-arm having at its inner end an enlarged circular recessed portion and an eccentrically-perforated projection centrally placed within said recessed portion; second, the marker, having an enlarged portion fitting within the recessed portion of the vibrating marking-arm, and provided with an aperture fitting over the eccentrically perforated projection, and, third, a spring, one end secured in a slot in the side of the aforesaid projection, and the other resting in a recess on said marker, substantially as described.

3. An attachment for sewing-machines composed of the following elements: first, a main plate; second, a flexible bar secured at one end to said plate; third, a vibrating arm turning on a pivot on an upright attached to aforesaid plate, the said arm having a projection or stop to limit its motion upward; fourth, a spring adapted to maintain by its elasticity the aforesaid arm in an elevated position; fifth, a sheath or shield, secured to the free end of the flexible bar; sixth, a vibrating marking-arm adapted to turn on a pivot; seventh, a marker, the said marking-arm and marker being fitted within said sheath or shield and provided with shoulders or stops to limit their motion relative to each other, and, eighth, a spring arranged to maintain aforesaid marking-arm in a raised position, substantially as described.

In testimony whereof I have hereunto signed this specification in the presence of two subscribing witnesses.

ALLEN JOHNSTON.

Witnesses:
A. G. HARROW,
GEO. F. HALL.