



# UNITED STATES PATENT OFFICE.

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## TUCK-MARKING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 665,441, dated January 8, 1901.

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*To all whom it may concern:*

Be it known that I, ALLEN JOHNSTON, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Tuck - Marking Attachments for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to that class of sewing-machine tuck-creasing attachments adapted to be secured to the presser-bar of a sewing-machine and in which the creasing of the work is effected by a vibrating arm operated from the needle-bar of the machine in cooperation with a lip or projection upon which the work lies, the invention having for its object to provide a creasing attachment of the class referred to in which the operating mechanism for the creasing-arm will be mainly arranged behind the needle and will thus be as far as possible out of the way, as also to provide a yielding connection between the operating-lever and creasing-arm as well as a convenient means for throwing the operating-lever out of action when desired without removing the attachment from the machine.

In the drawings, Figure 1 is a perspective view of my improved creaser or marker. Fig. 2 is a plan view thereof; Fig. 3, a front side view of the same. Fig. 4 is a cross-section on line 4 4 of Fig. 2, and Fig. 5 a detail section on line 5 5 of Fig. 2. Fig. 6 is a detail under side view of the presser-foot and its sleeve which serves to support the creasing-frame and creasing devices.

A denotes the foot portion of the attachment, adapted to be secured to the presser-bar of a sewing-machine in substitution of the ordinary presser-foot, the shank of said foot A being provided rearward of said foot, and thus rearward of the needle, with a laterally-extending sleeve *a*, rigidly secured to said foot and having a slot *a'* formed in its under side.

B is a hollow rod supported by the sleeve or tube *a* and adjustable therethrough, and to the rear end of said rod is soldered or otherwise rigidly attached a transverse arm *b*, carrying a longitudinally-extending plate or bar *b'*, having at its forward end an arm *b<sup>2</sup>*, provided with a creasing-lip *b<sup>3</sup>*.

Extending longitudinally through the hollow rod B is a small torsional rock-shaft *c*, consisting of a piece of wire having a right-angular bend *c'* at its forward end to form a creasing-arm, the under side of the forward or lower end of which is grooved for cooperation with the creasing-lip *b<sup>3</sup>*. The rear end of the rocking creasing shaft or rod *c* extends beyond the arm *b* of the sleeve or hollow rod B, and clamped to said rearwardly-extending end of the said rod by means of a set-screw *d* is an arm *d'*, to which is rigidly secured a longitudinally-extending rod or rocking member *d<sup>2</sup>*, the forward end of which is formed into an eye *d<sup>3</sup>*, encircling the forward end of the sleeve or hollow rod B. The parts B, *b*, *b'*, and *b<sup>2</sup>* constitute the creasing-frame, while the parts *c*, *c'*, and *b<sup>3</sup>* constitute the creasing devices.

The shaft or rod *c*, carrying the creasing-arm *c'*, is operated, through the rod *d<sup>2</sup>*, by means of the lever E, having a short sleeve *e*, by which it is journaled on the presser-foot sleeve *a*, the said lever E being provided with a notch *e'*, which receives the rod *d<sup>2</sup>*, so that as the said lever E is vibrated it will impart a torsional or rocking movement to the rod *c* through the rod *d<sup>2</sup>* and arm *d'*; which latter is attached to said rod *c*. The lever E will be so arranged as to be engaged by a screw or other projection on the needle-bar of the machine, so that the said lever will be depressed at each stroke of the needle-bar. The rod *d<sup>2</sup>* is yieldingly connected with the creasing-arm *c'* through the torsional spring-rod *e*, so that the creasing action of the said creasing-arm will be properly cushioned as said arm bears on the goods overlying the creasing-lip *b<sup>3</sup>*.

Rigidly and permanently secured to the toe portion *a<sup>2</sup>* of the presser-foot A, as by being soldered thereto, is a hollow rod *a<sup>3</sup>*, through which extends a spring-wire *f*, having at its forward end an arm or right-angular portion *f'*, which engages the under side of a small hook or projection *e<sup>3</sup>* on the operating-lever E, said spring-wire serving to lift said lever and also assisting the torsional spring-rod *c* in lifting the creasing-arm *c'* after said lever and arm have been depressed when the needle-bar descends. The wire *f* acts as a torsional

spring and is secured at its rear end to the rod  $a^3$ , preferably by means of a small notch  $a^4$  in the end of the said rod, into which is entered a hook or downturned portion or hook  $f^2$ , formed at the rear end of the said spring torsional wire  $f$ . The spring-arm  $f'$  also serves to hold the lever E in place against the foot A.

G is the edge-guide, which determines the width of the tucks, said edge-guide being formed at the forward end of an adjustable plate  $g$ , having ears  $g'$  encircling the rod  $a^3$  and being preferably provided with a graduated scale  $g^2$ .

The sleeve or hollow rod B, with which the creasing devices are connected, is laterally adjustable through the sleeve  $a$  to vary the spacing of the tucks by varying the distance of the line of creasing from the needle of the machine, the position of the needle being indicated by the needle-recess  $a^5$ , formed in the presser-foot A. The rod B is clamped to the sleeve  $a$  by means of a clip, consisting of a block  $h$  and a cap  $i$ , the latter having a hook portion  $i'$  partly encircling the said sleeve  $a$ , the said block and cap being connected together by a set-screw  $k$ , tapped in the said block  $h$  and comprising a head, at the lower portion of which is a shoulder abutting against the said cap  $i$ . One end of the block  $h$  is received in the slot  $a'$  of the sleeve  $a$ , so as to come into clamping contact with the rod B, and the other end of said block is preferably formed into an index-finger  $h'$ , extending adjacent to a graduated scale  $m$ , formed on the work-holdingspring  $m'$ , riveted or otherwise attached at its rear end to the longitudinally-extending plate  $b'$ .

The edge-guide G is held in any desired position of adjustment by being clamped between the upper surface of the block  $h$  and the lower surface of the rod  $a^3$ , when the set-screw  $k$  is tightened to cause the clip, consisting of the parts  $h$  and  $i$ , to clamp the part B, this tightening of the set-screw  $k$  and clip also serving to hold the edge-guide in any desired position of adjustment; but when the said set-screw is loosened the edge-guide will be free to be adjusted laterally to vary the width of the tucks, while the entire frame supported by the rod B and carrying the creasing members will also be free to be adjusted laterally to vary the distance apart of the tucks by varying the distance of the line of creasing from the needle.

The cap  $i$  is preferably provided with a curved ear  $i^2$ , which partly encircles and clamps against the rod  $a^3$ , said ear terminating in an index-finger  $i^3$ , arranged adjacent to a graduated scale  $g^2$  on the plate  $g$ , which carries the edge-guide G.

In the operation of the attachment when the needle-bar of the sewing-machine descends the screw or projection thereon engages the operating-lever E and through the rod  $d^2$  and arm  $d'$  imparts a torsional movement to the rod  $c$ , causing the creasing-arm

$c'$  to press upon the goods overlying the creasing-lip  $b^3$ . After the downward movement of the creasing-arm  $c'$  has been arrested by contact with the goods overlying the creasing-lip  $b^3$  the continued downward movement of the lever E will be cushioned by reason of the yielding connection between the arm  $d'$  and creasing-arm  $c'$ , afforded by the torsional creasing-rod  $c$ , and when the needle-bar rises the said lever and the creasing-arm will be lifted by the torsional spring action of the said rod  $c$  and of the lifting torsional spring  $f$ . When it is desired to throw the creaser out of action without removing it from the machine, the arm  $f'$  of the torsional spring  $f$  may be detached from the hook  $e^3$  on the lever E, when the said sleeve portion of said lever will be free to be moved laterally on the sleeve or hollow rod B to remove said lever from the foot A, and thus also away from the path of movement of the screw or projection on the sewing-machine needle-bar and by means of which the creaser is operated.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a sewing-machine tuck marker or creaser, the combination with a vibrating creasing-arm, of a torsional-spring rod by which said arm is carried, an actuating-lever operatively connected with the said rod to impart a twisting or torsional action thereto and a torsional spring for lifting said lever.

2. In a sewing-machine tuck marker or creaser, the combination with the presser-foot A provided with the laterally-extending sleeve or tube  $a$ , of the hollow rod B supported by said sleeve or tube and provided with the rigidly-attached arm  $b$  carrying the plate  $b'$  having at its forward end an arm provided with a creasing-lip, the torsional rod  $c$  provided with the creasing-arm  $c'$  and the actuating-lever E operatively connected with said torsional rod  $c$ .

3. In a sewing-machine tuck marker or creaser, the combination with the presser-foot A provided with the laterally-extending sleeve or tube  $a$ , of the hollow rod B supported by said sleeve or tube and provided with a rigidly-attached arm  $b$  carrying the plate  $b'$  having at its forward end an arm provided with a creasing-lip, the torsional rod  $c$  provided with the creasing-arm  $c'$ , the actuating-lever E pivotally mounted upon the said sleeve or tube  $a$ , and the rod  $d$  engaged by said lever E and provided with the arm  $d'$  attached to said rod  $c$  to impart a torsional rocking movement thereto.

4. In a sewing-machine tuck marker or creaser, the combination with the presser-foot A, provided with the laterally-extending sleeve or tube  $a$ , of the hollow rod B supported by said sleeve or tube and provided with the rigidly-attached arm  $b$  carrying the plate  $b'$  having at its forward end an arm provided with a creasing-lip, the torsional rod  $c$  provided with the creasing-arm  $c'$ , the actu-

ating-lever E operatively connected with said torsional rod c, and a clamping-clip, consisting of the block h, the cap i and a set-screw, for holding the said rod B and the parts supported thereby in any desired position of adjustment, while permitting of their lateral movement through the said sleeve A when said set-screw is loosened.

5. In a sewing-machine tuck marker or creaser, the combination with a presser-foot and creasing devices supported thereby, of the rod a<sup>3</sup> forming a permanent rigid part of said foot, the guide G supported by said rod and laterally adjustable thereon, and means for securing the said guide in any desired position of adjustment.

6. In a sewing-machine tuck marker or creaser, the combination with the presser-foot A, of a creasing-frame adjustably supported by said foot, creasing devices carried by said frame, a graduated scale adjustable with the said creasing-frame, a clamping-clip for securing the said creasing-frame in any desired position of adjustment and provided with an index-finger arranged adjacent to said graduated scale, an edge-guide also supported by said presser-foot and adjustable toward and from the needle position of the attachment, said edge-guide being secured in any desired position of adjustment by said clamping-clip,

a graduated scale adjustable with said edge-guide and a second index-finger on said clamping-clip adjacent to the said edge-guide graduated scale.

7. In a sewing-machine tuck marker or creaser, the combination with the presser-foot A provided with the laterally-extending sleeve or tube a, of a creasing-frame adjustably supported by the said sleeve or tube, creasing devices carried by said frame, a graduated scale adjustable with the said creasing-frame, a clamping-clip for securing the said creasing-frame in any desired position of adjustment and provided with an index-finger arranged adjacent to said graduated scale, an edge-guide also supported by said presser-foot and adjustable toward and from the needle position of the attachment, said edge-guide being also secured in any desired position of adjustment by said clamping-clip, a graduated scale adjustable with said edge-guide, and a second index-finger on said clamping-clip adjacent to the said edge-guide graduated scale.

In testimony whereof I affix my signature in the presence of two witnesses.

ALLEN JOHNSTON.

Witnesses:

J. T. HACKWORTH,  
G. BINKS.