

UNITED STATES PATENT OFFICE.

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TUCK-CREASER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 665,522, dated January 8, 1901.

Application filed April 26, 1900. Serial No. 14,411. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. GREIST, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Sewing-Machine Tuck-Creasers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to that class of sewing-machine tuck creasers or markers adapted to be attached to the presser-bar of a sewing-machine in place of the ordinary presser-foot and in which the creasing of the work is effected by a vibrating arm operated from the needle-bar of the machine in coöperation 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 which is simple and compact in construction and in which the vibrating creasing-arm will be properly cushioned, so that the movements of the needle-bar may be imparted thereto in a smooth and easy manner, thereby avoiding any harsh contacts between the operating parts, as well as providing for a proper yielding action of the creasing-arm upon the goods. The invention also provides a convenient means for throwing the creaser out of action when desired.

15 In the accompanying drawings, Figure 1 is a perspective view of the improved creaser or marker. Fig. 2 is a plan view, and Fig. 3 an end view, of the same looking from the left of Fig. 2. Fig. 4 is a cross-section on line 4 4 of Fig. 2 looking in the direction of the arrows adjacent to said line. Fig. 5 is a view similar to Fig. 4, illustrating a slight modification. Fig. 6 is a bottom view of the attachment. Fig. 7 is a detail view of the frame of the attachment; Fig. 8, a detail view of the part thereof which carries the creasing members; and Fig. 9, a detail view of the guide, which serves also as a steadying device for the adjustable part carrying the creasing members.

20 In the drawings, A denotes the foot portion of the attachment, adapted to be secured to the presser-bar of a sewing-machine and taking the place of the ordinary presser-foot, the said foot A being provided with an integral

lateral extension or arm *a*, these two parts constituting the frame of the attachment.

B denotes a base-plate carrying the creasing devices, consisting in the present instance of a vibrating arm *b*, having a right-angular part *b'*, which serves as a pivot for said arm, the said pivot being held between an ear *b*², formed at the rear end of the plate B, and an upwardly-turned rear end portion *c* of the work-holding spring *c'*, beneath which the work passes and which is riveted at its rear end to the plate B. The downwardly-turned forward end of the creasing-arm *b* is notched for coöperation in the creasing operation with an upturned lip *b*³, lying beneath the notched end of the said arm. The plate B is provided with a steadying-arm *b*⁴, adapted to rest against the part *a* of the frame of the attachment, said arm *b*⁴ being jointed to the plate B by the laterally-extending portion *b*⁵ of the said plate B.

D is an edge-guide for the work to determine the width of the tuck to be sewed, said edge-guide being part of a skeleton plate, one arm *d* of which is provided with two hooks *d'*, adapted to overlap the arm or portion *a* of the frame, and thus steady the adjustable guide on said frame. The said arm *d* is also provided with an index-finger *d*². The base-plate B of the marking members extends through an opening *d*³ in the guide, the latter serving, in coöperation with the arm *b*⁴ on the plate B, to steady the said plate B as it is adjusted toward and from the needle to vary the distance apart of the creases for the tucks to be formed.

Overlying the laterally-extending arm *a* of the frame of the attachment and also overlying the hooks *d'* of the skeleton guide-plate and the arm *b*⁴ of the base-plate B is a clamping cap-plate E, having at its rear end a lug or projection *e*, entering an aperture *a*³ in an upturned lip *a*⁴ at the end of the arm *a* of the frame, the said cap-plate being held in place by the set-screw *f*, tapped in the arm *a*, so that when the said set-screw is tightened the cap-plate will be clamped against the ears *d'* of the plate *d* and also against the arm *b*⁴ of the plate B and will thus serve to securely bind all of the parts together; but when the said set-screw is loosened the plate B may be

adjusted longitudinally of the attachment to vary the spacing of the creases for the tucks, and the guide D will also be free to be adjusted to vary the width of the tucks. The cap-plate E is formed with downturned lips at its sides (see Figs. 1 and 4) and also with a downturned lip at its forward end, (see Fig. 1,) and thus serves not only as a clamping-plate, but as a housing to cover and inclose the parts beneath it and give a finished and neat appearance to the attachment. The cap-plate E is provided with a graduated scale e' , adjacent to which is an index b^5 , movable with the plate B, and the said cap-plate is also provided with a second graduated scale e^2 , adjacent to which is the index-finger d^2 , adjustable with the guide D.

The foot portion A of the attachment is provided with a small right-angular bracket g , which serves as a pivot for the operating-lever G, which is arranged transversely of the attachment and which preferably consists of two parts g' and g^2 , yieldingly connected, the said part g' having the upwardly-extending portion g^3 , beneath the upper part of which and the arm g' is interposed a coil-spring g^4 . The part g^2 of the lever G rests upon the creasing-arm b , and the creasing attachment is so located that a screw or other projection on the needle-bar of the sewing-machine comes into an easy sliding contact with the inclined upwardly-extending part g^3 of the part g' and through the coil-spring g^4 forces the part g^2 yieldingly downward against the said creasing-arm, thus causing the notched downturned end of said arm to crease the goods lying between it and the lip b^3 of the plate B. The arm g' is provided with a small projection or hook g^5 , which extends beneath the arm g^2 and which thus limits the expansion of the coil-spring g^4 , so that the said parts or arms will travel together during the greater part of their movement; but when the pressure of the needle-bar projection on the arm g of the lever G causes the stress of the said coil-spring to be overcome the said arm g' will continue to move downward to a slight extent after the movement of the arm g^2 has been arrested.

The creasing-arm b is lifted by one arm of a forked spring h , secured in place by the set-screw f , said spring having a second arm, the end portion h' of which extends beneath the end of the operating arm or lever G, which has a rectangular end portion against which the portion h' of said spring bears, so as to serve to hold the lever either in the operating position (shown in full lines in Fig. 3) or in the inoperative position (shown in dotted lines in said figure) when the said lever has been raised to throw the creaser out of action.

Instead of making the operating-lever G of two rigid arms or parts, as g' g^2 , yieldingly connected, the said lever may consist of one rigid arm g^6 and a spring-arm, as g^7 , consisting of a rather stiff piece of steel wire, as shown in Fig. 5.

Having thus described my invention, I

claim and desire to secure by Letters Patent—

1. In a sewing-machine tuck-creaser, the combination with a presser-foot having a lateral extension or arm, as a , of a clamping cap-plate and housing overlying said arm, an adjustable base-plate carrying the creasing devices, an adjustable guide having an opening through which the base-plate of the creasing devices extends and which base-plate is thus steadied by said guide, said base-plate and guide both having parts interposed between said lateral extension or arm and said cap-plate and housing, a screw device for rigidly securing the said clamping cap-plate and housing in place, and a vibrating operating-lever for said creasing devices.

2. In a sewing-machine tuck-creaser, the combination with a presser-foot having a lateral extension or arm, as a , provided at its end with an upturned lip, as a^4 , having an aperture, a clamping cap-plate or housing E having at its rear end a lug or projection, as e , entering said aperture, an adjustable base-plate carrying the creasing devices which include a vibrating creasing-arm, an adjustable guide, said base-plate and guide both having parts interposed between said lateral extension or arm and said cap-plate and housing, a screw device for rigidly securing the said cap-plate and housing in place, and an operating-lever pivotally mounted on said foot and arranged transverse of the attachment, said operating-lever having a yielding part engaging said vibrating creasing-arm.

3. In a sewing-machine tuck-creaser, the combination with the frame thereof and the creasing devices adjustably mounted on said frame and including a vibrating creasing-arm, of an operating-lever for said arm and which lever is adapted to be moved to an inoperative position, and means for holding said lever in its inoperative position when it has been thrown out of action.

4. In a sewing-machine tuck-creaser, the combination with the frame thereof consisting of the foot A and the lateral extension or arm a integral therewith, of the clamping cap-plate E extending lengthwise of the attachment and having downturned lips, as described, so as to serve as a housing, the adjustable base-plate B having a creasing-lip, the vibrating creasing-arm b mounted on said base-plate, the transverse lever G for operating said creasing-arm and having an upwardly-extending inclined portion to be engaged by a projection on the needle-bar of the machine, said operating-lever having a yielding part engaging said creasing-arm, an adjustable guide, said base-plate and guide having parts interposed between said lateral extension or arm and said plate E, a screw device for securing said cap-plate E in place, and a spring for lifting the said vibrating arm after it has been depressed by the said operating-lever.

5. In a sewing-machine tuck-creaser, the

combination with the frame thereof, of the base-plate B adjustably mounted on said frame and carrying a creasing-lip and a vibrating creasing-arm, means for securing said
5 base-plate to said frame, the transverse operating-lever G consisting of the parts or arms g' and g^2 , the coil-spring g^3 interposed between said parts or arms, said arm g' having the hook or projection g^5 extending beneath
10 and receiving the arm g^2 to limit the movement of said arm g^2 under the influence of said spring g^3 , and the spring h for lifting said vibrating creasing-arm.

6. In a sewing-machine tuck-creaser, the
15 combination with the frame thereof and the base-plate B adjustably mounted on said frame and provided with a creasing-lip and a vibrating creasing-arm, of an operating-lever for said creasing-arm and which lever is
20 adapted to be moved to an inoperative position, and a forked spring one portion of which serves to lift the said creasing-arm and the

other portion of which serves to retain the said operating-lever in its inoperative position.

7. In a sewing-machine tuck-creaser, the
25 combination with the frame consisting of the foot A and the lateral extension or arm a , of the base-plate B carrying the creasing devices and having the steadying-arm b^4 over-
30 lying the said arm a , the guide D having the hooks or parts d' engaging the said arm a , the clamping cap-plate E overlying the said arm b^4 and the said hooks or parts d' , a screw device for securing said cap-plate to said arm
35 a , and operating means for the creasing devices.

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

JOHN M. GREIST.

Witnesses:

W. J. SMITH,

L. A. BEECHER.