

No. 665,829.

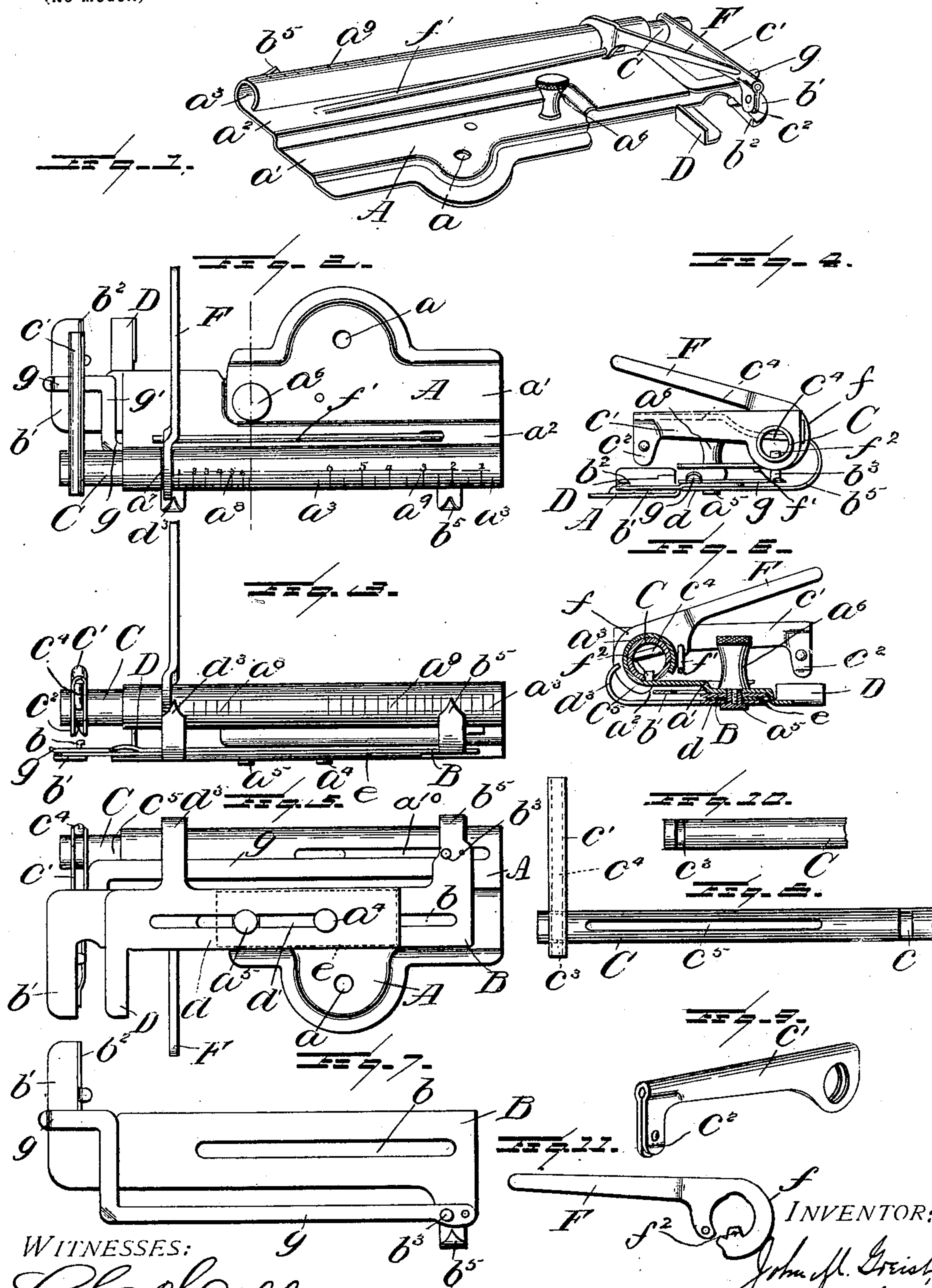
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J. M. GREIST.

SEWING MACHINE TUCK GREASER OR MARKER.

(Application filed May 14, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

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SEWING-MACHINE TUCK CREASER OR MARKER.

SPECIFICATION forming part of Letters Patent No. 665,829, dated January 8, 1901.

Application filed May 14, 1900. Serial No. 16,659. (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 or Markers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to that class of sewing-machine tuck-creasing or tuck-marking attachments adapted to be secured to the work-plates of the machines and operated from the needle-bars thereof, the invention having for its object to provide a compact and simple device of the class referred to which is convenient in use, solid in construction, and which may be manufactured at comparatively little cost.

In the accompanying drawings, Figure 1 is a perspective view of my improved creaser looking at the same from the rear side thereof. Fig. 2 is a plan view of the attachment, and Fig. 3 is a front side or front edge view thereof. Fig. 4 is an end view looking from the left of Figs. 2 and 3. Fig. 5 is a bottom view. Fig. 6 is a cross-section on line 6 6 of Fig. 2. Fig. 7 is a detail view of the adjustable creasing frame or plate; Fig. 8, a bottom view of the rocking tube adjustable with said frame or plate and provided with a vibrating creasing-arm. Fig. 9 is a detail view of the creasing-arm of the rocking tube. Fig. 10 shows a portion of the upper side of the rocking tube, and Fig. 11 is a detail view of the operating-arm of said tube.

Referring to the drawings, A denotes the base-plate of the attachment, provided with a hole a to adapt it to be secured to the work-plate of a sewing-machine by means of a suitable set-screw. The base-plate A is provided with successively-raised portions a' a^2 to accommodate the parts beneath the same, the portion a^2 being curled over at one edge to form a tube or tubular portion a^3 , which is thus integral with the said base-plate.

B is an adjustable creasing frame or plate arranged beneath the base-plate A and having a sliding connection therewith by means of a rivet a^4 and a headed and threaded stud a^5 , the latter being provided with a set-nut a^6 , serving to secure the said plate B to the plate

A in any desired position of adjustment, the said plate B being provided with a slot b , through which the said rivet a^4 and stud a^5 extend. The plate B is also provided at its front end with an arm b' , having an upturned creasing-lip b^2 , and the said plate B is furnished at its rear end with a rigidly-fixed pin or small post b^3 .

C is a rocking tube fitting loosely within the tube a^3 , with which the base-plate A is provided, said tube C having at its rear end a slot c , into which through a slot a^{10} in the base-plate A the pin or small post b^3 on the plate B projects, said pin or post thus connecting said rocking tube with the said plate B, so that these two parts will be longitudinally adjustable together. Attached to the forward end of the tube C is a vibrating creasing-arm c' , preferably consisting of a folded piece of sheet metal, the two parts of which at the creasing portion c^2 of said arm are slightly separated to form a small notch or V-shaped recess between them and which notch or recess overhangs the creasing-lip b^2 , so as to press upon the goods lying upon said lip when the said vibrating creasing-arm is depressed. The tube C is provided with a slot or notch c^3 , which receives a bent spring-wire c^4 , housed within the vibrating creasing-arm c' , said wire serving as a key to attach the said arm c' to said tube C and serving also to yieldingly connect said arm with said tube, so that a continued rocking movement of the said tube is permitted after the vibrating movement of the said creasing-arm c' has been arrested, thereby providing for a cushioning action of the said creasing-arm c' on the goods overlying the creasing-lip b^2 . The adjustment of the creasing devices, movable with the plate B, is for the purpose of varying the width of the tucks being formed.

D is an edge-guide which determines the width of the tucks being formed, the said edge-guide being preferably formed integral with the plate d , arranged beneath the plate B and provided with a slot d' , receiving the headed rivet a^4 and the headed stud a^5 , the said plate d being secured in any desired position of adjustment by the same set-nut a^6 by which the plate B is secured in place. To prevent accidental displacement either of the guide-carrying plate d or the plate B, carry-

ing the creasing devices, when only one of these two independently-adjustable parts is changed in position, I interpose a thin plate *e* between these two parts.

5 The rocking tube or shaft C is actuated by means of an operating-arm F, received in a transverse slot *a*⁷ in the tube *a*³ on the base-plate A, said arm having an eye or portion *f* encircling the said rocking tube or shaft and
10 being provided with an inwardly-extending lug or projection *f*², entering a slot *c*⁵ in the underside of the said tube C, so as to permit of a longitudinal adjustment of the said tube while the said arm remains stationary. The
15 walls of the slot *a*⁷ hold the operating-arm in a fixed position relative to the base-plate A when the rocking tube or shaft C is adjusted through the encircling portion of said arm. The arm F is arranged to be engaged by a
20 screw or other projection on the needle-bar of the machine to depress said arm, and consequently to force the vibrating creasing-arm *c*¹ downward upon the goods overlying the creasing-lip *b*², the said arm F being lifted by
25 a spring *f*¹.

The tube *a*³ of the base-plate A is preferably provided with a graduated scale *a*⁸, adjacent to which is an index-finger *d*³ on the plate *d*, carrying the edge-guide D, and the
30 said tube *a*³ is also preferably provided with a second graduated scale *a*⁹, adjacent to which is an index-finger *b*⁵ on the plate B, these graduated scales and index-fingers indicating, respectively, the width of the tucks
35 and the distance apart of the tucks being formed.

Attached to the plate B is the work-holding spring *g*, which is adapted to press lightly upon the work passing to the creasing devices.

40 The operation of the attachment will be readily understood from the foregoing. When the device is secured to the work-plate of a sewing-machine and the machine is in operation, a projection or screw on the needle-bar
45 of the machine will press upon the arm F at each downstroke of the needle-bar and will thus force the creasing-arm *c*¹ yieldingly downward upon the work overlying the creasing-lip *b*². When in the descent of the needle-
50 bar the creasing-arm *c*¹ is stopped by reason of its engagement with the goods overlying the creasing-lip, a further downward movement of the arm F and a continued rocking movement of the tube C is permitted after
55 the movement of the creasing-arm *c*¹ has been arrested, owing to the yielding connection between the said sleeve and the said arm afforded by the spring *c*⁴.

I do not wish to be understood as limiting
60 my invention to all the details herein shown, as these may be varied widely within the limits of mechanical skill without departing from the essence of the invention. For example, the rocking part C, carrying the vibrating creasing-arm *c*¹, might be a solid rod
65 or shaft instead of a tube, as herein shown, and this feature of the rocking shaft within

its tubular support might also be applied to a presser-foot tuck-creasing attachment. Also other variations in the detailed construction
70 of the parts might be made without departing from the spirit of my invention.

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

1. In a sewing-machine tuck creaser or
75 marker, the combination with a sheet-metal base-plate curled over at one of its longitudinal edges to form an integral tubular portion extending lengthwise of the attachment, of a
80 rocking tube received by and housed within said tubular portion of said base-plate and provided with a rigid creasing-arm, a lower creasing member or lip cooperating with said
85 creasing-arm, and means for operating said rocking tube; said rigid or creasing arm being yieldingly mounted on said tube, so that
movements of the latter are permitted after the movements of the said creasing-arm have been arrested.

2. In a sewing-machine tuck creaser or
90 marker, the combination with a base-plate provided with a tubular portion, of a rocking tube or shaft fitted for longitudinal adjustment and for rocking movements within said
95 tubular portion of said base-plate, said tube or shaft being provided with a slot or opening, a plate adjustably connected with said base-plate and provided with a creasing-lip
and with an upwardly-projecting stud or post extending into said slot or opening of said
100 rocking tube or shaft, and an operating-arm adapted to be actuated from the needle-bar of the machine and which is connected with said tube or shaft to impart rocking move-
105 ments thereto.

3. In a tuck creaser or marker, the combination with a base-plate provided with a tubular portion extending lengthwise of the attachment and having a transverse slot, of a
110 lower creasing lip or member, a rocking shaft or tube suitably mounted on said base-plate and provided with a creasing-arm and with a longitudinal slot or recess, an operating-arm encircling the said rocking tube or shaft and
115 extending into said transverse slot the walls of which extend on both sides of said arm and prevent said arm from moving lengthwise of the attachment when the said rocking tube is adjusted, said operating-arm being provided with a lip or projection extending into
120 said longitudinal slot or recess which latter permits longitudinal adjustment of the said rocking tube or shaft while the said operating-arm remains in one position.

4. In a sewing-machine tuck creaser or
125 marker, the combination with the base-plate A having a tubular portion *a*³ provided with the transverse slot *a*⁷, of the plate B having a sliding adjustable connection with the said
130 plate A and provided with a lower creasing member or lip, the rocking tube or shaft C connected with the said plate B, so as to be adjustable therewith, and provided with a vibrating creasing-arm cooperating with said

lip and with a longitudinal slot or recess, the operating-arm F received in the said transverse slot a^7 of the said tubular portion of said base-plate and provided with a lug or projection f extending into said longitudinal slot of said tube or shaft C, and a spring for lifting the said arm F.

5. In a sewing-machine tuck creaser or marker, the combination with the base-plate A having a tubular portion a^3 , of the plate B having a sliding adjustable connection with the said plate A and provided with a lower creasing member or lip, the rocking tube or shaft C connected with the said plate B so as to be adjustable therewith and provided with a vibrating creasing-arm coöperating with said lip and also provided with a longitudinal slot or recess, the operating-arm F received in a slot or recess of the said tubular portion of said base-plate and provided with a lug or projection f extending into said slot or recess of said tube or shaft C, and a spring for lifting the said arm F, said creasing-arm being yieldingly mounted on said tube or shaft so that movements of the latter will be permitted after the movements of the said creasing-arm have been arrested.

6. In a sewing-machine tuck creaser or marker, the combination with the base-plate A having a tubular portion a^3 , of the plate B having a sliding adjustable connection with the said plate A and provided with a lower creasing member or lip, the rocking tube C connected with the said plate B so as to be adjustable therewith and provided with a vibrating creasing-arm, coöperating with said lip, and also provided with a longitudinal slot or recess, the operating-arm F received in a slot or recess of the said tubular portion of said base-plate and provided with a lug or projection f extending into said slot or recess of said tube C, a spring for lifting the said arm F, the plate d also having a sliding adjustable connection with the said base-plate

A and provided with an edge-guide D, and a single screw device for securing the said plates B and d to the said plate A in any desired position of adjustment.

7. In a sewing-machine tuck creaser or marker, the combination with the base-plate A having a tubular portion a^3 provided with two graduated scales, of the plate B having a sliding adjustable connection with the said plate A and provided with a lower creasing member or lip, the rocking tube C connected with the said plate B so as to be adjustable therewith and provided with a vibrating creasing-arm, coöperating with said lip, and also provided with a longitudinal slot or recess, the operating-arm F received in a slot or recess of the said tubular portion of said base-plate and provided with a lug or projection f extending into said slot or recess of said tube C, and a spring for lifting the said arm F, the plate d also having a sliding adjustable connection with the plate A and the said plates B and d being provided with index-fingers arranged adjacent to said graduated scales.

8. In a sewing-machine tuck creaser or marker, the combination with a base-plate provided with a tubular portion, of the rocking tube C provided with the slot c^5 , the vibrating creasing-arm c' having a portion encircling said tube C, said arm consisting of a folded piece of sheet metal, and the wire spring c^4 housed in said arm c' and extending into the said slot c^3 , said spring serving to yieldingly attach the said arm to the said tube, a lower creasing lip or member coöperating with the said creasing-arm, and means for operating the said rocking tube.

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

JOHN M. GREIST.

Witnesses:

W. C. GREIST,
DAVID C. MONSON.