(No Model.)

J. M. GRIEST.

TUCK MARKER FOR SEWING MACHINES.

No. 319,706. Patented June 9, 1885.

Fig. 1.

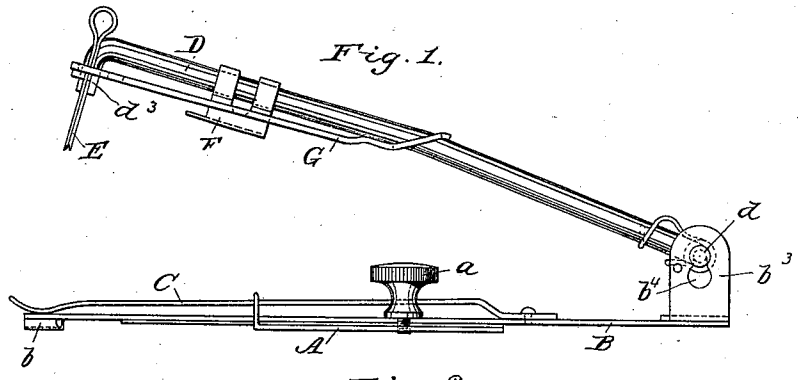


Fig. 2.

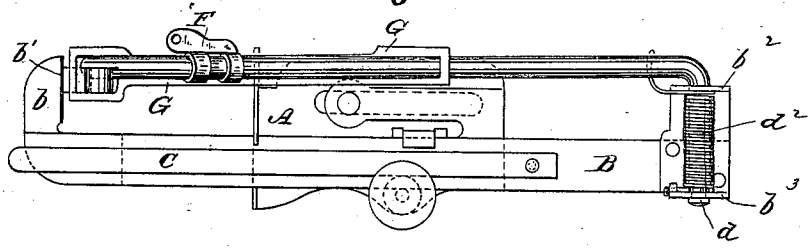


Fig. 3.

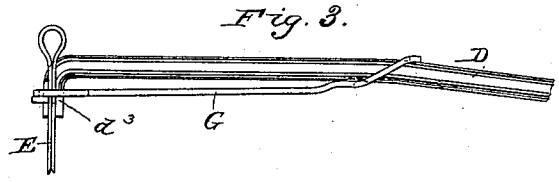


Fig. 4.

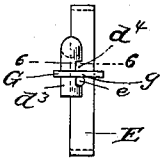


Fig. 5.

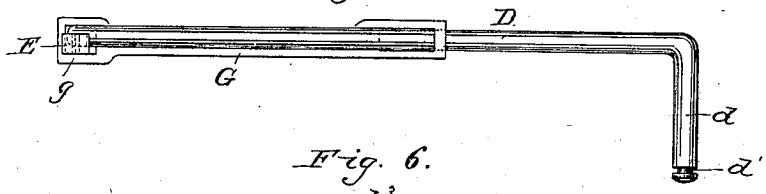
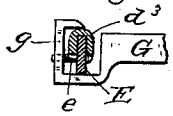


Fig. 6.



WITNESSES:

E. D. Smith

L. A. Lowrie Jr.

INVENTOR

John M. Griest,

BY

Henry Calvert,

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN M. GRIEST, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY OF NEW JERSEY.

TUCK-MARKER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 319,706, dated June 9, 1885.

Application filed October 27, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. GRIEST, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tuck-Markers for Sewing-Machines, 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-markers in which a vibrating arm receiving its downward movement from the needle-bar of the machine carries at its free end a notched marking device, which is caused at each stroke of the needle-bar to strike against the fabric running over an upturned edge or blade on the base-plate of the marker, thus making a continuous crease in the fabric as the sewing progresses, said crease indicating the line on which the fabric is to be folded for the tuck next to the one being sewed.

The object of my invention is to improve this class of attachments by yieldingly connecting the notched marker with its carrying-arm, so that while the latter may be strong and rigid the marker carried thereby will strike gently against the fabric, and also by providing such constructions of the marker-carrying arm and its bearings that side motion of said arm will be prevented and the marker be caused to register accurately with the marking-blade.

In the drawings, Figure 1 is a side view of a tuck-marker embodying my improvements, and Fig. 2 is a plan view of the same. Fig. 3 is a partial detail view of the marker-carrying arm with the marker and spring. Fig. 4 is an end view of the same. Fig. 5 is a plan view of the marker-carrying arm and its attached parts; and Fig. 6 is an enlarged sectional detail on line 6 6, Fig. 5.

A is the attaching-plate by which the marker is secured to the bed-plate of the sewing-machine, the base-plate B of the marker being so connected with the plate A that it may slide longitudinally thereon in a well-known manner when adjustment for different width of tucks is necessary, said plates being secured together after adjustment by a set-screw, *a*, impinging against the plate B and entering the plate A. The forward end, *b*, of the plate B extends at right angles to the main portion of said plate, and is provided with an ordinary upturned marking edge or blade, *b'*.

C is a spring-presser for holding the fabric against the base-plate B.

D is a vibrating arm carrying at its forward end the marker E, the right-angularly bent rear portion, *d*, of said arm being pivoted or having bearings in standards b^2 b^3 projecting upward from the plate B. Near the end of the bent portion *d* of the arm D is an annular recess, forming a neck, *d'*. The standard b^2 has a hole the size of the arm D, through which the bent end *d* passes, and the standard b^3 has an elongated opening, b^4, through the larger lower portion of which the outer end of the part *d* can pass, while the smaller upper part of said hole fits the neck *d'* to hold the arm in place. A coiled torsional spring, d^2, arranged between the standards b^2 b^3, and connected at one end with the standard b^3, holds the outer end of the part *d* in its bearing in the standard b^3, while the other end of said spring bears on the under side of the arm D, so that said spring serves to raise said arm after it has been depressed by the needle-bar of the machine.

F is an ordinary yoke for connecting the arm D with the needle-bar of the machine, said yoke being loosely mounted on said arm, and having a hole through which the needle passes.

The forward end, d^3, of the arm D is turned downward, and is provided with a vertical slot or recess, in which the marker E is arranged to slide, said marker having a pin, *e*, working in a notch, d^4, in the said end d^3 to limit the movement of the marker relatively to the arm, or, more properly, to limit the movement of the arm relatively to the marker.

G is a flat spring, attached at its rear end to the arm D, said spring having at its forward end a loop, *g*, extending around the marker and bearing against the outer edge of the latter to hold it in its recess in the downwardly-turned end of the arm D. The loop *g* bears on the upper side of the pin *e* on the marker, and thus normally holds said pin downward in the notch d^4. The body of the spring G is

offset from the arm D, so as to leave sufficient space between said spring and arm for the free movement of the yoke F on the latter.

In the operation of my device the arm D is depressed by the needle-bar of the machine in the usual manner, causing the notched lower end of the marker E to strike the fabric lying over the blade b' of the plate B. After the marker has been depressed into contact with the fabric the needle-bar continues its descent for a short distance, and during this continued downward movement of the needle-bar the spring G will yield, allowing the end d^2 of the arm D to slide downward on the marker, and pressing the latter firmly but gently against the fabric, and thus making a proper mark or crease in the same. As the arm D rises the spring holds the marker down until the pin *e* reaches the lower end of the notch d^3, after which the marker rises with the arm.

By thus yieldingly connecting the marker with its carrying-arm, a strong rigid arm may be employed in place of the flexible marker-carrying arms heretofore generally in use, said flexible arms being so slender that they are liable to become bent or to spring when in use, so that the marker will not always register properly with its co-operating marking-blade; also, by mounting the vibrating arm in the standards in the manner hereinbefore described, a cheap and efficient construction, affording steady bearings for said arm, is provided, and side movements, to which marker-carrying arms which have but a single pivotal bearing are liable, are thus prevented.

I claim as my invention—

1. In a tuck-marker, the combination, with a base-plate having a marking-blade, of a rigid vibrating arm, a marker carried by said arm, and a spring attached to said arm about midway between the ends thereof and connected with the said marker, said spring serving as a yielding connection between the latter and said arm, substantially as set forth.

2. In a tuck-marker, the combination, with a base-plate having a marking-blade, of a rigid vibrating arm having a downwardly-bent end provided with a slot or recess, a marker arranged in said recess, and a spring forming a yielding connection between said arm and marker, said spring being arranged to bear against one edge of the latter to hold it in its recess, substantially as set forth.

3. In a tuck-marker, the combination, with a base-plate having a marking-blade, a rigid vibrating arm having a downwardly-bent end, said end being provided with a slot or recess and a notch, and a tuck-marker arranged in said recess and having a pin or projection working in said notch, the latter with the pin thus serving to limit the movements of the marker relatively to the vibrating arm by which it is carried, substantially as set forth.

4. In a tuck-marker, the combination, with the base-plate and its standards, one of which is provided with an elongated opening smaller at one end than the other, of a vibrating marker-carrying arm having a bent end passing through said standards, said end being recessed to form a neck which fits in the smaller part of said elongated opening, substantially as set forth.

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

JOHN M. GRIEST.

Witnesses:

JOSIAH SIMMS,

RICHARD SIMMS.