

(No Model.)

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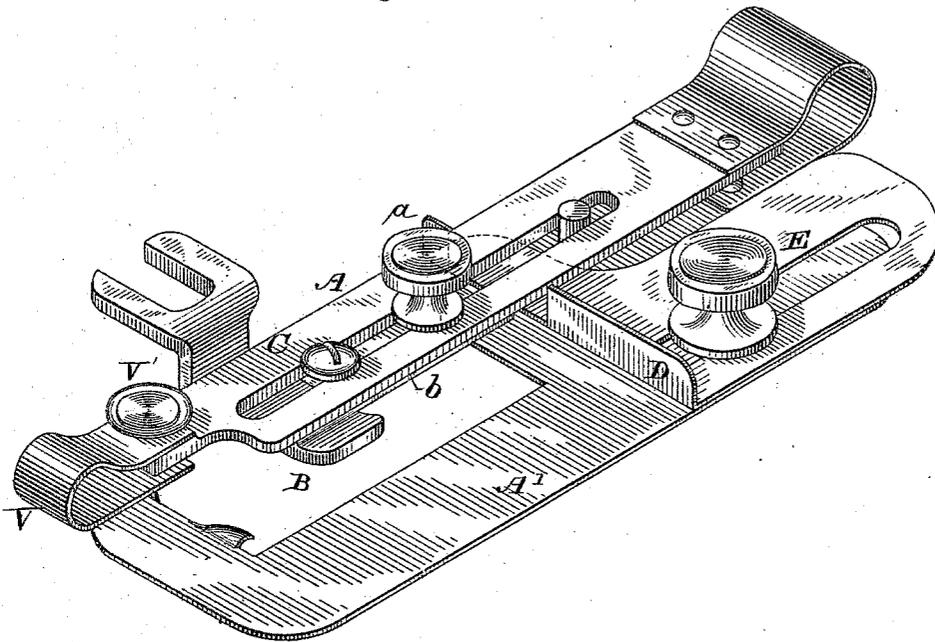
J. C. GOODWIN & C. W. WARREN.

TUCK MARKER FOR SEWING MACHINES.

No. 296,555.

Patented Apr. 8, 1884.

Fig. 1.



WITNESSES

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By their Attorneys

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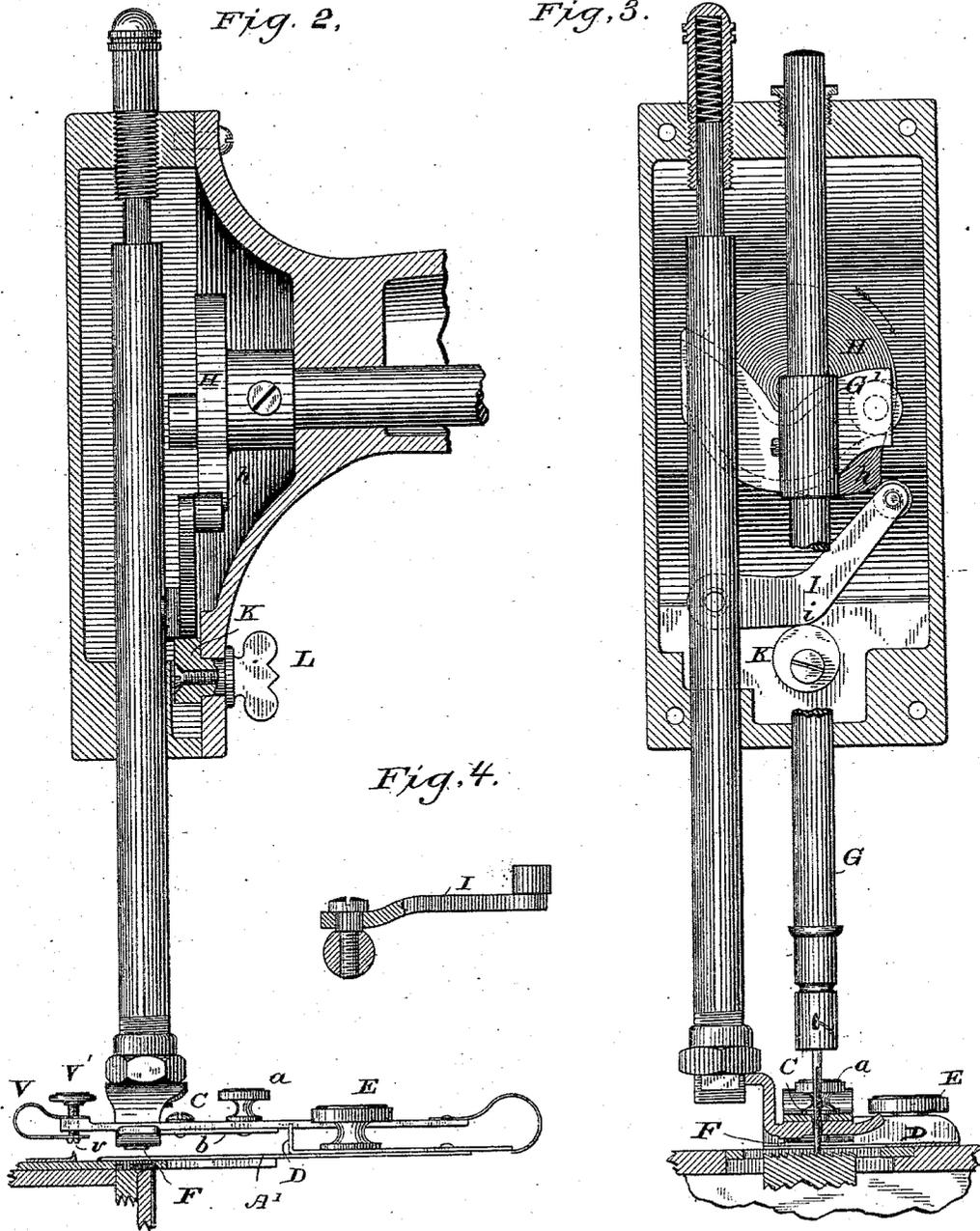
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UNITED STATES PATENT OFFICE.

JULIUS C. GOODWIN AND CHARLES W. WARREN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS TO THE AMERICAN BUTTONHOLE, OVERSEAMING AND SEWING MACHINE COMPANY, OF SAME PLACE.

TUCK-MARKER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 296,555, dated April 8, 1884.

Application filed October 23, 1883. (No model.)

To all whom it may concern:

Be it known that we, JULIUS C. GOODWIN and CHARLES W. WARREN, both of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Tuck-Markers for Sewing-Machines, of which the following is a specification.

Our invention relates to tuckers or creasers, and, as incidental thereto, to certain improvements by which the vertical motion of the presser-foot is increased or diminished, according to the thickness of the material being sewed.

In the accompanying drawings, Figure 1 is a perspective view of a tucker or creaser; Fig. 2, a view of such a creaser applied to the presser-foot of a sewing-machine with part of the goose-neck or frame of the machine in section, so as to show the devices for vertically actuating the presser-foot. Fig. 3 is a side or end view of the same, also partly in section with some of the parts broken away; and Fig. 4 is a detail view of the lever which actuates the presser-foot.

The spring-arm or creaser-bar A, which is connected by a curved or elliptic spring with the bottom plate of the tucker, is carried on the upper face of the presser-foot B, and is securely attached thereto by a set-screw, *a*, which passes through an elongated slot in the bar A and screws into a lateral extension, *b*, which projects upon the right-hand side of the presser-foot. A headed screw-bolt, C, passes through this slot, and also screws into a socket in the lateral extension, but does not clamp the creaser-bar. By loosening the set-screw *a*, therefore, the bar may be adjusted laterally to bring the line of the crease closer to or farther from the line of stitching.

A gage, D, for regulating the line of the stitch in the ordinary way, is carried upon the base A' of the tucker, and is held in any desired position by a set-screw, E, which passes through a slot in the gage-plate D and screws through the base-plate A' of the tucker and into the bed-plate of the machine. By adjusting the tucker, therefore, relatively to the presser-foot which carries the creaser-bar, and

by independently adjusting the gage D, any desired width of tuck may be obtained.

In order to give the presser-foot proper vertical play to vibrate the creaser-bar, we provide means by which to give the required movement for all the various thicknesses of material. Where the material being tucked is comparatively thin, the vertical motion of the presser-foot that is necessary is obtained in the following way: An enlargement or projecting block, F, is formed on the under face of the presser-foot, and the feed-foot, in rising, comes against it and lifts the presser-foot. The motion is ordinarily sufficient for comparatively thin material. In order to obtain a more extended movement of the presser-foot, however, we supplement the device just described by mechanism which acts on the presser-foot bar to raise and lower it. This mechanism is carried in the end of the frame of the machine, shown in sections in Figs. 2 and 3.

The needle-bar G is actuated in the ordinary way by a pin carried by a revolving disk, which pin works in a sinuous track, G', carried on the needle-bar, so that as the disk rotates the needle-bar is worked up and down. Upon this disk H we form a cam-extension, *h*, which works upon a roller carried in the end of a bent arm, I, which is pivotally connected with the presser-foot bar, as shown more especially in Figs. 3 and 4. The bent arm I has its bearing at or about its elbow *i* upon an eccentric-disk, K, carried on the end of a thumb-bolt, L, which projects outside the casing. When the disk K is turned by the operator of the machine, so as to bring its narrowest side upward, the bent lever I rests upon it, but is permitted to fall so low that the cam *h* on the disk H will not come in contact with the roller on the end of the arm, and there is therefore no motion of the presser-foot bar from this source. If, however, it is desired to increase the vertical movement of the presser-foot bar, the operator of the machine, by means of the projecting thumb-button, turns the disk K, so as to elevate the bent lever I into a position where the roller upon its end will be

struck by the cam *h*. As the cam comes against the roller, that end of the lever I is thrown down, and, rocking upon the disk K as a fulcrum, elevates the presser-foot bar.

5 As soon as the cam has passed the roller on the lever I, the presser-foot is thrown down by the spring S. By adjusting the disk K to elevate the lever I more or less, the vertical motion of the presser-foot may be varied to

10 suit different materials. This device, in connection with the enlargement on the sole of the presser-foot, gives a complete range of adjustment to suit the varying materials which may be placed in the machine.

15 Many of the details of the invention may of course be varied without departing from the essential particulars of our invention. For instance, the lever I, instead of being actuated by a cam on the disk H, might be properly

20 moved by a suitable conformation of the under side of the track G' on the needle-bar; nor is our invention confined to the specific way of mounting the creaser-bar on the presser-foot.

25 In a creaser of this character, operated by the presser-foot of a sewing-machine to which varying degrees of vertical motion are imparted, some adjustment of the creaser itself is desirable. The creaser *v* is therefore placed

30 on a bent or elliptic spring, V, which is carried on the end of the creaser-bar, and the creaser may be adjusted toward or away from the under side of the creaser-bar by means of a thumb-screw, V'.

A heel on the presser-foot in connection with a creaser-bar carried by the presser-foot

35 is disclaimed herein, as such claim is embraced in another application filed by us December 13, 1883, and numbered 114,448.

We are aware that devices for controlling and adjusting the vertical movement of the

40 presser-foot of a sewing-machine are old.

We claim as our invention—

1. The combination, substantially as set forth, of the presser-foot, its lateral extension, the longitudinally-slotted creaser-bar mounted thereon, and actuated by the presser-foot to

45 crease the cloth, creasing devices, the guide C and set-screw *a* for adjusting the creaser-bar on the presser-foot, the slotted base-plate A' of the tucker, and a set-screw, E, for

50 adjustably securing it to the bed-plate of the machine.

2. The combination, substantially as set forth, of the creaser-bar, the bent or elliptic spring V, the creaser *v*, carried thereby, and

55 the screw V' for adjusting the creaser, which screw is carried by the creaser-bar, and works against the elliptic spring in line with the creasing device.

3. The combination, substantially as set forth, of the creaser-bar, an elliptic creaser-spring, V, carried by the creaser-bar, and a

60 screw, V', for adjusting the spring V.

4. The combination, substantially as set forth, of the presser-foot, the creaser-bar

65 mounted on and actuated by the presser-foot, devices for securing the creaser-bar on the presser-foot, and mechanism for imparting an increased vertical motion to the presser-foot.

5. The combination, substantially as set forth, of the presser-foot, creasing devices carried thereby, devices for securing the creaser-bar on the presser-foot, the presser-foot bar, the lever pivoted thereto, a cam-face which

70 acts on the lever, and the adjustable fulcrum of the lever.

In testimony whereof we have hereunto subscribed our names this 20th day of October, A. D. 1883.

JULIUS C. GOODWIN.
CHAS. W. WARREN.

Witnesses:

W. W. DOUGHERTY,
W. M. BALDWIN.