

A. JOHNSTON.

TUCK-MARKING ATTACHMENT FOR SEWING-MACHINES.  
No. 170,375. Patented Nov. 23, 1875.

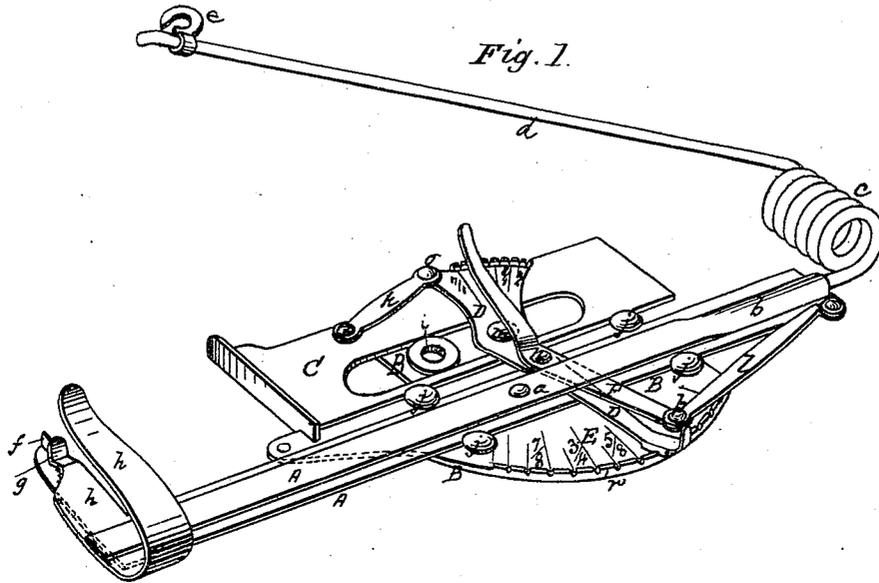


Fig. 1.

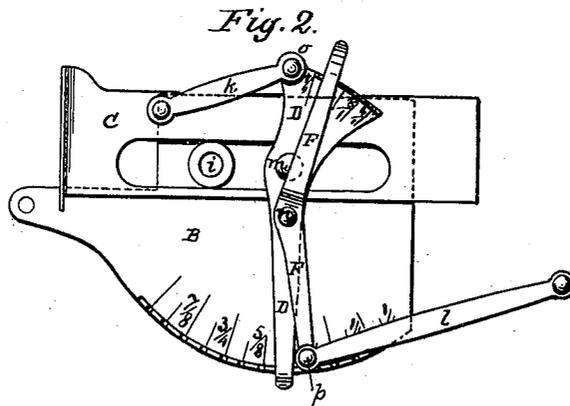


Fig. 2.

Witnesses:

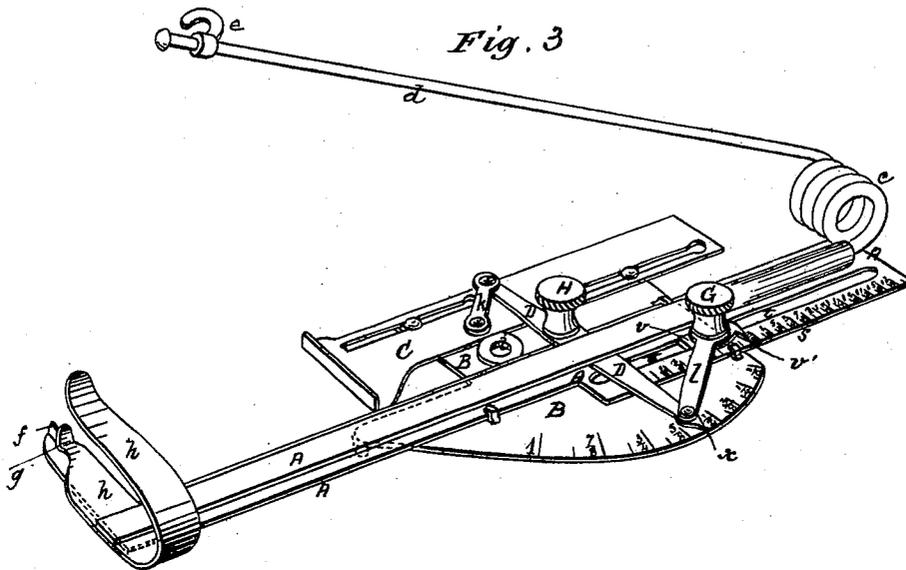
*E. W. Schaffer*  
*W. Schaffer*

Inventor:

*Allen Johnston*  
*by R. W. S. S. S.*  
*his atty*

A. JOHNSTON.

TUCK-MARKING ATTACHMENT FOR SEWING-MACHINES.  
No. 170,375. Patented Nov. 23, 1875.



Witnesses:

*Everett A. Wick*  
*W. E. Chaffee*

Inventor:

*Allen Johnston*  
*by atty. Rowden Bailey*  
*attys.*

# UNITED STATES PATENT OFFICE.

ALLEN JOHNSTON, OF OTTUMWA, IOWA.

## IMPROVEMENT IN TUCK-MARKING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 170,375, dated November 23, 1875; application filed October 18, 1875.

To all whom it may concern:

Be it known that I, ALLEN JOHNSTON, of Ottumwa, Iowa, have invented certain new and useful Improvements in Tuck-Marking Attachments for Sewing-Machines, of which the following is a specification:

The tuck-marker in which my invention is comprised possesses, in common with other devices of this character, a tuck-marking device and a gage, and both of these devices are adjustable upon a fixed base-plate, for the purpose of spacing and of regulating the width of the tucks.

The main feature of my invention consists in so connecting the marker and gage that they can be moved bodily and together; that when thus operated they shall move in opposite directions; and that the marker shall move with twice the speed of the gage.

Another feature of my invention consists in so combining the marker and gage that, while they can be moved bodily and together under the conditions specified in the preceding paragraph, the marker may at the same time be adjusted independently of the gage, in order to space the tucks as required.

The accompanying drawing represents a tuck-marker embodying the above-mentioned improvements.

Figure 1 is a perspective view of the attachment. Fig. 2 is a plan of the same, with the marking device removed.

This attachment has a marking device, consisting of the two strips A A, fastened together at *a* and *b*, and attached at the rear to the spring-coil *c*, from which extends the spring-arm *d*, provided with eye *e*, to engage the needle-bar of the sewing-machine. To the front end of the under strip A is attached the spur or blade *f*. To the front end of the upper strip is attached the notched shoe *g*, which works down on the spur, and is formed in one piece with a bent spring-strip, *h*, which, when struck by the descending arm *d*, causes the notched shoe to press down on the spur.

The parts so far described, which constitute the marker proper, are of the usual construction, and operate in the usual way.

The marker is mounted on a base-plate, B, designed to be fixed to the cloth-plate of the

sewing-machine by a set-screw passing through the hole *i*. The marker is arranged to slide on the base-plate between guides *j*, by which it is held thereto. On the base-plate is also mounted the sliding or adjustable sewing-gage C, the functions of which are too well known to require description.

It is known that in this class of attachments in adjusting the devices the marker, after allowing for the spacing, should move twice as far from the needle as the gage. This I effect by connecting the two, so that they can be moved bodily and simultaneously, the marker invariably moving twice the distance moved by the gage.

The devices used by me in the present instance consist of a lever, D, and two connecting arms or rods, *k l*. This lever, which is the main adjusting-lever, is pivoted at *m* to the base-plate. To one of its arms is pivoted, at *o*, the connecting-rod *k*, which, at the other end, is pivoted to the gage. Its other arm is in like manner connected with the marker through the intermediary of the connecting-rod *l*. This connecting-rod may be pivoted directly to the lever; but in order to provide for an independent adjustment of the marker, for the purpose of spacing the tucks, I pivot the connecting-rod at *p* to one arm of a supplemental lever, F, which I shall call the spacing-lever, and this lever in turn is pivoted at *n* on the main adjusting-lever. The distance between the points *p* and *m* is twice the distance between the points *o* and *m*, and the arrangement of the system of levers and connecting-rods is such that when the lever D is moved the marker and gage will move simultaneously in opposite directions—the marker twice as fast as the gage.

In order to readily determine the width of tuck, a fixed scale, E, of divisions is marked on the base-plate, which is combined with a rib, *r*, curved in the arc of a circle, of which the point *m* is the center, and formed with a series of notches corresponding to the divisions of the scale. The longer arm of the lever D is prolonged to form a spring, which extends over this notched rib, and is provided with a spur on its under side, to engage the notches. This spring-arm can be lifted to dis-

engage its spur from the notched rib whenever it is desired to move the lever for purposes of adjustment.

I employ the same means for determining the width of spaces between the tucks, for this purpose forming the scale and notched rib on the shorter arm of the lever D, and terminating the adjoining portion of the spacing-lever F in a spring-arm, with a spur on its under side. This arrangement, which is the counterpart of that just above described, is shown fully in the drawing, and requires no further explanation.

In Fig. 3 of the accompanying drawing is represented a tuck-marker, exhibiting my invention in a modified form.

Like letters of reference in this figure and in Figs. 1 and 2 indicate like parts.

In this arrangement, which, on some accounts, is preferable to that shown in the preceding figures, the supplemental lever is dispensed with, and the connecting-rod *l* is pivoted directly to the main lever. I also dispense with the scale of divisions on the main lever, and place this scale on the marker at *s*, alongside of a longitudinal slot, *t*, formed in the lower strip A. In this slot is arranged a slide, *v*, to which the connecting-rod *l* is pivoted by the set-screw G, which also serves as a binding-screw, to fix in place the slide at any point in the slot to which it may be brought. The slide has a point or index, *v'*. The main lever is pivoted to the base-plate by a set and binding screw, H.

When the set-screw H is loose and screw G tight, the gage and marker, if moved at all, must move simultaneously and in opposite directions. The desired adjustment having been effected, (which may be ascertained by the point or index *x* on the main lever in conjunction with scale E,) the parts can be maintained in that adjustment by tightening the set or thumb screw H. By tightening the screw H and loosening the screw G the marker can readily be adjusted independently of the gage.

This arrangement of parts is simple, and the

marker has a greater range of movement than in the arrangement previously described.

Other modifications, also, may be adopted without departure from the principle of my invention.

I do not limit myself, therefore, to the special devices herein described; but

What I claim, and desire to secure by Letters Patent, is—

1. In a tuck-marking attachment for sewing-machines, a marker and a gage combined, substantially as described, to move simultaneously in opposite directions, the marker twice as fast as the gage.

2. The combination, with the gage, of a marker, adjustable independently of said gage to regulate the spacing, but connected therewith, so that a movement of the gage in one direction will cause the marker to move twice as fast in the opposite direction, substantially as set forth.

3. The combination, with the base-plate and sliding gage and marker, of the main lever, pivoted to the base-plate, and connected on one side of its pivot with the gage, and on the other side with the marker, substantially as described.

4. The base-plate, sliding gage, and marker, in combination with the main lever, connecting-rods, and set or binding screws, for joint operation, substantially as set forth.

5. The combination, with the main lever, pivoted upon the base-plate, and connected with the gage and marker, substantially as described, of fixed scales of division for determining the adjustment of the gage and marker, and fastening devices for maintaining the parts in position when adjusted, substantially as set forth.

In testimony whereof I have hereunto signed my name this 27th day of September, A. D. 1875.

ALLEN JOHNSTON.

Witnesses:

J. T. HACKWORTH,  
A. G. HARROW.