A. JOHNSTON.

TUCK-MARKING ATTACHMENTS FOR SEWING-MACHINES.

No. 180,035. Patented July 18, 1876.

Fig. 1.

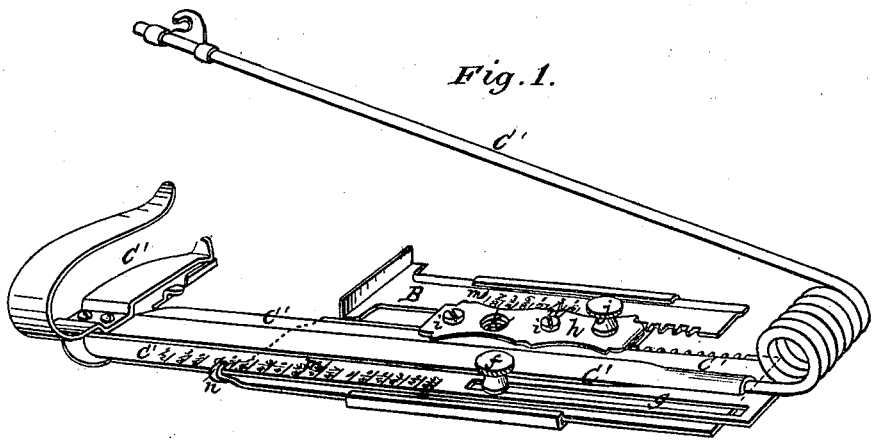


Fig. 2.

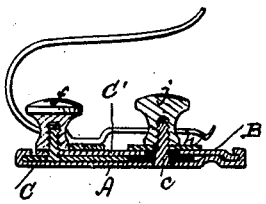
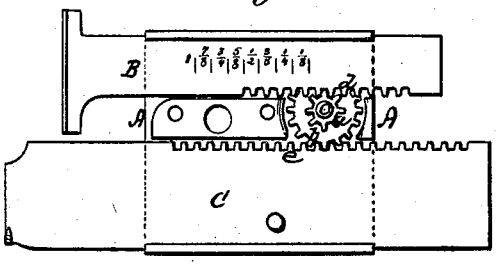


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALLEN JOHNSTON, OF OTTUMWA, IOWA.

IMPROVEMENT IN TUCK-MARKING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **180,035**, dated July 18, 1876; application filed May 5, 1876.

To all whom it may concern:

Be it known that I, ALLEN JOHNSTON, of Ottumwa, county of Wapello, and State of Iowa, have invented certain new and useful Improvements in Tuck-Markers, of which the following is a specification:

This invention relates to a tuck-marking attachment of the kind described and claimed in my Letters Patent No. 170,375, of November 23, 1875, comprising a marker and gage combined to move simultaneously in opposite directions, the marker twice as fast as the gage.

My present improvement relates to means for combining the marker and gage and the arrangement of the parts of the attachment.

In lieu of connecting and operating the marker and gage by means of levers, I make use for the purpose of racks and pinions, by which I render the attachment much more compact, and better adapt it for practical use.

In the accompanying drawing, Figure 1 is a perspective view of the attachment. Fig. 2 is a transverse vertical section of the same in the plane of the set-screws. Fig. 3 is a plan of the attachment, the marker and the covering-plate of the pinions being removed.

The base-plate is shown in full and dotted lines, at A, Fig. 3. Its side edges are turned up and over to form guide-grooves for reception of the marker and the gage. In a socket or suitable seat in the base-plate are the two pinions *a b*, which are united together and revolve on the same axis *c*. They are mounted loosely on *c*. The smaller pinion *a* engages a rack, *d*, on the contiguous edge of the gage. The marker and gage are arranged on opposite sides of the axis of the pinions, and have no contact with one another.

The two pinions are so proportioned that during one revolution the pinion *b* will move the marker twice as fast or far as the gage is moved by its pinion *a*.

It is desirable to retain in the attachment the feature of distinct and independent adjustability of the marker for the purpose of regulating the spacing of the tucks. To this end the marker is made in two parts, C and C′. The lower part, C, I term the supporting-plate, and the upper part, C′, the marker proper. The supporting-plate is provided with the rack *e*. The marker proper is carried in guides on the supporting-plate, and is held thereto by a set-screw, *f*, passing through a slot, *g*.

The marker proper does not engage the pinions. By loosening the set-screw *f* it can be adjusted back and forth on the supporting-plate without moving the gage. When, on the other hand, the set-screw is tightened, the parts C C′ become in effect one, and must move together. Their movement, in this event, will of course cause the gage to move also. The edges of the gage and the marker contiguous to the pinion fit under a central removable plate, *h*, that covers the pinions and is held in place by screws *i*. Through the plate projects the pin or axis on which the pinions move. This pin is screw-threaded, and is provided with a thumb-nut, *j*, which, when screwed down, presses the plate against the pinions, and prevents them from revolving. This device is for the purpose of securing the parts firmly in place after they have been adjusted. The hole for the passage of the set-screw that binds the attachment to the cloth-plate of the sewing-machine is shown at *k*.

The gage and marker may each be provided with a scale of divisions, *m*, and an index, *n*, for the purpose of facilitating the adjustment.

The operation of the device does not require explanation, being fully understood by those skilled in the art to which this invention relates.

Having described my improvements, what I claim, and desire to secure by Letters Patent, is as follows:

1. The combination of the marker and the gage and intermediary pinions or toothed wheels engaging said parts and transmitting movement from one to the other, substantially in the manner shown and described.

2. The marker, consisting of a supporting-plate formed to engage a toothed wheel or pinion, and a marker proper, carried by and adjustable on said supporting-plate, substantially as shown and set forth.

3. The gage and the toothed wheels or pinions, proportioned as described, in combination with the marker proper, carried by, but adjusted independently of, said plate, substantially as set forth.

4. The base-plate, pinions, and covering-plate, in combination with the marker and the gage, under the arrangement and for operation as shown and described.

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Witnesses:
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