

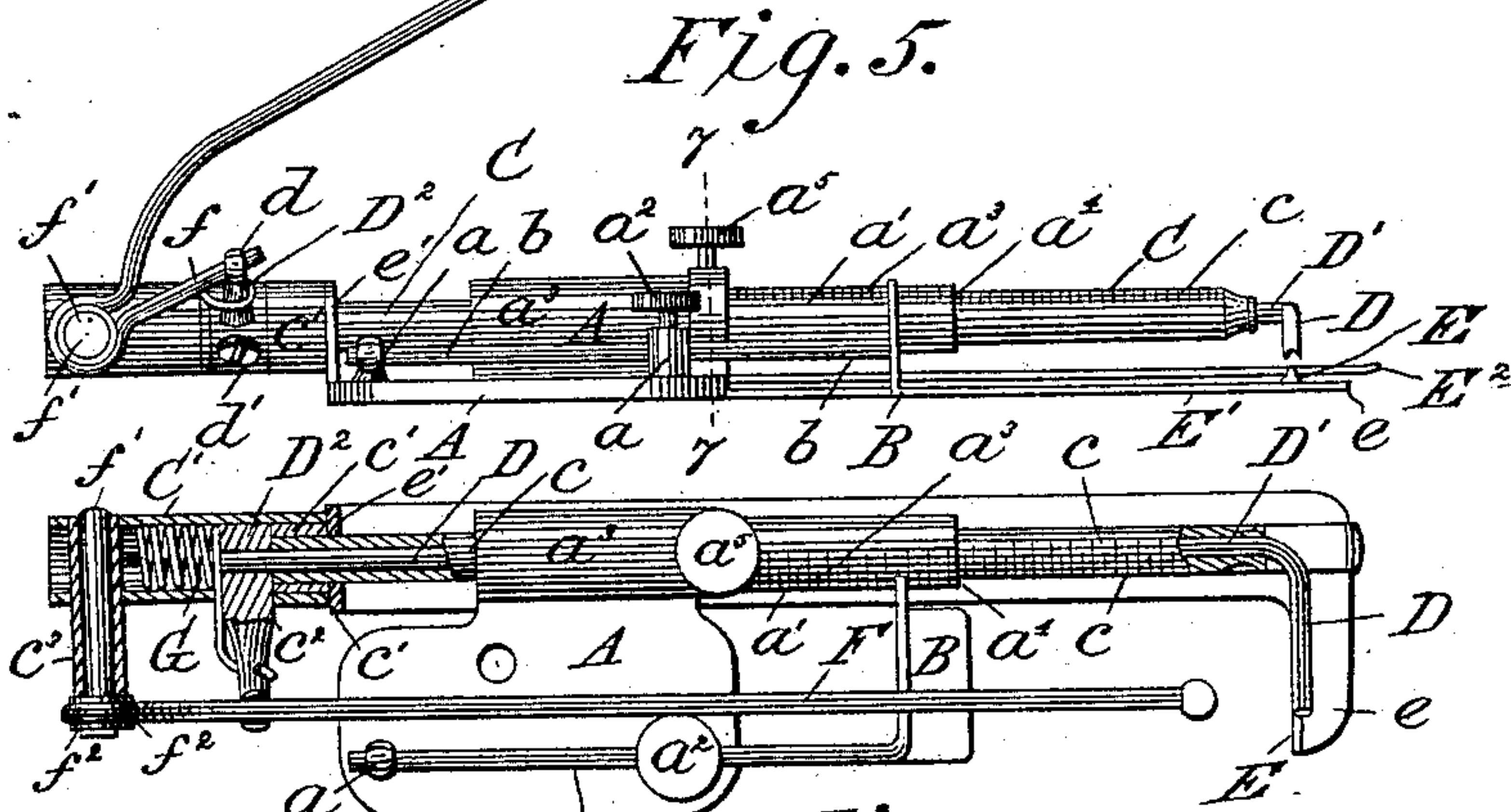
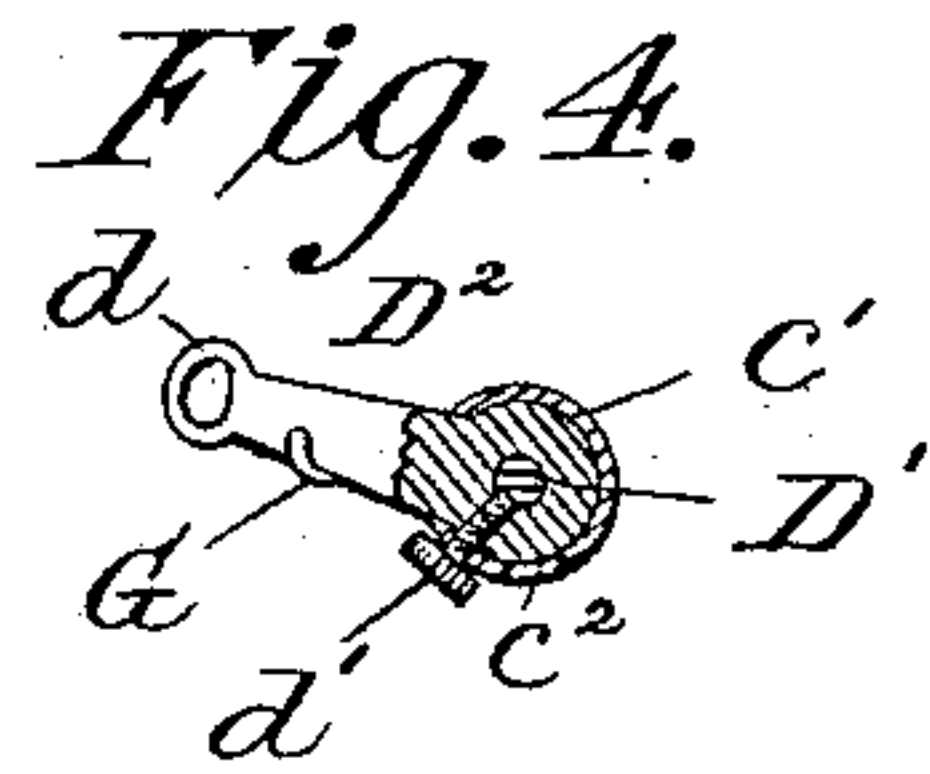
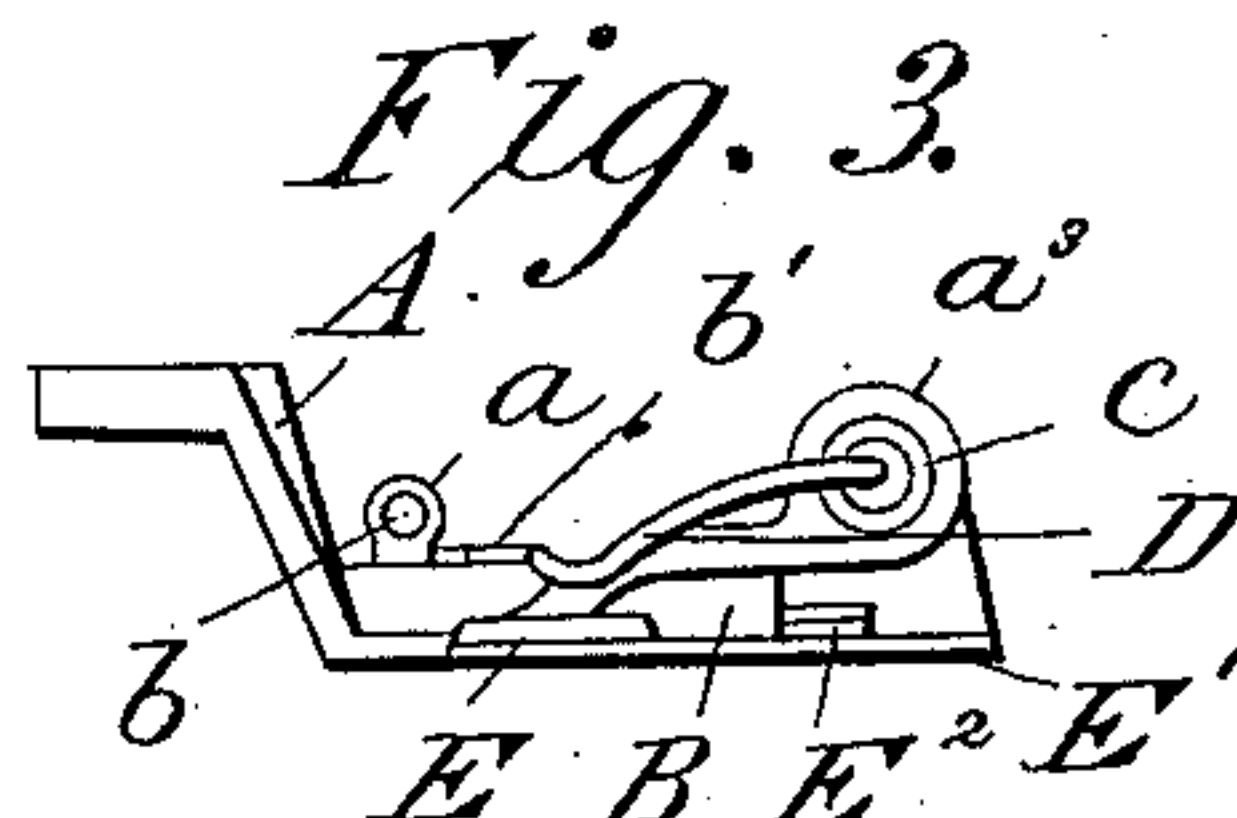
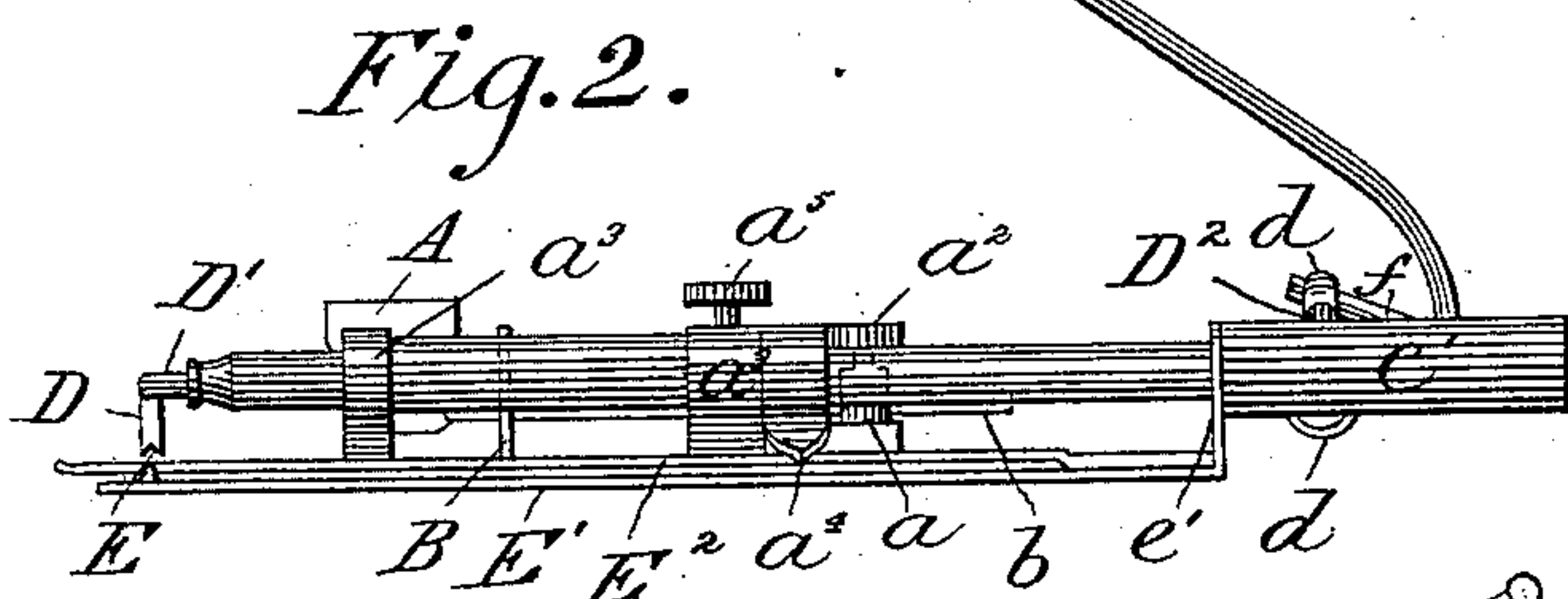
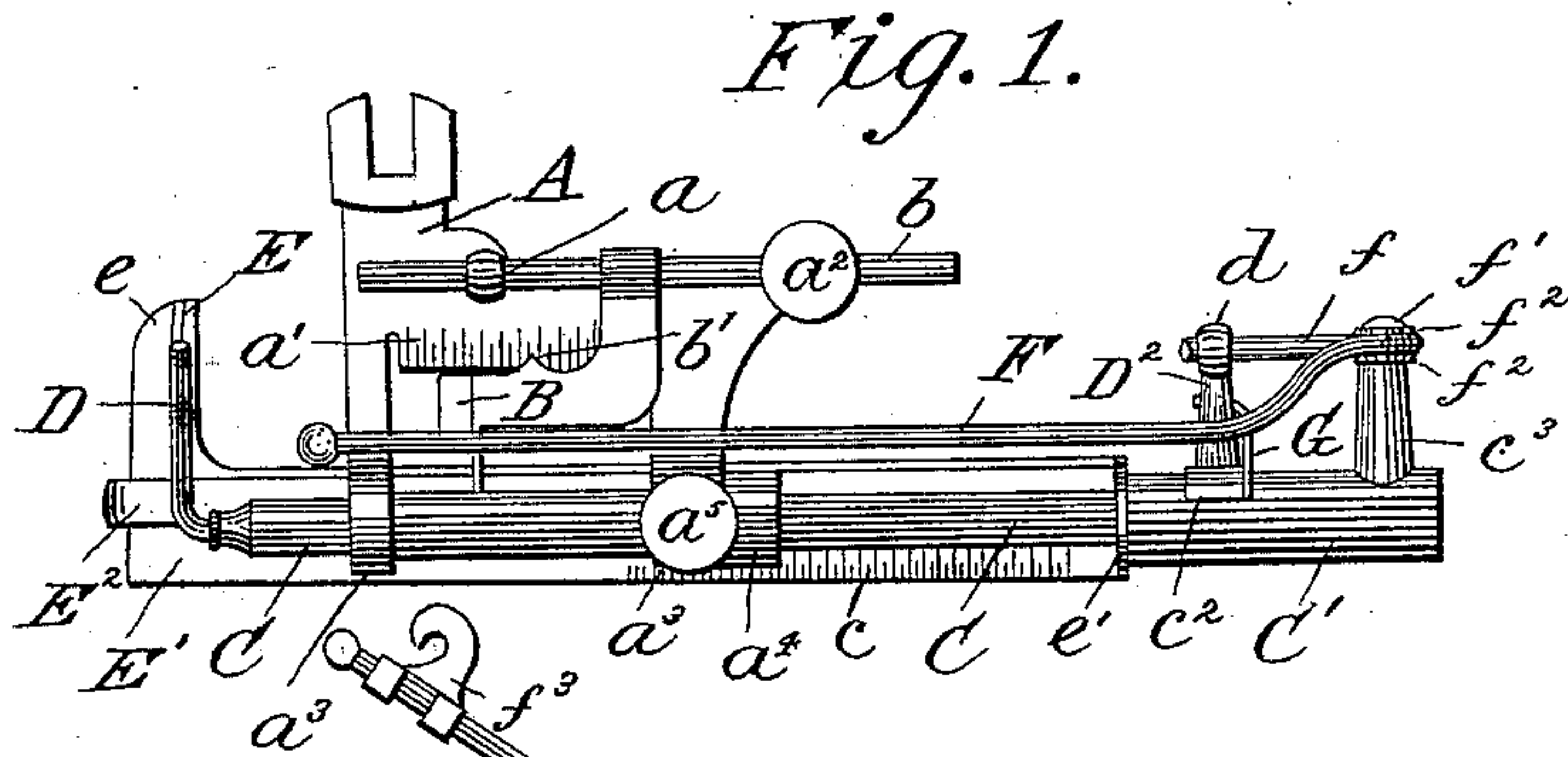
(Model.)

A. JOHNSTON.

TUCK MARKING ATTACHMENT FOR SEWING MACHINES.

No. 427,999.

Patented May 13, 1890.



*Fig. 6.*  
Witnesses: Philip H. Hogue.  
Rafael L. Hogue.

*Inventor:*  
Allen Johnston by  
A. Pollock his attorney.



# UNITED STATES PATENT OFFICE.

ALLEN JOHNSTON, OF OTTUMWA, IOWA.

## TUCK-MARKING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 427,999, dated May 13, 1890.

Application filed April 23, 1888. Serial No. 271,583. (Model.)

*To all whom it may concern:*

Be it known that I, ALLEN JOHNSTON, a citizen of the United States, residing in Ottumwa, in the county of Wapello and State of Iowa, have invented a new and useful Improvement in Tuck-Markers, of which the following is a specification.

My invention relates to improvements in tuck-markers for sewing-machines.

10 The object of my invention is to provide a tuck-marker of neat, simple, compact, and durable construction, which may be cheaply manufactured and which will operate more efficiently than those heretofore in use.

15 My invention consists, in connection with a creaser-blade, of a creaser device or arm secured to or made integral with a rocking bar, to which a rocking motion is communicated by a vibrating lever operated by the 20 needle-arm.

It also consists in a creaser-carrying rocking bar having a torsional action, so that the torsional bar itself will produce or assist in producing the requisite elastic or yielding 25 pressure upon the cloth.

It also consists in the novel devices and novel combinations of parts or devices herein shown and described, and more particularly pointed out in the claims.

30 In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a plan view of a tuck-marker embodying my invention. Fig. 2 is a side elevation. Fig. 3 is an end view. Fig. 4 is a detail cross-section of the rocking bar and the arm or projection thereon by which it is 35 rocked. Fig. 5 is a side view looking from the opposite side from Fig. 2, and Fig. 6 is a partial horizontal section. In Figs. 5 and 6 the main frame of the tuck-marker is shown in the form adapted for attachment to the bed or cloth plate of the sewing-machine, while in Figs. 1 and 2 it is shown as adapted 45 to be attached to the presser-bar. Fig. 7 is a cross-section on line 7 7 of Fig. 5.

In the drawings, A represents the main frame of the tuck-marker, which is attached rigidly or immovably to the sewing-machine. 50 This may be of any suitable construction, and may be adapted for attachment in the

usual manner to the bed-plate or to the presser-bar of the sewing-machine, as desired.

B is the cloth gage or guide secured to an adjustable or sliding bar *b*, mounted in suitable guides *a* on the main frame. The main 55 frame is furnished with the usual scale *a'* for determining the position of the gage B, and the gage is fixed in position by a set-screw *a<sup>2</sup>*. The gage B is furnished with the 60 usual pointer *b'*.

C is the creaser-frame carrying the creasing devices and mounted to slide in suitable guides *a<sup>3</sup>* on the main frame A transversely across the line of stitching, so that the creaser 65 D and creaser-blade E may be adjusted in any desired position.

The creaser-frame is furnished with a scale *c*, which, in connection with the pointer *a<sup>4</sup>* on the main frame, serves to indicate the position of the creaser-frame. The creaser-frame is fixed in position by a set-screw *a<sup>5</sup>* 70 on the main frame. The creaser-frame is secured to or made integral with the long flat bar E', between which and the flat spring-bar 75 E<sup>2</sup> the cloth passes.

The creaser-plate consists, preferably, simply of a turned-up flange at the edge of the bent arm *e* of this flat bar E'. The flat bar E' is provided with a bent end or flange *e'*, 80 which is brazed or otherwise secured to the creaser-frame C. The spring-blade E<sup>2</sup> may preferably be riveted to the flat bar E'.

The creaser D consists simply of a right-angle arm on the torsional rocking bar D', which 85 is suitably journaled on the creaser-frame C.

The creaser-frame C is preferably made in the form of a tube or hollow bar, so that the hole therein will give a long bearing to the rocking bar D'. The rocking bar D' is furnished at or near its rear end with an arm or projection D<sup>2</sup>, having an eye *d*, through which 90 passes the short arm *f* of the vibrating lever F, which is operated by the needle-bar in the usual manner. The arm D<sup>2</sup> is secured rigidly 95 to the torsional rocking bar D' by a set-screw *d'*, so that the rocking bar may be inserted in the tubular creaser-frame C and the parts conveniently put together. The length and size of the rocking bar D' are such, as shown in 100 the drawings, that the torsional strain of the rocking bar itself will give or assist in giving



the requisite yielding or elastic action to the creaser upon the cloth.

The creaser-frame C is provided at its rear end with an enlarged tubular section C', connected to the part C by an intermediate short thimble c', the parts being brazed, swaged, or tightly forced together, screw-threaded or otherwise rigidly attached to each other. The purpose of thus enlarging the rear part or section of the creaser-frame is to give room within for a coil-spring G, which serves to give the rocking bar D' its upward or return movement and to raise the creaser D from the cloth at such time. The operating arm or projection D<sup>2</sup> on the bar D' projects through a suitable slot or opening c<sup>2</sup> in the enlarged section C of the tubular creaser-frame. The creaser-frame or the enlarged section C' thereof is provided with a tubular stud c<sup>3</sup>, which constitutes the bearing for the pivot or pin f' of the vibratory operating-lever F. The pivot-pin f' is riveted or secured rigidly to the lever F, the same being furnished with washers or collars f<sup>2</sup>. The pivot-pin f' of the lever fits loosely, so that it may slide slightly in the tubular bearing c<sup>3</sup> as well as turn thereon, the sliding movement being simply sufficient to accommodate the transverse radial movement of the arm D<sup>2</sup>, through the eye of which the short arm of the lever F passes. The short arm f of the lever F fits loosely in the eye d, so that it may slide in the eye of the arm D<sup>2</sup>, to compensate for or allow the radial movement of said short arm f about the pivot of said lever F.

In putting the parts together the arm D<sup>2</sup> will of course not be fixed to its rocking bar D' by the set-screw until the parts are all assembled or put in place. The end of the rocking bar D' should be flattened, as indicated in Fig. 4, where the set-screw bears against the same. The rocking bar D' is preferably round throughout its length, as I thus secure a better torsional effect, as well as greater neatness and compactness of the tuck-marker as a whole. The creaser-frame C is made tubular for similar reasons and to give support and bearing to the torsional rocking bar D' throughout its length. The tubular creaser-frame C is prevented from turning on the main frame A by a groove or slot c<sup>4</sup> thereon, in which fits a guide-pin a<sup>6</sup> on the main frame.

The vibratory bar or lever F is provided with the usual clip or attachment-piece f<sup>3</sup> for connection with the needle-bar.

In Figs. 1 and 2 it will be observed that the scale c is formed on the flat bar E', which is secured rigidly to the creaser-frame and may be considered as part thereof, and that the scale a' is formed on the flat part of the main frame A, while in Figs. 5 and 6 the scale a' is on the tubular guide portion a<sup>3</sup> of the main frame and the scale c is on the tubular part of the creaser-frame.

In Figs. 5 and 6 it should be observed that the pointer a<sup>4</sup> consists simply of the end of

the tubular or guide portion of the main frame A.

The operation is as follows: The tuck-marker is attached to the sewing-machine by means of the main frame being slid into the socket-piece, which is adapted to be attached to the presser-bar. The vibrating arm is connected to the needle-bar by means of the hook f<sup>3</sup>, through which the needle passes on the vibratory arm or lever F. When the needle-bar descends, it depresses the vibrating arm F, which engages at its short end with the projection D<sup>2</sup> on the rocking bar and carries it downward. This turns the rocking bar carrying the creasing device D, which creasing device being placed above the blade on the creaser-carrier it begins to crease soon after the needle-bar begins to descend, and continues until a considerable portion of the up-stroke is accomplished. Heretofore the tucker has done its marking during only a small part of the lowest part of the stroke of the needle-bar. The rocking bar is journaled in the creaser-frame and so as to have a long support, which is in tubular form for greater strength to a small space. The creaser-arm stroke being a continuous pressure for a large part of the needle-bar's stroke prevents the striking of the needle-bar on the tucker-arm, as heretofore, over which the cloth to be creased passes. The crease in the cloth is made by the pressure of the creasing device upon the blade. The rocking bar is small, and thus affords a certain amount of elasticity or yielding pressure by means of the twisting of the rocking bar.

I claim—

1. The combination, with a creaser-arm provided with a rocking bar having a twisting action upon its longitudinal axis, of the lower member or lip of the tuck-marker, substantially as specified.

2. In a tuck-marker, the combination, with a frame and a creaser lip or member carried thereby, of an opposing movable creaser device, a rocking bar having a twisting action upon its longitudinal axis and journaled in the frame, and to which said movable creaser device is rigidly secured, and a vibratory lever pivoted on the frame and adapted to be operated by the needle-bar, said vibratory lever being in a separate piece from said rocking bar, and having a loose connection therewith at the opposite end from said creaser device, substantially as specified.

3. In a tuck-marker, the combination, with a frame and a creaser lip or member carried thereby, of an opposing movable creaser device D, rocking bar D', provided with an arm or projection D<sup>2</sup>, a vibratory lever F, operated by the needle-bar, and having a short arm f for actuating said arm or projection, substantially as specified.

4. In a tuck-marker, the combination of a creasing device, a rocking bar carrying said device and having a twisting action upon its longitudinal axis, a co-operating creasing



member or lip, a bearing for said rocking bar, and a main frame, in which said bearing is mounted and by which it is held from vertical movement or vibration, substantially as described.

5. In a tuck-marker, the combination of a rocking bar having a twisting action upon its longitudinal axis, a creasing device carried at one end thereof, a bearing or support therefor, means for communicating motion from the needle-arm of the machine to said rocking bar, a co-operating creasing member or lip, and a main frame attachable to a stationary part of the machine and connected with said support or bearing, substantially as described.

6. The combination of main frame A, a tubular creaser-frame C, mounted to slide in a guide on said main frame, a creaser E, a vibratory lever pivoted to said creaser-frame, a torsional rocking bar journaled in said creaser-frame, and having a creaser-arm at one end and an operating-arm at the other, said vibratory lever having a short arm connected with the operating-arm of said rocking bar, and said tubular creasing-frame having a transverse slot or opening, through which said operating-arm of the rocking bar projects, substantially as specified.

7. The combination of main frame A, a tubular creaser-frame C, mounted to slide in a guide on said main frame, a creaser E, a vibratory lever pivoted to said creaser-frame, a rocking bar having a twisting action upon its longitudinal axis journaled in said creaser-frame, and having a creaser-arm at one end and an operating-arm at the other, both said arms being rigidly secured to said rocking bar, said vibratory lever having a short arm connected with the operating-arm of said rocking bar, and a spring for turning said rocking bar in one direction, substantially as specified.

8. In a tuck-marker, the combination, with a creaser-frame, of a vibrating lever pivoted thereto and adapted to be operated by the sewing-machine needle-bar, a rocking bar having a twisting action upon its longitudinal axis journaled in the creaser-frame and carrying a creasing device, said rocking bar having at the opposite end from said creasing device an operating-arm rigidly connected thereto and loosely connected with and actuated by said pivoted vibrating lever, whereby said creasing device is given an elastic or yielding pressure down upon the cloth to be creased by the twisting action of the rocking bar, substantially as specified.

9. In a tuck-marker, the combination, with

a main frame having guides thereon, of an adjustable creaser-frame carrying a creaser device and having a cylindrical tube sliding in the guides on said main frame, and a creaser-carrying rocking bar inclosed and journaled in said tube, whereby said tube serves both as a journal for said rocking bar and as a support and guide for the creaser-frame as it is moved or adjusted back and forth across the line of stitching, and means for clamping the tubular creaser-frame to the main frame, substantially as specified.

10. The combination, with a creaser-frame having a cylindrical tube, of a creaser-carrying rocking bar inclosed in said tube, a coiled spring inclosed in said tube for turning the rocking bar in one direction, a creaser E, and means for rocking said creaser-carrying rocking bar, substantially as specified.

11. A main tuck-marker frame furnished with guides and provided with a creaser-frame having a cylindrical bar adapted to support and guide said frame in the guides on the main tuck-marker frame when it is being moved back and forth across the line of stitching, in combination with a rocking bar having a twisting action upon its longitudinal axis carrying a creasing device and a vibratory lever, said torsional bar having a right-angle projection rigidly connected thereto and engaged by said vibratory lever, both connected to said creaser-frame, substantially as specified.

12. In a tuck-marker, the combination of a rocking bar having a creaser-arm, a tubular bearing therefor, a co-operating creasing member, a main frame comprising a presser-foot and having two arms terminating in guides, in which said bearing is mounted, and a cloth-gage movable between said arms and sliding in guides carried by said main frame, substantially as described.

13. In a tuck-marker, the combination, with a creaser-frame carrying a creasing device, of a main frame comprising a presser-foot, a plate projecting laterally from said presser-foot in front of and substantially parallel with the creaser-frame, and arms extending to said creaser-frame and terminating in guides, in which the latter is mounted, said arms forming an open space between them and between the main frame and creaser-frame, and a gage working in said open space and supported in a guide or guides on said main frame, substantially as described.

ALLEN JOHNSTON.

Witnesses:

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