

No. 698,414.

Patented Apr. 22, 1902.

C. SCHAEFER.
SEWING MACHINE NEEDLE THREADER.

(Application filed Feb. 27, 1902.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

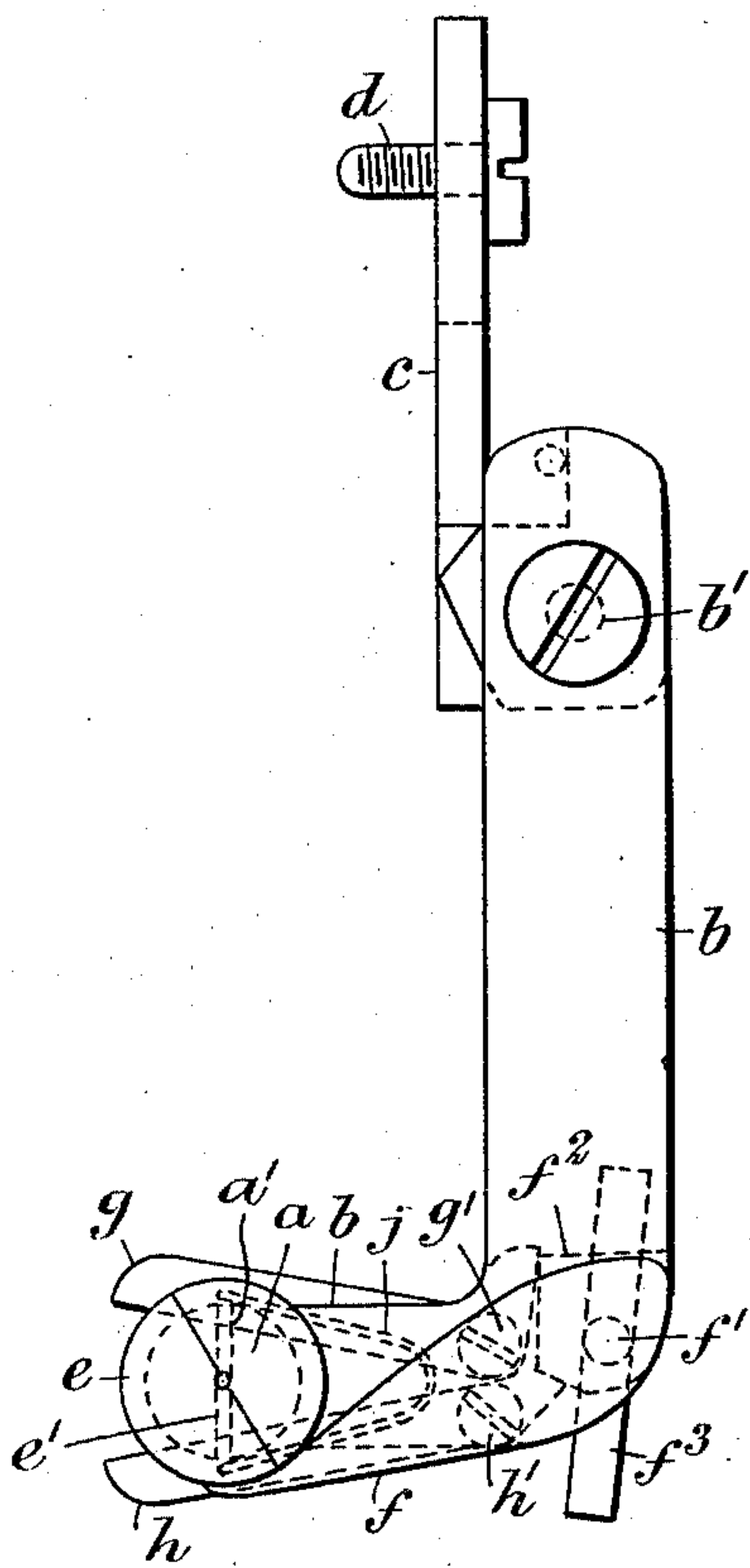
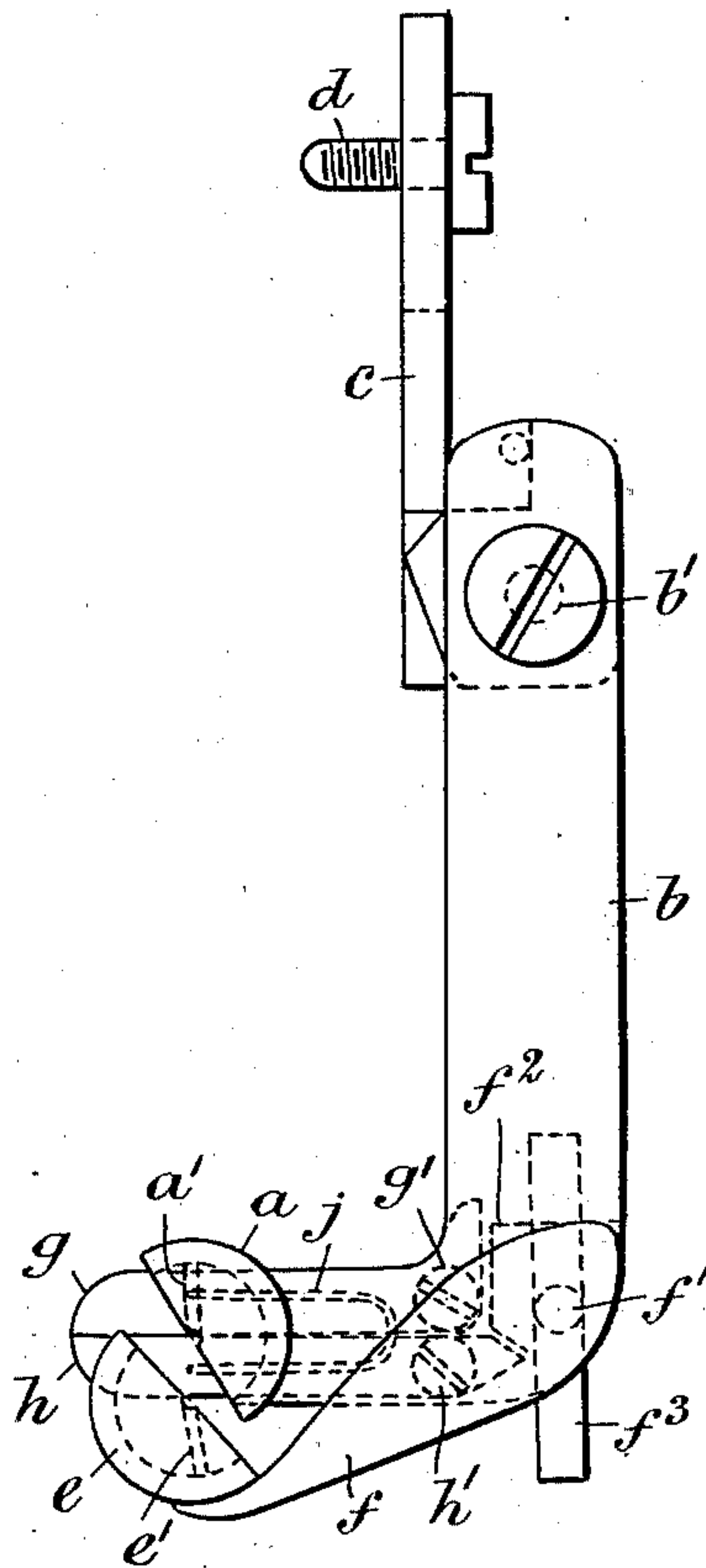


Fig. 2.



Witnesses

G. M. Perkins.
J. MacDonald

Inventor

Carl Schaefer,
By his Attorneys,
Baldwin Davidson & Wright.

No. 698,414.

Patented Apr. 22, 1902.

C. SCHAEFER.

SEWING MACHINE NEEDLE THREADER.

(Application filed Feb. 27, 1902.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 3.

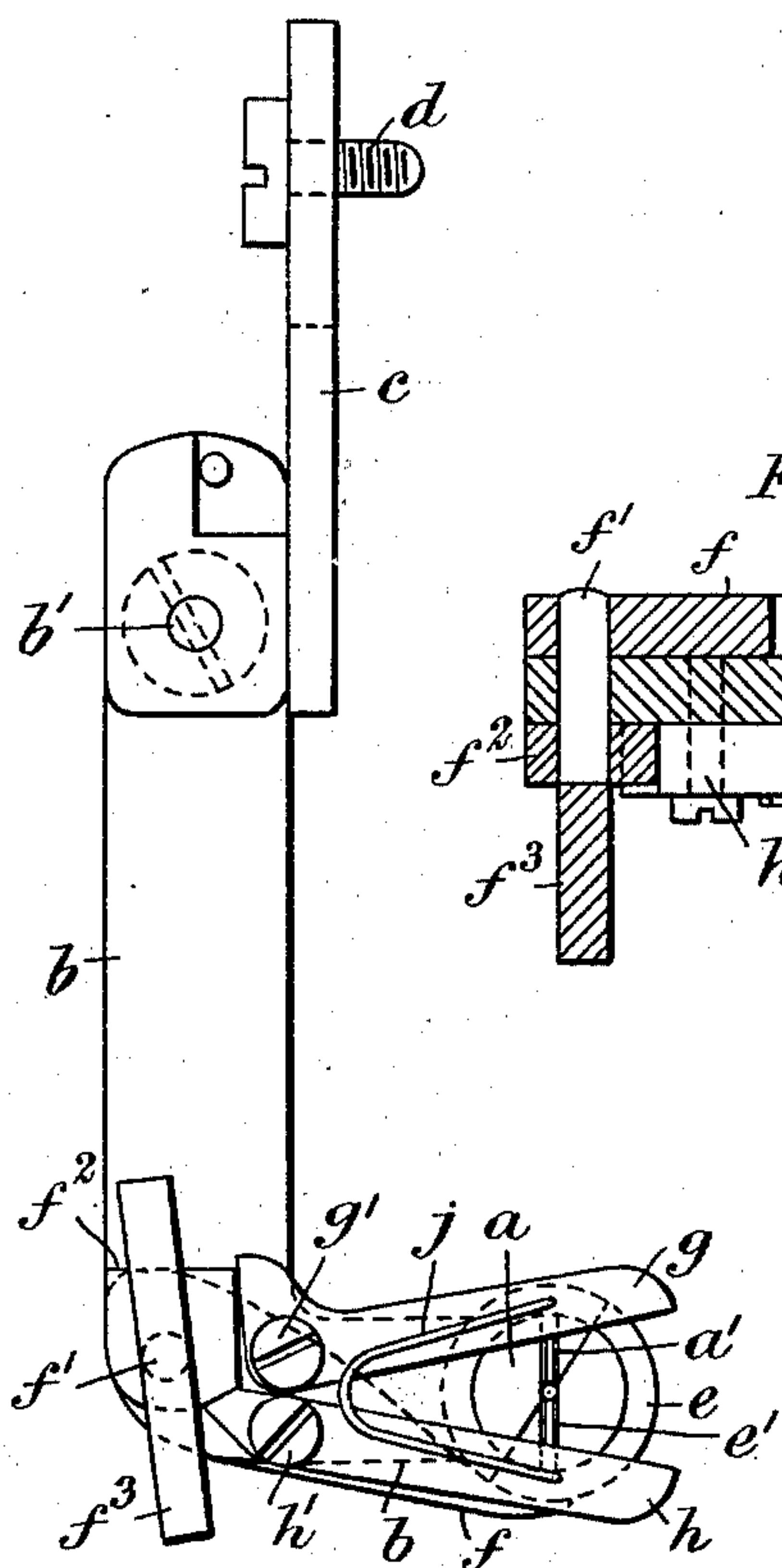


Fig.4.

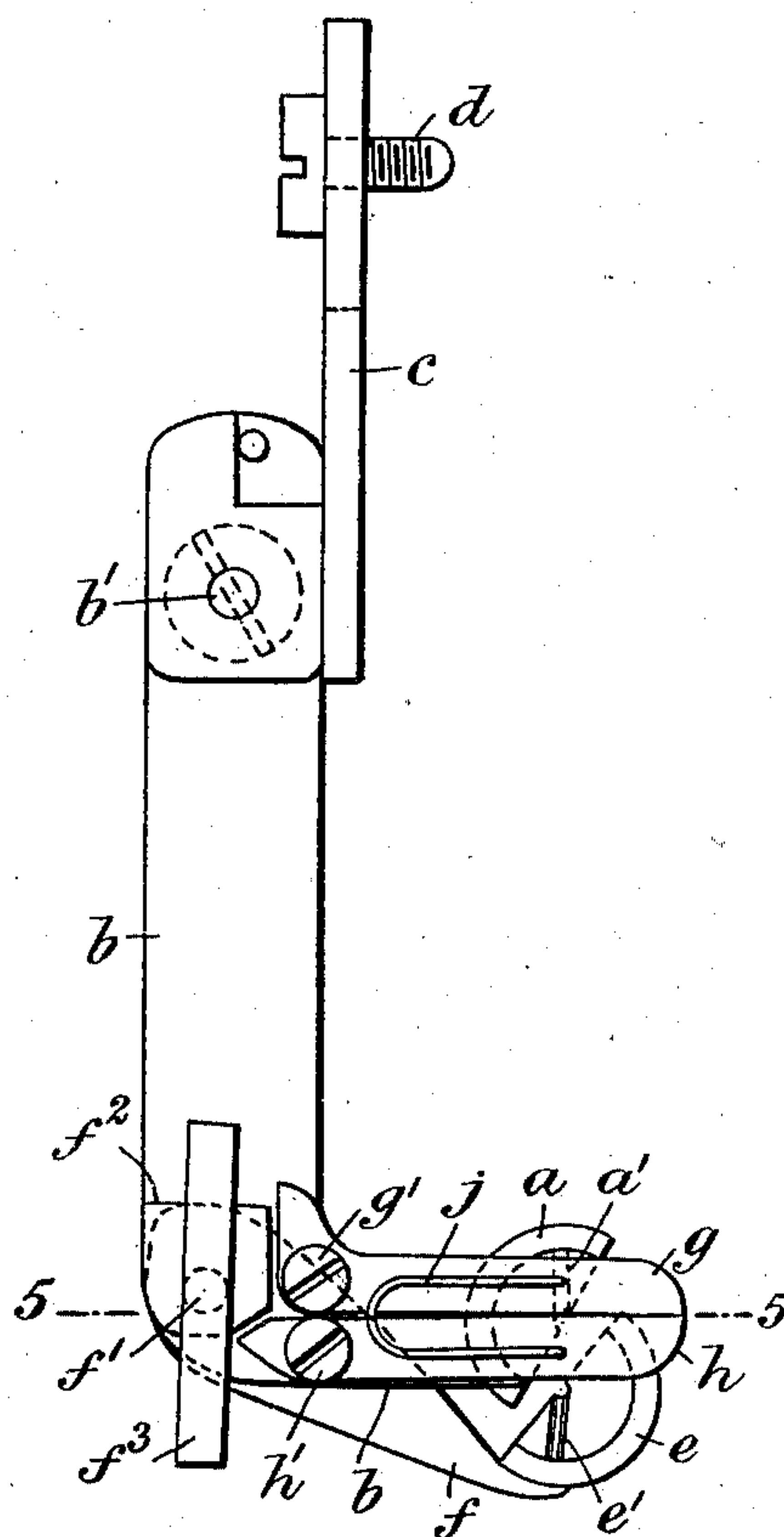
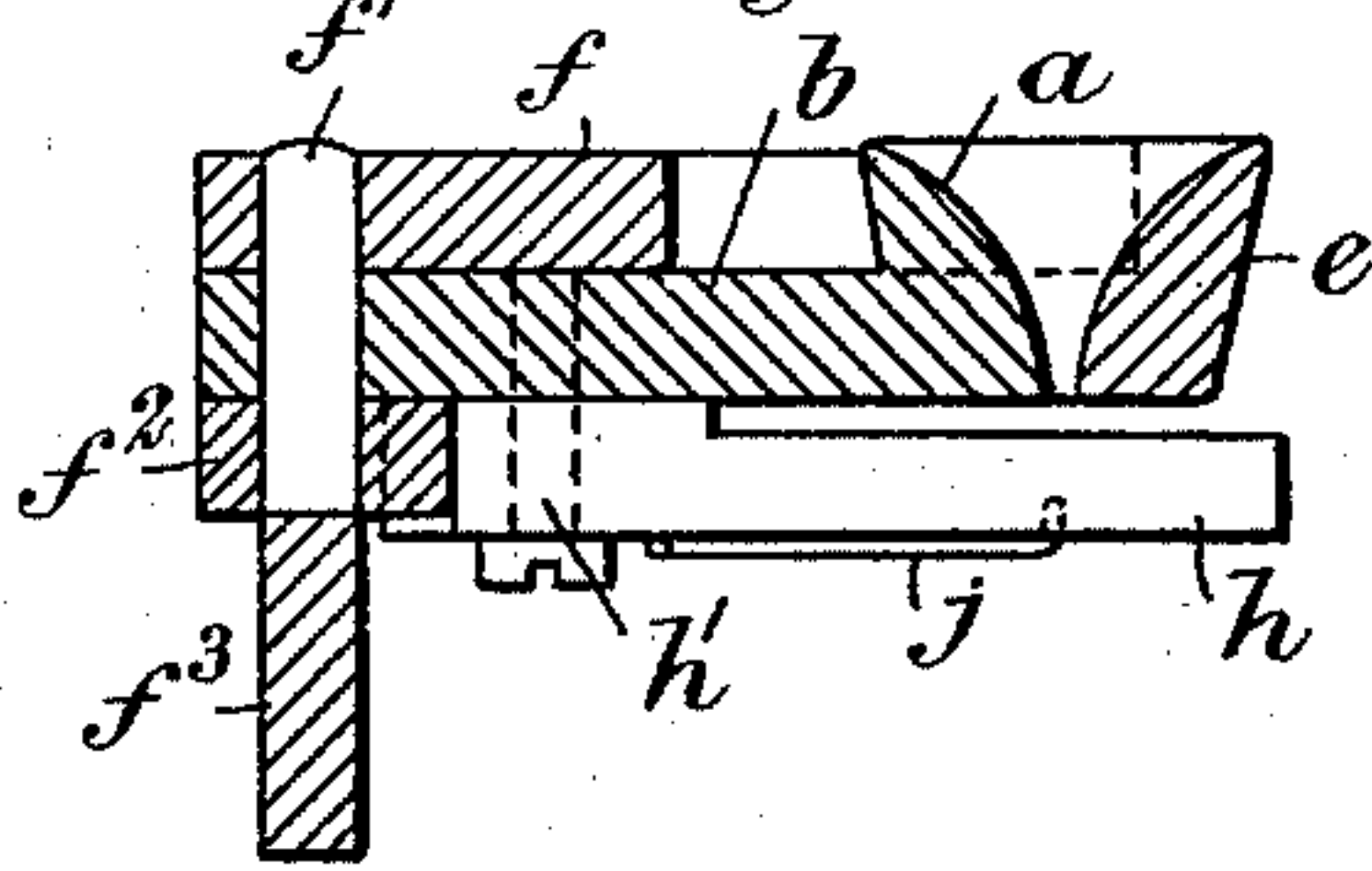


Fig. 5.



Witnesses

J. M. Perkins
J. W. MacDonald

Inventor

Carl Schaefer,
By his Attorney,
Baldwin Davidson & Wright

UNITED STATES PATENT OFFICE.

CARL SCHAEFER, OF BANGALORE, INDIA, ASSIGNOR TO KENT NORTH-ROW,
OF BANGALORE, MYSORE, INDIA.

SEWING-MACHINE-NEEDLE THREADER.

SPECIFICATION forming part of Letters Patent No. 698,414, dated April 22, 1902.

Application filed February 27, 1902. Serial No. 96,004. (No model.)

To all whom it may concern:

Be it known that I, CARL SCHAEFER, a subject of His Imperial Majesty Edward VII of England, residing at Bangalore, Mysore, Southern India, have invented certain new and useful Improvements in Needle-Threaders for Sewing-Machines, of which the following is a specification.

According to this invention a thread-guide is formed with a conical opening and is divided axially into two parts. The guide has at the apex of the conical opening a pair of fingers which serve to grasp the thread and pull it through the eye of the needle. The arrangement is such that the two halves of the thread-guide are normally closed together while the fingers are open, means being provided whereby the fingers can be closed together to seize the thread after the needle has been threaded and to simultaneously separate the two halves of the thread-guide.

In the drawings, Figures 1 and 2 show front elevations of my improved needle-threader, the parts being shown in different positions in the two figures. Figs. 3 and 4 show corresponding rear elevations of the same. Fig. 5 shows a section on the line 5-5 of Fig. 4. All of these figures are about twice the full size.

Preferably, as shown, the thread-guide is made in two parts. One half, *a*, is fixed to the end of an L-shaped arm *b*, which is pivoted at *b'* to a clamp *c*, which can be removably attached to the head of a sewing-machine by a screw *d*. The other half, *e*, of the thread-guide is fixed to a lever *f*, pivoted at *f'* to the arm *b* near its angle. The two fingers *g* and *h* are pivoted at *g'* and *h'*, respectively, to the L-shaped arm *b* near its angle, and they are normally kept apart by a bow-spring *j*, arranged between them, and the tail ends of the fingers bearing against a lug *f²* on the lever *f* hold the two halves of the thread-guide together, as shown in Figs. 1 and 3. A handle *f³* is provided on the pivot *f'* of the lever *f*, whereby it can be turned in order to separate the two halves *a* and *e* of the thread-guide and to close the fingers *g* and *h*, the lug *f²* acting on the tail ends of the fingers, causing them to close in the manner clearly indicated in the drawings.

When it is desired to thread the needle, the needle-bar is held stationary in proper position and the L-shaped arm *b* is turned down, the needle springing into grooves *a' e'*, formed across the apex of the conical opening of the thread-guide. The thread is then passed through the thread-guide and the eye of the needle and between the fingers *g* and *h* while the latter are open, as indicated in Figs. 1 and 3. The handle *f³* is then turned, causing the fingers to come together and seize the thread, and the handle is then used to turn the L-shaped arm *b* on its pivot *b'* out of the way of the fingers in the manner indicated in Figs. 2 and 4, thus drawing the end of the thread through the eye of the needle. The handle may then be released, and the spring *j* will open the fingers and release the thread.

What I claim is—

1. The combination of a thread-guide divided into two parts and having a conical passage for the thread intermediate said parts, a pair of fingers, and means for pressing the fingers together and separating the parts of the thread-guide.

2. The combination of a thread-guide divided into two parts and having a conical passage for the thread intermediate said parts, arms carrying the parts of the thread-guide, a pivot for one of the arms, a pair of pivoted fingers, a spring normally tending to bring the parts of the thread-guide together, and to separate the fingers, and means for pressing the fingers together and separating the parts of the thread-guide.

3. The combination of a thread-guide divided into two parts and having a conical passage for the thread intermediate said parts, arms carrying the parts of the thread-guide, a pivot for one of the arms, a pair of fingers pivoted to one of the arms, a lug fixed to the other arm, and engaging with the tail ends of the fingers, and a spring normally tending to bring the parts of the thread-guide together, and to separate the fingers.

4. The combination of an L-shaped arm, a clamp to which it is pivoted, a thread-guide, one part of which is fixed to the L-shaped arm, a lever and a pair of fingers pivoted to the L-shaped arm, another part of the thread-guide fixed to the lever, a lug on the lever

engaging the tail ends of the fingers, and a spring normally tending to bring the parts of the thread-guide together and to separate the fingers.

- 5 5. A needle-threader for sewing-machines comprising a thread-guide divided into two parts, a pair of fingers arranged adjacent to one end of the thread-guide, and means for

opening and closing the fingers, and for closing and opening the parts of the thread-guide. 10
Dated Bangalore, January 27, 1902.

CARL SCHAEFER.

Witnesses:

JOHN C. S. LAWRENCE,
S. VENKATACHALA TYENGER.