

No. 731,511.

PATENTED JUNE 23, 1903.

W. E. SEARLES.
MACHINE FOR ATTACHING HEELS.

APPLICATION FILED JUNE 14, 1899.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

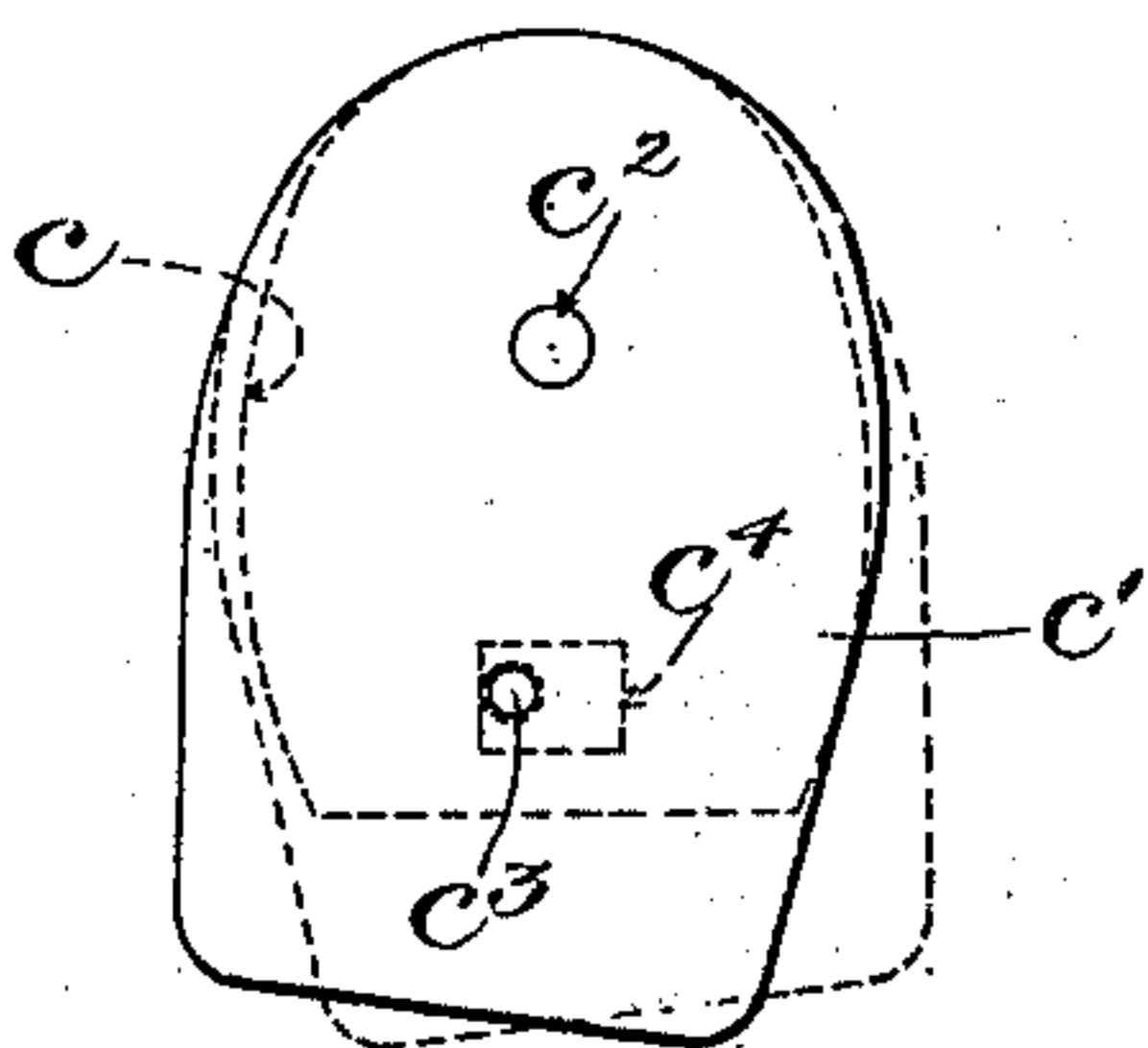
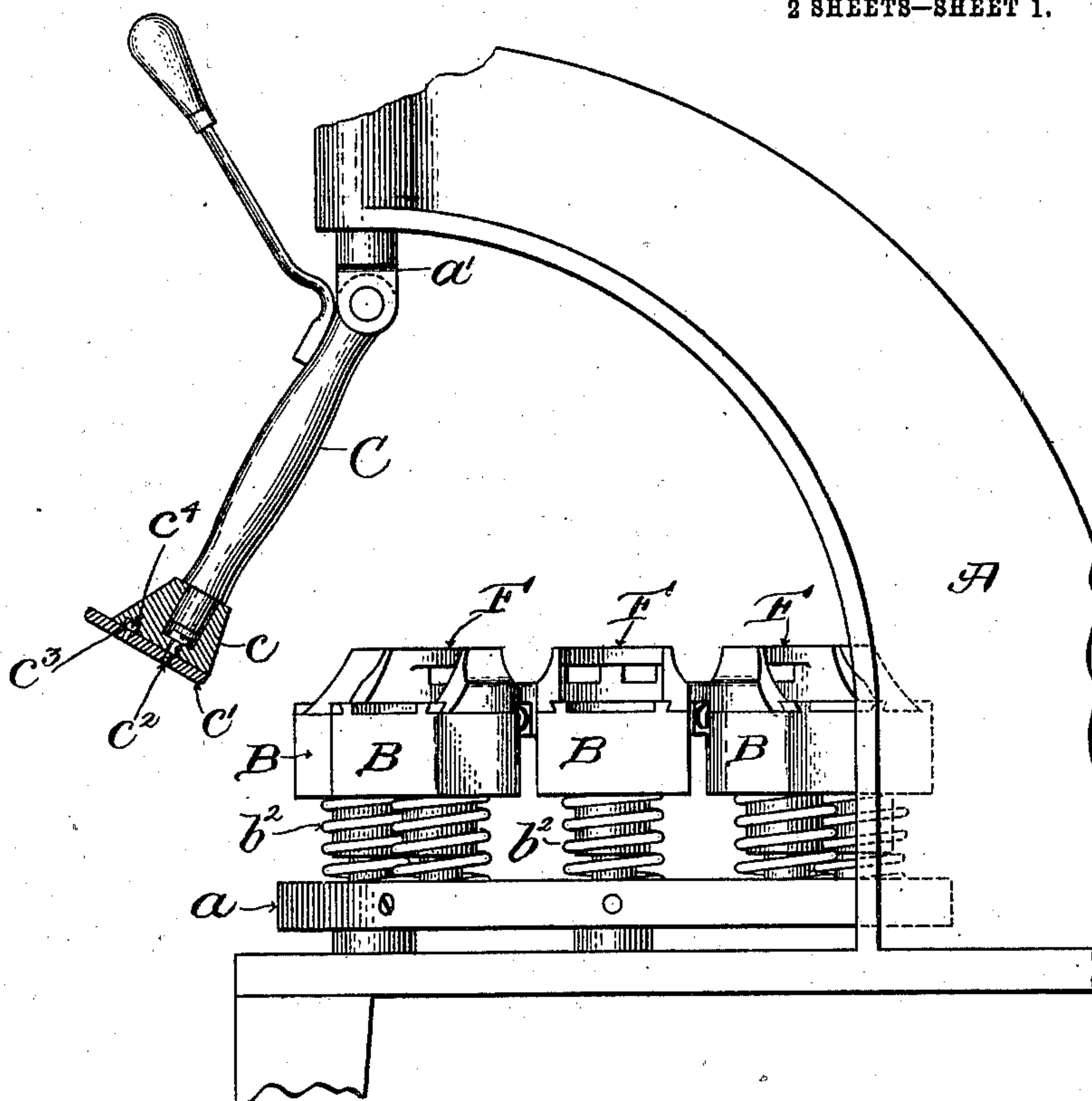


Fig. 5.

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2 SHEETS—SHEET 2.

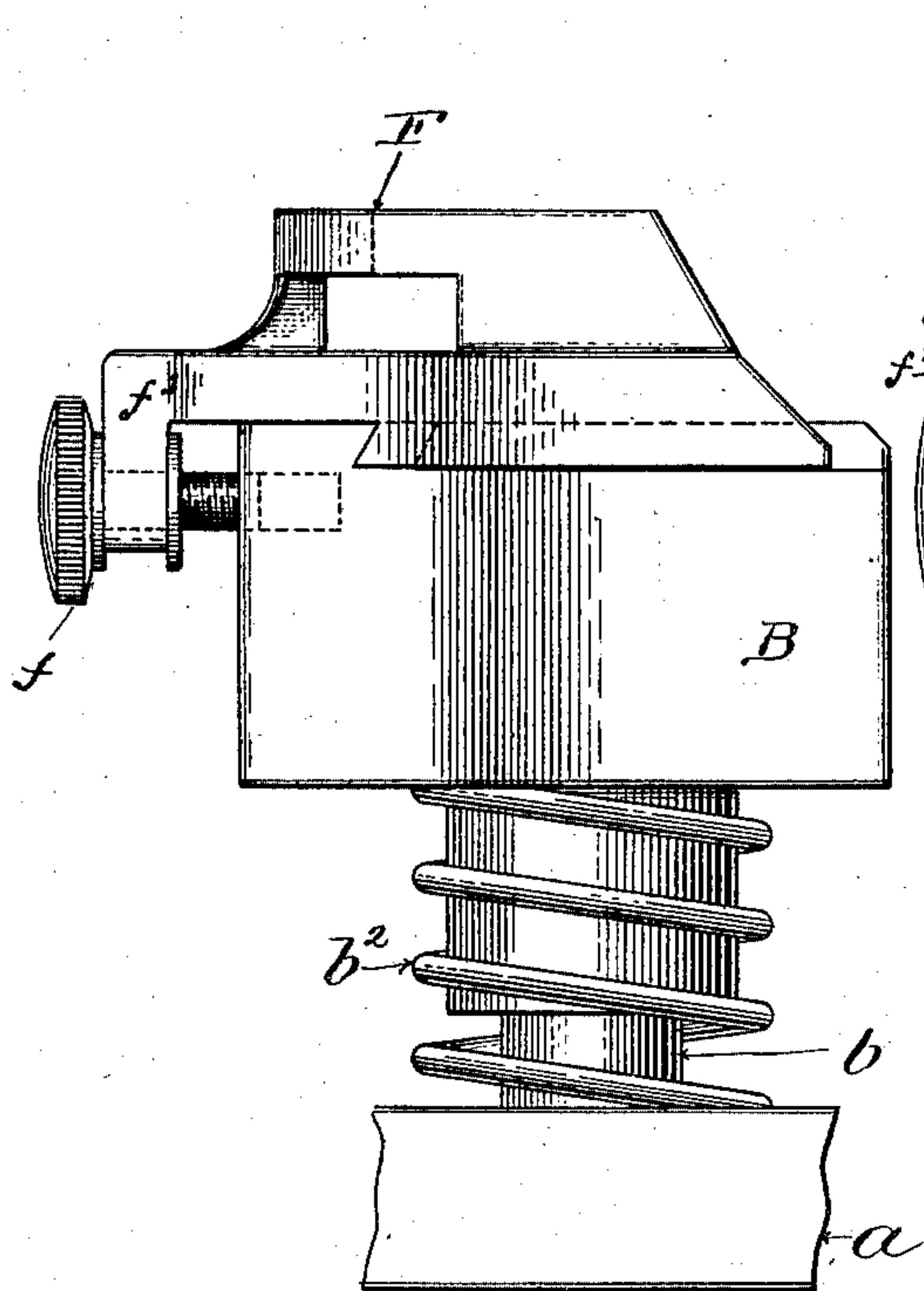


Fig. 2.

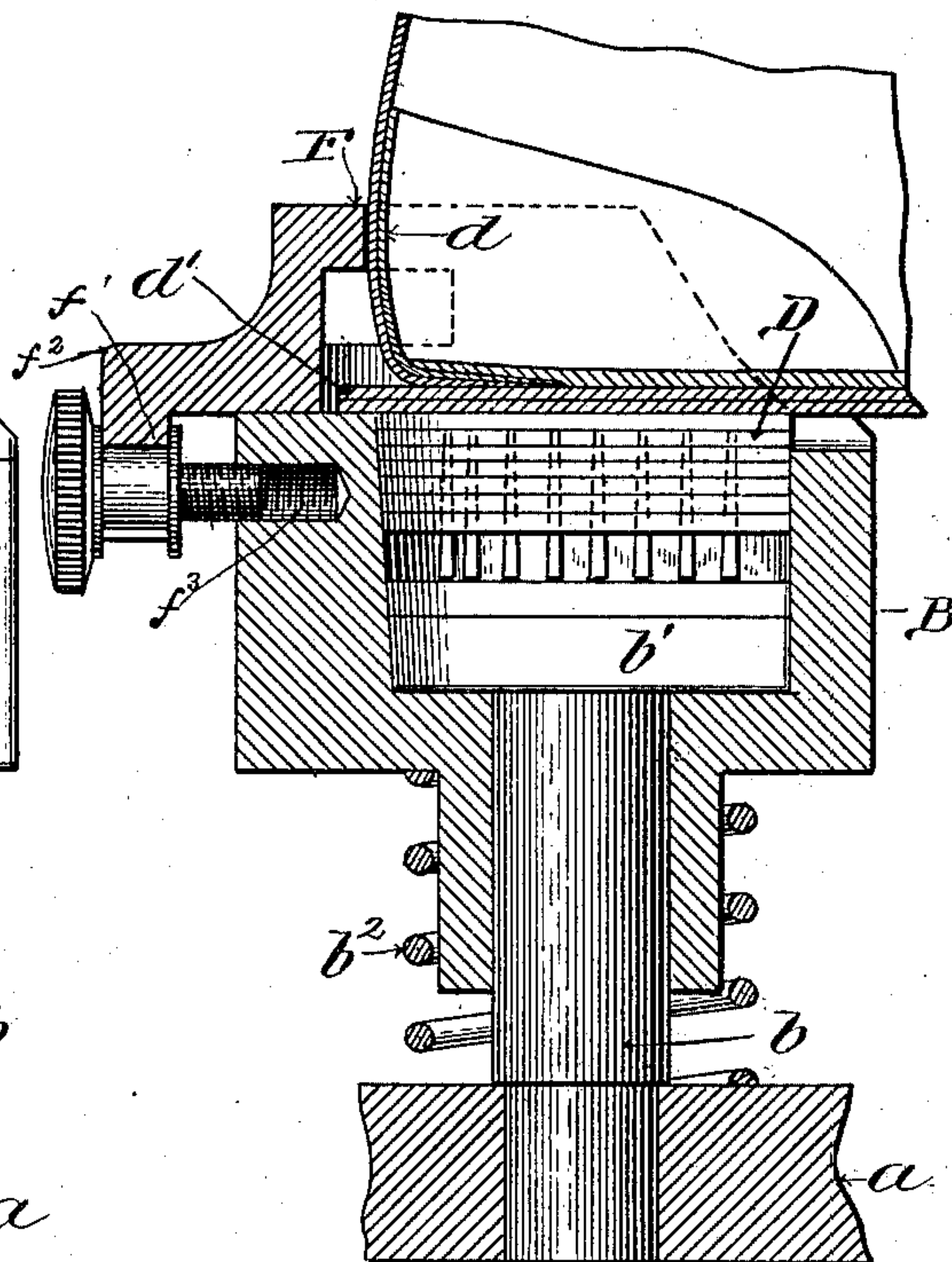


Fig. 4.

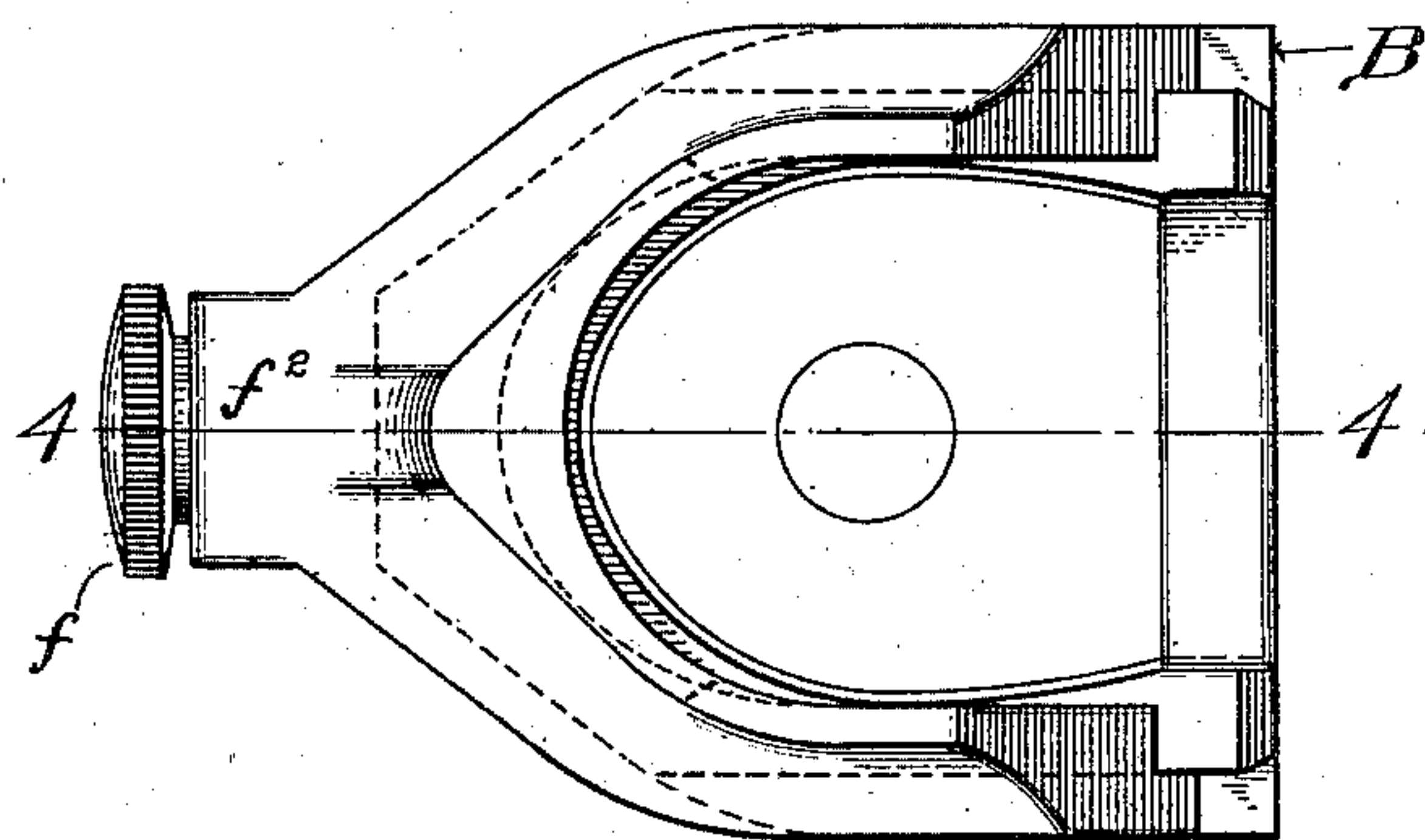


Fig. 3.

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UNITED STATES PATENT OFFICE.

WALTER E. SEARLES, OF MARLBORO, MASSACHUSETTS, ASSIGNOR TO
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MACHINE FOR ATTACHING HEELS.

SPECIFICATION forming part of Letters Patent No. 731,511, dated June 23, 1903.

Application filed June 14, 1899. Serial No. 720,438. (No model.)

To all whom it may concern:

Be it known that I, WALTER E. SEARLES, of Marlboro, in the county of Middlesex and State of Massachusetts, have invented an Improved Machine for Attaching Heels, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of so much of a heeling-machine as is necessary to illustrate my invention. Fig. 2 is a side elevation of the heel-cup. Fig. 3 is a top plan view of the heel-cup. Fig. 4 is a vertical section on line 4 4 of Fig. 3, showing a portion of the shoe in place. Fig. 5 is an inverted plan of the anvil-piece of the jack.

My invention is an improvement on machines of the class shown in the patent to Bigelow, No. 108,677, dated October 25, 1870; and it consists in the combination of a heel-receiving cup, a counter-gage, and means for forming a rigid connection between the cup and gage. It is preferable to connect the cup and gage by an adjustable as well as rigid connection.

Another feature of my invention is an anvil-piece swiveled on a swinging arm in combination with a heel-cup, the anvil-piece being automatically adjustable to a right or left shoe.

The objects of my invention are to furnish means for holding the shoe firmly in the desired position all the time in which the heel is being attached to the shoe and to furnish as extensive an anvil-surface as possible without having a right and left anvil—that is, the same anvil-piece is to be used for right and left shoes.

In the drawings, A represents a portion of the main frame of a heeling-machine, which supports the rotatable table *a*, carrying the heel-cups B. The heel-cups B are all of similar construction, but each adapted to receive within it a heel of a particular size. The plunger *a'* is mounted in the bearings on frame A and is operated by well-known treadle-controlled mechanism, (not shown,) and to plunger *a'* is connected the arm C of the jack, which latter coöperates with heel-cups B in attaching the heel to the shoe, which is placed on the jack C.

Each heel-cup B is mounted upon a standard *b*, fixed to support *a*. The standard is formed or provided with an enlargement or head *b'* in the cup B. The head *b'* serves as a rest for the heel D and also serves as a stop to limit the upward movement of cup B, which is supported by spring *b''*.

A counter-gage F, which is rigidly connected with the heel-cup and preferably adjustable by screw G, whose threaded portion engages the threaded portion of the heel-cup, is mounted on the heel-cup and engages the counter *d* of the shoe to bring the shoe into the proper position with relation to heel D, the projecting edge *d'* of the sole extending under counter-gage F.

In my Patent No. 546,083, dated September 10, 1895, the shoe is adjusted with relation to the heel by a gage which acts upon the heel end of the sole of the shoe; but in my present invention the counter-gage F acts upon the counter *d*, and thereby brings the shoe and the heel into the proper relation without regard to the heel end of the sole, which may extend under the counter-gage into the upper part of the cup B.

The jack comprises an arm C, which is connected with the plunger *a'* and provided with a knob *c*, which is secured to its free end, and on the under side of knob *c* is swiveled a movable anvil-piece *c'*, which is connected to knob *c* by a stud *c''*, fast in the anvil-piece *c'*, and which turns in a socket provided for it in knob *c*. The anvil-piece *c'* swings on its pivot *c''* relatively to the shoe as the latter is drawn onto the jack to adjust itself to right or left shoes, and the extent of movement of anvil-piece *c'* is preferably limited by providing a stop-pin *c'''* thereon, which engages the ends of a slot *c''''*, provided in under side of knob *c*.

By providing a movable anvil-piece connected to knob *c* by a swivel not only am I enabled to employ the same jack on both right and left shoes without alteration or without distorting the shoe when placed thereon, but I am also enabled to use an anvil-piece of greater area of surface for engagement with the inner sole than would be possible when a rigid knob is employed as heretofore, because the upper of the shoe as

it is put onto the jack will move the anvil-piece on its pivot, as shown in Fig. 2, and thereby adjust or fit itself to the particular shape of the shoe without attention from the
5 operator.

What I claim as my invention is—

1. In a heel-attaching device the combination of a heel-holding cup, a counter-gage disposed some distance from and above the top
10 of the cup to give clearance for the projecting sole of the shoe, and means for forming a rigid connection between the counter-gage and the cup.

2. In a heeling-machine in combination a heel-receiving cup; a swinging arm with a
15 knob at its free end and an anvil-piece connected with the knob by a pin on which the anvil-piece is pivoted to automatically adapt itself to the shape of the shoe when the arm,
20 knob and anvil-piece with the shoe in place over the knob and anvil are brought into adjustment.

WALTER E. SEARLES. [L. S.]

Witnesses:

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