

C. F. PUNSKY.
LEATHER WORKING TOOL.
APPLICATION FILED MAR. 27, 1908.

969,806.

Patented Sept. 13, 1910.

2 SHEETS—SHEET 1.

Fig. 1

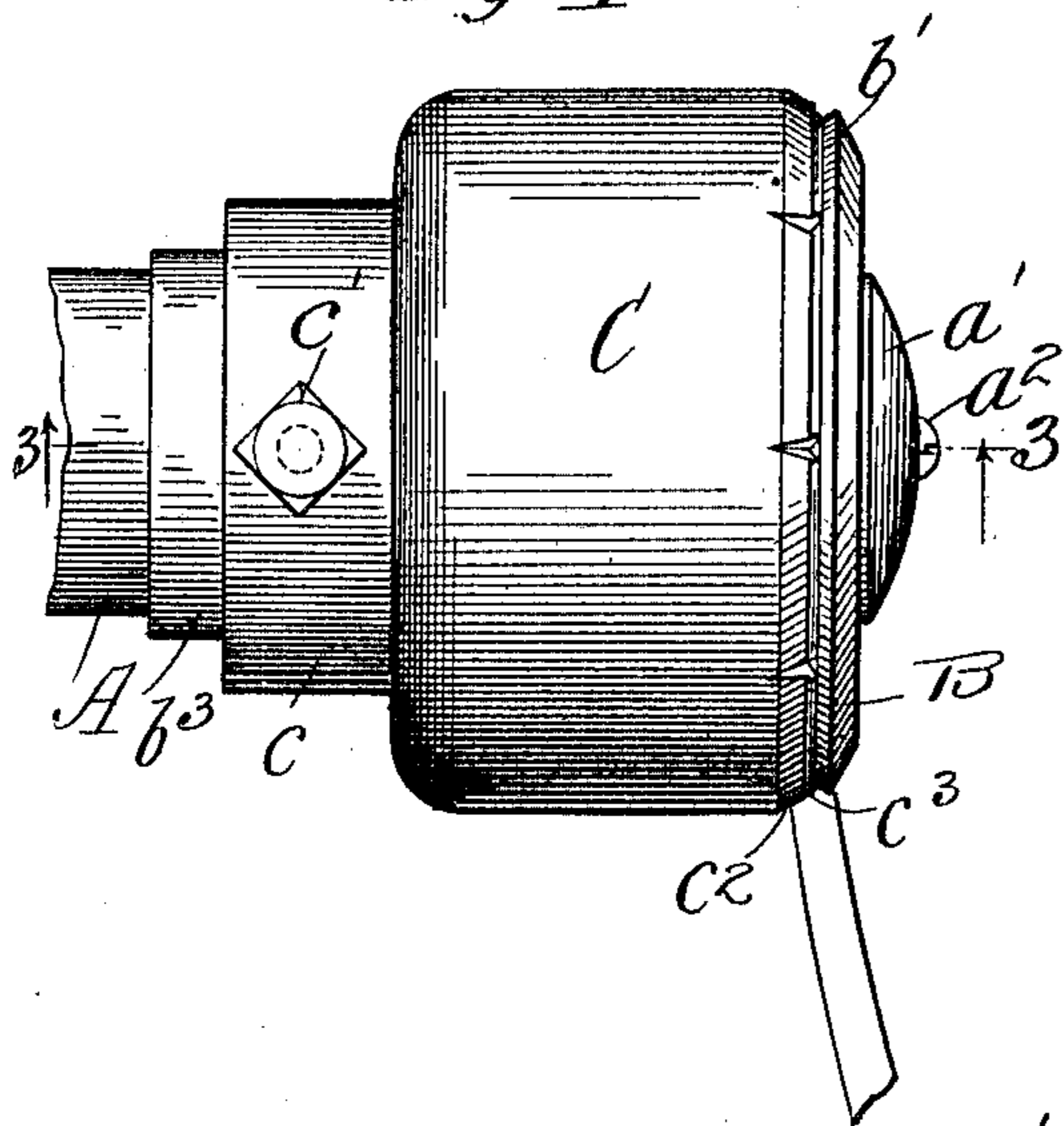


Fig. 2

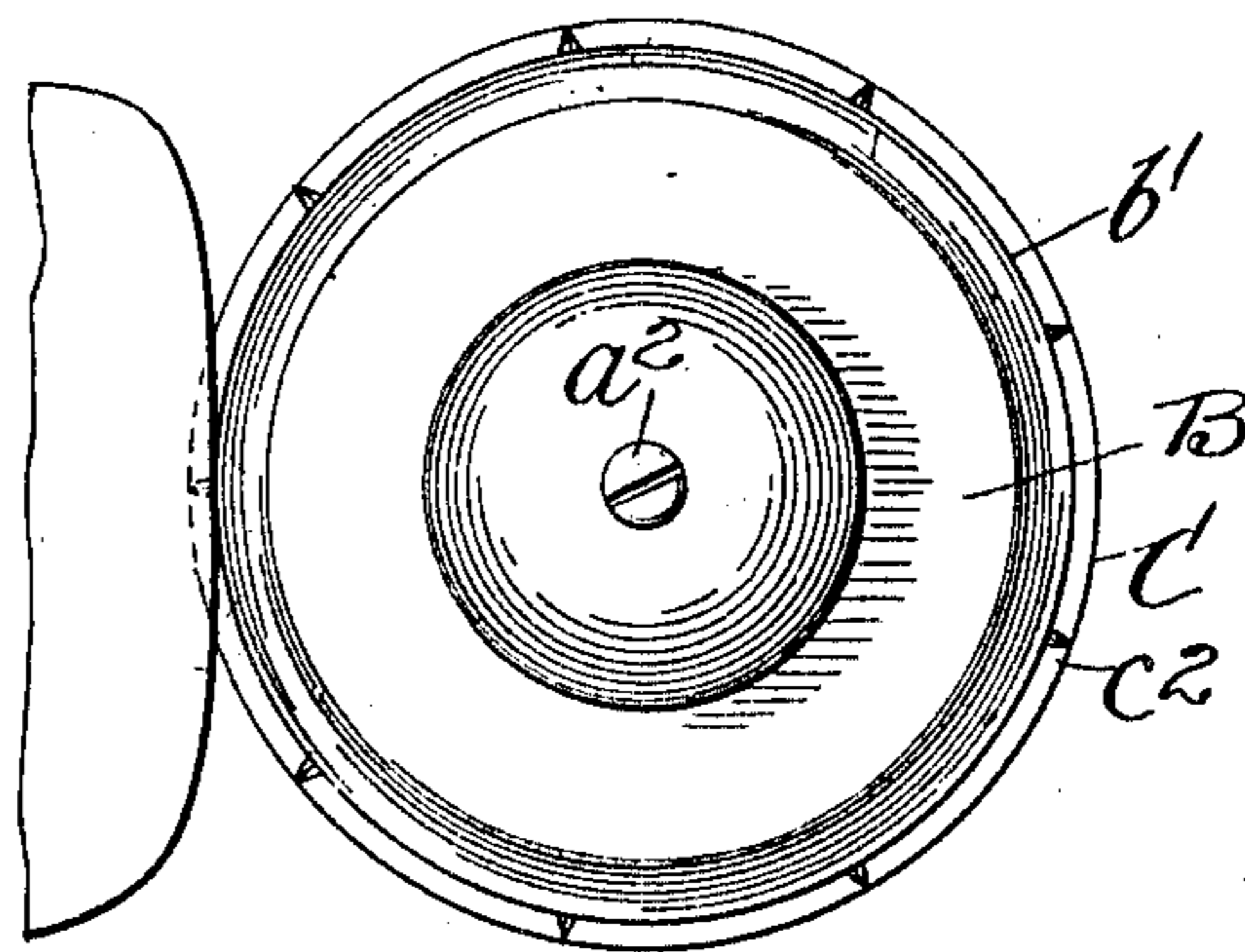


Fig. 5

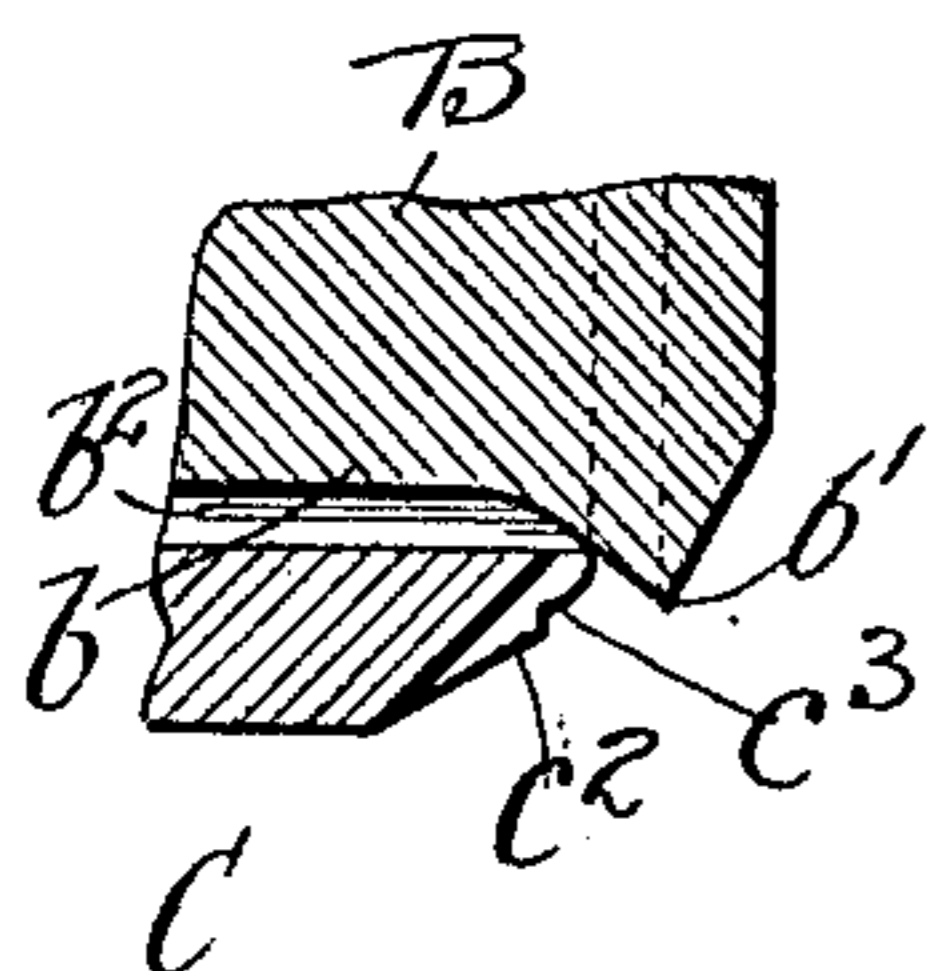


Fig. 3

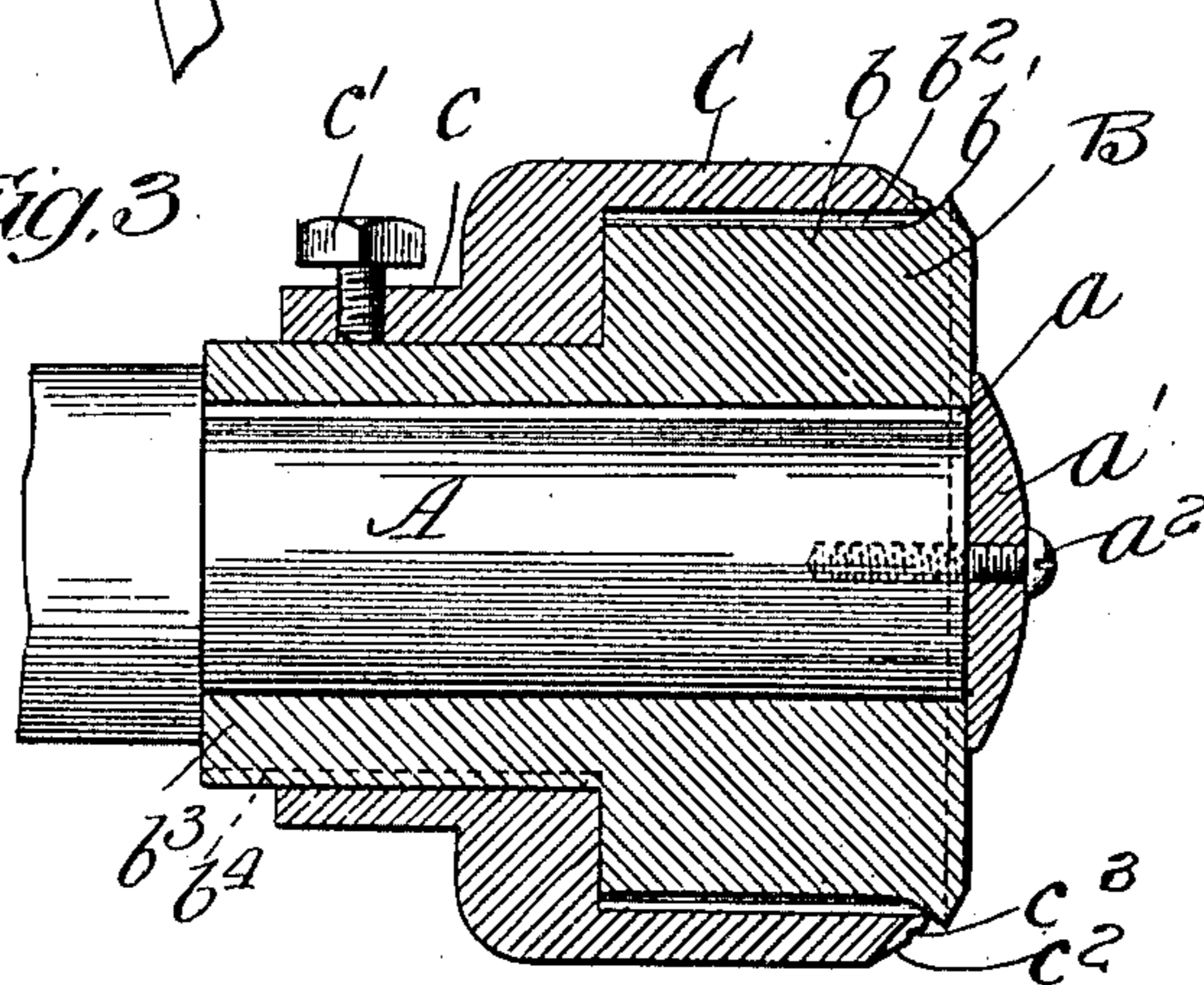
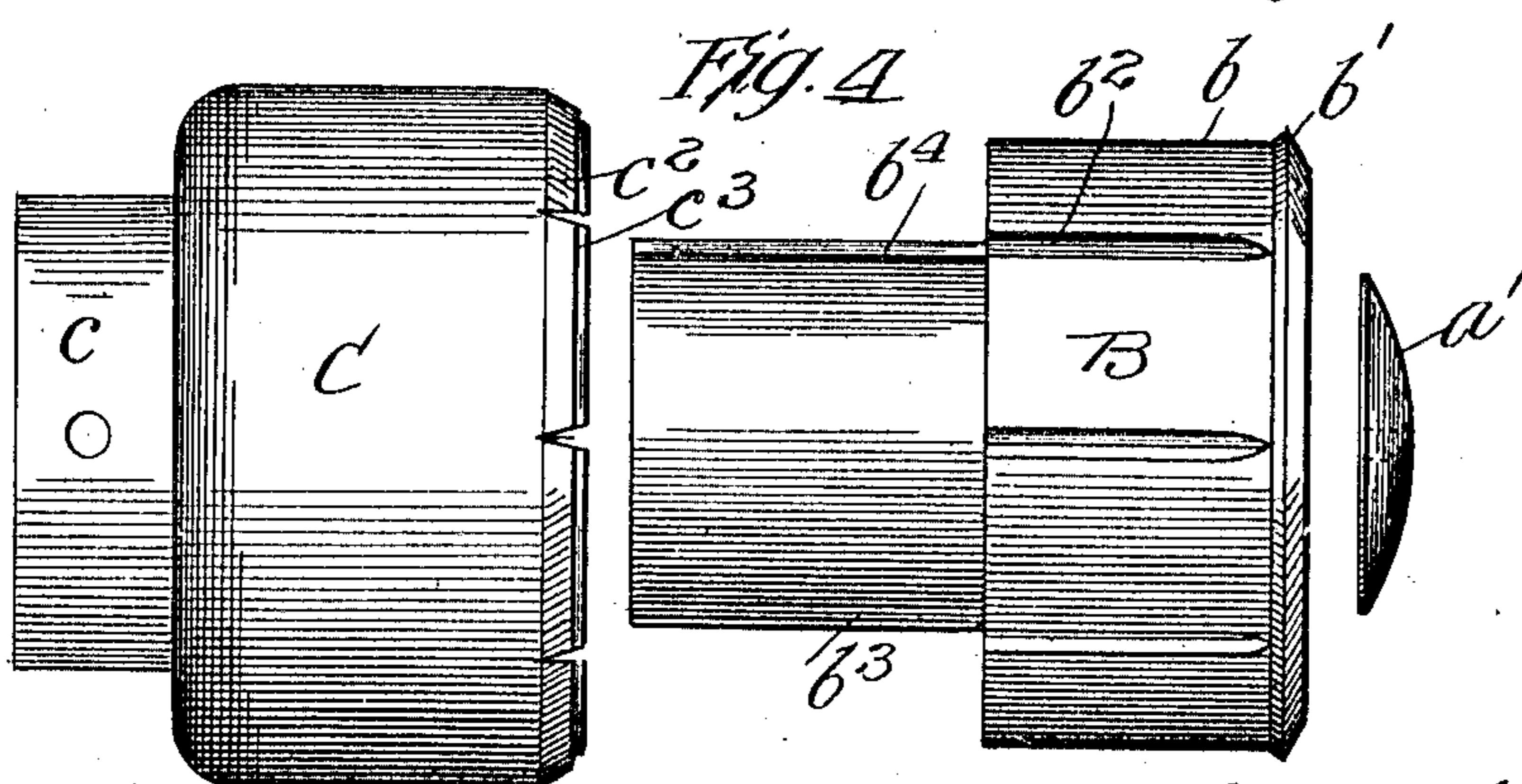


Fig. 4



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2 SHEETS—SHEET 2.

Fig. 6

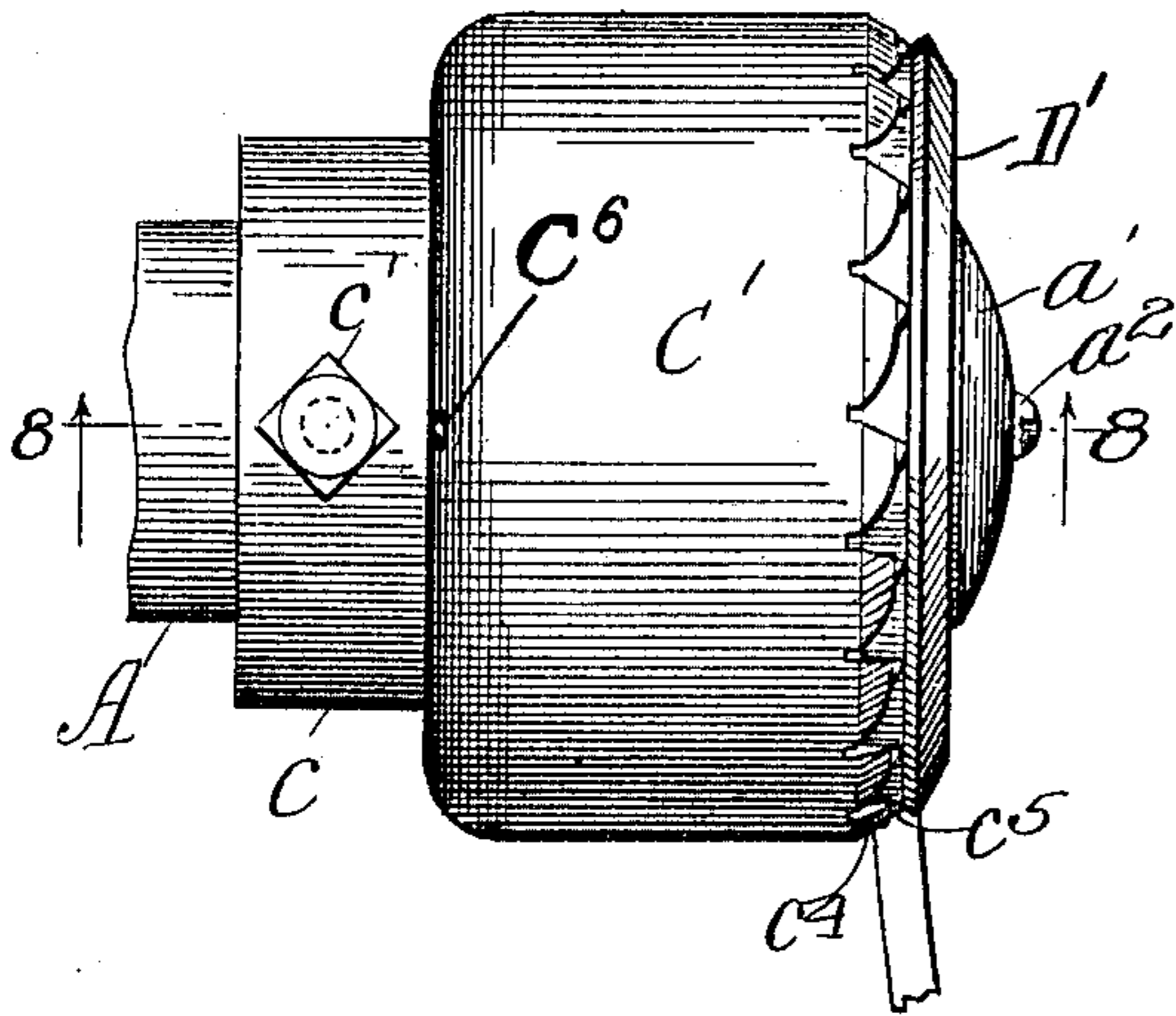


Fig. 7

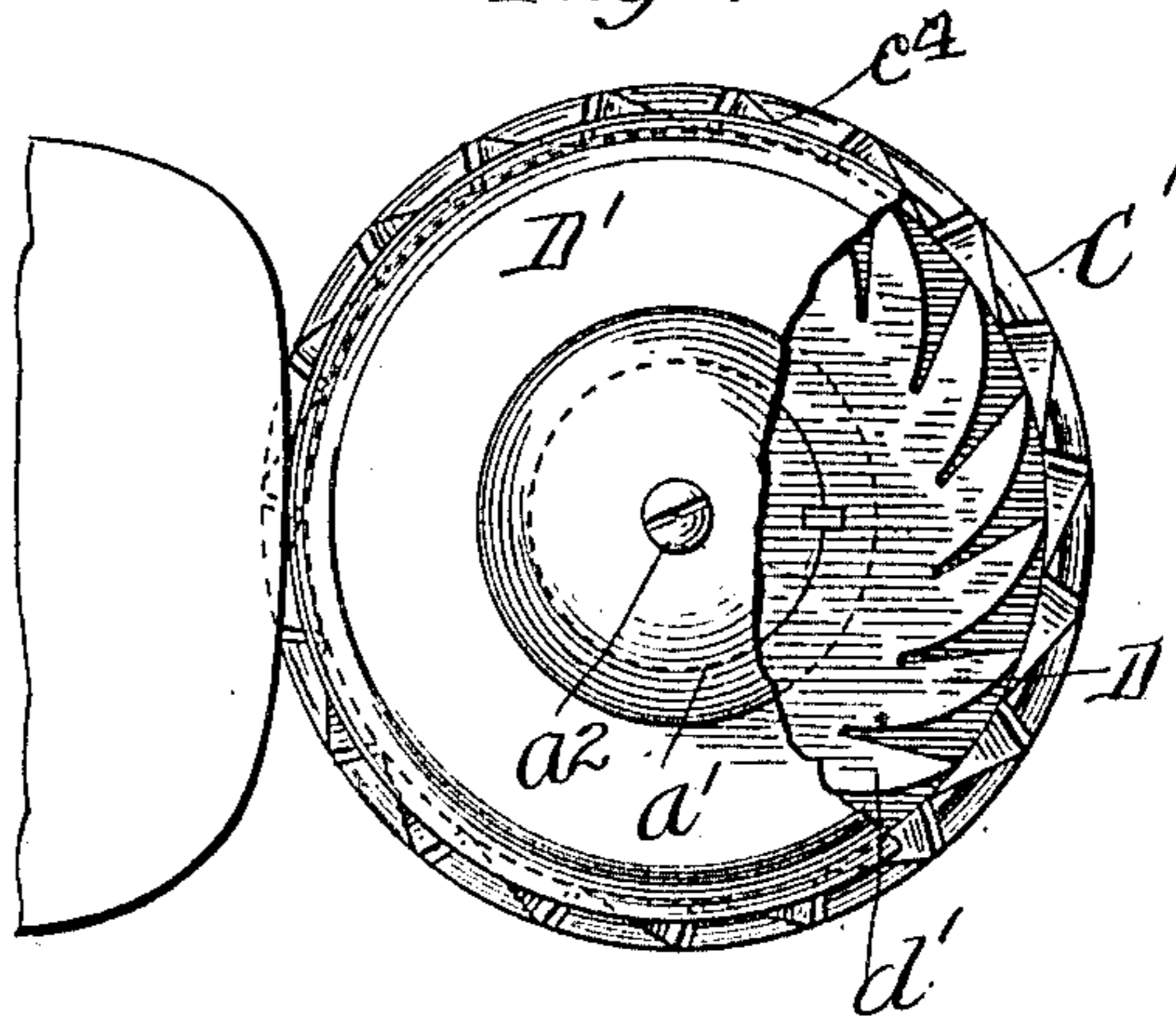


Fig. 9

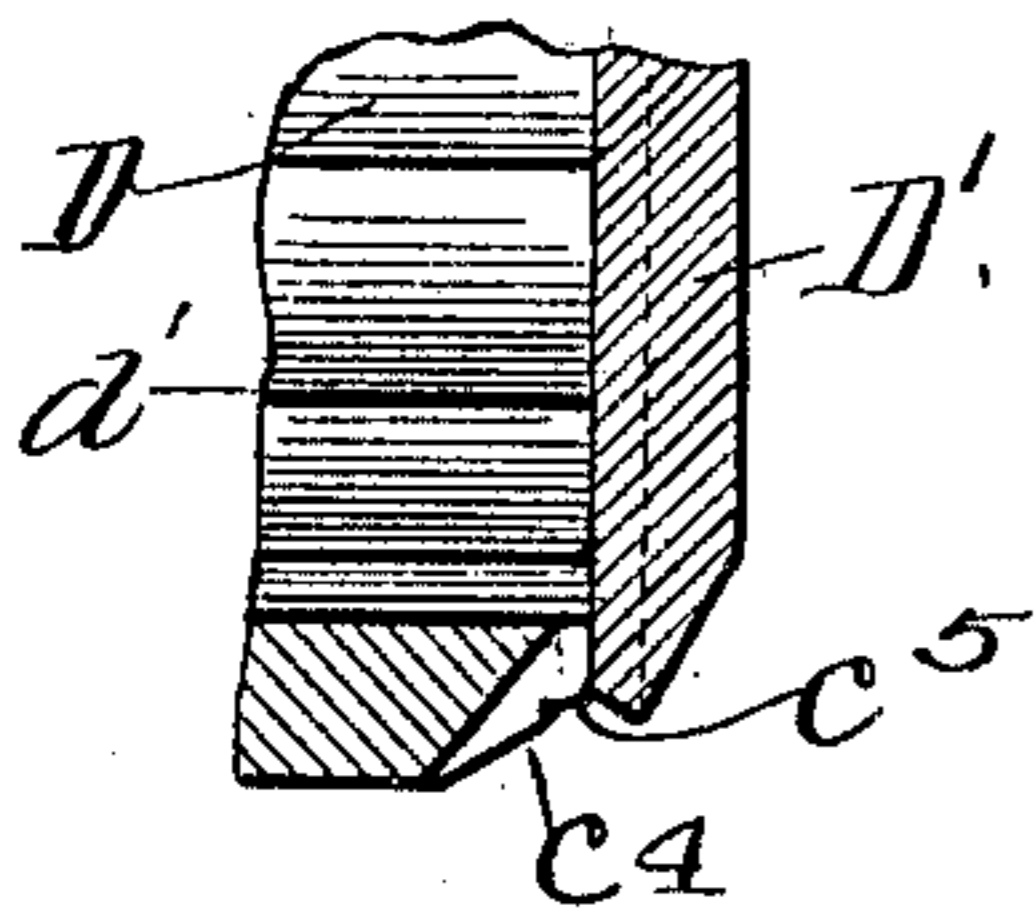


Fig. 8

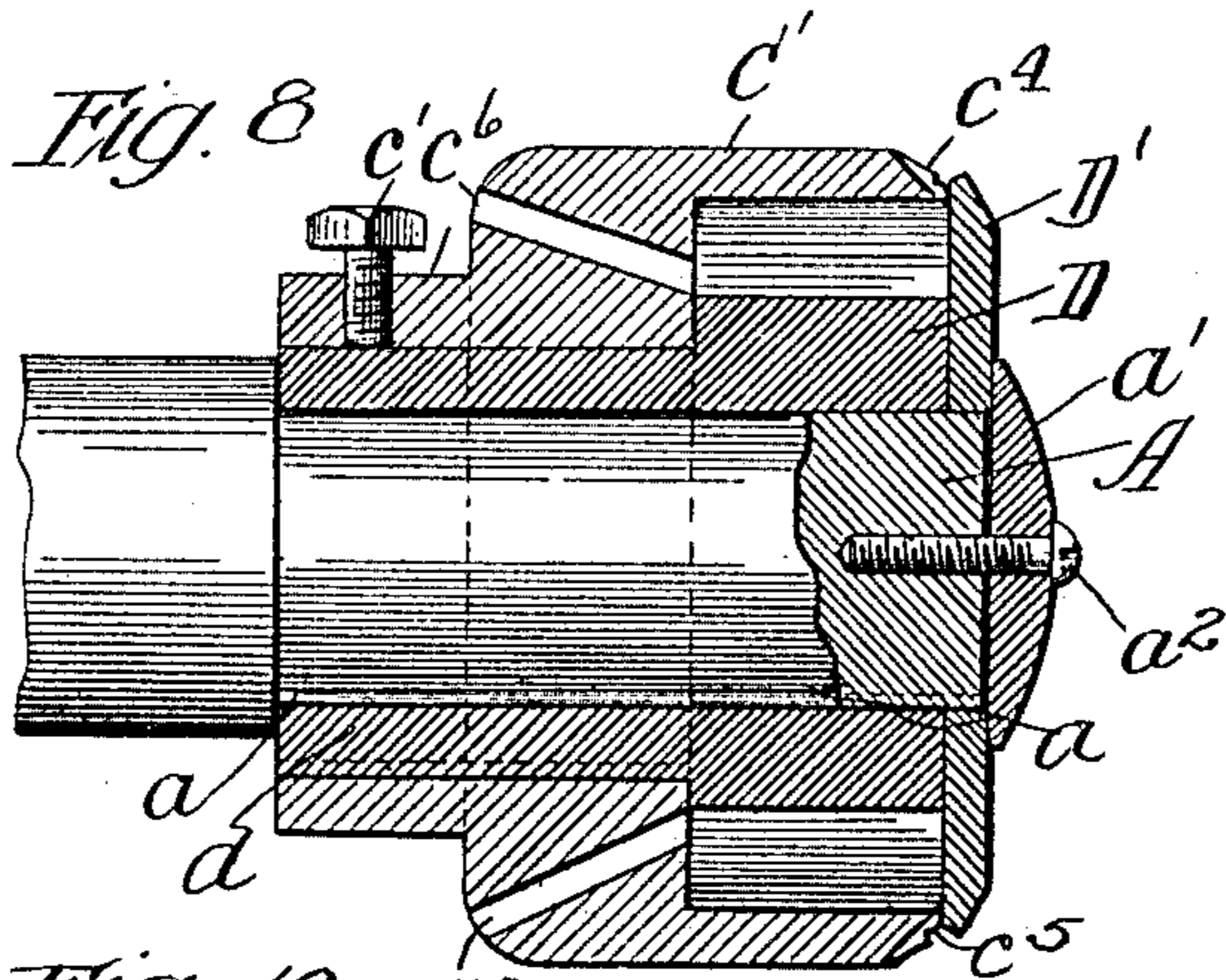
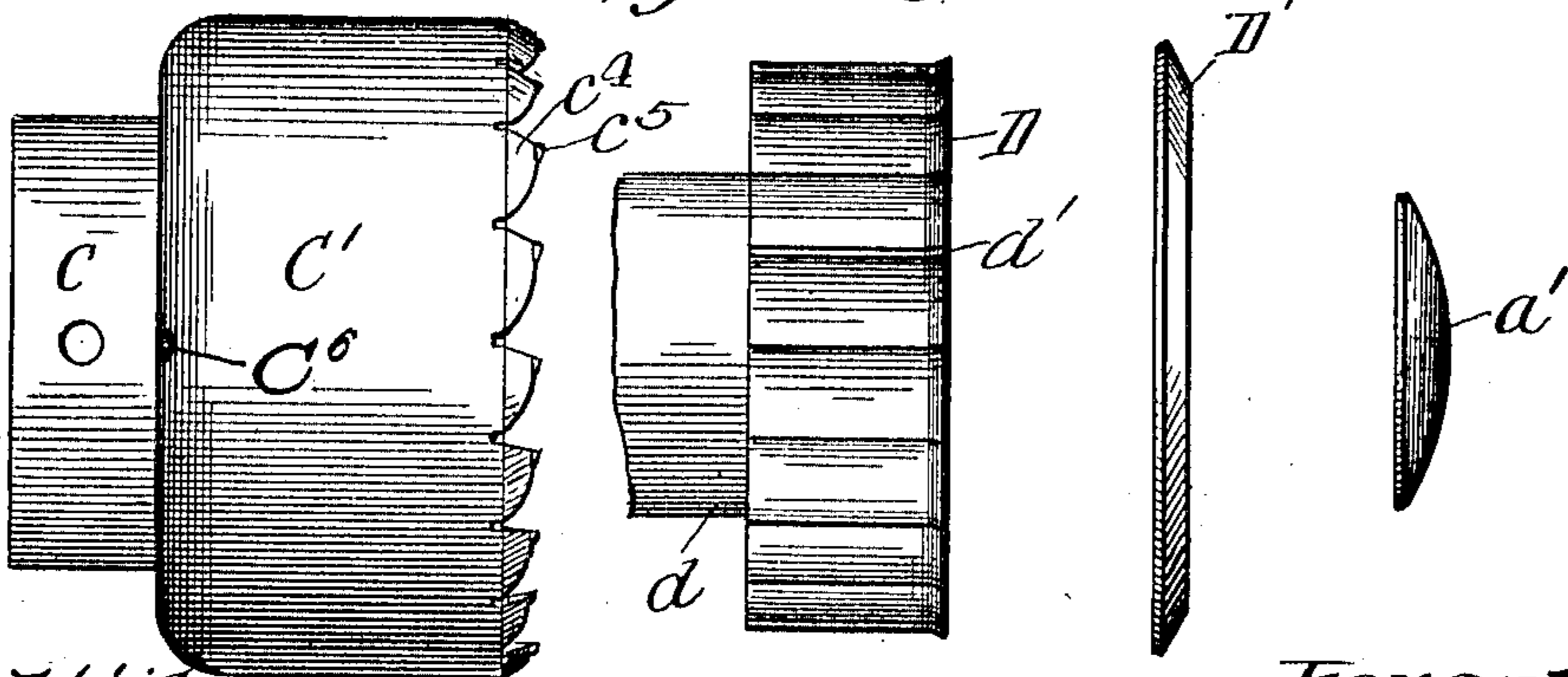


Fig. 10



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UNITED STATES PATENT OFFICE.

CARL F. PUNSKY, OF VALPARAISO, INDIANA.

LEATHER-WORKING TOOL.

969,806.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed March 27, 1908. Serial No. 423,776.

To all whom it may concern:

Be it known that I, CARL F. PUNSKY, a citizen of the United States, and a resident of Valparaiso, county of Porter, and State of Indiana, have invented certain new and useful Improvements in Leather-Working Tools; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in leather working tools and is shown more particularly embodied as a trimming, burnishing and polishing tool, though adaptable for other purposes.

It is an object of the invention to afford an easily adjustable and highly efficient polishing and burnishing tool for the soles of boots and shoes, by the use of which the shoemaker may produce the desired browned or slightly burnt effect on the edges of the sole in burnishing without necessitating the heating of the burnisher or polisher.

It is an important object of this invention to provide a tool adapted to trim the soles when rotated in one direction and to polish and burnish the soles by simply reversing the rotation of the same.

It is further an object of this invention to provide a device which can be quickly adjusted to perform the desired operation on any size or thickness of soles and in which, when adjusted, the parts are rigidly held in adjusted position.

It is also an object of this invention to provide a tool adapted to trim and finish the top, sides and bottom of the sole or the top and sides, or the top alone depending on the adjustment of the tool.

The invention consists in the matters hereinafter described and more fully pointed out and defined in the appended claims.

In the drawings: Figure 1 is a side elevation of a device embodying my invention. Fig. 2 is an end view thereof. Fig. 3 is a section on line 3—3 of Fig. 1. Fig. 4 is a side elevation showing the parts of the burnisher heads separated. Fig. 5 is an enlarged fragmentary detail of the polishing edge or fillet of the head and the adjustable collar for adjusting the same to various thicknesses of sole. Fig. 6 is a side elevation similar to Fig. 1, but showing the invention embodied as a cutter. Fig. 7 is an

end elevation partly broken away. Fig. 8 is a section on line 8—8 of Fig. 6. Fig. 9 is an enlarged fragmentary detail of the cutter. Fig. 10 is a view similar to Fig. 4, showing the parts of the cutter separated.

In said drawings: A indicates the shaft which may be provided with a fixed key or spline a , which fits in a key seat in the burnishing head B, shown in Fig. 3, to hold the same rigidly from rotation on the shaft. Said burnishing head comprises as shown, an enlarged head portion b , having an inclined outer fillet b' , which is brought to a relatively sharp edge and which serves to determine the angle for the finish of the sole. Said burnisher head, as shown, is provided longitudinally in its periphery with grooves b^2 , which may be of considerable depth providing cutting or roughened edges which greatly facilitates the burnishing and extending rearwardly from said head b , is the reduced sleeve portion b^3 , on which is rigidly secured a key or spline b^4 , as before described with reference to the shaft. Said head is rigidly held from longitudinal movement on said shaft by means of a washer a' rigidly engaged in place by means of a set screw a^2 , which extends through the washer and into the center of the shaft and the edges of the washer, as shown project beyond the shaft and engage the head, firmly securing the same in place.

Slidably secured on the sleeve b^4 is the polishing collar C. This, as shown, is provided at its rear end with a portion c , which fits to the sleeve b^4 and is provided with a key seat to receive the feather or spline b^4 that said collar may slide on said head. As shown also, a set screw c' rigidly engages through the reduced end of said collar to engage the sleeve b^3 to rigidly hold the same in adjusted position with reference to the head. The forward end of said collar or that adjacent to the fillet b' , is inclined, as shown in Fig. 5, and is provided with a plurality of notches c^2 around its periphery and adapted to engage the edges of the sole and as shown, said inclined or thin end of the collar is reduced to afford a bead c^3 to afford the usual ornamental finish to the sole.

In the construction shown in Figs. 6 to 10 inclusive a cutter head D, constructed generally as described with reference to the polishing or burnishing head and also provided with a sleeve d , is secured or keyed upon the shaft A as before described. Said

cutter comprises a blank of suitable steel having cutting teeth d' milled therein and which of course, are hooked in the direction of rotation of the head and brought to a sharp edge. A fillet or bead is provided at the end of the cutter, and a guard or shield for the upper is provided by the use of a washer D' , rigidly secured on said shaft by means of the same key which secures the cutter head thereon, and likewise, the washer a' is engaged against the fillet washer D' , by means of the set screw a^2 and acts to hold the cutter from longitudinal movement on the shaft. The collar C' for the cutting head is constructed exactly as before described with reference to the collar C , except that in lieu of the shallow notches on the burnishing collar, cutting teeth c^4 are provided and passages c^6 are provided to permit discharging of the cut material. These teeth also as clearly shown, are shaped to afford a shoulder c^5 near their cutting edge which forms the bead on the sole preparatory to the burnishing of the same.

The operations is as follows: Having determined the thickness of the sole to be trimmed or polished as the case may be, the collar C or C' is adjusted at a suitable relative position from the fillet of the burnisher or trimmer, this being accomplished by means of the set screw c^7 . Having properly adjusted the collar, the shaft is driven from any suitable source of power at a comparatively high rate and the sole previously secured in place upon the shoe or boot is brought in contact with the same between the collars C or C' . In trimming the cutter rapidly shapes the sole to the desired form, the fillet and the collar teeth serving to shape the bottom and top thereof respectively to suit the requirements of the particular style of finish to be given to the sole. Having completed the trimming the sole may be polished and burnished either by reversing the rotation of the trimmer shaft or by applying the sole to a burnishing head which may be upon the opposite end of that shaft or upon another shaft or may be substituted for the cutting head D and C' before described.

Of course, I am aware that details of construction will vary to some extent with the kind of finish or shape to be given the shoe and also details of construction may be varied without departing from the principles of this invention.

I claim as my invention:

1. The combination with a forming head having a fillet on its outer edge of a sleeve integral and concentric therewith and having a keyway therein, a shaft adapted to receive said head thereon, a feather on the shaft fitting the keyway, a collar slidable on the sleeve and projecting over the forming head, teeth at the front edge of the

collar provided with a bead and a feather secured on said sleeve and engaging said collar.

2. The combination with a shaft of a forming head, a sleeve slidable thereon integral and concentric with the head and feathered on the shaft, a collar feathered to slide on the sleeve and projecting over and fitting around the forming head and having teeth at the front edge thereof and shaped to form a beaded finish and a set screw for engaging the collar in adjusted position relatively the head.

3. In a forming or shaping head a shaft having a feather secured thereon, a head having a sleeve concentric and integral therewith, a keyway therein to receive the feather on said shaft, a feather secured on said sleeve, a collar having a complementary seat to engage the feather on said sleeve and slidable on the sleeve, a set screw for engaging the same adjustably thereon, teeth on said head, teeth on the forward edge of said collar, a peripheral projection or fillet at the outer end of the shaping or forming head and means for preventing longitudinal movement of the head on the shaft.

4. In a device of the class described a shaft, a sleeve slidably engaged thereon, a head integral with the sleeve, peripheral teeth on the head, a collar providing a chamber inclosing the teeth, said collar having passages opening from the chamber, inclined teeth at the outer end of the collar, a fillet formed at the outer end of the teeth on the head and a bead in the teeth of the collar.

5. In a sole trimming device a head provided with teeth for trimming the edges of the sole, a fillet at the end of the teeth for trimming the top of the sole and a collar provided with teeth for trimming the bottom of the sole.

6. The combination with a shaft of a forming head, rigidly but removably engaged thereon provided with an inclined outer fillet, a sleeve integral and concentric with the head, a collar adjustable on and adapted to be rigidly engaged to the sleeve and projecting over and fitting around the forming head and having teeth at its front edge, said inclosing portion of the collar being so proportioned as to permit adjustment of the same to the outer end of the head.

7. The combination with a rotative shaft of a forming head removably secured thereon, peripheral hooked cutting teeth thereon having rounded backs, a sleeve integral and concentric with the head, a hollow collar slidable on the sleeve and projecting over, fitting to and adapted to partly inclose the forming head, teeth on the front edge thereof, also having rounded backs and shaped to afford a beaded finish, and means for adjusting the collar relatively to the cut-

ting head whereby said device acts as a cutter when rotated in one direction and as a polisher when rotated in the other.

5 8. The combination with a shaft of a forming head having longitudinal teeth in its periphery and a fillet or projection at the outer edge of the teeth, a sleeve integral and concentric with the head and feathered on the shaft, a collar feathered to slide on
10 the sleeve and projecting over and fitting around the forming head, and having teeth

at its front edge shaped to form a beaded finish, and a set screw for engaging the collar in adjusted position relatively to the head.

In testimony whereof I have hereunto
subscribed my name in the presence of two
subscribing witnesses.

CARL F. PUNSKY.

Witnesses:

C. W. HILLS,

K. E. HANNAH.

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