

(No Model.)

3 Sheets—Sheet 1.

W. T. CARROLL.

SADDLE FOR TOP ROLLS OF SPINNING MACHINES.

No. 408,292.

Patented Aug. 6, 1889.

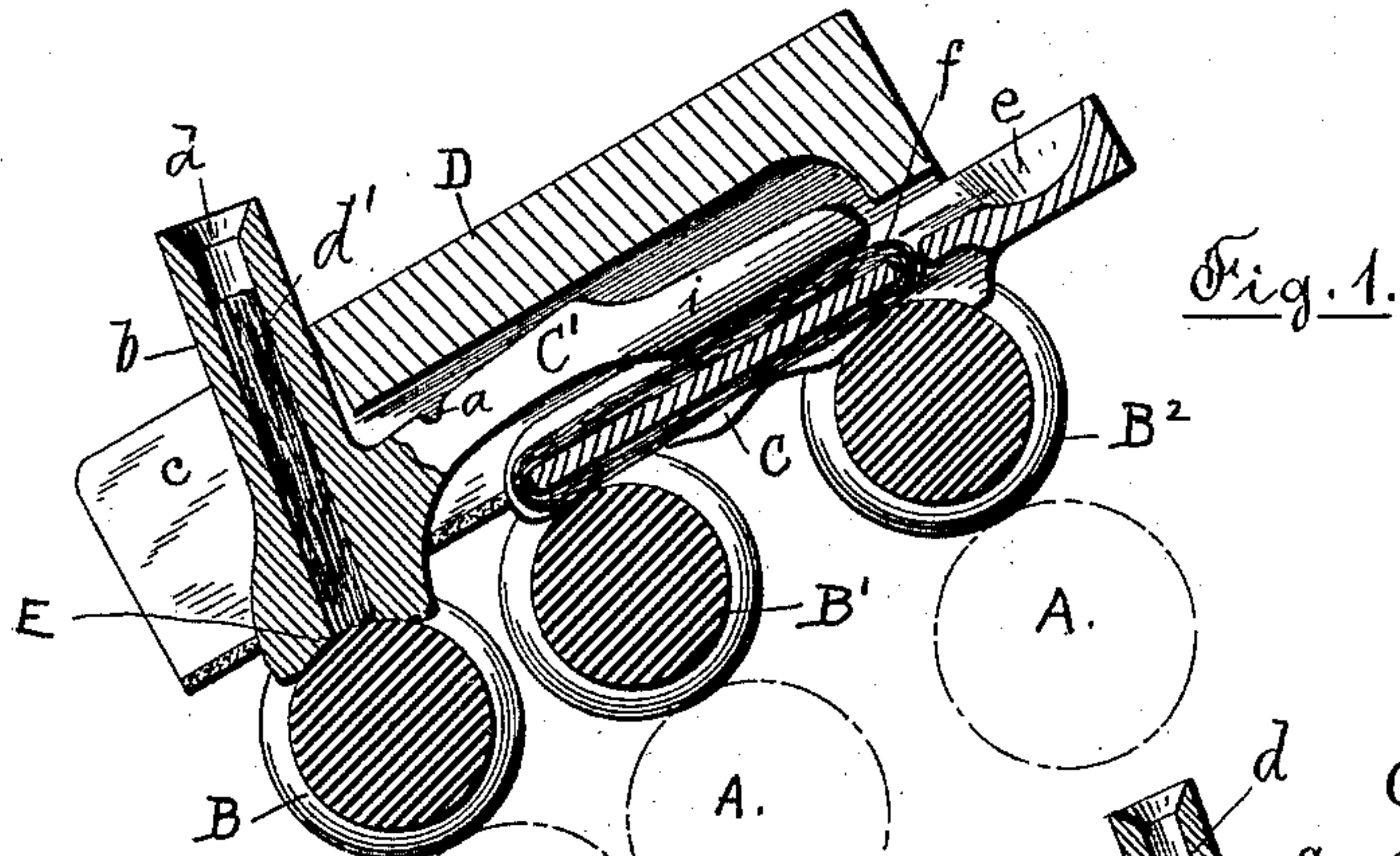


Fig. 1.

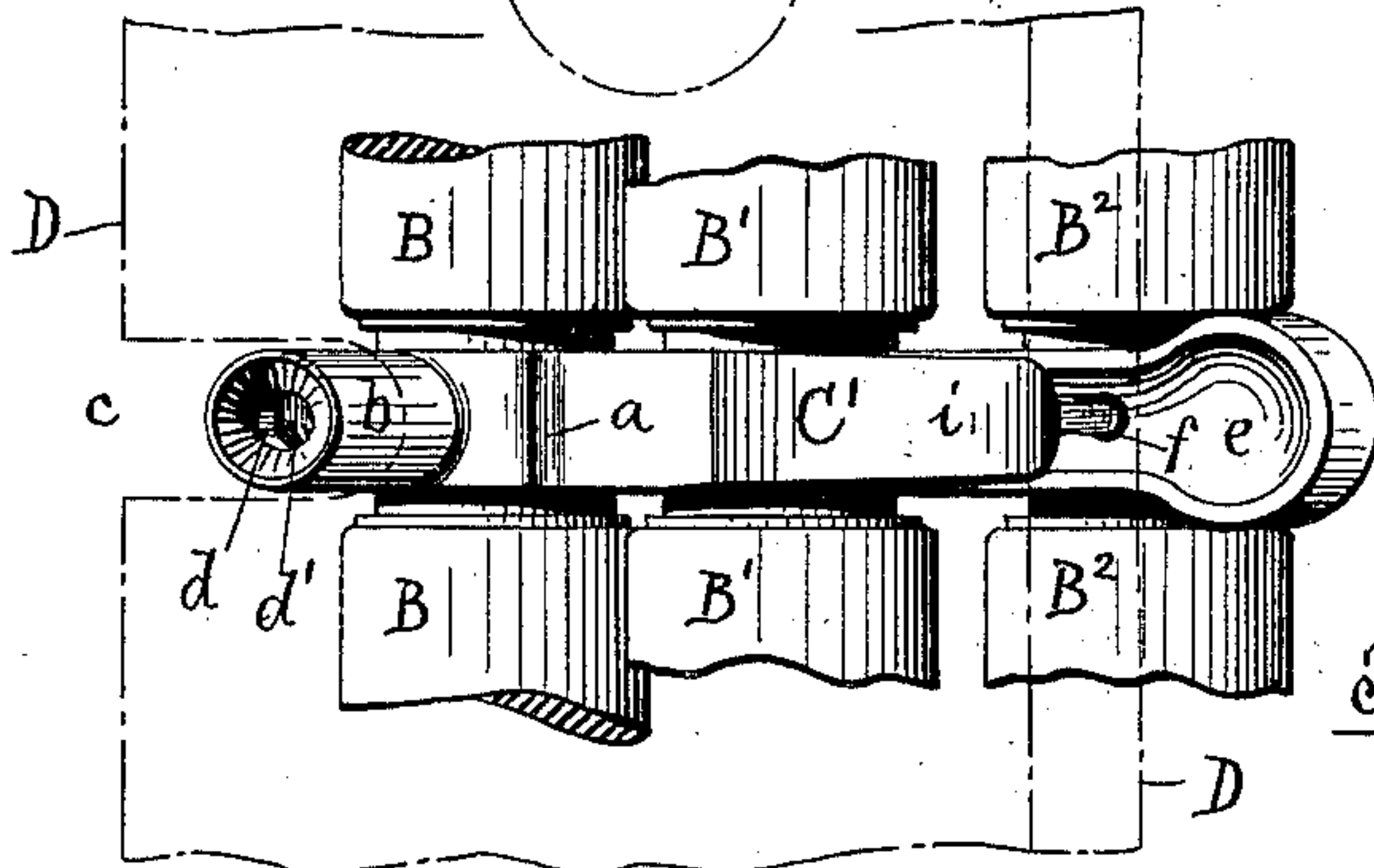


Fig. 2.

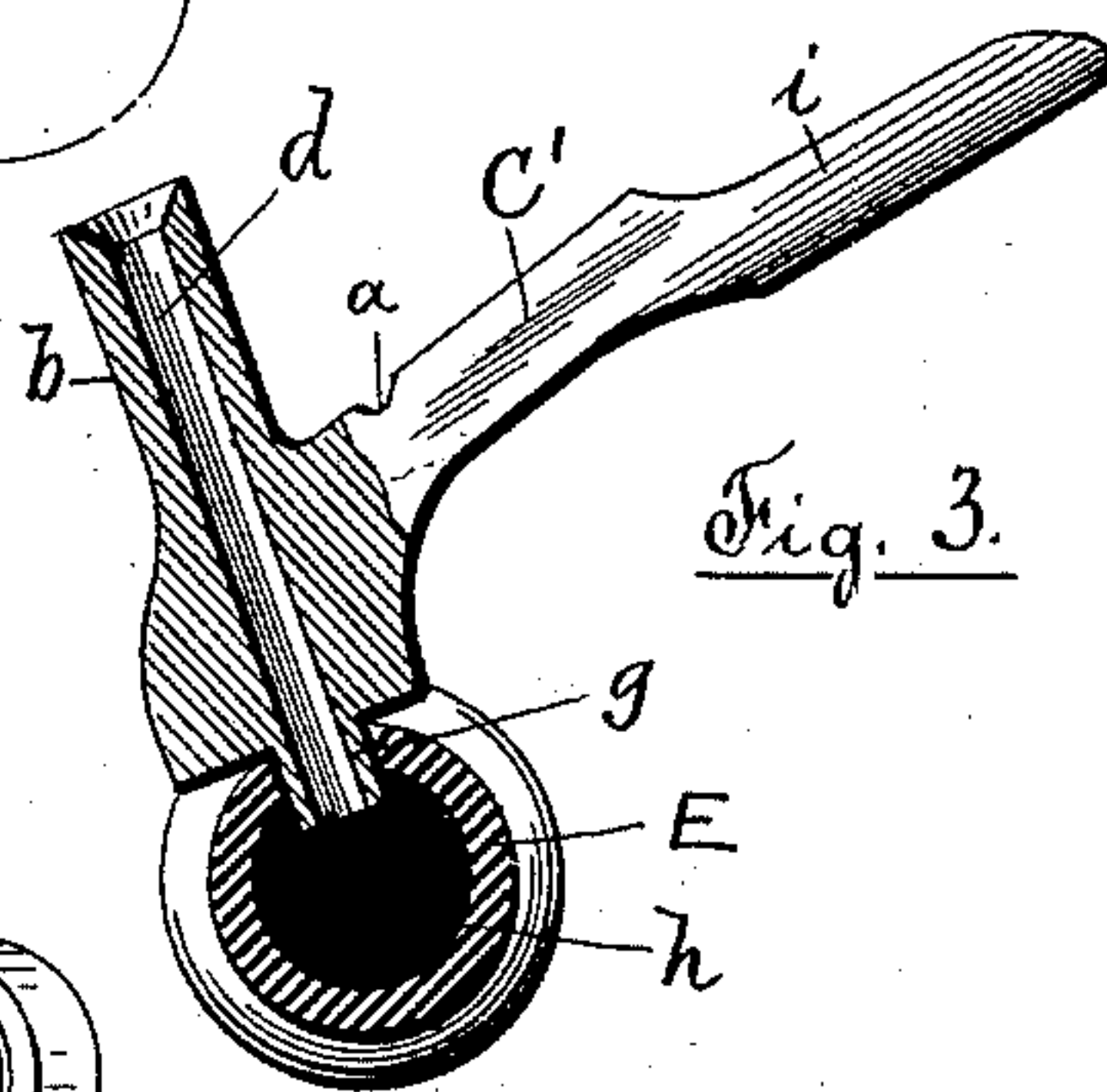


Fig. 3.

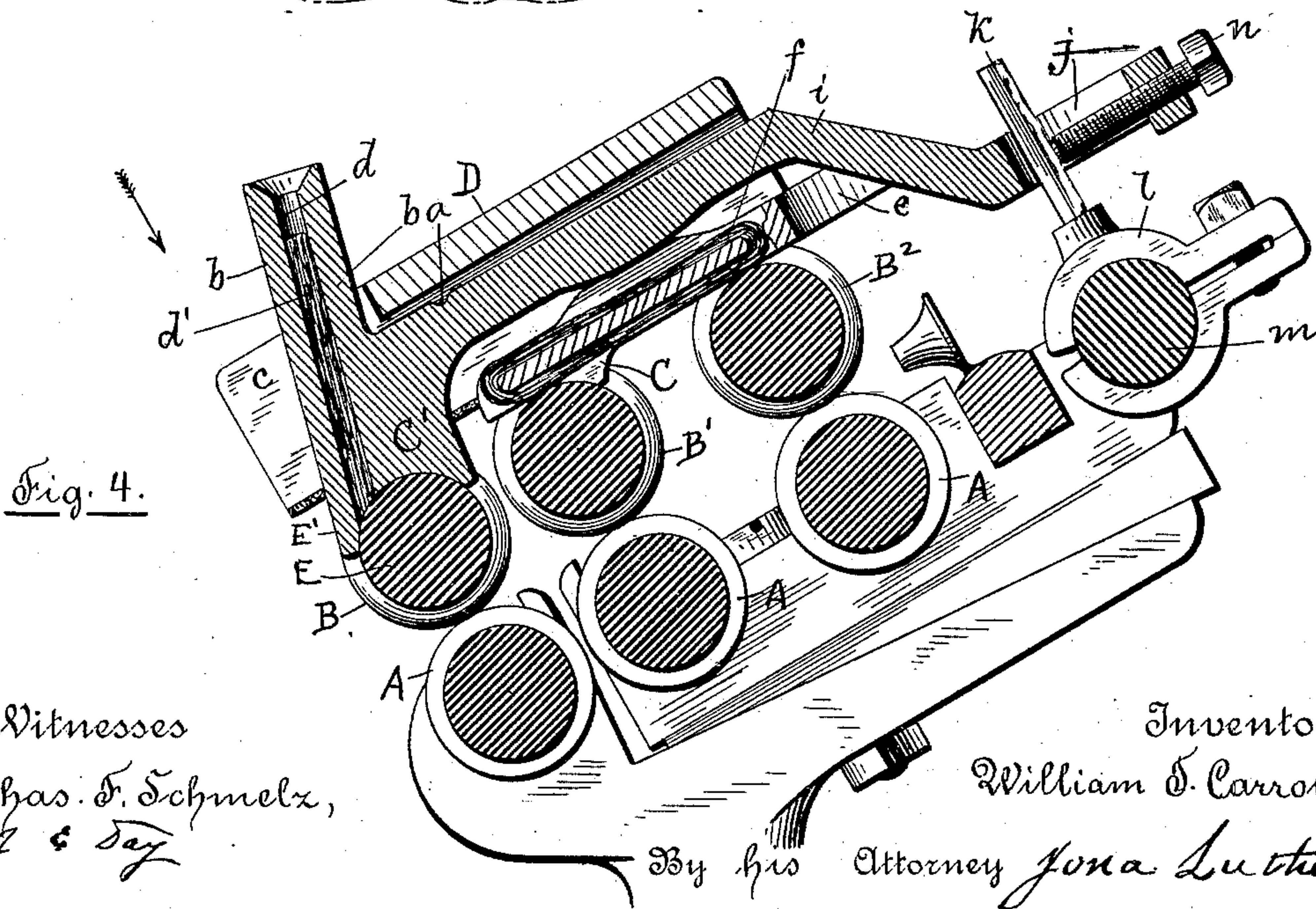


Fig. 4.

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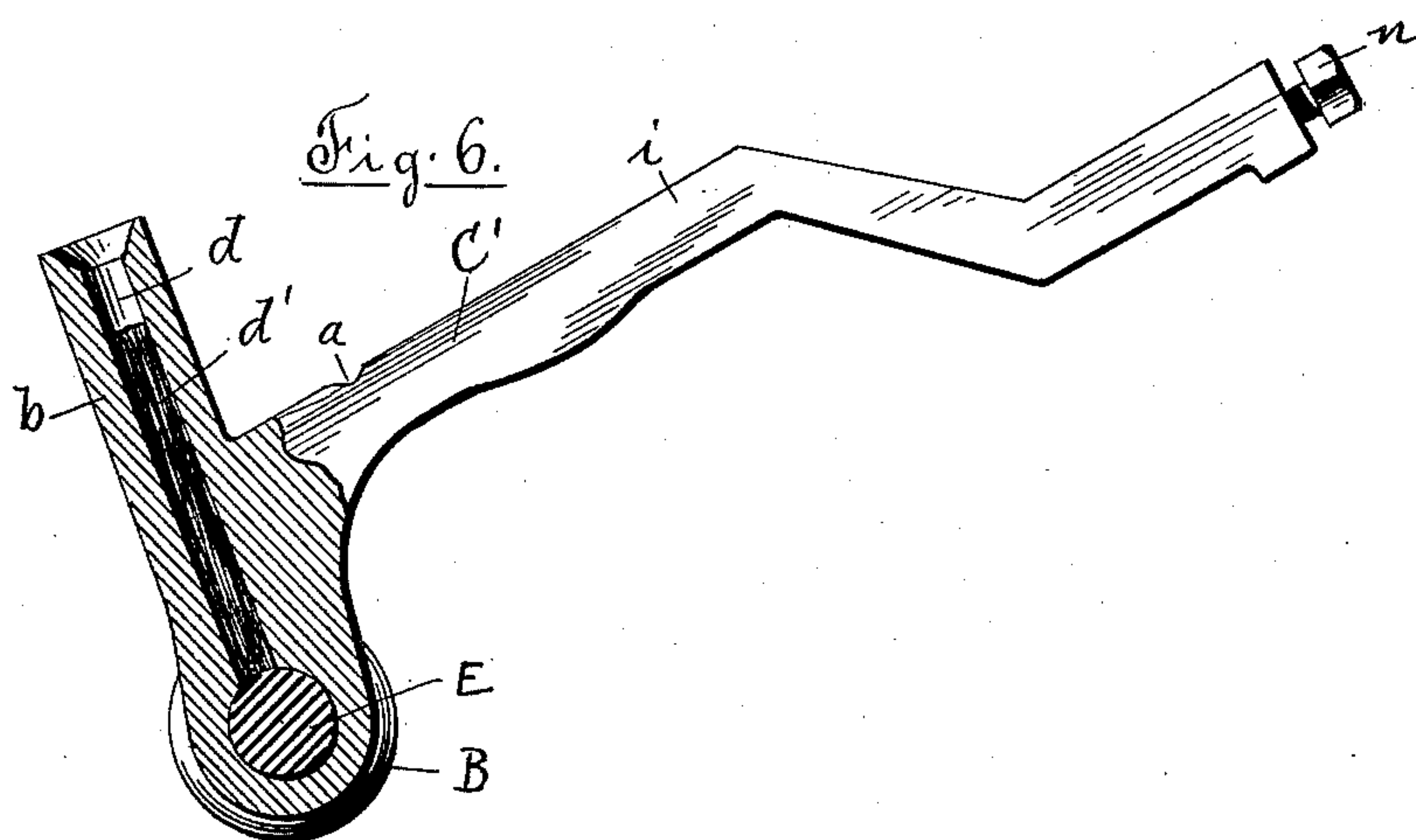
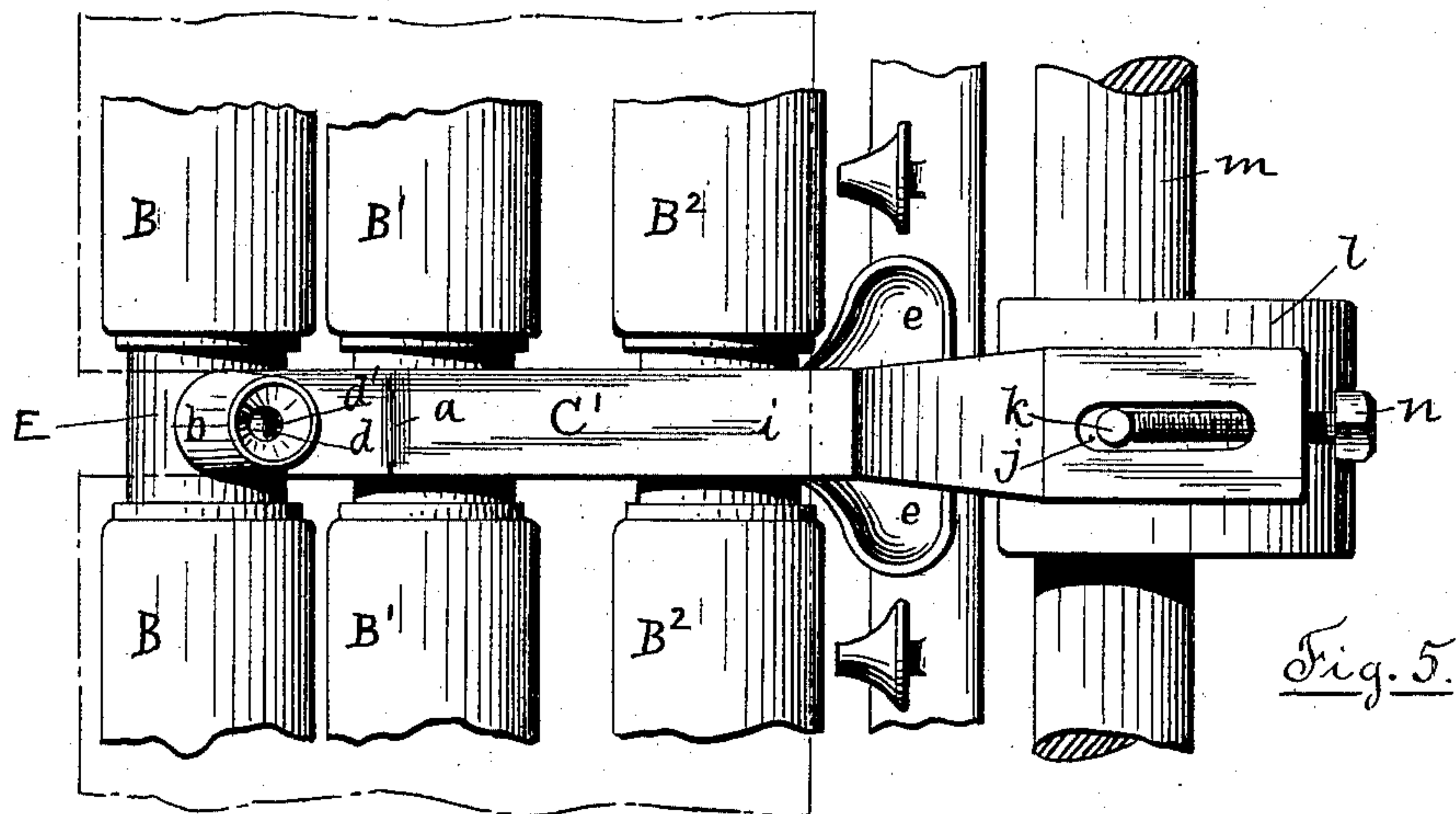
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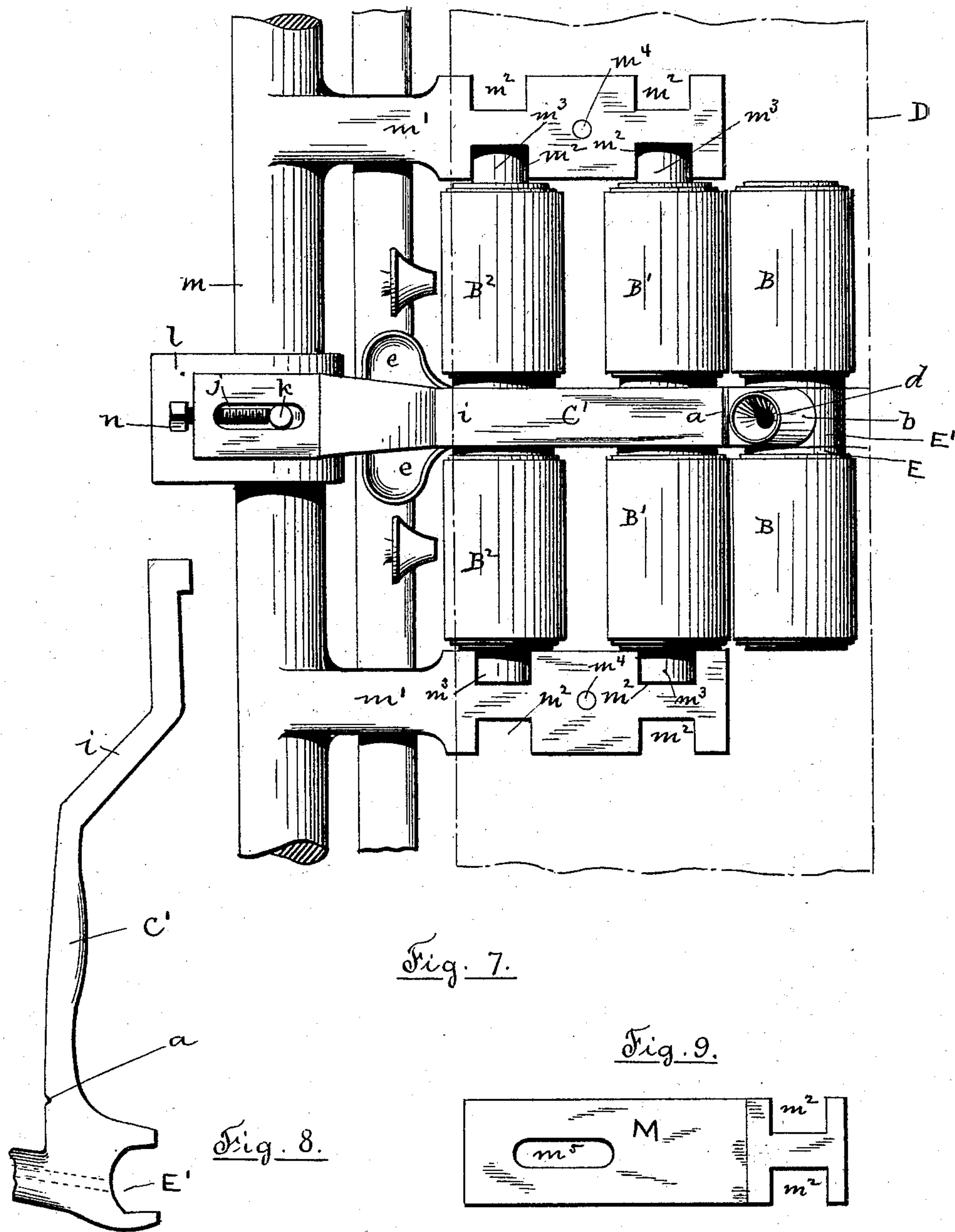
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UNITED STATES PATENT OFFICE.

WILLIAM T. CARROLL, OF WORCESTER, MASSACHUSETTS.

SADDLE FOR TOP ROLLS OF SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 408,292, dated August 6, 1889.

Application filed March 7, 1889. Serial No. 302,257. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. CARROLL, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Saddles for Top Rolls in Spinning-Machines; and I do hereby declare that the following, in connection with the accompanying drawings, is a specification sufficiently clear and descriptive to enable those skilled in the art to which my invention belongs to make and use the same.

My invention has for its objects, first, to provide a saddle and clearer for top rolls; whereby the oil can be introduced to the bearings under the saddles without removing the clearers; second, whereby the end bearings of the front top roll and the cap-bar in which the end bearings are held may be dispensed with, and the front top roll have but one central general bearing in or under the journal-box in the hub of the front saddle.

Practice has shown that under any and all conditions the axis of the rolls will always return to a position parallel with that of the lower rolls when pushed to one side and subsequently released, the lower rolls having journal-bearings in the under bars in the ordinary way.

The advantages derived in dispensing with the end bearings of the front top roll and the adjustable cap-bar in which the end bearings are held are, that there is no chance for cotton waste or yarn to wind up thereon, and that there is less friction and great saving of power and labor.

My invention therefore consists, first, in providing the hub or bearing of the upper saddle with a projecting oil-duct, the clearer having a slot adapted to said oil-duct, and the under saddle having its oil-duct lengthened out beyond the clearer, whereby oil can be introduced to the bearings under the saddles without removing the clearers.

My invention consists, second, in having a journal-box formed in the hub of the upper saddle provided with a projecting oil-duct extending therefrom up through a slot in the clearer, the stem lengthened out rearwardly, and having a slot near the end and adjusted

on a pin which forms a part of a clamp, said clamp being secured to the rear cap-bar. In the end of the stem and bringing up against the pin is a thumb-screw, which may be turned to move the saddle and top front roll forward or back, as the case may require, the under saddle having its oil-duct lengthened out beyond the clearer, by which improvements the end bearings of the front top rolls may be dispensed with and the central bearings under the saddles lubricated without removing the clearers. The other top rolls can be adjusted in journal-boxes formed in the under saddle, so as to dispense with end bearings, if desired.

Referring to the drawings, Figure 1 represents a side or end sectional view of my improved saddle, showing the projecting oil-duct of the front saddle extending up through a slot in the clearer, and the rear extension of the under saddle as applied to rolls having end bearings in the ordinary way. Fig. 2 represents a top view of the same. Fig. 3 represents a modified form of my improved upper saddle adapted to lubricate the bearing in a shell-roll having end bearings in the ordinary way. Fig. 4 represents a side or end sectional view of my improved saddles as applied to front top rolls having no end bearings. Fig. 5 represents a top view of the same, showing a top view of the rear extension of the upper and under saddles. Fig. 6 represents my improved top saddle, showing the form of the journal-box in the hub, adapted to the arbor of a shell-roll without end bearings, and to lubricate the same by means of the upward-projecting oil-duct. Fig. 7 represents a top and front view of my improved saddles adapted to hold the front top roll in position without end bearings, the under rolls on which they rest not being shown. Fig. 8 represents a side view of the upper saddle, showing the journal-box for the front top roll. Fig. 9 represents the ordinary adjustable cap-bar in use for front top rolls, having end bearings, but shown here detached from Fig. 7, in order to show what is dispensed with by means of my improved saddle.

Similar letters indicate similar parts throughout the drawings.

A A A represent the lower rolls, on top of

which are placed the top rolls $B B' B^2$, which are held in position by the saddles $C C'$, which are pulled down by means of a weight, (not shown,) which is attached to the front saddle C' at a in the ordinary way. The hub or bearing of the upper saddle C' is provided with a projection b , having an oil-duct d extending to the roll-arbor E , in which are placed cotton or wool threads p' , or other suitable material, and saturated with oil, thus insuring a slow feed to the arbor.

The projection b extends up through a slot c in the clearer D . At the rear end of the under saddle C is the oil-duct e , extending beyond the clearer D , in which is placed wool thread f , which feeds the oil to the arbors of the rolls $B' B^2$. This form of my improved saddles and clearer is adapted to top rolls $B B' B^2$, all having end bearings in the ordinary way.

For the second part of my improved saddles the stem i of the upper saddle C' is lengthened out rearwardly and provided with a slot j , through which passes the pin K , screwed in or forming a part of the clamp l , which is attached to the rear cap-bar m . In the end of the stem is a set-screw n , extending to the pin K , which may be turned in or out, moving the saddle C' and roll D forward or back, whereby the distance between the rolls $B B'$ may be increased or diminished, or by turning the clamp F forward or back on the cap-bar m will produce the same result that the set-screw does, as will be readily seen. The hub of this saddle C' has a journal-box E' , with a projecting stem b , having the oil-duct d , which extends up through a slot c in the clearer D . Woolen yarn or other fibrous material inserted in the oil-duct d ,

saturated with oil, will lubricate the bearings of the roll-arbor E . The roll B , without end bearings, is held in position on top of the under front roll A .

The rear end of the under saddle C is lengthened out beyond the clearer B , having an oil-duct e , in which is placed woolen thread f , which feeds the oil to the arbors of the rolls $B' B^2$ under the saddle, the ends m^3 being held in the slots m^2 of the cap-bar m' , as shown in Fig. 7.

In case a shell-roll is used for the front top roll I provide the front saddle with the short tube g , as shown in Fig. 3.

Having thus shown and described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In saddles for spinning-machines, the combination of the upper saddle having an oil-duct projecting upwardly from its hub or bearing, the clearer having a slot adapted to said oil-duct, and the under saddle having its oil-duct lengthened out beyond the clearer, substantially as shown and described, and for the purpose specified.

2. In combination, the front top roll, the upper saddle having a journal-box formed in its hub, which is the sole journal-box of said roll, and having its stem lengthened out in the rear and formed with a slot, the cap-bar having a pin to enter said slot, and an adjusting set-screw, substantially as shown and described, and for the purpose specified.

WILLIAM T. CARROLL.

Witnesses:

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