

H. E. WOOD.

THUMB CUFF.

APPLICATION FILED JULY 13, 1908.

929,910.

Patented Aug. 3, 1909.

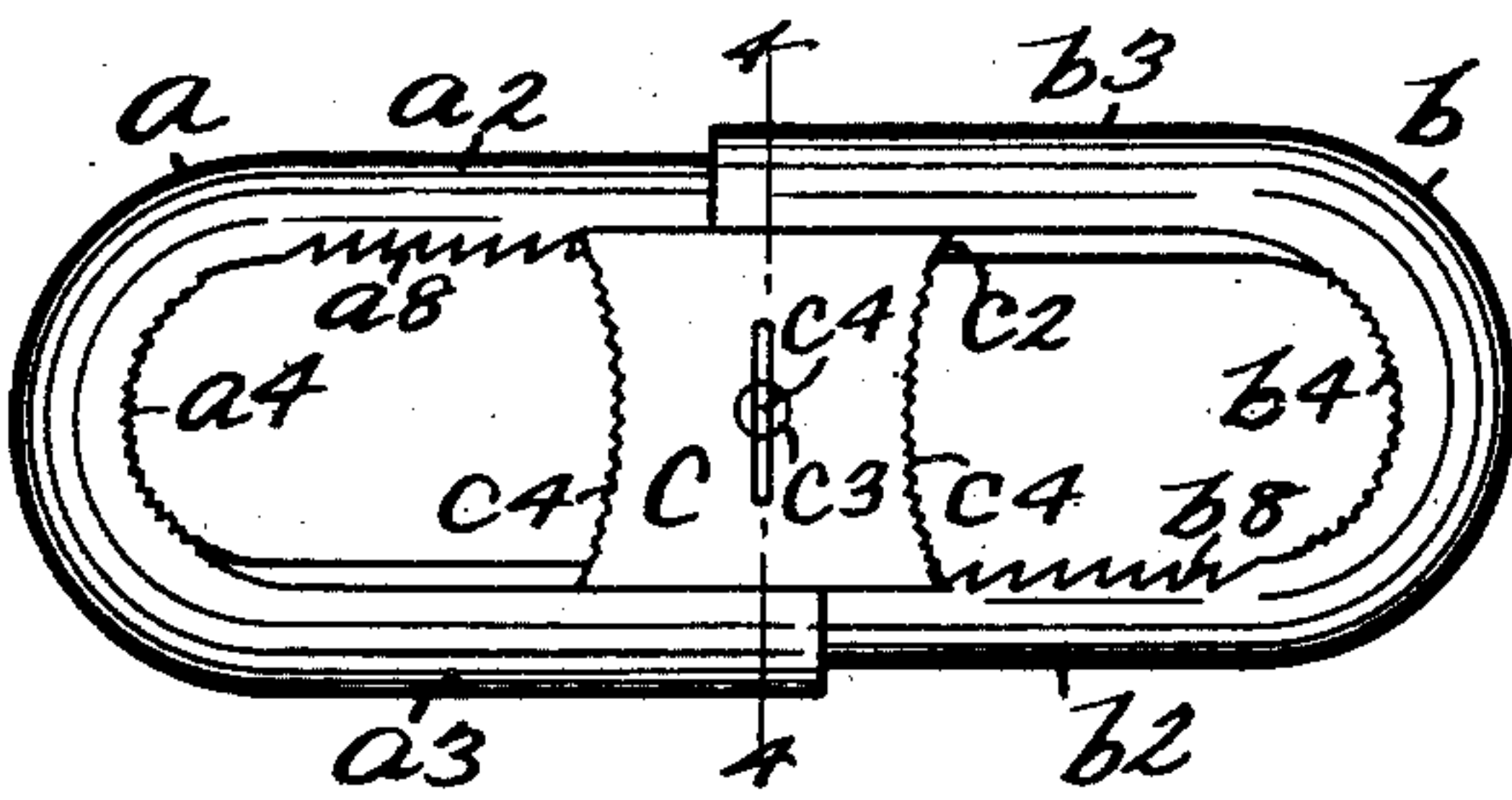


Fig. 1.

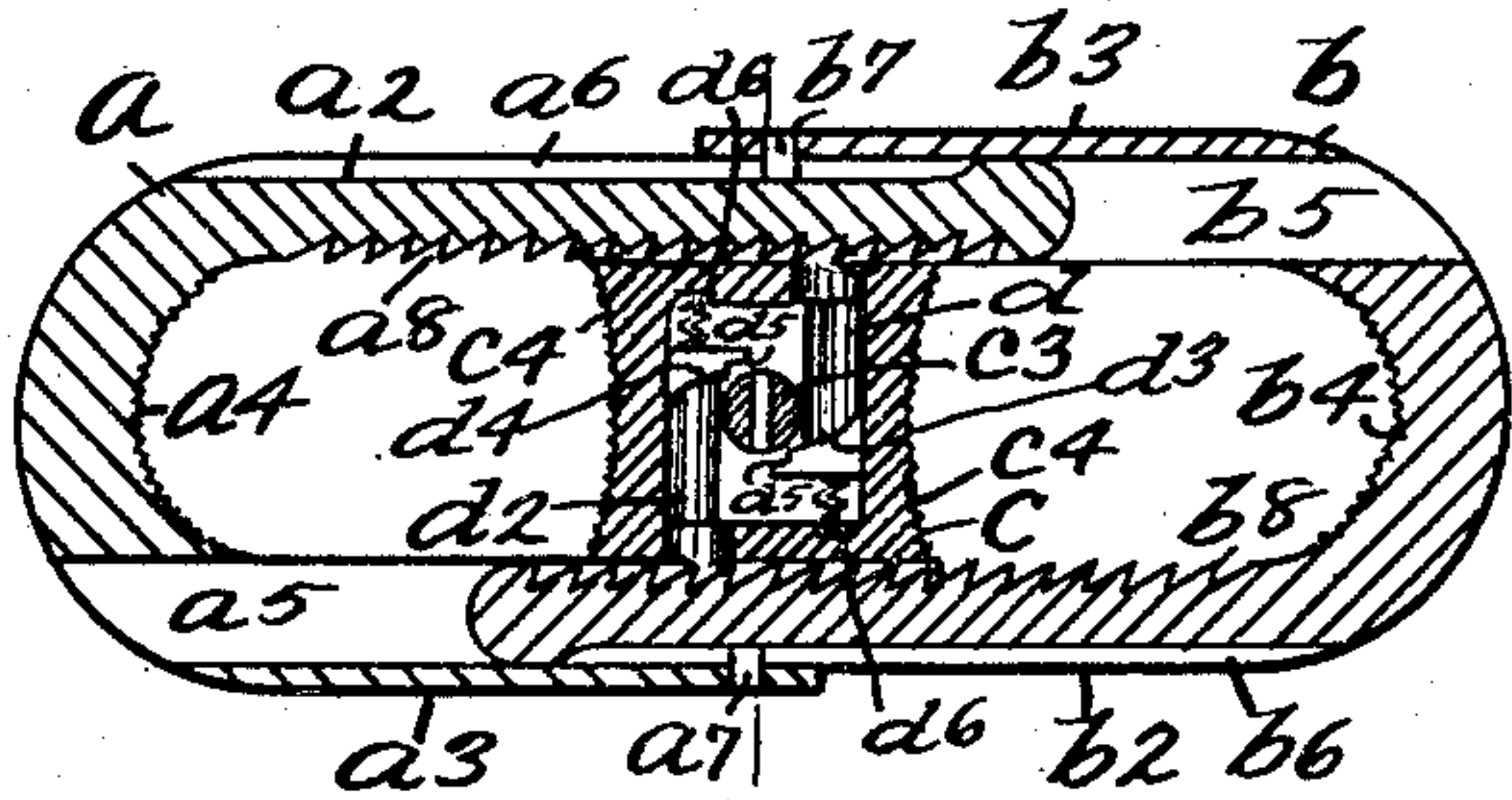


Fig. 2.

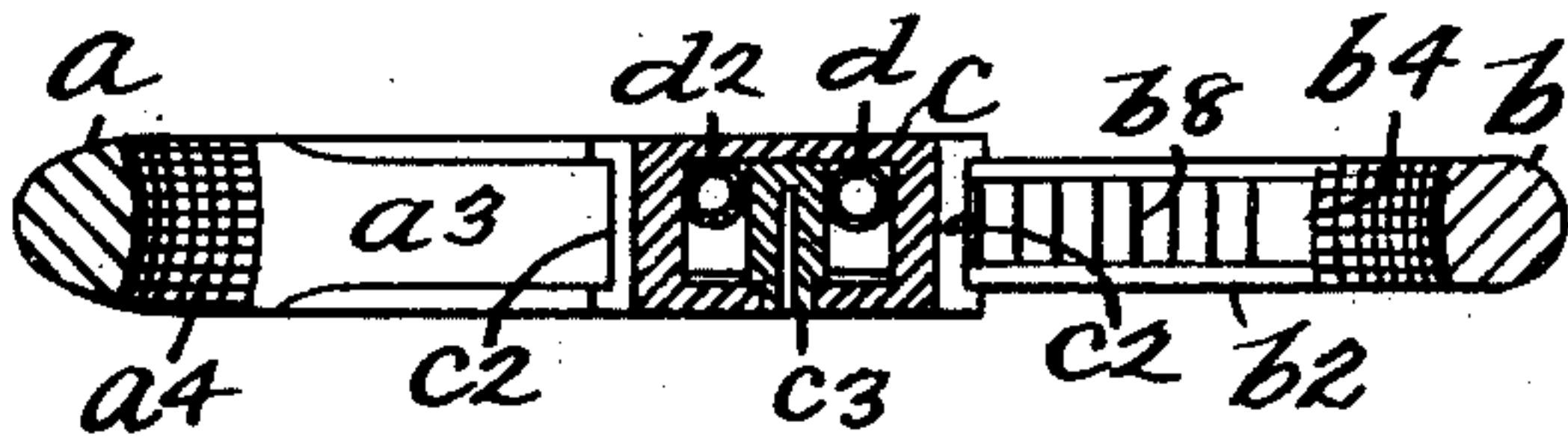


Fig. 3.

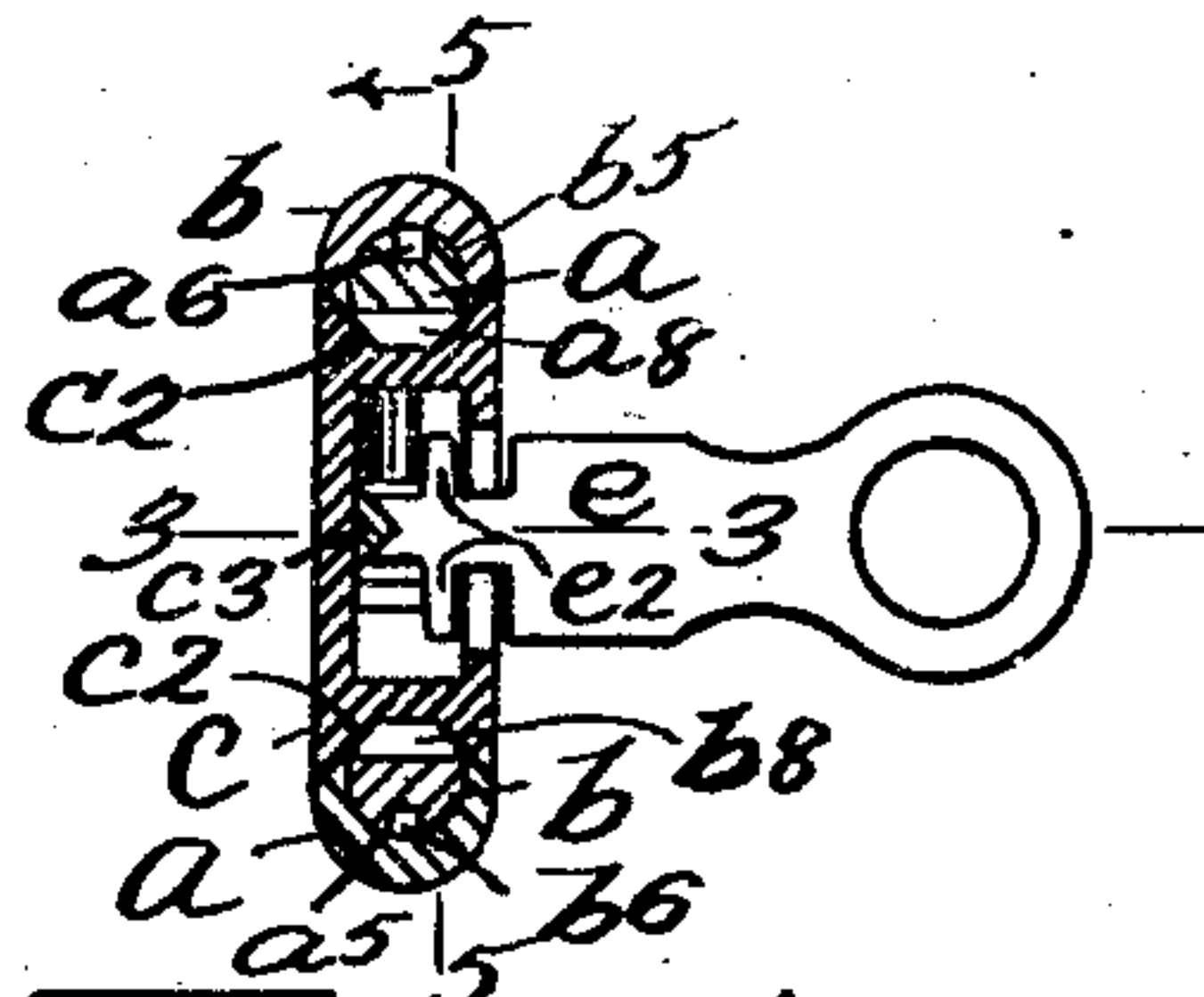
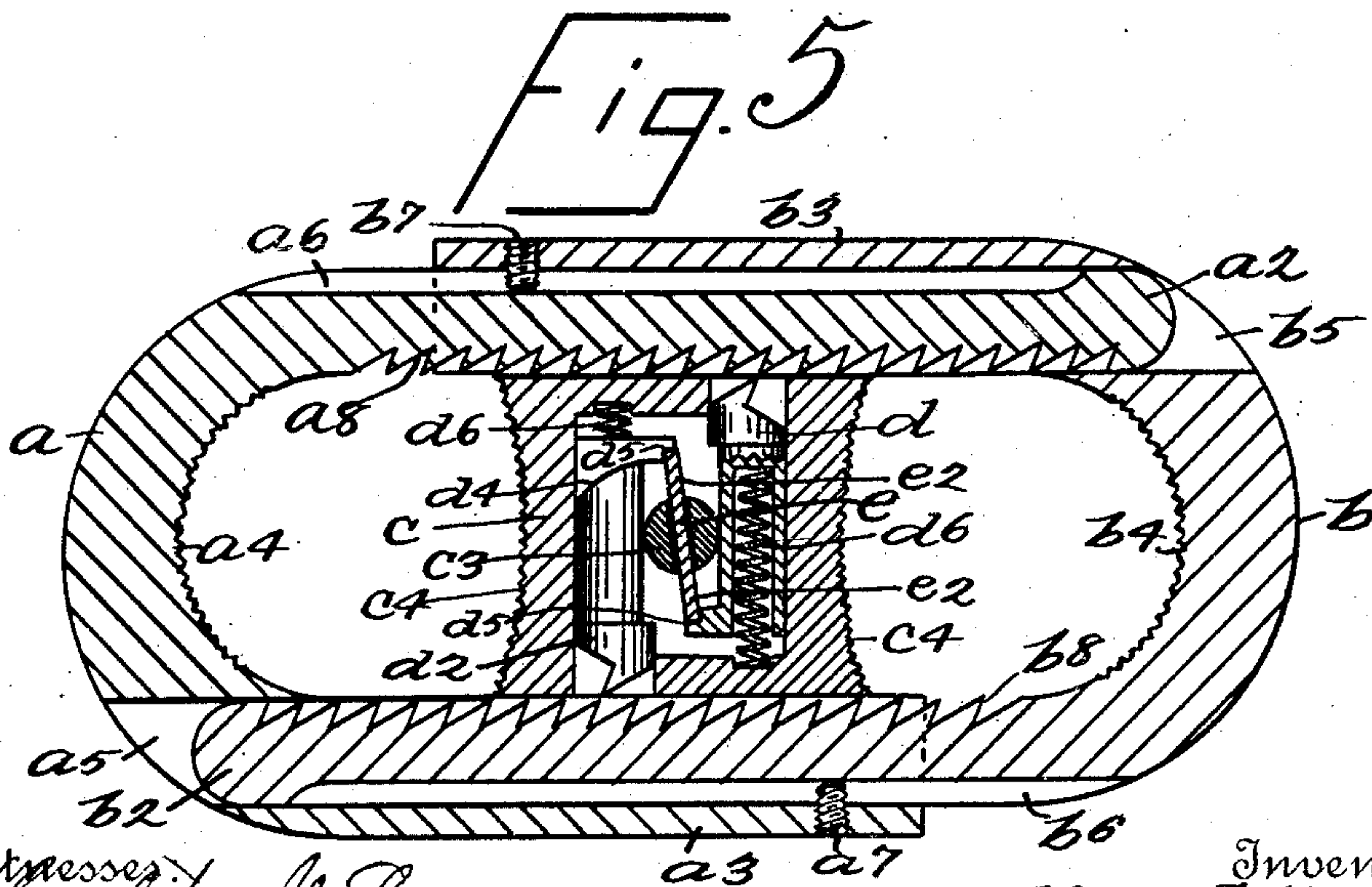


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY E. WOOD, OF BLOOMFIELD, NEW JERSEY, ASSIGNOR TO TOWER & LYON COMPANY,
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THUMB-CUFF.

No. 929,910.

Specification of Letters Patent.

Patented Aug. 3, 1909.

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To all whom it may concern:

Be it known that I, HENRY E. WOOD, a citizen of the United States of America, and residing at Bloomfield, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Thumb-Cuffs, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to thumb-cuffs and the object thereof is to provide a device of this class which, when not in use, is held in a locked position although extended ready for instant use and which, when in position upon the thumbs of any person, may lock the said thumbs together by merely compressing the movable elements of said device; a further object being to provide means whereby the said device may be readily unlocked and held in an unlocked position while removing the same from the person upon whom it was placed; a still further object being to so construct the locking means as to prevent the accidental unlocking thereof and also prevent the unlocking thereof by a blow or the like upon the exterior of the device and a still further object being to provide a thumb-cuff which is simple in construction and use, very light and strong as well as compact and which cannot be opened except by the proper key therefor.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts are designated by the same reference characters in each of the views, and in which:—

Figure 1 is an exterior view of a thumb-cuff constructed according to my invention; Fig. 2 is a central section thereof; Fig. 3 is a section at right angles to Fig. 2, on the line 3—3 of Fig. 4; Fig. 4 is a central section taken on the line 4—4 of Fig. 1; and Fig. 5 is an enlarged section, similar to Fig. 2, but with the parts in their alternate or unlocked positions.

In the drawings forming a part of this application, I have shown a thumb-cuff comprising two shackle members a and b and a lock block c , said shackle members having arms a^2 and a^3 and b^2 and b^3 , respectively, of which the arms a^2 and b^2 are the longer, and in the yokes of the said shackles I provide serrated or roughened surfaces a^4 and b^4 to prevent slipping the thumbs out of the cuff

when in use. The arms a^2 and b^2 are each provided with a channel a^5 and b^5 with which engage pins b^7 and a^7 , respectively, to prevent the complete separation of the shackles, and the arms a^3 and b^3 are provided with a passage a^5 and b^5 , respectively, for arms b^2 and a^2 respectively, whereby a constant relationship is maintained at all times therebetween, and the arms a^2 and b^2 are each provided with a ratchet a^8 and b^8 , respectively.

Within the lock block c are two oppositely directed bolts d and d^2 , the outer end of each of which is formed to correspond with the ratchet teeth a^8 and b^8 and with which they are adapted to engage, said ratchet teeth and bolt ends being inclined to permit of free movement of the shackles toward each other and toward the lock block c , as clearly shown, and the bolts d and d^2 are provided with a flange d^3 and d^4 , respectively, for engagement with the proper key, said flanges having each a small recess d^5 at the inner ends thereof and said bolts being made hollow as shown and provided each with a spring d^6 to force the said bolts into engagement with the corresponding ratchet.

The block c is channeled, as shown at c^2 , at the point of contact with the arms of the shackles a and b in order to maintain the relationship therebetween and within the block c is a rotatable post c^3 which is slotted to receive the key e and permit the leaves e^2 thereof to project beyond the said post and, in practice, I prefer to serrate or roughen the edges of the block c , as shown at c^4 , in order to operate in conjunction with the serrations a^4 and b^4 to prevent the removal of the thumb-cuff except by means of a key.

It will be understood that the springs d^6 normally lock the shackles a and b to the block c by forcing the bolts d and d^2 into engagement with the ratchet teeth a^8 and b^8 and thus preventing outward movement of the said shackles but, when the key e is inserted into the post c^3 and rotated, the leaves e^2 engage the flanges d^3 and d^4 and force the bolts d and d^2 against the action of the springs d^6 toward the position shown in Fig. 5, thus withdrawing the said bolts from the ratchet teeth and permitting the movement of the shackles away from each other, over the block c , and, in the further rotation of the key e , the leaves thereof pass into the recesses d^5 producing a click which is audible and the bolts are thus held apart from the

ratchet teeth and the key is prevented from backward rotation and may be released by the operator until he manipulates the shackles to free the device after which a slight further turn of the key brings it into line with the slot in the block, permitting its removal, and the bolts again return into their engagement with the ratchet teeth.

It will thus be seen that means are provided for holding the lock of the thumb-cuff in an open position, at will, and, because of the lightness of the bolts d^1 and d^2 and the comparative strength of the springs d^3 , said bolts cannot be accidentally dislodged nor by means of an external blow or impact and a light, safe device is produced and, with the right to make such changes in the construction shown as come within the spirit of my invention,

What I claim as new and desire to secure by Letters Patent, is:—

1. A device of the class described, comprising shackle members engaging each other, locking bolts normally engaging said shackle members, a key for releasing said last named engagement and means for locking said key in the releasing position.

2. A device of the class described, comprising shackle members and a lock block, bolts

in said block for engaging said shackle members, a key for operating said bolts and means connected with said bolts for holding said key in a position whereby said bolts are held withdrawn from said shackle members.

3. A device of the class described, comprising shackle members provided with ratchet teeth, a lock block, bolts therein in engagement with said shackle ratchet teeth, a key, flanges on said bolts for engagement with said key to withdraw said bolts, and means for holding said key in position when said bolts are withdrawn thereby.

4. A device of the class described, comprising shackle members provided with ratchet teeth, a lock block, bolts therein in engagement with said teeth, a key, flanges on said bolts for engagement with said key to withdraw said bolts and said flanges being provided with key holding recesses to prevent backward movement of said key.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 11th day of July, 1908.

HENRY E. WOOD.

Witnesses:

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