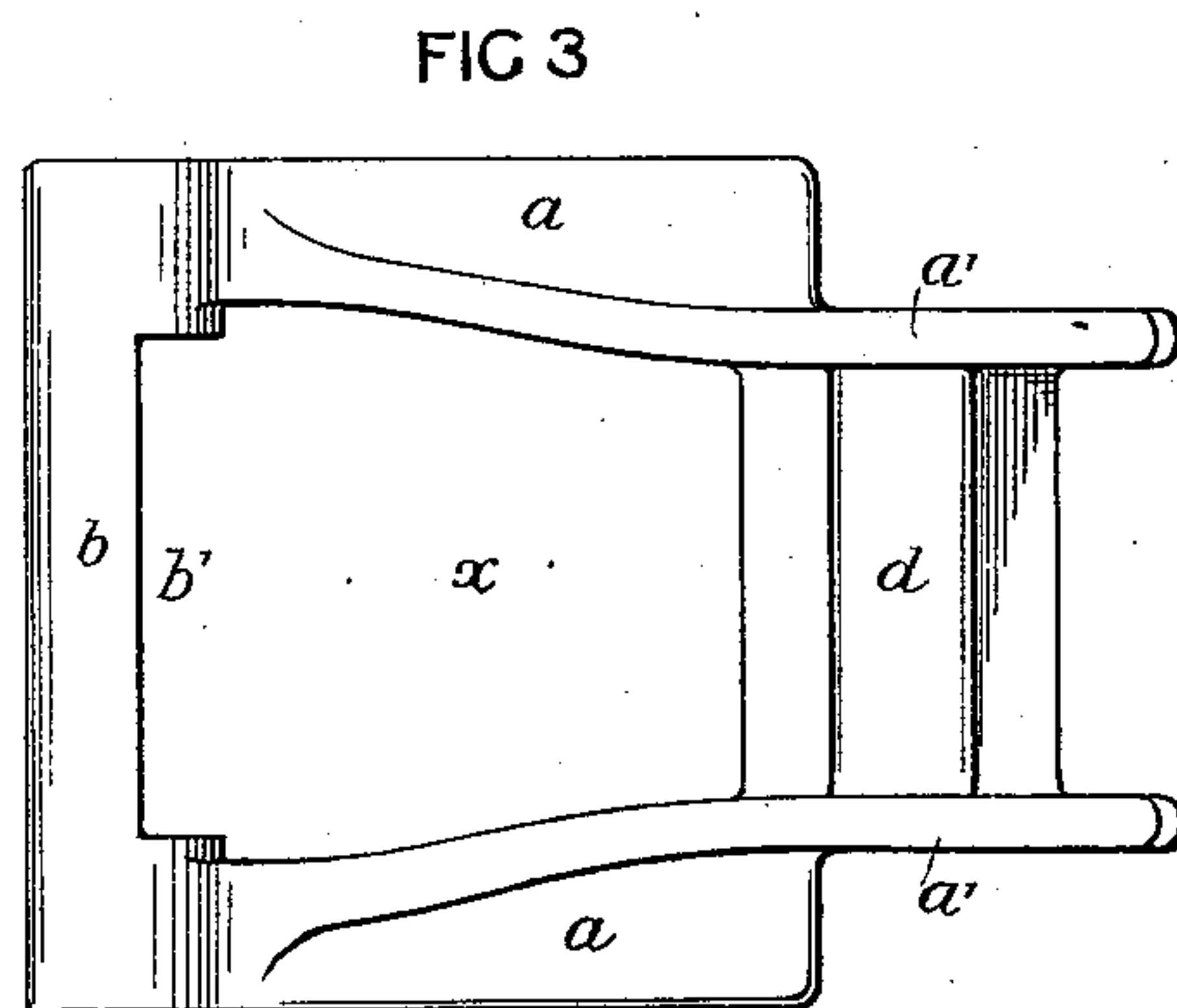
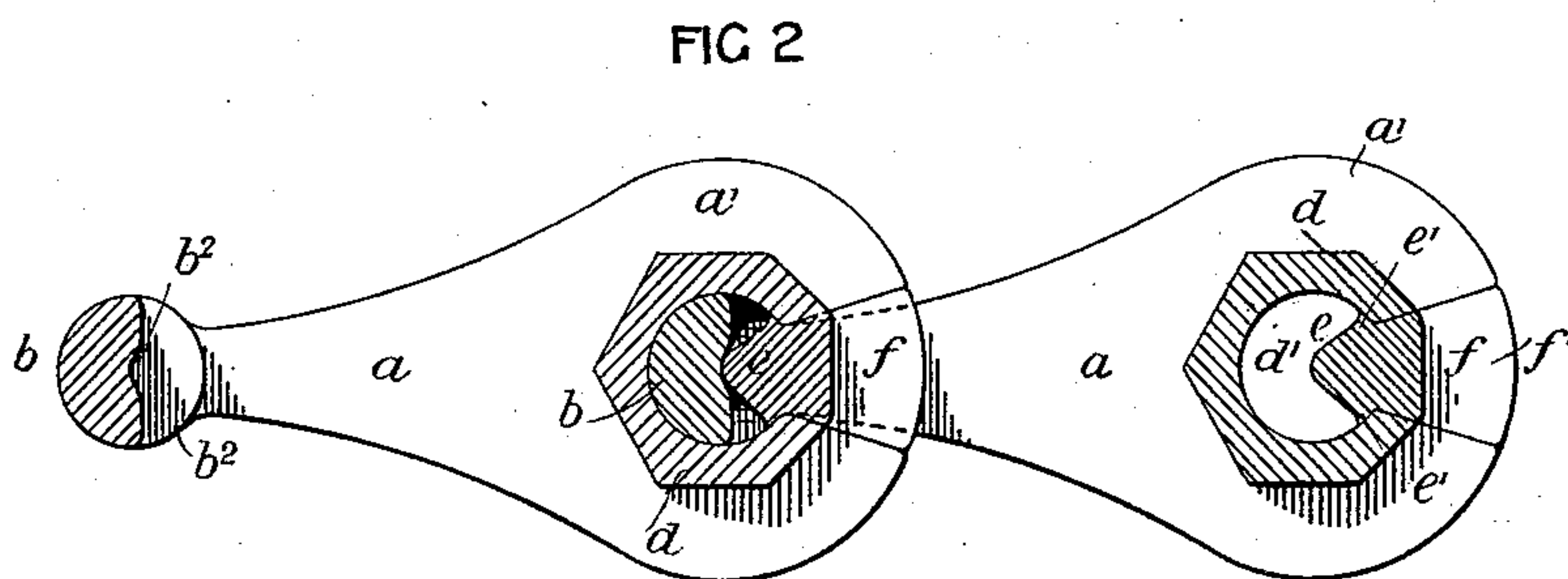
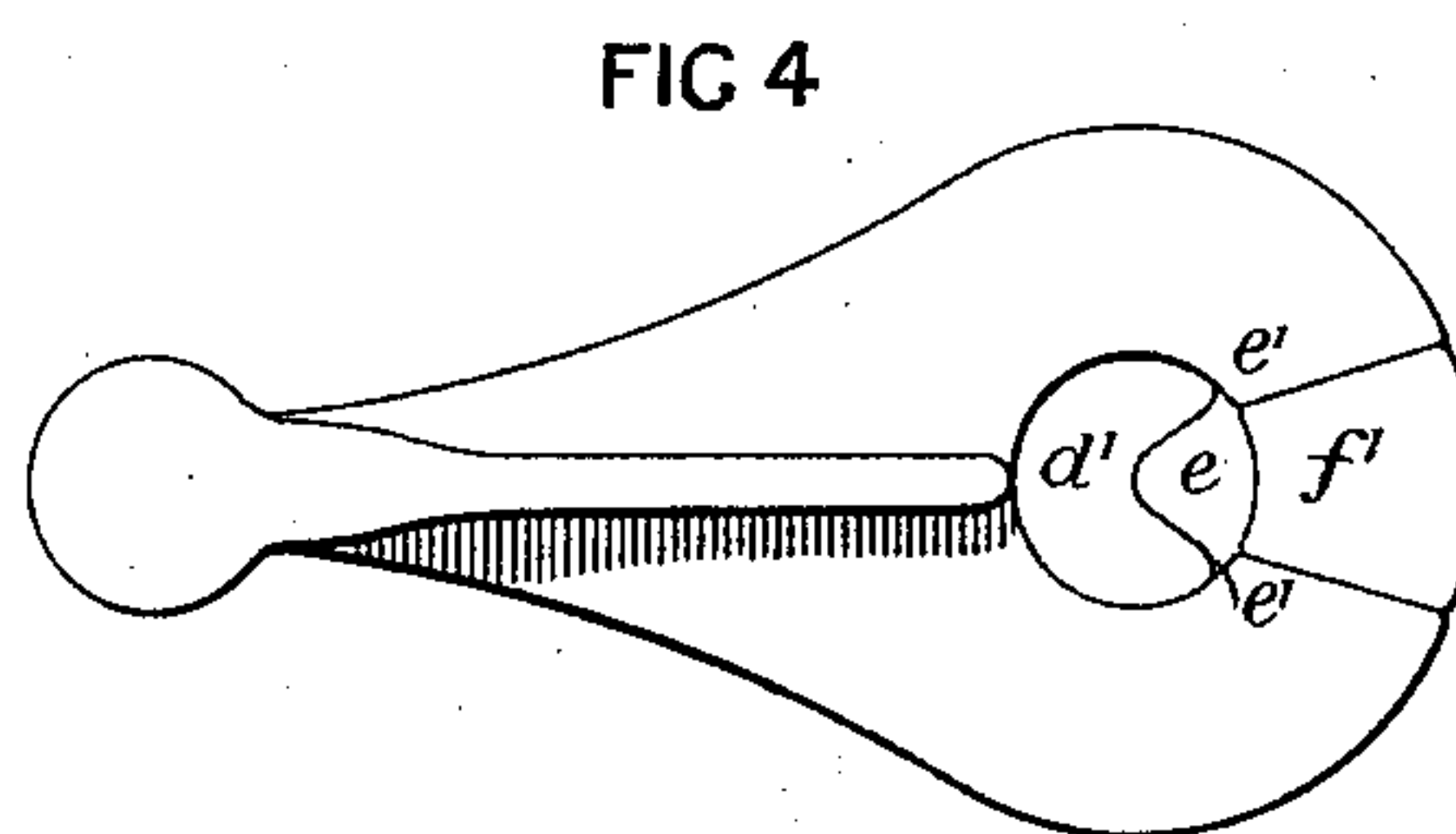
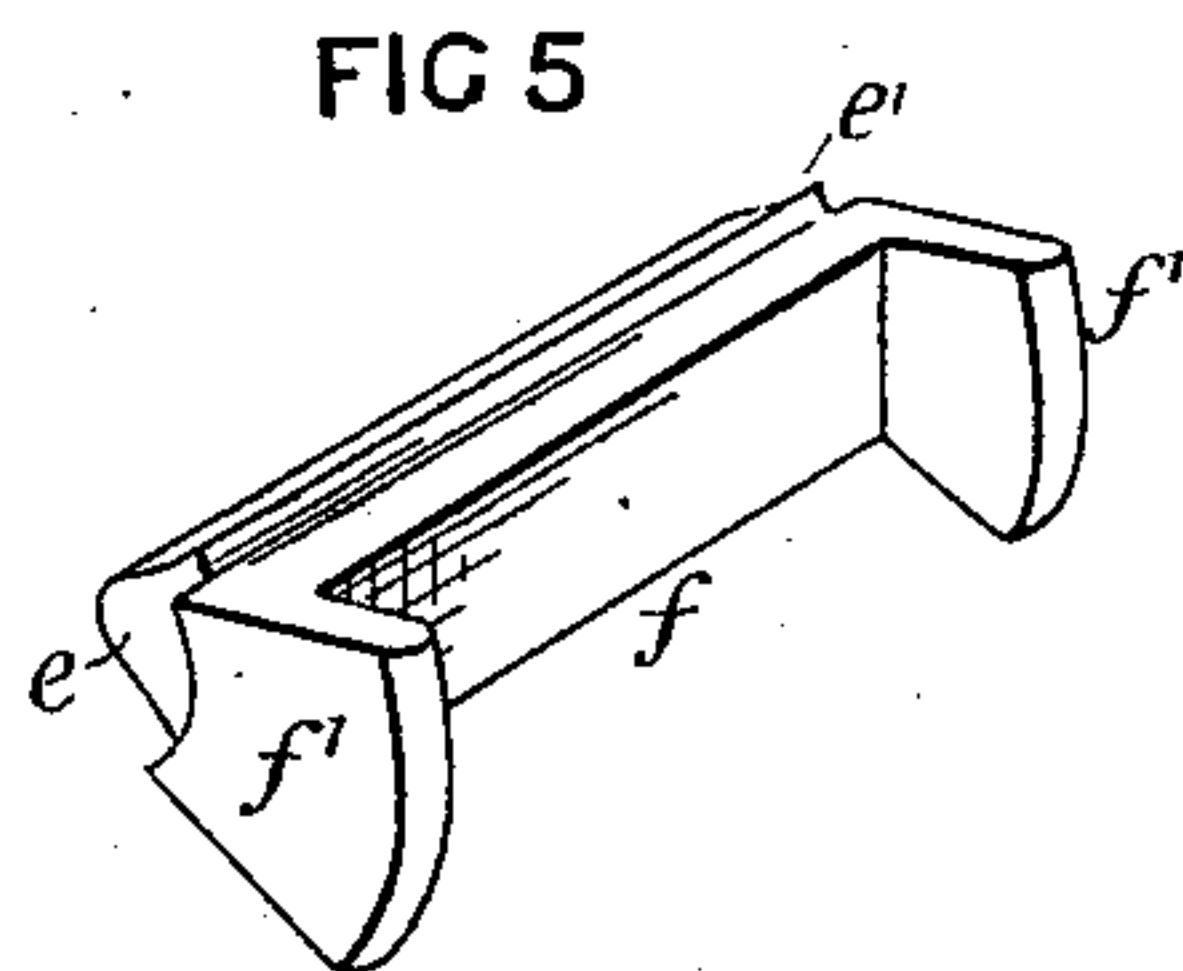
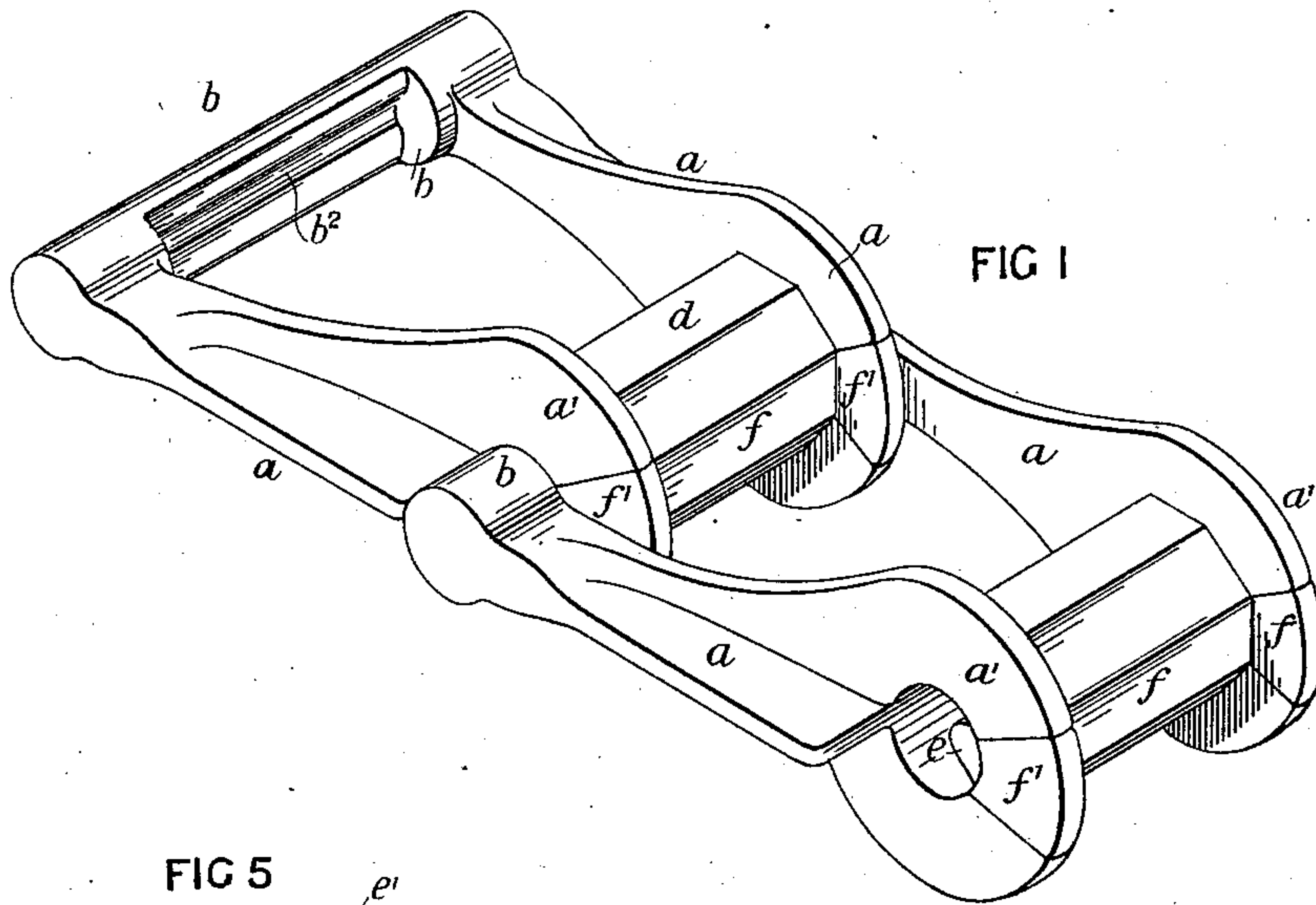


(No Model.)

J. M. DODGE.  
DETACHABLE CHAIN LINK.

No. 564,057.

Patented July 14, 1896.



WITNESSES  
*F. D. Godwin*  
*Frank E. Beckwith*

INVENTOR  
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*Howson & Howson*



# UNITED STATES PATENT OFFICE.

JAMES M. DODGE, OF PHILADELPHIA, PENNSYLVANIA.

## DETACHABLE CHAIN-LINK.

SPECIFICATION forming part of Letters Patent No. 564,057, dated July 14, 1896.

Application filed April 21, 1894. Serial No. 508,396. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES M. DODGE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain  
5 Improvements in Detachable Chain-Links, of which the following is a specification.

My invention relates to certain improvements in the chain-link for which I obtained Letters Patent of the United States, numbered 229,978, dated July 13, 1880.

My present invention relates to the method of constructing an open rectangular detachable link, by which it can be cheaply manufactured and readily coupled to the links.

15 In the accompanying drawings, Figure 1 is a perspective view showing two of my improved links coupled together. Fig. 2 is a longitudinal sectional view. Fig. 3 is a plan view of one of the links. Fig. 4 is a side view  
20 of one of the links, and Fig. 5 is a detached perspective view of the detachable bearing-block.

The chain-link shown in the drawings is a type of link known as an "open rectangular detachable link," and consists of the side bars  
25  $a\ a$  and end bars  $b$  and  $d$ . The end bar  $d$  is made hollow and has an opening  $d'$  sufficiently large to accommodate the end bar  $b$  of an adjoining link. One-half of this end  
30 bar  $b$  is cut away at  $b'$ , as shown in Fig. 3, and near the center is a recess  $b^2$ , in which rests the head  $e$  of the block  $f$  of an adjoining link. This block extends to the center of the opening  
35  $d'$ , as shown in Figs. 2 and 4, and is so shaped as to leave sufficient room for the end bar  $b$  to play in, yet the end bar will snugly fit between the back of the opening and the  
40 head  $e$  of the block  $f$ , so that the bearing-surface of the several links will be at the pivot-point. Thus while the chain will stand considerable strain, yet the wearing-surface will be diminished to a minimum, as the bearing-point is at the center.

The block is adapted to a tapered opening  
45 in the chain-link, as shown, and is driven in from one end, ribs  $e'$  at each side resting against the inner face of the end bar  $d$  and resisting the straining pressure.

The block is transversely tapered, so that  
50 it will snugly fit in the opening. The parts can be burred, in order to lock one part to the other, if necessary.

The chain-link is provided with flanges  $a'$  at each side, and the block has also flanges

$f'$ , alining with the flanges  $a'$  when the block 55 is in place.

It will be impossible to remove any one of the links without it is in line, as shown in Fig. 2, when it can be slipped out transversely with the bearing-block. Thus by the construction described above I am enabled to  
60 make a very cheap chain-link, which will have the least amount of wearing-surface and which can be made much more cheaply than the link described in my aforesaid Letters  
65 Patent.

I claim as my invention—

1. An open rectangular detachable link, one of the end bars of the said link having a transverse opening, a detachable block extending  
70 into the opening and forming a bearing for an adjoining link, substantially as described.

2. A chain-link having side bars  $a\ a$ , end bars  $b, d$ , the end bar  $d$  having a transverse opening therein for the reception of the bar  
75  $b$  of an adjoining link, a block secured to the bar  $d$  and extending into the opening to a point at or near the center, the bar  $b$  being cut away so as to bear upon the block of the adjoining  
80 link at or near the center, substantially as described.

3. The combination in a chain-link, the side bars  $a\ a$ , end bar  $b$  cut away at the center and having a recess formed therein, an end  
85 bar  $d$ , a cavity therein for the reception of the end bar  $b$  of an adjoining link, bearing-block  $f$  fitting in the end bar  $d$  and having a bearing-head  $e$  projecting to a point near the center of the opening in the bar and having  
90 side ribs  $e'$  to receive the thrust, substantially as described.

4. The combination in a chain-link, of the side bars  $a\ a$ , the cut-away end bar  $b$ , the flanged end bar or hub  $d$  having a transverse  
95 opening therein and a tapered recess with a flanged bearing-block adapted to the tapered recess in the end bar  $d$  and having a ribbed head extending into the opening forming a bearing for an adjoining link, substantially  
100 as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES M. DODGE.

Witnesses:

WILLIAM A. BARR,  
JOSEPH H. KLEIN.