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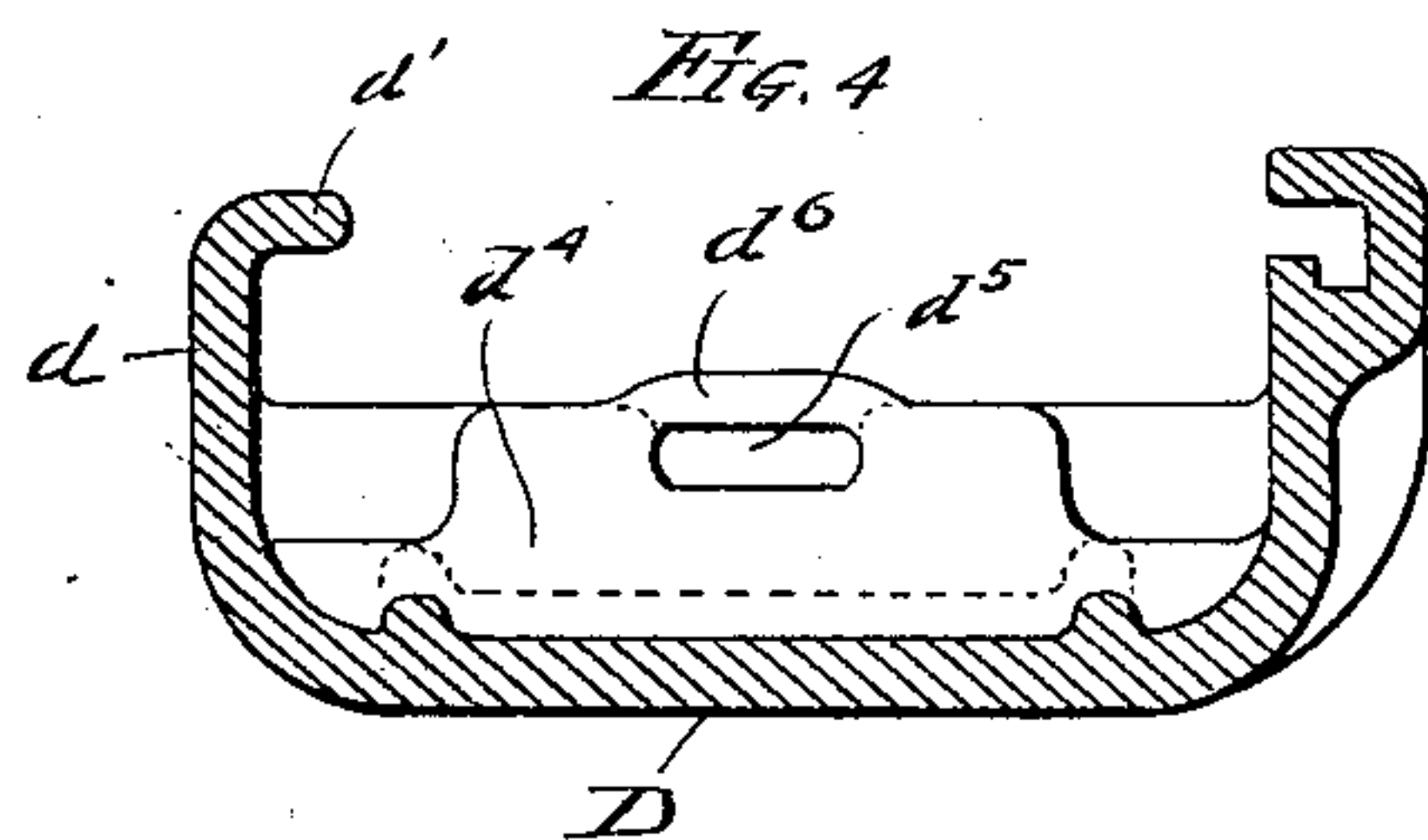
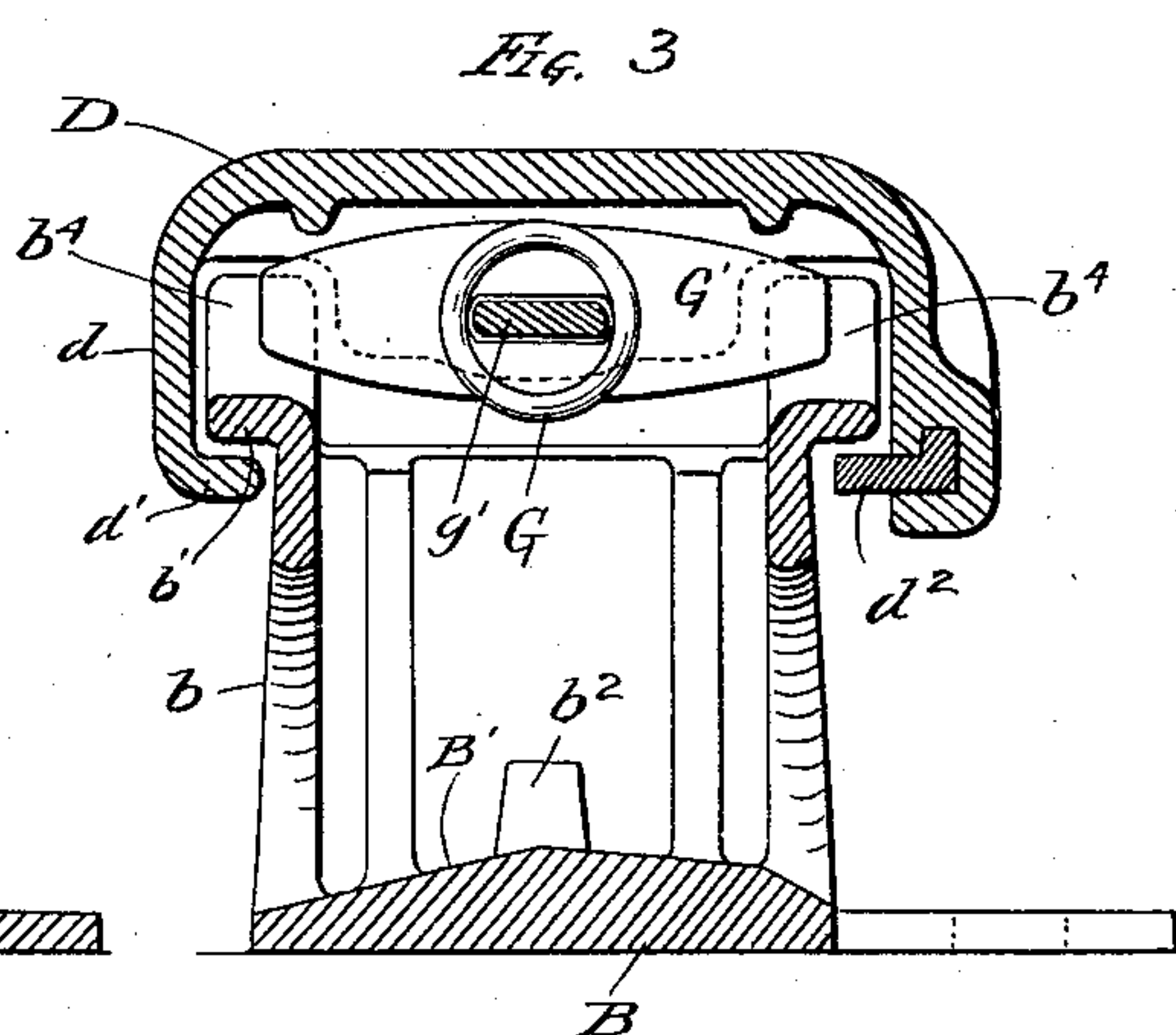
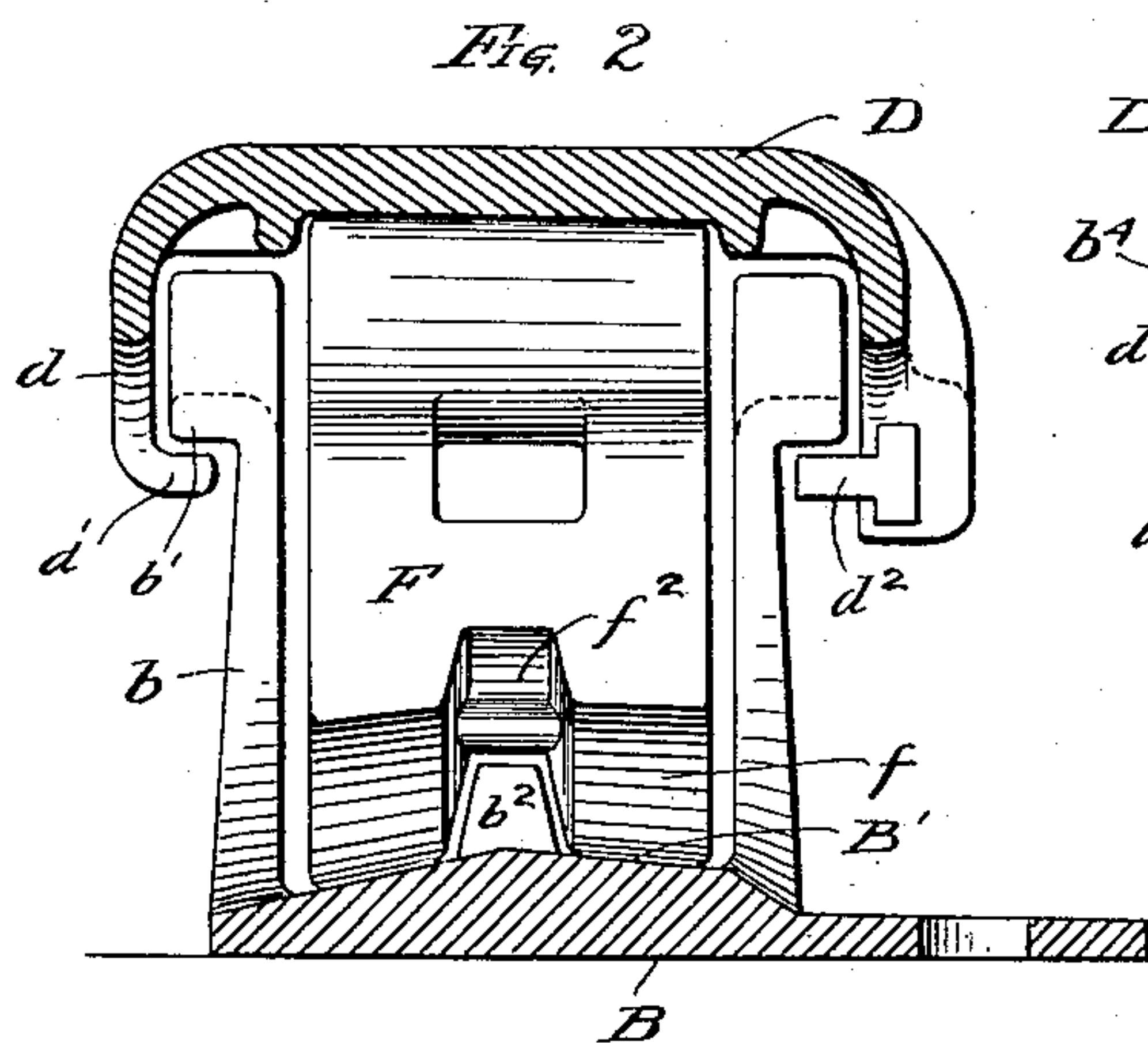
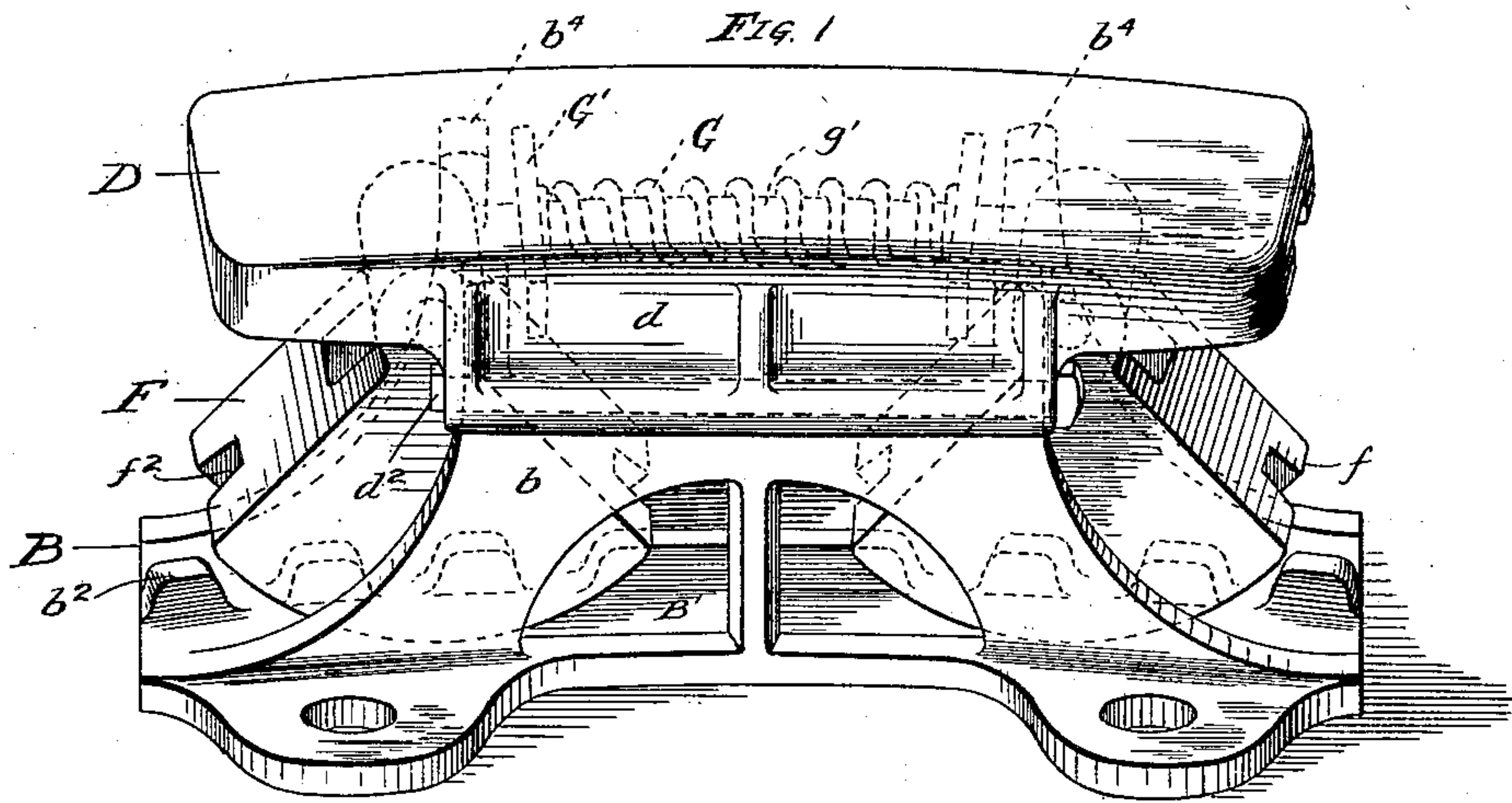
PATENTED JULY 21, 1903.

F. B. TOWNSEND.  
ROCKER SIDE BEARING.

APPLICATION FILED MAY 11, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Wm. Geiger  
H. W. Munday

INVENTOR.

Frederick B. Townsend  
BY  
Munday, Evans & Adcock.  
His ATTORNEYS

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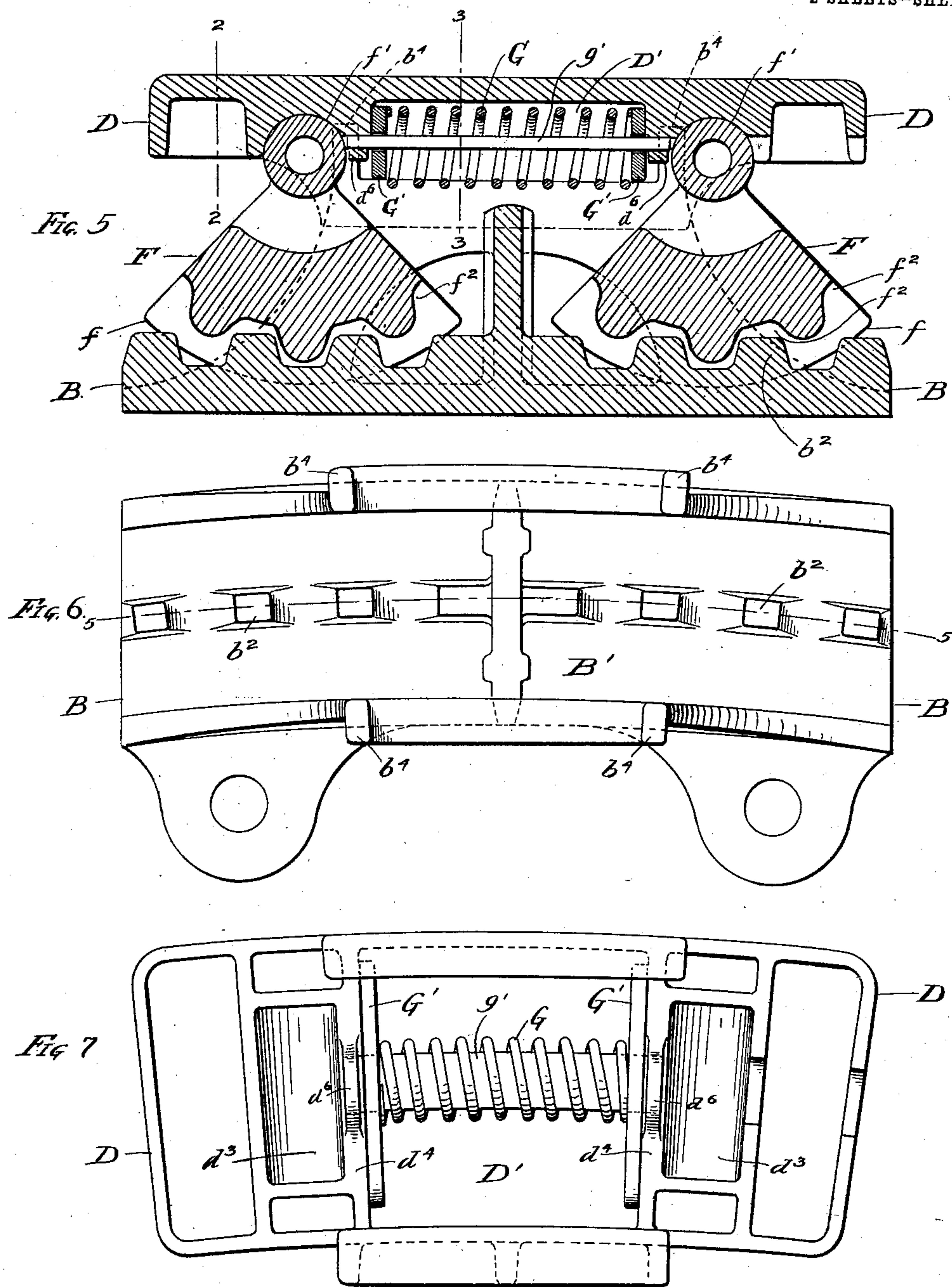
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# UNITED STATES PATENT OFFICE.

FREDERICK B. TOWNSEND, OF CHICAGO, ILLINOIS, ASSIGNOR TO  
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## ROCKER SIDE BEARING.

SPECIFICATION forming part of Letters Patent No. 734,010, dated July 21, 1903.

Application filed May 11, 1903. Serial No. 156,523. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK B. TOWNSEND, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Rocker Side Bearings for Railway-Cars, of which the following is a specification.

My invention relates to improvements in rocker side bearings for railway-cars, and more particularly to the kind or type of rocker side bearings having a fixed bottom plate, a reciprocating top plate, and a pair of interposed rockers.

The object of my invention is to provide a rocker side bearing of a simple, strong, and durable construction which will operate to certainly return the reciprocating top plate and rockers to their normal or central position when the side bearing is relieved from weight or pressure.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists, in connection with the bottom plate, reciprocating top plate, and interposed rockers, of a spring, followers, and stops for the followers to abut against for causing the reciprocating top plate and rockers to return to their normal position when relieved from weight or pressure.

It also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown or described.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of a rocker side bearing embodying my invention. Figs. 2 and 3 are cross-sections on lines 2 2 and 3 3, respectively, of Fig. 5. Fig. 4 is a detailed cross-sectional view of the reciprocating top plate. Fig. 5 is a central vertical longitudinal section taken on the curved line 5 5 of Fig. 6. Fig. 6 is a detail plan view of the bottom plate, and Fig. 7 is a detail bottom view of the reciprocating top plate.

In the drawings, B is the bottom or base plate of the side bearing, the same or its tread B' being curved on the arc of a circle whose center is the king-bolt on which the bolster of the car turns.

D is the reciprocating top plate, and F F the rockers interposed between the top and bottom plates.

The top and bottom plates B D are furnished with interfitting guides *b b* and *d d*, having, preferably, integral guide-flanges *b' b' d'* and one removable guide *d<sup>2</sup>* to facilitate the assemblage of the parts. The rockers F F have preferably each a large curved lower bearing-face *f* and a small curved upper bearing-face *f'*, the bearing-faces being concentric with each other. The bottom plate B is also provided with a central row of teeth *b<sup>2</sup>* to mesh with the notches *f<sup>2</sup>* on the rockers, and the top plate D has sockets *d<sup>3</sup>* to receive the upper bearing-face *f'* of the rockers.

To insure the return of the reciprocating top plate D and the rockers F F to their normal or central position when relieved from the weight or pressure of the car-body, I provide the bottom plate B with a pair of stops *b<sup>4</sup> b<sup>4</sup>* and the reciprocating top plate D with a longitudinal recess D' therein, in which is mounted a spring G and followers G' G', bearing against shoulders *d<sup>4</sup>* on the top plate, and a guide-stem *g'*, fitting in suitable holes or sockets *d<sup>5</sup>* in the transverse flange *d<sup>6</sup>* of the plate D, so that when the top plate reciprocates in either direction to accommodate the car in passing around curves the follower at one end of the spring will engage and be held stationary by the corresponding stops on the bottom plate, while the follower at the opposite end of the spring will move with the reciprocating top plate D, and thus compress the spring, which will restore the reciprocating top plate and rockers to their normal or central position as soon as the car passes again onto straight track and the side bearing is relieved from weight or pressure. The stem *g'* is non-circular in cross-section and preferably flat, as illustrated in the draw-



ings, so that it will serve also as a guide to hold or keep the followers in position or from turning about the stem as an axis. The guide-stem  $g'$ , after the parts are assembled, it will be observed from Fig. 5, is held in position or from sliding longitudinally by the rockers themselves; but for convenience in assembling the parts the flange  $d^6$  at the hole  $d^5$  may be hammered or flattened down on the guide-stem  $g'$  after the same and the spring and followers are assembled in the top plate D. For convenience of assembling these parts the top plate D is preferably turned upside down, as illustrated in Fig. 4, until the spring, followers, and guide-stem are put in place. By this means the top plate and rockers will always be returned to their normal or central position automatically and with certainty, while at the same time the efficiency, strength, durability, and cheapness of construction of the rocker side bearing are also secured.

I claim—

1. In a rocker side bearing for railway-cars, the combination with a bottom plate, of a reciprocating top plate, a pair of interposed rockers and a spring, followers, and stops, for causing the top plate and rockers to automatically return to their normal or central position, substantially as specified.

2. In a side bearing, the combination with a bottom plate provided with stops for engaging followers, of a pair of rockers, and a top plate having a longitudinal recess therein to receive a spring and provided with shoulders to bear against followers, and a spring and a

pair of followers mounted in said longitudinal recess of the top plate, substantially as specified.

3. In a side bearing, the combination with a bottom plate provided with stops for engaging followers, of a pair of rockers, a top plate having a longitudinal recess therein to receive a spring and provided with shoulders to bear against the followers, a spring and a pair of followers mounted in said longitudinal recess of the top plate, and a guide-stem for the spring and followers, substantially as specified.

4. In a side bearing, the combination with a bottom plate provided with stops for engaging followers, of a pair of rockers, a top plate having a longitudinal recess therein to receive a spring and provided with shoulders to bear against the followers, a spring and a pair of followers mounted in said longitudinal recess of the top plate, and a guide-stem for the spring and followers, said top plate having transverse flanges furnished with holes or sockets to receive said guide-stem, substantially as specified.

5. In a side bearing, the combination with a bottom plate, of a reciprocating top plate, a pair of interposed rockers and a longitudinally-arranged spring and followers mounted in and carried by the reciprocating top plate, the bottom plate having stops to engage the followers, substantially as specified.

FREDERICK B. TOWNSEND.

Witnesses:

EDMUND ADCOCK,  
H. M. MUNDAY.