

No. 725,315.

PATENTED APR. 14, 1903.

A. O. BUCKIUS, JR.  
ROCKER SIDE BEARING FOR RAILWAY CARS.  
APPLICATION FILED DEC. 31, 1902.

NO MODEL.

Fig. 1.

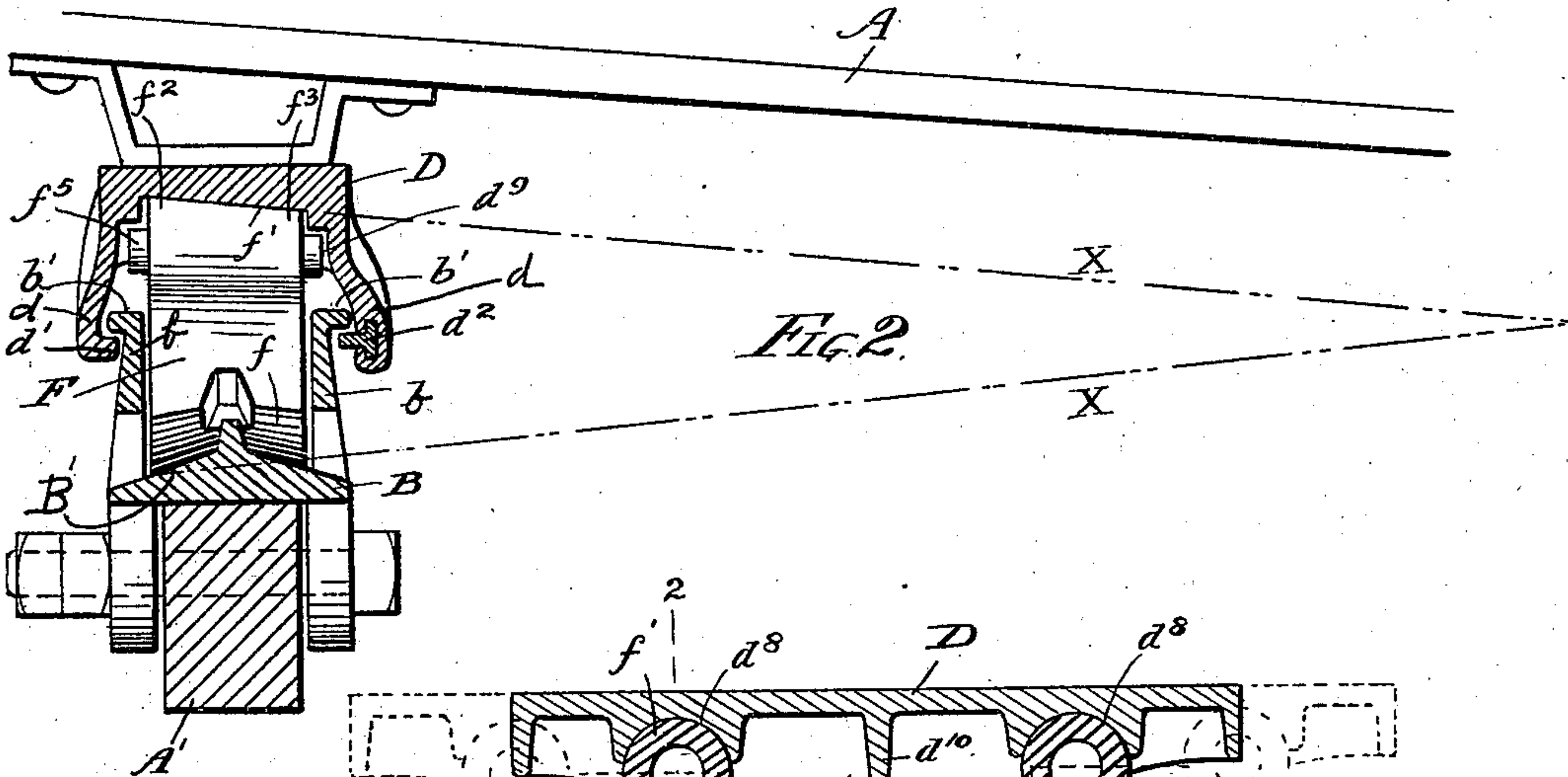
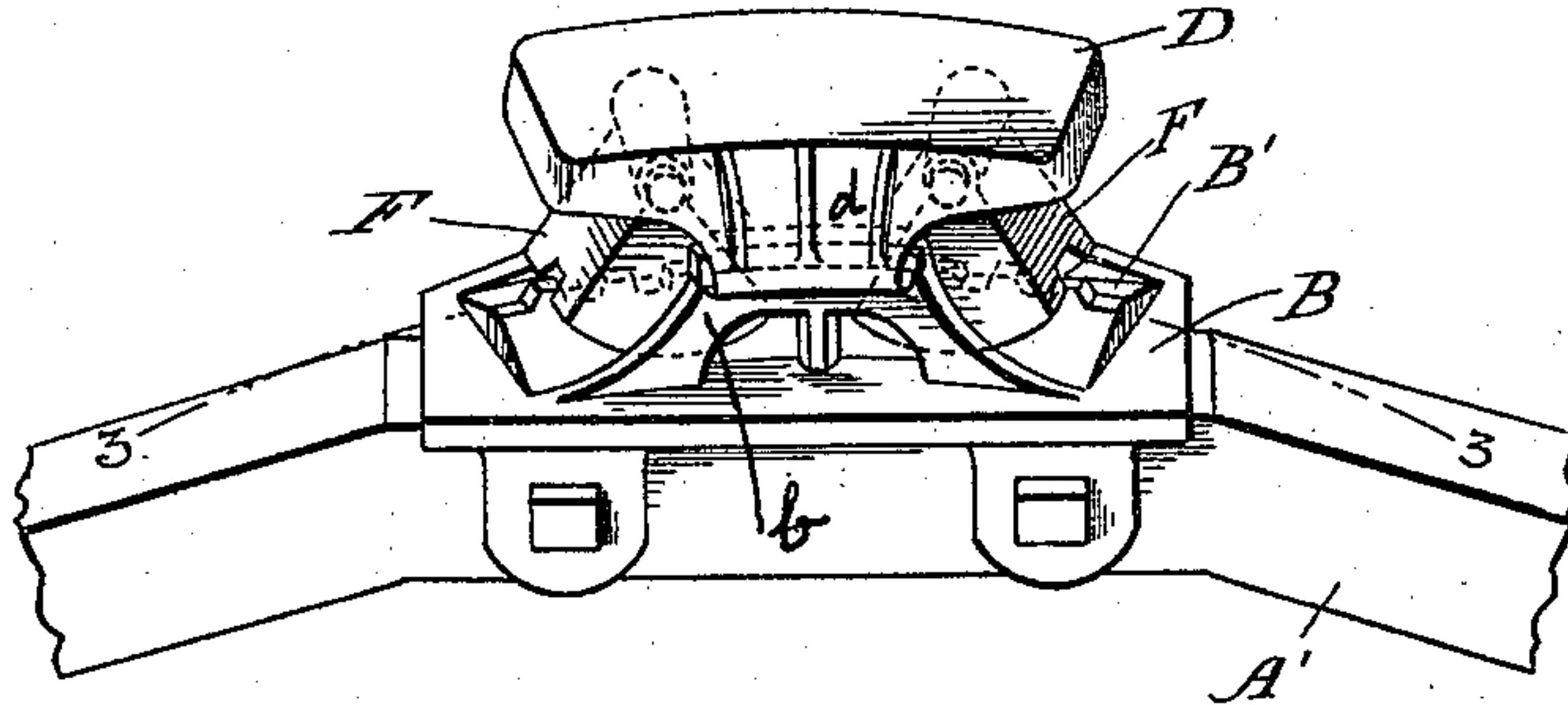


Fig. 3.

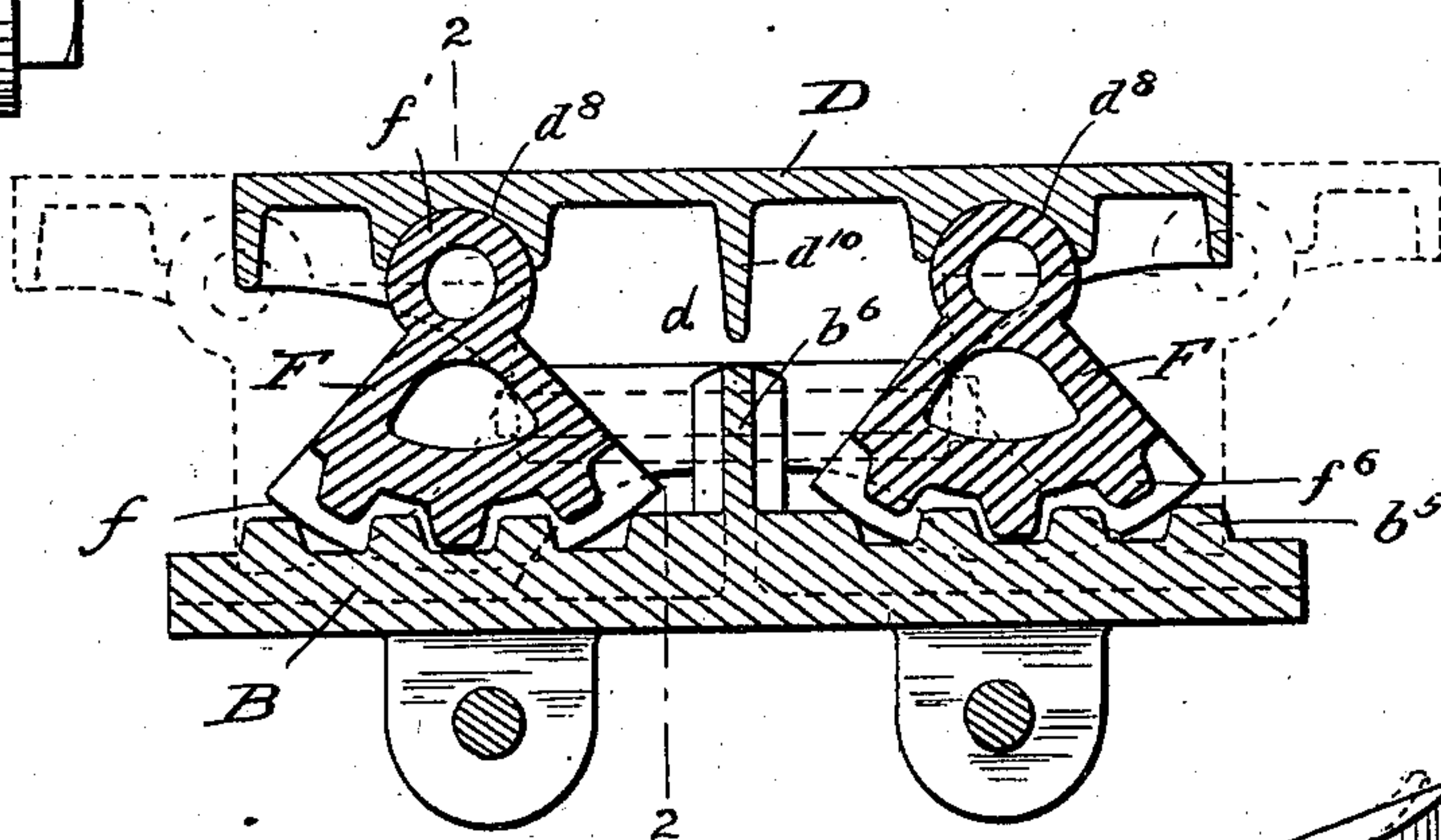
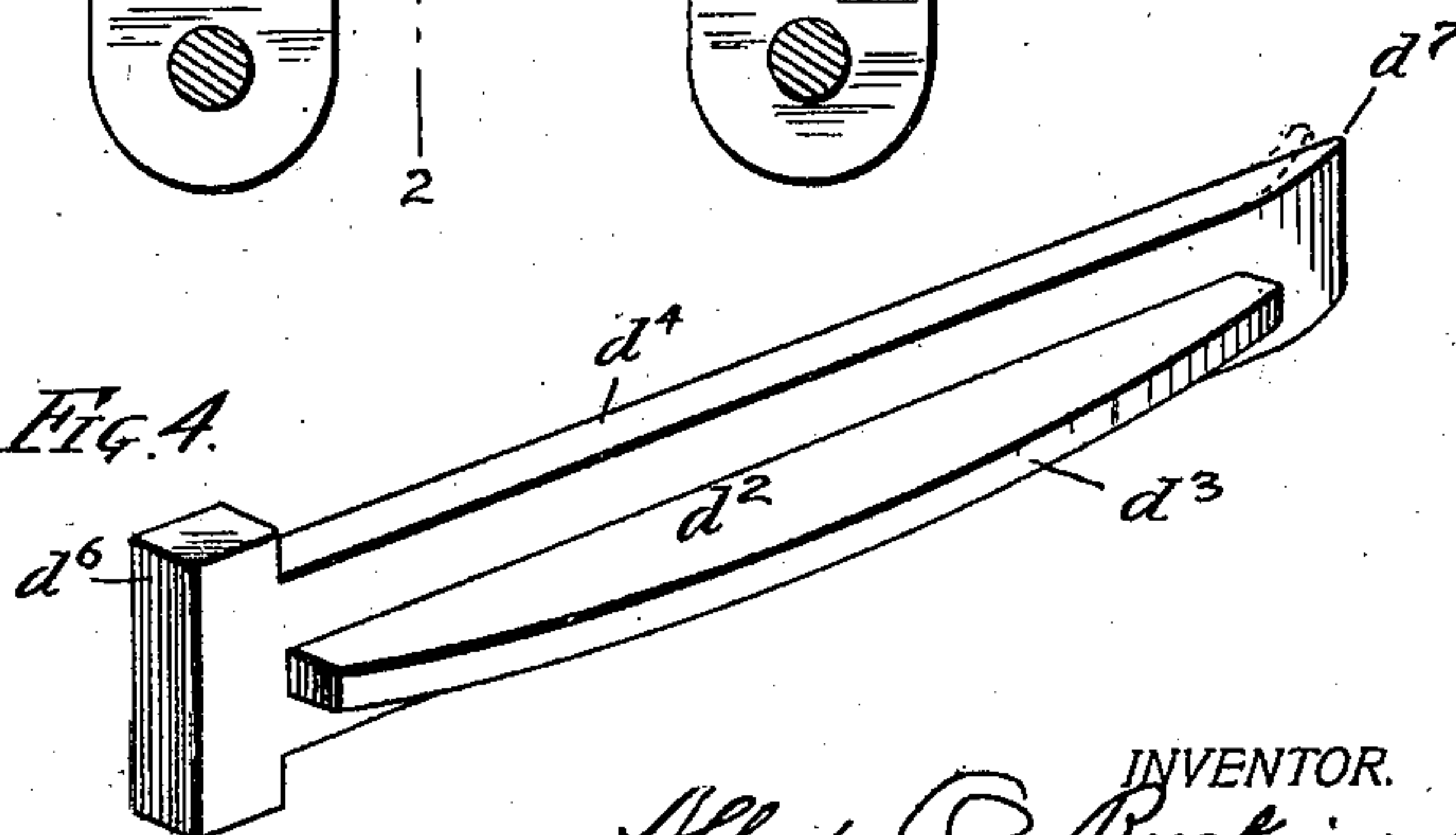


Fig. 4.



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# UNITED STATES PATENT OFFICE.

ALBERT O. BUCKIUS, JR., OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO W. H. MINER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## ROCKER SIDE BEARING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 725,315, dated April 14, 1903.

Application filed December 31, 1902. Serial No. 137,242. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT O. BUCKIUS, Jr., 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 improvements upon the gravity-rocker side bearing forming the subject of United States Patents No. 646,986, of April 10, 1900; No. 668,642, of February 26, 1901, and No. 715,577, of December 9, 1902.

The object of my invention is to provide a rocker side bearing in which the base or bottom plate and reciprocating top plate are secured and locked together by interfitting guides that prevent their separation or the separation of the interposed rockers therefrom after the parts are assembled and which will at the same time enable the top plate to be readily and conveniently applied to the bottom plate after the rockers are in position.

My invention consists in the means I employ to practically accomplish this important object or result—that is to say, it consists, in a rocker side bearing, in connection with the base or bottom plate, reciprocating top plate, and interposed gravity returning rockers, in providing the top and bottom plates with a removable guide which may be inserted in place after the top and bottom plates and rockers are assembled. This separate or removable guide may be mounted in either the top or bottom plate; but it is preferably arranged on the top plate and preferably on its inner side guide. The removable guide is preferably in the form of a straight key provided with a guide-flange the edge of which is curved to correspond with the curvature of the top and bottom plates about the king-bolt as a center.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a per-

spective view of a rocker side bearing provided with my invention. Fig. 2 is a vertical section on line 2 2 of Fig. 3. Fig. 3 is a vertical section on line 3 3 of Fig. 1, and Fig. 4 is a detail perspective view of the separate or removable guide.

In the drawings, A represents the body-bolster, and A' the truck side frame, of a railway-car.

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 turns.

D is the reciprocating top plate of the side bearing.

F F are the gravity returning rockers interposed between the top and bottom plates B D.

The top and bottom plates D B are furnished with interfitting guides *b b* and *d d*, all these guides but one preferably having integral guide-flanges *b' b' d'*. The remaining side guide, preferably the inner side guide of the top plate, is provided with a separate or removable guide *d<sup>2</sup>*, having its inner edge *d<sup>3</sup>* curved to correspond to the curvature of the top plate about the king-bolt as a center and provided with a straight web or key portion *d<sup>4</sup>*, which fits in a suitable dovetail slot *d<sup>5</sup>* in the inner side guide *d*. The separate or movable guide *d<sup>2</sup>* is also furnished with a head *d<sup>6</sup>* and with a tapered end *d<sup>7</sup>*, which is adapted to be bent or upset, so as to lock the guide in position in the top plate.

The gravity-rockers F F have each a large curved lower bearing-face *f* and a small curved upper bearing-face *f'*, the bearing-faces being concentric with each other to prevent the turning of the rockers from raising or lowering the top plate. The lower curved bearing-face *f* of each of the rockers is concave or inclined, as illustrated in the drawings, and corresponds to the rounded, convex, or double-inclined tread B' of the bottom plate. The outer end *f<sup>2</sup>* of each rocker is somewhat larger in diameter than the inner end *f<sup>3</sup>* thereof—that is to say, disregarding the concavity in the lower bearing-face of the rocker it is somewhat tapering or conical to compensate for the curvature of the tread B' of the bottom plate about the king-bolt as a



center, as will be readily understood from the broken lines X X in Fig. 2. The top plate D is provided with curved segmental sockets  $d^8$  to receive the bearing-faces  $f'$  of the rocker.

5 The side guides  $d$  of the top plate D are provided with recesses  $d^9$  to receive the projecting ends or studs  $f^5$  of the rockers, and by which, in connection with the curved sockets or bearings  $d^8$ , the reciprocating top plate is  
10 connected to the gravity-rockers F F, and thus caused to return to position when the rockers return to their central or normal position by the gravity action of their large lower bearing-faces. Each of the rockers F  
15 F is provided on its bearing-face  $f$  with a central row of teeth  $f^6$ , which mesh with corresponding teeth  $b^5$  on the base or bottom plate B. The bottom plate B is provided with a central transverse web  $b^6$  and the top plate D  
20 with a similar web  $d^{10}$ .

To assemble the parts of the rocker side bearing together, the rockers are first put in position on the bottom plate, and then the top plate is applied, the separate guide  $d^2$   
25 being at this time removed from the top plate D to permit the application of the top plate, and then the removable guide  $d^2$  is inserted in the dovetail slot in the top plate and its end  $d^7$  bent or upset to lock it in position.  
30 When thus assembled, all the parts of the rocker side bearing are securely locked together, so they cannot separate without first removing the removable guide  $d^2$ .

I claim—

35 1. In a rocker side bearing, the combination with a bottom plate of a reciprocating top plate having integral side guides provided with integral guide-flanges, and said top plate having integral side guides, one of which is  
40 furnished with an integral guide-flange and the other of which is provided with a separate or removable guide fitting in a slot formed therein, substantially as specified.

2. In a rocker side bearing, the combination with a bottom plate, of a reciprocating  
45 top plate, and interposed rockers, said top plate and bottom plate having interfitting side guides provided with integral guide-flanges and with one separate or removable  
50 guide fitting in a slot formed in the side guide of one of said plates to enable the parts to be assembled and to lock the parts together after being assembled, substantially as specified.

55 3. In a rocker side bearing, the combination with a bottom plate, of a reciprocating top plate, and interposed rockers, said top plate and bottom plate having interfitting side guides provided with integral guide-  
60 flanges and with one separate or removable guide fitting in a slot formed in the side guide of one of said plates to enable the parts to be assembled and to lock the parts together after being assembled, said separate or removable  
65 guide having a straight web or key portion and a curved edge, substantially as specified.

4. In a rocker side bearing, the combination with a bottom plate, of a reciprocating top plate and interposed rockers, said top plate and bottom plate having interfitting  
70 side guides provided with integral guide-flanges and with one separate or removable guide fitting in a slot formed in the side guide of one of said plates to enable the parts to be assembled and to lock the parts together after  
75 being assembled, said separate or removable guide having a straight web or key portion and a curved edge and being furnished with a head and an end adapted to be bent or upset, substantially as specified. 80

5. In a rocker side bearing, the combination with a base or bottom plate, a top plate and interposed rockers, said bottom plate and top plate having interfitting side guides furnished with integral guide-flanges and with  
85 one removable guide having a web or key portion and a head, the inner side guide of one of said plates having a slot to receive said separate or removable guide, substantially as specified. 90

6. In a rocker side bearing, the combination with a bottom plate having side guides furnished with integral guide-flanges, of rockers and a top plate having side guides one of which is furnished with an integral guide-  
95 flange and the other of which is provided with a slot to receive a separate or removable guide, and a separate or removable guide fitting in said slot, substantially as specified.

7. In a rocker side bearing, the combination with a bottom plate having side guides furnished with integral guide-flanges, of rockers and a top plate having side guides, the outer one of which is furnished with an integral guide-flange, and the inner one of which  
105 is provided with a straight slot and a separate or removable guide fitting in said slot, substantially as specified. 100

8. In a rocker side bearing, the combination with a bottom plate having side guides furnished with integral guide-flanges, of rockers and a top plate having side guides, the outer one of which is furnished with an integral guide-flange, and the inner one of which  
115 is provided with a straight slot and a separate or removable guide fitting in said slot having a curved edge, substantially as specified. 110

9. In a rocker side bearing, the combination with a bottom plate having side guides furnished with integral guide-flanges, of rockers and a top plate having side guides, the outer one of which is furnished with an integral guide-flange, and the inner one of which  
120 is provided with a straight slot and a separate or removable guide fitting in said slot having  
125 a key or web portion and a head, substantially as specified.

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Witnesses:

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