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PATENTED APR. 14, 1903.

W. H. MINER.
ROCKER SIDE BEARING FOR RAILWAY CARS.

APPLICATION FILED DEC. 31, 1902.

NO MODEL.

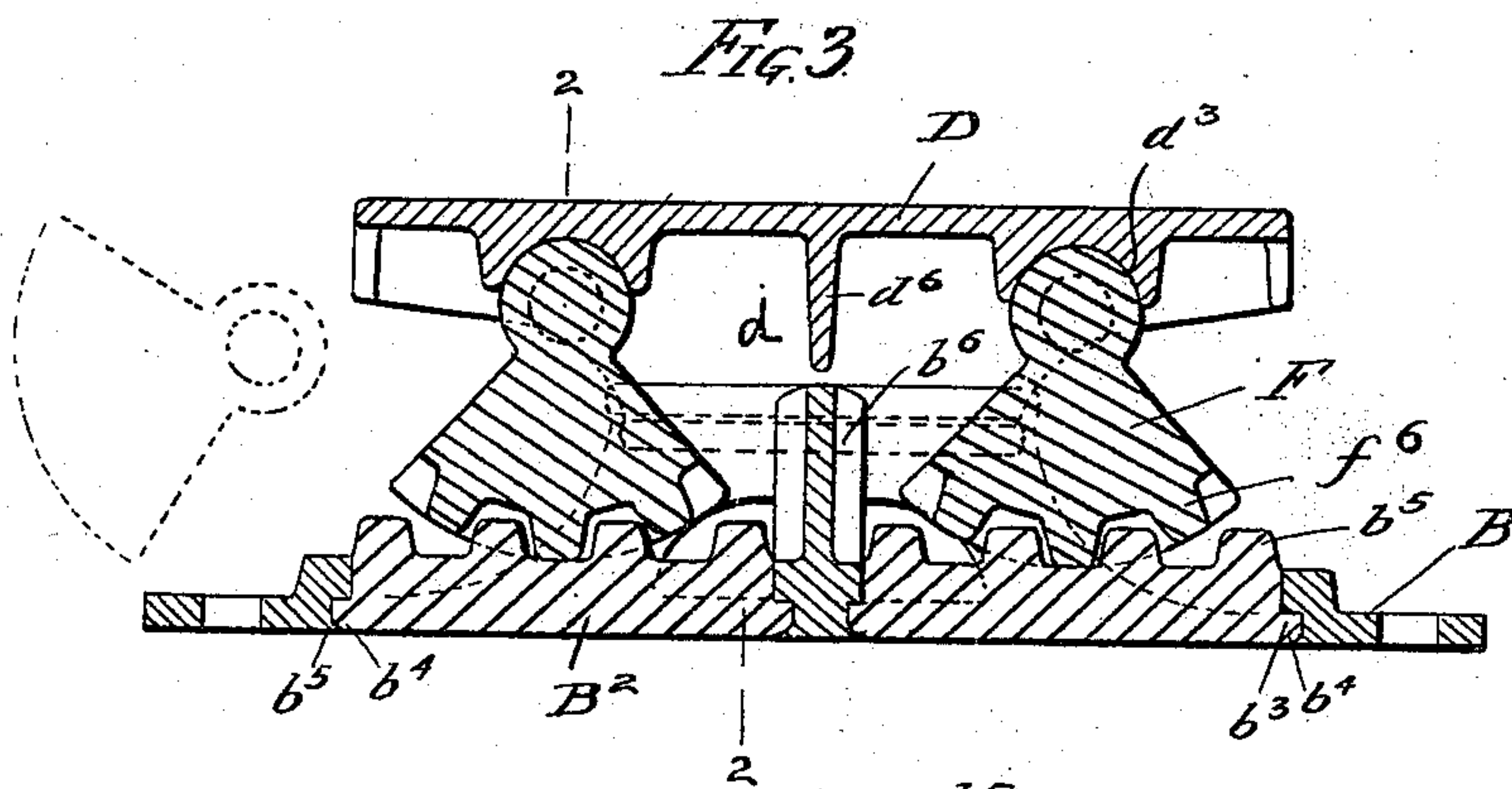
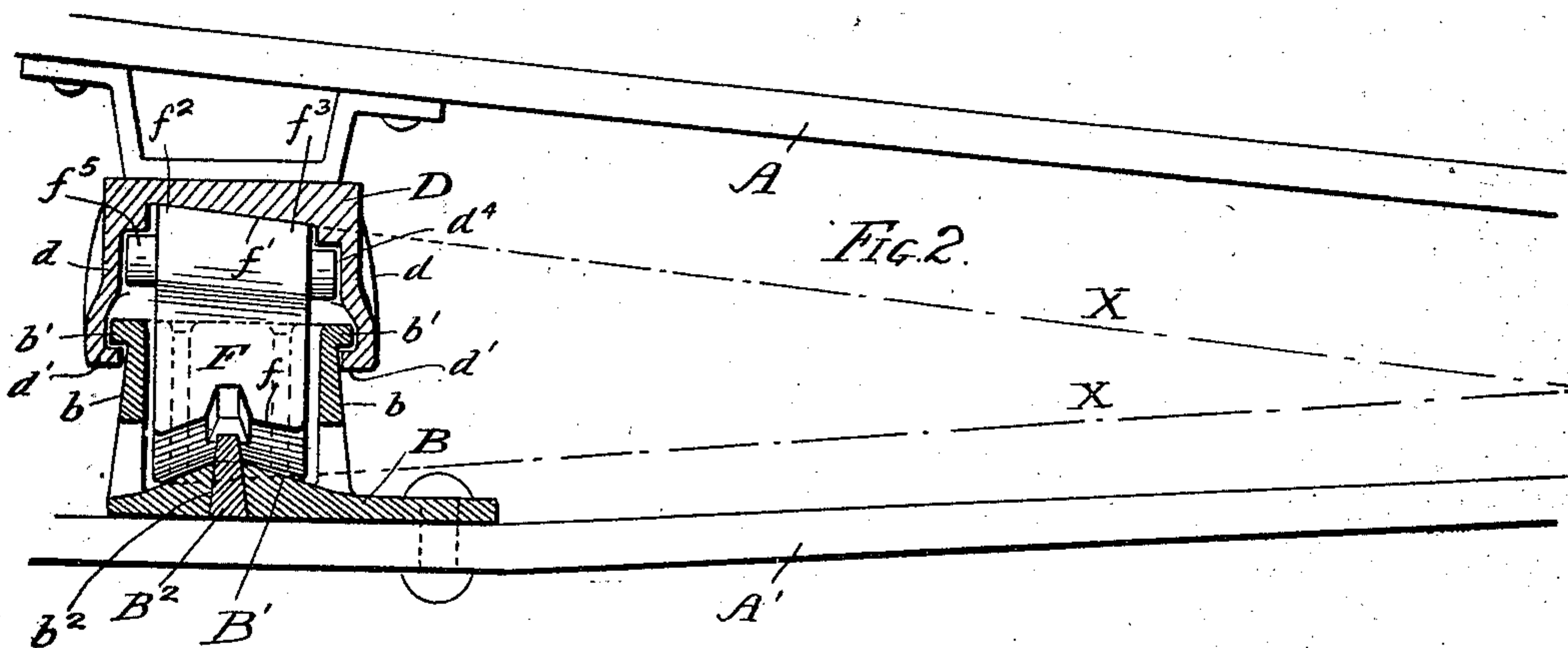
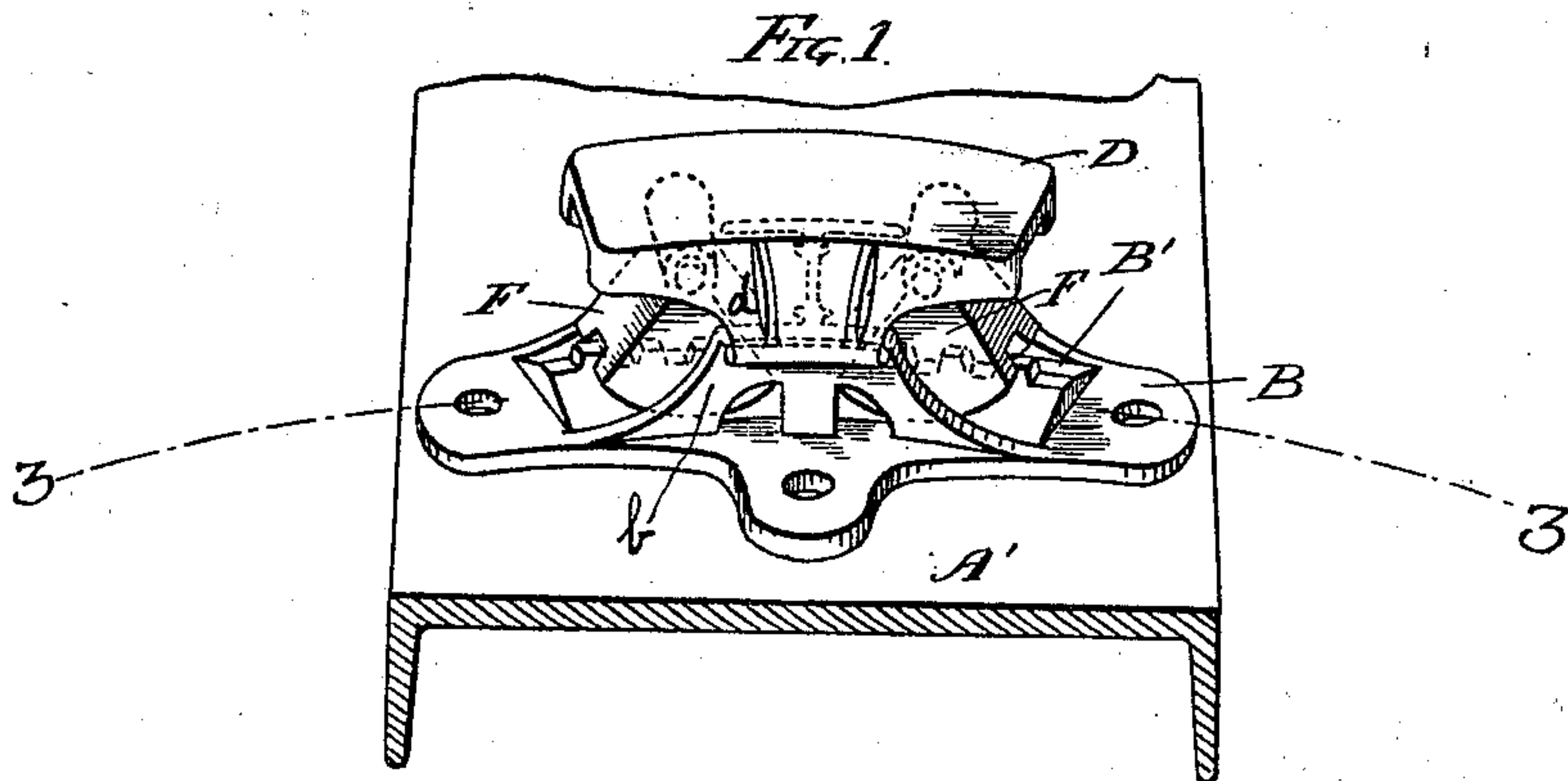
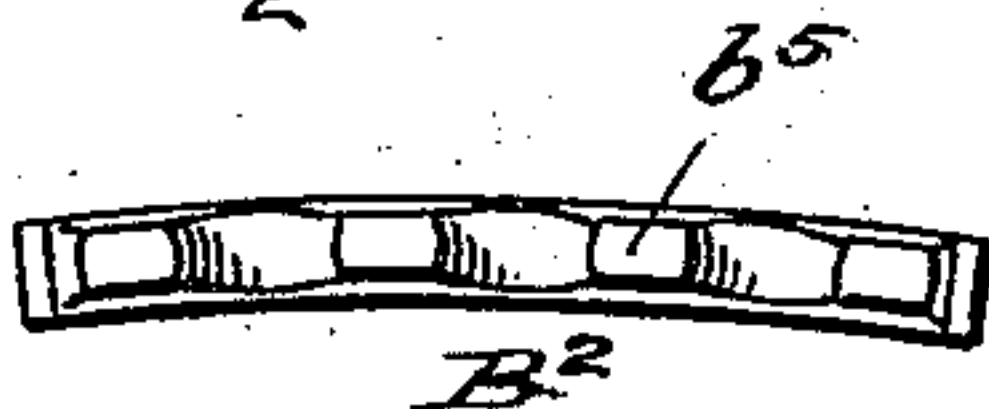


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. MINER, OF CHICAGO, ILLINOIS, ASSIGNOR 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. 725,350, dated April 14, 1903.

Application filed December 31, 1902. Serial No. 137,274. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MINER, 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 together by interfitting guides or flanges and which will at the same time admit of the rockers being inserted in position between the top and bottom plates after the top and bottom plates are assembled and locked together by their interfitting guides or flanges.

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 a pair of gravity returning rockers provided with teeth on their lower bearing-faces, in providing the bottom plate with removable tooth-bearing sections which may be inserted and locked in position after the rockers are in place, so that the teeth of the bottom plate will thus not obstruct the insertion of the rockers in position between the top and bottom plates. After the rockers are inserted in position the tooth-bearing sections of the bottom plate are inserted from below and secured in place by any suitable means.

My invention further 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, forming a part of this specification, Figure 1 is a perspective view of a rocker side bearing embodying my invention. Fig. 2 is a vertical section on the line 2 2 of Fig. 3. Fig. 3 is a

vertical section on the line 3 3 of Fig. 1. Fig. 4 is a detail plan view of one of the movable tooth-bearing sections of the bottom plate.

In the drawings, A represents the body-bolster, and A' the truck-bolster, 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. The bottom plate B is provided with upright side guides b, having projecting flanges b'.

D is the reciprocating top plate of the side bearing, the same having downwardly-projecting side guides d and flanges d', the guides and flanges d d' interfitting and engaging with the guides and flanges b b' to hold the top and bottom plates together, while permitting the top plate to reciprocate in respect to the bottom plate.

The base or bottom plate B is provided with separate or removable tooth-bearing central sections B² B², which fit in suitable shouldered sockets or recesses b² in the bottom plate, the toothed sections B² having flanges b³, with rounded corners b⁴, so that after the sections B² are in place they may be secured in position by simply upsetting the marginal edges b⁵ of the socket or recess b².

F F are the gravity returning rockers, the same having a large curved lower bearing-face f and a small curved upper bearing-face f' for the top plate B and bottom plate D to ride and bear against. The lower curved bearing-face f of each of the rockers F is concave or inclined, as illustrated in the drawings, to fit and correspond to the rounded or convex or double-inclined tread B' of the bottom plate. The outer end f² of each rocker is somewhat larger in diameter than the inner end f³ thereof—that is to say, disregarding the concavity in the lower bearing-face of the rocker the same are somewhat tapering or conical to compensate for the curvature of the tread B' about the king-bolt as a center, as will be readily understood from the broken lines XX in Fig. 2. The lower large bearing-face f and the upper small bearing-face f' are concentric with each other, so that the turning of the rockers will not tend to lift, separate, or vary the distance between the top and

bottom plates. The top plate D is provided with curved segmental sockets d^3 to receive the upper small bearing-faces f' of the rocker. The side guides d of the top plate D are provided with recesses d^4 to receive the projecting ends or studs f^5 of the rockers and by which in connection with the curved sockets or bearings d^3 the reciprocating top plate is 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. The rockers F F are provided on their lower large bearing-faces $f f$ with central rows of teeth $f^6 f^6$, which mesh with corresponding teeth $b^5 b^5$ on the separate or removable sections $B^2 B^2$ of the base or bottom plate, and the marginal flange or web d^4 at the end of the top plate D is notched or cut away at d^5 to the extent necessary to permit the rockers to be inserted in position between the top and bottom plates when the rocker is turned into a horizontal position, as indicated in the dotted lines in Fig. 3, the removable tooth-bearing section B^2 of the bottom plate being at this time not in position. After the rockers are this way inserted between the top and bottom plates and put in position then the separate or removable tooth-bearing sections $B^2 B^2$ are inserted and secured in position by upsetting the marginal edges b^5 of the bottom plate over the rounded edges of the removable sections B^2 . The top plate D is provided with a central transverse web d^6 and the bottom plate with a central transverse web b^6 . After the rockers are thus put in position between the top and bottom plates and the removable sections B^2 of the bottom plate fixed in place all the parts of the rocker side bearings as a whole are securely united together so they cannot be separated.

I claim—

1. In a rocker side bearing for railway-cars, the combination with a bottom plate secured to the truck-bolster, of a reciprocating top plate, said top and bottom plates having in-

terfitting guides and flanges, a pair of automatic gravity returning rockers interposed between said bottom plate and said reciprocating top plate, and provided with teeth on their lower bearing-faces, said bottom plate having separate or removable tooth-bearing sections adapted to be fixed in position after the rockers are in place to enable the rockers to be inserted in position between the top and bottom plates, substantially as specified.

2. In a rocker side bearing, the combination with a bottom plate and top plate provided with interfitting guides, of rockers interposed between the top and bottom plates and having teeth on their lower bearing-faces, said bottom plate being provided with separate tooth-bearing sections, substantially as specified.

3. In a rocker side bearing, the combination with rockers having toothed bearing-faces, of a reciprocating top plate and a bottom plate having a separate tooth-section adapted to be fixed in place after the rockers are in position, substantially as specified.

4. In a rocker side bearing, the combination with a bottom plate having a socket to receive a separate tooth-section, a tooth-section fitting in said socket and secured therein by upsetting the edges of the socket in the bottom plate, a reciprocating top plate, and a pair of interposed rockers having teeth on their lower bearing-faces, substantially as specified.

5. The combination with a reciprocating top plate D, having notches d at its ends, of rocker side bearings F having teeth on their lower bearing-faces, and bottom or base plate B having sockets b and removable tooth-bearing sections B^2 having rounded edges b^4 to adapt the same to be secured in place in the bottom plate by upsetting the marginal edges of the socket in the bottom plate, substantially as specified.

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Witnesses:

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