

No. 897,997.

PATENTED SEPT. 8, 1908.

R. J. OSTICK.
RAIL BOND.

APPLICATION FILED MAY 9, 1907.

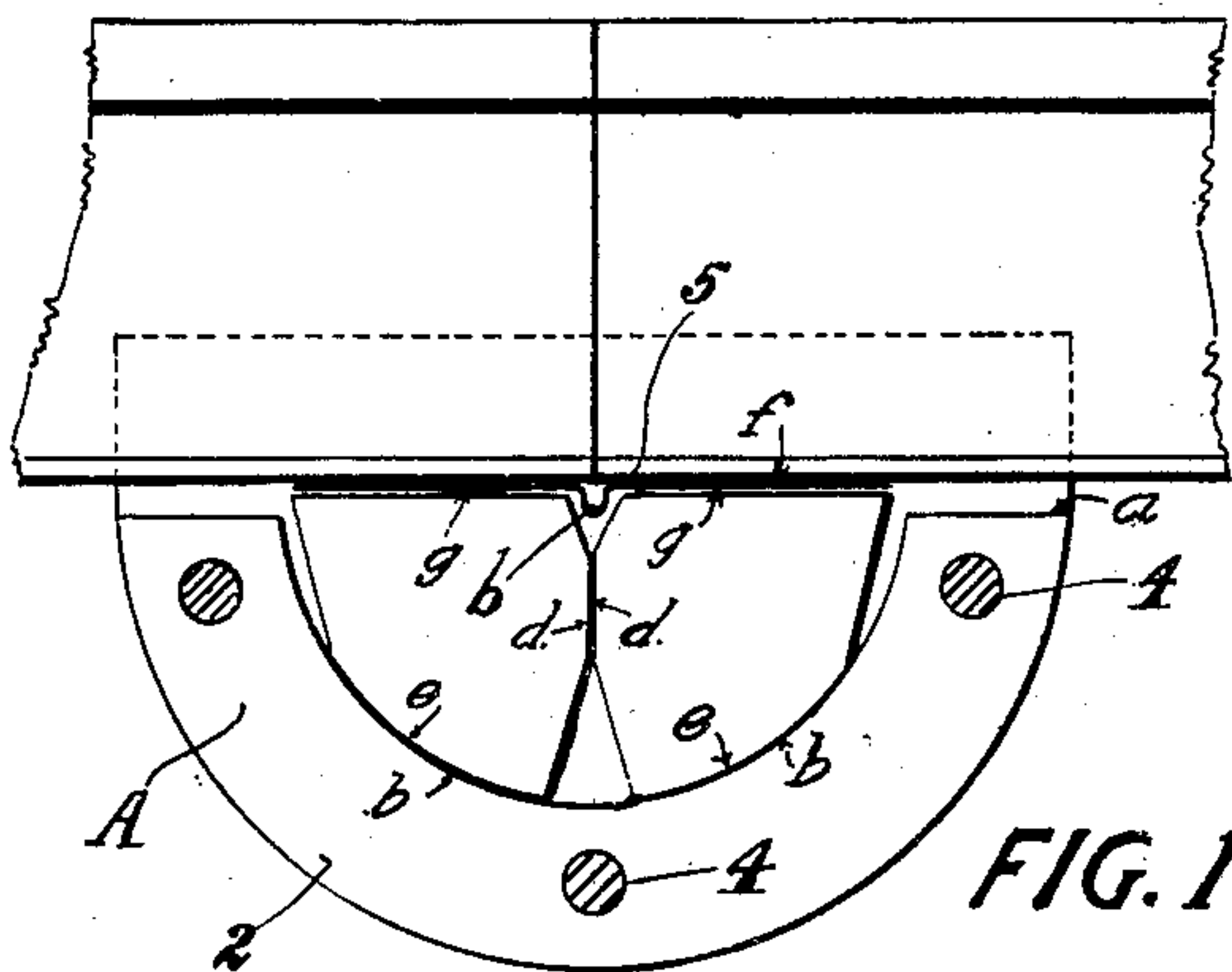


FIG. 1

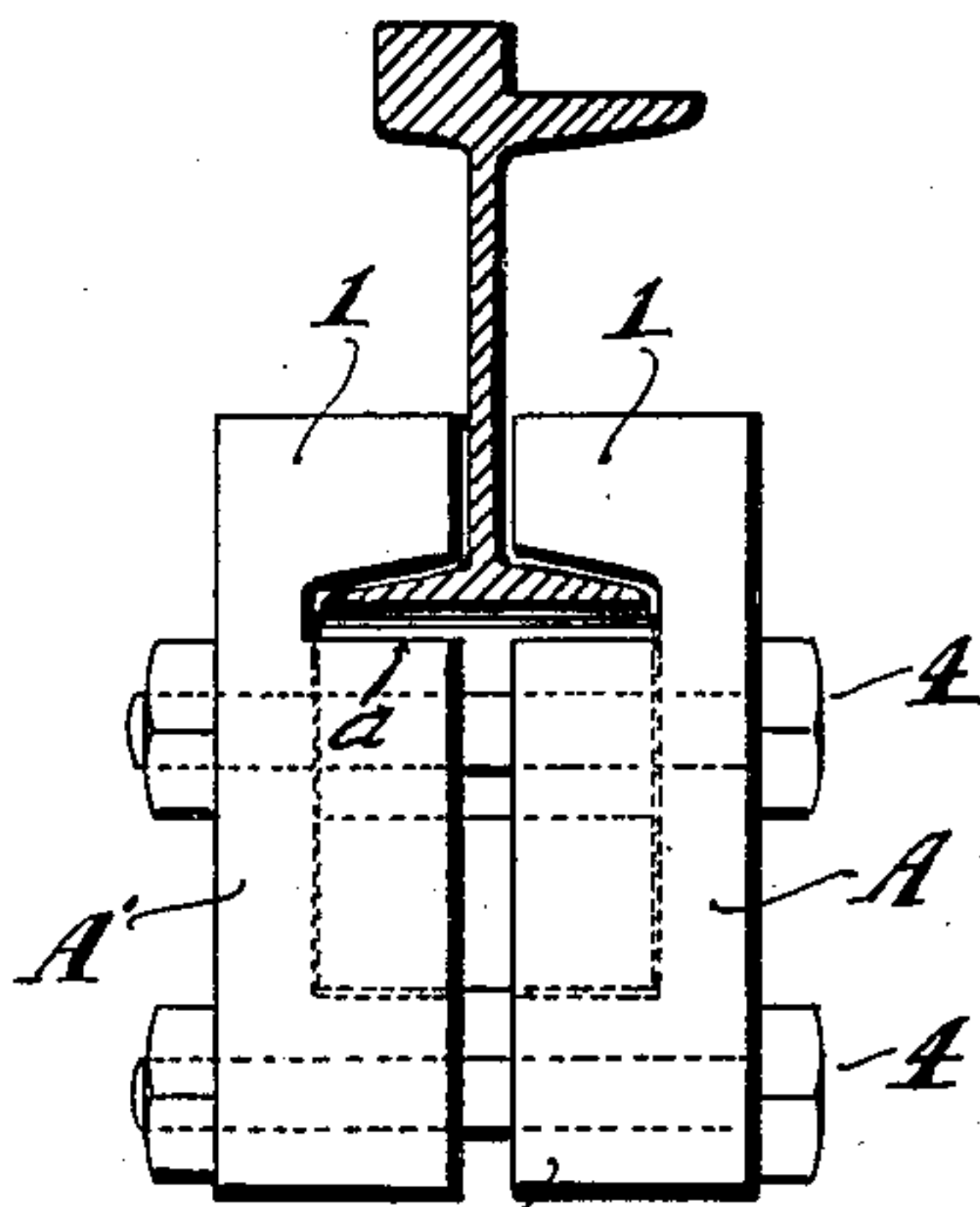


FIG. 2.

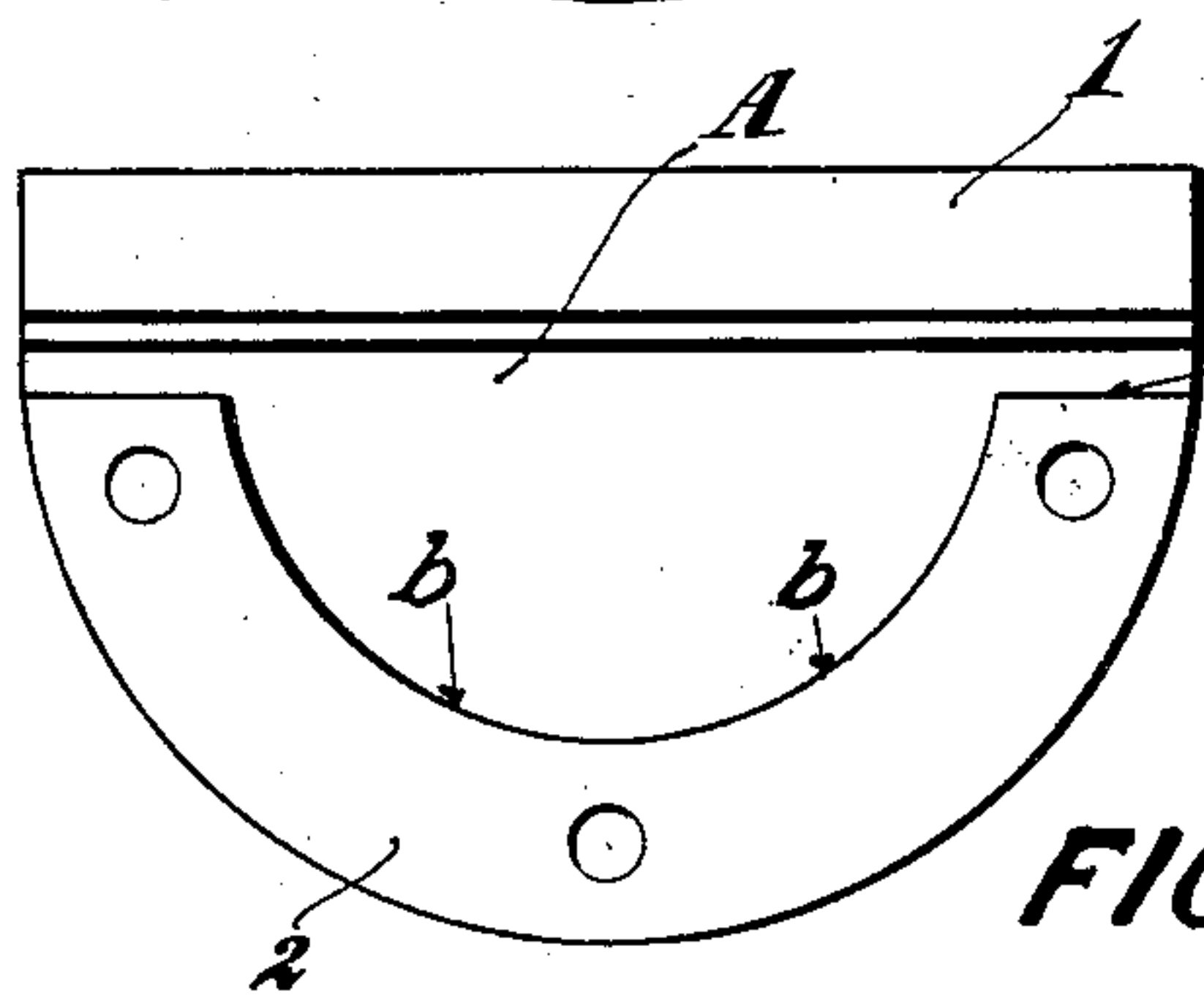


FIG. 3.

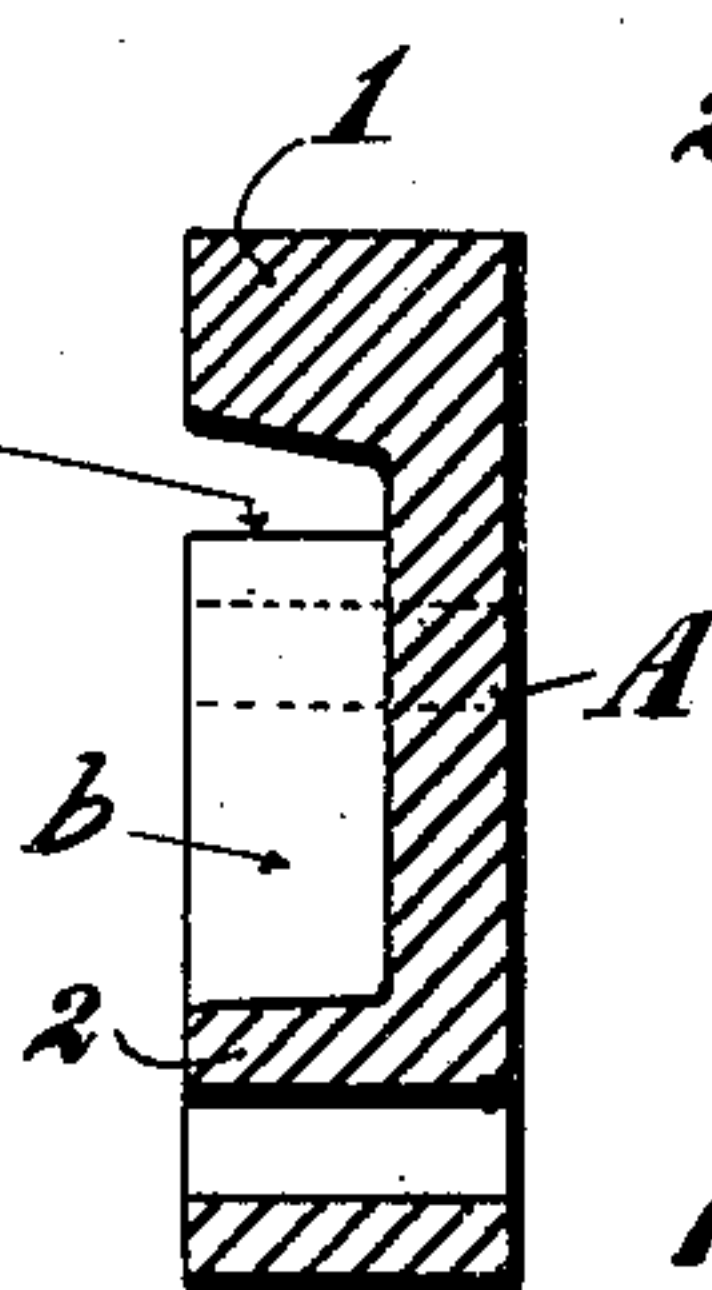


FIG. 4.

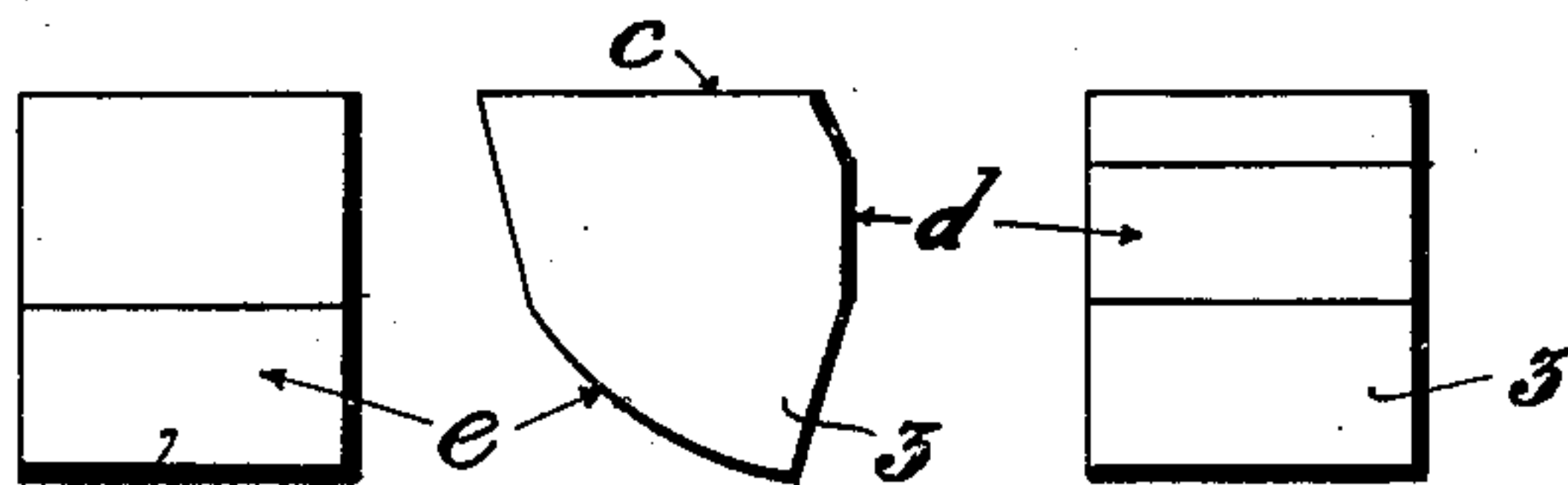


FIG. 5.

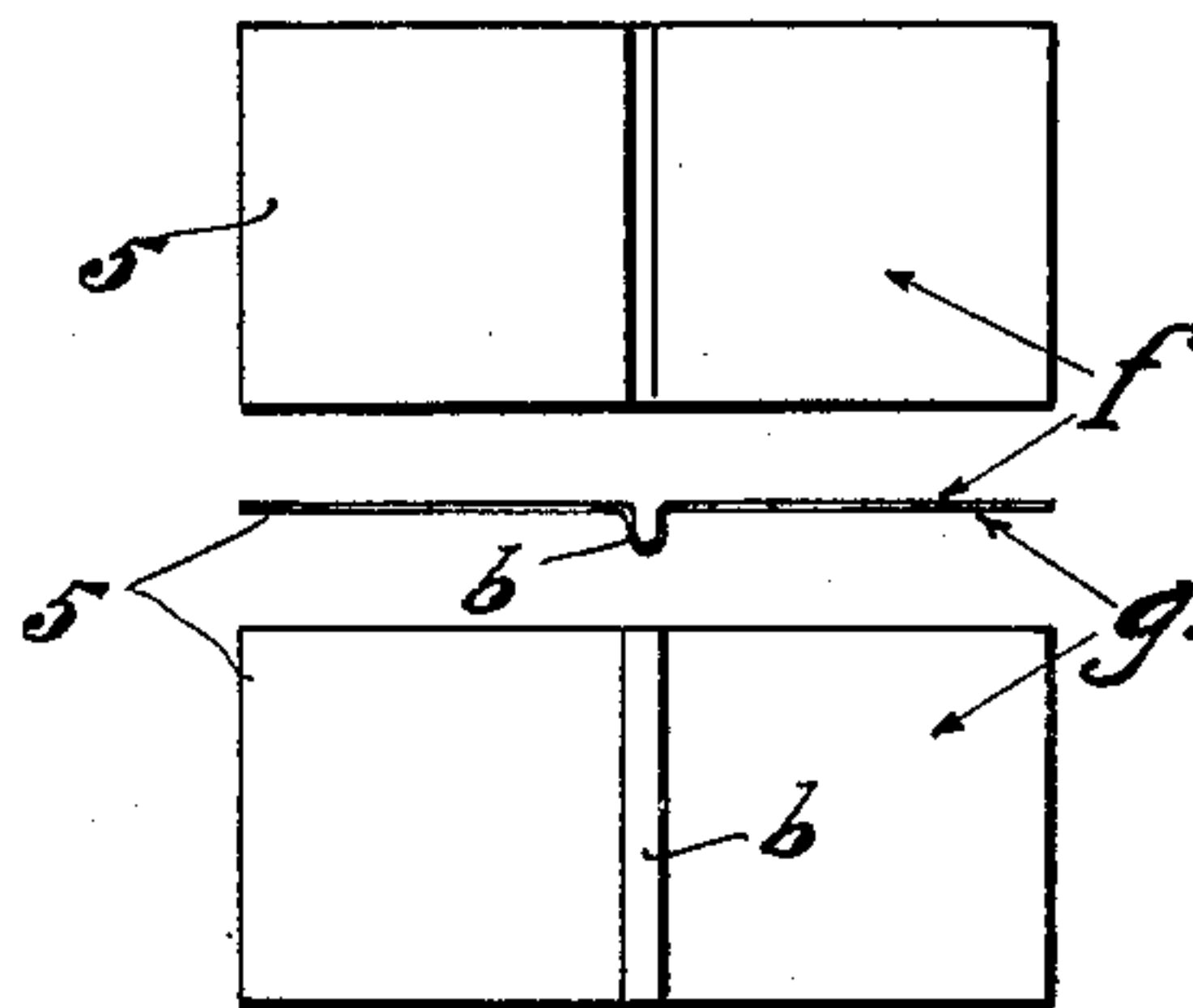


FIG. 6.

Witness

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RAIL-BOND.

No. 897,997.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT OSTICK, a citizen of the United States, residing at Covington, in the county of Kenton and State of Kentucky, have invented a new and useful Improvement in Rail-Bonds, of which the following is a specification.

My invention relates to an improvement in a rail bond.

One of the objects of my invention is to provide means for frictionally clamping a rail bond to the bottom surface of two adjoining rails, whereby the rails are locked together against lateral displacement.

Another object of my invention is to provide a pair of plates engaging the upper inclined surface of the base of the rails, said plates supporting filling blocks, adapted to clamp a rail bond to the under surface of the flanges of adjoining rails as the plates are clamped in position.

Another object of my invention is to provide a pair of plates adapted to be clamped upon each side of two adjoining rails, said plates being provided with inwardly projecting flanges having a curved surface for supporting filling blocks, whereby a secure clamping of the rail bond may be effected, irrespective of the plane the clamping plates occupy in position.

The features of my invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which:—

Figure 1 is a side elevation, partly in section, illustrating one of the clamping plates, rail bond and filling blocks in position. Fig. 2 is an end elevation of my improved rail bond showing the rail in section. Fig. 3 is an inside elevation of one of the clamping plates. Fig. 4 is a central vertical section of the same. Fig. 5 illustrates the side and end faces of one of the filling blocks. Fig. 6 represents the top, side and bottom elevations of the rail bond.

A, A', represent clamping plates, being counterparts of each other, and each is provided with the flange 1, having an inclined surface adapted to rest upon the inclined surface of the base of the rail, whereby the base of the rails forms a wedge when the two plates A, A', are clamped together having a tendency to raise the plates and effect a clamping action against the bottom of the rail.

2 represents flanges projecting from the

side plates, provided with a curved surface *b*, forming a seat for the filling blocks 3, said filling blocks 3 being each provided with a curved surface *c* of the same radius as the radius of the curved surface *b*, to maintain the surface *c* of the filling blocks 3 in plane with the bottom of the rails enabling a rigid clamping of the rail bond in position irrespective of any angular position the clamping plates A, A', may occupy in connecting two adjoining rails. This feature is essential when bonding rails where two adjoining rails are of different size or height, as is frequently the case of connecting a new rail with an old one. Again, by seating the filling blocks upon the curved surface of the clamping plates, the bond is not disturbed by any vibratory action of the rails caused by the sagging of the ties while a car is passing over the rails. The flanges 2 of the side plate terminate at *a* a slight distance below the flanges 1 forming an opening between which the base of the rails lie and leaves sufficient clearance to permit vertical movement of the side plates as they are being clamped together. 4 represents bolts for clamping the plates A, A'.

5 represents a bond provided with the central U-shaped projection 6 allowing for contraction and expansion of the rails when the bond is clamped in position. The surface *f* of the bond lies against the bottom surface of the rail and the surface *g* contacts with the filling blocks 3.

It is obvious that the filling blocks 3 may be made of one piece of metal notched out at its top surface to receive the projection 6 of the bond 5.

With my improved clamp a rail bond can be easily and quickly applied, at the same time serving as a fish plate for holding the rails together.

Having described my invention, I claim:—

1. The combination with a pair of adjoining railway rails, of a pair of plates supported upon the base of said rails, filling blocks supported by said plates, a bond lying between the under surface of said rail base and filling blocks, and means for clamping said plates laterally below the rails, substantially as described.

2. The combination with a pair of adjoining railway rails, of a pair of plates provided with an inclined flange extension adapted to seat upon the inclined surface of the base of the rail, a bond contacting with the lower

surface of the base of said rails, means carried by said plates for clamping said bond in position, means for laterally clamping said plates below the rails, whereby said bond clamping means is moved to a clamping position, substantially as described.

3. The combination with a pair of adjoining railway rails, a pair of clamping plates adapted to seat upon the upper inclined surface of the base of the rail, a bond for bonding said rails, means carried by said clamping plates for clamping said bond in position against the rails, the clamping action against the bond being produced by means for laterally clamping said plates below the rails, causing a vertical action due to the coacting inclined surfaces, substantially as described.

4. In combination with a pair of adjoining railway rails of a pair of plates supported upon the base of said rails, provided with a flanged projection, said flange having a

curved bearing surface, filling blocks provided with a curved surface adapted to seat upon said flanges, a bond lying between the base of the rails and filling blocks, means for laterally clamping said plates, whereby a vertical clamping action is effected between filling blocks and rails, substantially as described.

5. A clamp for clamping adjoining railway rails, comprising a pair of plates supported upon the inclined surface of the base of the rails, means carried by said plates adapted to contact with the base of the rails, clamping means for clamping said plates laterally below the rails whereby a wedge-like action is produced between the base of the rails and clamping plates, substantially as described.

ROBERT JOHN OSTICK.

Witnesses:

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