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G. S. CRAWFORD

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SHIM CONSTRUCTION FOR SIDE BEARINGS

Filed Jan. 21, 1927

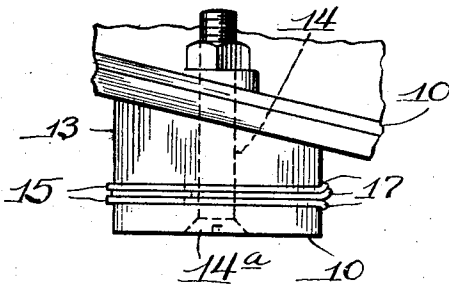
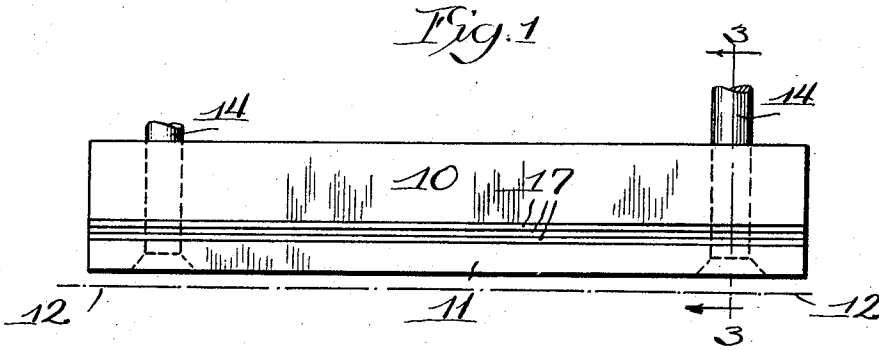


Fig. 2

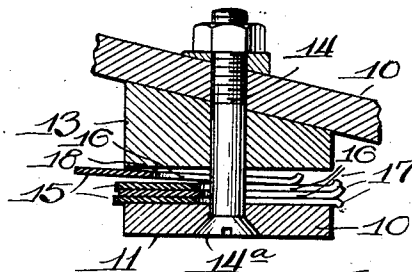
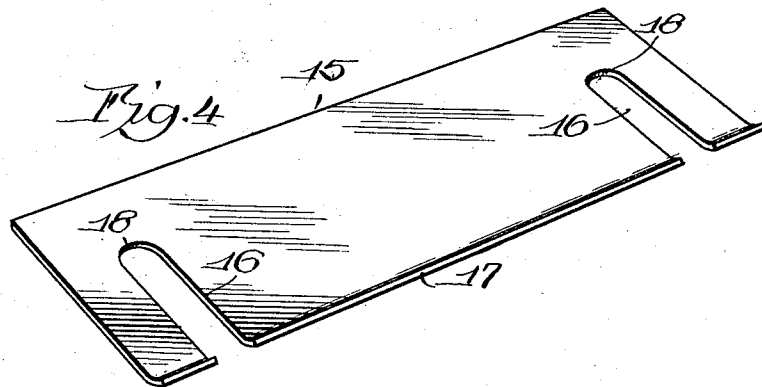


Fig. 3



Witness:  
Chas. F. Koush

Inventor,  
George S. Crawford  
Charles E. Mehlhop, Atty.

# UNITED STATES PATENT OFFICE

GEORGE S. CRAWFORD, OF CHICAGO, ILLINOIS, ASSIGNOR TO SOPHIE L. WOODS, OF CHICAGO, ILLINOIS

## SHIM CONSTRUCTION FOR SIDE BEARINGS

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This invention relates to a novel and improved adjustable side bearing for railway cars and consists of the matters hereinafter described and more particularly pointed out in the appended claims.

In the application of side bearings to railway cars, it is advisable in accordance with the best modern practice, to leave but little clearance between the bearing members on the truck and the body bolsters so that, while said members are normally disengaged when the car is running steadily and without swaying, as on a straight, level track, they will be immediately engaged upon any slightest swaying movement of the car body on that side of the car towards which the car body swings in that movement.

The object of this invention is to provide a bearing of simple and economical construction capable of ready and easy adjustment to determine the clearance, not only in the beginning when installing the bearings on the car, but also at any time thereafter, as when it is necessary to make adjustments to compensate for wear or for any other condition which has increased the clearance, in order to reduce the clearance and bring it to the minimum desired. The many advantages of the invention will appear more clearly as I proceed with my specification.

In the drawings:—

Figure 1 is a view showing my improved adjustable side bearing in side elevation.

Figure 2 is a view showing an end elevation of the same.

Figure 3 is a view representing a vertical section through the bearing in a plane indicated by the line 3—3 of Figure 1.

Figure 4 is a perspective view of one of the shim plates used in my improved bearing.

Referring now to that embodiment illustrated in the drawing;—10 indicates a bolster, in this case the body bolster of a railway car, which is shown as inclined to the horizontal in that part to which the bearing is to be applied. 11 indicates a side bearing, which in this case is a plate to present a wear or bearing surface for a roller or other bearing (not shown) on the truck bolster the bearing plane of which is represented by the line

12. 13 indicates a body shim of familiar construction which has a horizontal bottom face to which the bearing member is to be applied and an inclined top face conforming to the inclination of the bolster 10. Screw bolts 14 taking through the bearing plate 11 and the body shim 13 secure the bearing plate and filler block to the bolster,—the heads 14<sup>a</sup> of the screw bolts being set in suitable recesses in the bearing face of the plate 11.

15, 15 indicate a plurality of shim plates interposed between the bearing member 11 and the body shim 13 and bolster 10. Said shim plates are comparatively thin so as to provide very small adjustments in the space between the body shim 13 and the bearing member 11.

Each shim plate 15 is provided near its ends with transverse slots 16 opening at one side through the edge 17 of the plate and closed at the other side as indicated at 18. Said slots extend a little more than half way across the width of the shim plate. The edge of the shim plate 17 is turned up slightly out of the plane of the plate to provide a burr or shoulder as clearly shown in the drawings. The distance between the slots 16 is equal to the distance between the positions of the screw bolts 14 which connect the bearing member 11 to the body shim and bolster.

The shim plates 15 are applied in the space between the body shim 13 and the bearing member 11 and as many of them are used in that space as will be necessary in order to bring the bearing member to the horizontal level required to produce the desired clearance between the bearing members on the body and truck bolsters. As shown, four shims are used. In applying the shim plates, the bearing member and body shim are secured in place as indicated in Figure 3. The shim plates are then inserted from one side, the slots 16 being engaged upon the screw bolts 14 as the plates are pushed home. The plates are somewhat wider than the bearing member and body shim and the slots 16 are of such length transversely of the plate that the plates may be assembled with the burrs or shoulders 17 projecting beyond the edges of the body shim and bearing member on

that side towards which the plates are pushed in assembling them. In this assembly the burrs of the several plates engage, the one upon the other, as shown in Figure 3. After the required number of plates have been inserted the bolt is screwed home to securely engage the shim plates between the bearing member and the body shim.

It will be obvious from an examination of Figure 2 that, when the bearing member 11 is properly secured by the bolt to the body shim with the shim plates engaged between them, the burrs or shoulders 15 will prevent the shim plates from working loose in a direction opposite to that in which they have been inserted. The ends of the slots 18 will act as stops to prevent the plates from working out in the opposite direction. Thus once the screw bolts are drawn home the shim plates are securely held in position.

When the bearing member on account of wear or for any other reason requires adjustment, in order to reduce or otherwise change the clearance, it is simply necessary to loosen the screw bolts 14 sufficiently to drop the bearing member 11 a distance necessary to permit one or more of the shim plates to be removed or to be inserted. The amount that the screw bolts have to be withdrawn to make this adjustment is only that required for the burrs or shoulders 17 on the shim plates to clear one another or to clear the proximate edge of the bearing member or body shim.

It will be manifest that the foregoing provides a very simple, ready and easy means of adjustment of a bearing member in a railway car to the desired clearance either in first installation or afterwards.

I claim as my invention:—

1. In a side bearing, in combination with a bearing member and a member rigid with the bolster to which said bearing member is to be attached, bolts for attaching said bearing member to said bolster member, a plurality of shim plates interposed between said bearing member and said bolster member, said shim plates being somewhat wider than said bearing member and each shim plate being provided with transverse slots opening at one end through the edge of the shim plate and closed at the other end and the several shim plates being each provided with a burr on the edge through which said slots open.

2. In a side bearing, in combination with a bearing member and bolts for attaching said bearing member in place, a plurality of shim plates associated with said bearing member, said shim plates being somewhat wider than said bearing member and each shim plate being provided with transverse slots spaced apart a distance equal to the distance between said attaching bolts and opening at one end through the edge of the

shim plate and closed at the other end, and the several shim plates being each provided with a burr on the edge through which said slots open.

In testimony that I claim the foregoing as my invention, I affix my signature this 13th day of January, A. D. 1927.

GEORGE S. CRAWFORD.

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