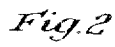
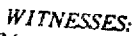


1,290,313.

Fig.1



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SIDE BEARING FOR RAILWAY-CARS.

1,290,313.

Specification of Letters Patent.

Patented Jan. 7, 1919.

Application filed June 6, 1917. Serial No. 173,850.

To all whom it may concern:

Be it known that I, JOHN F. O'CONNOR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Side Bearings for Railway-Cars, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to improvements in side bearings for railway cars.

The object of my invention is to provide a simple efficient laterally and vertically adjustable roller side bearing.

In the drawing forming a part of this specification, Figure 1 is a vertical section of a side bearing embodying my invention. Fig. 2 is a sectional view of the roller employed therein.

Referring to the drawings, the numeral 10 indicates a bolster shown in cross section, to which the bearing is secured. It will be understood that in a railway car an opposed bolster is employed which the roller, hereinafter described, is designed to be engaged by. The numeral 11 indicates a base member having suitable means, as for instance, the flanges 12 adapted to be employed in securing the bearing to the bolster 10 by suitable means, as for instance, the rivets 13—13. A roller 14 is mounted between the up-standing sides 15—15 of the base member, the said roller being provided with an axle 16 upon which it is adapted to revolve.

The axle 16 comprises the central spherical portion 17 and the trunnions 18 extended from either end thereof, the said spherical portion 16 being hollow to receive the waste and oil, indicated at 19, and provided with suitable perforations, such as indicated at 20, to lubricate the bearing of the roller upon the spherical portion of the axle. The up-standing sides 15 of the base member 11 are provided with suitable slots 21 to receive the trunnions of the axle, the lower portions of the slots 21 being provided with shoulders 22 upon which the lower portion of the trunnions, indicated at 23, are adapted to rest. Filler pieces or shims 24 are provided of such suitable number or dimensions as may be desired, in order to permit the vertical adjustment of the roller in the base member to accommodate varying spaces between the

bolsters upon cars to which the bearing is applied. Suitable means are provided, as for instance, the keys 25 to retain the axle in its position within the base member.

The roller 14 is provided with the longitudinal perforation 26 in which the axle is received, the said perforation 26 having a spherical conformation intermediate its ends, as indicated at 27, to form the bearing face which rides upon the spherical portion 16 of the axle. Near its ends, as indicated by the numeral 28, the said perforation is of suitable dimensions to permit the lateral oscillation of the roller 14 upon the axle, in order to accommodate the roller to deflections of the bolsters between which the roller is mounted.

It will be observed that the spherical portion of the axle is of a larger diameter than the ends of the perforation 26 extending through the roller. The roller, as shown in the drawings, is made in one piece.

I will now describe the method of placing such an axle within a roller having an opening so conformed. The roller is cast in the form hereinbefore described, whereupon the walls of the perforation 26 are lined with plumbago or the like, a suitable mold is formed and a core to provide the openings in the axle, whereupon molten metal is poured within the mold and the axle thus is cast within the roller, the plumbago or other like substance preventing the destruction of or injury to the roller, and preventing the union of the metal of which the axle is formed and the roller. By this method a very simple and efficient side bearing can be made and one in which both lateral oscillation or adjustment of the roller is provided for as well as vertical adjustment, all to meet varying conditions in car structures and in service conditions thereon.

I claim:

1. In a side bearing for railway cars, the combination with a retaining member, of a one-piece roller and an axle therefor, the roller having a curved inner bearing face to engage the axle and the axle having similarly curved bearing faces, the axle being removable from the roller only through destructive effort.

2. In a side bearing for railway cars, in combination: a retaining member; a one-piece roller associated therewith; an axle upon which the roller is mounted; the roller

being provided with a perforation, the said perforation being formed intermediate its ends by a curved bearing face upon the roller, the axle being provided with a spherical bearing member upon which the roller may oscillate laterally.

3. In a side bearing for railway cars, an axle having a spherical bearing portion, a one-piece roller partially surrounding said spherical bearing portion, and a retaining member, the axle being provided with trunnions extended from its spherical portion, said trunnions being supported in the base member.

4. In a side bearing for railway cars; an axle having a spherical bearing portion; a one-piece roller partially surrounding said spherical bearing portion; and a retaining member; the axle being provided with trunnions extended from its spherical portion, said trunnions being supported in the base member and having vertical adjustment therein.

5. In a side bearing for railway cars; a retaining member; a roller therefor and an axle for mounting the roller in the base

member; the roller having an axial perforation to receive the axle, the axle having a larger diameter than the ends of said perforation and being cast in said perforation.

6. In a side bearing for railway cars, in combination: a retaining member; an axle mounted therein; a roller upon said axle and having lateral oscillating movement thereon; the roller having an axial perforation, the axle having a central spherical bearing portion of larger diameter than the ends of said perforation and being cast within said perforation.

7. In a side bearing for railway cars: a base member; a roller associated therewith; a spherical bearing member within the roller partially surrounded thereby; and trunnions extended from said spherical bearing member to engage the base member, the said spherical bearing member being cast within the roller.

In witness that I claim the foregoing I have hereunto subscribed my name this 19th day of May, 1917.

JOHN F. O'CONNOR.