

S. HANSSON & I. MOELLER.
 ROLLER SIDE BEARING.
 APPLICATION FILED APR. 20, 1914.

1,121,624.

Patented Dec. 22, 1914.

FIG. 1

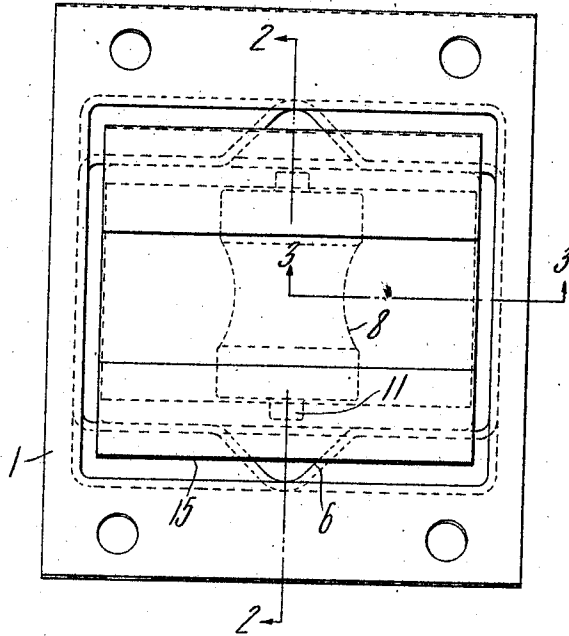


FIG. 3

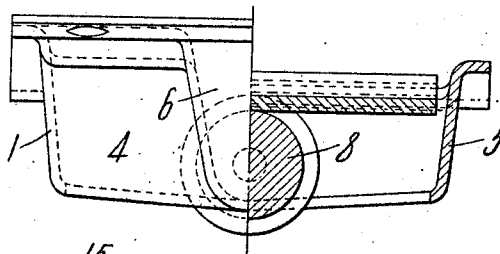
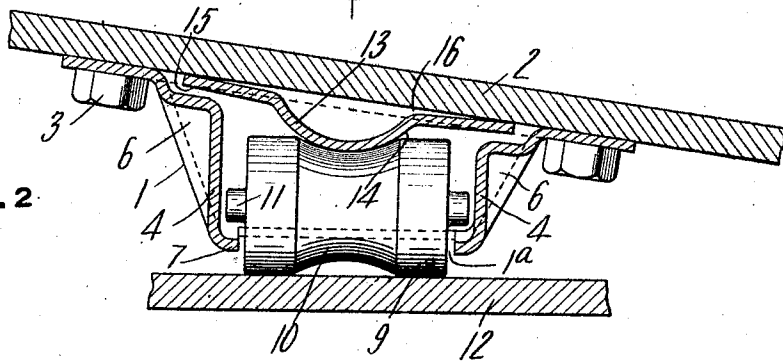


FIG. 2



WITNESSES

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ROLLER SIDE BEARING.

1,121,624.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, SOREN HANSSON and ISAK MOELLER, subjects of the King of Norway, and residents of New Glasgow, in the Province of Nova Scotia and Dominion of Canada, have invented a new and useful Improvement in Roller Side Bearings, of which the following is a specification.

This invention relates to roller side bearings for railway cars.

The object of the invention is to provide a roller side bearing which is simple and can be readily manufactured at low cost, which compensates for any inequalities, inaccuracies or variations in the taper of the bolster, in which the roller is self adjusting to the tilting movement of the car and truck bolsters relative to each other, in which the roller returns to central position in the housing by gravity, and which produces a cushioning effect to avoid bad results of shock and jar when the bolsters come together.

The invention comprises the construction and arrangement of parts hereinafter described and claimed.

In the drawings, which represent one embodiment of the invention, Figure 1 is a plan view; Fig. 2 is a cross section on the line 2-2 Fig. 1; and Fig. 3 is a view partly in side elevation and partly in longitudinal section on the line 3-3, Fig. 1.

The side bearing shown comprises a housing 1 designed for attachment to the upper or body bolster, but which may be an integral part thereof if desired. Said housing is shown as formed of pressed sheet metal with its upper surface on an incline to suit the taper of the body bolster indicated at 2. Its upper portion is provided with the necessary apertures for bolts or rivets 3 for securing it to the body bolster, and the central portion of the housing is pressed downwardly to form a hollow housing having side walls 4, which are preferably pressed to form pockets 6 for strengthening the housing, end walls 5, and a flat bottom, the bottom being punched or sheared out to form an opening 1^a through which the anti-friction member hereinafter described projects and which opening leaves inturned flanges or ledges 7 on the side walls which slope downwardly toward the center from each end of the housing.

The anti-friction member, of which there may be one, two, or more as desired, one

being shown, is a roller 8, having two cylindrical end portions 9 and a concave central portion 10, the roller at its ends being provided with small trunnions 11 which travel on the ledges 7 of the housing.

The cylindrical end portions of the anti-friction roller roll either directly on the lower bolster itself or on a flat lever bearing member fixed thereto and indicated at 12. The upper bearing surface consists of a rolled or pressed metal plate member 13, which is bent longitudinally between its side edges into channel or trough form, to produce a convex lower surface 14, which is contacted by the concave portion 10 of the anti-friction roller. Said bearing plate is wider than the distance between the side walls 4 of the housing and its side edges project into pockets 15 in the upper portion of the housing and thereby retain said plate in the housing. The two portions of the bearing plate on either side of the channel shape central portion are inclined with respect to each other downwardly and inwardly toward the channel shaped central portion, so that a very material clearance is left between the middle portion of said plate and the upper bolster member, as indicated at 16. Normally, or when the car is traveling on a straight track the anti-friction roller is supported by its trunnions 11, which rest on the ledges 7, and is out of contact with the lower bolster member. Under these conditions the roller travels on its trunnions to central position in the housing so that it is self-adjusting.

The end walls 5 of the housing form positive stops which limit travel of the roller in each direction in the housing. When the car body comes down on the truck bolster as in rounding a curve, the anti-friction member is lifted off from the ledges 7 and contacts with the upper bearing member 13. The concavity 10 of the roller and the convex roller surface of the upper bearing member compensate for the relative tilting movement between these two members as they move vertically with respect to each other, and also for variations in the taper of bolsters to which the bearing may be applied. The roller rolls along the upper bearing member toward either end of the housing and when the bolsters separate returns to central position as before described.

Since the upper member contacts with the

car bolster only at its side edges, it forms in effect a cushion or spring and yields slightly when contacted by the roller and thereby avoids bad effects of shock and jar when the bolsters come together.

The bearing described is very simple and can be readily pressed from sheet or plate steel or other metal. It comprises but few parts and is consequently not liable to get out of order and is very durable in service.

What we claim is:

1. A roller side bearing, comprising a housing for the upper bolster, said housing being provided with an upper bearing member bent longitudinally between its edges into channel form and adapted to yield upwardly and expand laterally when the bolsters come together, and an anti-friction member having a concave surface and arranged to roll on the channel portion of the upper bearing member.

2. A roller side bearing, comprising a housing for the upper bolster, said housing being provided with side pockets, an upper bearing member whose edges project into said pockets, said member being bent longitudinally between its edges into channel form, and an anti-friction member arranged to travel longitudinally in said housing and having a concave surface arranged to roll on the channel portion of said bearing member.

3. A roller side bearing, comprising a housing for the upper bolster having end and side walls the latter of which are provided with supports, an upper bearing member in said housing arranged at each side to contact the upper bolster and bent between its edges into channel form, and an anti-friction member having trunnions traveling on said supports and arranged to cooperate with said upper bearing member, said upper bearing member being arranged to yield when the bolsters come together.

4. A roller side bearing, comprising a housing for the upper bolster, said housing having side walls provided with upper pockets and lower supports, an upper bearing member in said housing whose side edges extend into said pockets, said bearing member being bent longitudinally into channel form, and an anti-friction member having trunnions traveling on said supports and having a concave portion traveling on said bearing member, said bearing member being arranged to yield when the bolsters come together.

In testimony whereof, we have hereunto set our hands.

SOREN HANSSON.
ISAK MOELLER.

Witnesses:

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RICHARD C. SOY.