

J. F. COURSON.
SIDE BEARING FOR RAILWAY CARS.
APPLICATION FILED APR. 13, 1908.

931,681.

Patented Aug. 17, 1909.

Fig. 1.

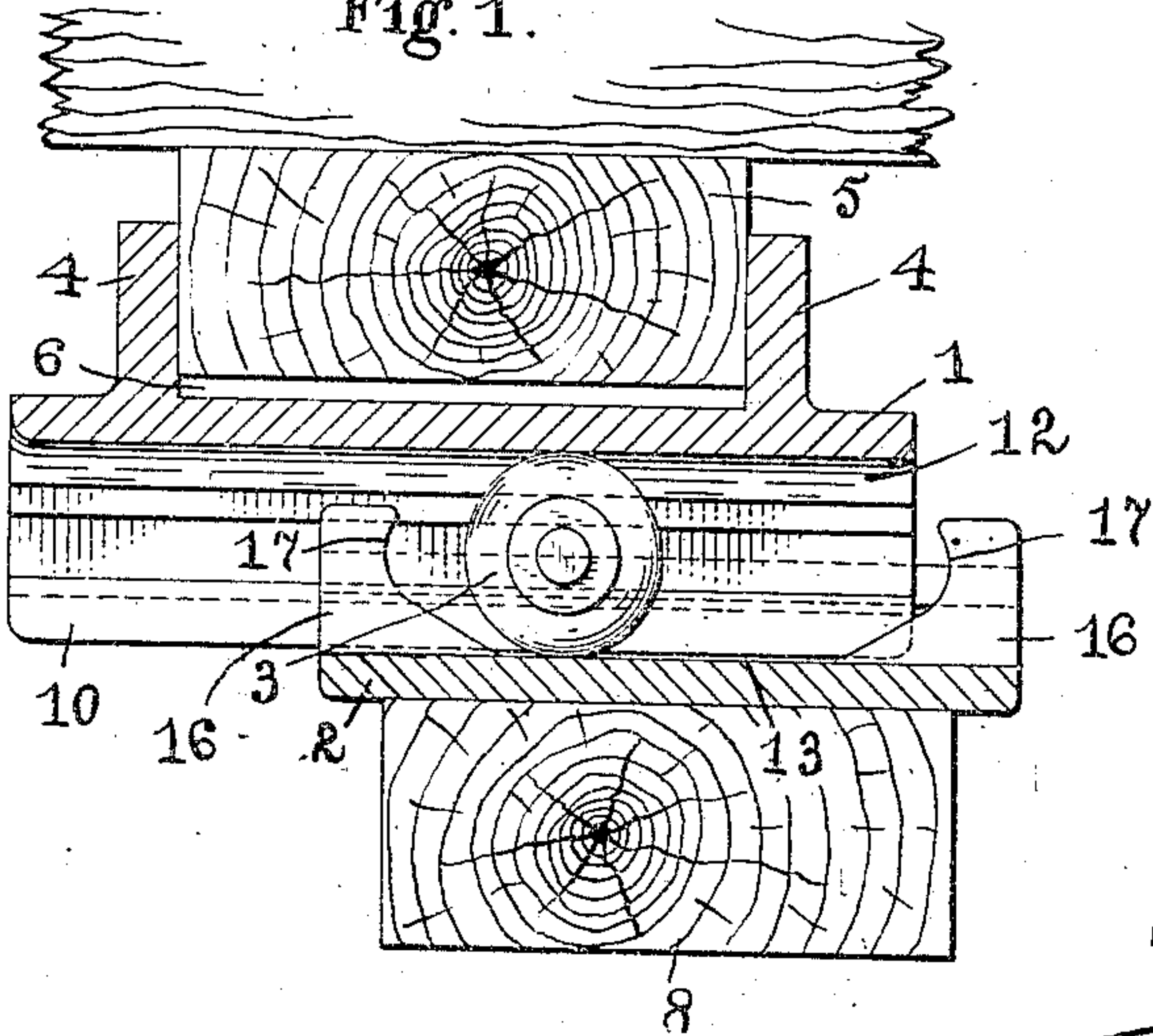


Fig. 2.

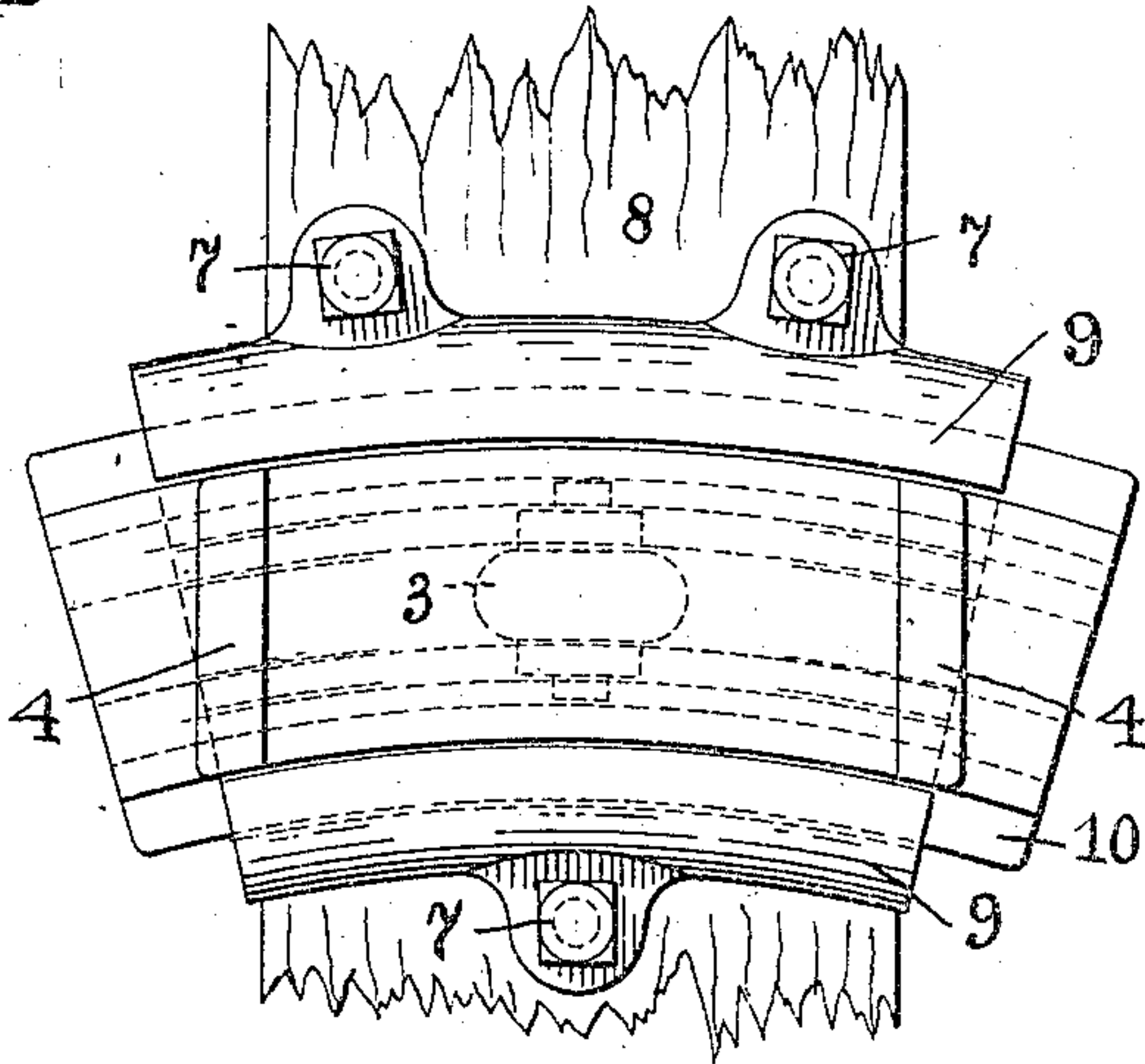


Fig. 3.

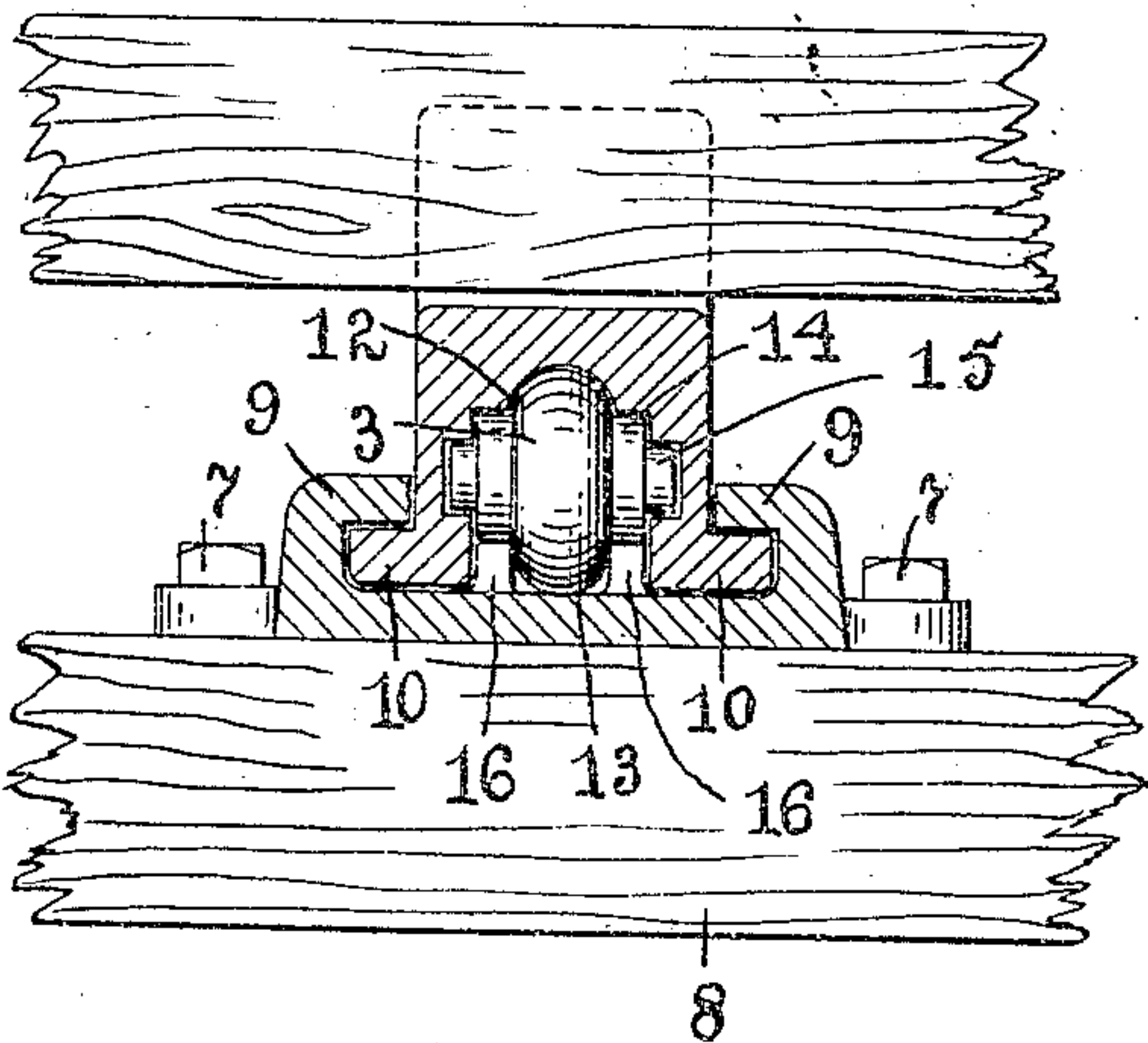
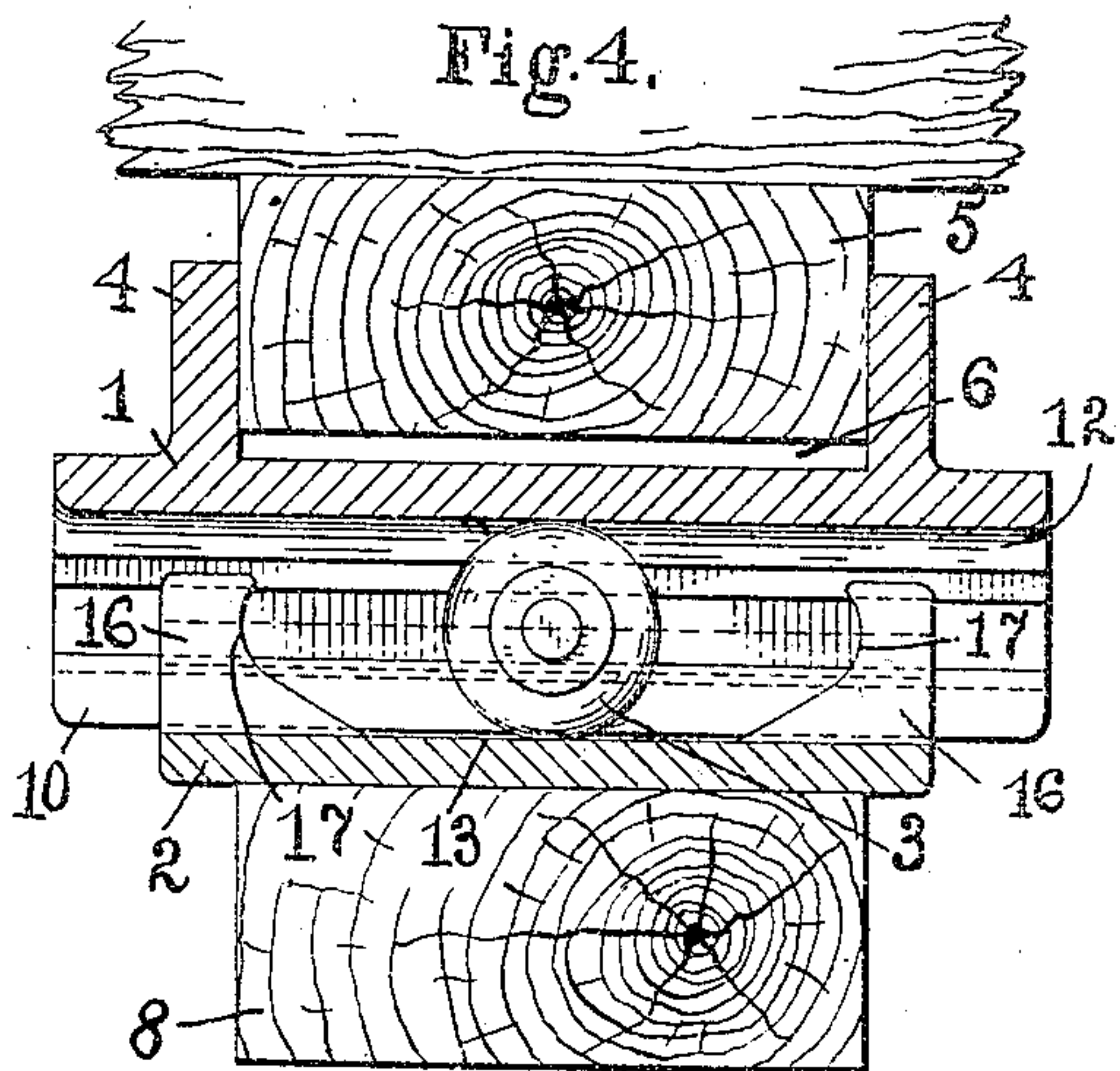


Fig. 4.



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UNITED STATES PATENT OFFICE

JOHN F. COURSON, OF PITCAIRN, PENNSYLVANIA.

SIDE BEARING FOR RAILWAY-CARS.

No. 931,631.

Specification of Letters Patent.

Patented Aug. 17, 1909.

Application filed April 13, 1908. Serial No. 426,827.

To all whom it may concern:

Be it known that I, JOHN F. COURSON, citizen of the United States, residing at Pitcairn, Pennsylvania, have invented certain new and useful Improvements in Side Bearings for Railway-Cars, of which the following is a specification.

My invention relates to side bearings for railway cars and one object of my invention is to provide a side bearing which will receive its portion of the weight of the car body when the car goes around curves or leans but which will allow clearance between the body bolster and the side bearing when the car is upright or is running on a straight road, the weight under these latter conditions being taken entirely by the center plate. When the car goes around curves or leans however, the side bearing will allow the proper movement between the truck bolster and the body bolster without friction.

In carrying out my invention I aim to provide a structure which may be readily applied to any existing form of car and which will be of simple and inexpensive form.

In the accompanying drawings, Figure 1 is a vertical sectional view across the truck bolster and body bolster with my invention applied thereto, this also being shown in section. Fig. 2 is a plan view of the invention with the body bolster removed. Fig. 3 is a transverse sectional view through the invention, the body and truck bolster being shown in side elevation. Fig. 4 is a view similar to Fig. 1 with the parts in a slightly different position.

This improved side bearing is composed of three pieces. The top section 1, a bottom section 2 and an intermediate roller 3. The top section is adapted to connect with the body of the car for which purpose it has upwardly extending flanges or lugs 4 to embrace between them the body bolster 5. This is the only means of connection between the side bearing and the body bolster, and a clearance is left at 6 between the top section 1 and the bottom of the body bolster for a purpose hereinafter set forth. The lower section 2 is bolted as at 7, to the truck bolster 8. This lower section has longitudinally extending flanges 9 embracing flanges 10 on the lower edge of the upper section or member 1.

From Fig. 2 it will be seen that both sec-

tions are curved longitudinally, the curvature being on the arc of a circle struck from the center bearing of the car so that as the truck turns in relation to the car the members 1 and 2 move one in relation to the other longitudinally. In order that this movement may take place without friction, I provide the anti-friction roller 3, which finds a bearing in the groove 12 within the upper member, and upon the plain face 13 of the lower section or member. The roller has laterally extending projections or pintles 14 and these are reduced at 15 to provide further laterally extending projections, these finding guiding bearings in grooves in the inner side walls of the section or member 1. The lower section 2 has upwardly projecting stops 16 having curved stopping surfaces 17, these being in line with the projections 14 as shown in dotted lines in Fig. 2. By this means the roller is kept in place but is allowed movement from end to end of the lower section and of the upper section when the car is going around curves.

It will be noticed that the top section is not fastened to the body bolster being retained simply by the two flanges 4. This allows clearance at 6 between the body bolster and the side bearing so that the weight of the car under normal conditions rests on the center plate, the side bearing being inactive, but when the car goes around curves or leans the side bearing will receive its portion of the weight, this coming directly upon the roller, and this roller by moving between the two sections will allow the proper movement to take place between the truck bolster and the body bolster with practically no friction. The only bolts used in the device are those through the truck bolster to hold the lower section.

Of course the device may be used with either a steel car construction or a wooden frame construction. To place the device in position it is only necessary to secure the bottom section to the truck bolster, then place the roller in position in the bottom section and push the top section into the bottom section longitudinally and then let down the body bolster into position between the lugs 4.

It will be seen that by the use of the grooves and the reduced extensions 15 the roller is carried by the top section of the device. This roller therefore is confined within this top section and it is kept in place

and not allowed to twist or bind in its housing by reason of the structure above described.

I claim as my invention:—

5 1. In combination a truck bolster, a body bolster, a lower member attached to the truck bolster, an upper member having flanges embracing the body bolster but with clearance between the body bolster and the said
10 member, and a roller between the said members.

2. In combination in a side bearing for railway cars, upper and lower sections or

members, a roller between the sections with means whereby said roller is carried by the upper section, said means consisting of grooves in the inner sides of the upper member, which grooves are open at their ends for the introduction of the rollers, and stops on the lower member, substantially as described. 20

In testimony whereof, I affix my signature in presence of two witnesses.

JOHN F. COURSON.

Witnesses:

CHAS. L. COURSON,

S. S. FERHEW.