

Witnesses

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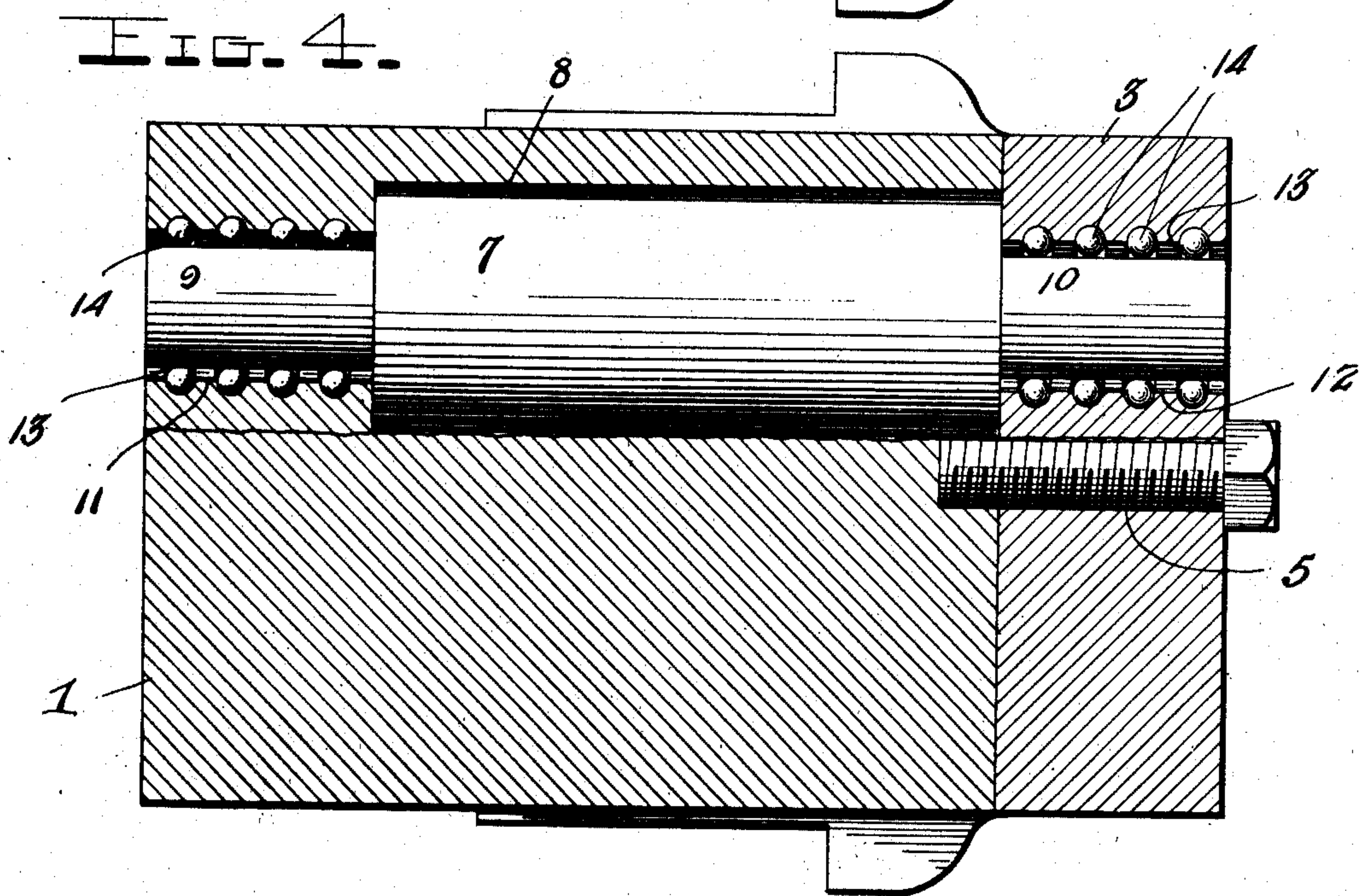
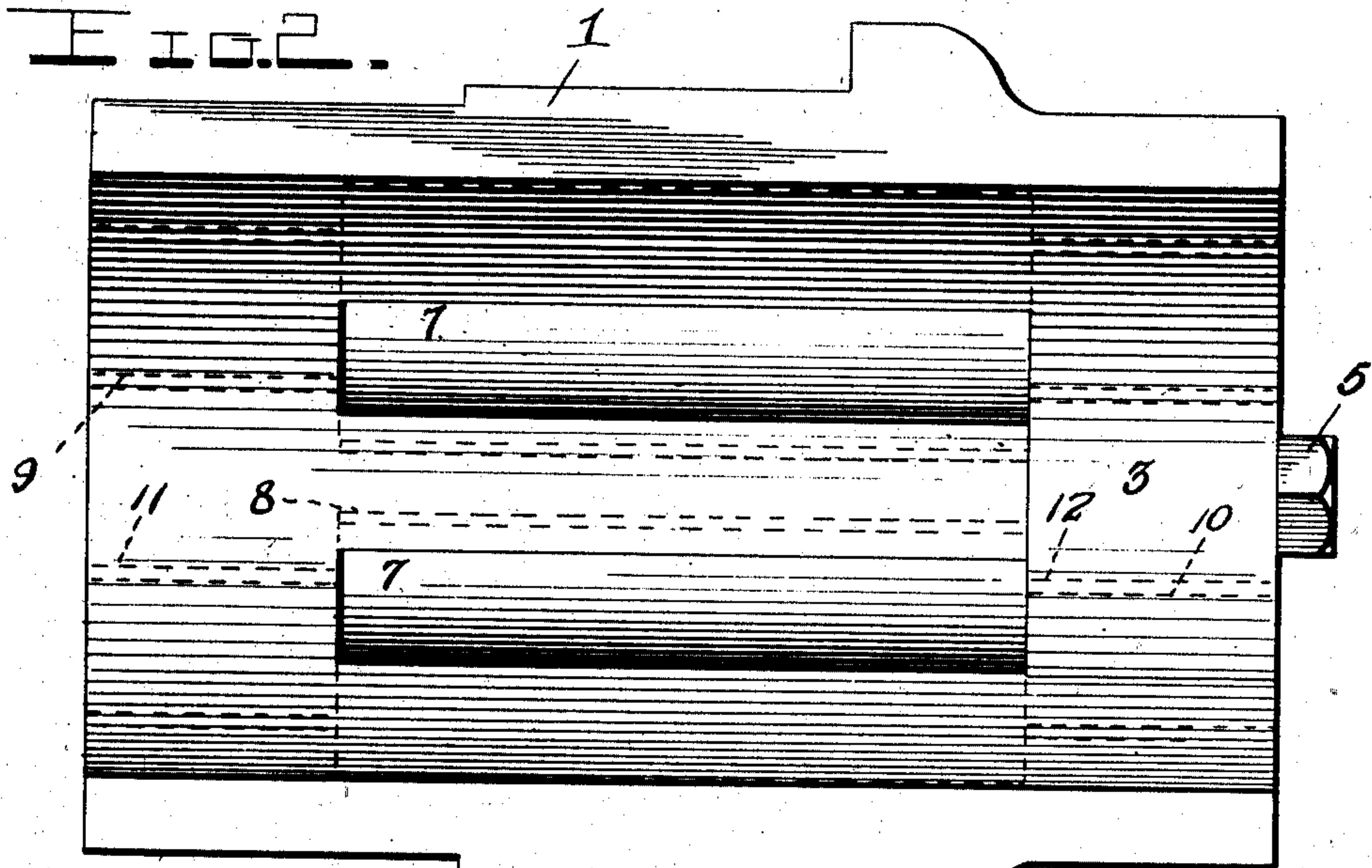
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907,324.

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JOURNAL BEARING.
APPLICATION FILED JULY 27, 1908.

Patented Dec. 22, 1908.
2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHARLES DUNNING, OF NEW ORLEANS, LOUISIANA.

JOURNAL-BEARING.

No. 907,324.

Specification of Letters Patent.

Patented Dec. 22, 1908.

Application filed July 27, 1908. Serial No. 445,480.

To all whom it may concern:

Be it known that I, CHARLES DUNNING, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Journal-Bearings, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in journal bearings for railway cars and the like.

The object of the invention is to provide a simple and practical anti-friction roller bearing which may be readily substituted for the ordinary bearings now in general use on steam and electric railway cars, street cars, and similar vehicles.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the improved journal; Fig. 2 is a bottom plan view; Fig. 3 is a front end elevation; Fig. 4 is a horizontal section taken along the line 4—4 in Fig. 3; and Fig. 5 is a vertical transverse section.

The improved journal bearing comprises a body 1 which is preferably similar in size and shape to the ordinary journal bearing now in use so that it may be readily substituted for the same; and it is composed of two sections 2, 3, the latter of which is adapted to fit in a recess 4 in one end of the former and to be retained therein by a screw, bolt or similar fastening 5. Formed in the bottom of the body 1 is the usual semi-cylindrical recess 6 to receive the journal or axle but the latter, instead of contacting the wall of said recess, is engaged by two anti-friction rollers 7 arranged in cylindrical cavities 8 formed in the inner portion of the section 2 and having portions in communication with the recess 6 so that the peripheries of said rollers project into the latter, as clearly shown in Fig. 5. At the ends of the rollers 7 are reduced trunnions 9, 10, the former of which are disposed in openings 11 formed in the closed end of the section 2 concentric with the cavities 8. The other trunnions 10 are arranged in similar openings 12 formed in the other section 3, which latter, as above stated, is removably arranged in the recess 4 so as to permit of the insertion of the rollers 7 in the cavities 8 and of their removal therefrom. It will be noted

that the recess 4 is in the form of a transverse channel extending across one end of the section 2 of the body and that the section 3 closes the open ends of the cavities 8. When the section 3 is in position and secured by the screw 5, its openings 12 are concentric with said cavities 8. Formed in each of the openings 11, 12 is a series of annular grooves or raceways 13 to receive annular series of anti-friction bearing balls 14, which latter engage the trunnions or journals 9, 10, as shown more clearly in Fig. 4 of the drawings.

From the foregoing it will be seen that the improved bearing may be readily substituted for one of the ordinary journal bearings now in general use on railway cars and the like, and that it will greatly reduce friction and last much longer than the ordinary journal bearings.

It will be noted that in the event of one of the rollers breaking there will be no material damage resulting because the shape of the recess 6 is such as to serve as a bearing surface for the journal or axle.

Having thus described the invention what is claimed is:

1. The herein described journal bearing for a railway car, comprising two sections, one being formed in its bottom with a longitudinal recess to receive the journal and with roller receiving cavities in communication with said recess, said cavities being open at one end and closed at the other end, the closed ends being formed with concentric openings or recesses to receive the trunnions of said rollers, the other section of the bearing being adapted to close the open end of said cavities and being formed with openings or recesses concentric with said cavities to receive the trunnions at the opposite ends of said rollers, a fastening uniting the two sections, and cylindrical rollers arranged in the cavities of the first mentioned section and formed at its ends with trunnions arranged in said concentric openings or recesses in both sections.

2. The herein described journal bearing for a railway car comprising two sections, one being of substantially rectangular form and having in its bottom a longitudinal recess to receive the journal, said section also having a transverse recess at one end and cavities formed in its intermediate portion and in communication with both of said recesses, the closed ends of said cavities being formed with openings or recesses, the other

section of the bearing being shaped to enter the transverse recess in the first mentioned section to close the open ends of said cavities and being formed with openings or recesses 5 concentric with said cavities, a bolt detachably uniting the two sections, and anti-friction rollers arranged in the cavities of the first mentioned section and having trunnions at their ends arranged in said concentric openings or recesses in the two sections. 10

3. A journal bearing comprising a body having one section formed in its bottom with a recess to receive the journal, in one end with a transverse recess and in its interior 15 part with cavities in communication with both of the first mentioned recesses, the closed end of said body having openings concentric with said cavities and formed in their walls with annular raceways, a second sec-

tion for the body adapted to fit in the recess 20 in the end of the first mentioned section and formed with openings concentric with said cavities and having in their walls annular raceways, means for fastening the two sections of the body together, anti-friction rollers 25 arranged in said cavities and having at their ends trunnions disposed in the openings in said sections of the body, and annular series of anti-friction bearing balls arranged in said raceways of the two sections 30 and engaged with said trunnions, substantially as described.

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

CHARLES DUNNING.

Witnesses:

C. N. HERO,

ANDREW HERO.