

No. 730,769.

PATENTED JUNE 9, 1903.

J. M. HOPKINS.
CAR JOURNAL BEARING.
APPLICATION FILED JAN. 19, 1903.

NO MODEL.

Fig. 1.

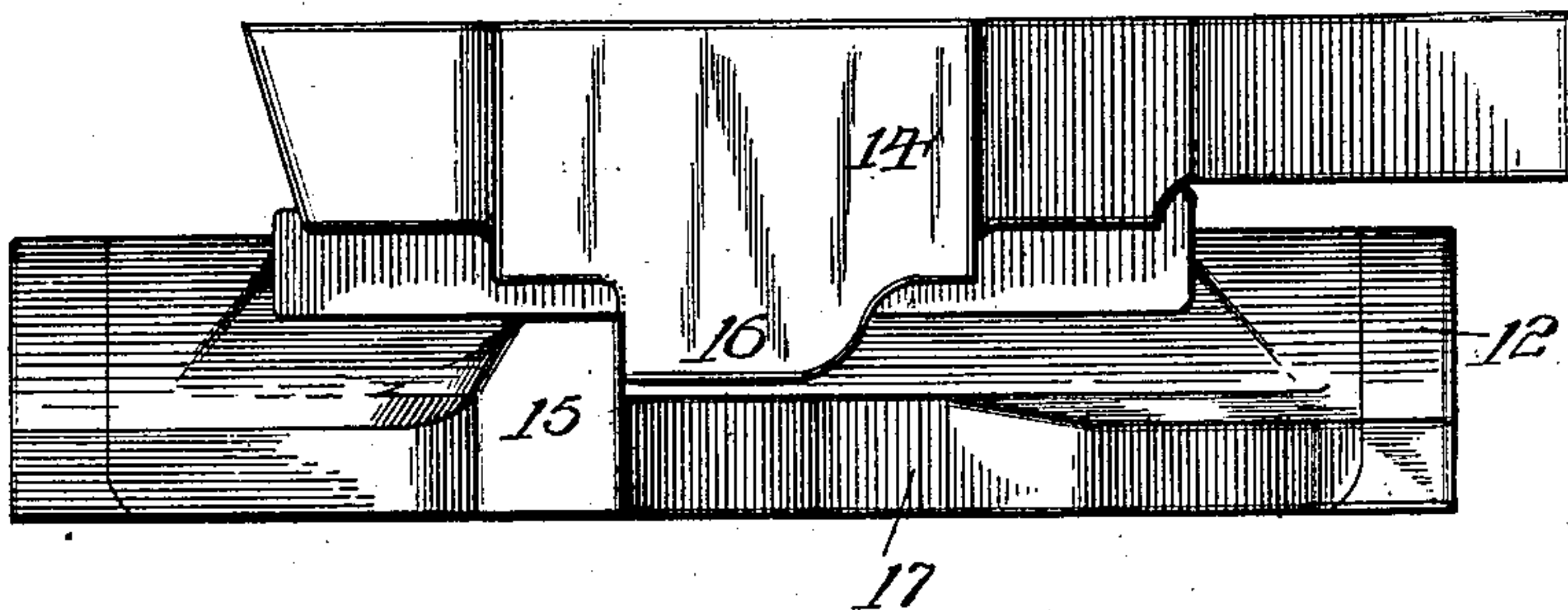


Fig. 2.

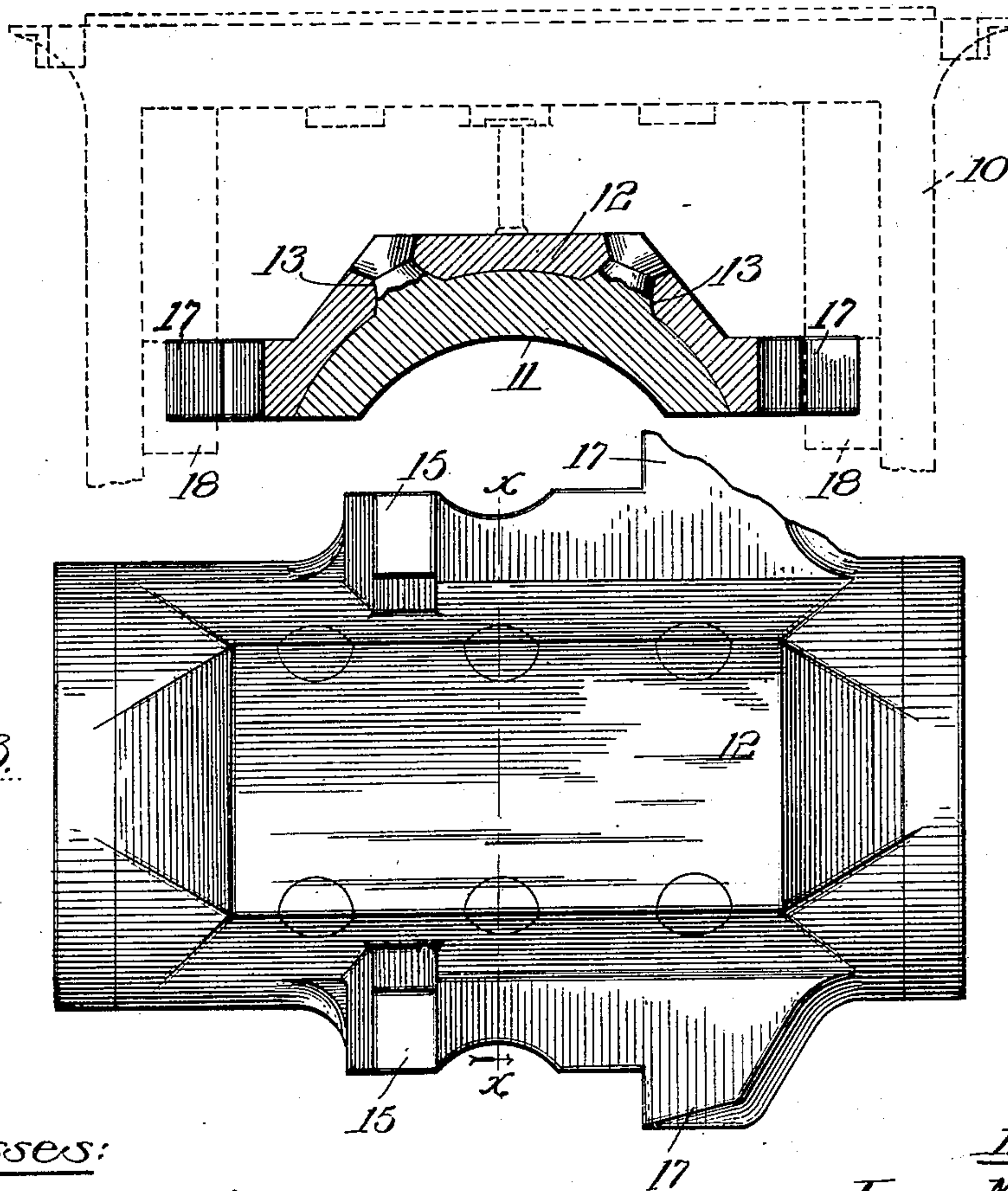
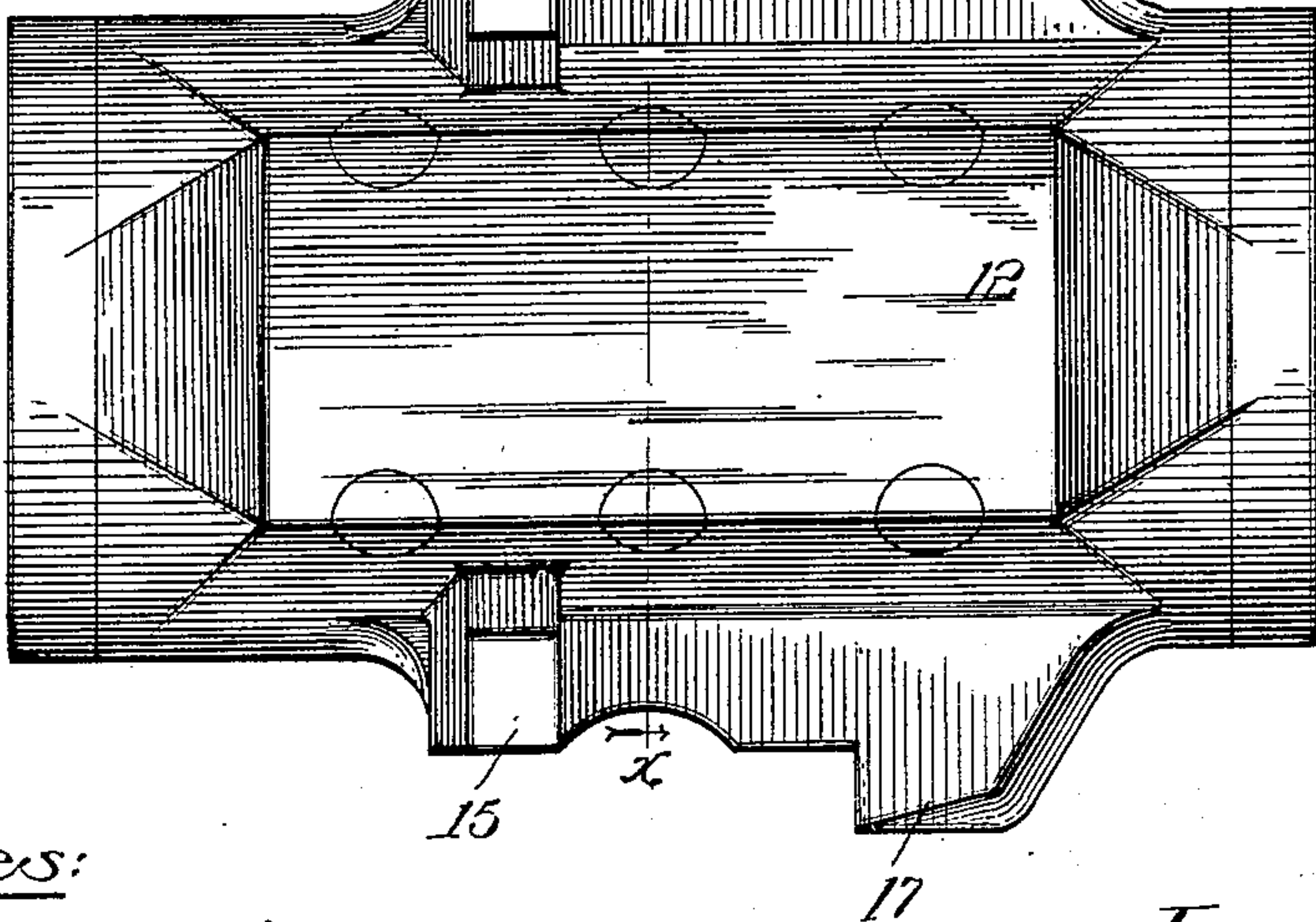


Fig. 3.



Witnesses:

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CAR-JOURNAL BEARING.

SPECIFICATION forming part of Letters Patent No. 730,769, dated June 9, 1903.

Application filed January 19, 1903. Serial No. 139,588. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. HOPKINS, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Car-Journal Bearings, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

10 This invention relates generally to bearings, and particularly to a novel form of bearing for car-journals.

In order to prevent longitudinal play of the bearing or brass in common use, it has been
15 proposed to provide the same with lugs adapted to engage suitable lugs projecting from the sides of the car-journal box and other lugs on the wedge. These bearings as generally constructed have been made en-
20 tirely of antifriction metal, such as brass or other comparatively soft metal, in order to provide a suitable wearing-surface for the car-journal; but owing to the severe strains to which they are subjected, due to the great
25 weight thereon, the sudden change and distribution of pressure caused by the swaying of the car and the end thrusts caused by the side movement of the car in turning curves and from other causes the life of the bear-
30 ings is extremely brief, as the metal employed is not of such character as to endure the necessary wear and tear.

The present invention has for its object to provide a bearing possessing all of the ad-
35 vantages of the particular bearing referred to while overcoming the objections incident thereto; and it comprises a bearing of anti-friction metal, such as brass, having a back of iron or similar wear-resisting metal pro-
40 vided with lateral wedge-engaging lugs designed to prevent longitudinal play of the same.

The invention consists of the combination and arrangement of parts hereinafter partic-
45 ularly described, specifically designated in the claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a car-jour-
50 nal brass constructed in accordance with my invention and illustrated in connection with a wedge. Fig. 2 is a section on the line xx of Fig. 3, a detail of the journal-box being

shown in dotted lines; and Fig. 3 is a plan of the bearing.

The bearing herein described may be used 55 with any car-journal box of conventional form, one being indicated in Fig. 2 in order to show the disposition of the brass and wedge and is designated 10, and the car-journal (not shown) may also be of ordinary construction. 60

The bearing or brass consists of two parts or elements—viz., a face 11, curved to conform to the contour of the journal and made of an antifriction metal, preferably brass, to pro- 65 vide a suitable wearing-surface for the journal, and a back 12, of a relatively harder or more durable metal, such as iron, designed to receive the severe thrusts to which the bearings are subjected. The bearing 10 and its back 12 are secured together, so as to form 70 practically one element and in such manner as to prevent or avoid play of one upon the other. The desired end may be attained in the manner illustrated and clearly shown in Fig. 2. As there shown the back is provided with 75 one or more sets or pairs of upwardly-diverging recesses or apertures 13. In making the bearing this back is set up in the mold in such manner that the brass or other metal forming the bearing 11 covers the face of the back 80 and enters the recesses or apertures in the latter, thereby securely wedging the two parts together. After removal from the mold the bearing is shaped up and smoothed as nec- 85 essary. In order to prevent longitudinal movement of the bearing relatively to the wedge, which is shown in Fig. 1 and designated 14 and may be of any desired construction, the back is provided with upstanding 90 lugs 15, adapted to engage suitable lugs 16 on the wedge, and also with lateral lugs 17, which engage lugs 18 on the side walls of the box 10, as seen in Fig. 2. The lugs 15 and 17, one pair of each being at each side of the brass, are spaced such a distance apart that each 95 pair of the wedge and box-lugs 16 and 18 fit between the same, so as to hold the bearing against material longitudinal movement, and as the bearing-lugs are integral with the back 12, which is of a durable metal, they are well 100 adapted to resist the wear due to the rubbing and thrusts of the wedge and box thereagainst, thereby relieving the softer bearing metal and materially prolonging the life of the

same. If the bearing is made of brass and the back of iron, this will be a matter of considerable consequence, inasmuch as brass is comparatively expensive, whereas iron is
5 much cheaper.

I claim as my invention—

As an article of manufacture, a car-journal bearing comprising an iron back having inte-

gral lateral box-engaging lugs and integral upstanding wedge-engaging lugs and a bearing-face of brass permanently fixed to the back.

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Witnesses:

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