

No. 846,608.

PATENTED MAR. 12, 1907.

H. M. PERRY.  
SIDE BEARING FOR CARS.  
APPLICATION FILED OCT. 23, 1905.

2 SHEETS—SHEET 1.

Fig. 4.

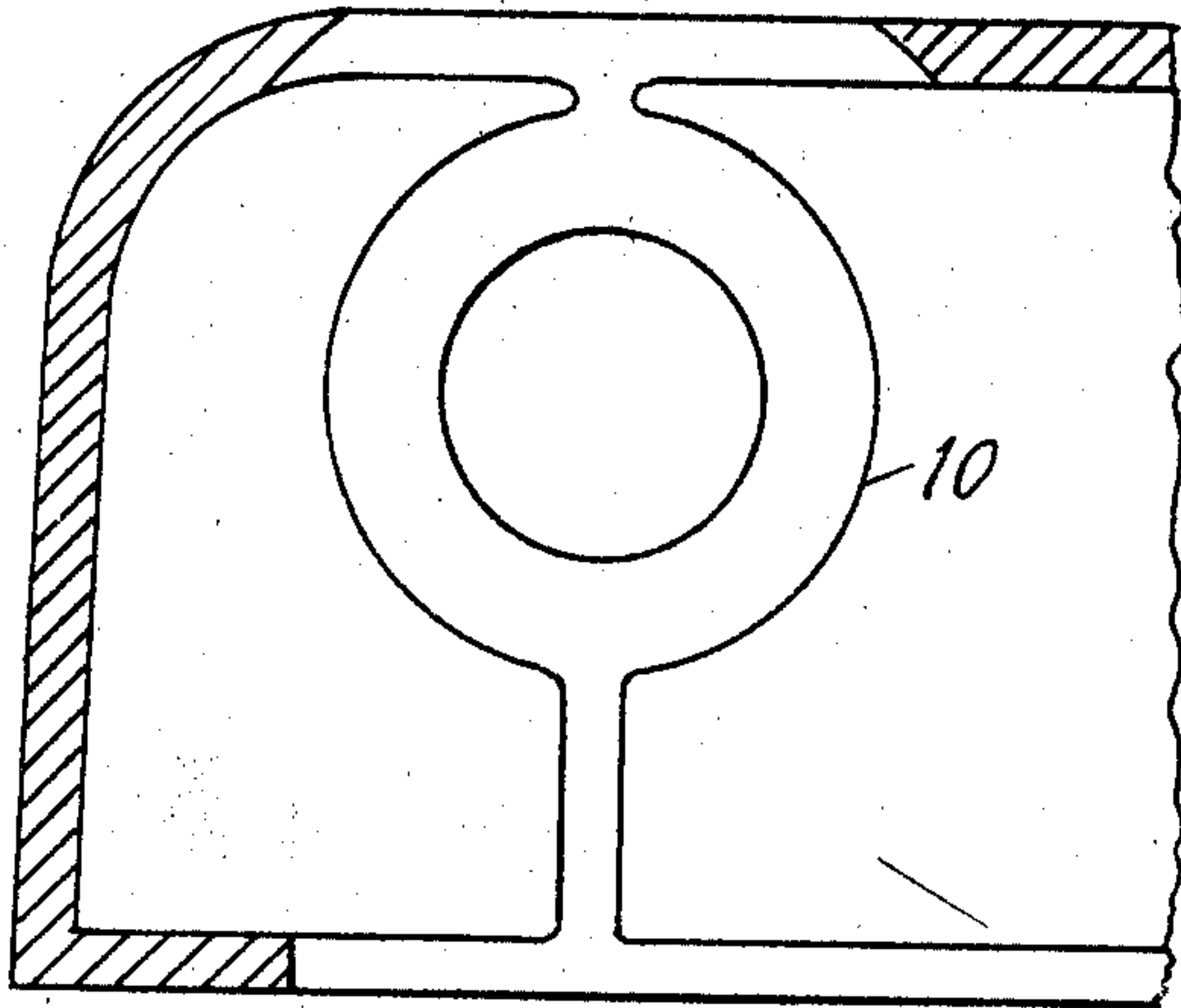
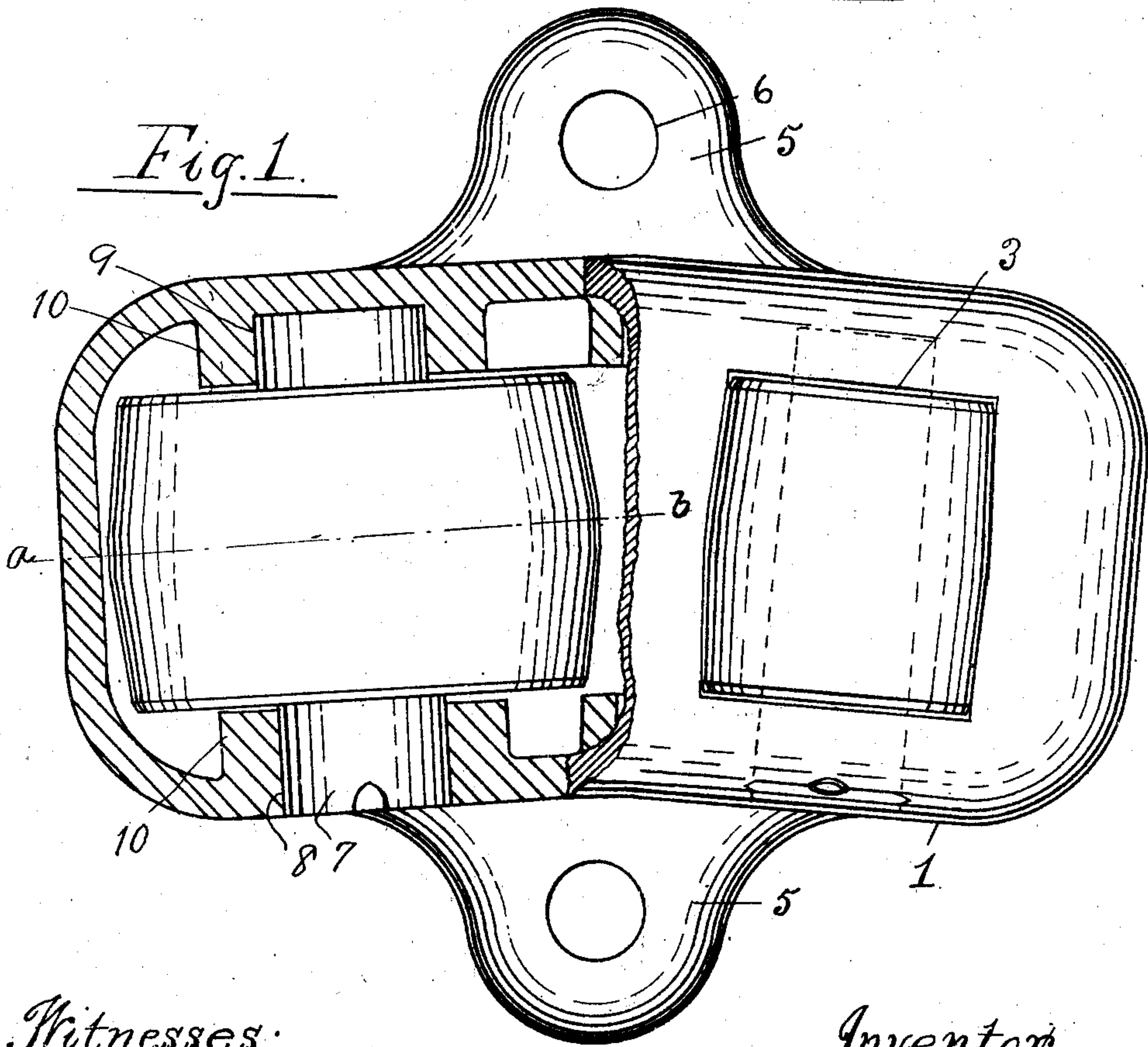


Fig. 1.



Witnesses:  
Emilia Rose  
Frank L. Belknap.

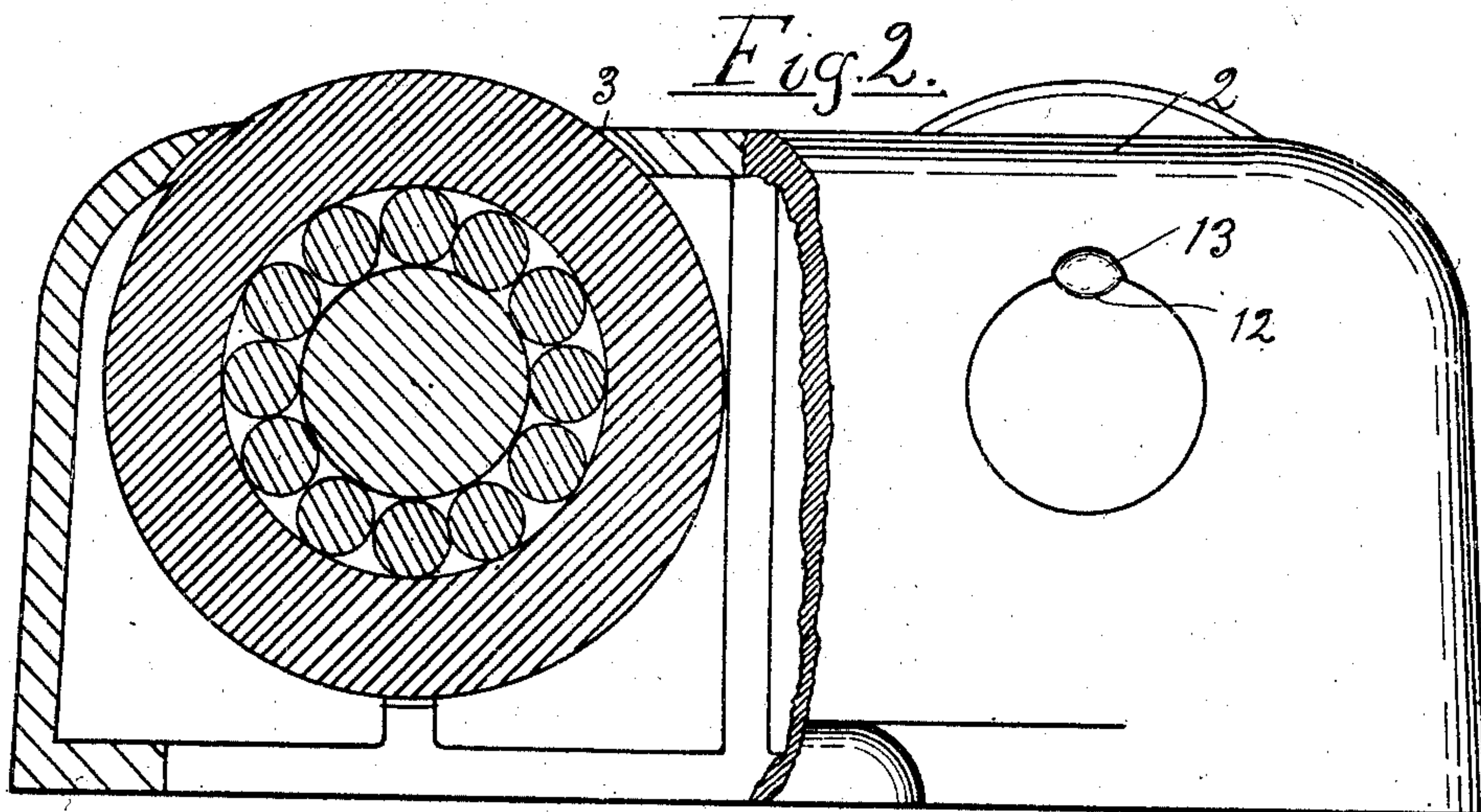
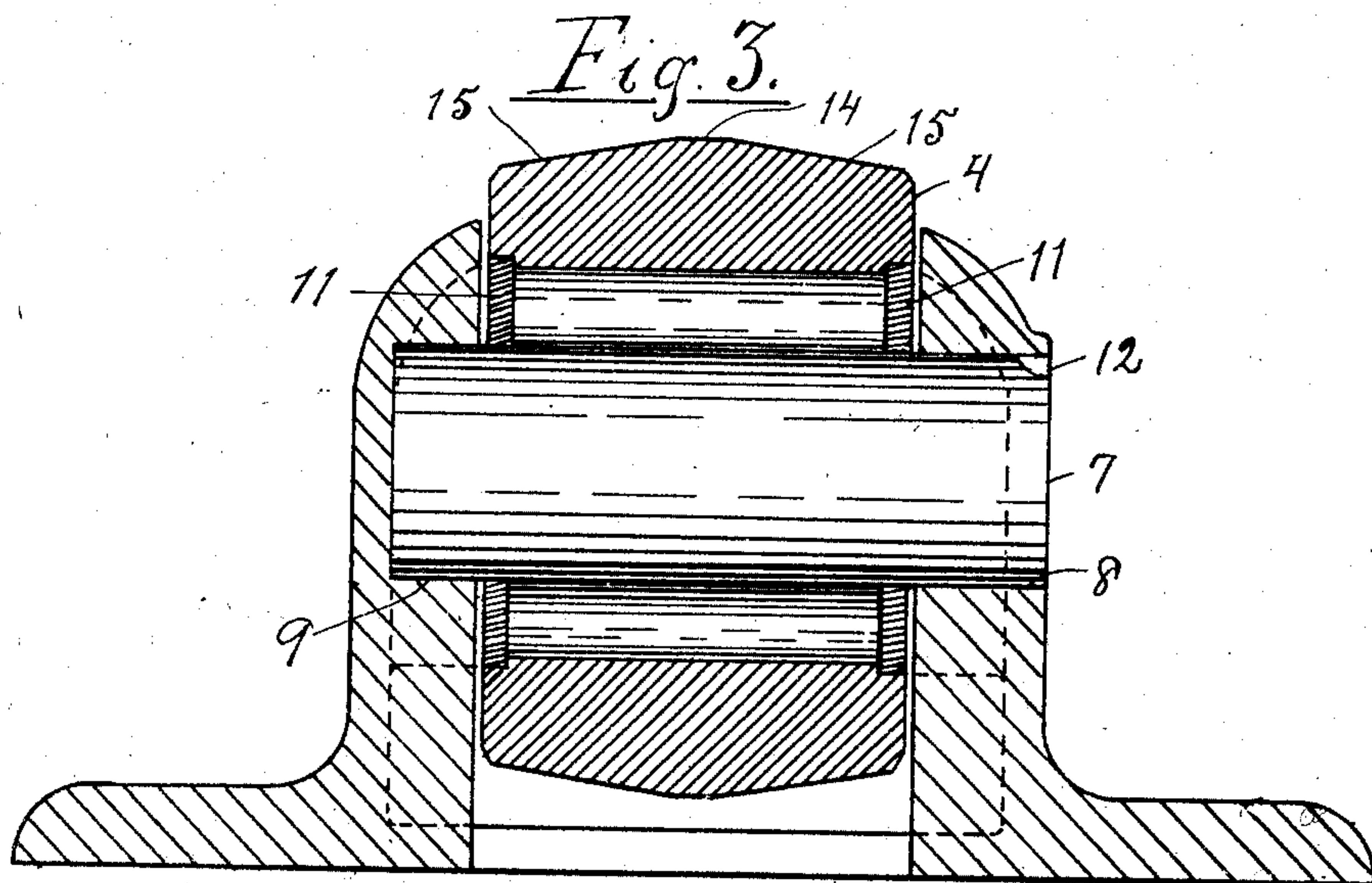
Inventor,  
Hubert M. Perry.  
By Albert N. Harvey  
Att'y

No. 846,608.

PATENTED MAR. 12, 1907.

H. M. PERRY.  
SIDE BEARING FOR CARS.  
APPLICATION FILED OCT. 23, 1905.

2 SHEETS—SHEET 2.



Witnesses:  
Emilie Rose  
Frank L. Delenap.

Inventor,  
Hubert M. Perry  
By Albert N. Haves  
Atty.



# UNITED STATES PATENT OFFICE.

HUBERT M. PERRY, OF JOLIET, ILLINOIS, ASSIGNOR TO HENRY D. LAUGHLIN, OF CHICAGO, ILLINOIS.

## SIDE BEARING FOR CARS.

No. 846,608.

Specification of Letters Patent.

Patented March 12, 1907

Application filed October 23, 1905. Serial No. 283,950.

*To all whom it may concern:*

Be it known that I, HUBERT M. PERRY, a citizen of the United States, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Side Bearings for Cars, of which the following is a specification.

This invention relates to improvements in side bearings of the antifriction type, and has for its object to provide improvements in the details of construction, the same general type of side bearing being shown and described in my prior patent, No. 806,360, issued December 5, 1905.

The objects of the invention, more specifically stated, are to provide a construction in which a single-piece casting forms at once a complete housing of the antifriction-rollers in so far as the latter are inclosed, to provide an improved construction which enables the rollers or supporting-wheels to be seated within the housing with small portions only of their peripheries protruding without providing a removable top for the housing, to provide an improved construction which enables the base of the bearing to more readily accommodate itself to the supporting-timber upon which it is mounted and avoids liability of breaking the bearing by reason of inaccurate fitting of the base to its support, to provide a simple and efficient means for securing the journal-pins upon which the supporting-rollers rotate in place without resorting to threaded or other expensive connections, and in general to provide an improved construction of the character referred to.

To the above ends the invention consists in the matters hereinafter described, and more particularly pointed out in the appended claims.

The invention will be readily understood from the following description, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view, with parts in horizontal section, taken in a plane coincident with the axis of the journals of a preferred embodiment of the invention. Fig. 2 is a view partly in side elevation and partly in central longitudinal vertical section. Fig. 3 is a transverse vertical sectional view taken through the axis of one of the main supporting-wheels. Fig. 4 is a vertical section on

line *a b* of Fig. 1, omitting the roller and its journal-pin.

Referring to said drawing, 1 designates as a whole a box-like base member made open at its lower or base side and provided with an integral top or cover portion 2, suitably apertured, as indicated at 3 3, to permit the peripheral portions of the main supporting-rollers 4 to protrude therethrough. In the preferred construction shown the main casting is provided with laterally-opposite horizontally-projecting extensions 5, which are apertured, as indicated at 6, to receive the bolts, whereby the bearing is secured to its support.

The main supporting rollers or wheels 4, of which there are two, are mounted upon cylindrical journal-pins 7, which are arranged with their axes inclined slightly to each other, so as to respectively coincide with radii from the pivotal center of the truck. As a novel feature of construction each of these journal-pins is arranged to extend entirely through one side of the housing, as indicated at 8, and into a socket 9 in the opposite side of the housing, which extends only partly through the side wall thereof. At the points where the journals are seated in the side walls of the housing the latter are thickened or provided with annular ribs 10, which serve the double purpose of affording a larger bearing for the journal-pin and of confining the supporting rollers or wheels 4 against endwise movement.

The interior of each supporting-wheel is larger than the journal-pin upon which it is supported, and a series of small cylindrical rollers 17 is arranged to occupy the space between said parts and constitute roller-bearings between the same. The length of the small rollers is slightly less than the axial length of the main wheel or roller within which they are arranged, and in order to confine the small rollers in position washer-like plates 11 are seated in each end of the larger roller concentric with the journal-pin, as seen clearly in Fig. 3. The journal-pins are fixedly seated in the housing and are conveniently fastened in position by forming a small recess in the peripheral portion of the outer end of the pin, as indicated at 12, and after the pin is seated in the housing the adjacent perimeter of the aperture is peened



down into the recess 12, as indicated at 13 of Fig. 2, so as to, in effect, rivet the journal-pin in position. This simple expedient serves at once to lock the journal-pin against rotation and to hold it against endwise movement within its seat.

As a further detail of improvement I make the peripheries of the main supporting-rollers 4 convex in cross-section, as best seen in the sectional view, Fig. 3. Preferably this convexity is provided by forming the periphery of each wheel with a central narrow cylindric portion 14 and inclining the remaining surfaces of the periphery to form slightly-conical surfaces 15. The object of this construction is to insure a better distribution of the weight upon the journal-pins and in this manner better distribute the weight to the main supporting-casting.

The construction described has, among others, the following advantages, namely: It dispenses with the necessity of making a removable top plate for the housing, thereby lessening the cost, and it also provides a convex or turtle-back housing upon which dirt and detritus are not likely to accumulate. It provides ample space for all dust and dirt to accumulate in the bottom of the housing without interfering with the freedom of movement of the supporting-wheels, and when the housing or base member is supported upon a timber which is apertured to correspond with the open bottom of the housing, as will usually be the case, the dust and dirt fall through without lodging. The parts may be assembled by simply passing the supporting-rollers upwardly through the bottom of the housing and thereafter inserting and confining the journal-pins, and when thus assembled the housing is completely sealed except for the necessary working space around the protruding peripheral portions of the main rollers. The provision of the reinforcing-ribs 10 insures ample strength in the housing or base casting without at the same time unnecessarily increasing the weight and cost of the latter, and in general the construction is such as to afford high efficiency at a minimum cost.

I claim as my invention—

1. A side bearing for cars comprising a box-like base member provided with an integral cover portion apertured for the periphery of the main supporting-roller and having an opening at its lower side through which the main roller may be inserted, a journal-pin mounted thereon, and an open-ended main roller mounted upon said journal and having its periphery protruding through and above the cover portion of the housing, a series of rollers mounted within said main roller around said journal-pin, and a pair of washers mounted within the ends of said main roller concentrically with the journal-pin and confining the smaller rollers.

2. A side bearing for cars comprising a box-like base member provided with an integral cover portion apertured for the periphery of the main supporting-roller and having an opening at its lower side through which the main roller may be inserted, a journal-pin mounted thereon, and an open-ended main roller mounted upon said journal and having its periphery protruding through and above the cover portion of the housing, said journal-pin being inserted through one side of the housing and into but not through the opposite side of the housing, and suitable means for confining said journal-pin immovably in place.

3. A side bearing for cars, comprising a box-like base member provided with an integral cover portion apertured for the periphery of the main supporting-roller and having an opening in its lower side through which said main roller may be inserted, said base member having comparatively light side walls, thickened journal-pin bearings formed integral with the opposite side walls in axial alinement, said thickened bearings being formed by inwardly-projecting annular bosses; and a journal-pin, the ends of which are seated within said thickened bearings.

HUBERT M. PERRY.

Witnesses:

FREDERICK C. GOODWIN,  
FRANK L. BELKNAP.