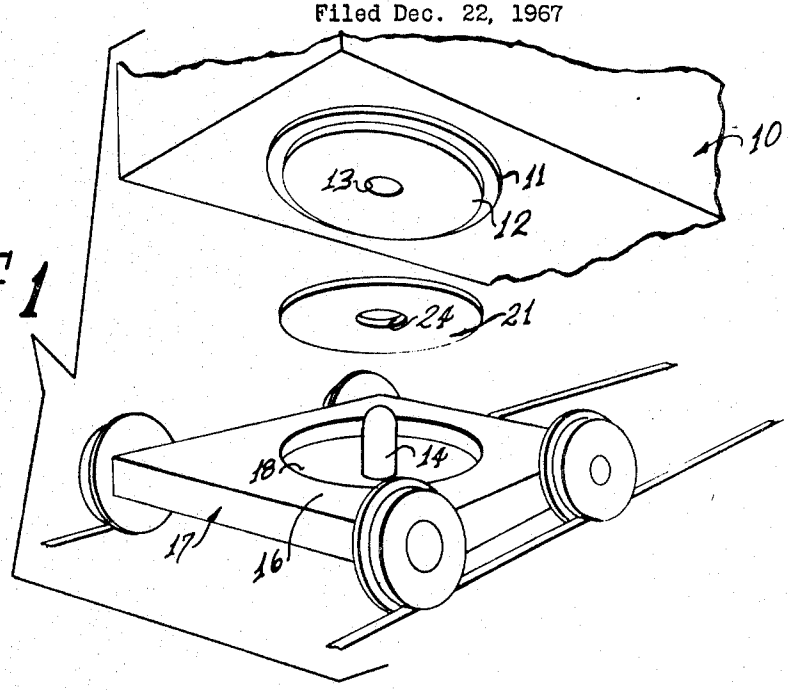
Sept. 9, 1969 J. W. GOODWYN 3,466,102

BEARING ASSEMBLY FOR RAILROAD CAR CENTER PLATE

Filed Dec. 22, 1967

FIG 1



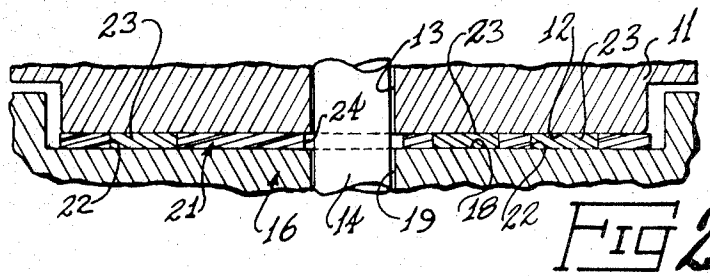


FIG 2

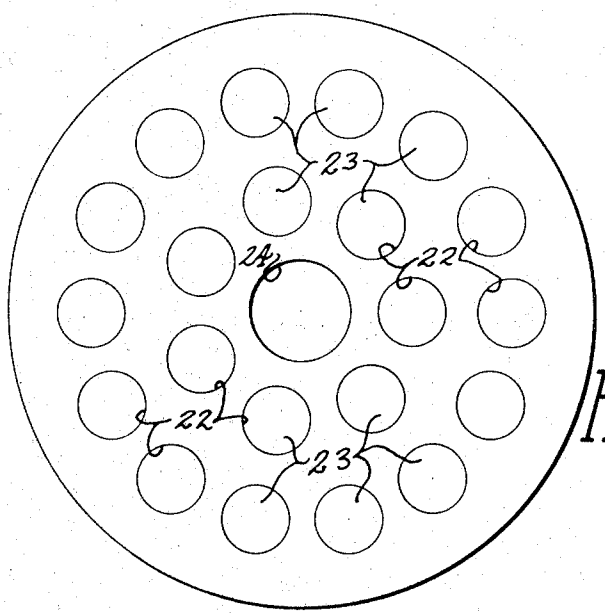


FIG 3

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BEARING ASSEMBLY FOR RAILROAD CAR CENTER PLATE

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U.S. Cl. 308—137 7 Claims

ABSTRACT OF THE DISCLOSURE

A bearing assembly embodying a resilient plate-like member disposed to fit between load carrying surfaces of a railroad car center plate and a subjacent truck center plate. A plurality of openings are provided in the plate-like member for receiving bearing pads of a high compressive strength, such as carbon-graphite, with the plate-like member retaining the bearing pads at predetermined locations for load distribution.

Background of the invention

This invention relates to a bearing assembly for a railroad car center plate and more particularly to a bearing assembly for use between the load carrying surfaces of a railroad car center plate and its subjacent truck center plate.

Heretofore in the art to which my invention relates, various type bearing assemblies have been devised for use with railroad car center plates. However, such bearing assemblies are heavy and complicated in structure and require periodic lubrication to maintain the assembly in working condition.

Brief summary of invention

In accordance with my invention, I provide a bearing assembly for use between the load carrying surfaces of a railroad car center plate and its subjacent truck center plate. The bearing assembly comprises a resilient, plate-like member which fits between the load carrying surfaces of the center plates and a plurality of openings are provided through the plate-like member for receiving bearing pads of high compressive strength such as carbon-graphite. The resilient, plate-like member serves as a retainer for the bearing pads to positively hold the pads at predetermined locations relative to each other for load distribution on the pads.

Apparatus embodying features of my invention is illustrated in the accompanying drawing, forming a part of this application, in which:

FIG. 1 is an exploded view showing a fragment of one end of a railroad car and showing the position of my improved bearing assembly relative to the car center plate and the truck center plate;

FIG. 2 is an enlarged, sectional view through the railroad car center plate and its subjacent truck center plate showing my improved bearing assembly mounted therebetween; and

FIG. 3 is a top plan view showing the plate-like web member and the arrangement of the carbon-graphite pads therein.

Referring now to the drawing for a better understanding of my invention, I show the forward end of a railroad car **10** having a center plate **11** which is provided with a load bearing surface **12**. The center plate **11** is provided with a centrally disposed opening **13** therein for receiving an upstanding center pin **14** which is carried by the center plate **16** of a truck **17**, as shown in FIG. 1. The center plate **16** is provided with a load carrying surface **18** which is adapted to rotate relative to the load carrying surface **12** of center plate **11**. The center plate **16** is provided with a centrally disposed opening **19** for receiving the pin **14**, as shown.

My improved bearing assembly comprises a plate-like web member **21** which is of a disc shape and is formed of a resilient, plastic material, such as polyethylene and the like. A plurality of spaced apart openings **22** are provided in the plate-like member **21** for receiving bearing pads **23** having high compressive strength such as mechanical carbon known as carbon-graphite. As shown in FIG. 2, the resilient plate-like member **21** fits between the center plates **11** and **16** and extends parallel to the load carrying surfaces **12** and **18**.

As shown in FIG. 2, the carbon-graphite bearing pads fit snugly within the openings **22** with the bearing pads being substantially flush with or being slightly less in thickness than the depth of the openings **22** through the plate-like member **21**. Preferably, the bearing pads **23** are of a thickness slightly less than the depth of the openings **22**. Also, the bearing pads **23** may be secured within the openings **22** by suitable means or the plate-like web member **21** may be formed about the bearing pads **23** whereby the plate-like web member **21** is bonded to the carbon-graphite pads **23**. The plate-like web member **21** is also provided with a centrally disposed opening **24** therethrough for receiving the center pin **14**.

From the foregoing description, the construction and operation of my improved bearing assembly will be readily understood. The resilient web member **21** is formed with the openings **22** therein in position for proper load distribution on the carbon-graphite bearing pads which support the load of the railroad car. The carbon-graphite bearing pads **23** are positioned within the openings **22** after the plate-like web member **21** is formed or the bearing pads **23** may be set at predetermined locations and the plate-like web member formed therearound whereby the bearing pads **23** are bonded within the plate-like web **21** at the time the web is formed. The plate-like web **21** thus serves as a retainer to hold the carbon-graphite bearing pads **23** at predetermined locations relative to each other whereby the load is distributed properly on the bearing pads **23**. That is, the entire load is transferred from the supporting surface **12** through the bearing pads **23** to the supporting surface **18** while the web **21** serves as a retainer element which also absorbs impact as the railroad car rocks from side to side during its movement along a railroad track. Accordingly, the entire load of the railroad car is supported by the small support surfaces of the carbon-graphite pads **23** whereby friction is reduced to a minimum and at the same time it is not necessary to provide a lubricant between the load support surfaces **12** and **18**.

From the foregoing, it will be seen that I have devised an improved bearing assembly for use between the load carrying surfaces of a railroad car center plate and its subjacent truck center plate. By providing spaced apart, carbon-graphite bearing pads for supporting the load and retaining the bearing pads at predetermined locations relative to each other, the load is distributed evenly on the bearing pads and the bearing pads are held in proper position relative to the load bearing surfaces **12** and **18**. By forming the plate-like web member **21** of a resilient, plastic material I not only provide a bearing retainer member which absorbs impact but also reduce greatly the overall weight of the bearing assembly. By providing carbon-graphite bearing pads **23** which are substantially flush with the surface of the plate-like web **21** or slightly less in thickness than the depth of the openings **22**, the resilient plastic material forming the web **21** is distorted slightly to position the carbon-graphite bearing pads in direct contact with the load support surfaces **12** and

18. Furthermore, by providing load supporting carbon-graphite bearing pads at predetermined locations relative to each other between the load support surfaces **12** and **18**, I eliminate entirely the necessity of adding lubricant between the bearing surfaces.

While I have shown my invention in but one form, it will be obvious to those skilled in the art that it is not so limited, but is susceptible of various other changes and modifications without departing from the spirit thereof.

What I claim is:

1. In a bearing assembly mounted between the load carrying surfaces of a railroad car center plate and its subjacent truck center plate:

(a) a resilient plate-like retainer fitting between and extending parallel to said load carrying surfaces,

(b) there being a plurality of openings through said plate like retainer with each of said openings extending through opposite surfaces of said plate-like retainer, and

(c) load carrying bearing pads of high compressive strength fitting within said openings with said load carrying bearing pads being substantially no greater in thickness than the depth of said openings through said plate-like retainer and with said plate-like retainer retaining said load carrying bearing pads at predetermined locations relative to each other for load distribution.

2. A bearing assembly as defined in claim **1** in which the load carrying bearing pads are secured to said plate-like retainer.

3. A bearing assembly as defined in claim **1** in which the load carrying bearing pads are of a thickness slightly less than the depth of said openings through the plate-like retainer.

4. A bearing assembly as defined in claim **1** in which said plate-like retainer is disc shaped and a centrally disposed opening is provided therein for receiving a center pin.

5. A bearing assembly as defined in claim **1** in which the plate-like retainer is a resilient plastic material.

6. A bearing assembly as defined in claim **5** in which the resilient plastic material is polyethylene.

7. A bearing assembly as defined in claim **1** in which the load carrying bearing pads are of a carbon-graphite material.

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