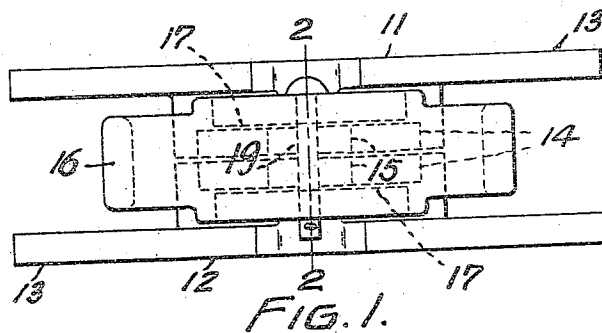
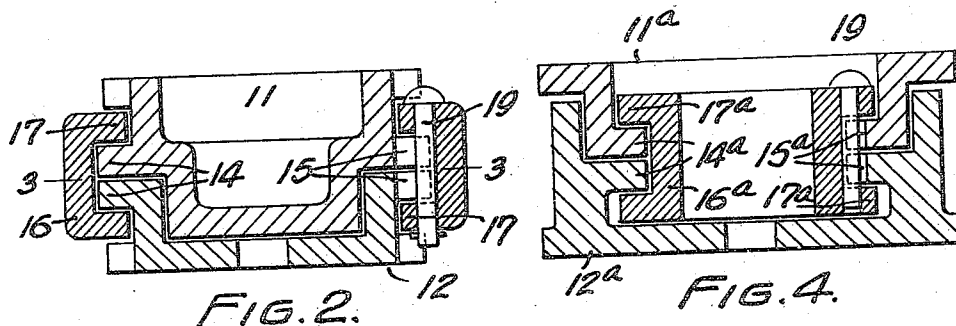
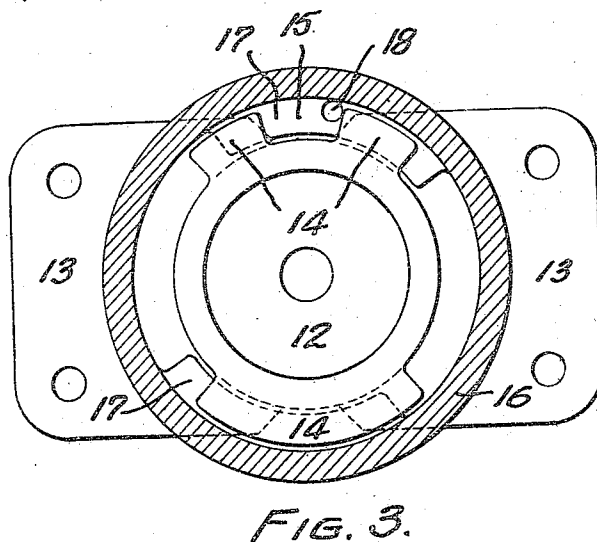


1,243,387.

J. M. COLEMAN.
TRUCK RETAINING CENTER BEARING.
APPLICATION FILED JUNE 8, 1916. RENEWED FEB. 16, 1917.

Patented Oct. 16, 1917.



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UNITED STATES PATENT OFFICE.

JAMES M. COLEMAN, OF MONTREAL, QUEBEC, CANADA.

TRUCK-RETAINING CENTER-BEARING.

1,243,387.

Specification of Letters Patent.

Patented Oct. 16, 1917.

Application filed June 8, 1916, Serial No. 102,565. Renewed February 16, 1917. Serial No. 149,147.

To all whom it may concern:

Be it known that I, JAMES M. COLEMAN, a subject of the King of Great Britain, and resident of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Truck-Retaining Center-Bearings, of which the following is a full, clear, and exact description.

This invention relates to improvements in center bearings for car truck bolsters and the like, and the object of the invention is to provide a simple, strong and durable means for connecting a car truck to the body of the car and holding the truck against separation from the car in the event of accident.

The device consists essentially of male and female members, each having similar partial flanges, and a ring having partial flanges adapted to embrace the flanges of the bearing members and hold the same against separation.

In the drawings which illustrate the invention:—

Figure 1 is a side elevation of the device.

Fig. 2 is a sectional view on the line 2—2, Fig. 1.

Fig. 3 is a plan view of one of the bearing members showing the connecting ring in section on the line 3—3, Fig. 2.

Fig. 4 is a view similar to Fig. 2 showing an alternative form.

Referring more particularly to the drawings, 11 and 12 designate the male and female members of a bearing. Each member is provided with flanges 13 by means of which they may be attached respectively to the car body and car truck. Each of the members is cylindrical in form, as clearly shown, and each is provided with a projecting flange 14 which is interrupted at regular intervals, the interruptions being approximately equal in length to the remaining parts of the flange. In the form shown in the drawings, which is preferred on account of its strength and simplicity, there are two flanged portions separated by spaces approximately equal in length to the flanges. One of the flanges of each member is provided with a centrally disposed notch or cut-away portion 15.

A ring 16 is provided having flanges 17

adapted to embrace the flanges 14 of the members 11 and 12. To permit the insertion and removal of the members in the ring, the ring flanges are interrupted similarly to the flanges 14. It will thus be understood that the flanges 14 may be inserted through the flanged interruptions of the ring, and that if the members of the ring are then turned, the flanges of one will engage the flanges of the other, so that the ring will hold the members against separation and yet permit relative rotary movement of these members. In order to prevent such rotary movement occurring to a degree which will cause separation of the members, the notches 15 are provided, and also apertures 18 in the flanges of the ring. When the parts are assembled, the notches of the two members 11 and 12 are arranged in register with one another and with the apertures 18 of the ring. A pin 19 is now passed through the apertures 18 and suitably secured. It will be readily seen from the drawings that when either member is revolved a certain distance, its flange at the end of the notch will engage the pin and limit further movement independent of the ring. If further force is applied, the member will carry the ring with it until the pin abuts the opposite end of the notch in the other member, thus finally checking further movement. It will be seen that the relative movement permitted the members is almost twice the length of the notches 15, so that with a comparatively short notch which does not appreciably weaken the flanges 14, all the movement, for which allowance must be made in a device of this kind, may be obtained. While the notches have been shown of considerable size and extending the full depth of the flange, it will be understood that these notches may be made either shorter or longer, and that they need not be the full depth of the flange, but may extend only part way in toward the body, thus giving the ring a bearing on the entire length of the notched flanges.

In the modification shown in Fig. 4, the ring 16^a is disposed internally of the members, instead of externally, as in the other figures. The members 11^a and 12^a are slightly changed in form, as seen, and the flanges 14^a thereof project inwardly instead

of outwardly, and the flanges 17^a of the ring project outwardly instead of inwardly. In other respects, the structure is exactly similar to that already described, and the operation is substantially the same. Access is had to the ring through the car floor.

The operation of the device is extremely simple and enables the car trucks and bodies to be very easily connected. The ring is mounted on one of the members, and the truck positioned under the body so that the members interengage, the flanges of the members which are in register entering the ring through the flanged interruptions thereof. The ring is now turned so as to bring its flanges into register with the flanges of the members, thus embracing these flanges and holding the members against separation. The pin 19 is inserted and secured. To disconnect the car and truck, the operation is reversed. The pin 19 holds the members 11 and 12 against such excessive movement as would cause the separation of either of them from the ring, which would have the same effect as separation one from another. Somewhat similar devices without the use of the ring have been produced by myself and others in the past, but such devices required the turning of the truck under the car in connecting or disconnecting, and also had the disadvantage that in the event of accident, the car truck was liable to turn sufficiently to disconnect from the car body, thus losing all the advantage which is gained by rendering the truck and body accidentally inseparable.

Having thus described my invention, what I claim is:—

1. In a device of the character described, a pair of interengaging center bearing members, and a single annular means engaging both of said members holding them against separation.

2. In a device of the character described, a pair of interengaging center bearing members, flanges on each member, and a single integral means embracing the flanges of said members holding the members against separation.

3. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, and means holding said members against separation and limiting relative revolution of the members.

4. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, flanges on said members, a ring engaging said flanges holding the members against separation, and means carried by the ring limiting relative revolution of the members.

5. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, notched flanges on said members, and holding means embracing the flanges and holding the members against separation, and a pin carried by said means engaging in the flange notches and limiting relative revolution of the members.

6. In a device of the character described, a pair of interengaging center bearing members relatively revoluble, an interrupted flange on each member, a ring, interrupted flanges on said ring adapted to embrace the flanges of said members, the member flanges being insertible through the interruptions in the ring flanges, and means carried by the ring engaging the flanges of said members and limiting relative revolution of the members.

7. In a device of the character described, relatively revoluble male and female center bearing members, similar interrupted flanges on the members, a notch in each flange, a ring, flanges on the ring embracing the flanges of said members and holding the members against separation, and a pin inserted through the ring flanges, and notches of the draft member flanges, arranged to limit revolution of the members relatively to one another and to the ring.

8. In car construction, the combination with upper and lower center bearing plates having flanges, of means, separate and detachable from said bearing plates, encircling and overlapping said flanges and adapted to prevent vertical separation of said plates.

9. In car construction, the combination with upper and lower center bearing plates having annularly extending peripheral flanges disposed adjacent each other, and detachable means having spaced annularly extending flanges adapted, when said means are in place, to overlap the flanges of said plates.

10. In car construction, the combination with cooperating center bearing plates having flanges, of a ring member also having flanges adapted to embrace the flanges of the bearing plates, said ring member being connected with the bearing plates and adapted to prevent vertical separation thereof.

11. In car construction, the combination with upper and lower center bearing plates having annularly extending flanges around the peripheries thereof, of a ring member encircling said flanges, said ring member having inwardly extending flanges embracing the flanges of the bearing plates and preventing vertical separation thereof.

12. In car construction, the combination with upper and lower center bearing members, of separate annular means located between the upper and lower horizontal planes bounding said members, and holding the members against separation.

13. In car construction, a pair of cooperating center bearing members having projections therefrom, and annular means having

ing projections engaging the center bearing projections and holding the center bearing members in coöperative relation.

5 14. In car construction, a pair of coöperating center bearing members having projections therefrom, and annular means having projections engageable with and disengageable from the bearing member projections, and holding the center bearing mem-

bers in coöperative relation when in en- 10 gagement and permitting separation of the center bearing members when disengaged.

In witness whereof, I have hereunto set my hand, in the presence of two witnesses.

JAMES M. COLEMAN.

Witnesses:

S. R. W. ALLEN,

G. M. MORELAND.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."