

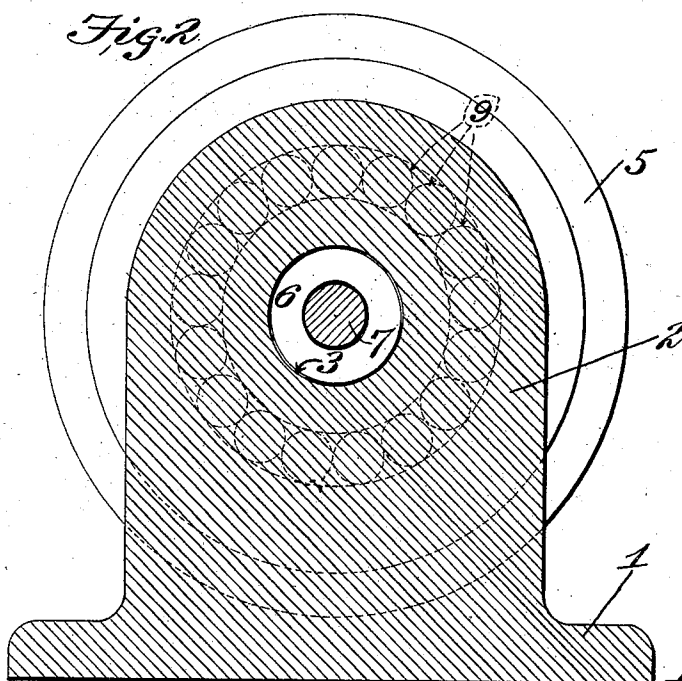
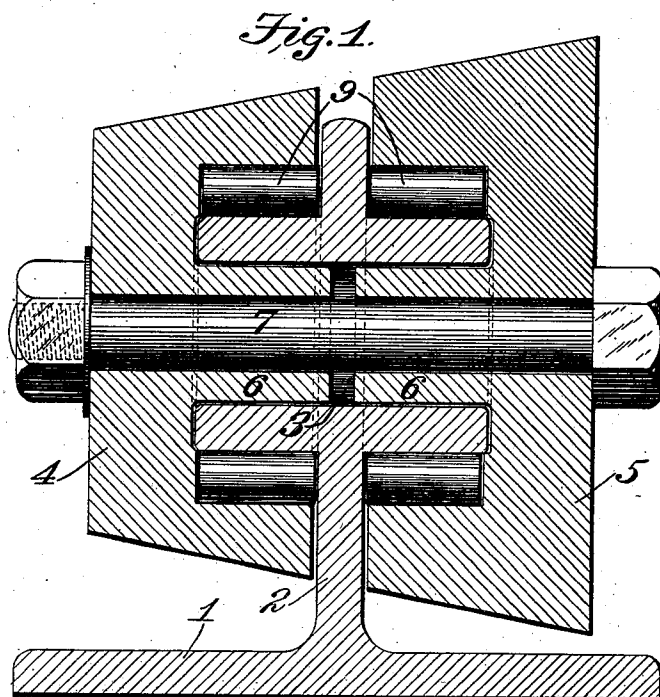
No. 712,181.

Patented Oct. 28, 1902.

F. R. CORNWALL.
SIDE BEARING FOR RAILWAY CARS.

(Application filed Mar. 10, 1902.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

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SIDE BEARING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 712,181, dated October 28, 1902.

Application filed March 10, 1902. Serial No. 97,487. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK R. CORNWALL, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Side Bearings for Railway-Cars, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical sectional view of my improved roller-bearing, and Fig. 2 is a cross-sectional view through the same.

This invention relates to a new and useful improvement in side bearings for railway-cars, the object being to simplify devices of the character described.

My invention consists in the construction, arrangement, and combination of the several parts, all as will hereinafter be described and afterward pointed out in the claims.

In the drawings, 1 indicates a base-plate, which is designed to be secured in position on a bolster, as is well understood. From this base-plate rises a vertical web 2, carrying a hollow hub portion 3, the outer periphery of said hub portion forming a track for the anti-friction-rollers, while the opening through the hub is designed to receive the inwardly-extending hubs of the bearing-rollers.

4 and 5 indicate bearing-rollers arranged on each side of the vertical web, said bearing-rollers preferably having conical faces and each of said rollers being provided with an inwardly-extending hub portion 6, through which hub portions are formed openings for the reception of a through-bolt 7, said through-bolt holding said rollers in position on their support. Each roller is provided with an internal track, between which and the hub of the bearing are arranged anti-friction-rollers 9, said rollers being preferably cylindrical and arranged so as to form an endless chain for supporting each roller. The cone of the rollers is preferably determined by the distance of the bearing from the king-pin of the truck. The vertical web, which is pro-

vided with oppositely-extending supporting-collars, is made relatively thin, so that the inner edges of the rollers will be located close to each other, leaving a space approximately the distance of the thickness of the web. In this manner the companion member is not liable to strike in the space and crush or mutilate the inner edges of the rollers.

In practice it is designed that the entire weight shall be carried by the anti-friction devices, the rollers serving practically as continuous bearing-plates rotating in a vertical plane. The bolt is employed simply to hold the rollers in position on their supporting-standard. By forming continuous chains of rollers for each roller-bearing the surfaces of the anti-friction-rollers are not liable to become flattened by grinding. Furthermore, the anti-friction-rollers are displaced, so that the liability to wear of any particular anti-friction-roller is reduced to a minimum. In this same manner bearing-rollers may be circumferentially displaced, and in whatever position they may be placed they are always in readiness for service.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a side bearing for railway-cars, the combination with a support having a circular hub-flange, a roller provided with a flange extending over said hub-flange, and anti-friction devices interposed between said hub-flange and roller-flange; substantially as described.

2. In a side bearing for railway-cars, the combination with a support, of bearing-rollers arranged on each side thereof, and a concentric series of anti-friction devices coöperating with the bearing-rollers; substantially as described.

3. In a side bearing for railway-cars, the

combination with a support, of coned rollers arranged on each side thereof, said rollers having interior track-faces, and antifriction devices coöperating with said track-faces; substantially as described.

4. In a side bearing for railway-cars, the combination with a support having circular hub-flanges extending on each side thereof, of rollers supported by said hub-flanges, and a bolt axially arranged with respect to said rollers for holding them in position; substantially as described.

5. In a side bearing for railway-cars, the combination with a support having hub-

flanges, of rollers formed with hub portions introduced therein, a through-bolt passing through the hub portions of the rollers, each roller being provided with an interior track-face, and antifriction-rollers interposed between said track-face and the hub portion of the support; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 7th day of February, 1902.

FREDERICK R. CORNWALL.

Witnesses:

GEORGE BAKEWELL,
LENORE J. WILSON.