

1,032,159.

Patented July 9, 1912.
2 SHEETS—SHEET 1.

FIG. 1

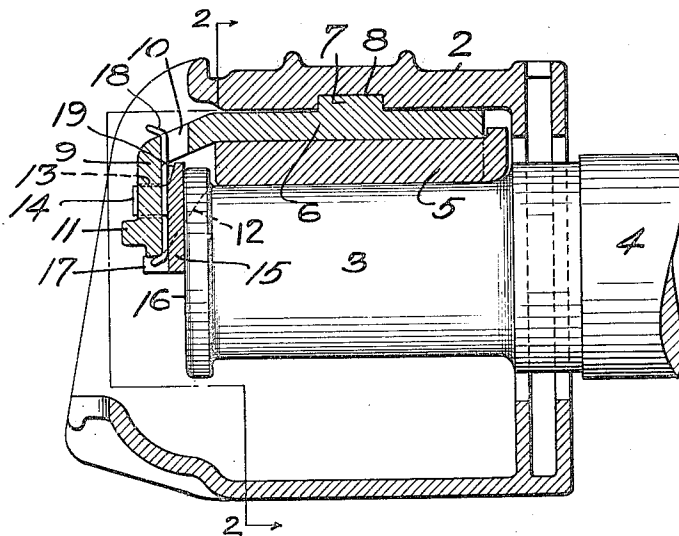


FIG. 2

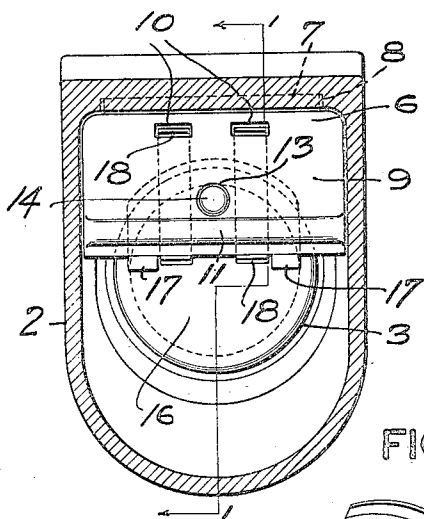


FIG. 3

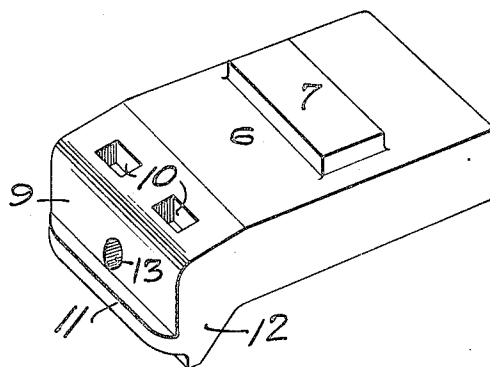
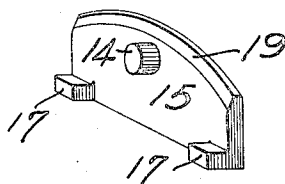


FIG. 4



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1,032,159.

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2 SHEETS—SHEET 2.

FIG. 5

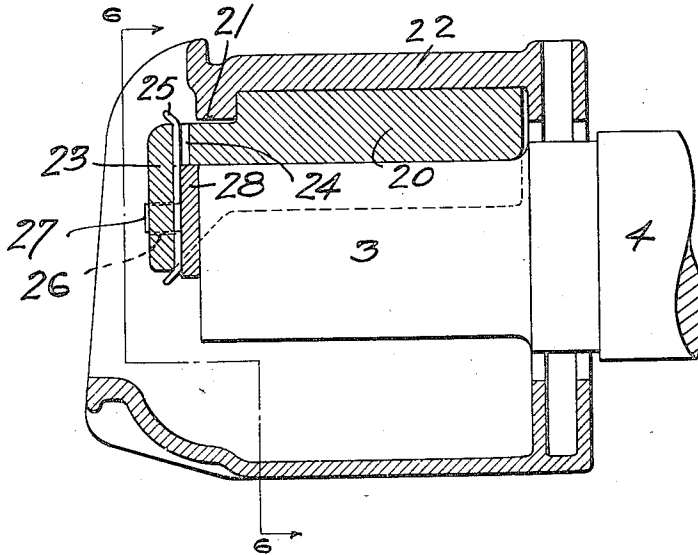


FIG. 6

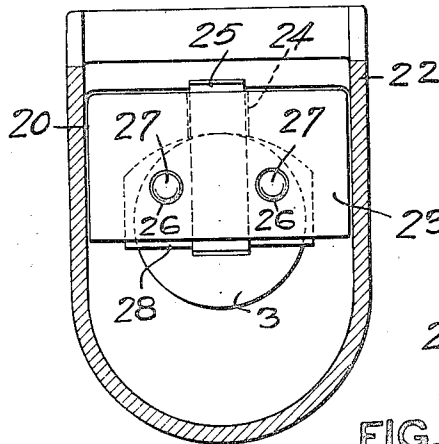


FIG. 7

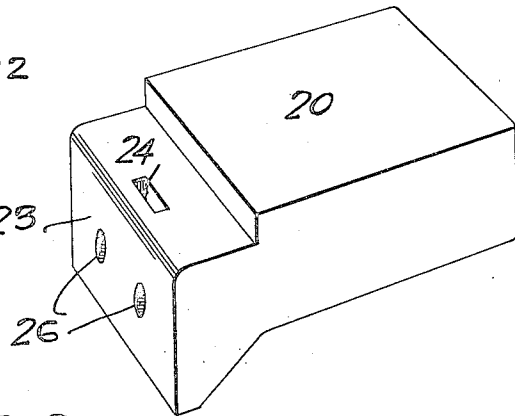
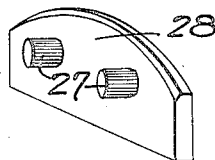


FIG. 8



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JOURNAL-BEARING.

1,032,159.

Specification of Letters Patent.

Patented July 9, 1912.

Application filed June 16, 1909. Serial No. 502,604.

To all whom it may concern:

Be it known that I, WILLIAM G. PRICE, a resident of New Castle, in the county of Lawrence and State of Pennsylvania, have invented a new and useful Improvement in Journal-Bearings; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to journal bearings. The object of my invention is to provide for the convenient taking up of the wear due to the longitudinal thrust of the axle and so increase the life of the journal bearings. This undue longitudinal play of the axle, furthermore, causes the side of the wheel flanges to grind against the sides of the brake shoes, causing an abrasion of the flanges and thereby greatly reducing the life of the wheel. Again, when the brake shoes are applied to the wheels the undue longitudinal play of the axle causes the brake rigging to be forced from side to side which loosens its parts and causes rapid abrasion of these parts. Finally, the longitudinal play of the axle also permits the truck frame and car to oscillate sidewise to such an extent as to cause bad riding.

To these ends my invention comprises, generally stated, in conjunction with an axle and its journal box, a check-plate supporting member having an extension projecting down in front of the axle, the check-plate interposed between said extension and the end of said axle and supported by said member, a shim insertible between said axle and said extension with the parts assembled, and means for retaining said shim in place.

Referring to the drawings Figure 1 is a sectional view of my invention; Fig. 2 is a front view, the journal box being shown in section; Figs. 3 and 4 are details; and Figs. 5, 6, 7 and 8 show modified forms of my invention.

In the drawings the numeral 2 designates a journal box of any suitable construction to receive the axle journal 3 of the axle 4. In this instance the usual journal bearing 5 is provided, which is secured in place by the ordinary wedge or key 6. The wedge 6 has the lug 7 which engages a seat 8 in the journal box.

The wedge 6 is provided with the extension 9 and said wedge in this instance may be termed broadly the check plate supporting member. This extension 9 has openings 10 formed therein and is provided with the

strengthening rib 11 and the gussets 12 connecting it to the wedge 6, which add to the strength and rigidity of the said member. The extension 9 extends beyond the top plate of the journal box and consequently the openings 10 are always unobstructed. The extension 9 is further provided with the opening 13 to receive the supporting lug 14 of the check plate 15 interposed between the inner face of the extension 9 and the end 16 of the axle journal. This check plate 15 may be formed of bronze or other suitable material. Lugs 17 are formed at the lower end of the check plate 15 which are adapted to engage the lower edge of the extension 9 to prevent the turning of said check plate 15.

Shims or washers 18 are inserted in the openings 10 of the extension 9 and said shims are preferably interposed between said extension and the check plate 15, said shims being arranged on each side of the supporting lug 14. The upper edges of the check plate 15 are slightly beveled, as at 19, to permit of the more convenient insertion of the shims. The ends of the shims are bent after insertion to prevent their jumping out due to the jolting of the parts. These shims are adapted to take up any wear due to the end thrust on the part of the axle, which wear comes upon the check plate 15. Unless provision is made for taking up this wear on the check plate the longitudinal play on the part of the axle will act to wear the outer end of the journal bearing 5. It is apparent that the shim may be inserted from below if desired. By my invention, therefore, I am enabled to take up any wear on the check plate and so obviate the wear of the journal bearing. These shims may be inserted from time to time as may be found necessary to take up the wear and prevent the longitudinal play referred to. By the construction illustrated, the shims can be readily inserted without removing the wedge or check plate.

The fact that the openings in the check plate supporting member for the reception of the shims are always unobstructed makes it unnecessary to remove the top plate of the journal box or any of the parts in order to insert the shims.

By my invention I am able to increase the life of the journal bearings, as by taking up the wear in this manner the life of the journal bearing is extended and as these jour-

nal bearings are formed of an expensive metal, such as bronze or brass, the saving is very great.

5 In Figs. 5 and 6 I have illustrated a modified form of my invention in which the journal bearing 20 forms the check plate supporting member and the wedge is omitted. The journal bearing in this case is held in position by the inwardly extending lug 21
10 on the journal box 22. The extension 23 has the opening 24 for the insertion of the shim 25. The extension 23 has in addition the openings 26 which receive the lugs 27 on the check plate 28. These lugs prevent the
15 rotary movement of the check plate and the shim in this case passes down between the lugs 27 of the check plate 28.

What I claim is:

20 1. The combination with an axle and its journal box, of a check-plate supporting member having a downwardly projecting extension, a check-plate interposed between

said extension and the end of said axle and supported by said member, a shim insertible between said axle and said extension with
25 the parts assembled and said shim having a bent portion at its upper end to hold it in position.

2. The combination with an axle and its journal-box, of a check-plate supporting
30 member having an opening therein and a downwardly projecting extension, a check-plate interposed between said extension and the end of said axle and supported by said
35 member, a shim insertible in said opening between said axle and said extension with the parts assembled, and means for retaining said shim in place.

In testimony whereof, I the said WILLIAM G. PRICE have hereunto set my hand.
40

WILLIAM G. PRICE.

Witnesses:

ROBERT C. TOTTEN,

J. F. WILL.