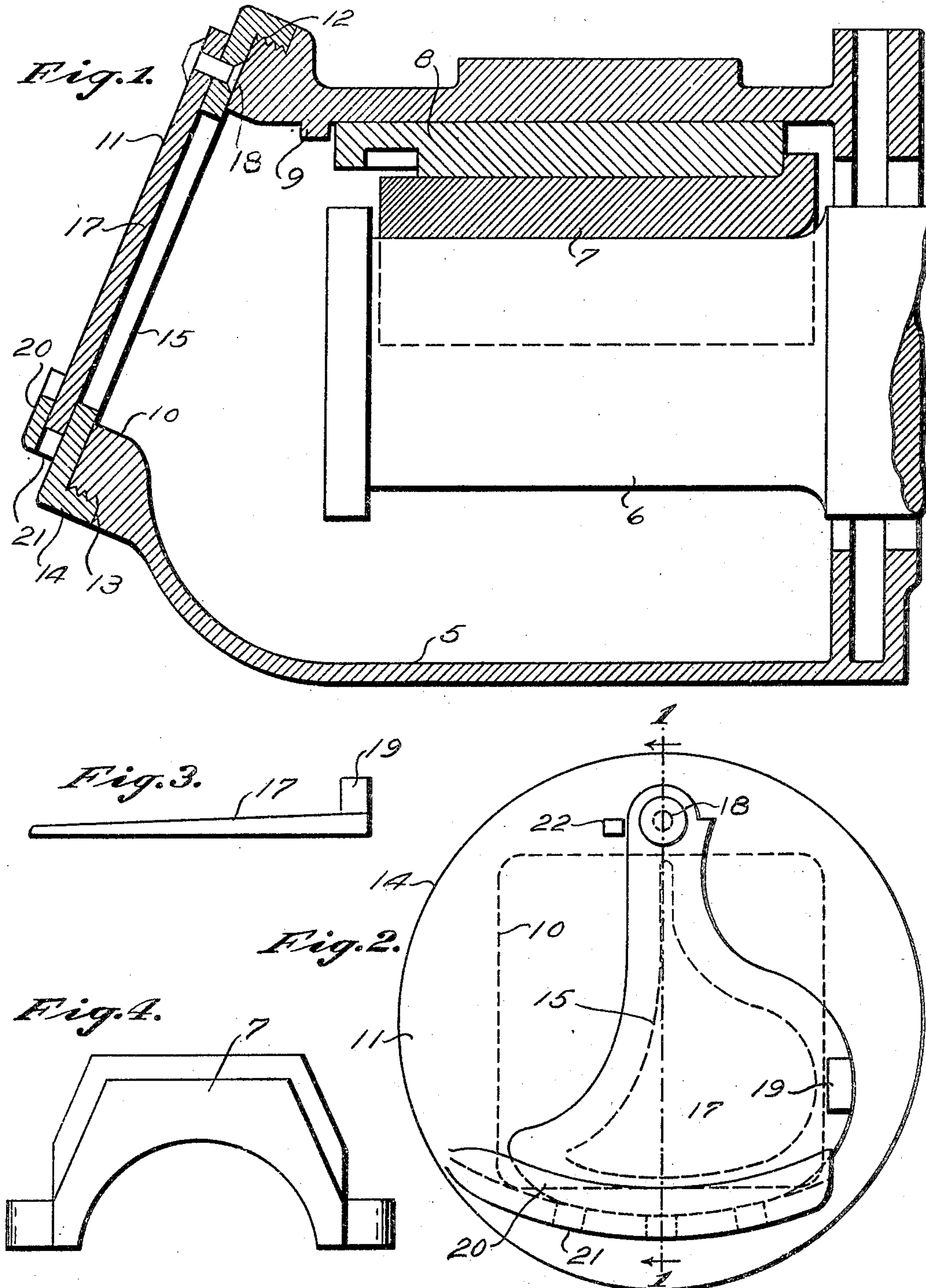


No. 818,501.

PATENTED APR. 24, 1906.

J. R. WILLIAMSON.  
JOURNAL BOX FOR RAILWAY CARS.  
APPLICATION FILED DEC. 1, 1905.



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# UNITED STATES PATENT OFFICE.

JAMES R. WILLIAMSON, OF CHICAGO, ILLINOIS.

## JOURNAL-BOX FOR RAILWAY-CARS.

No. 818,501.

Specification of Letters Patent.

Patented April 24, 1906.

Application filed December 1, 1905. Serial No. 289,829.

*To all whom it may concern:*

Be it known that I, JAMES R. WILLIAMSON, a citizen of the United States of America, and a resident of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Journal-Boxes for Railway-Cars, of which the following is a specification.

This invention relates to railway journal-boxes; and its main object is to provide a construction which will permit the ready removal of the brass bearing by a person equipped with the proper tools, but prevent the possibility of removing the brasses by means of small tools, such as could ordinarily be carried about, without attracting the attention of watchmen and other employees of the railroad.

With journal-boxes of the usual construction the theft of brasses is so easily accomplished that such thefts by boys have led to large losses to railway companies.

I accomplish the hereinbefore-mentioned object by the construction shown in the accompanying drawings, in which—

Figure 1 is a vertical section through the center of a journal-box constructed according to this invention. Fig. 2 is a front elevation of the cover and its lid. Fig. 3 is a view of the lower edge of the lid, showing its wedge formation. Fig. 4 is an end elevation of the brass or bearing-block of the journal-box.

In the construction shown in the drawings the casing 5 is of the usual form, except as to the arrangement of the parts at its open end. The journal of the car-axle is represented at 6 in Fig. 1. The brass or bearing is shown at 7 and is of the ordinary form. The wedge 8 bears between the brass 7 and the top of the casing 5 and ordinarily prevents the removal or shifting of the brass, except when the casing 5 is tilted with respect to the axle, so as to permit the wedge 8 to be withdrawn past the lug 9 to facilitate the removal of the brass 7. To remove the brass in journal-boxes of the usual construction, it is therefore merely necessary to pry up the casing 5, so as to tilt it with respect to the journal 6. The journal-box, which is herein described, is provided with a rectangular opening 10, indicated in its relation to the cover in Fig. 2. This opening is of the usual rectangular form and permits of the removal of the brass 7 in the usual manner.

In the form shown the opening 10 is closed by means of a cover 11, which is circular in

form and has threaded engagement at 12 with the casing. The threads in this case are made close-fitting, and the cover is arranged to be screwed tightly against the shoulder 13. A thread of this size when so forced against a shoulder secures the cover 11 so tightly in position as to require the use of a large wrench and the exertion of much strength at long leverage for the purpose of loosening it. The edges 14 of the cover 11 are smooth, so as to necessitate the use of a chain pipe-wrench for this purpose.

The cover 11 has an aperture 15, which is large at the bottom, so as to serve as a hand-hole for inserting and removing waste from the lower part of the box and for oiling said waste. The upper part of the opening 15 is in the form of a contracted slit or recess 16, which extends upward sufficiently to permit of inspection of the brass. The hole 15 is of such form and is so proportioned as to render it impossible to remove the brass 7 without first removing the cover 11.

The opening 15 is closed against the entrance of dust by means of a lid 17, which is pivoted at 18 near the top of the cover 11. The lid 17 is provided with an ear 19 for swinging it on its pivotal axis. The grooved flange 20 extends along the lower edge of the opening 15, and the lower edge of the lid 17 is adapted to be seated in the groove of said flange. The lower edge of the lid 17 is wedge-shaped, as shown in Fig. 3, and the groove in the flange 20 is also wedge-shaped, so as to contact with the wedged portion of the lid 17 and force the lid tightly against the face of the cover 11 to prevent the entrance of dust into the opening 15 when the lid is closed. The flange 20 has a plurality of apertures 21 at the bottom of the groove, so as to allow dust to pass out and prevent the same from clogging the groove and preventing the lid from swinging to its closed position.

The lid 17 is made wider and heavier at one side of a vertical line through the pivot 18, so that the weight of the lid will urge it toward a closed position and prevent it from becoming loosened through jarring. The hand-hole 15 is correspondingly shaped. The stop 22, which forms a rest for the lid in its open position, is preferably close to the lid, so as to prevent it from being struck for loosening the cover. The flange 20 is also beveled at the left-hand end to prevent its serving as a shoulder which might be struck for loosening the cover. The lid 17 is of thin cast-iron and



is therefore too weak to be turned to its open position and used as a lever which could be struck for loosening the cover.

The operation of the device shown is as follows: The lid 17 may be swung to one side to permit of access to the waste in the interior of the journal-box through the hand-hole 15. In order to remove the brass 7, the cover 11 must first be removed, and this on account of the fact that the threads 12 are tight and that the cover has been tightly screwed up against the shoulder 13 necessitates the use of a powerful wrench. Such wrenches may be had by such railroad employees as are likely to be required to replace the brasses in the bearings of cars, but could not be conveniently carried about by a thief without attracting the attention of railroad employees. In this way the prevention of the theft of brasses is accomplished without requiring the use of locks, which would necessarily have to be alike on account of the necessity of replacing brasses in cars when on the tracks of other roads than those of its owners.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A railway journal-box comprising a casing, a bearing in said casing for engaging the journal, said casing having in one end an opening adapted to permit the removal of said bearing, a cover adapted to be secured over said opening to prevent the removal of the bearing while said cover is in position, said cover having therein a hand-hole for permitting access to the interior of the casing but of insufficient size to permit the removal of said bearing, said hand-hole being wide at its lower part and comparatively narrow at its upper part and being of substantially the same height as the opening in said casing, and a lid forming a closure for said hand-hole.

2. A journal-box comprising a casing, a bearing in said casing for engaging the journal of a car-axle, said casing having in one side an opening of suitable form to permit the removal of said bearing, a cover adapted to be secured over said opening for preventing the removal of said bearing, said cover having therein a hand-hole adapted to permit of access to the casing for the purpose of oiling and examining the bearing but of insufficient size to permit the removal of the bearing, and a lid forming a closure for the opening in said cover, said lid being pivoted near one edge of

the cover and being wedge-shaped at its other edge and said cover having therein a groove fitting said other edge of the lid whereby said lid will fit tightly against the face of the cover when said lid is in its closed position.

3. A journal-box comprising a casing, a bearing in said casing for engaging the journal of a car-axle, said casing having in one side an opening of suitable form to permit the removal of said bearing, a cover adapted to be secured over said opening for preventing the removal of said bearing, said cover having therein an opening adapted to permit of access to the casing for the purpose of oiling and examining the bearing but of insufficient size to permit the removal of the bearing, and a lid forming a closure for the opening in said cover, said lid being pivoted near the edge of the cover and being wedge-shaped at its other edge and said cover having thereon a grooved flange fitting the wedge-shaped edge of the lid and adapted when said lid is in its closed position, to cause said lid to fit tightly against the face of the cover and said flange having openings therein to permit the passage of dirt from said groove, substantially as described.

4. A journal-box comprising a casing, a bearing in said casing for engaging the journal of a car-axle, said casing having in one side an opening of suitable form to permit the removal of said bearing, a cover forming a closure for said opening and having threaded engagement with the casing, shoulders on said cover and casing adapted to bear upon each other when said cover is screwed into its closed position, said cover having therein a hand-hole adapted to permit of access to the casing for the purpose of oiling and examining the bearing but of insufficient size to permit the removal of the bearing, said hand-hole being comparatively wide at one side and narrow at the opposite side and the threads on said cover being cut to bring said wide part of the hand-hole at the bottom when said shoulders are in engagement with each other.

Signed at Chicago this 25th day of November, 1905.

JAMES R. WILLIAMSON.

Witnesses:

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EUGENE A. RUMMLER.