No. 656,607. Patented Aug. 21, 1900.

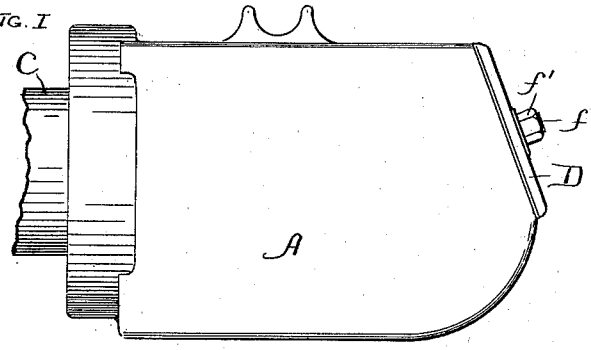
C. E. MOORE.

CAR AXLE BOX LID.

(Application filed Dec. 23, 1899.)

(No Model.)

FIG. 1



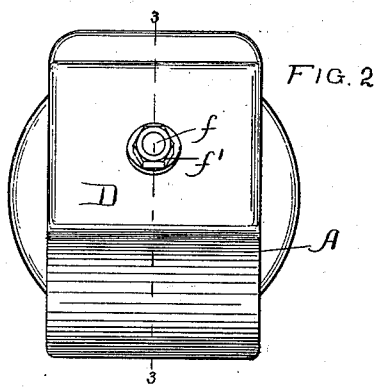


FIG. 2

FIG. 3

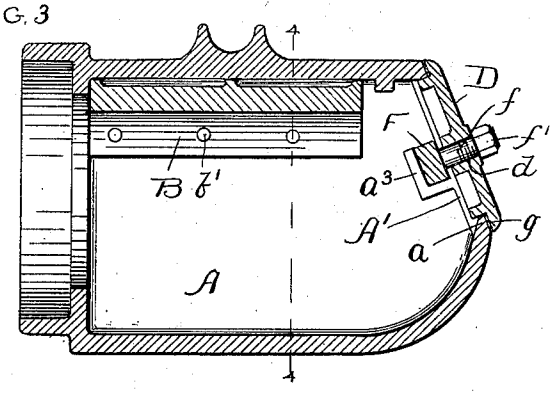


FIG. 5

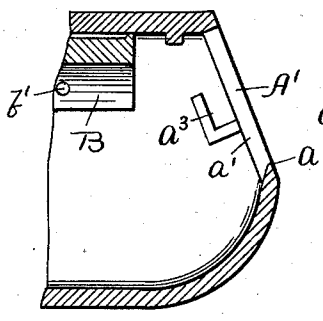


FIG. 4

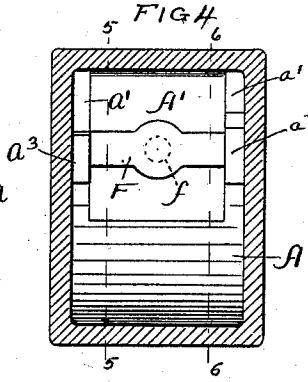
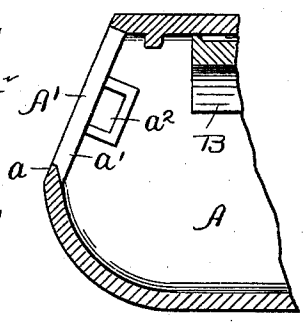


FIG. 6



WITNESSES.

A. W. Munday,

L. C. Curtis.

INVENTOR.

CHARLES. E. MOORE.

BY Munday, Evarts & Adcock,

HIS ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES E. MOORE, OF CHICAGO, ILLINOIS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO ELMYR A. LAUGHLIN, OF SAME PLACE.

CAR-AXLE-BOX LID.

SPECIFICATION forming part of Letters Patent No. 656,607, dated August 21, 1900.

Original application filed February 20, 1899, Serial No. 703,445. Divided and this application filed December, 23, 1899. Serial No. 741,364. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. MOORE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Car-Axle-Box Lids, of which the following is a specification.

The object of my invention is to provide a car-axle-box lid of a simple, efficient, and durable construction the cover of which may be conveniently opened and at the same time tightly closed, so as to perfectly exclude dust and dirt from the journal-bearing and perfectly confine the oil or lubricant in the box.

My invention consists in the means I employ to accomplish this object or result—that is to say, it consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described, and specified in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a car-axle box and lid embodying my invention. Fig. 2 is an end view. Fig. 3 is a vertical section on line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Fig. 3. Figs. 5 and 6 are sections on lines 5 5 and 6 6 of Fig. 4, respectively.

In the drawings, A represents the car-axle box; B, the journal-bearing, having oil-ducts b' through the same; C, the axle, and D the removable cover of the box.

The rim a of the car-axle box A, surrounding the opening A′ therein, which is closed by the cover D, is provided with internally-projecting flanges a' a' at its sides and also with a socket a^2 and an open socket a^3 to receive the ends of the cross-bar F and support the same in position. The cross-bar F has a bolt f fixed thereto at its middle, and the cover D has a central hole d, through which the bolt passes, and the cover D is held firmly by this bolt and its nut f'. A leather washer or lining g, clamped between the cover D and the rim a of the box, secures a perfectly-tight fit between the cover and the box-rim, as the cover is held from the center and not at the sides, as in the hinged box-covers heretofore in use. I thus secure, owing to the central clamping of the cover D by means of the bar F and its threaded bolt f, an even pressure of the cover against the rim of the box all around at all points of its circumference, so that a perfectly-tight closure is effected. This absolutely prevents oil from escaping.

My invention is specially designed for use upon street-railway or motor cars; but it may obviously be used upon other cars.

I claim—

1. The combination with the car-axle box, of a cover therefor, a clamp-bolt having a center bearing on the cover and furnished with a nut, a bar inside the cover carrying said bolt and engaging the rim of the box, the rim of the box being provided with sockets to receive the bar carrying the bolt, substantially as specified.

2. The combination with the car-axle box having a rim surrounding its opening furnished with internally-projecting flanges, a removable cross-bar fitting inside the cover and against said internally-projecting flanges of said rim, a removable cover, and a clamp-bolt attached to said cross-bar and extending centrally through said cover to give the cover a center bearing and form a tight closure, and a nut for the clamp-bolt, the rim of the box having sockets to receive the ends of the bar carrying the clamp-bolt, substantially as specified.

3. The combination with the car-axle box A having a rim a furnished with a socket a^2 and an open socket a^3, a removable cross-bar F fitting at its ends in said sockets, a clamp-bolt, a nut therefor and a cover D having a central hole through which said bolt extends, substantially as specified.

4. The combination with the car-axle box, having a cover-opening and a rim surrounding the same furnished with sockets, of an exteriorly-fitting cover therefor, a bar inside the cover and engaging the rim of the cover-opening, and connecting means between said bar and cover for centrally clamping said exteriorly-fitting cover to the rim of the box, substantially as specified.

CHARLES E. MOORE.

Witnesses:
H. M. MUNDAY,
L. E. CURTIS.