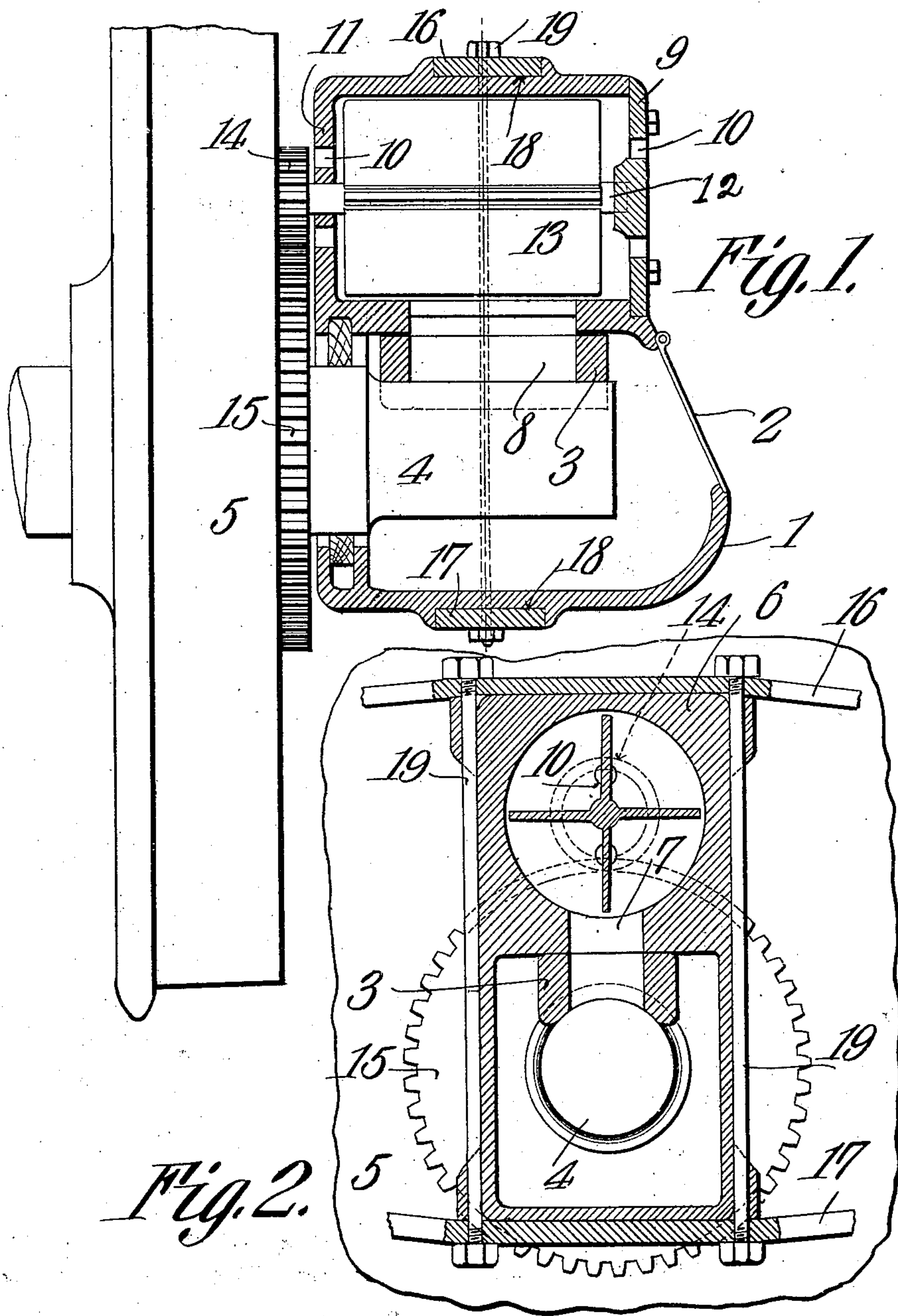


J. B. ARRINGTON.
 AXLE BOX FOR RAILWAY CARS.
 APPLICATION FILED JULY 17, 1908.

915,011.

Patented Mar. 9, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN B. ARRINGTON, OF GROVE HILL, NORTH CAROLINA, ASSIGNOR OF ONE-HALF TO
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AXLE-BOX FOR RAILWAY-CARS.

No. 915,011.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed July 17, 1908. Serial No. 443,998.

To all whom it may concern:

Be it known that I, JOHN B. ARRINGTON, a citizen of the United States, residing at Grove Hill, in the county of Warren and State of North Carolina, have invented a new and useful Axle-Box for Railway-Cars, of which the following is a specification.

This invention relates to axle boxes for railway cars and more particularly to means for utilizing air to cool the bearings and thus prevent the formation of "hot boxes" and minimize the quantity of oil necessary to keep the bearings lubricated.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a longitudinal section through an axle box showing the parts embodying the present improvements. Fig. 2 is a transverse section through the box, the adjoining portions of the wheel being shown in elevation.

Referring to the figures by characters of reference, 1 designates the axle box which may be of the usual or any preferred construction, the same being provided with a closure 2 and having a bearing brass 3 supported therein upon the axle 4 on which the car wheel 5 is mounted. The top of the box is provided with a box-like extension 6 which may be integral therewith or separate therefrom, said extension being provided with an outlet opening 7 which registers with a corresponding opening in the brass 3. The interior of the extension 6 is preferably cylindrical and said extension has its outer end closed by a cap plate 9 which is bolted or otherwise secured thereto. Inlet openings 10 are formed within this plate and also within the rear wall 11 of the extension. Journaled within said rear wall and within the cap plate 9 are the trunnions 12 of a fan 13 and secured upon the inner trunnion 12 is a gear 14 meshing with a larger gear 15 secured upon the outer face of the car wheel 5. The axle box is designed

to be secured to the truck frame in any preferred manner and as shown in the drawings the upper and lower members 16 and 17 of the frame are preferably seated in transverse grooves 18 in the upper and lower faces of the box and held therein by means of tie bolts 19.

It is believed that the operation of the device will be fully understood from the foregoing description when read in connection with the drawings. When the wheel 5 rotates motion is transmitted through gears 15 and 14 to fan 13 which rotates rapidly so as to draw air through openings 10 and direct it through the openings 7 and 8 against the axle 4. The axle is therefore kept cool and the amount of oil necessary to properly lubricate it is reduced to the minimum.

What is claimed is:

1. An axle box having an upper and a lower compartment, said compartments communicating, an axle mounted for rotation in the lower compartment, said compartment constituting a lubricant-containing compartment, a fan mounted for rotation in the upper compartment, and means for transmitting motion from the axle to the fan.

2. An axle box formed in a single piece and having an upper compartment and a lower compartment, said compartments communicating, an axle journaled for rotation within the lower compartment, a fan mounted for rotation in the upper compartment, a bearing member interposed between the axle and the upper portion of the lower compartment, said bearing member having a slot registering with the opening through which the two compartments communicate, and means for positively transmitting motion from the axle to the fan.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN B. ARRINGTON.

Witnesses:

J. M. GARDNER,
C. R. RODWELL.