J. A. NORRIS.

Car-Axle Box.

No. 18,984. Patented Dec. 29, 1857.

Fig. 1.

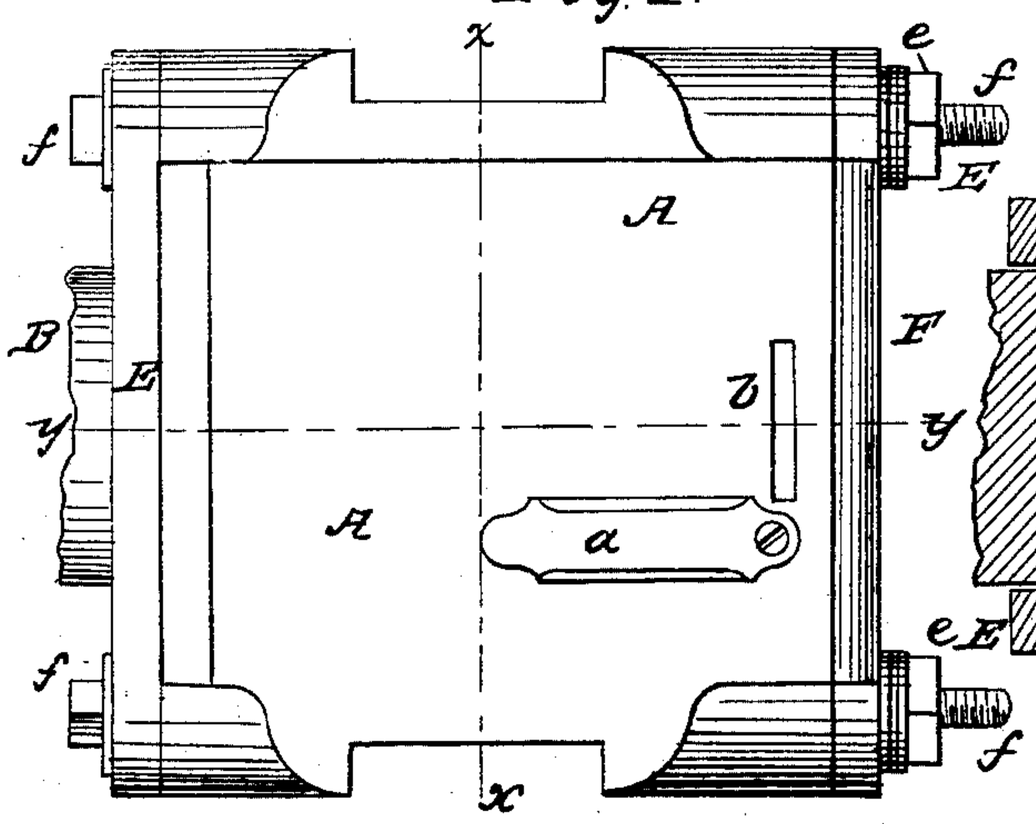


Fig. 2.

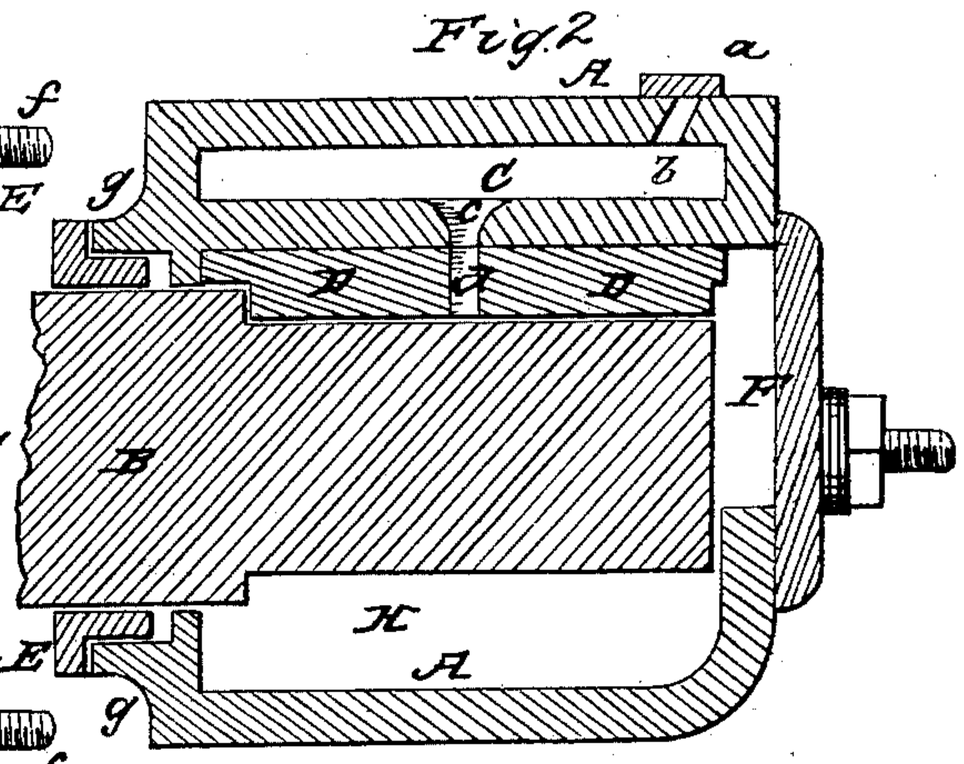


Fig. 3

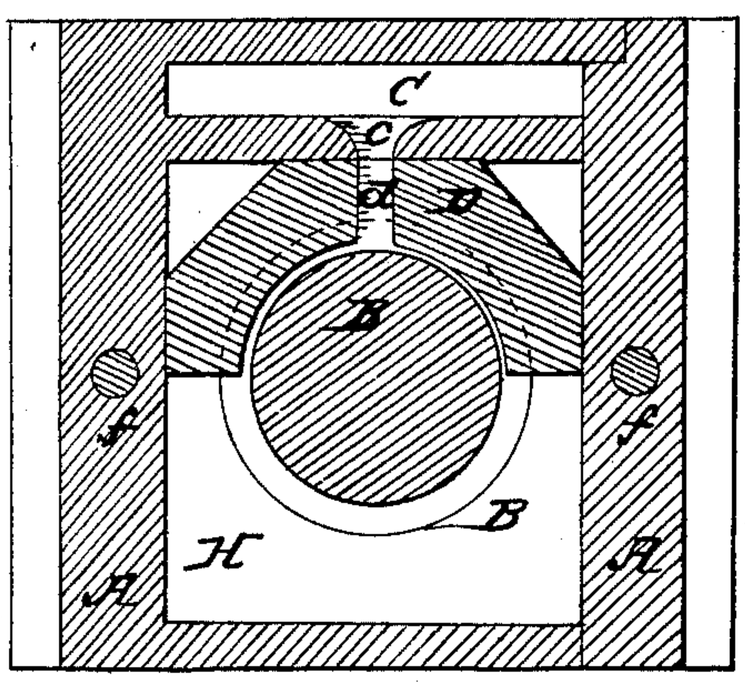
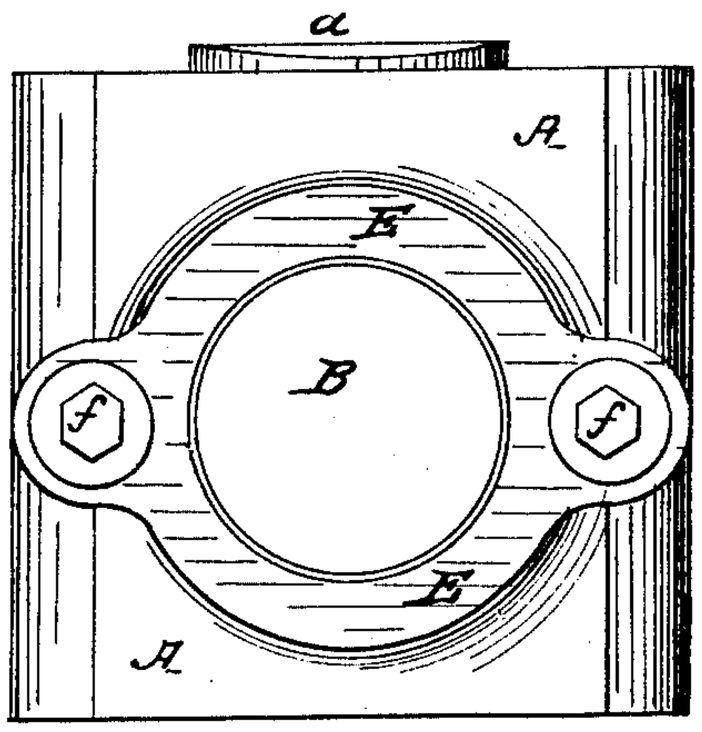


Fig. 4



UNITED STATES PATENT OFFICE.

JAMES A. NORRIS, OF PHILADELPHIA, PENNSYLVANIA.

JOURNAL-BOX FOR RAILROAD-CARS, &c.

Specification of Letters Patent No. 18,984, dated December 29, 1857.

To all whom it may concern:

Be it known that I, JAS. A. NORRIS, of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Boxes for Railroad-Car and other Axles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in certain improvements in boxes for rail road car and other axles as hereinafter described.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation, reference being had to the accompanying drawings and to the letters of reference thereon.

Figure 1, represents a top view; Fig. 2, a vertical section at (*y*, *y*,) Fig. 1; Fig. 3, a vertical section at (*x*, *x*,) Fig. 1 and Fig. 4 an end view of my improved box.

(A) is a cast iron box of the form shown; in the upper part of which is formed a reservoir (C,) for containing oil, or lubricating material, the same being supplied through an opening (*b*,) which opening is provided with a close cover (*a*,).

(D,) is the brass box or bearing which is formed as represented, fitting in the upper part of the box (A,) and covering the upper half of the bearing surface of the journal (B,) which is constructed without a collar (which, is generally formed on similar axles) in order that the box (D) may be withdrawn through an opening in the back end of the box (A,) which opening is effectually closed by a plate (F,) secured by bolts (*f*, *f*,). In the bottom of the oil reservoir (C,) is an oil hole (*c*,) and immediately under it a similar one (*d*,) in the brass box (D,), whereby, the shaft (B,) is perfectly lubricated, the waste oil falling into the oil cellar (H).

Where the enlarged portion of the shaft (B,) passes through the box (A,) said box forms a stuffing box (*g*,) supplied with a gland (E,) fitting closely therein and secured by the bolts (*f f*,), by means of said gland and stuffing box the joint formed when the shaft (B,) enters the box (A,) is rendered a perfect one and impervious to dust.

It will be observed that by forming the axle without any collar the simple brass box, (D,) is readily withdrawn from over the axle, through the opening covered by the plate (F,) and that by the simple construction and arrangement of the parts of my improved box, its interior and the bearing surface of the shaft are readily approached when desired, for cleaning or other purpose, while by the use of the stuffing box and gland the oil is retained and the admission of dust into the box rendered impossible.

It will be readily seen that my box though possessing great advantages over those now in use, is so simple in its construction that it is even more economical.

Having described the construction and operation of my improved box what I claim as my invention is:

The combination of an ordinary gland and stuffing box with the journal box of a rail road car, whereby the oil is retained and the admission of dust rendered impossible, the whole constructed and arranged substantially as and for the purpose specified.

JAS. A. NORRIS.

Witnesses:
WM. W. JEFFERSON,
WM. GEO. NORRIS.