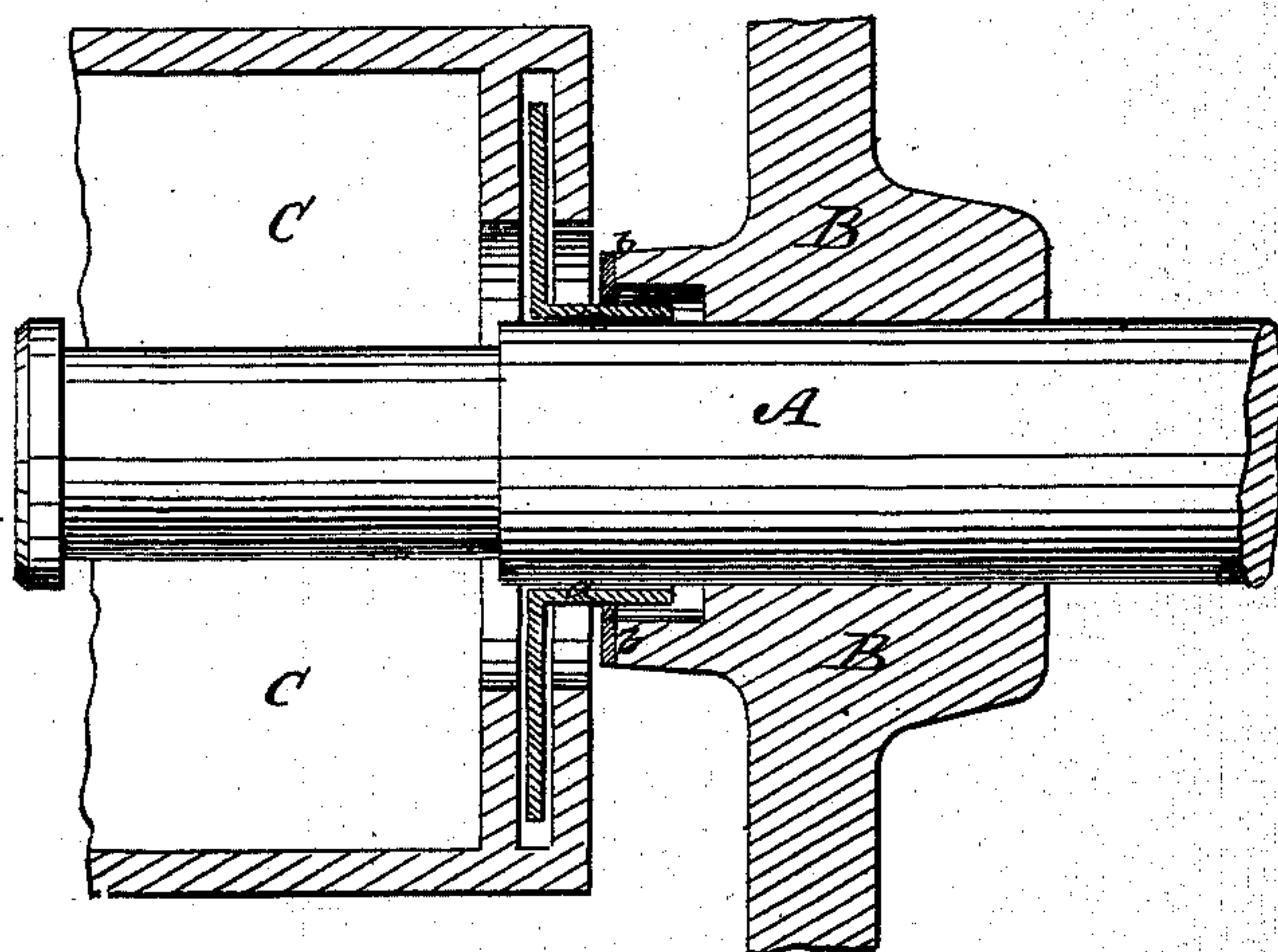


D. A. HOPKINS.

Attachments to Car-Axle Boxes.

No. 139,791.

Patented June 10, 1873.



Witnesses:

Chas. Nida.
W. A. Graham.

Inventor:

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Attorneys.

PER

UNITED STATES PATENT OFFICE.

DAVID A. HOPKINS, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN ATTACHMENTS TO CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **139,791**, dated June 10, 1873; application filed June 1, 1872.

To all whom it may concern:

Be it known that I, DAVID A. HOPKINS, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in Wheels and Axles for Railroad-Cars, of which the following is a specification:

The drawing is a sectional side view of my invention.

This invention relates to a new means of preventing the entrance of dust and dirt into the journal-boxes of railroad cars when such boxes are provided with outwardly-projecting sleeves or wings; and the invention consists in providing an annular chamber between the wheel-hub and axle for the entrance of the said sleeve of the axle-box.

By this means, especially if the said chamber is protected by a packing of leather or other soft material, the axle is entirely covered between wheel and box, and cannot be reached by dirt or dust, neither can it convey any into the box.

A convenient way of carrying my invention into effect is the forming of the chamber within the hub of the wheel.

A in the drawing represents the axle; B, the wheel; and C the journal-box of a railroad car. The hub of the wheel B is recessed to form an annular chamber around the axle for

the backwardly-projecting sleeve *a* of the box to enter. The end of this sleeve is not to be in contact with the wheel, so as not to be worn away, but merely enters the said chamber far enough to project the entire length of axle between the box and the wheel. A ring, *b*, of leather, may be applied to the face of the wheel to bear against the sleeve *a*, as shown, and still more secure the effectiveness of the invention. I do not desire to confine myself to the particular method herein described and shown of forming the chamber between the wheel and axle for the reception of the sleeve *a*, as the formation of said intervening chamber for the purpose specified, and consequently the combination of wheel and axle forming such chamber with the sleeve on the box, broadly embraces the improvement contemplated by my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The railroad car wheel and axle, having an intervening annular chamber for the reception of a projecting sleeve from the journal-box, as set forth.

DAVID A. HOPKINS.

Witnesses:

T. B. MOSHER,
W. A. GRAHAM.