(No Model.)

G. F. GODLEY.

DUST SHIELD FOR AXLE BOXES.

No. 451,196. Patented Apr. 28, 1891.

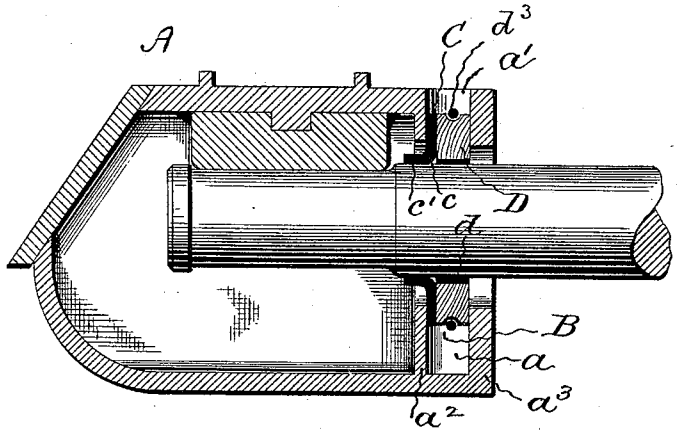


Fig. 1.

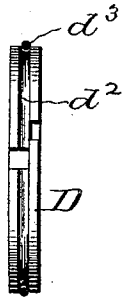


Fig. 2.

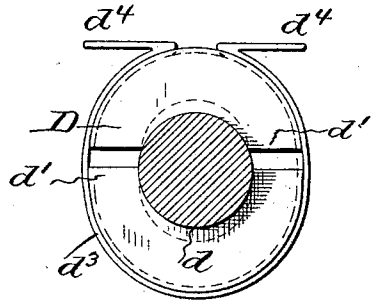


Fig. 3.

Witnesses:
Arthur Ashley
Geo. P. Byington

Inventor
George F. Godley
per C. J. VanStavoren
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE F. GODLEY, OF PHILADELPHIA, PENNSYLVANIA.

DUST-SHIELD FOR AXLE-BOXES.

SPECIFICATION forming part of Letters Patent No. 451,196, dated April 28, 1891.

Original application filed February 18, 1890, Serial No. 340,857. Divided and this application filed July 23, 1890. Serial No. 359,656. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. GODLEY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Dust-Shields for Axle-Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to dust-shields for car-axle boxes; and it has for its object a simple and durable dust-shield composed of a sheet-metal plate snugly fitting the axle, and between which and the rear wall of the axle-box is a packing-plate of a different material.

My invention accordingly consists of the combinations, constructions, and arrangements of parts, as hereinafter described in the specification and pointed out in the claims.

Reference is had to the accompanying drawings, wherein—

Figure 1 is a longitudinal section of an axle-box, with part of the axle in elevation, having a dust-shield in section, embodying my improvements. Fig. 2 is an edge elevation of part of the dust-shield with clamping-ring therefor in section; and Fig. 3 is a face view of the same, showing the axle-journal in section.

A represents the usual or other form of axle-box, having in its rear end or wall the chamber *a*, which preferably has an open top *a'*, as more plainly indicated in Fig. 1, to divide the rear end of the axle-box into front and rear walls a^2 and a^3, respectively.

The dust-shield B in chamber *a* consists, essentially, of a sheet-metal plate C, preferably made of steel, having a central opening *c* snugly fitting the axle, said central opening having, preferably, an outer flanged or upset edge *c'* to provide a suitable bearing-surface for the plate C on the axle to avoid cutting or wear of the latter by said plate. Said plate C is located contiguous to the rear side of the front wall a^2, so that the flanged edge *c'* of the opening *c* in said plate projects through the axle-opening in said wall a^2. Between the plate C and the rear wall a^3 of box A in chamber *a* is a packing or plate D, of any suitable material—such, for instance, as a plate of wood, a layer of red fiber, papier-maché, felt, or other analogous yielding or elastic material—having a central opening *d* to fit the axle. I prefer, however, to make the packing or plate D in sections divided at the transverse center line of the same with overlapping edges *d'*. (See more plainly Fig. 3.) These sections or the plate may be of a circular, oval, or other suitable form and have grooved or recessed edges d^2 for the reception of a plain-wire or other suitably-configured spring d^3, having free ends d^4 d^4, which abut against the sides of chamber *a* to prevent said plate or packing rotating with the axle. If desired, however, said spring-wire may be dispensed with.

The plate or packing D maintains the plate C in position to seal it against the rear face of the front wall a^2 to effectually exclude dust and prevent the escape of oil from box A.

From the foregoing it will be noted that the sheet-metal plate C has its central opening flange *c'* integral therewith and directed to the front wall a^2 of chamber *a*, and that the elastic or yielding packing-plate D is between the plate C and the rear wall a^3, and that said directed flange *c'* of plate C not only forms a bearing for the plate upon the axle, but also returns any oil tending to escape from the box back to the latter.

I am aware that axle-box dust-shields composed of a metal and a packing plate are not new, and hence do not broadly claim the same, my invention being limited to the specific constructions described and claimed.

This application is a division of another pending application, filed by me February 18, 1890, Serial No. 340,857.

What I claim is—

1. In a car-axle box having a rear-wall chamber *a*, provided with an open top *a'*, a metal dust-shield plate C, having central opening and adjoining the front wall a^2 of chamber, and a packing-plate D, separate from plate C, between the latter and the rear wall a^3 of chamber *a*, substantially as set forth.

2. In a car-axle box having a rear-wall chamber *a*, provided with an open top *a'*, a dust-

shield plate C, of sheet metal, having an upset edge central opening fitting the axle, and said edge flange being directed toward the opening in the front wall of chamber *a*, and a packing-plate D, separate from the plate C, between the latter and the rear wall a^3 of chamber *a*, substantially as set forth.

3. In a car-axle box having a rear-wall chamber *a*, with open top *a'*, a sheet-metal dust-shield plate C, having a flanged bore or central opening and a flangeless periphery adjoining the front wall of chamber *a*, and a packing-plate D, of a different material and separate from plate C, between the latter and the rear wall of chamber *a*, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE F. GODLEY.

Witnesses:
S. J. VAN STAVOREN,
J. B. DICKMAN.