

(No Model.)

F. J. COLE & E. W. GRIEVES.
DUST GUARD FOR CAR AXLE BOXES.

No. 444,241.

Patented Jan. 6, 1891.

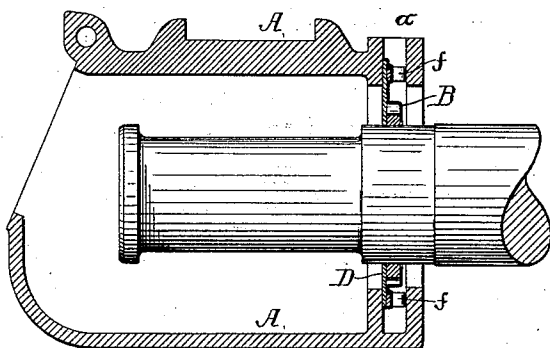


FIG. 1.

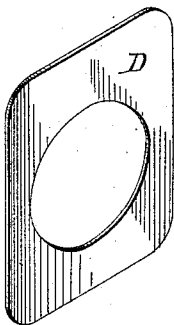


FIG. 2.

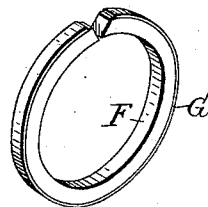


FIG. 3.

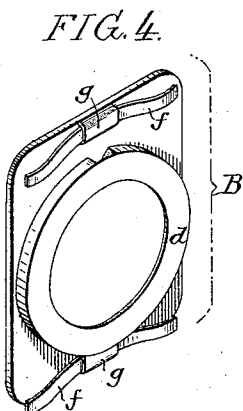


FIG. 4.

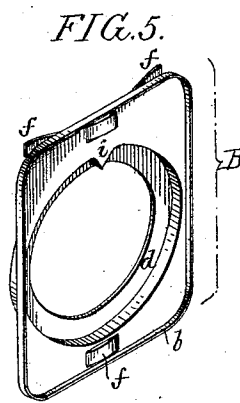


FIG. 5.

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UNITED STATES PATENT OFFICE.

FRANCIS J. COLE AND EDWARD W. GRIEVES, OF BALTIMORE, MARYLAND.

DUST-GUARD FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 444,241, dated January 6, 1891.

Application filed July 2, 1890. Serial No. 357,517. (No model.)

To all whom it may concern:

Be it known that we, FRANCIS J. COLE and EDWARD W. GRIEVES, both citizens of the United States, and residents of Baltimore, Maryland, have invented certain Improvements in Dust-Guards for Car-Axle Boxes, of which the following is a specification.

The object of our invention is to so construct a dust-guard for railroad-car axle-boxes that the same will be extremely strong and durable and will form a close joint both with the axle or journal and with the box, and thus effectually prevent the access of dust or dirt to the bearing-chamber of said box. This object we attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of a car-axle box with dust-guard constructed in accordance with our invention, part of the axle and its journal being shown in elevation; and Figs. 2, 3, 4, and 5 are detached perspective views of the different parts composing our improved dust-guard.

In Fig. 1, A represents part of the casing or shell of an axle-box of the usual construction, having at the inner end a vertical recess or chamber *a* for the reception of the dust-guard, which usually consists of a slab or strip of leather, vulcanized fiber, or the like, which is free to slide vertically in this recess or chamber *a*, and has a central opening for the reception of the journal or journal end of the axle. A dust-guard of this character is, however, objectionable, in that it fails to perform its proper function, as it can never fit so closely in the chamber *a* as to be absolutely dust-tight, and the opening in the slab or strip soon becomes worn, so as to fail to prevent the passage of dust at this point.

In carrying out our invention, therefore, we make a dust-guard consisting of a casing B of thin sheet metal, preferably sheet-steel, this casing having an outer flange *b*, and a central dished portion *d*, as shown in Fig. 5.

Within the flanged portion *b* of the casing is fitted a slab or strip D, of leather, paper, vulcanized fiber, or the like, which is pressed firmly against the front face of the recess or chamber *a* in the box by the action of springs

f, carried by the casing B, and bearing against the outer face of said recess *a*, as shown in Fig. 1, so that the slab or strip D is held in close contact with the front face of the recess, and the access of dust to the box at this point is effectually prevented. The springs are conveniently held in place on the casing B by passing them through pockets *g*, struck up from the metal of the casing, as shown in Fig. 4.

Within the dished portion *d* of the casing B is a split ring F, of paper, leather, vulcanized fiber, or the like, and partially surrounding this ring is an elastic band G, which has a constant tendency to close or contract the ring, and thus cause it to fit snugly to that portion of the axle or journal upon which it is intended to bear, an internally-projecting lug *i* being struck up from the metal of the casing B and extending into the dished portion *d* of said casing at the top, as shown in Fig. 1, so as to be interposed between the ends of the split ring F, and thus prevent the same from being carried around with the axle.

Having thus described our invention, we claim and desire to secure by Letters Patent—

1. A dust-guard casing for railroad-car axle-boxes, the same consisting of a sheet-metal plate having the central portion struck up or dished to form a recess for the reception of packing, substantially as specified.

2. A dust guard or shield for car-axle boxes, consisting of a plate of sheet metal struck up or dished at the center, and a split ring adapted to said dished portion of the plate and bearing upon the axle or journal, substantially as specified.

3. The within-described dust guard or shield for car-axle boxes, the same consisting of a plate of sheet metal struck up to form two recesses, one containing a slab or sheet for bearing against the face of the axle-box and the other containing a split ring for bearing on the axle, substantially as specified.

4. The combination of the split ring and its encircling spring with the casing consisting of a sheet-metal plate struck up to form a receptacle for said ring and its spring, substantially as specified.

5. The combination of the split ring with the casing consisting of a sheet-metal plate dished for the reception of said ring and having an internally-projecting lug struck up
5 from the plate to engage with said ring and prevent its rotation, substantially as specified.

6. The within-described dust-guard casing for railway-car axle-boxes, the same consisting of a plate of sheet metal struck up to form an
10 outer flange for retaining a bearing slab or sheet, a centrally-dished portion for the re-

ception of a bearing-ring, and top and bottom pockets for the reception of presser-springs, substantially as specified.

In testimony whereof we have signed our
names to this specification in the presence of
two subscribing witnesses.

FRANCIS J. COLE.

EDWARD W. GRIEVES.

Witnesses:

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