

L. Y. WILLIAMS.
DUST GUARD.
APPLICATION FILED NOV. 18, 1908.

956,012.

Patented Apr. 26, 1910.

FIG. 1.

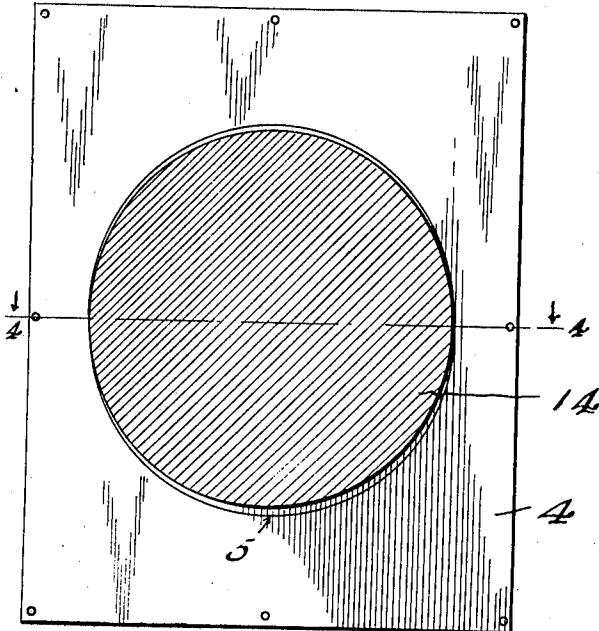


FIG. 3.

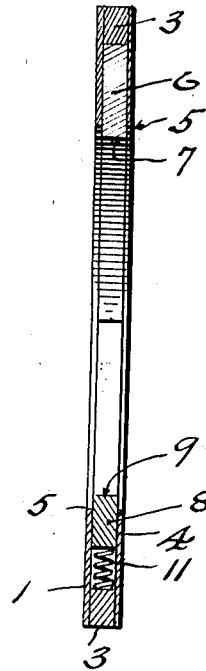


FIG. 2.

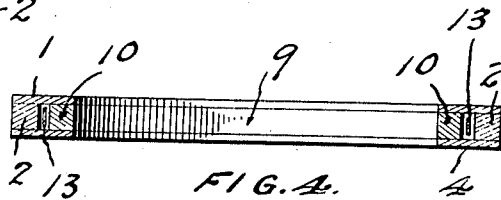
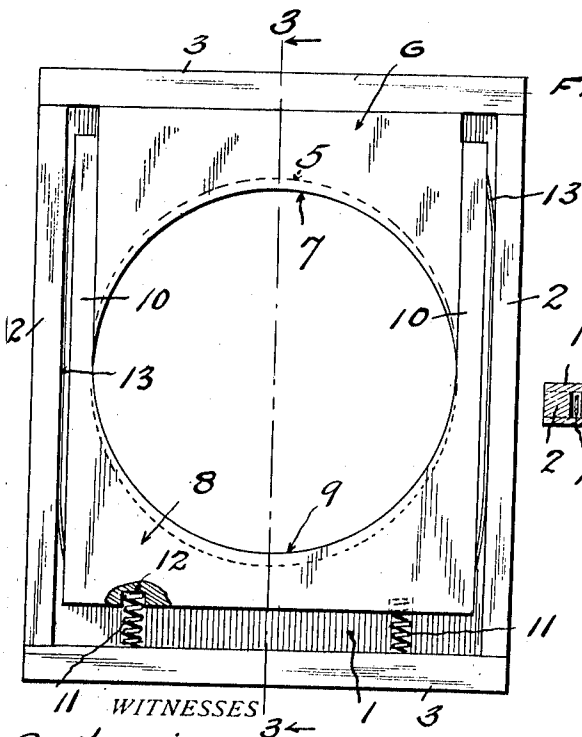


FIG. 4.

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DUST-GUARD.

956,012.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LACEY Y. WILLIAMS, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Dust-Guards, of which the following is a specification.

The object of my invention is the production of an improved dust guard for car journal boxes which shall be adapted for insertion into the chamber at the back end of the box and to closely fit the external surface of the journal under all conditions of service and prevent the admission of dust and dirt to the interior of the said box.

The invention consists in a closed box-like structure having a central opening therethrough and inside the same a fixed bearing element with a semicircular curved edge projecting beyond the surface bounding the opening through the walls of the box, a complemental movable element with a semicircular projecting edge, and springs for forcing said movable element into close frictional contact with the axle journal.

The accompanying drawing illustrates an example of the physical embodiment of the invention constructed according to the best mode I have so far devised for the practical application of the principle.

Figure 1 is a face view of the guard, showing the projecting edges of the two interior elements in contact with a journal of an axle. Fig. 2 is a plan view with one of the side walls removed, showing the two inclosed elements within the box. Fig. 3 is a vertical section of Fig. 2 on line 3—3. Fig. 4 is a section on line 4—4 of Fig. 1, the journal being omitted.

Referring to the figures, the numeral 1 designates one of the walls of the box, in this instance rectangular in outline; 2, 2, narrow side cleats or strips secured in any suitable way to the wall 1 adjacent its edges; 3, 3, cleats or strips secured to wall 1 adjacent its top and bottom edges and abutting the ends of the side strips; 4, the other wall of the box secured to the side and top and bottom strips in any way; 5, the edges of the openings through the two walls of the box; 6, one of the bearing elements within the box secured in position in any suitable way so it cannot move relative to the box; 7, the semicircular projecting edge thereof; 8, the complemental movable element; 9, the semicircular projecting edge thereof; 10,

arms integral with said element 8 and extending each side of the element 6, as shown; 11, 11, coil springs engaging an end cleat or strip and each having one end located within a seat 12 formed in the movable element, as shown; 13, leaf springs located between the side cleats or strips and the arms of the movable element; and 14, in Fig. 1, is an axle journal.

The box and the elements within the same may be made entirely of wood or metal, or partly of wood and partly of metal, or of any other suitable material.

When the guard is inserted within the chamber at the back end of a journal box and the box applied to a journal the springs will force the projecting semicircular bearing edges of the two elements within the box into close frictional contact with the external surface of the journal and prevent the admission of dust and dirt to the interior of the journal box.

The leaf springs at the sides will hold the opposite edges of the bearing element 8 in contact with the journal under all conditions and insure a tight fit, whereas in their absence the warping or wear of the element 8 or the arms thereof might result in causing an opening or openings through which dirt could pass to the interior of the journal box.

From the foregoing description taken in connection with the drawing it will be obvious that I have produced a cheap, durable, and efficient guard for the purpose set forth.

What I claim is:

1. A dust guard consisting of a closed hollow box-like structure with an opening through the walls; a fixed element within the box having a semicircular projecting bearing edge; another complemental and movable element within the box having a semicircular projecting bearing edge and springs; one of the said two elements being provided with parts at the ends of the semicircle which overlap the extreme ends of the projecting bearing edge of the other element along planes tangential to the axle opening; and the springs forcing the projecting edge of the movable element toward the projecting edge of the other element and taking up the wear.

2. A dust guard consisting of a closed hollow box-like structure with an opening through the walls; an element within the box having a semicircular projecting bear-

ing edge; another complemental element within the box having a semicircular projecting bearing edge and projecting parts which overlap the opposite edges of the other element along planes tangential to the axle opening; and a spring; one of said elements only being movable and forced by the spring toward the opening through the guard.

3. A dust guard consisting of a closed hollow box-like structure with an opening through the walls; an element within the box having a semicircular projecting bearing edge; another complemental element within the box having a semicircular projecting bearing edge; and a spring; one of said elements having arms located each side of the other element and one element only being movable and forced by the spring toward the opening through the guard.

4. A dust guard consisting of a closed hollow box-like structure with an opening through the walls; a fixed element within the box having a semicircular projecting bearing edge; another complemental and movable element within the box having arms located outside of the edges of the fixed element, and a semicircular projecting bearing edge; and springs for forcing the arms and the element itself toward the opening through the guard.

5. A dust guard consisting of a box closed at the ends and sides and having two walls with an opening through the same approximately circular or bounded by curved lines; a fixed bearing element occupying one-half the circumference of the opening through the walls to engage one-half of a journal; said box having recesses, one each side of the said bearing element; a movable bearing located within the box, said bearing having a semicircular projecting bearing edge to engage the other half of the journal, and arms within the said recesses each side

of the fixed bearing element; and a spring which forces the movable bearing against the journal, whereby the movable bearing can take up the wear.

6. A dust guard consisting of a box closed at the ends and sides and having two walls with an opening through the same approximately circular or bounded by curved lines; a fixed bearing element occupying one-half the circumference of the opening through the walls to engage one-half of a journal; a movable bearing located within the box, said bearing having a semicircular projecting bearing edge to engage the other half of the journal, a part of said movable bearing projecting within the box beyond the fixed bearing element to hold said movable bearing in place and to guide the same; and spring means which forces the said movable bearing against the journal, whereby the movable bearing can take up the wear.

7. A dust guard for journal boxes comprising a rigid closed casing having registering axle receiving openings in opposite sides thereof, a single outwardly and inwardly movable section, and a fixed section both arranged within said casing and having their inner edges overlapping along planes tangential to the axle opening, a spring between said casing and said movable section for moving the section radially toward the fixed section and additional springs between said casing and said movable section acting at right angles to said inner edges for maintaining said inner edges in engagement with each other.

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

LACEY YEA WILLIAMS.

Witnesses:

LAURA SCHROEDER,
MARY G. EAGAN.