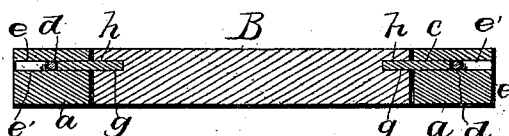
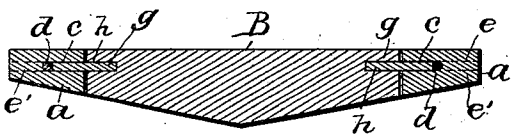
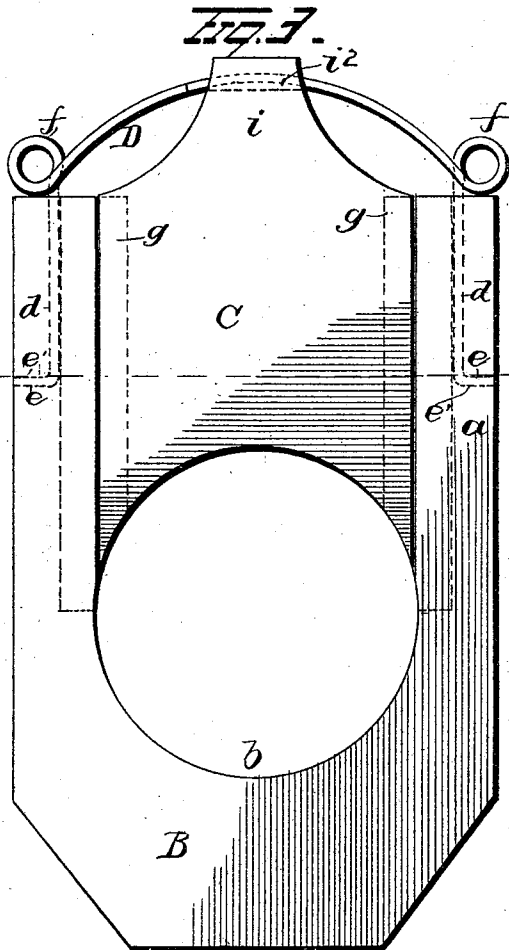
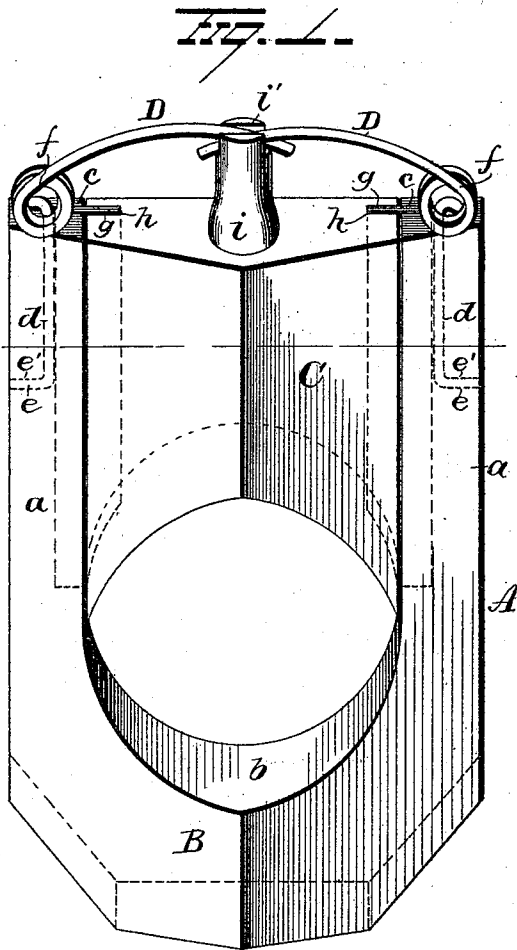


(No Model.)

J. TIMMS.
DUST GUARD FOR AXLE BOXES.

No. 498,369.

Patented May 30, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES TIMMS, OF COLUMBUS, OHIO.

DUST-GUARD FOR AXLE-BOXES.

SPECIFICATION forming part of Letters Patent No. 498,269, dated May 30, 1893.

Application filed December 3, 1892. Serial No. 454,002. (No model.)

To all whom it may concern:

Be it known that I, JAMES TIMMS, a resident of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Dust-Guards 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 relates to an improvement in dust guards for axle boxes,—its object being to produce a simple and efficient dust guard by means of which dust will be excluded from the axle box and the escape of oil from the latter effectually prevented.

A further object is to construct a dust guard in such manner that when it becomes worn, the defective part can be removed and replaced by another without the necessity of removing the box from the truck frame.

A further object is to provide a dust guard with simple and efficient means for maintaining the parts thereof in proper relation to the axle.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings: Figure 1 is a perspective view illustrating my invention. Fig. 2 is a cross section of the same. Fig. 3 is a view of a modification. Fig. 4 is a cross section of same.

A represents my improved dust guard and comprises a stationary part B and a movable part C. The stationary part B is made with two parallel arms *a, a* connected by a curved bearing *b* adapted to receive and partially embrace the axle and preferably located beneath the same. The inner edge of each arm *a* is made with a groove or recess *c*, which extends from the upper end of each arm to the curved bearing *b*. Inserted in the upper portions of the grooves or recesses *c* are arms *d* of springs D, the lower ends of said arms being bent laterally to produce projections *e* which enter sockets or perforations *e'* in said arms *a*. Above the arms *a*, the springs D are bent

to produce coils *f*, and their free ends extended toward each other for a purpose which will be presently explained.

After the arms *d* of the springs D shall have been inserted in the grooves or recesses *c* as above explained, tongues *g* are secured in said grooves or recesses and project inwardly therefrom, said tongues extending from the upper ends of the arms *a* to the bearing *b* and at their lower ends are curved concentrically with said bearing. The tongues *g* may be either of wood or metal as desired. Located between the arms *a* of the stationary portion B of the guard is the movable portion C thereof, the edges of said movable portion being provided with grooves *h* for the reception of the tongues *g* and the lower end of said movable portion C being curved concentric with the axle and adapted to bear upon and partially embrace the same. The upper end of the movable part C of the guard is provided with an upwardly projecting arm *i* having a recess *i'* in its upper end for the reception of the inwardly projecting portions of the spring D. By this construction and arrangement of parts it will be seen that the movable part C of the guard will be maintained normally in contact with the axle without interfering with the necessary movements of the latter. In order that the movable part C shall be capable of having a free vertical movement between the arms *a*, it is of course necessary that the edges of the movable part C shall not bind or fit tight against said arms *a* and consequently there will be a slight space between the edges of said movable part C and the arms *a*. Now it will be seen that by the provision of the tongues *g* arranged as above described, said tongues not only serve as guides for the movable part C but also serve to effectually close the space between the edges of said movable part and the arms *a* and thus prevent the passage of dust between the part C and the arms *a* and also the escape of oil through said spaces.

In constructing both parts of the guard I prefer to make the inner face flat, and inclined in opposite directions on the outer face as most clearly shown in Fig. 2. By this angular construction the device is adapted to

wipe the oil inward upon the axle and cause it to drop down into the oil box, thus preventing it from working outward and wasting.

By constructing and arranging a dust guard
5 as above explained it will be seen that when it become worn the injured part can be readily removed and replaced by another without the necessity of removing the box from the truck frame.

10 In Fig. 3 the guard is shown as made flat on its outer face. By thus constructing the device it can be used with axle boxes now in use.

The dust guard above described is very simple in construction, easily applied or removed
15 and is effectual in the performance of its functions.

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

1. In a dust guard, the combination with a stationary part having two parallel arms, and a curved bearing, of a movable part having a curved bearing, adapted to slide between
25 said arms, an arm projecting from said movable part and having a recess in its free end, and springs secured at one end to the arms of the stationary part and adapted at their free ends to enter the recess in the arm of the
30 movable part, substantially as set forth.

2. In a dust guard, the combination with a stationary part having a curved bearing and parallel arms having grooves or recesses therein, of springs having arms secured in
35 said grooves or recesses, the free ends of said springs projecting toward each other, tongues also secured in the said grooves, a movable part having a curved bearing at one end and grooves in its edges for the reception of said
40 tongues, and an arm projecting from said

movable part and having a recess for the reception of the free ends of said springs, substantially as set forth.

3. In a dust guard, the combination with a stationary part having parallel arms with
45 grooves in their inner edges and sockets or perforations communicating with said grooves, of tongues secured in said grooves, springs having arms to enter said grooves behind the tongues, projections at the ends of the arms
50 of the springs adapted to enter said sockets or perforations, a movable part located between said parallel arms of the stationary part and having grooves for the reception of said tongues, and an arm projecting from said
55 movable part and having a recess for the reception of the free ends of said springs, substantially as set forth.

4. In a dust guard, the combination with a stationary part having a curved bearing and
60 two parallel arms, of a movable part adapted to have a sliding movement between said arms and having a curved bearing at one end, an arm projecting from the other end of said movable part and having a recess therein,
65 and a spring secured to the free end of each arm of the stationary part, each of said springs being coiled at a point between its ends the free ends of said springs projecting toward each other and adapted to bear on the end of
70 the arm of the movable part in the recess therein, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES TIMMS.

Witnesses:

C. S. DRURY,
R. S. FERGUSON.