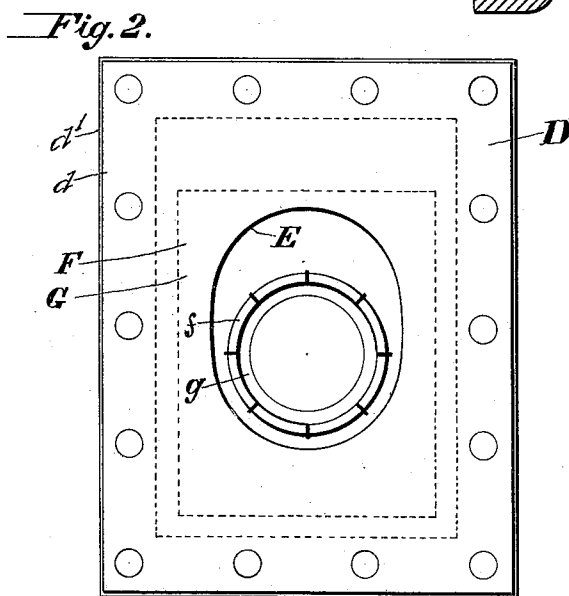
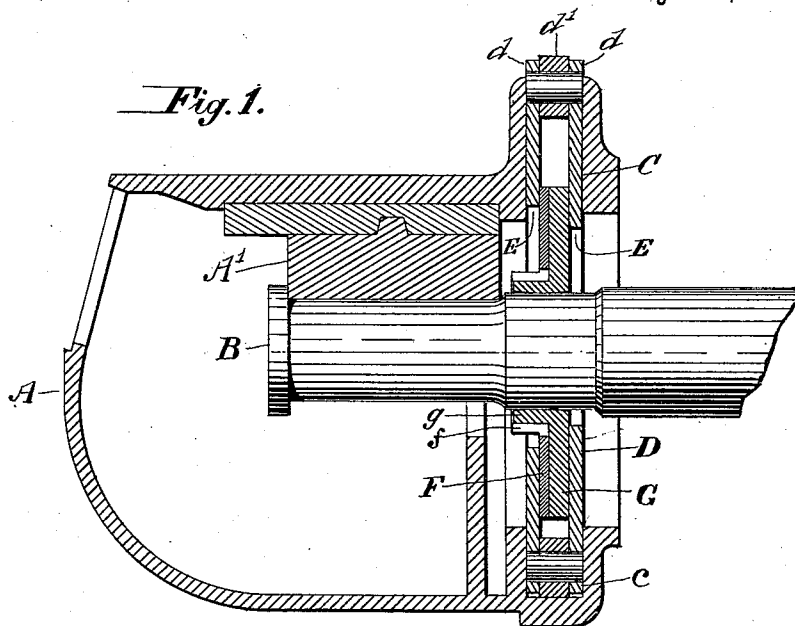


(No Model.)

E. HARRIS & T. PHELPS.
DUST GUARD FOR CAR JOURNAL BOXES.

No. 542,852.

Patented July 16, 1895.



WITNESSES:

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EDWARD HARRIS AND THEODORE PHELPS, OF BREWSTER, NEW YORK.

DUST-GUARD FOR CAR JOURNAL-BOXES.

SPECIFICATION forming part of Letters Patent No. 542,852, dated July 16, 1895.

Application filed April 1, 1895. Serial No. 544,108. (No model.)

To all whom it may concern:

Be it known that we, EDWARD HARRIS and THEODORE PHELPS, of Brewster, Putnam county, and State of New York, have invented a certain new and useful Improvement in Dust-Guards for Car Journal-Boxes, of which the following is a specification.

We will describe a dust-guard for a car journal-box embodying our improvement and then point out the novel features in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section through a car journal-box provided with a dust-guard embodying our improvement. Fig. 2 is a full-front view of the dust-guard, showing the same removed from the journal-box.

Similar letters of reference designate corresponding parts in both figures.

A is a car journal-box. It may be of any desired or approved form and supplied with the usual journal-bearing A' resting upon the axle B.

C is the dust-guard chamber arranged at the rear of the box. It is formed in part by channels *c*, located in the bottom and at the sides of the box, and may be of the usual form provided in car journal-boxes for holding the dust-guard or diaphragm, whose function is that of preventing the entrance of dust, dirt, and other extraneous matter into the journal-box and contaminating the lubricating mixture within.

D represents our improved dust-guard. It will be seen to consist of two outer plates *d d*, separated a slight distance from each other by a suitable washer *d'*, preferably of leather, which is interposed between the edges of the plates upon the four sides of the same, and upon which washer the plates *d d* are securely clamped by any desirable means—for instance, rivets. The washer *d'* projects beyond the edges of the plates *d d* and provides simple means for fixing the dust-guard securely and almost, if not quite, hermetically tight in the dust-guard chamber, since the dust-guard may be inserted in the channels *c* and driven down into the same, the projecting washer at the sides affording an effectual seal against the egress of oil or the ingress of dust. A plate or other suitable device may be arranged at the top of the box to bear upon the guard. Both plates *d d* are provided at their central por-

tions with openings *E E*, through which the journal protrudes into the box.

F is a plate arranged between and adapted to move within the chamber formed between the two plates *d d*.

The plate F is provided with a transversely-extending circular flange *f*, surrounding the axle, while upon the side of the plate F, opposite to that from which the flange *f* extends, there is secured a plate of rawhide G, the combined thickness of which, together with that of the plate F, is equal to the width of the opening between the plates *d d*. Adjacent the inner surface of the flange *f* the rawhide G is carried laterally inward (see flange *g*) to bear upon and form a tight joint with the periphery of the axle. To assist in forming this joint we will preferably provide the flange *f* with a number of cuts or slits, forming from the flange, in effect, a series of fingers spring-like in nature, which force the underlying flange *g* firmly against the axle. The composite plate F and G being movable between the plates *d d* and being provided with an aperture whose edges closely embrace and form a joint with the revolving axle, constitutes a valve which readily yields to any swaying or vibration of the axle relatively to the box. As the sidewise movement of the axle is comparatively very slight and the vertical movement of the axle relatively to the journal-box must be considerable to provide for the wear of the journal-bearings A', the apertures *E E* may be made oblong in shape, but should not be so large as to permit the exposure of the edges of the plate F or G at any part of their movement.

To form a tight joint for the plates F and G as they move about, between, and against the plates *d d* the latter may be originally convex toward the chamber formed between the plates. As a result, they will be firmly pressed against the plates F and G when riveted together at their outer edges.

The rawhide forming the plate G and flange *g* will preferably before putting into place have undergone a hardening process to increase its durability.

Having described our invention, what we consider as new, and desire to secure by Letters Patent, is—

1. The combination with a car journal box,

of plates provided with openings through which the car axle passes, a washer clamped between the plates and extending beyond the edges of the same to form a tight joint with the box, a second plate held between the first mentioned plates and capable of a sliding movement relatively to the same, the second plate having an opening for the entrance of the car axle and means for forming a tight joint between the edges of the opening in the second plate and the car axle, substantially as specified.

2. A dust guard for insertion in a car axle box, comprising side plates provided with openings through which the car axle passes, a washer securely held between the plates and extending beyond the edges of the same to form a tight joint with the box and a second plate held between the side plates and capable of a sliding movement relatively to the same, the second plate having an opening

whose edges are extended laterally to form a tight joint with the axle, substantially as specified.

3. The combination with a car journal box, of a dust guard comprising side plates, a washer interposed between the plates, a composite plate sliding between the side plates which is composed of a plate of metal on one face and a plate of raw hide on the opposite face and circular flanges extending from the composite plate, encircling the car-axle and forming a tight joint therewith substantially as specified.

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

EDWARD HARRIS.
THEODORE PHELPS.

Witnesses:

ABRAM J. MILLER,
RICHARD MICHELL.