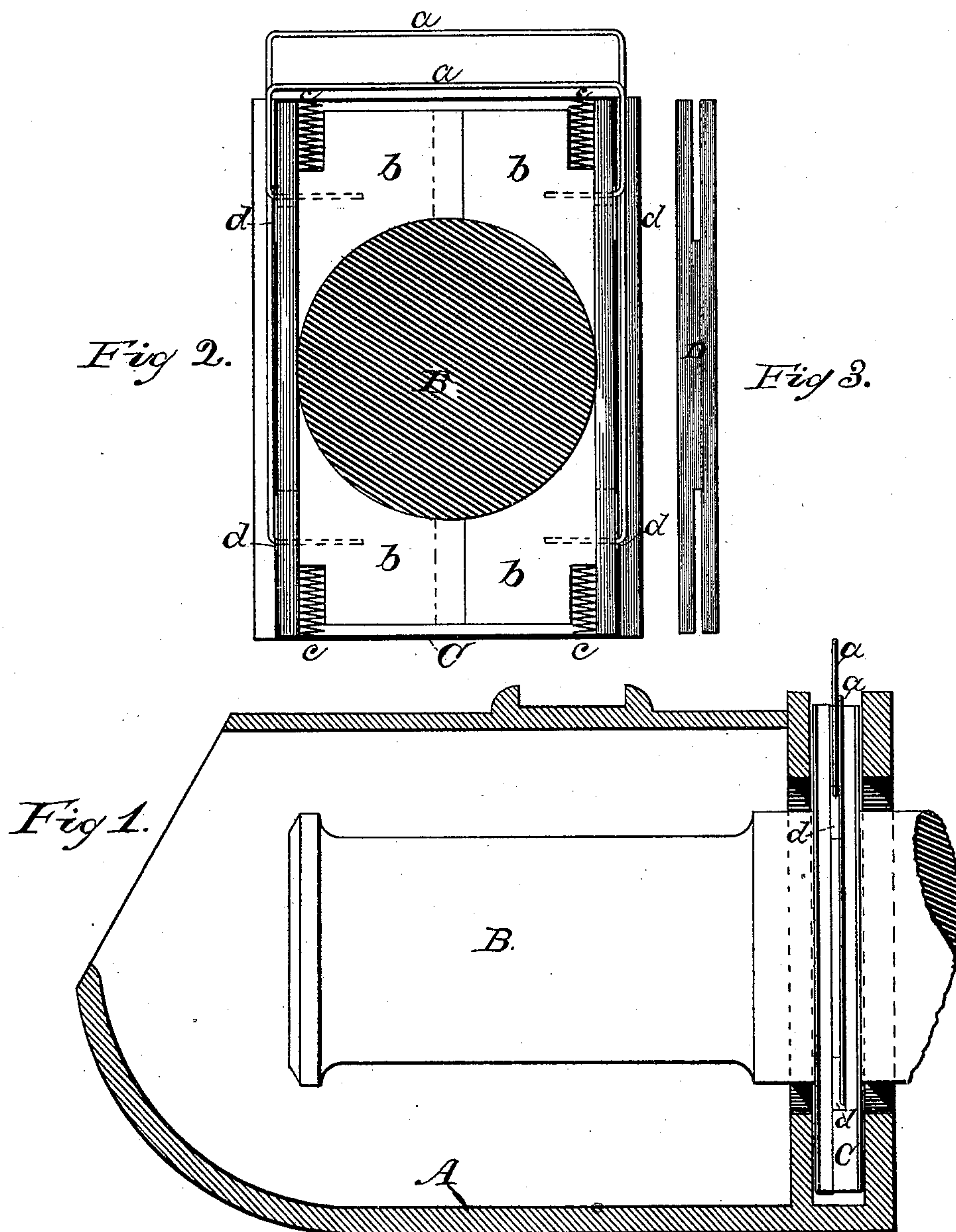


(No Model.)

A. L. CUSHMAN.
DUST GUARD FOR CAR AXLE BOXES.

No. 437,643.

Patented Sept. 30, 1890.



Witnesses
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ABE L. CUSHMAN, OF CONCORD, NEW HAMPSHIRE.

DUST-GUARD FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 437,643, dated September 30, 1890.

Application filed May 9, 1890. Serial No. 351,112. (No model.)

To all whom it may concern:

Be it known that I, ABE L. CUSHMAN, a citizen of the United States, residing at Concord, in the county of Merrimac and State of New Hampshire, have invented a new and useful Improvement in Dust-Guards for Car-Axle Boxes, of which the following is a specification.

My invention relates to improvements in dust-guards for car-axle boxes in which blocks operated by springs in a casing act in conjunction with a car axle or journal; and the object of my improvements are, first, to provide a dust-guard that may be used on any ordinary car-axle box or housing; second, to provide a dust-guard that is positive against the entrance of dust into the box or the exit of oil from the box, and, third, a dust-guard that is simple in construction, easily operated, and repaired at a small cost. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of the housing, showing the dust-guard in position on the journal. Fig. 2 is a side elevation of the dust-guard with one side removed to show the blocks in position within the dust-guard proper, and the springs that operate the blocks. Fig. 3 is a side view of the strips at either side of the blocks that hold them within proper bounds, and the sides equal to the diameter of the journal, so that they may be worn off and still retain the same relative position to the journal.

Similar letters refer to similar parts throughout the several views.

The axle box or housing may be the kind known as the "master car-builder's standard," or any other kind of an axle-box serving the purpose of the same, if the inner end is provided with a chamber or a receptacle for the purpose of containing the dust-guard, and a slot at the top entering into the chamber to allow the admittance of the dust-guard into the receptacle.

The frame or casing C may be made of tin or any other kind of suitable material adapted thereto—in this case, of tin—to allow the blocks *b* to be as thick as possible, which may be made of any kind of wood suitable for that purpose, one end being cut to the shape that will conform to the outside periphery of the

journal C, the opposite ends being cut at right angles to either of its sides, except one corner, which is removed to admit of the springs *c c c c*, hereinafter referred to. One side of the aforesaid blocks *b b*, nearest the center of the guard C, is cut out or provided with a tongue and groove to allow one of the blocks to pass by the other sufficient to make a tight joint between the blocks, and also to allow the wood to shrink and swell and not bind within the dust-guard casing C, so that the springs *c* will hold the blocks *b* in contact with the journal B.

The casing in this case is preferably made of tin, of the proper size to allow the edges to be turned up sufficient to make a receptacle of the required size for the reception of the blocks *b b b b* and the springs *c* at either corner, and also the strips D D, at opposite sides of the blocks *b*, which may be the same distance apart as the diameter of the journal C, and the aforesaid strips are provided with slots at the ends to allow the wires *a a* to pass through and have a lateral movement to take up any wear in the blocks or journal, the latter passing through a round hole in the center of the casing C, which is also provided with longitudinally-extending slots *d d d d* on either side, through which pass the wires *a a*, secured to the blocks *b* at either end.

The wires *a a*, previously referred to, and shown more fully in Fig. 2, are secured to the blocks *b b* by means of a hole drilled in the outer side of the blocks *b*, nearest the casing C C, through which passes the wires *a a*, and through the slots in the strips D D and the slots *d* in the casing, sufficient to allow the wires *a* to pass up the side of the casing C, and after reaching the top they are bent at right angles to the sides of the casing, allowing them to pass across the top at a distance from the casing to allow the lateral movement of the wires *a a* in the slot *d*, one of the wires being longer than the other above the casing, the shorter wire secured to the blocks at the top of the casing, the longer wire to the opposite end, so that, taking hold of the wires and bringing them together, the blocks will be drawn apart sufficient to allow the journal C to pass through with ease, and when the wires are again released the blocks will come in contact with the journal and be held therewith

by the springs *c c c c* at either corner of the casing *C*.

I am aware that prior to my invention dust-guards have been made. I therefore do not
5 claim the combination, broadly; but

What I do claim is—

A dust-guard provided with strips *D D* to hold the blocks within proper bounds within the casing, and the said blocks provided with

wires *a a*, so arranged as to hold the blocks 10 apart when the wires are drawn together at the top, substantially as set forth and described.

ABE L. CUSHMAN.

Witnesses:

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