

S. USTICK.
Car Axle-Boxes.

No. 142,302.

Patented August 26, 1873.

FIG. 3

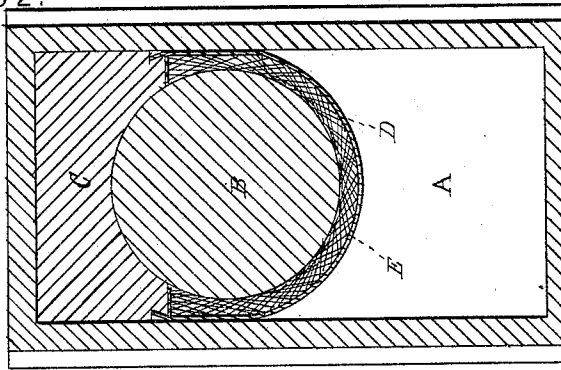


FIG. 2

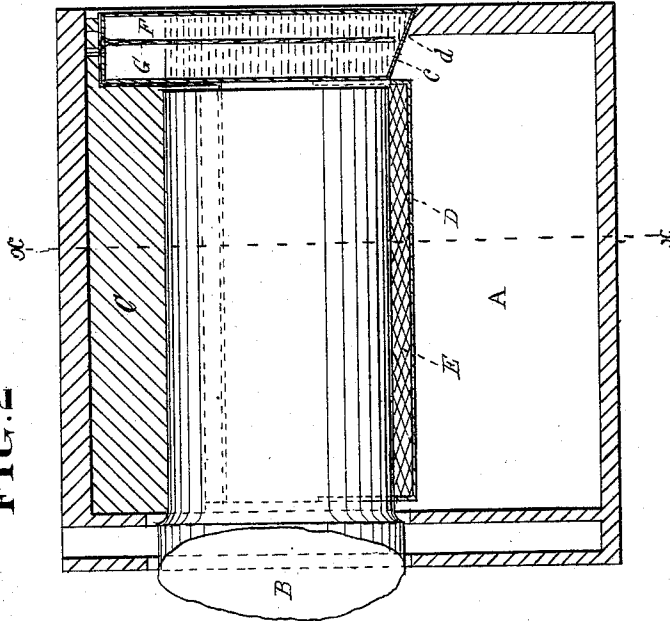
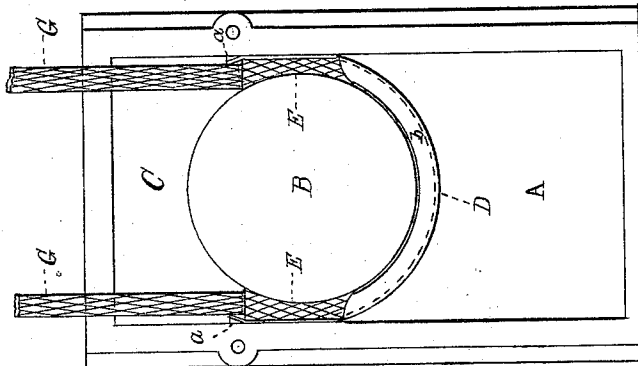


FIG. 1



Witnesses.

Oliver Hughes
Edmund J. McLean

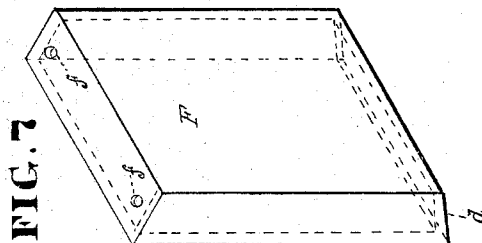
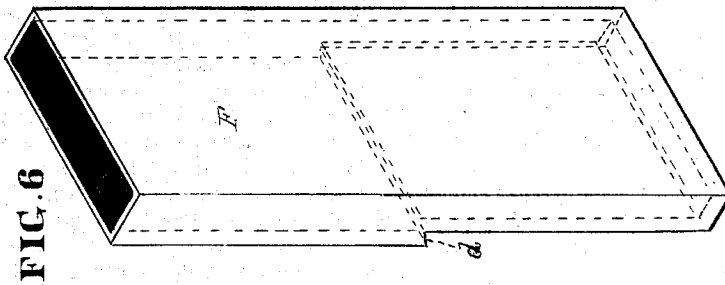
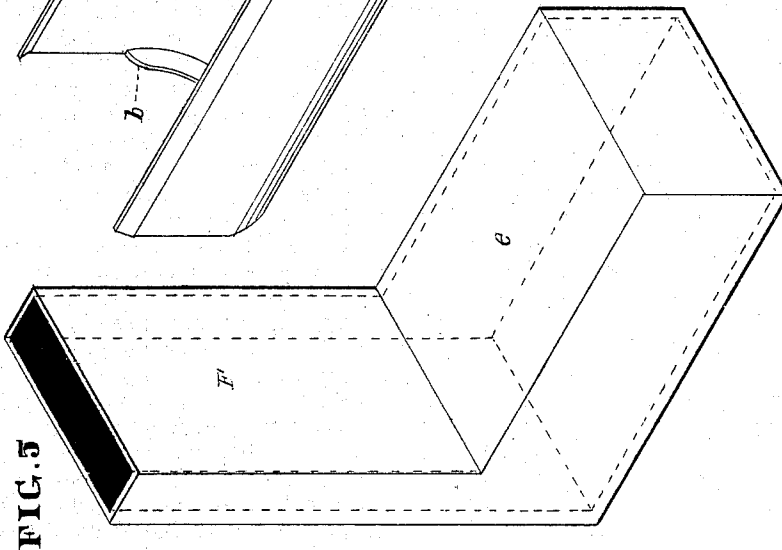
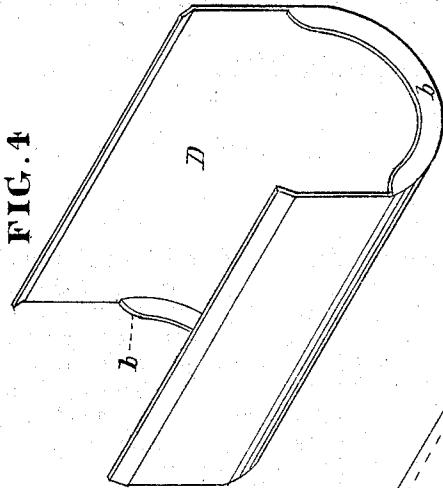
Inventor.

Stephen Ustick

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Witnesses
Thomas B. Bewley
William R. Wright

Inventor
Stephen Ustick

UNITED STATES PATENT OFFICE.

STEPHEN USTICK, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. **142,302**, dated August 26, 1873; application filed May 1, 1873.

To all whom it may concern:

Be it known that I, STEPHEN USTICK, of the city of Philadelphia and State of Pennsylvania, have invented a Lubricator for Car-Axle Journals, of which the following is a specification:

My invention relates, in the first place, to a detachable oil-box, arranged with its upper end in front of the journal-bearing, to which the oil is supplied, free from dust and perfectly clean, by means of a wick or wicks which pass through the top of said box. The invention, in the second place, consists of a shield made of sheet metal or other suitable material and provided with a pad, which surrounds all that portion of the journal beneath the bearing in such a manner as to protect the periphery of the journal from dust or other dirt or grit which may enter the journal-box. The pad also serves to distribute the oil upon the journal.

Figure 1 is an end view of a car journal-box having the shield in connection, but the oil-box removed. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section at the line *xx* of Fig. 2. Fig. 4, Sheet No. 2, is an isometrical view of a sheet metallic shield, D. Fig. 5 is a like view of the oil-box F. Figs. 6 and 7 represent modified forms of the box.

Like letters in all the figures indicate the same parts.

A is the journal box; B, the journal; and C, the journal-bearing. D is a metallic shield, shown in detail in Fig. 4. It is connected at its upper edges with the journal-bearing C, in the present instance, by means of the dovetail rabbets *aa* at the lower corners of the bearing, but may be connected therewith in any other convenient manner, or with the sides of the journal-box. In the latter case outwardly-turned edges of the shield might rest on lugs or longitudinal ledges on the sides of the box. The shield might be supplied with feet for its support. E is a pad, which consists of felt, cotton-waste, or any other suitable material, placed between the shield D and the journal B, covering all that part of it beneath the bearing C, so as to completely protect it from dust or dirt and also distribute oil thereon. The shield, at its bottom part, has flanges *b b*, which

serve to hold the pad in its longitudinal position, and also to retain the oil. These flanges may, however, be omitted, if desired. A sheet of canvas or other material, being connected at its upper edges to longitudinal rods beneath the lower flat edges of the bearing C, may be used instead of the metallic shield; or the ends of the sheet may hang down into an oil-receptacle to supply the distributing-pads with oil, in which case it may be necessary to weight the ends of the sheet, so as to keep the pad E up against the journal. F is an oil-box, having its upper end in front of the journal-bearing C, and wicks G G passing down into the oil, as seen in Fig. 2. The upper ends of the wicks extend over the top of the box and over the top edges of the pad E, so as to convey the oil thereto. I usually connect the wicks with the pads and extend their outer ends upward, as seen in Fig. 1, before placing the oil-box F in position, and connect the wicks therewith. The oil-box may only extend part of the way down the depth of the journal-box A, as represented in Fig. 2, so as to accommodate it to journal-boxes partly closed in front, in which case the lower edge C should be beveled and rest on a corresponding beveled edge, *d*, of the front end of the box, to hold it outward and prevent its bearing against the end of the journal B. The box, at its upper end, rests against the front end of the journal-bearing C, and, when the cover of the front of the box A is fastened on, it keeps the box F in place.

The box, as shown in connection, is seen in detail in Fig. 7. It is preferably made with an extension, *e*, as shown in Fig. 5, which sits on the bottom plate of the journal-box, as in this form it will contain a considerable amount of oil. The part *e* is short enough to leave a space in the journal-box, at its rear end, to receive any dust which may pass into it. The height should be such as to be entirely free from the journal.

A box made with the extension is readily placed in position and removed when desired, when the journal-box has an open front, as seen in Fig. 1.

The box may extend the whole depth of the journal-box, or nearly so, without the exten-

sion; and, if the front end of the journal-box is closed below, it may be reduced in thickness at its lower end to about the thickness of the front of the journal-box and have a bevel-shoulder, as shown in Fig. 6, to hold it in place.

The oil-box may be closed on its upper end, as shown in Figs. 2 and 7, the top having openings *ff* for the passage of the wicks; or it may be made open, with or without a loose cover. The object of the cover is mainly to prevent the passage of dust into the box, and this can only occur when the front end of the journal-box is left open.

I claim as my invention—

1. The detachable oil-box F, so constructed and arranged as to have its upper end in front of the journal-bearing, substantially in the manner and for the purpose above described.

2. The combination and arrangement of the shield D and pad E with the journal B and bearing C, substantially as and for the purpose set forth.

STEPHEN USTICK.

Witnesses:

THOMAS J. BEWLEY,
J. W. HAMPTON, Jr.