J. W. BOLLMAN & J. G. ERNST.

CAR-AXLE LUBRICATOR.

No. 190,272. Patented May 1, 1877.

FIG. I.

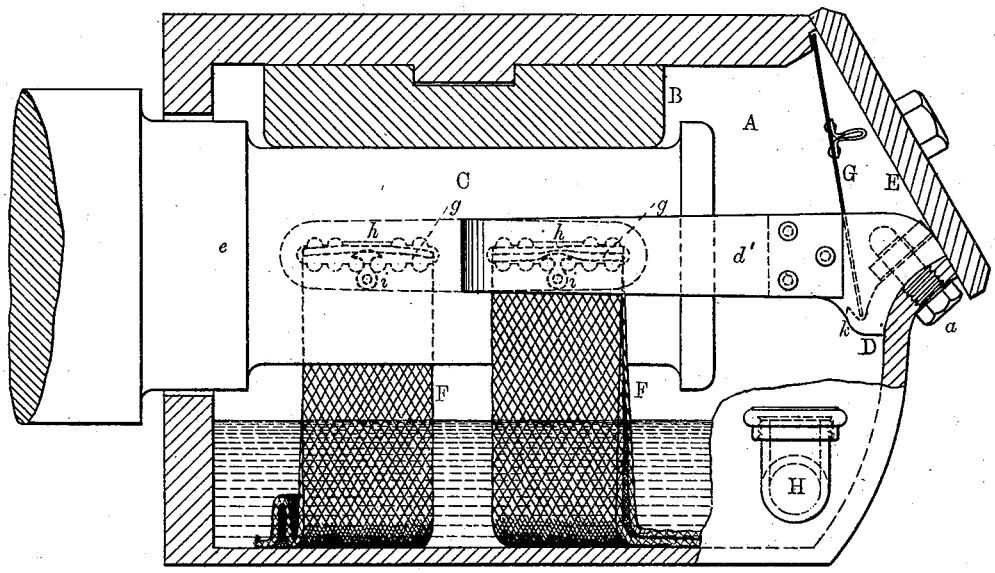
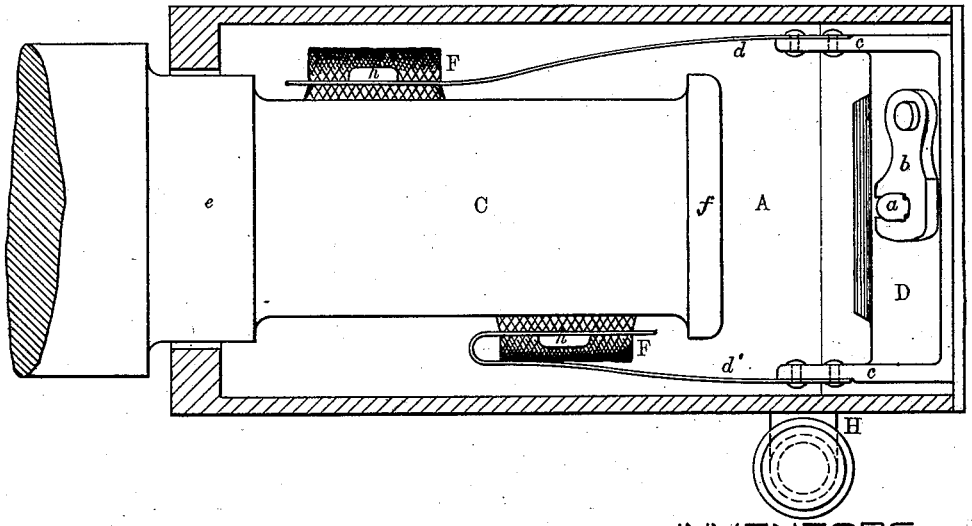


FIG. II.



INVENTORS.

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WITNESSES.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN CAR-AXLE LUBRICATORS.

Specification forming part of Letters Patent No. **190,272**, dated May 1, 1877; application filed March 3, 1877.

To all whom it may concern:

Be it known that we, JOHN W. BOLLMAN and JOHN G. ERNST, both of the city of Baltimore and State of Maryland, have invented certain Improvements in Car-Axle Lubricators, of which the following is a specification; and we do hereby declare that in the same is contained a full, clear, and exact description of our said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates to certain improvements in that class of lubricating devices for car-axles in which the said axle is oiled by means of wicks extending to an oil-supply, the said wick conducting the oil above the level of that in the supply, and in contact with the axle-journal.

Our invention has specific reference to the wick-supporting devices, and to the manner of locking or securing the same within the axle-box.

In the description of the invention which follows, reference is made to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a longitudinal section of a car-axle box fitted with our improved lubricating devices, which devices, together with a portion of the axle, are shown partly in section. Fig. 2 is a partly sectional plan of the said box and lubricating attachments.

Similar letters of reference indicate similar parts of the invention in both figures.

A represents a car-axle box of the description ordinarily in use, and B the bearing for the axle-journal. C D is a bar fastened immediately within the front opening E of the box, by means of a notched bolt or pin, *a*, projecting from the inner face of the box, and a hook, *b*, pivoted to the bar. The hook *b* is fitted to pass over the notched portion of the pin *a*, and thereby lock the bar and prevent its removal. The bar D is furnished with lugs *c*, extending toward the journal C, to which lugs the spring-supports *d d'*, for the wicks, are riveted. The spring *d*, which is designed to support the wick next to the collar *e* of the axle-journal, is curved inward at its free end in order to bring the wick in contact with the surface of the journal and lubricate it. The spring *d'*, which serves to hold the wick at the other end of the journal or next to the collar *f*, is necessarily too short to admit of its being curved in like manner as the one, *d*; it is, therefore, duplicated or doubled, as is shown in the drawing. The wicks, which are represented by F, are inserted through slots *g* in the far ends of the spring-supports, and their upper ends brought into close contact with the surface of the axle-journal. The lower ends of the wicks are allowed to lie loosely in the oil at the bottom of the box A. As it is necessary that the wicks should be firmly held within the slots in the spring-supports, and equally necessary that they should not be clamped to such an extent as to stop or impede the flow of oil to the journal, the upper and lower edges of each slot are notched, and provided, respectively, with a projecting lip, *h*, and a hinged lock, *i*, between which the wick is secured. G is a removable partition of some light material, placed in the box A with its lower edge resting upon a projection, *k*, on the bar D, and its upper edge sustained by the edge of the opening E, or by a lug cast or secured to the top inner surface of the box. The object of placing the partition G in the box A, as shown, is to prevent the oil contained in the box from dashing against the cover of the opening E, and escaping through the imperfect joint between the said cover and the face of the box. H is the supply-tube, the upper end of which is slightly below the opening through which the axle is inserted to the box. By locating the oil-tube as described, it is impossible to overcharge the box with oil, and a source of great waste is thereby removed.

Our improved oiling devices are found to prevent the heating of car-axles, and are applicable, with slight modification in size and shape, to boxes now in use.

The difference between the supporting-arms for the wicks herein claimed and others in use is apparent, as in our invention they are not rigid, and are of unequal lengths, holding the wicks so as to afford greater lubricating-surface. We are aware that it is not new to hold wicks against the journal for the pur-

pose of lubricating the same, and, therefore, do not claim, broadly, devices for effecting this result; but,

Having described our invention, we claim as our invention—

1. In combination with a car-axle box, spring supporting-arms for holding the wicks, the said arms being of unequal lengths, as described, whereby the wicks are held against different parts of the journal, substantially as and for the purpose specified.

2. Spring-arms of unequal lengths for holding the wicks, combined with a removable bar, forming the base of the said arms, and suitable locking devices for securing the said bar to the axle-box, substantially as described.

3. Spring-arms of unequal lengths for supporting the wicks, provided at their free ends with serrated slots for receiving the said wicks, thereby admitting the oil to flow freely, as specified.

4. The free ends of the spring-supports for the wicks, slotted substantially as described, and provided with the projecting lips and hinged locks for holding the wicks within the said slots, substantially as set forth.

In testimony whereof we have hereunto subscribed our names this 19th day of February, in the year of our Lord 1877.

JOHN W. BOLLMAN.
JOHN G. ERNST.

Witnesses:
E. H. FRAZIER,
WM. W. TOWSEN.