(No Model.)

A. D. HOWE.

AXLE LUBRICATOR.

No. 341,009. Patented May 4, 1886.

Fig. 1.

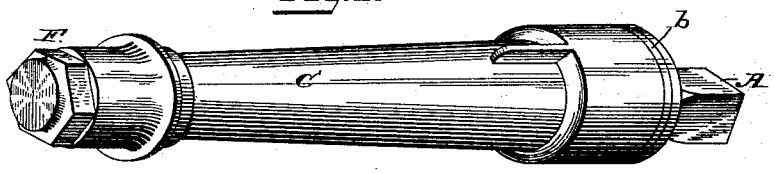


Fig. 2.

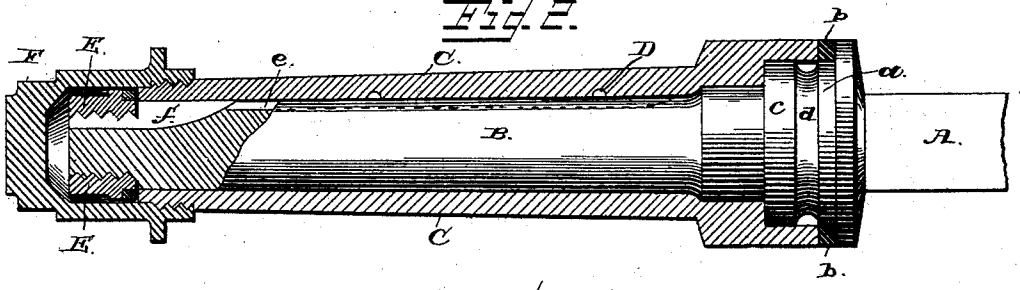
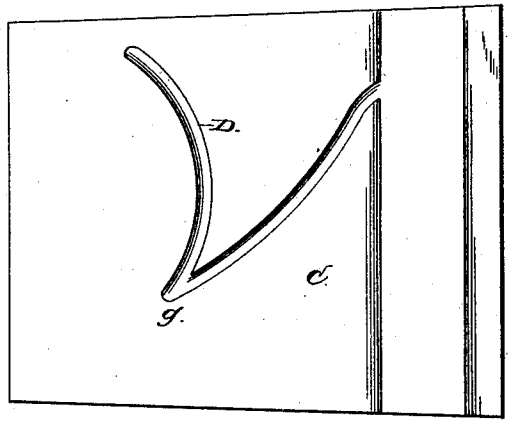


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT D. HOWE, OF COSHOCTON, OHIO.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 341,009, dated May 4, 1886.

Application filed March 27, 1885. Serial No. 160,300. (No model.)

To all whom it may concern:

Be it known that I, ALBERT D. HOWE, a citizen of the United States, residing at Coshocton, in the county of Coshocton and State of Ohio, have invented a new and useful Improvement in Axle-Lubricators, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to axle-boxes; and it has for its object to provide a cheap, simple, and durable box, that will contain and efficiently supply lubricant to the axle.

The invention consists in the improved construction of axle and box, and in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claim.

In the drawings, Figure 1 is a perspective view of a portion of an axle, and showing the box applied thereto. Fig. 2 is a longitudinal vertical section. Fig. 3 is a view of the box, the same being slitted, and then flattened out.

In the accompanying drawings, in which like letters of reference indicate corresponding parts in all the figures, A represents a portion of the axle, and B the spindle thereof, the axle and spindle being formed at about their point or junction with a shouldered collar, *a*, on the shoulder of which is a gasket or packing-ring, *b*. On the spindle B, adjacent to the shouldered collar, is provided a collar, *c*, which is located a sufficient distance from the shouldered collar to leave a groove, *d*, which is somewhat smaller than the collar *a*, and forms a dust-chamber, to prevent foreign matter from entering between the axle-box and the spindle. The spindle B is formed with a longitudinally-disposed groove or channel, the inner end of which terminates at a point a slight distance from the collar *c*. The outer end of the spindle B is reduced and threaded, and the said groove or channel *e* continues through the reduced threaded portion, and is depressed or made deeper on said threaded portion and adjacent thereto, as shown at *f*, than for the remainder of its length.

C represents the axle-box, which, when in place upon the spindle B, is adapted to bear with its inner end against the gasket or packing on the shouldered collar *a*, the collar *c* bearing against an interior shoulder in the said box C, adjacent to the inner end thereof.

D represents a groove, which is formed upon the inner face of the axle-box C, the said groove commencing at a point adjacent to that at which the shoulder *c* is located when the box is on the spindle, and continues toward the outer end of the box, making a half turn or circuit of the same. The groove or channel then turns in the opposite direction, and continues toward the outer end of the box, making another half turn or circuit of the same, the grooves forming a V-shaped point, as shown at *g*.

The reduced threaded end of the spindle extends through and beyond the axle-box, and fitting the same is a nut, E, open on its outer side and having a gasket or washer, which bears against the outer end of the box C. The outer end or extremity of the axle-box C is also threaded, and adapted to fit the same is a cap, F, which is provided with an angular outer end, to permit the adjustment of a wrench thereon for tightening it in place, said cap inclosing the outer end of the box and the spindle, but leaves a space between its outer end and the end of the spindle.

In operation the cap is removed, and the lubricant placed in the same, and said cap adjusted in place. The lubricant is forced to the spindle, when the cap is tightened, through the groove or channel in the same, said groove or channel communicating with the cap through the open end of the nut and feeding the same into the groove D, which forms a reservoir for the lubricant and supplies it to the spindle at different points on the same.

My improvement is simple in its construction, may be manufactured at a slight cost, and provides thoroughly efficient means for lubricating the axle-spindle.

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

The axle having its spindle threaded at its outer end and provided with a longitudinal groove or channel, *e*, the outer end of which continues through the threaded portion of the spindle, in combination with the axle-box C,

having an interior continuous groove, D, forming a reservoir for the lubricant to supply it to all parts of the spindle, a nut, E, screwing over the threaded end of the spindle, and a hollow cap, F, providing a receptacle for the lubricant, all arranged and combined substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALBERT D. HOWE.

Witnesses:
W. E. GOSSER,
HOUSTON HAY.