(No Model.)

# E. BEST.

## CAR AXLE LUBRICATOR.

No. 457,023. Patented Aug. 4, 1891.

Fig. 1

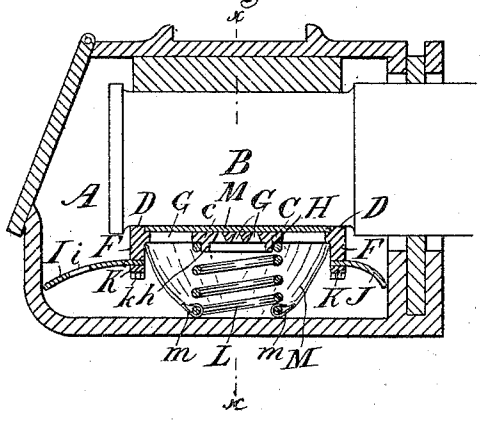



Fig. 2.

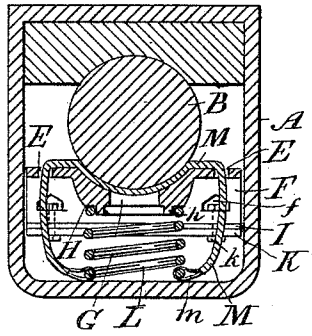



Fig. 4.

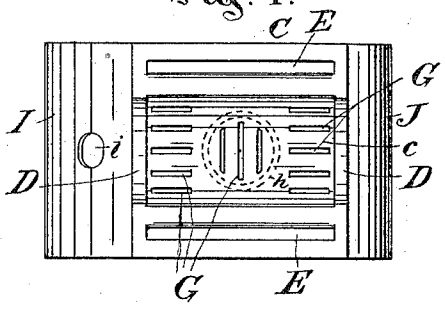



Fig. 3.

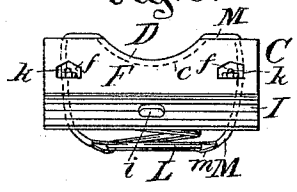
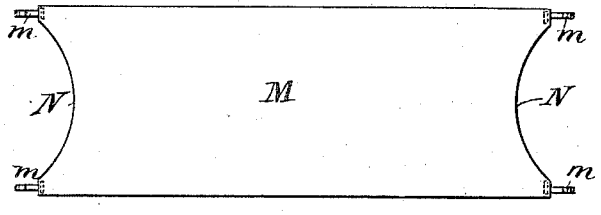



Fig. 5




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# UNITED STATES PATENT OFFICE.

EDWARD BEST, OF CARLETON PLACE, CANADA.

## CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 457,023, dated August 4, 1891.

Application filed April 17, 1891. Serial No. 389,267. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD BEST, a citizen of Canada, residing at Carleton Place, in the county of Lanark, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Car-Axle Lubricators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part hereof.

The object of my invention is to provide a lubricator for car-axles that will be efficient in action, prevent any waste of the lubricant, and be of simple construction.

Referring to the drawings, Figure 1 is a section of a car-axle box fitted with my improved lubricator. Fig. 2 is a transverse section of the same on line *x x*, Fig. 1. Fig. 3 is an end view of the lubricator. Fig. 4 is a top view of the same, the wick being omitted; and Fig. 5 shows the outline of the wick.

A is a car-axle box of the ordinary construction.

B is the axle of the car.

C is a casting having its central portion concaved at *c*. This portion is slightly larger than the diameter of the axle B. At either end of this portion raised rims D are provided, which fit closely the axle. The sides of the portion *c* are extended horizontally to fit the sides of the axle-box. Slots E are formed in these extensions for the passage of the wick. Downwardly-extending flanges F are formed at the ends of the casting, having apertures *f* formed in each end. Apertures G are formed in the concaved portion *c*, being dovetailed in cross-section—that is, they are narrower at the top than the bottom. On the under side of the portion *c* is formed a seat H for a spiral spring, an annular rim *h* being formed for the retention of the spring in its proper position.

Flexible shields I J are secured to the front and back ends of the casting C to the lower sides of the downwardly-extending flanges F by means of metal strips K, secured to the flanges by the bolts *k*, the nuts of which are secured in the apertures *f*. In the front shield a perforation *i* is made for the purpose of filling the box with the lubricant.

L is a spiral spring inserted between the bottom of the box and the casting C, the upper portion resting in the seat H.

M is a broad flat wick having a breadth equal to the bearing portion of the axle B, and is provided at its corners with snap-hooks *m*. The ends of this wick may be concaved, as at N, Fig. 5, to fit snugly the spring L.

The device is assembled and operates in the following manner: The ends of the wick M are passed through the slots E, the middle portion of the wick lying in the concaved portion *c* in the casting. The said ends are then secured at the bottom of the box to the spring L by means of the snap-hooks *m*. The casting is then placed in the axle-box under the bearing portion of the axle, the spring L holding it close thereto. The casting is made the width of the inside of the axle-box, and the flexible shields I and J cover the ends, so as to prevent the spraying and waste of the lubricant. The raised portions D prevent the axle from wearing the wick, which is in contact with the axle without pressure. The ends being secured at the bottom of the box, it cannot be drawn round by the rotary motion of the axle. The apertures G are made wider underneath, in order that the lubricant which is splashed up by the vibration may readily be absorbed by the exposed portions of the wick, thus insuring a constant supply.

Having now fully described my invention, what I claim is—

1. A car-axle lubricator consisting of a casting having a recessed concaved portion in which a broad wick is brought in contact with the axle, a spiral spring adapted to hold the casting and wick in contact with the said axle, slots in the said casting, through which the ends of the said wick pass, the said ends being securely held at the bottom of the axle-box, and flexible shields secured to the ends of the said casting, substantially as set forth.

2. The combination, with a car-axle box, of the casting C, having a recessed concave surface *c*, rims D, slots E, depending flanges F, spring-seat H, apertures G, the spiral spring L, adapted to rest on the bottom of the box and on the said seat H, the wick M, lying in the said concave recess *c* and passing through

the slots E, and the shields I and J, secured to the said depending flanges F by the strips K, substantially as set forth.

3. In a car-axle lubricator, a casting C, having the apertures G and a recessed concave portion *c*, adapted to hold a wick in contact with the bearing portion of the axle, the ends of the said wick being securely held at the bottom of the axle-box, substantially as set forth.

4. The combination, in a car-axle lubricator, with the casting C, wick M, and spring L, of the flexible shields I, *i*, and J, secured to depending flanges at either end of the said casting C, substantially as set forth.

Signed at London this 14th day of April, 1891.

EDWARD BEST.

In presence of—
THOMAS MARSHALL,
DUNCAN FORBES.