

(No Model.)

H. R. RANDALL,
CAR AXLE LUBRICATOR.

No. 300,639.

Patented June 17, 1884.

Fig. 1

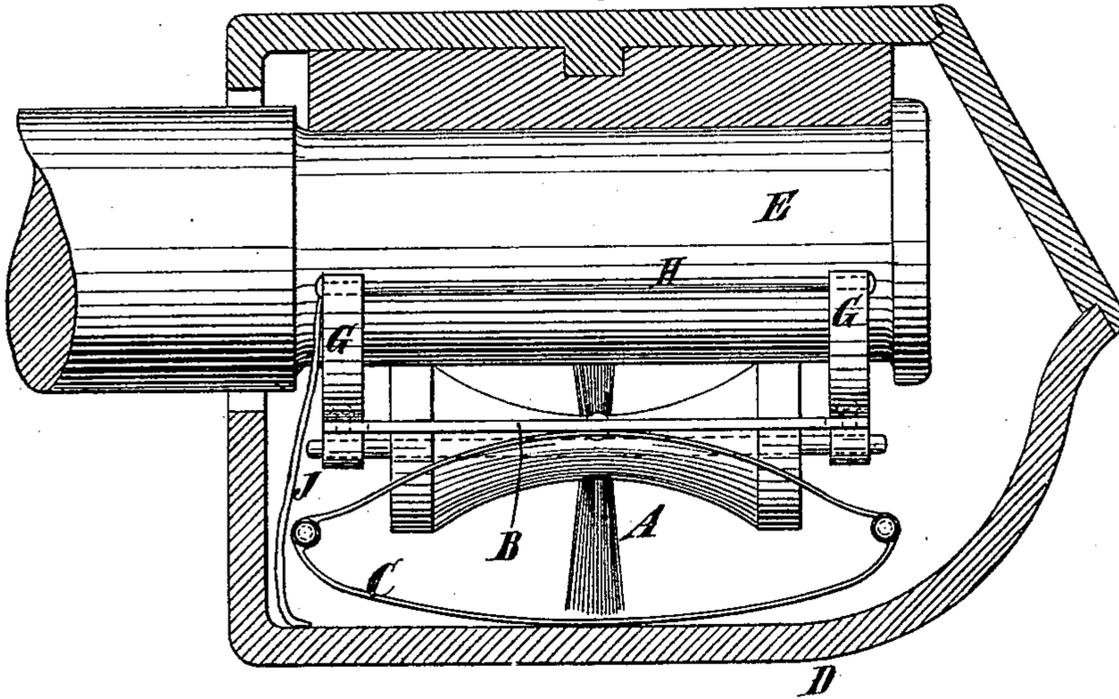
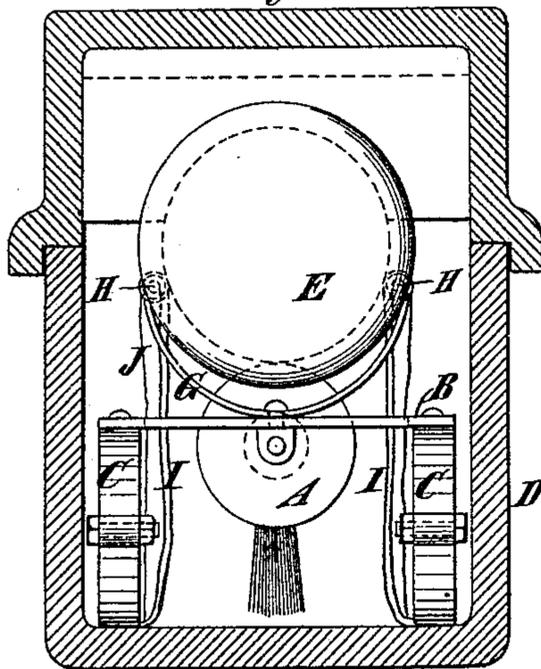


Fig. 2



Witnesses:

James R. Bowen.
Alfred S. Brown.

Inventor:

Henry R. Randall,
by his attorney,
Edwin H. Brown.

UNITED STATES PATENT OFFICE.

HENRY R. RANDALL, OF BROOKLYN, ASSIGNOR TO WILLIAM THORPE, OF
NEW YORK, N. Y.

CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 300,639, dated June 17, 1884.

Application filed April 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, HENRY R. RANDALL, of Brooklyn, in Kings county and State of New York, have invented a certain new and useful Improvement in Lubricators for Journal-Boxes, of which the following is a specification.

My improvement relates to lubricators which are used in journal-boxes, and in which a brush rotated by the journal distributes oil over the journal.

My invention consists in novel combinations of parts, particularly hereinafter described, and referred to in the claims.

The improvement also consists in the combination, with a rotary brush, of a frame in which the same is arranged, elliptic springs supporting the frame and adapted to fit within a journal-box, with the ends in close proximity to the ends of the box, and to hold the hub of the brush in contact with the journal, which is received in the box, and semi-elliptic springs attached to the frame in such manner that they will hug the journal and maintain the brush in proper relation with the journal and the sides of the box.

The improvement also consists in the combination, with a rotary brush, of a frame in which the same is arranged, elliptic springs supporting the frame and adapted to fit within a journal-box, with the ends in close proximity to the ends of the box, semi-elliptic springs attached to the frame in such a manner that they will hug a journal which is received in the box, rods extending between the ends of the semi-elliptic springs, and pieces of felt or like material extending between these rods and the elliptic springs.

The improvement also consists in the combination, with a rotary brush, of a frame in which the same is arranged, elliptic springs supporting the frame and adapted to fit within a journal-box, with the ends in close proximity to the ends of the box, semi-elliptic springs attached to the frame in such manner that they will hug the journal, and a piece of felt or like material extending between and depending from the ends of the elliptic spring which is the farther from the end of the journal.

In the accompanying drawings, Figure 1 is a longitudinal section of a journal-box, a side view of a journal received therein, and a brush

and its appurtenances; and Fig. 2 is a transverse section of the journal-box and an end view of the other parts.

Similar letters of reference designate corresponding parts in both figures.

A designates a rotary brush having a hub or body, which may be made of wood, and journals, which, as here shown, consist of the ends of a metal rod driven through the hub or body. Preferably the hub or body is made somewhat like a spool, with cylindrical portions at the ends and an intermediate portion of smaller diameter, from which extend tufts of bristles. The journals of this brush are fitted in bearings in a frame, B, which may be made of metal, and, as here shown, is of rectangular form. This frame B is supported by elliptic springs C, whose leaves are united at the ends by being made to encircle one another, and prevented from disengagement by means of bolts passing through the encircling portions. The upper leaves of these springs may be secured to the frame by rivets or otherwise.

D designates a journal-box of ordinary construction, and E designates a journal which is received therein. The elliptic springs C fit in this box, and their ends extend in close proximity with the ends of the box; hence they cannot move far out of any position in which they may be arranged. They support the frame B in such position that the cylindrical end portions of the hub or body of the brush will be maintained in contact with the journal E. Rotary motion will then be imparted to the brush by the journal.

G designates semi-elliptic springs attached between the ends by rivets or otherwise to the frame B, and in such manner that they will hug the journal E. The springs G are arranged transversely to the springs C. Rods H extend between the ends of these springs. As these rods bear on the journal E, the springs G maintain the brush in proper position in relation to the journal E and the sides of the journal-box. As the brush rotates, it picks up oil from the journal-box and distributes it upon the journal. Pieces of felt or like material I extend from the rods H to the lower leaves of the elliptic springs C. They may be secured to these parts by sewing or otherwise;

but care must be taken not to draw them so tight that they will interfere with the action of the springs. They become saturated with oil and aid in distributing it upon the journal.

5 A piece of similar material, J, extends between the ends of the inner semi-elliptic spring G and hugs the under side of the journal. It serves to keep dust from the journal.

The advantage due to the use of the elliptic
10 springs C and the semi-elliptic springs G consists not only in their capability of maintaining the brush in its proper position, but also in the fact that they may be pressed out flat to facilitate their insertion through the nar-
15 row space between the journal E and the opening in the journal-box. Their adjustment into position is facilitated by the rounded ends of the elliptic springs C, which, on striking the bottom of the journal-box, will slide on the
20 same more readily than if they were sharp or angular. The ends of the upper leaves of the elliptic springs C are curved upward, as shown, to facilitate the insertion and removal of the parts into and from the journal-box. The
25 springs G, arranged as here shown, are very desirable, because their ends hug the journal E between them and hold the pieces I, of felt or like material, always in contact with the

journal, so that said pieces will be effective in delivering lubricating material to the journal. 30

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the rotary brush and the frame B, wherein it is journaled, of the elliptic springs C, supporting said frame and
35 extending lengthwise of the brush, and the springs G, supported upon the frame and arranged transversely to the springs C, all substantially as herein described.

2. The combination, with the frame B and
40 the brush journaled therein, of the elliptic springs C, supporting said frame, the springs G, arranged transversely to the springs C, the rods H, connecting corresponding ends of the
45 springs G, and pieces I, of felt or like material, depending from said rods, substantially as herein described.

3. The combination of the frame B, the brush A, journaled therein, and the elliptic
50 springs C, the upper leaves of which have an upward curvature at their ends, substantially as herein described.

HENRY R. RANDALL.

Witnesses:

T. J. KEANE,
JAMES R. BOWEN.