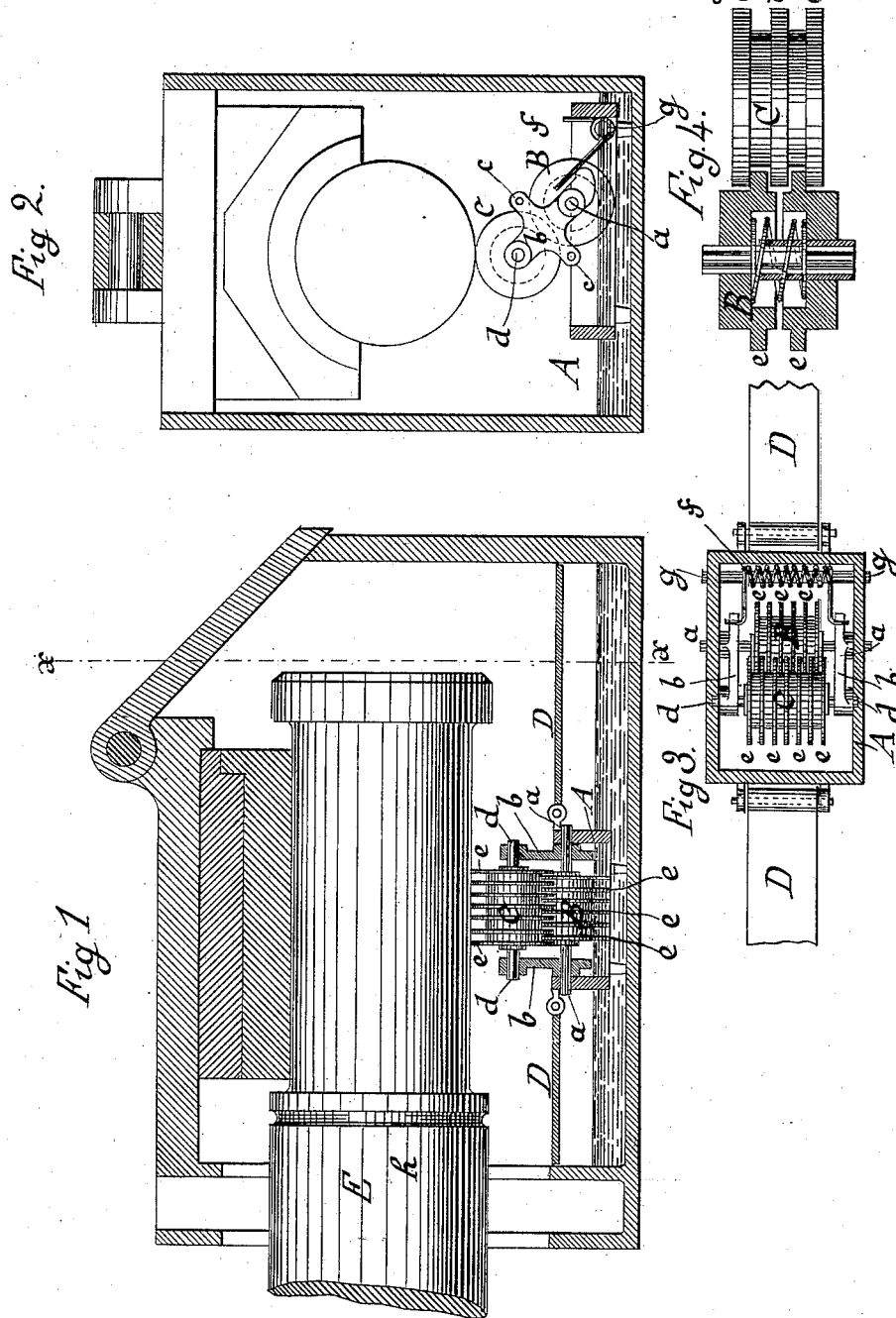


(No Model.)

F. BROWN.
CAR AXLE LUBRICATOR.

No. 301,334.

Patented July 1, 1884.



WITNESSES:

William Miller
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INVENTOR

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UNITED STATES PATENT OFFICE.

FELIX BROWN, OF NEW YORK, N. Y.

CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 301,334, dated July 1, 1884.

Application filed December 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, FELIX BROWN, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Car-Axle Lubricators, of which the following is a specification.

This invention relates to an axle-lubricator which is composed of the rollers which are provided with circular rings interlocking with each other, one of said rollers—which I term the “supply-roller”—being mounted on a shaft which has its bearings in a frame constructed so as to pass through the opening of an ordinary car-axle box, while the other roller—which I term the “distributing-roller”—is mounted in arms which swing freely on the shaft of the supply-roller, and which are subjected to the action of a spring, so that the frame, together with its rollers, can be readily introduced into an axle-box; and when the axle revolves an ample supply of the oil contained in the bottom part of the box is transferred to the journal of the axle by the interlocking rings of the two rollers. The frame is provided with hinged braces, which serve to retain the same in the proper position in the axle-box.

In the accompanying drawings, Figure 1 represents a longitudinal vertical section of an axle-box containing my lubricator. Fig. 2 is a transverse vertical section in the plane xx , Fig. 1. Fig. 3 is a plan or top view of the lubricator detached. Fig. 4 is a modification.

Similar letters indicate corresponding parts. In the drawings, the letter A designates a frame, which may be made of cast-iron or of any other material suitable for the purpose. This frame forms the bearing for a shaft, a , on which is firmly mounted the supply-roller B.

On the shaft a are loosely mounted two arms, $b\ b$, which may be connected by traverses $c\ c$, and in the outer ends of which is mounted the shaft d of the distributing-roller C.

Each of the rollers B C is provided with a series of rings, e , and when the rollers are in position the rings of the roller B interlock with those of the roller C. By these means a series of small spaces are formed between the peripheries of the two rollers, and if the supply-roller dips into oil and both rollers are re-

volvied, an ample supply of oil is taken up by the supply-roller B and transferred to the distributing-roller C. If desired, the rings of one of the rollers may be made slightly oblique, so that they bear against the sides of the rings on the other roller, and that if one roller is revolved the motion is transmitted to the other roller without fail; or the shafts of the two rollers may be geared together by cog-wheels, so as to compel them to revolve together. The arms $b\ b$, which form the bearings for the shaft of the distributing-roller C, are exposed to the action of a spring, f , so that when the frame A, together with its rollers, is placed into a car-axle box, said spring retains the distributing-roller in contact with the journal of the axle. In the example shown in the drawings the spring f is wound round a pin, g , which is secured in the frame A, and the ends of said spring bear upon the inner ends of the arms $b\ b$. (See Fig. 3.) By these means the spring is out of the way, and it does not interfere with the operation of introducing the frame A with its rollers into an ordinary car-axle box.

In order to retain the frame with its rollers in the required position in the axle-box, suitable braces, D D, are provided, which are hinged to the ends of the frame, so that they can be turned up when the frame is being introduced into the axle-box, and that when said braces are turned down, as shown in Fig. 1, they bear against the ends of the axle-box. These braces may be made in any shape suitable for the purpose. The car-axle E is provided with a circular groove, h , at a short distance inside of its journal, whereby the oil is prevented from following the axle. The shaft d of the distributing-roller C is free to move in its bearings in the direction of its length, so that said distributing-roller can follow lengthwise motions of the axle, and that by these motions the rings of said distributing-roller are thrown in contact with the rings of the supply-roller, and the oil dipped up by this last-named roller is transferred to the journal of the axle.

The supply-roller may be made in two halves, and a spring between them, (see Fig. 4,) which has a tendency to force the same apart, so that the rings of the supply-roller

are held in contact with the rings of the distributing-roller.

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

5 1. A car-axle lubricator composed of a frame, A, and the rollers B C, provided with interlocking rings *e*, substantially as shown and described.

10 2. The combination, substantially as hereinbefore described, of the frame A, the interlocking rollers B C, one of which is mounted on an axle, *a*, which has its bearings in the frame A, while the other is mounted on an axle which has its bearings in arms swinging

on the axle *a*, and the spring *f*, acting on the 15 swinging arms.

3. The combination, substantially as hereinbefore described, of the frame A, the interlocking rollers B C, mounted in said frame, and the hinged braces D. 20

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

FELIX BROWN. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.