W. PALMER.

CAR-AXLE LUBRICATOR.

No. 189,133. Patented April 3, 1877.

Fig. 1.

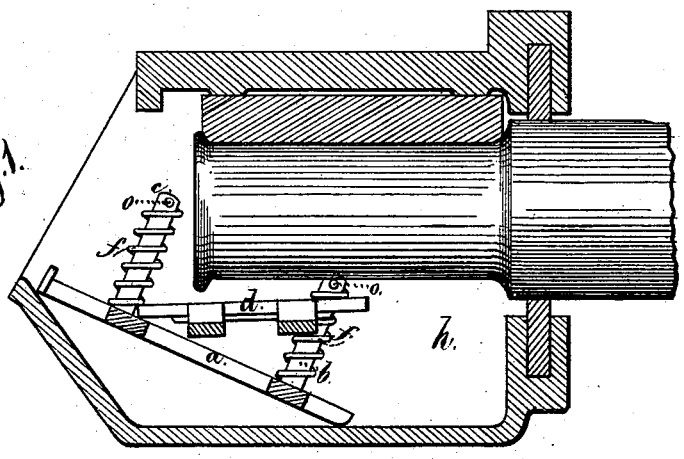


Fig. 2.

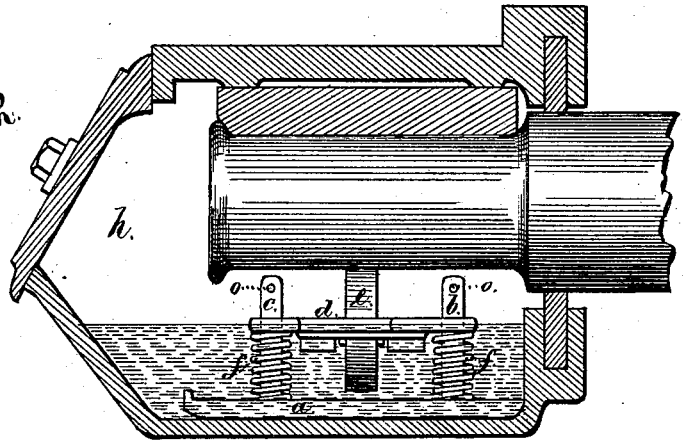
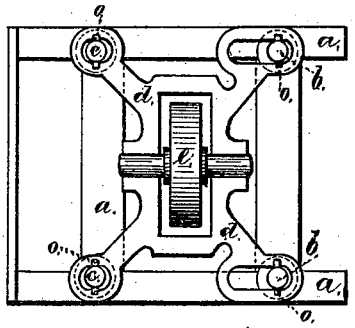


Fig. 3.



Witnesses
Harold Serrell
Geo. J. Pinckney

Inventor
per William Palmer.
Lemuel W. Serrell atty

UNITED STATES PATENT OFFICE.

WILLIAM PALMER, OF NEW YORK, N. Y.

IMPROVEMENT IN CAR-AXLE LUBRICATORS.

Specification forming part of Letters Patent No. **189,133**, dated April 3, 1877; application filed March 6, 1877.

To all whom it may concern:

Be it known that I, WILLIAM PALMER, of the city and State of New York, have invented an Improvement in Lubricators for Car-Axles, of which the following is a specification:

Axle-boxes have been made with a roller in the oil-well, kept up to the under side of the axle by springs, and serving to transfer the oil to such axle. A device of this kind may be seen in Letters Patent dated February 20, 1877, granted to me.

Difficulty arises in introducing the frame, spring, and roller into the oil-well of the axle-box after the axle is in place. My present invention is for facilitating this operation, and consists in a frame that carries the roller, and is provided with openings for the standards of a frame upon which are the springs for lifting the roller into contact with the axle, and said holes are elongated at the back end, so as to be slipped along and turned out of the way while inserting the frames into the oil-well of the axle-box. After the frames are within the axle-box the roller-frame is to be raised at the outer end, (the inner end remaining connected,) and then placed upon the standards and above the springs, and pressed down to allow for the insertion of the roller.

By this construction the parts can be securely connected or removed, if necessary.

In the drawing, Figure 1 is a section of the axle-box and the frames partially inserted therein. Fig. 2 is a similar view with the parts in place, and Fig. 3 is a plan view of the frames.

The frame *a* is rectangular, and adapted to fill the bottom of the oil-well in the car-axle box. Upon this frame *a* there are four columns, *b b c c*, with helical springs *f* around them. The frame *d* carries the roller *e*, and it has openings for the columns *b b c c*, and it rests upon the springs *f*. The size and construction of these parts is such that, when in the axle-box *h*, the frame *a* will rest in the bottom of the oil-well, and the roller *e* will roll in contact with the under surface of the axle. If nothing more was provided the roller-frame and roller could not be inserted while the axle was in place; hence it would not be available in the present form of axle-boxes. To avoid this difficulty I make use of long slots in the plate *d* for the upper ends of the columns *b b*, and I lift the roller out of its frame, and take the frame off the studs *c c*, and introduce the frames *a* and *d* in the position shown in Fig. 1, so as to pass into the oil-well with freedom. After the frames are inserted into the well, the frame *d* is lifted, drawn forward, and placed over the columns *c c*, and then depressed and the roller *e* inserted into its bearings, and the frame liberated to allow the springs to raise the roller up into contact with the under side of the axle.

The roller, revolving in the oil, will transfer the lubricating material to the journal so long as there is sufficient in the oil-well to touch said roller.

Pins may be inserted at *o* through the upper part of the columns, to limit the upward movement of the springs and frame.

I claim as my invention—

The combination, with the frame *a*, columns *b b c c*, springs *f*, and roller *e*, of the frame *d*, provided with the elongated openings for the upper ends of the columns *b*, for allowing the frame to be removed from the columns *c* while being inserted, substantially as set forth.

Signed by me this 1st day of March, A. D. 1877.

WM. PALMER.

Witnesses:

GEO. T. PINCKNEY,

GEO. D. WALKER.