W. PALMER.

CAR-AXLE LUBRICATOR.

No. 187,553. Patented Feb. 20, 1877.

Fig. 1.

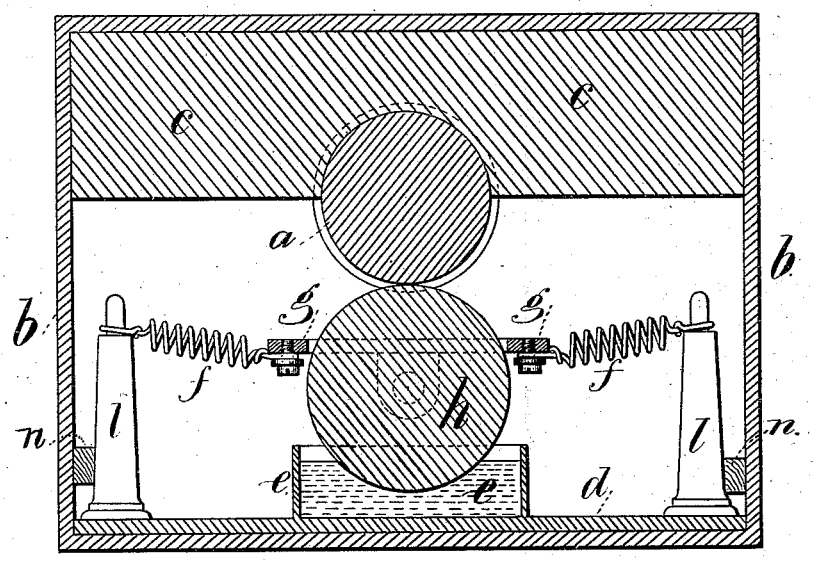
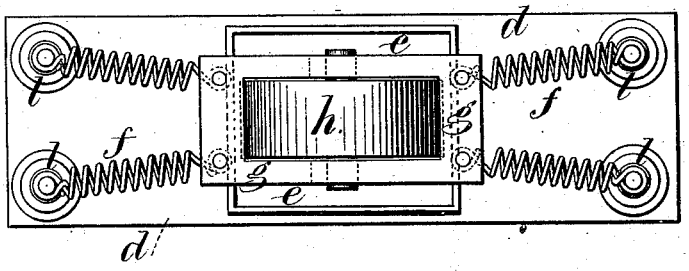


Fig. 2.



Witnesses

Chas. H. Smith

Geo. S. Pinckney

Inventor.

William Palmer.

per 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. **187,553**, dated February 20, 1877; application filed October 18, 1876.

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:

Car-axles have been made with a bearing-box, within an oil-receptacle, and the lubricating material has been supplied by a roller kept in contact with the under side of the axle by springs.

My invention is made for suspending the oil-supplying roller in such a manner that it is free to move laterally by any change of position of the box relatively to the axle, thereby preventing the injury of the oil-supplying roller, and, at the same time, insuring constant contact of the roller and axle; and for this purpose I employ a rectangular frame, in which is journaled the roller, said frame being suspended at its corners by spiral springs to keep the roller in contact with the axle, and also allow of the lateral motion.

In the drawing, Figure 1 is a vertical section of the axle and box, and Fig. 2 is a plan of the oil-supplying roller and its supports.

The axle or shaft *a* is of any character to which the improvement is applicable. The box *b* is made with any ordinary cover or door, giving access to the interior, as usual, and there is a bearing or journal box, *c*, for the weight to rest upon the axle or shaft. Within the box *b* there is a movable plate, *d*, with the oil-receptacle *e* near the middle thereof. This is to be of a size adapted to the quantity of lubricating material required.

Near the angles of the plate *d* are tapering columns *l*, to the upper ends of which suspension-springs *f* are attached. The other ends of these springs are fastened to the angles of the frame *g*, that receives within it the oil-supplying roller *h*, of wood, metal, or other suitable material, and said roller *h* passes down into the receptacle *e*, and hence receives upon its surface the lubricating material. The springs *f* draw the frame *g* upwardly sufficiently to keep the roller *h* in contact with the under side of the axle *a*, and hence the roller is constantly revolved and the oil supplied to the axle whenever the car is in motion.

There is almost always considerable end movement of the axle in the box or of the box upon the axle. In either instance the frame *g* and roller *h* remain in their proper position to the axle in consequence of the springs *f* yielding; and hence there is no unnecessary wear upon the roller or risk of the same becoming displaced.

Blocking-strips *n* may be introduced between the tapering columns *l* and the inside of the box *a*, to hold the plate *d*, and parts connected therewith, in position.

I am aware that it is not new to suspend the oiling-roller by spiral springs, and therefore do not wish to be understood as broadly claiming this feature; but

I claim as my invention—

1. The frame *g* and roller *h*, in combination with the suspending-springs *f* attached to the angles of the frame *g*, and the columns *l* receiving the other ends of the springs *f*, substantially as and for the purposes set forth.

2. The combination, in an axle-box, of the receptacle *e*, the frame *g*, roller *h*, suspension-springs *f*, and removable plate *d*, substantially as set forth.

Signed by me this 16th day of October, A. D. 1876.

WM. PALMER.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.