(No Model.)

H. BALDRIDGE.

LUBRICATOR.

No. 263,751. Patented Sept. 5, 1882.

Fig. 1.

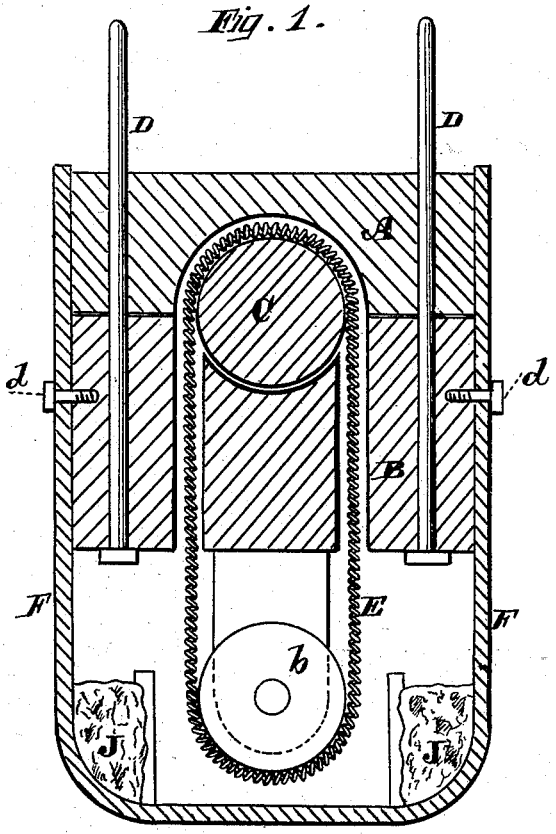


Fig. 3.

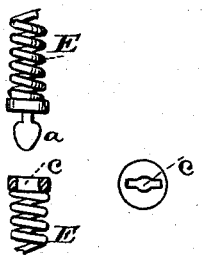
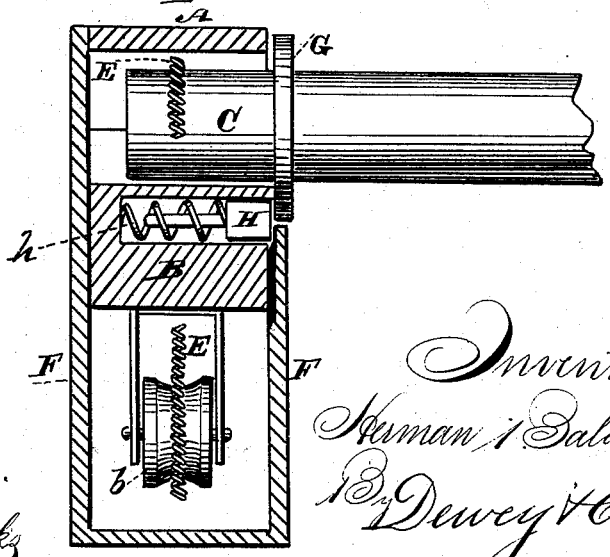


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

HERMAN BALDRIDGE, OF SAN BERNARDINO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO WILLIAM H. SOUTHER, OF SAME PLACE.

LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 263,751, dated September 5, 1882.

Application filed January 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, HERMAN BALDRIDGE, of the town and county of San Bernardino, State of California, have invented an Improved Lubricator; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in self-lubricators for shafts and axles of that class in which a traveling endless spring or chain is employed to raise, by adhesion or otherwise, a portion of the oil, in which it dips at its lower limit, and deposit it upon the shaft or axle over which it passes above.

My invention consists in a new and useful arrangement of these parts in connection with a suitable oil reservoir or casing containing sponges and a peculiar scraper to prevent wastage of the lubricant, all of which will hereinafter appear, reference being made to the accompanying drawings.

Figure 1 is a longitudinal vertical section. Fig. 2 is a transverse vertical section. Fig. 3 shows a spring-connection.

Let A represent the upper box, and B the lower one. These have semicircular grooves for the reception of the shaft or axle C, and are held together by bolts D, passing from the lower box up through the upper one, and are intended to extend to and hold the boxing to the frame-work, springs, or cushions of the vehicle.

Upon the under side of the lower box, B, is a roller, *b*, over which passes a spiral spring, E. This is an endless spring, and passes up through holes in the lower box and upon each side of and over the axle C, a groove being made in the upper box to allow its free passage. This spring is made endless in any suitable manner, though the way here shown I have found advantageous, as it allows me to unclasp the spring and take it off when necessary. Upon one end of the spring is formed a catch, *a*, having a flat wide head and a round shank, and the other end of the spring is provided with an elongated slot, *c*. The catch is fitted through the slot and turned so as to be at right angles therewith. It is thereby secured and the spring made endless.

If found desirable, the chain may be used instead of the spring, though I prefer the spring as insuring a better tension to cause friction enough to revolve it when the axle revolves.

F represents a casing, the bottom of which is to be filled with oil. Both boxes fit within this casing, and the endless spring extends down into the oil. The casing is secured to the boxes, and the latter are held within the casing by means of side screws, *d d*. It is therefore independent of the boxes, and may be renewed when desired.

The operation of the device is as follows: It is particularly applicable to cars, where the axles need constant lubrication and to be kept cool. A wheel upon the axle C turns said axle and causes the endless spring to revolve. This passing down through the oil and up over the axle deposits oil thereon and keeps it constantly lubricated.

Where the axle enters the boxes there is always more or less waste of oil. In order to prevent this I have a collar, G, upon the axle, as shown.

In the side of the lower box is a socket, into which fits the stem of a scraper, H. A spiral spring, *h*, around the stem keeps the scraper out against the collar. It thus scrapes off the oil which collects upon the collar and causes it to drop down into the casing again.

When there are bearings elsewhere than upon the end of a shaft a similar collar to G will be placed on the shaft upon the other side of the box, and a similar scraper to H will be arranged to act upon it. The collar and scraper not only prevent waste of oil, but keep it from spreading over the wheels and falling upon the rails.

In the bottom of the casing are sponges J, secured therein by pins or otherwise. They are intended to collect the sediment that may form in the oil, and may be taken out and washed or replaced by new ones.

The boxes may be secured to the car in any way suitable, as the case may demand.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a lubricator having a traveling endless spring or chain operated by the revolving

shaft or axle over which it passes, as shown, the combination and arrangement of the independent oil reservoir or casing F, with its sponges J J, the boxes A and B, fitting within the casing and secured by screws *d d*, said lower box, B, having a roller, *b*, for the traveling spring or chain, and scraping device consisting of the scraper H, with its spring *h* in the said lower box, said scraper being adapted to operate against a collar, G, upon the axle, substantially as herein described.

In witness whereof I hereunto set my hand.

HERMAN BALDRIDGE.

Witnesses:

WARREN WILSON,

JAS. A. GIBSON.