

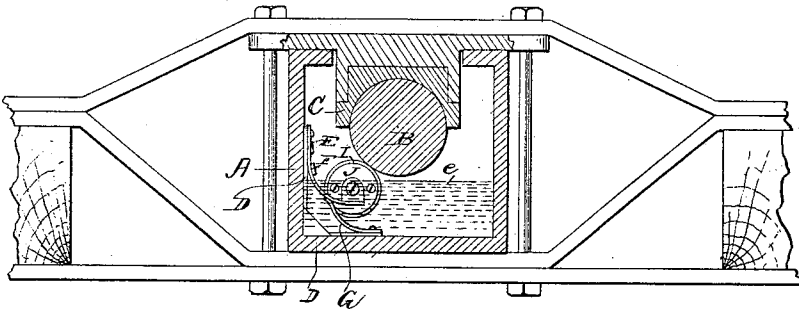
(No Model.)

R. FAAS.  
CAR AXLE LUBRICATOR.

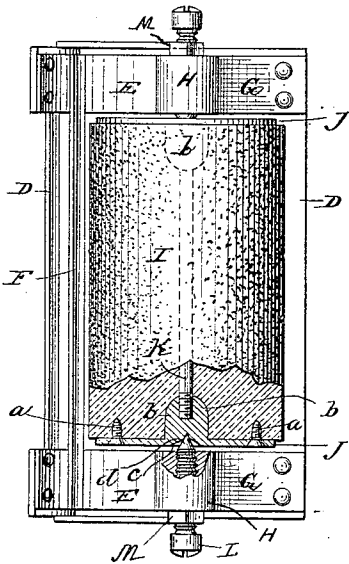
No. 338,051.

Patented Mar. 16, 1886.

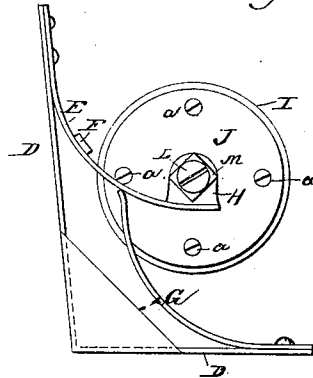
Fig. 1.



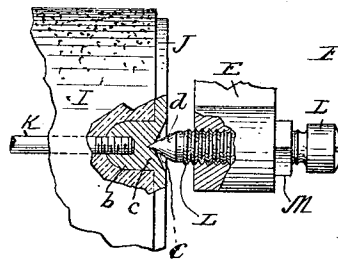
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses,

Henry Frankfurter.  
Rafael Hertzogh.

*Inventor.*

Rudolph Faus-

per. F. F. Warner-  
his Attorney.

# UNITED STATES PATENT OFFICE.

RUDOLPH FAAS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO MARX WINEMAN, OF SAME PLACE.

## CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 338,051, dated March 16, 1886.

Application filed December 10, 1885. Serial No. 185,216. (No model.)

*To all whom it may concern:*

Be it known that I, RUDOLPH FAAS, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lubricator Devices for Car-Axle Journals, of which the following, in connection with the accompanying drawings, is a specification.

10 The purpose of my invention is to provide improved means for the purpose of lubricating the journals of car-axles.

Heretofore it has been common to lubricate the journals by placing cotton-waste, soaked in oil, under the journal in the cavity of the box. By using cotton-waste for this purpose there is a liability of ignition or combustion of the waste, owing to its oily condition and the friction produced by the rotation of the journal against its bearing. Rollers have also been yieldingly supported in the car-axle box, so as to bear against and lubricate the journal. My invention consists, chiefly, in certain novel means which I employ for supporting the lubricating-roller yieldingly in such a manner that it will feed or supply oil to the journal for lubrication.

Another important feature of my invention consists in making the feed-roller of cork or other equivalent porous material.

There are also certain minor features or details of construction appertaining to my invention, and which I will hereinafter fully describe.

35 In the drawings, Figure 1 is a vertical cross-section of a car-axle box, showing the relation of my improvements thereto and to the journal, and also showing the relation of the box to its supporting-frame. Fig. 2 is a top view of a device embodying my improvements, enlarged and detached or removed from the box. Fig. 3 is an end view of my lubricating-roller, and also showing my mode of mounting it yieldingly, and so that it may be arranged in and removed from the box with facility; and Fig. 4 is a detail, the same being upon an enlarged scale, and showing the means employed for the purpose of providing the roller with adjustable bearings.

50 Like letters of reference indicate like parts.

A represents the car-axle box.

B is one of the journals of the car-axle.

C is one of the brasses or journal-bearings.

As my invention does not relate to the construction of the car-axle box, or to the means employed for providing suitable bearings for the axle, I have not shown the same with particularity, and I desire to state that my improvements may be applied to the use for which they are intended, in connection with any well-known construction of car-axle boxes.

D is a frame or bent or angular plate, made, by preference, of malleable iron; but it may be made of any suitable material.

E E are curved springs arranged parallelly and depending from the upper corners of the frame D.

F is a cross-bar connecting the springs E E, for the purpose of preventing too much lateral movement.

G G are curved springs attached to the lower part of the frame D and extending upward. The springs E E, as will be clearly perceived on reference to Fig. 3, rest or bear upon the upper ends of the springs G G.

H H are bearing-blocks attached to the lower ends of the springs E E.

I is a roller, made of cork; but it may be made of equivalent absorbent material.

J J are plates set into the ends of the roller I, and there secured by means of screws *a a* or other suitable fastenings. The inner faces of these plates have thereon the projections or central extensions, *b b*.

K is a rod passing centrally through the roller I and having screw-threaded ends entering the projecting parts *b b*, thus securing the end plates firmly in their proper places.

In the outer faces of the plates *a a* are central depressions or indentures, *c c*.

L L are pointed screws passing through the bearings H H and turning in female screws therein. The points *d d* enter the depressions or indentures *c c*, which are sufficiently flaring not to bind upon the points of the said screws.

M M are jam-nuts run upon the screws L L between their heads and the bearings H H, for the purpose of preventing the accidental turning of the screws after the latter have been set

or adjusted. The heads of these screws are adapted to be turned either with a screw-driver or other suitable tool.

It will be perceived, from the foregoing description, and from reference to the drawings, that the frame or plate D, in connection with the springs E and G and the roller I, may be set into the box A in such a manner that the roller I will be in contact with the journal B.

If it be understood that oil be poured into the box to the height illustrated—for example, at *e*, Fig. 1—for the purpose of lubricating the axle, it will be perceived that the roller I will also be to a greater or less extent submerged in the oil. The roller I by being mounted on the springs F and G in the manner described will yield to all the usual movements of the journal while being rotated by the latter. It will also be perceived that as the roller I is supported by and turns on the pointed ends of the screws L L the rotation of the roller I will be opposed by a very slight degree of friction, and the screws L L, by being adjustable, may be set in or out more or less, so as to compensate for wear, and so as to hold the roller I sufficiently away from the bearings H H and the springs to which they are applied.

By employing the jam-nuts M M, I am enabled to prevent accidental rotation of the screws L L.

I desire to state that two of these devices embodying my invention may be arranged in the same box, if desirable or necessary. The bar F aids in preventing the roller I from being swayed laterally or in the direction of its ends. It will furthermore be perceived that as the journal B rotates while in contact with the roller I, and while the latter is in the lubricating-oil, the oil will be fed or carried continually to the journal, thus keeping it lubricated.

By making the roller I of cork it is light and flexible, and at the same time durable, as well as to some extent porous.

By making the roller of cork or other suitable porous material the oil absorbed by the same will continue to lubricate the axle after

the oil in the box has in other respects been exhausted. The centrifugal force of the rotating roller will cause the oil absorbed thereby to move out toward its perimeter, and thus keep the axle in an oily condition. The roller will also perform its functions in a neat and clean manner.

It is obvious that the principle of my invention may be reduced to practice without employing all the details of construction which I have now described with particularity, and while I deem the features which I have shown and described to be the best for the purposes set forth, I do not here intend to restrict myself to such details or minor features of construction. I desire to state, however, that it is not new with me to employ a vertically-yielding roller for the purposes set forth, and I do not, therefore, here intend to claim the same, broadly; but,

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

1. The combination, in a lubricating device for car-axle journals, of the frame or plate D, the springs E E, the springs G G, and the roller I, mounted in bearings on the springs E E, substantially as and for the purposes specified.

2. The combination of the frame or plate D, the springs E E, having on their ends the bearing-blocks H H, the roller I, and the adjustable tapering centering-screws L L, substantially as and for the purposes specified.

3. The combination of the frame or plate D, the springs E E, springs G G, the roller I, the bearings H H, the screws L L, the nuts M M, and the plates J J, all constructed and arranged together, substantially as and for the purposes specified.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

RUDOLPH FAAS.

Witnesses:

F. F. WARNER,  
HENRY FRANKFURTER.