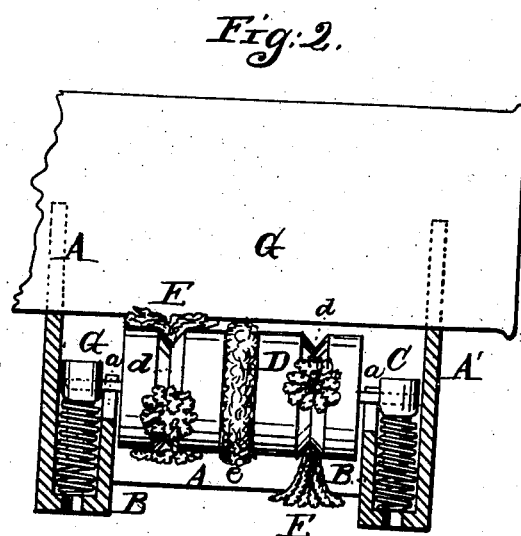
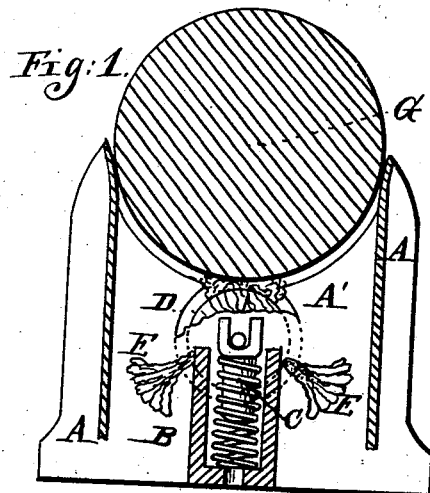


*C. Hyatt*  
*Car Axle Box.*  
*N<sup>o</sup> 108,789. Patented Nov. 1, 1870.*



Witnesses:

*W. Knight.*  
*P. Hannay.*

Inventor:

*Charles Hyatt*  
*By A. M. Hallum*  
*att'y*

# United States Patent Office.

CHARLES HYATT, OF BUFFALO, NEW YORK, ASSIGNOR FOR TWO-THIRDS OF HIS RIGHT TO JOSEPH N. MUEHAM AND ERHARD SCHLENKER, OF SAME PLACE.

Letters Patent No. 108,789, dated November 1, 1870.

## IMPROVEMENT IN RAILWAY-CAR-AXLE LUBRICATORS.

The Schedule referred to in these Letters Patent and making part of the same.

I, CHARLES HYATT, of the city of Buffalo, in the county of Erie and State of New York, have invented an improved Automatic Lubricator for Journals, of which the following is a specification.

My invention relates to improvements in the construction and operation of that class of lubricators for railroad-car axles which consists of rollers, covered with some absorbent material, for conveying the oil to the axle, and which, being held against the axle by springs or similar device, operate, through friction, with and by the rotation of the axle.

Heretofore, these lubricating-rollers have generally been confined in close oil-boxes, either forming part of the axle-box itself, or permanently secured within it, the lubricating-rollers, or the absorbing material with which they are covered, being kept in close contact with the axle, without any provision for cleaning it or removing from it the impalpable metallic scale consequent on friction.

Experience has shown that this product of friction, together with the dust and other impurities which find their way into the oil, settle on the absorbing material of the rollers, clog up the spaces between its fibres, and, in course of time, form a smooth compact surface incapable of supplying the journal with oil in the desired quantity, thereby rendering the lubricator, in a measure, inoperative.

My invention is designed to obviate these objections to the use of such lubricators; and

The improvement consists in constructing the lubricating-roller with grooves around its outer periphery, so that the surplus oil, as expressed by with the axle will find a ready channel of escape, and in providing the roller with a series of tufts or wipers of suitable material, wherewith to clean, as well as lubricate the journals.

In the accompanying drawing—

Figure 1 represents a sectional end view of the box and roller.

Figure 2, a longitudinal sectional view of the box, showing the construction and bearings of the roller.

A A' represents the lubricator-box, the two ends A' being cut into a semi-circular shape so as to fit loosely around the car-axle without impinging on it, yet conforming sufficiently to the contour of the axle as to be retained in position by it.

The sides A do not extend so far downward as the

ends A', so that openings are left for the free circulation of the oil within the box from the axle-box.

B B are two hollow lugs projecting inwardly from the ends A'.

They are cut with slots, *a*, to receive the axle of the lubricating-roller, and permit of its play.

C C are two self-adjusting spring-bearings inserted within the lugs B, and which form the bearings of the lubricating-roller, the spiral springs serving to keep the roller in the required contact with the car-axle.

D is the lubricating-roller, made of wood or other suitable material, and cut with grooves, *d*, around its circumference.

Tufts or wipers E, of cotton, sponge, or other suitable material, are secured at intervals in these grooves around the roller, and a band or bands, *e*, of similar material, may also be secured around the roller.

G is the car-axle to be lubricated.

By any convenient means of access on the top or side of the axle-box, the lubricating-box is inserted and placed in position partly around and beneath the axle, as shown in the drawing, the oil contained in the axle-box having free access to the interior of the lubricating-box.

The lubricating-roller, with its axle-bearing in the spring-bearings C, will be sustained in position, and, by the action of the spiral springs, brought into contact with the car-axle, whereby, through the revolution of the car-axle, it is made to revolve, the tufts E successively dipping in the oil and lubricating and cleaning the axle, the surplus oil flowing back into the box along the grooves *d*, and, in its passage, saturating more completely the succeeding tufts at the moment of their contact with the car-axle.

As the wipers successively leave the car-axle and come in contact with the oil below, they will spread out and leave with the oil the greater portion of the impurities they have removed from the car-axle, which impurities will deposit in the bottom of the axle-box.

What I claim as my invention is—

The roller D, constructed substantially as described, with grooves *d*, and provided with tufts or wipers E, as and for the purpose specified.

CHARLES HYATT.

Witnesses:

H. U. SOPER,

GEO. H. HUGHSON.