No. 847,772. PATENTED MAR. 19, 1907.

J. W. HINCHCLIFF.

LUBRICATOR.

APPLICATION FILED AUG. 31, 1906.

Fig. 1.

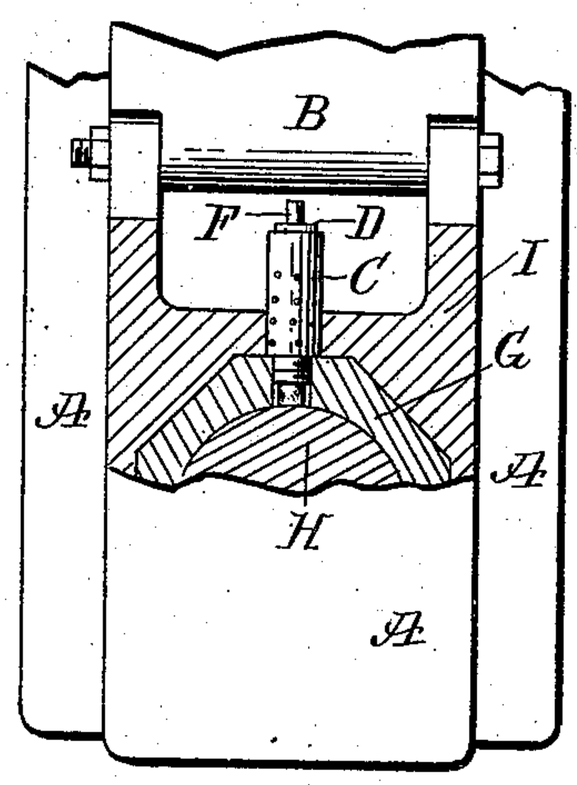
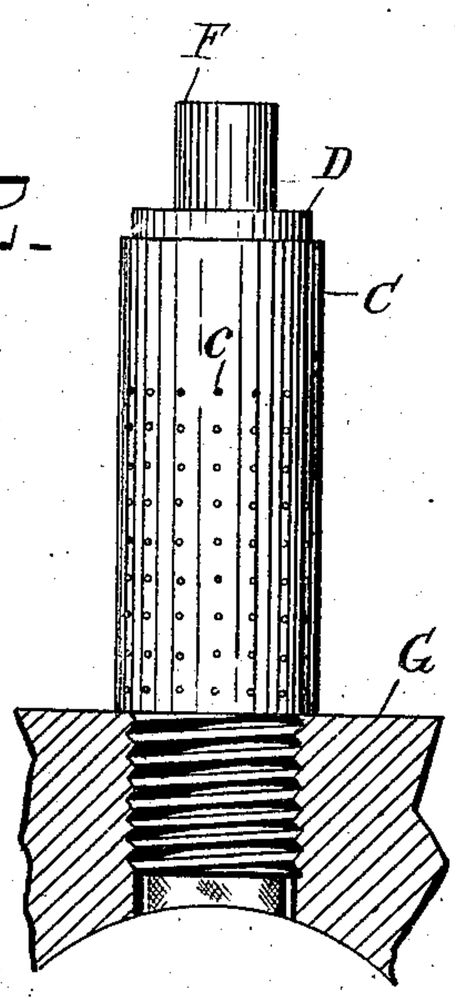


Fig. 2.



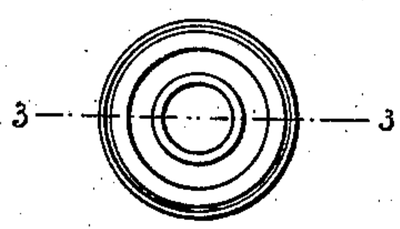
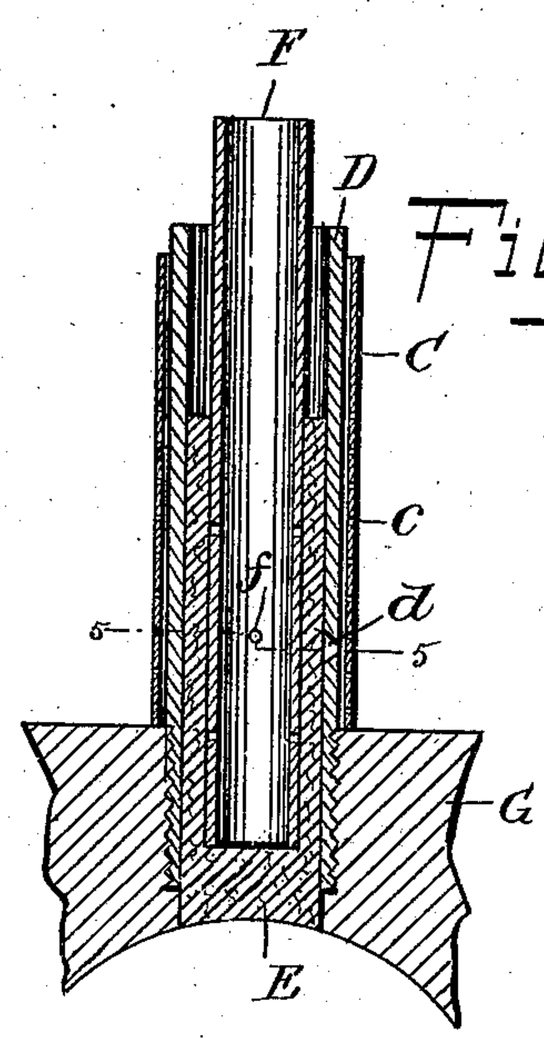


Fig. 4.

Fig. 3.



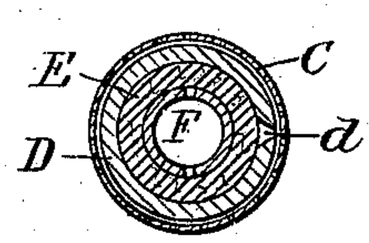


Fig. 5.

WITNESSES

J. Murdoch

J. P. Davis

INVENTOR

John William Hinchcliff

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN WILLIAM HINCHCLIFF, OF JACKSON, MISSISSIPPI.

LUBRICATOR.

No. 847,772. Specification of Letters Patent. Patented March 19, 1907.

Application filed August 31, 1906. Serial No. 332,734.

To all whom it may concern:

Be it known that I, JOHN WILLIAM HINCHCLIFF, a citizen of the United States, and a resident of Jackson, in the county of Hinds and State of Mississippi, have invented a new and Improved Lubricator, of which the following is a full, clear, and exact description.

My invention relates to lubricators adapted to be applied to journal-bearings in general, and to armature-bearings for street-railway motors in particular. The journal-bearings of such motor armatures and cars are now lubricated with grease which does not operate until the bearings have become heated by friction. Such friction entails a considerable loss of power and causes the bearings to become worn in a short time.

My invention has for its object, therefore, to provide a lubricating device simple in construction, effective and economical in operation, and durable in use. This I accomplish by the means illustrated in the accompanying drawings, in which drawings like characters of reference indicate like parts throughout the views, and in which—

Figure 1 is a side elevation of a device embodying my invention applied to a journal-bearing, shown in cross-section with the housing partly broken away. Fig. 2 is a side elevation of my device applied to a journal-bearing, shown in cross-section. Fig. 3 is a central vertical section of the parts shown in Fig. 2. Fig. 4 is a plan view of the device shown in Fig. 2, and Fig. 5 is a horizontal section taken on the line 5 5 of Fig. 3.

As illustrated in the drawings, A represents a housing of any suitable construction, in which is arranged a car-axle H, having a journal-bearing G mounted thereon and arranged within a bearing-box I. A cap B may be hinged to the housing A and adapted to be turned upward.

D represents an outer tube provided on its lower end with an exterior thread adapted to engage a corresponding interior thread formed on the bearing-box G. This tube is provided with an aperture *d*, which preferably flares inwardly, making a contracted opening on the outside and a wide opening on the inside of the tube. This aperture is located at a point near the bottom of the oil-chamber hereinafter referred to. A tube F is arranged within the tube D and is provided with apertures *f*. The upper and lower ends of the tube F are preferably open, and the lower end is surrounded with a body of felt which extends also around the outer surface of the tube. An outer shell C incloses the tube D and is provided with perforations *c*, thereby forming a screen, which may be made of wire-gauze or other suitable construction.

When the device is applied to a journal-bearing, it is arranged within a chamber or well similar to those now used for holding grease, and such chamber is filled with a lubricating-oil. This oil passes through the perforations *c* of the screen C and through the aperture *d* of the tube D and into the felt E, which surrounds the inner tube F. The felt takes up and retains the lubricating-oil and applies the same to the journal-bearing. The outer screen C prevents sand, dust, dirt, and other foreign matter from reaching the aperture *d* and coming in contact with the felt. The apertures in the inner tube F facilitate the distribution of oil on the felt in starting up the motor in the morning or after filling the oil-box. The tube D may be provided with more than one aperture for allowing oil to pass to the felt surrounding the inner tube, if desired, and apertures having a uniform diameter may be used instead of the flaring aperture *d* without departing from my invention. I prefer the construction shown and described, however, for the reason that such flaring aperture permits the lubricating-oil under all conditions to readily pass into the felt and be absorbed thereby and prevents the aperture from becoming clogged.

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

1. In a lubricator, the combination with an inner tube provided with lateral perforations, of a body of felt surrounding the sides and lower end of said tube, an outer tube inclosing said felt and provided with a lateral aperture and a threaded end adapted to be secured to a journal-bearing, substantially as shown and described.

2. In a lubricator, the combination with an inner tube having open ends and provided with perforations, of a body of felt covering the perforations and lower end of said tube, an outer tube having an aperture and provided on its lower end with a thread, and an outer foraminated shell adapted to serve as a strainer, substantially as shown and described.

3. In a lubricator, the combination with an inner perforated tube having open ends, of a layer of felt covering the sides and lower end of said tube, an outer tube provided with an aperture flaring inwardly and adapted to be located at a point near the bottom of an oil-chamber, substantially as shown and described.

4. In a lubricator, the combination with a perforated inner tube having open ends, of a layer of felt bearing against the perforated portion and the lower end of said tube, and adapted to be located at a point near the bottom of an oil-chamber, substantially as shown and described.

5. In a lubricator, the combination with an inner tube having an open lower end, of a layer of felt surrounding the lower portion and end of said tube, and an outer tube inclosing said felt and provided with an aperture flaring inwardly and adapted to be located at a point near the bottom of an oil-chamber, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN WILLIAM HINCHCLIFF.

Witnesses:
A. D. CAMPBELL,
GEORGE F. BAUER.