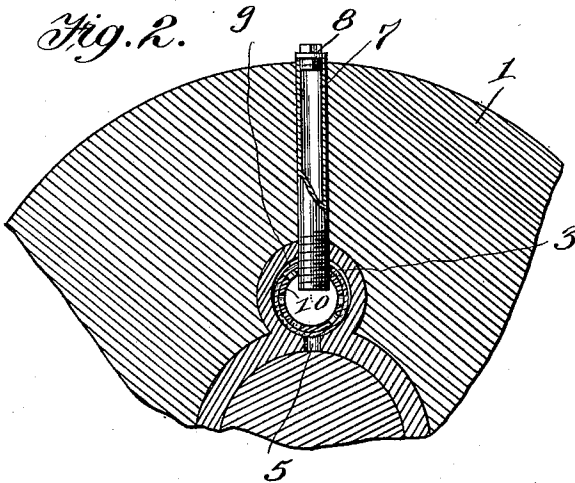
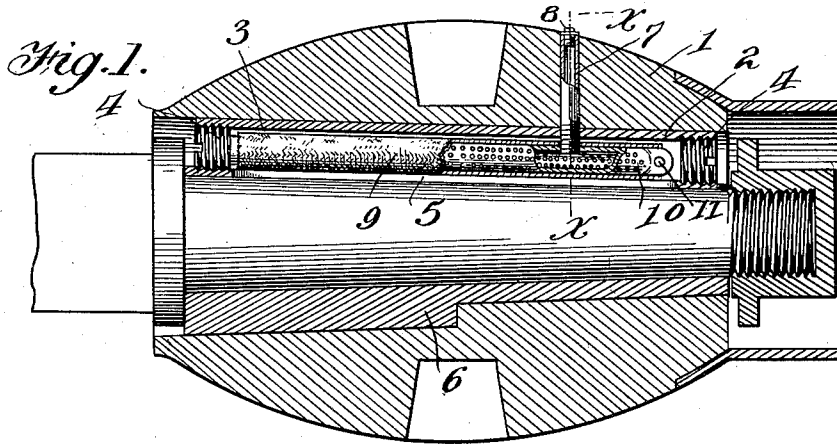


G. C. & J. F. BENJAMIN.
 AXLE LUBRICATOR.
 APPLICATION FILED AUG. 20, 1910.

1,004,972.

Patented Oct. 3, 1911.



Witnesses

A. H. Lybrand
V. B. Hillyard.

Inventors

George C. Benjamin
John F. Benjamin

By

Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

GEORGE C. BENJAMIN AND JOHN F. BENJAMIN, OF BARRE, VERMONT.

AXLE-LUBRICATOR.

1,004,972.

Specification of Letters Patent.

Patented Oct. 3, 1911.

Application filed August 20, 1910. Serial No. 573,089.

To all whom it may concern:

Be it known that we, GEORGE C. BENJAMIN and JOHN F. BENJAMIN, citizens of the United States, residing at Barre, in the county of Washington and State of Vermont, have invented new and useful Improvements in Axle-Lubricators, of which the following is a specification.

The present invention has for its object the automatic lubrication of vehicle axles so as to prevent heating and binding of the wheel when the vehicle is in service.

The invention consists of the novel features, details of construction and combination of parts, which hereinafter will be more particularly set forth, illustrated in the accompanying drawing, and pointed out in the appended claim.

Referring to the drawing, forming a part of the application, Figure 1 is a central longitudinal section of a vehicle hub provided with a lubricator constructed in accordance with the invention, said hub being illustrated in connection with an axle. Fig. 2 is a transverse section on the line $x-x$ of Fig. 1.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the drawing, by the same reference characters.

The hub 1 may be of any design or make such as generally provided in the formation of a vehicle wheel of usual construction. The box 2 is secured within the bore of the hub in any way and is provided at one side with a chamber 3 for receiving oil. The chamber 3 extends approximately the entire length of the box and is preferably a part thereof. Plugs 4 close the ends of the chamber 3 and are removable, being retained in place by screwthreads. A narrow slot 5 is formed in a side of the chamber 3 and extends through the box 2, thereby establishing communication between the chamber 3 and the space inclosed by the box 2, whereby lubricant may pass from the chamber to the axle bore or space for oiling the axle. The box is prevented from turning in the hub by means of a fin or rib 6 provided upon a side thereof and entering a groove formed in the bore of the hub. A

tube 7 extends through the hub and is threaded at its inner end into the chamber 3 and communicates with the latter. The tube 7 provides a duct through which oil is supplied to the chamber 3. A plug 8 closes the outer end of the tube 7.

A tubular distributor 9 is located within the chamber 3 and is formed of absorbent material through which the oil may pass, said distributor being preferably of textile material, such as a tubular wick. A metal tube 10 is inserted within the tubular distributor 9 and forms a support therefor. The metal tube is provided throughout its surface with a plurality of minute openings through which the oil may readily pass so as to saturate the distributor. The tube 7 connects at its inner end with the metal tube 10 and passes through the distributor 9. The metal tube 10 is flattened at one end and provided with an eye 11, which is adapted to receive a suitable instrument to facilitate the withdrawal of the tube from the chamber or from the part 9.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while we have described the principle of operation of the invention, together with the device which we now consider to be the embodiment thereof, we desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

Having thus described the invention what is claimed as new, is:—

In an axle lubricator, the combination of a hub having a bore and openings leading from the bore, an axle box fitted in the bore and having an outer web and a chamber fitted into the said openings, the chamber extending substantially the entire length of the axle box and having both ends open, said chamber having communication with the axle box by means of a narrow slot formed in the separating wall, plugs threaded into the ends of the chamber for closing

the same, an oil tube having its inner end
extending into the chamber and connected
thereto, said oil tube being fitted in the open-
ing formed in the hub, a plug for closing the
5 outer end of the oil tube, and a distributor
removably fitted within the chamber and
comprising a perforated metal tube and
wick placed upon said tube.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

GEORGE C. BENJAMIN.
JOHN F. BENJAMIN.

Witnesses:

DON DE COLAINES,
JAMES M. HUSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
