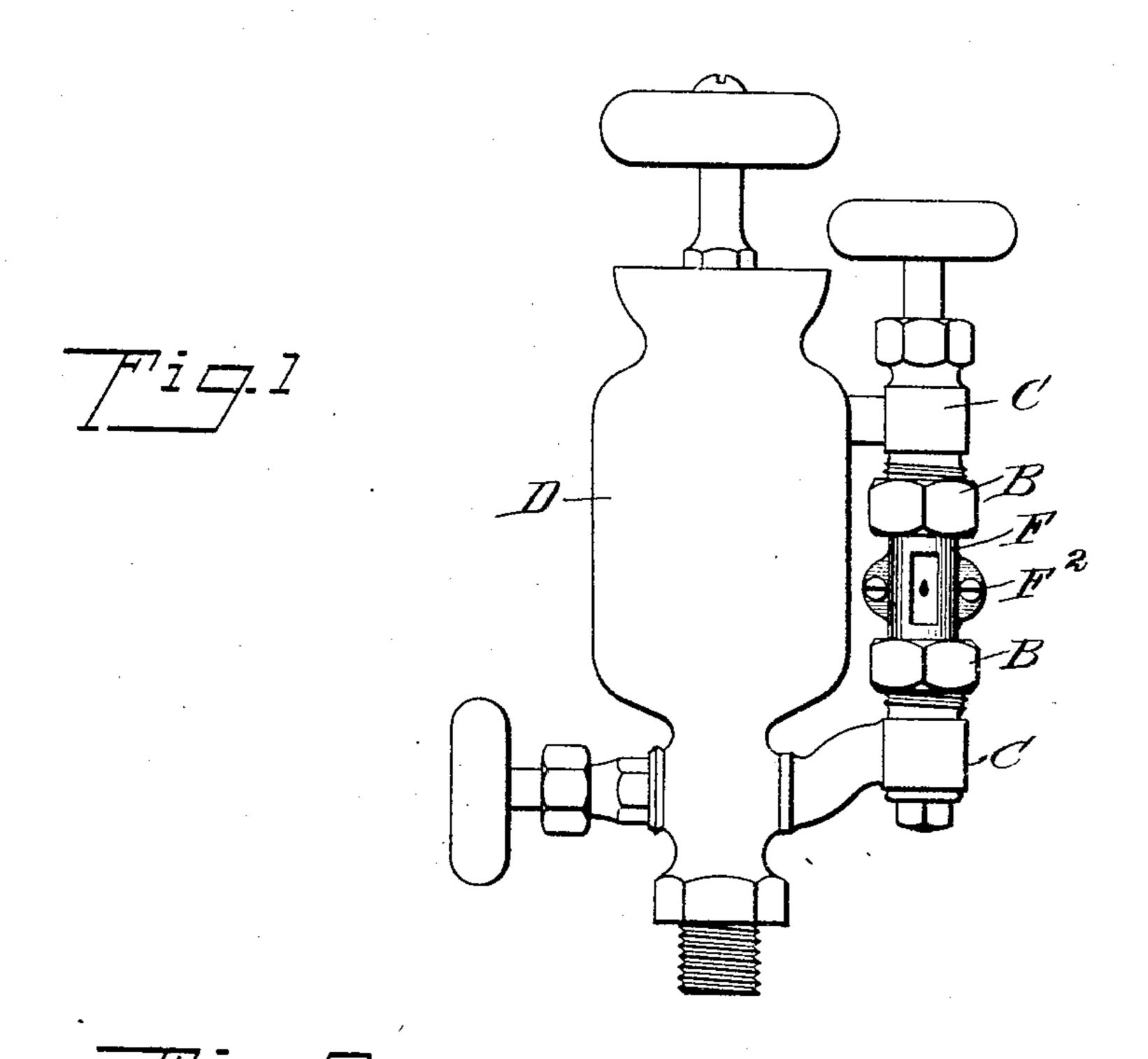
No. 779,792.

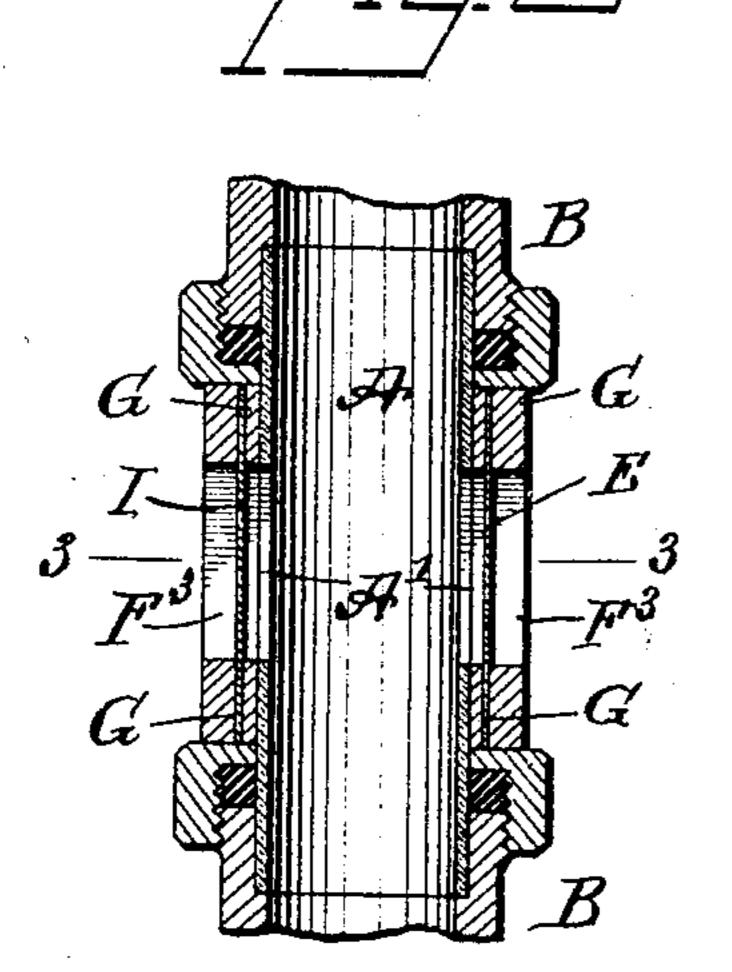
PATENTED JAN. 10, 1905.

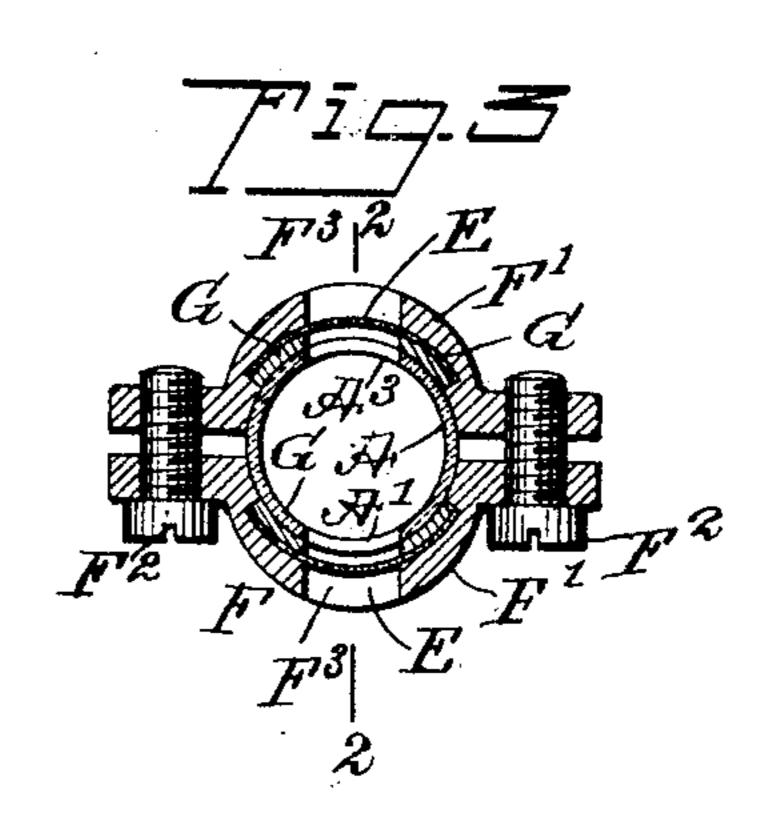
E. D. MARVIN.

DROP FEED FOR LUBRICATORS.

APPLICATION FILED AUG. 6, 1904.







WITNESSES: J.A. Brofely Hev. G. Hoster

INVENTOR

Edward D. Marvin

BY

MUMA

ATTORNO

O

## United States Patent Office.

EDWARD D. MARVIN, OF PLAINS, PENNSYLVANIA.

## DROP-FEED FOR LUBRICATORS.

SPECIFICATION forming part of Letters Patent No. 779,792, dated January 10, 1905.

Application filed August 6, 1904. Serial No. 219,736.

To all whom it may concern:

Be it known that I, Edward D. Marvin, a citizen of the United States, and a resident of Plains, in county of Luzerne and State of Pennsylvania, have invented a new and Improved Drop-Feed for Lubricators, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved drop-feed for lubricators such as are mainly used on locomotives and other places exposed to the inclemency of the weather, the drop-feed being arranged to prevent the sight-feed tube from breaking and to allow a proper viewing of the lubricant-drops.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is an enlarged transverse section of the improvement on the line 2 2 of Fig. 3, and Fig. 3 is a sectional plan view of the same on the line 3 3 of Fig. 2.

The sight-feed tube A, of suitable material, is held and packed at its ends by the usual devices B in the arms C of a lubricator D of any approved construction. The tube A is pro-35 vided in its side wall with oppositely-arranged openings A' A', covered by sheets E E of mica or other similar transparent and nonfrangible material, the sheets being held in a casing F, preferably made in sections F' F' 4° to allow of conveniently placing the sections and their sheets E E in position on the tube A or to permit of removing the casing from the said tube without disturbing the position thereof in the carrying devices B B. The 45 sections F'F' of the casing are fastened together by screws F2, and packings GG are interposed between the sides and ends of the sheets E E and the outer surface of the tube A around the openings A', so as to prevent leakage of water, steam, oil, or other fluid, it 50 being understood that on screwing up the screws F<sup>2</sup> the sheets E E are firmly pressed against the packings and the latter against the tube A. The sections F' F' are provided with openings F<sup>3</sup>, registering with the openings A', 55 so that the operator can view the drop of lubricant as the same passes down the tube A. (See Fig. 1.)

The casing F and its sheets E E completely inclose that portion of the tube A lying be- 60 tween the devices B B, so that in case the tube A is made of glass the drops of rain or flakes of snow cannot pass onto the heated glass, and consequently are not liable to crack and break the same, as is so frequently the 65 case with sight-feed tubes made of glass and exposed to the inclemency of the weather, and if the tube be made of metal, with a slot covered by transparent mica, it will neither break nor wear out.

The device is very simple and durable in construction and can be cheaply manufactured and readily applied, and in the case of the packings G wearing out the casing can be readily removed and the worn-out packings 75 replaced by new ones, after which the device can be again fastened in position on the tube A without disturbing the position thereof in the devices B B, and the worn-out packing may be replaced by new ones while the engine 80 is working or the locomotive is running without rendering it necessary to stop, which has been impossible with any other form of lubricator. For the purpose described it is only necessary for the engineer to close the valve 85 in the upper arm C to shut off the steam, and then the screws F<sup>2</sup> are unscrewed to allow removal of the casing F for repairing or replacing the packings G or for substituting new sheets E of mica for broken ones. When the 90 necessary repairs have been made, the casing is again placed in position on the tube A and the screws F<sup>2</sup> screwed up to again fasten the case in position.

Having thus described my invention, I claim 95 as new and desire to secure by Letters Patent—
1. A drop-feed for lubricators, having a tube provided with an aperture in its side wall, and

a sheet of transparent material covering the

said opening.

2. A drop-feed for lubricators, having a tube provided with oppositely-disposed apertures, sheets of transparent material covering the said apertures, and a casing through which extends the tube, the casing holding the said sheets in position.

3. A drop-feed for lubricators, having a tube provided with oppositely-disposed apertures, sheets of transparent material covering the said apertures, and a casing through which extends the tube, the casing holding the said sheets in position and the said casing being

15 made in sections fastened together.

4. A drop-feed for lubricators, having a tube provided with oppositely-disposed apertures, sheets of transparent material covering the said apertures, a casing through which extends the tube, the casing holding the said

sheets in position, and packings interposed between the sheets and the tube.

5. A drop-feed for lubricators, having a feed-tube, end fastenings for the same, and a casing inclosing the tube completely between 25 the said fastenings, the casing being arranged to allow viewing the drops of lubricant as the same pass through the tube.

6. A drop-feed for lubricators having a tube provided with oppositely-disposed apertures, 3° sheets of transparent material covering the said apertures, and means for holding the said

sheets in position.

In testimony whereof I have signed my name to this specification in the presence of two sub- 35 scribing witnesses.

EDWARD D. MARVIN.

Witnesses:

T. M. Conniff, James N. Conniff.