

(No Model.)

J. H. HALLADAY.
OILER.

No. 537,342.

Patented Apr. 9, 1895.

Fig. 1.

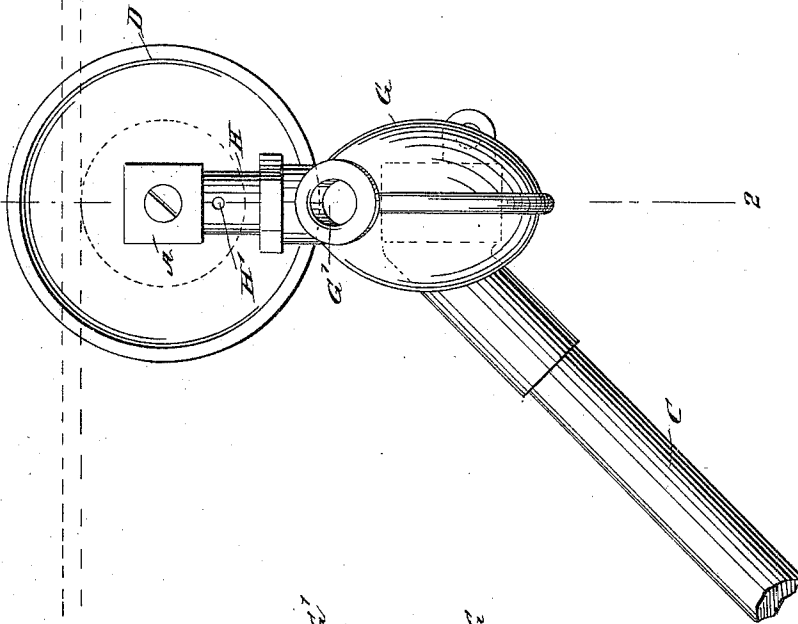
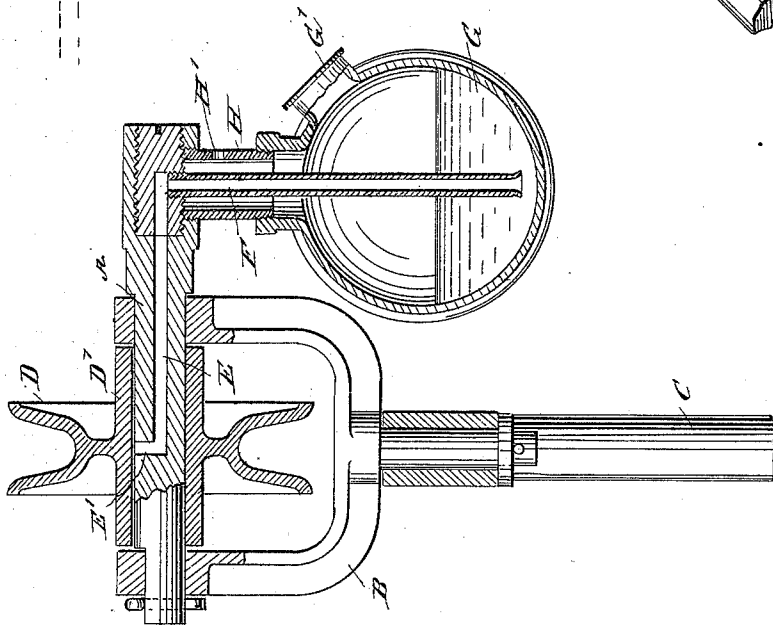


Fig. 2.



WITNESSES:

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OILER.

SPECIFICATION forming part of Letters Patent No. 537,342, dated April 9, 1895.

Application filed November 13, 1894. Serial No. 528,623. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH HENRY HALLADAY, of Clifton Heights, in the county of Delaware and State of Pennsylvania, have invented a new and Improved Oiler, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved oiler, which is simple and durable in construction, and designed for effectively and uniformly lubricating revolving devices such as trolley and other wheels, the oiler being arranged to automatically feed while the parts are in motion, and to instantly stop feeding as soon as the revolving parts come to a rest.

The invention consists principally of a fixed spindle on which a wheel revolves, the said spindle being formed with an oil feed aperture opening onto the inner surface of the wheel, and connecting at its outer end with a pipe extending downwardly into the oil cup.

The invention also consists in certain parts and details, and combinations of the same, as will be hereinafter fully described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the views.

Figure 1 is a side elevation of the improvement as applied to a trolley wheel; and Fig. 2 is a transverse section of the same, on the line 2—2 of Fig. 1.

The improved oiler is provided with a shaft or spindle A, secured in the harp B held on the upper end of the trolley rod C, as plainly shown in the drawings. On the shaft A is mounted to turn the wheel D, adapted to engage the trolley wire, and having its hub D' extending between the members of the harp B, as plainly shown in Fig. 2. Onto the inner surface of the hub D' discharges the outwardly-extending end E' of a feed aperture E, formed longitudinally and centrally in the shaft A, the outer end of the said aperture being connected with a pipe F extending downwardly into an oil cup G, of any approved construction, the pipe F terminating near the bottom of the said oil cup.

The oiler is preferably supported on a pipe

H, screwed or otherwise secured on one outer end of the spindle A, and the said pipe H is provided with an opening H' to admit air to the interior of the oil cup G. The oiler is provided with the usual filling cap G', for introducing the lubricant.

It will be seen that when the device is in use and the wheel D is rotated in the usual manner, then the hub D' creates a suction action in the feed aperture E, so that air is withdrawn from the said aperture E at the end E', and consequently air is removed from the pipe F so that the atmospheric air pressing on the lubricant contained in the oil cup G is forced into the pipe F, up the same into the aperture E, to finally pass through the end E' onto the inner surface of the hub D', thus lubricating the wheel on the spindle A. As soon as the wheel D stops revolving the suction action ceases, and consequently no oil passes to the hub D' and spindle A. Thus it will be seen that the wheel is only lubricated as long as it is in motion, and feeding of the oil ceases as soon as the wheel comes to a standstill.

By the arrangement described the wheel is not liable to stick on the spindle A, and consequently the power of the electricity passing through the trolley wire is transmitted by the wheel in the proper manner.

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

1. An oiler, comprising a spindle, having an oil duct extending through it longitudinally and opening at one end at the periphery of the spindle, a wheel loose on said spindle over the end of said duct, an oil receptacle located below the spindle and a pipe dipping at its lower end in the oil contained in said receptacle and connected at its upper end to the oil duct in the spindle, substantially as set forth.

2. A valve comprising a fixed spindle having a feed aperture adapted to discharge at one end onto the inner surface of the hub of a wheel mounted on the spindle, a pipe connected to the other end of said feed-aperture, and extending in a downward direction, and an oil cup having an air inlet and being mounted on the said pipe, the lower end of the

pipe extending below the level of the oil in the cup, substantially as set forth.

3. An oiler comprising a fixed spindle having an oil-duct discharging at one end onto
5 the inner surface of a wheel revolving on the spindle a feed pipe connected to the other end of the oil-duct and extending below the spindle a perforated pipe secured to the spin-

dle surrounding the said feed pipe and an oil receptacle supported on said perforated pipe, substantially as set forth.

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Witnesses:

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