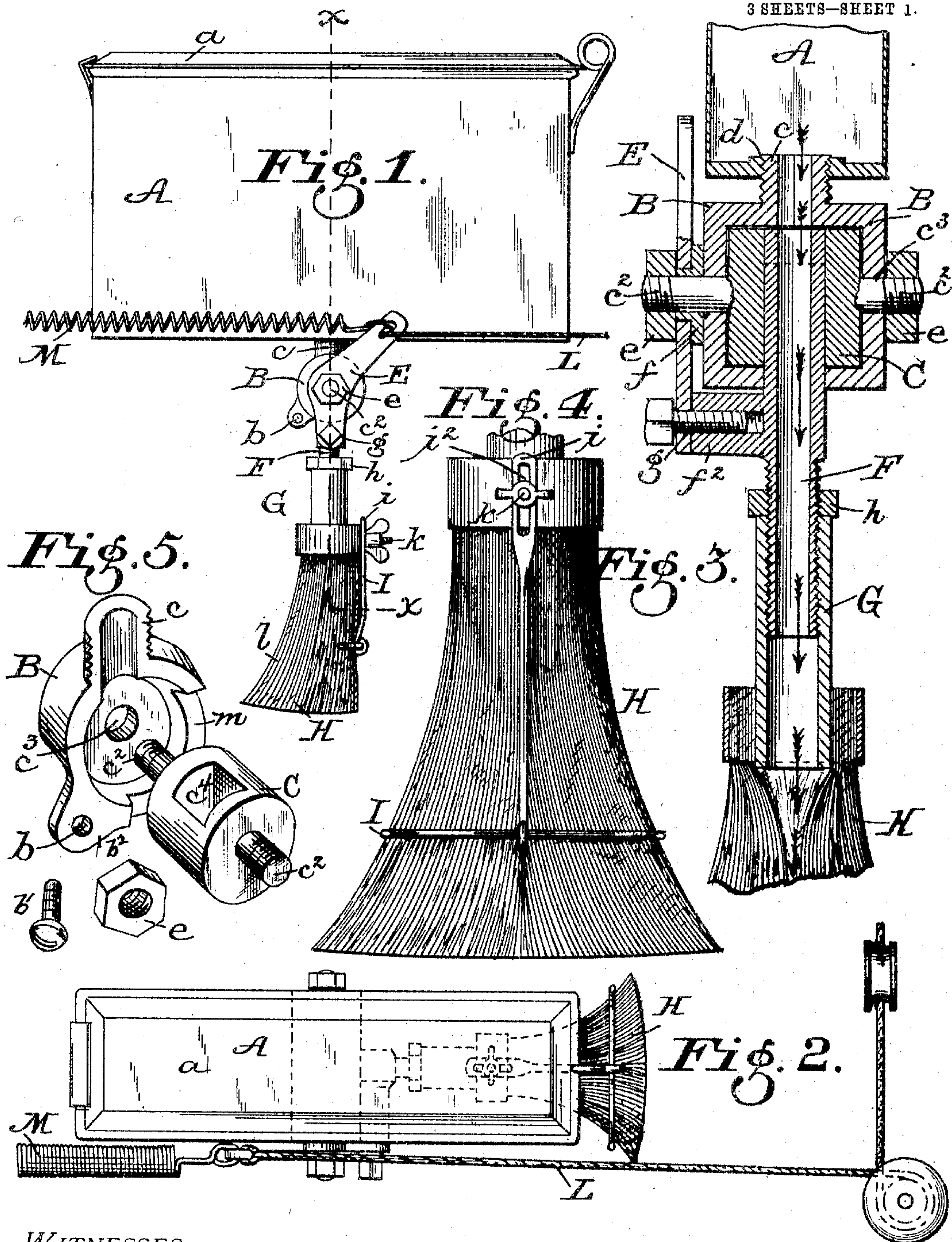


W. H. YOUTSEY.

## COMBINED LUBRICANT DISTRIBUTER AND AUTOMATIC CUT-OFF.

APPLICATION FILED JAN. 10, 1903.

3 SHEETS—SHEET 1.



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No. 780,254.

PATENTED JAN. 17, 1905.

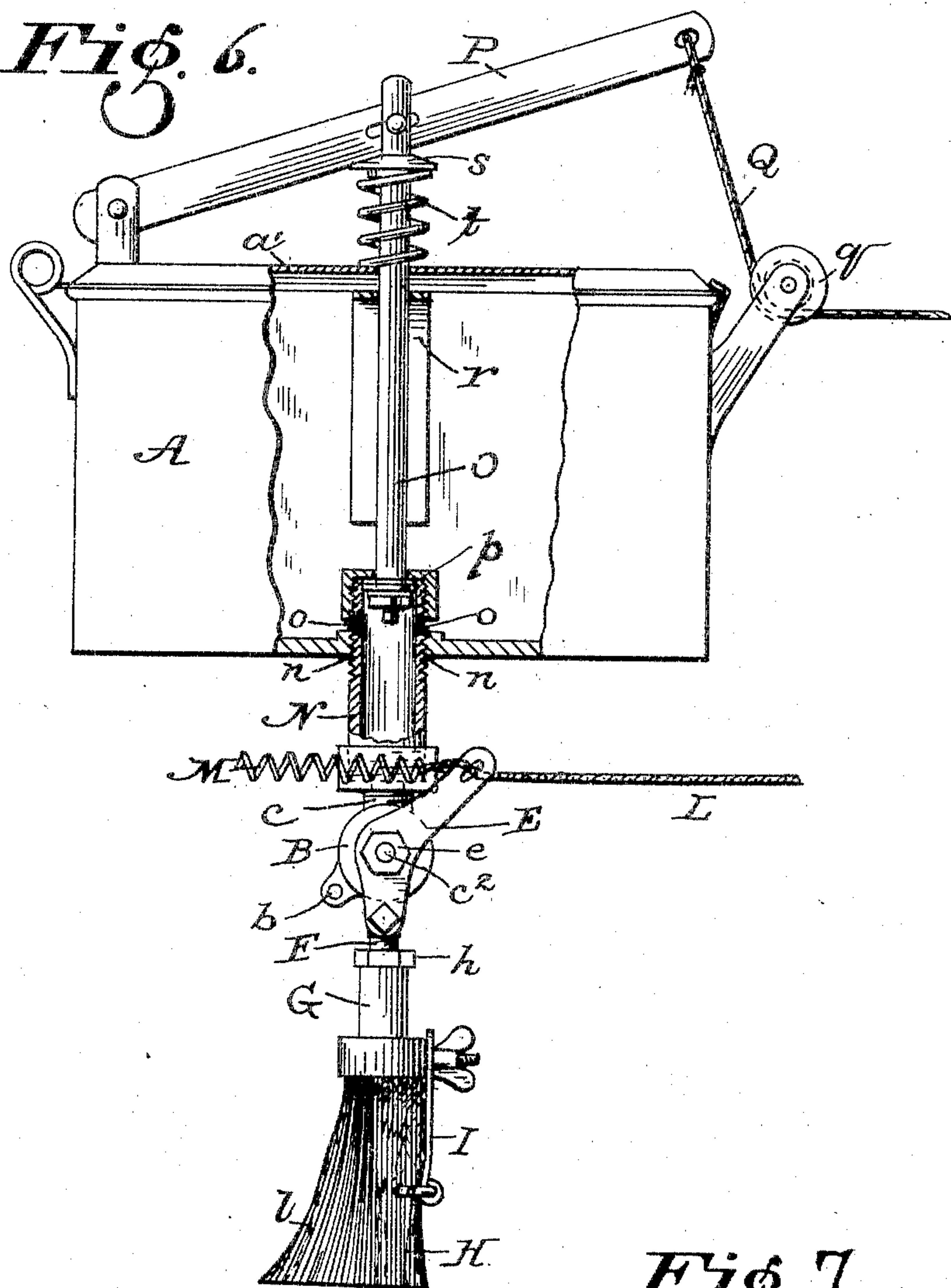
W. H. YOUTSEY.

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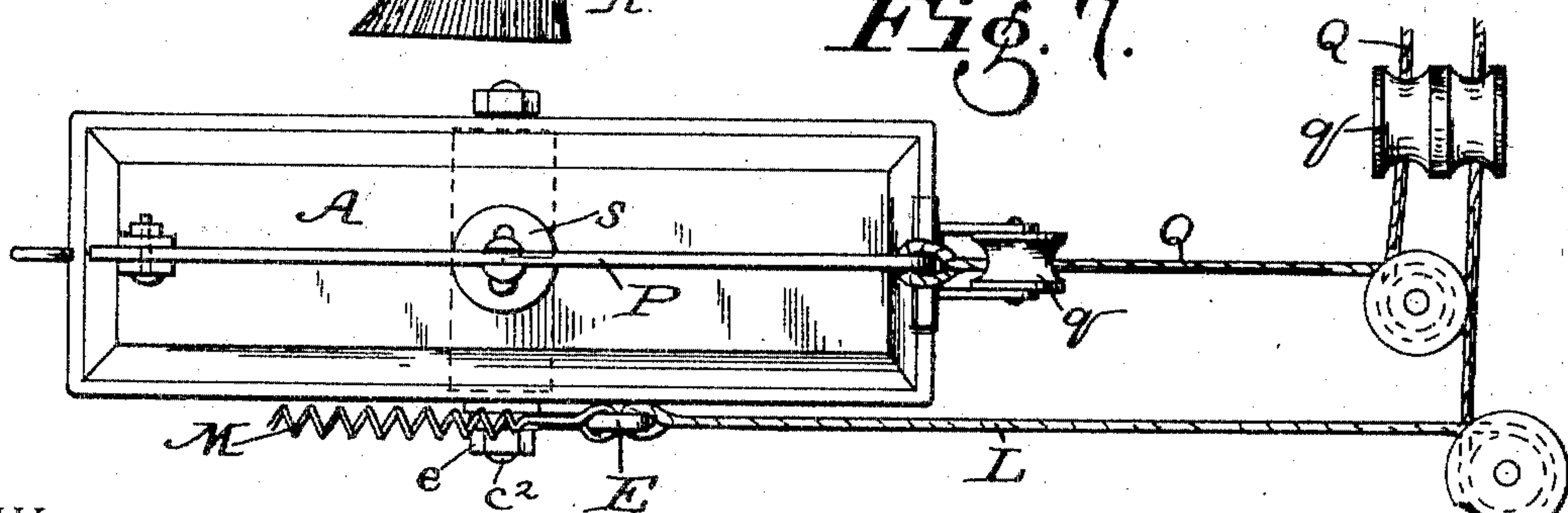
APPLICATION FILED JAN. 10, 1903.

3 SHEETS—SHEET 2.

*Fig. 6.*



*Fig. 7.*



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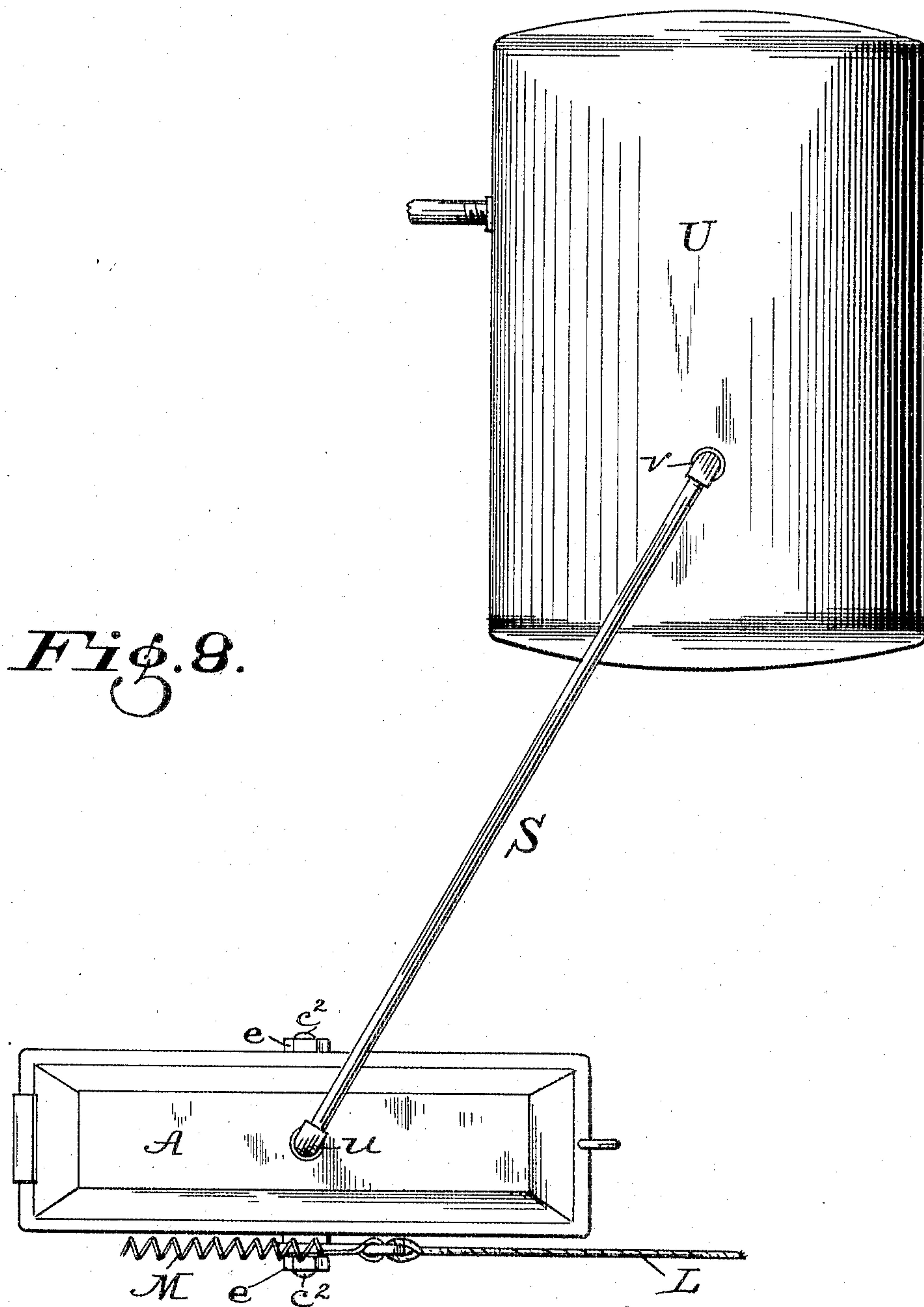
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COMBINED LUBRICANT DISTRIBUTER AND AUTOMATIC CUT-OFF.

APPLICATION FILED JAN. 10, 1903.

3 SHEETS—SHEET 3.



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# UNITED STATES PATENT OFFICE.

WILLIAM H. YOUTSEY, OF MONROE TOWNSHIP, MIAMI COUNTY, OHIO.

## COMBINED LUBRICANT-DISTRIBUTER AND AUTOMATIC CUT-OFF.

SPECIFICATION forming part of Letters Patent No. 780,254, dated January 17, 1905.

Application filed January 10, 1903. Serial No. 138,583.

*To all whom it may concern:*

Be it known that I, WILLIAM H. YOUTSEY, a citizen of the United States, residing in Monroe township, in the county of Miami and State of Ohio, have invented certain new and useful Improvements in a Combined Lubricant-Distributor and Automatic Cut-Off; and I hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a combined lubricant-distributor and automatic cut-off.

This invention consists in its entirety of the peculiar construction of the various mechanical features or elements and the arrangement and combination of the same, all of which cooperate to constitute the invention, as will be more fully described hereinafter, and pointed out in the subjoined claims, in accordance with the statutes in such cases made and provided therefor.

In the annexed drawings, constituting a formal part of this specification, and wherein like letters of reference designate the same parts wherever they occur throughout the several views, Figure 1 is a view in side elevation of my invention and showing the parts which are used to distribute the lubricant in operative position ready for the oil to flow down into the brush and be applied to the track. Fig. 2 is a plan view of the same with the brush raised from the track when the flow of oil is cut off by the action of the spring and rope and pulleys, the latter being shown in dotted lines. Fig. 3 is a vertical sectional view taken transversely through the lubricant receptacle or tank on the line  $x-x$  of Fig. 1, but on a somewhat enlarged scale therefrom. Fig. 4 is a view of the track-brush in side elevation looking at the side which does not bear against the rail, so as to clearly show the brace for holding said brush in position. Fig. 5 is a perspective view of the cylindrical body of the valve, one of the halves of the casing or shell which covers the

same, and the screw and one of the nuts for holding the parts together, shown in a group, but all detached and separated. Fig. 6 is a side elevation of the lubricant-distributor with the tank-brush in a vertical position, so as to allow of the oil flowing to the track, and showing a pump attachment when it is desired to operate it in this manner, the receptacle or tank and the pump being partially in section. Fig. 7 is a plan view of the device as shown in Fig. 6, so as to clearly show the rope and pulleys for operating the same. Fig. 8 is a plan view showing the air-tank and pipe leading therefrom which is connected with the oil-tank when it is found advisable to facilitate the flow of the lubricant by means of an air-pressure.

In describing my said invention and referring in detail to the different parts as shown throughout the several views of the annexed drawings and indicated by means of the letters of reference, as aforesaid, A designates an oil tank or receptacle of suitable capacity and of any preferred style or form, in which is placed the requisite amount of oil or other liquid lubricant, and having a lid or top  $a$  securely but removably attached thereto in any well-known manner, said tank being intended in practice to be suitably supported underneath the floor of the car at the forward end or part that comes nearest to the motorman or operator. The two parts or halves B of the lubricant-controlling valve are preferably held together by means of a screw-bolt  $b'$ , which passes through a screw-threaded opening  $b$  in the portion  $b^2$  of each of said halves B, and when thus held together and in position form a casing or shell for said valve, provided with a screw-threaded mouthpiece  $c$ , which rests firmly in an opening in said oil-tank adapted to receive it, as at  $d$ , thus holding said casing or shell in a stationary position.

C is a cylindrical valve-body, (see Fig. 5,) provided at each end with a spindle  $c^2$ , which has a movable bearing in opening  $c^3$  of each end of the respective parts or halves B. Each of said spindles is screw-threaded at the end a sufficient distance to receive a nut  $e$ , by which means the cylindrical body is held in



position while moving within said casing or shell. One of said spindles carries a washer  $f$ , which receives the bell-crank lever E, as fully shown in Fig. 3, the lower or short arm 5 of said bell-crank lever being connected by a screw at  $g$  to the arm  $f^2$  of the spout F. Said spout is thus supported and retained with the upper portion or end thereof within the rectangular opening  $c^1$  of the cylindrical body C, 10 in which it fits closely and snugly, as it is of similar contour, but it extends only to the top of said cylindrical body, so as to move therewith, as is shown in Fig. 3 and will be fully explained hereinafter. The lower portion 15 of spout F rests or telescopes within the upper portion of hollow cylinder or stock G and has a screw-threaded engagement therewith and is provided with a retaining or locking nut  $h$ , while the lower portion or end 20 of said hollow cylinder is provided with a track-brush H, one side of which is designed and intended when the device is in operative position underneath the car and just above the rail of the track to be provided with a 25 brace I, consisting of a curved horizontal rod or arm, extending upward from which is a vertical rod formed at its top into a flat bearing end  $i$ , having a slot  $i^2$ , which receives set-screw  $k$ , the shank of which projects from 30 the top or retaining band of the brush, thus permitting said brace to be adjusted vertically (see Fig. 4) for the purpose of holding the opposite side of said brush, as  $l$ , steadily against the rail of the track at the point where 35 it is intended to brush and lubricate said rail. The rope or cable L is connected to the lever E and passes around pulleys and up through the floor of the car within easy reach of the attendant or operator. The valve may thus 40 be opened by pulling upon the rope or cable L and will be closed by the spring M when the cord or cable is released by the attendant. As shown in Fig. 5, a recess  $m$  is formed in one of parts or halves B, and it will be understood that a similar recess  $m$  is formed in the 45 other part B, so that a slot is formed in the casing or shell when the two halves B are secured together to permit of said spout and brush assuming a vertical position, as shown 50 in Figs. 1 and 3, and the oil will flow down from the tank into the brush, as indicated by the course of the arrows in Fig. 3, and be spread by the brush onto the rail to be lubricated. Having lubricated the rail sufficiently 55 as above described, all that is necessary when it is desired to cut off and close the supply of lubricant is to reverse the operation by the operator simply allowing the tension on the rope or cable to relax and the same to become 60 slack, when the parts will immediately and by reason of the reaction or contraction of the spring assume the position shown in Fig. 2 and the flow be cut off from mouthpiece  $c$ . In Figs. 7 and 8, while confining myself 65 within the scope and principles of the inven-

tion, I have shown my lubricant-distributor in the form just described, but having a pump attachment, the cylinder or barrel N of said pump, which is of ordinary construction, having a screw-threaded connection with mouth- 70 piece  $c$  and also a connection with the bottom of the oil-tank, as at  $n$ , said pump-cylinder having openings at  $o$  to allow the oil or liquid lubricant to pass from said tank into the cylinder, when it can be pumped or facilitated in its 75 flow down to the brush by the movement of the piston  $p$  and piston-rod O.

A lever P is pivoted at one end to the top of the lid  $a'$  and is centrally pivoted to the piston-rod O at the upper end thereof. A rope 80 or cable Q is connected to the outer end of the lever P, said rope or cable passing down under a pulley  $q$  and from thence to a point within reach of the operator or attendant. A spring  $t$  surrounds the rod O and serves to 85 normally hold the rod in its uppermost position when the rope or cable is released by the attendant. A brace  $r$ , connected to the sides of the tank, assists in holding the piston-rod 90 O in vertical position.

Under certain conditions it may be desirable to dispense with the pump for the purpose of facilitating the flow of oil to the brush, and in Fig. 9 I have shown my distributor having a pipe S connected thereto, as at  $u$ , the 95 other end of said pipe being connected, as at  $v$ , to an ordinary air-tank U, by which means a constant air-pressure is exerted upon the oil in tank A. The operation of the modification shown in Fig. 8 is substantially identical with 100 that of Figs. 6 and 7.

It will be readily understood that in the practical application of my invention it will be necessary to have two distributors, one of which 105 will be located at each side of the car, so as to come directly over each rail of the track just on the inner side of said rail, and as each of the distributors are identically the same as herein shown and described, simply being arranged to adapt themselves to the side of the 110 car for which they are intended, therefore so as to avoid multiplying the views in the drawing I have illustrated only one.

Having now described my invention, what I claim is— 115

1. In a lubricating device, the combination of an oil-tank, a casing or shell communicating with said tank, a cylindrical valve movably supported within said casing, a tube connected to said casing, a brush secured to said tube, 120 and means for simultaneously operating the cylindrical valve and swinging the nozzle.

2. In a lubricating device, the combination of an oil-tank, a casing communicating with said tank and having within it a cylindrical 125 valve, a tube passing into the casing and through the valve, means for simultaneously opening the valve and swinging the tube, and means for forcing the oil from the tank through the valve and tube. 130



3. In a lubricating device, the combination of an oil-tank, a casing connected thereto, a valve in the casing, a tube connected to the valve, a brush connected to the tube, a lever  
5 for rotating the valve and swinging the tube, a rope or cable for operating the lever, and a spring for returning the lever to its normal position.

10 4. In a lubricating device, the combination of an oil-tank, a casing connected thereto, a valve in the casing, a tube passing into the

casing and valve, a brush on the tube, an adjustable brace on the brush, and means for simultaneously operating the valve and swinging the tube.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM H. YOUTSEY.

Witnesses:

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