

No. 785,826.

PATENTED MAR. 28, 1905.

W. H. PAPE.  
LUBRICATOR.  
APPLICATION FILED DEC. 8, 1904.

Fig. 2.

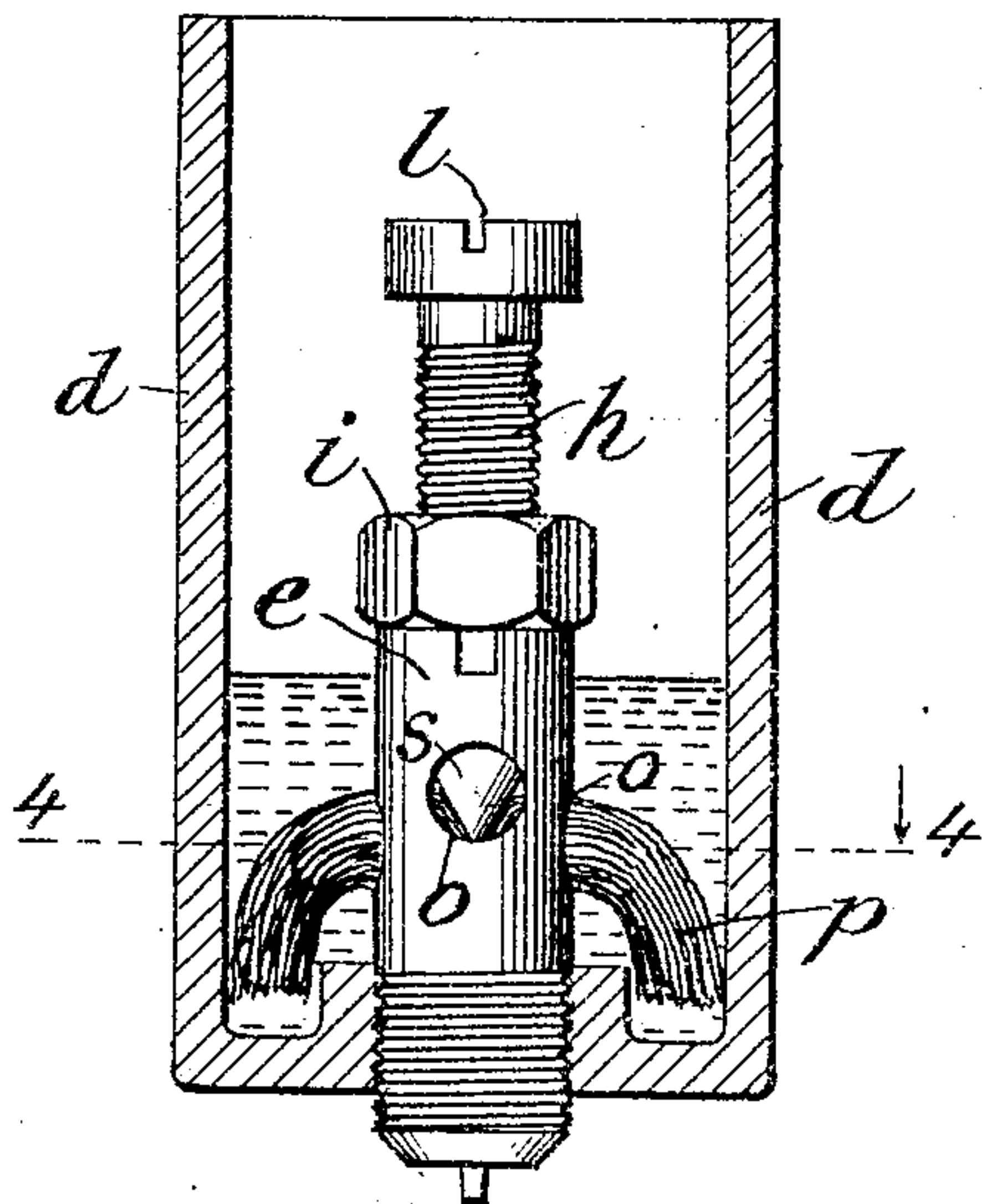


Fig. 3.

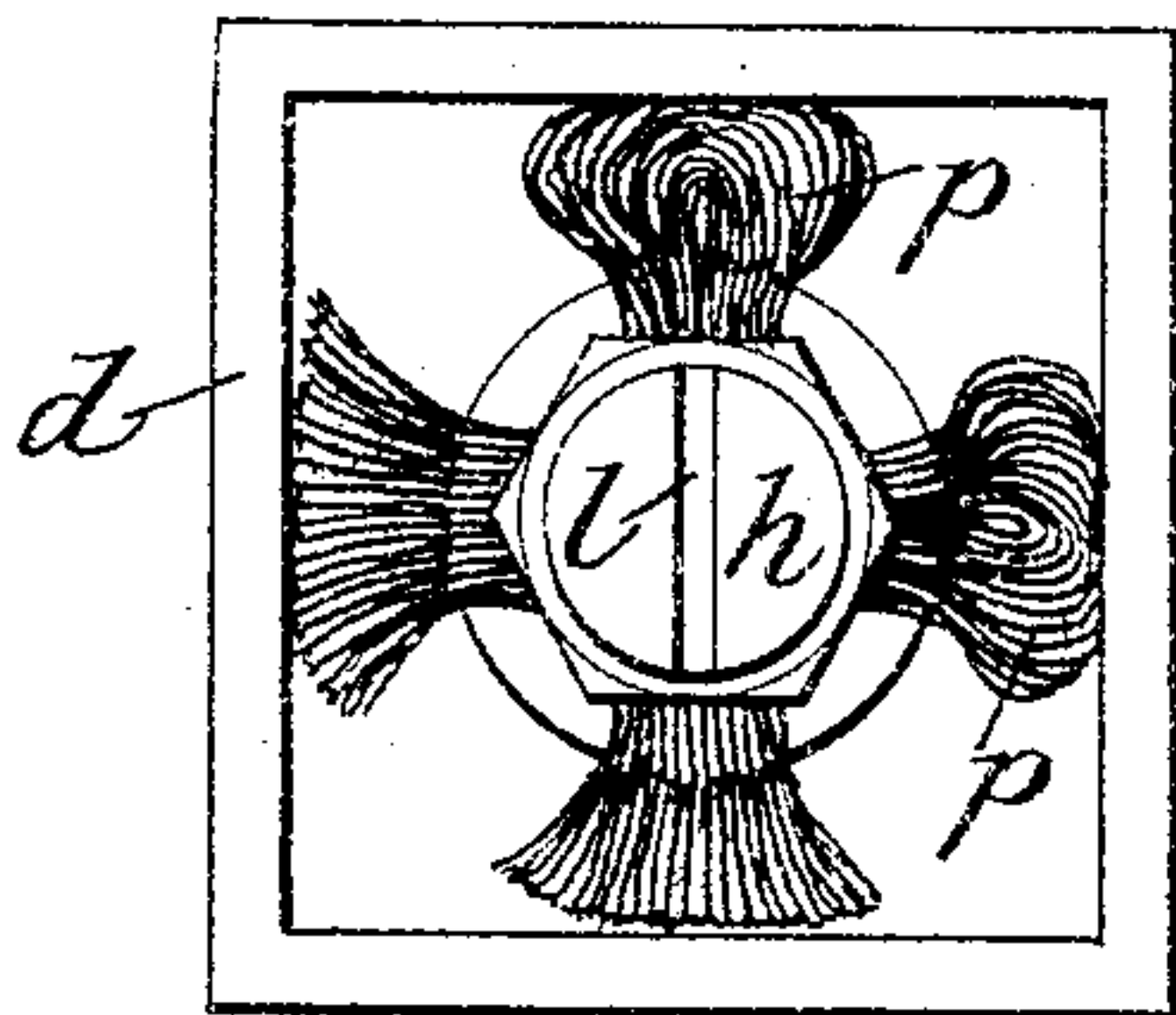
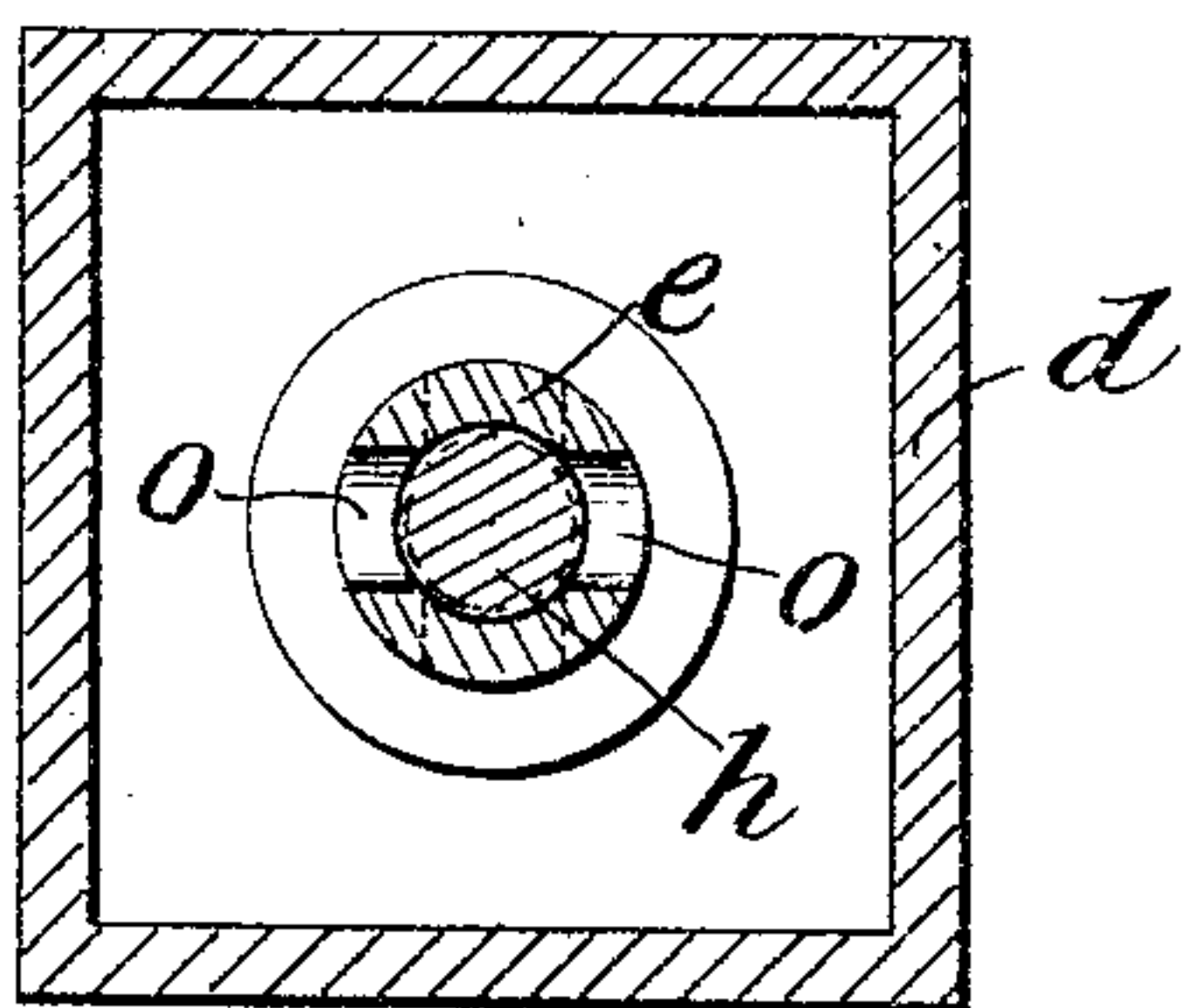


Fig. 4.



WITNESSES:

J. H. Schott

C. B. Schumann

Fig. 1.

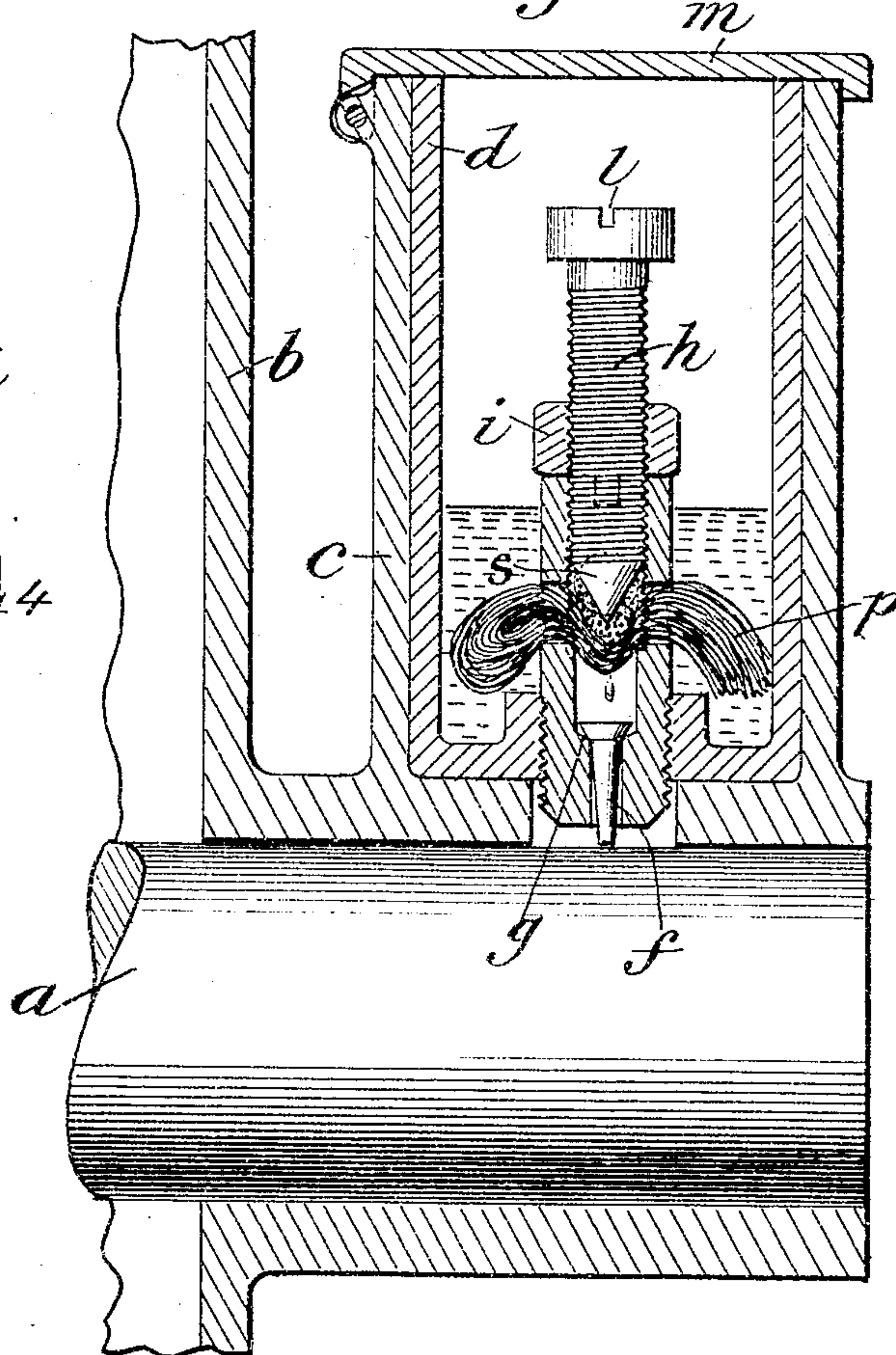
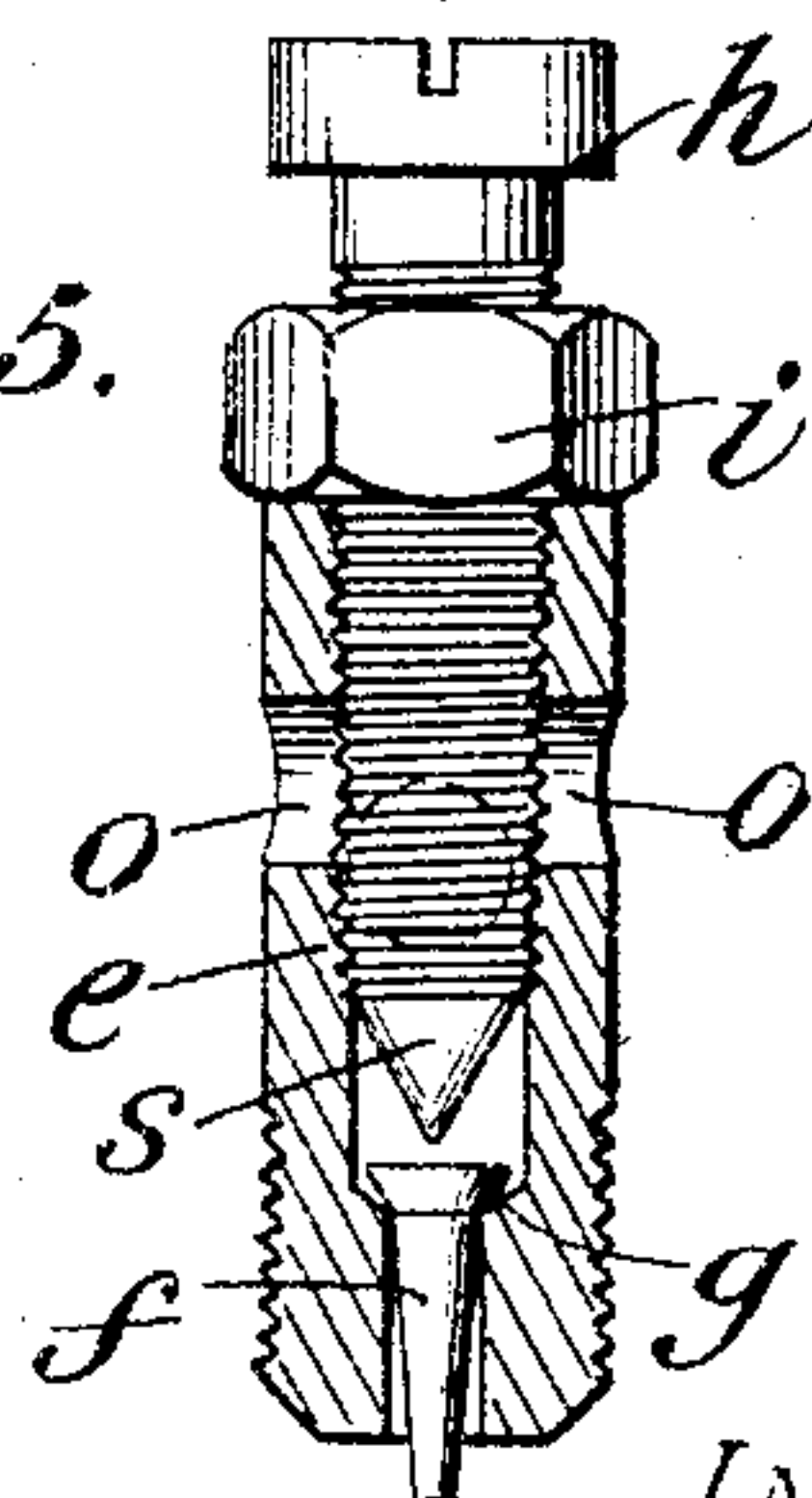


Fig. 5.



INVENTOR

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# UNITED STATES PATENT OFFICE.

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## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 785,826, dated March 28, 1905.

Application filed December 8, 1904. Serial No. 236,020.

*To all whom it may concern:*

Be it known that I, WILLIAM H. PAPE, a citizen of the United States, residing in Franklin, county of Venango, State of Pennsylvania, have invented certain new and useful Improvements in Lubricators; and I do 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.

The invention relates more especially to wick-holders for lubricators using oil. It is illustrated herein in connection with a lubricator of an electric-railway motor, but is equally adapted to the lubrication of shaft and axle bearings in general.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical section of a lubricator constructed in accordance with the invention. Fig. 2 is a similar section of the oil-cup detached, the wick-holder being shown in elevation. Fig. 3 is a plan view of the cup shown in Fig. 2. Fig. 4 is a section of the cup shown in Fig. 2 on the line 4 of the latter figure; and Fig. 5 is a detail of the wick-holder, its valve and the choking-screw being shown in elevation.

Referring to the views, *a* in Fig. 1 denotes the axle-bearing of an electric-railway motor, and *b* indicates a part of the motor-case on which the usual grease-box *c* is mounted. Ordinarily this box has a hinged cover *m*, and in order to adapt my invention to boxes already installed I employ an oil-cup *d*, which may be set loosely into the box *c*, as indicated in Fig. 1, the cup being preferably shaped to conform to the shape of the box and having the opening in its bottom coinciding with the opening from the box to the shaft-bearing. Located centrally within the oil-cup is a tubular wick-holder *e*, which is preferably tapped into the opening in the bottom of the cup and has a valve-seat *g* in its lower end. The wick-holder is provided with a transverse opening *o* about midway of its length, or it may have a plurality of openings therefrom at angles to one another, as shown in the drawings. A wick or wicks *p*, of cotton or other material, is passed through these openings and dips into

the oil in the cup *d*, so as to feed the oil by capillary attraction into the lower end of the wick-holder. A valve *f*, which may be a needle-valve, as here shown, or a ball-valve, if preferred, rests loosely on the seat *g* in the bottom of the holder, and a choking-screw *h* is tapped into the upper end of the holder above the wick and has its lower pointed end *s* adapted to be screwed down upon the wick, so as to exert a pressure thereon to regulate its capillarity and to control the feeding of the oil into the bottom of the holder. The head of the screw *h* is preferably provided with a kerf *l*, so that the screw may be operated by an instrument from above, and a jam-nut *i* is preferably employed in connection with the screw and bears upon the upper end of the wick-holder *e*. The valve rests loosely upon the seat in the lower end of the wick-holder and is normally and automatically closed. If desired, it may be provided with means for periodically opening it, but ordinarily, and as here shown, it will be sufficient to rely upon the jarring of the motor for the purpose of lifting it and permitting the oil to pass through to the bearing.

The construction being as thus described, it will readily be understood that the capillarity of the wick may be regulated as desired by screwing up or down on the choking-screw and that the valve loosely fitting the seat in the bottom of the holder automatically shuts off the flow of oil to the bearing when the shaft or motor is at rest.

Although I have herein illustrated a needle-valve *f*, the invention contemplates the use of any sort of gravitating-valve that fits loosely upon its seat, so as to permit the shaking or jarring of the shaft to open it when in operation.

Having thus described my invention, what I claim is—

1. In a lubricator, the combination of a tubular wick-holder, a valve at the bottom of the holder, a wick passing transversely through the holder above the valve, and a choking-screw threaded into the holder and adjustably compressing the wick.

2. In a lubricator, the combination of an oil-

cup, a tubular wick-holder having a valve-seat in the bottom thereof, a valve resting loosely on the seat, a wick passing transversely through the holder and dipping into the oil in  
5 the cup, and a choking-screw in the holder above the wick, said screw being threaded into the holder so as to permit its point to exert a regulable choking pressure on the wick.

3. In a lubricator, the combination of an oil-  
10 cup, a tubular wick-holder therein having a valve-seat in its bottom, a wick dipping into

the oil in the cup and delivering into the holder, and a valve resting loosely on the seat in the holder and adapted to close automatically and to be opened by being jarred off its seat. 15

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

WILLIAM H. PAPE.

Witnesses:

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FRANCES L. KING.