

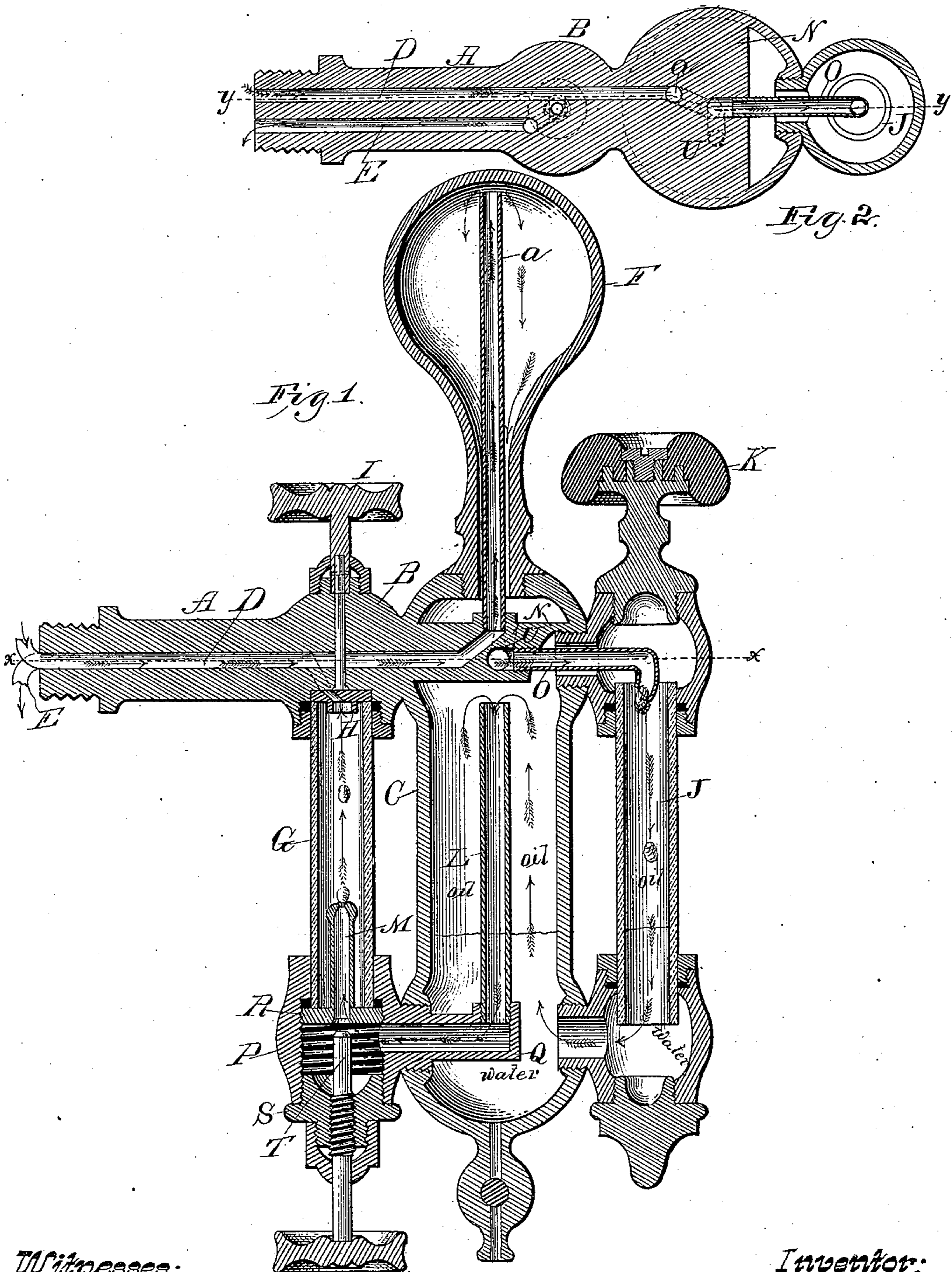
(No Model.)

J. J. RENCHARD.

LUBRICATOR.

No. 292,050.

Patented Jan. 15, 1884.



Witnesses:

E. L. Asmus  
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# UNITED STATES PATENT OFFICE.

JOHN J. RENCHARD, OF DETROIT, MICHIGAN,

## LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 292,050, dated January 15, 1884.

Application filed September 1, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN J. RENCHARD, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Double-Sight Feed-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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a lubricator in which the action of the water and oil may both be observed; also, to so simplify the construction that several of the parts heretofore formed in separate pieces may be cast together in a single piece, whereby the lubricator is more easily made.

My invention is further explained and described by reference to the accompanying drawings, in which—

Figure 1 is a vertical section. Fig. 2 is a horizontal section drawn on line *x x* of Fig. 1.

Like parts are represented by the same reference-letters in both views.

A is the supporting-trunk, which is cast in the same piece with the glass cage B and oil chamber or body C, whereby the ordinary coupling-joint between the trunk and body is dispensed with and one less glass cage is required. The trunk A is provided with two separate passages, D and E, arranged in the same horizontal plane. Passage D communicates with the condensing-chamber F through the vertical tube, and passage E communicates with the glass tube G through the disk-valve H. The valve H is opened and closed by turning knob I. The stopper K being removed, oil is introduced into the oil-chamber C through the glass tube J, and from thence it is forced upward by the water which is received from the condensing-chamber F through tube O. The oil thus elevated by the water flows over into the tube L and descends, as indicated by the arrows, and passes into the glass tube G; from thence out through valve H and passage E into the steam-pipe.

M is a discharging-tube, by which the oil is caused to escape in small drops or globules as

it is forced upward by the greater specific gravity of the water, whereby the quantity of oil escaping is ascertained, while at the same time the water may be seen as it descends, drop by drop, in the opposite tube, J. The tube O, through which the water is conducted to the glass tube J, communicates with the condensing-chamber through the passage U, formed in the diaphragm N. The glass cage P is cast in the same piece with the elbow-extension Q, to the inner end of which extension the lower end of the tube L is attached. The tube M is secured to and retained in place by the nut R, which nut is inserted from the lower end of the cage P, said cage and nut being respectively provided with a screw-thread, as shown, by which said nut is retained. The lower end or entrance to tube M is formed through nut R, and is provided with valve T, by which it is closed and the escape of oil regulated. The valve T is retained in place by the cap S, through which it is inserted, and in which it is retained and adjusted by a screw-thread.

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

1. The combination, with a lubricator having separate steam and oil chambers arranged in a vertical line one above the other, and a supporting-trunk provided with separate steam and oil passages, of two glass sight feed-tubes, through which both the descent of water and ascent of oil may be observed, as set forth.

2. The combination, with a lubricator having separate steam and oil chambers, and a supporting-trunk having separate steam and oil passages, of the two separate water and oil sight feed-tubes, the upper ends of which tubes communicate, respectively, one with the steam-chamber, from which water is received, and the other with the separate oil-passage in said trunk, through which oil is conducted from the oil-chamber to the boiler, as set forth.

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

JOHN J. RENCHARD.

Witnesses:

HENRY C. RENCHARD,  
ORRIN H. BUTTERFIELD.