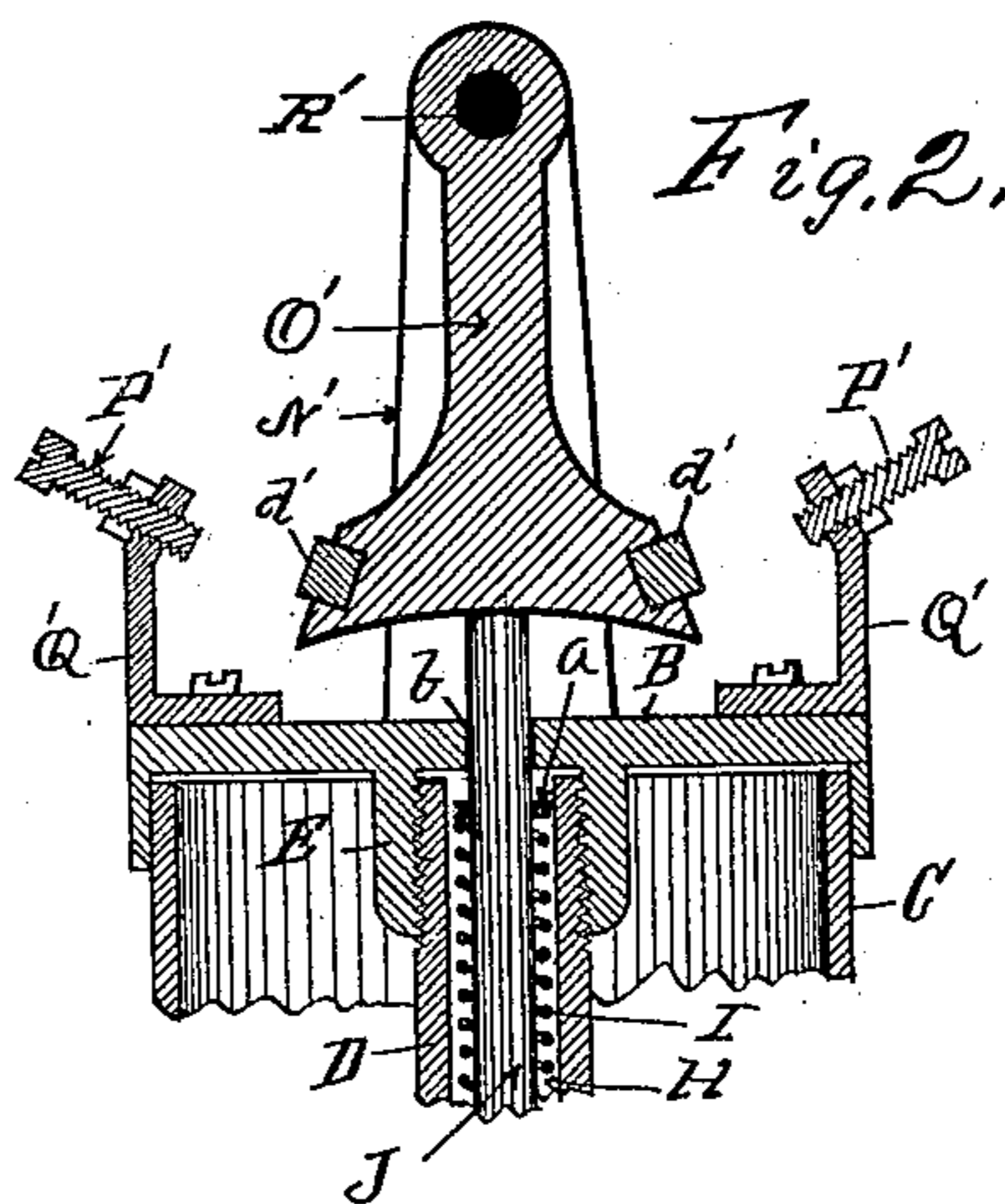
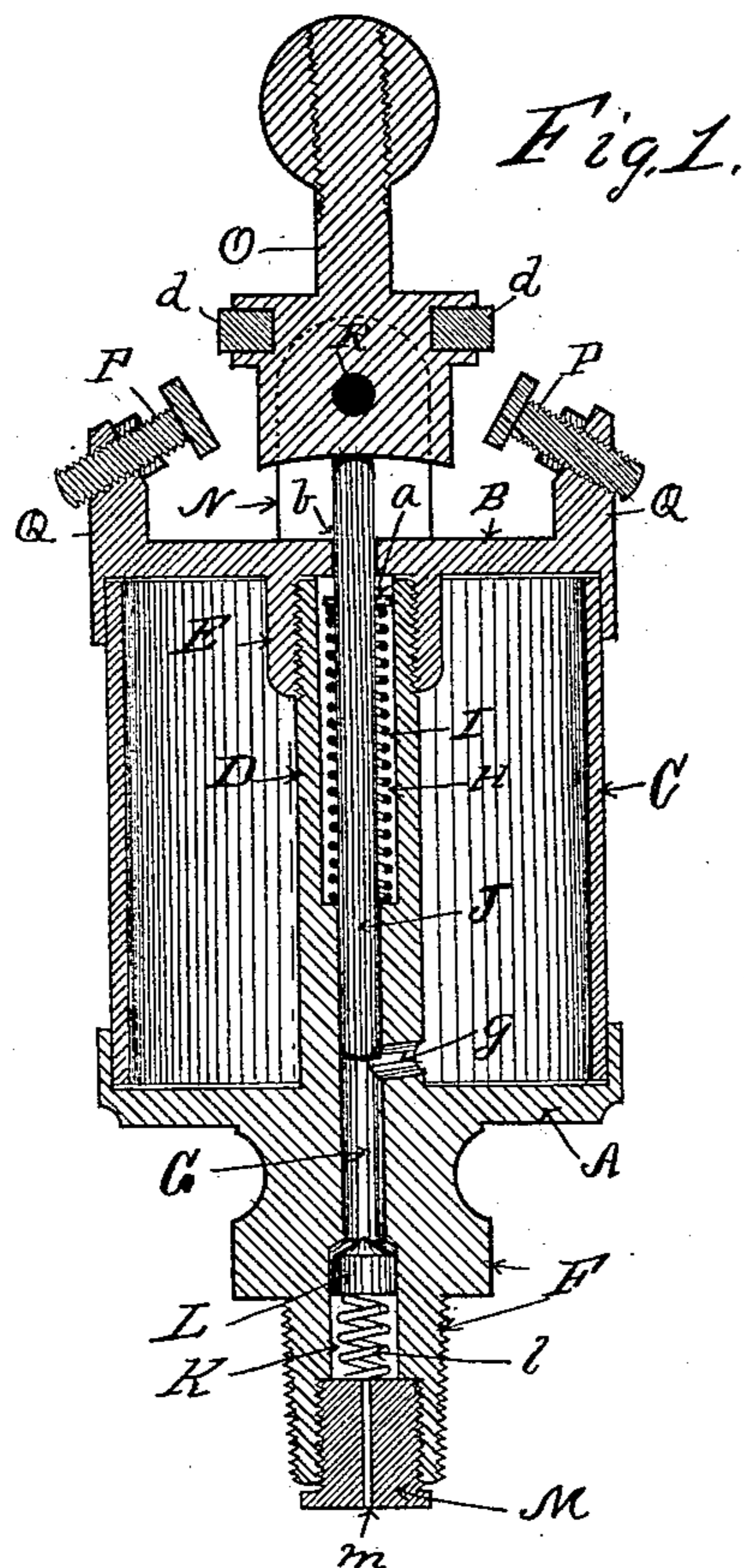


(No Model.)

R. CONRADER.
PITMAN OIL CUP.

No. 429,086.

Patented May 27, 1890.



WITNESSES

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UNITED STATES PATENT OFFICE.

RUDOLPH CONRADER, OF ERIE, PENNSYLVANIA.

PITMAN OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 429,086, dated May 27, 1890.

Application filed July 5, 1889. Serial No. 316,639. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH CONRADER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Pitman Oil-Cups; 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 the letters of reference marked thereon, forming a part of this specification.

My invention consists in the improvements in pitman oil-cups, hereinafter set forth and explained, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of my improved oil-cup. Fig. 2 is a vertical section of the upper portion of a modified construction of the same.

In the construction of my improved oil-cup, A is the base, B the top, and C a cylinder, of glass or other suitable material, forming the sides of the cup, the top and bottom of the cup being secured together by means of a central stem D, attached to the base A and screwed into the collar E on the top B. Through the center of the stem D, and down through the nipple F on the base A, I bore a passage G, and also bore an opening *g* into the passage G near the top of the base A. The upper portion H of the passage G, I bore out considerably larger, so as to receive a spiral spring I, surrounding a plunger J, adapted to operate in the passage G, the lower end of the spring I resting upon the bottom of the enlarged portion H of the bore in the stem D and the upper end thereof against a pin or collar *a*, passing through the plunger J, which also extends up through an opening *b* in the top B, so that the spring I operates to raise the plunger J, the lower end of which, when raised to its extreme height, is opposite the upper part of the lateral opening *g* in the stem D. The lower part K of the passage G is also bored out larger, so as to receive a small check-valve L, which, together with its spring I, is retained in place by a screw-plug M in the lower end of the nipple F, by means whereof

the cup can be secured in place, this plug M having a small opening *m* therein for the passage of the oil.

On the top B are ears N extending upward, between which is pivoted on a pintle K an oscillating lever O, the lower end of which contacts with the top of the plunger J, and is of such shape that each oscillation of the lever O serves to force the plunger J downward, it being raised again by the spring I.

Adjusting-screws P are placed in upwardly-projecting ears Q on the top B and adapted to contact with the sides of the lever O and limit the oscillation thereof. Springs *d*, of rubber or other suitable material, may be secured to the sides of the lever O, where it contacts with the heads of the adjusting-screws P to take up the shock caused by the lever O contacting therewith.

In Fig. 2 I show a modified construction of the lever mechanism of my device. In this case I use a pendulum-lever O', pivoted on a pintle K' between elongated ears N' on the top B of the cup, the lower end of said pendulum-lever contacting with the upper end of the plunger J and operating it in the same manner as hereinbefore described. Adjusting-screws P' are also placed in ears Q' on the top B, with which the pendulum-lever O' contacts to limit its lateral movement. Springs *d'*, of rubber or other suitable material, are also secured to the lever O' at the points of its contact with the adjusting-screws P', for the purpose hereinbefore described.

In operation the movement of the pitman or cross-head, to which the cup is secured, operates to oscillate the lever O, which drives the plunger J downward, driving ahead of it a small amount of oil, which readily passes the check-valve L, the spring I raising the plunger at each oscillation. In this manner the oil is constantly being pumped down and out of the small opening *m* upon the journal to be lubricated, the amount of oil pumped being regulated by the adjustment of the screws P, which limit the downward movement of the plunger I.

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

1. The combination, in an oil-cup, of an os-

cillating lever or pendulum mounted on top of the cup, with a plunger contacting with said lever and actuated thereby in one direction, and a spring adapted to actuate said
5 plunger in the opposite direction, substantially as and for the purpose set forth.

2. The combination, in an oil-cup, of an oscillating lever or pendulum having a cam-surface thereon, and adjusting-screws adapted to limit the movement thereof, with a plunger contacting with a cam-surface on said lever or pendulum and actuated thereby in one
10 direction, and a check-valve in the plunger-barrel below the plunger, substantially as and
15 for the purpose set forth.

3. The combination, in an oil-cup, of a plunger-barrel G, a plunger J, operating therein, and a spring I, adapted to move said plunger in one direction, with an oscillating lever or pendulum having a cam-surface thereon contacting with the upper end of said plunger and actuating it in the opposite direction, substantially as and for the purpose set forth. 20

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

RUDOLPH CONRADER.

Witnesses:

WM. P. HAYES,
O. B. HAYES.