

W. H. SMITH.

WICK-RAISER.

No. 186,960

Patented Feb. 6, 1877.

FIG. 1

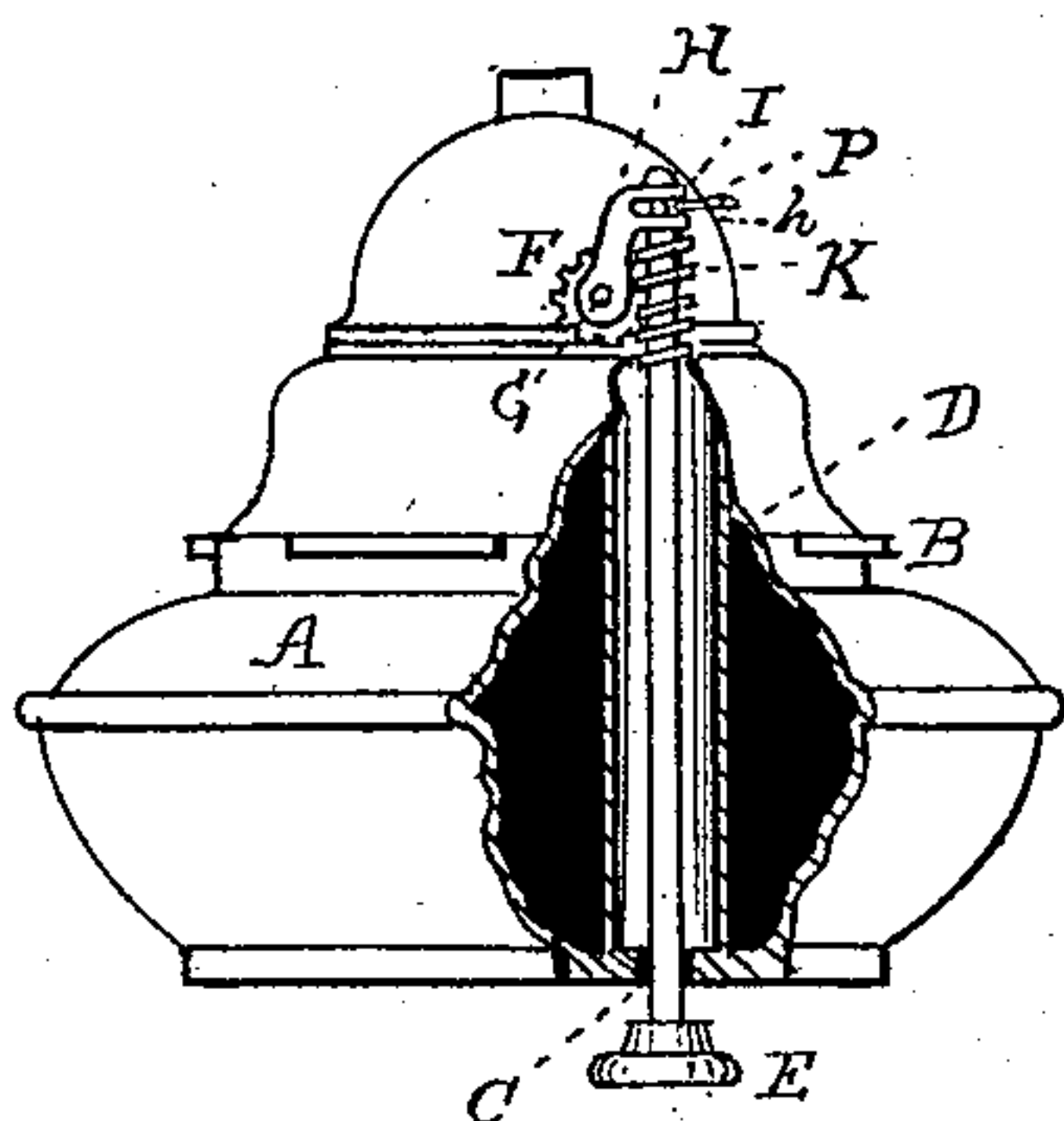


FIG. 2

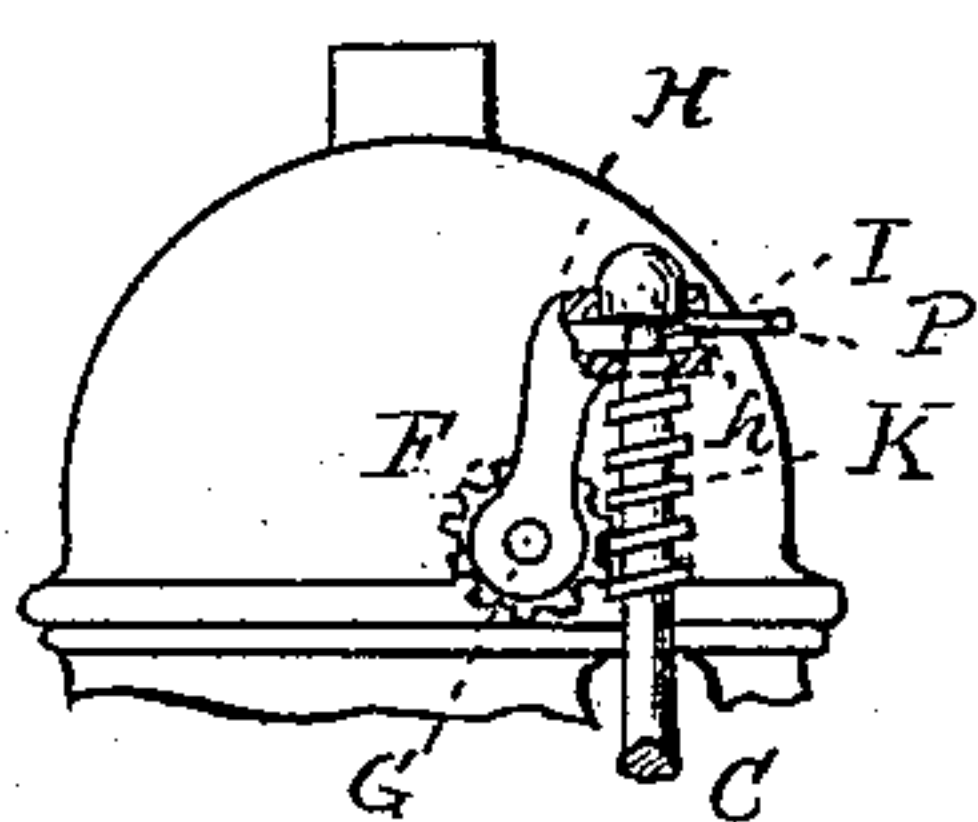
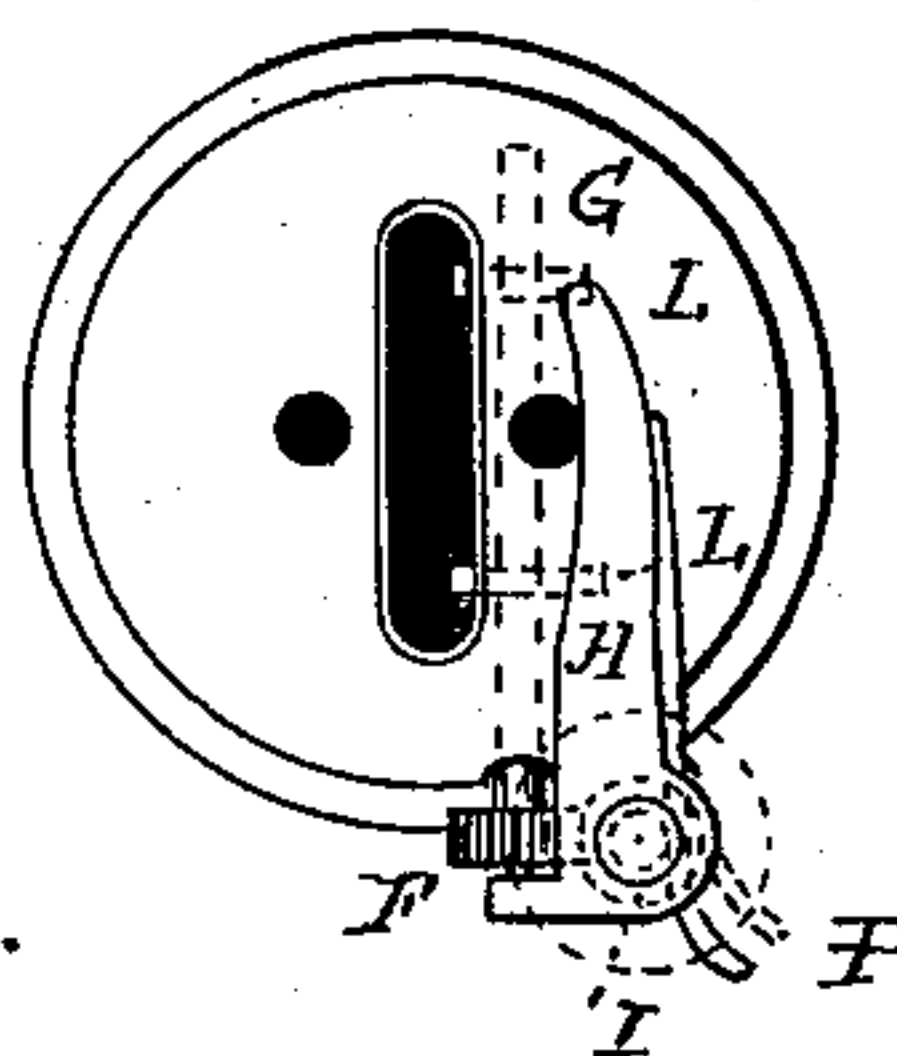


FIG. 3



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UNITED STATES PATENT OFFICE.

WILLARD H. SMITH, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN WICK-RAISERS.

Specification forming part of Letters Patent No. 186,960, dated February 6, 1877; application filed April 11, 1876.

To all whom it may concern:

Be it known that I, WILLARD H. SMITH, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Lamps for Street-Cars and other vehicles, of which the following is a specification:

My invention relates to certain improvements in center-lamps for street-cars, railroad-cars, and other vehicles, its object being to provide for conveniently raising and lowering the wick of the same without removing the lamp from its supporting gallery or frame; and it consists in a vertical rod extending upward through a tube or sleeve passing through the body of the lamp, and secured to the shell of the same at its ends to prevent leakage, the said rod being provided with an endless screw or worm on its upper end gearing into a pinion or gear-wheel secured to the ratchet-shaft of the wick-tube, for the purpose of operating said shaft; and in certain devices, by means of which said endless screw may be thrown in and out of gear with the pinion, for the purpose of removing the lamp-burner when desired, for filling or cleaning the lamp, or removing and replacing the wick, as more fully hereinafter set forth.

In the drawing, Figure 1 represents a view of my improved lamp, partly in elevation and partly in section. Fig. 2 represents an enlarged elevation of the lamp-burner and wick-raising devices; and Fig. 3 a top view of the same.

The letter A represents the lamp-body, and C a rod extending vertically up through a tube, D, open at both ends, passing up through the body of the lamp, and permanently and securely attached to the shell of the same. The lower end of the said rod is provided with a milled button or other conveniently-shaped knob, E, by means of which said rod may be rotated, and the upper end is provided with an endless screw, K, to operate the pinion or gear-wheel F, attached to the shaft G of the ratchet L, by means of which the wick is raised or lowered, enabling the frame to be regulated to a nicety. The upper end of the rod C, above the endless screw, or at any other convenient part, is provided with an annular groove or recess, I,

and is journaled in a bearing in the bent end of the arm H, attached to the cup or lamp-burner, and is confined in said bearing (which is slotted, as shown at *h*, for the purpose) by means of a spring, P, attached to the arm H, which sets into the annular groove or recess I when the rod is in position, and which can be thrown out of said recess, to permit the rod to be withdrawn for the purpose of throwing the endless screw or worm and the pinion out of gear, and thus allowing the cap or burner to be removed, the rod C being withdrawn from the bearing by drawing it downwardly into the tube or sleeve D, until the burner or cap is free to rotate, so that it may be unscrewed.

The arm H is preferably bent downwardly, as shown in the drawing, so as to form a bearing for the end of the ratchet-shaft G, in order to better support the same.

My improved lamp is confined in its gallery or support by means of the lugs B, as usual, and, as constructed with the improved wick-raising device, it is evident that the light may be regulated with the utmost facility from below without removing the lamp from said gallery or support, or removing the globe of said gallery or support.

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

1. In combination with the vertical rod extending through the body of the lamp and provided with an endless screw at its upper end, the ratchet-shaft, journaled in the removable top of the lamp, and provided with a pinion on its end adapted to gear with the endless screw on the vertical rod, for the purpose of raising and lowering the lamp-wick, substantially as set forth.

2. An endless screw-rod, provided with an annular groove at its upper end, in combination with an arm attached to the lamp or burner in which said rod is journaled, and the spring for retaining said rod in place, substantially as set forth.

WILLARD H. SMITH.

Witnesses:

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