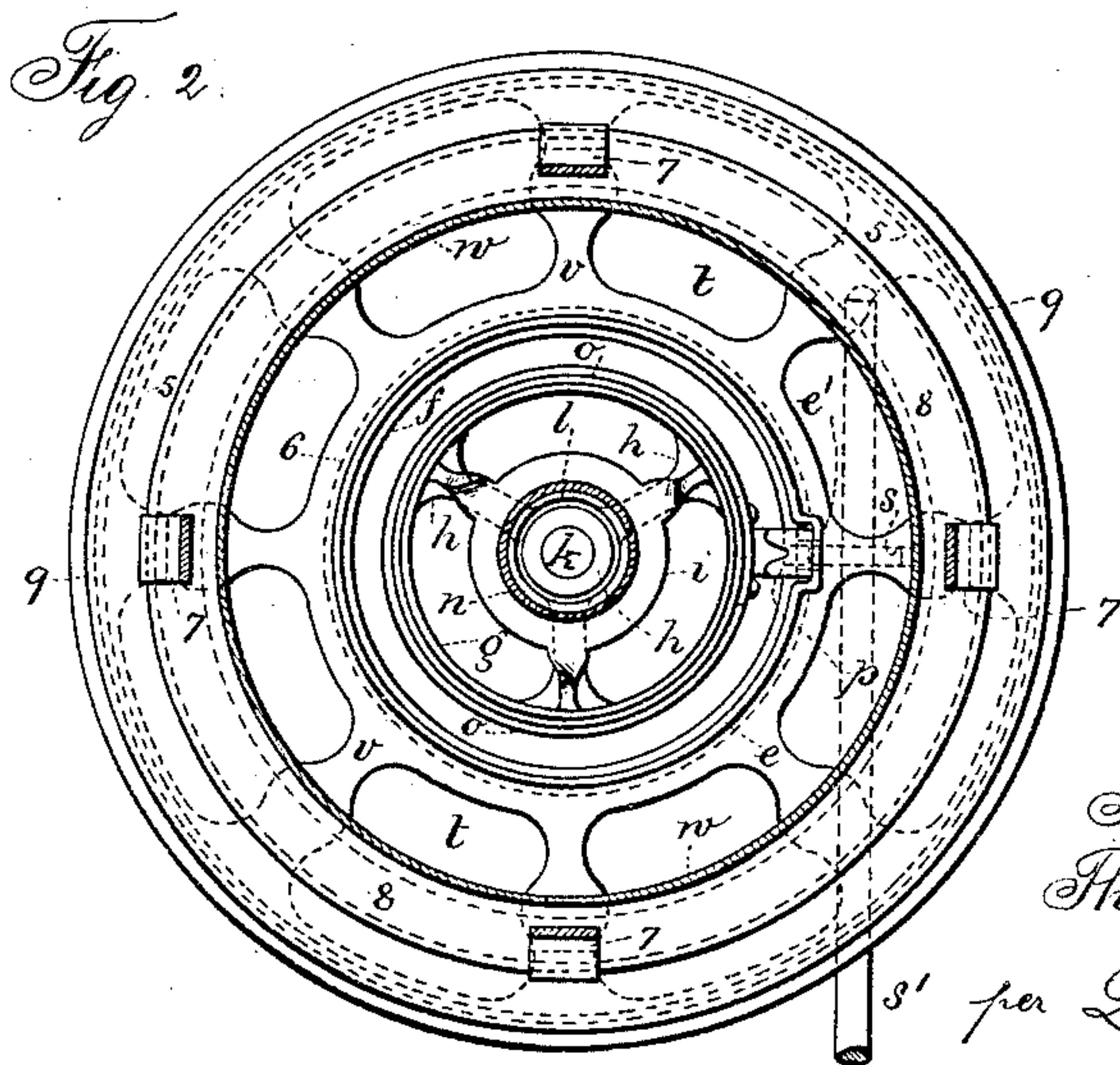
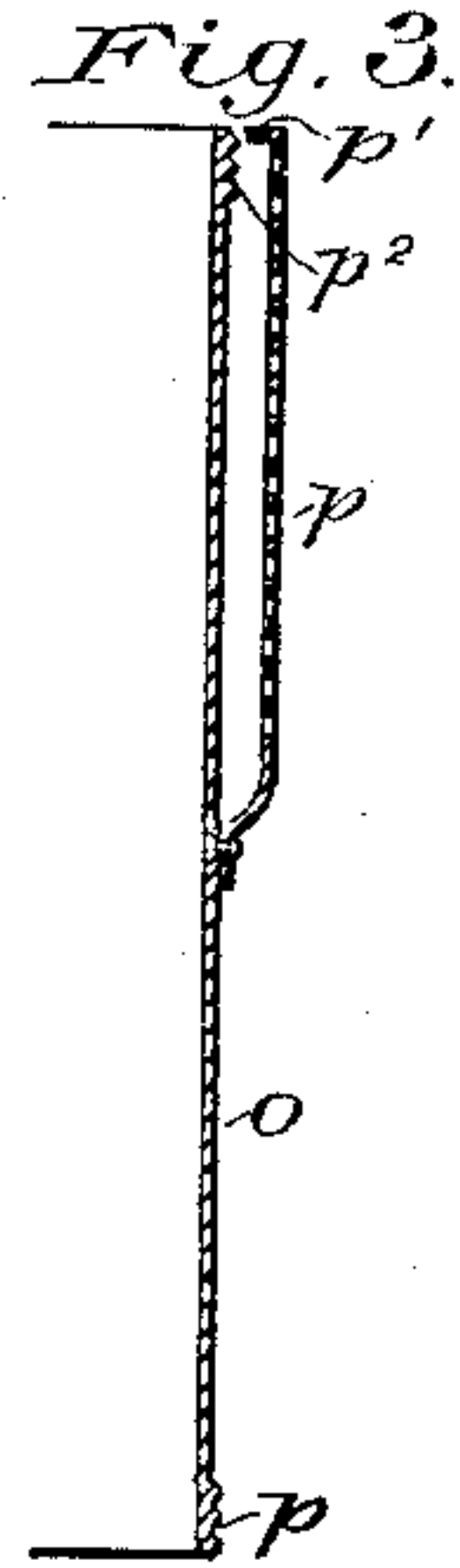
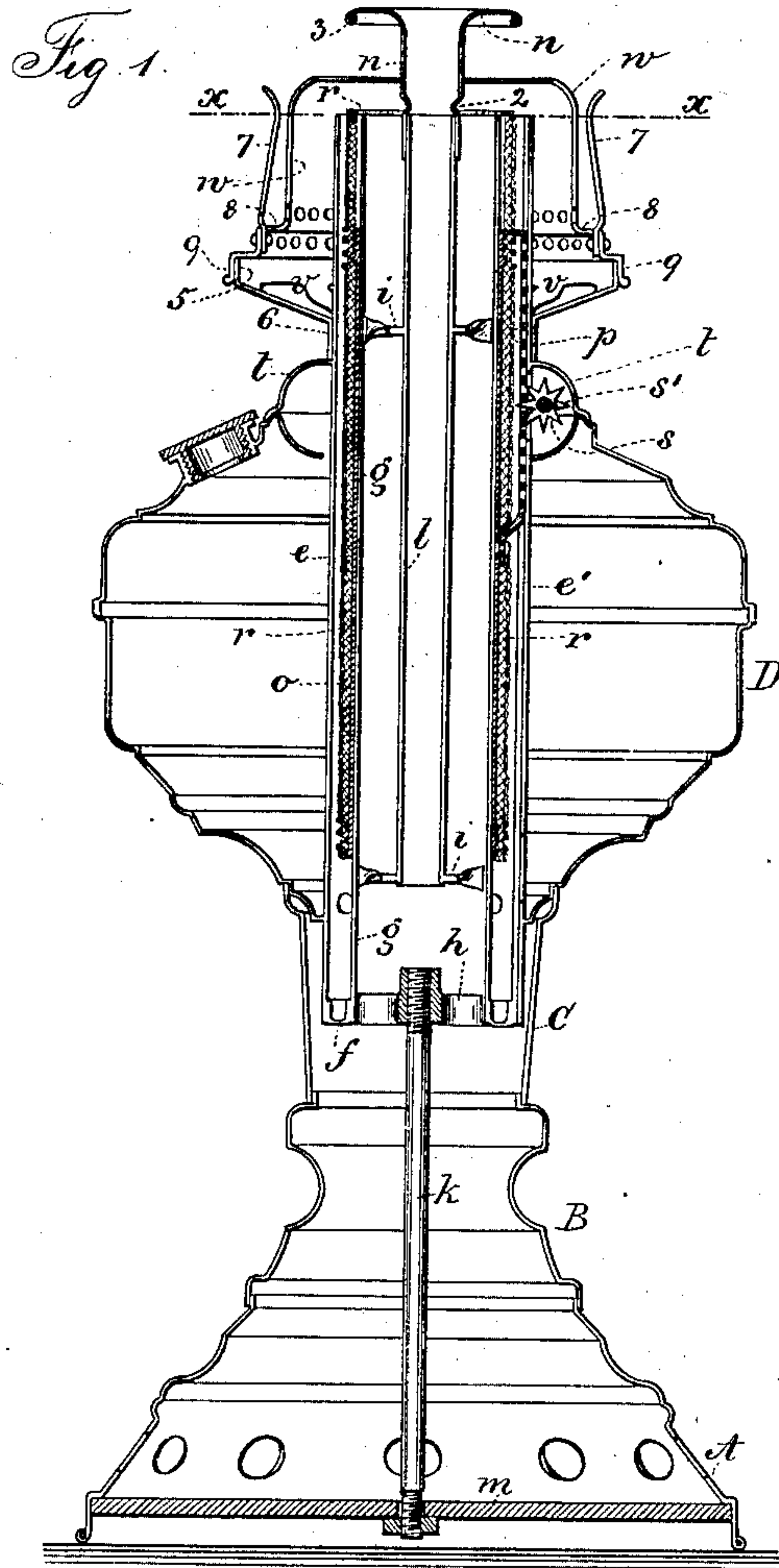


(No Model.)

J. H. WHITE & T. HIPWELL.  
LAMP.

No. 318,150.

Patented May 19, 1885.



Witnesses:  
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Inventors:  
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Att'y



# UNITED STATES PATENT OFFICE.

JAMES H. WHITE, OF NEW YORK, AND THOMAS HIPWELL, OF ASTORIA, ASSIGNORS TO THE MANHATTAN BRASS COMPANY, OF NEW YORK, N. Y.

## LAMP.

SPECIFICATION forming part of Letters Patent No. 318,150, dated May 19, 1885.

Application filed April 26, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES H. WHITE, of the city and State of New York, and THOMAS HIPWELL, of Astoria, in the county of Queens and State of New York, have invented an Improvement in Lamps, of which the following is a specification.

This invention is made for simplifying the construction of the lamp and lessening the expense of construction, and for raising or lowering the wick-tube with great uniformity, so that a very large Argand flame may be obtained without the risk of one part of the wick being higher than another. We also are enabled to guide the wick-tube as it is raised or lowered, and to obtain a large reservoir for supplying the kerosene or similar oil required for the flame.

In the drawings, Figure 1 is a vertical section of the lamp complete. Fig. 2 is a sectional plan in larger size at the line *x x* of the upper part of the lamp, and Fig. 3 is a detached section at one side of the wick-tube.

The base *A* of the lamp is conoidal, with ribs and coves, and upon this are the ornamental waist-sections *B C*, that support the oil-reservoir *D*, and through this reservoir passes the wick-tube *e*, united at the bottom by the ring *f* to the air-tube *g*.

Within the air-tube *g* there is a bridge, *h*, permanently fastened by rivets or solder, and having a central nut for the reception of the screw-rod *k*, that passes through the circular base-plate *m* and holds the lower parts, *A B C*, and the reservoir firmly together.

Within the air-tube *g* the bridges *i i* hold the central tubular air-guide, *l*, having a flame-spreader, *n*, upon the upper end, the latter also being of sheet metal and tubular, and having a bead at 2 to support the deflector upon the upper end of the said tube *l*, and the edge of this deflector is rolled over to thicken and strengthen the same, as at 3. This air-guide *l* causes the currents of air to pass up to the flame with uniformity, and, being hollow and open at the lower end, it allows the atmosphere to circulate up through the tube, and prevents heat being conducted by such tube down to the reservoir.

The wick-holder is in the form of a tube, *o*,

that is adapted to slide over the outside of the air-tube *g*, and between that and the wick-tube *e*.

The rack *p* is attached at its lower end to the wick-holder *o*, near the middle of the latter, and it is bent with an offset, so as to come up outside of the wick; hence in placing the wick *r* upon the holder *o* it is necessary to make an incision or hole in the wick at the proper place and slip the wick over the holder, the lower part of such wick being outside the rack, and the rack being passed through such hole, so that the upper part of the wick will come between the rack and the holder, and the wick when in place will set closely upon the holder and project above its upper end. By this construction the rack is made much shorter than it would be if it were attached at the lower end of the wick-holder; hence such rack-bar is less liable to be bent and injured. The wick, extending below the lower end of the rack-bar, supplies the oil to the flame when the supply in the reservoir is nearly consumed.

At the upper end of the rack there is an offset, *p'*, to the rear, to support such rack and prevent its bending under the action of the wick-raiser. The sheet metal of the wick-holder is bent into peripheral ribs *p''*, Fig. 3, at the upper and lower ends, so that the wick will be held very firmly by a thread wound around it between such ribs.

In the wick-tube *e* there is a longitudinal groove, *e'*, bent up in the sheet metal, and of a size adapted to receive the said rack *p* and form a guide to the same as it is moved up or down for adjusting the wick; and in this rack there are holes for the teeth of the wick-raising wheel *s*, the shaft *s'* of which is received in the annular ratchet-cover *t*, the wick-tube *e* being slotted for the passage of this wick-raiser. This annular ratchet-cover is adapted to set at its base over a bead at the top of the reservoir, and the top of the reservoir below such annular ratchet-cover is dished, so as to pass any oil back into the reservoir through openings between its edge and the wick-tube.

The gallery *v* is open, with an annular flange, 5, at its outer edge, and the inner part is provided with a cylindrical flange, 6, surround-



ing the wick-tube, so as to render such gallery steady.

The cone or deflector W is removable, and is provided with chimney-springs 7, fastened by rivets below the rest 8 at the base of the deflector, and the annular flange 5 passes within the rim 9 of the deflector. This construction allows of the chimney and deflector being lifted off the gallery.

The lamp, constructed as aforesaid, is especially adapted to large-sized Argand wicks, in which the light produced is large and brilliant, and the wick can be raised or lowered with great accuracy, because the tubular wick-holder slides upon the air-tube as the rack is acted upon by the wheel to raise or lower the same.

We do not claim a metallic button or deflector supported upon a central stem and having the metal the thickest near the edge.

We are aware that an Argand lamp has been made with a wick-raiser inclosed in a case around the wick-tube; but such case being above and separate from the reservoir increased the length of the wick and tube and prevented the flame being as close to the reservoir as in our lamp, and the said separate case is objectionable in appearance.

We claim as our invention—

1. The tubular wick-holder and the rack connected near the middle thereof, and having

a projection,  $p'$ , at its lower end with such wick-holder, in combination with the reservoir having a wick-tube with a groove, in which such rack is guided, and a ratchet-wheel to act upon such rack, substantially as set forth.

2. The wick-tube and reservoir, the latter having a recessed upper end around the wick-tube, in combination with the annular ratchet-cover, also surrounding the wick-tube and resting at its lower edge upon the reservoir, and the wick-raiser and its shaft, supported by the ratchet-cover, substantially as specified.

3. The combination, with the tubular air-guide, of a hollow flame-spreader of sheet metal, the edge of which is thickened by the sheet metal being rolled over, substantially as set forth.

4. The combination, with the tubular wick-holder, of a rack connected at its lower end with the middle part of the wick-holder, and having a projection at the upper end of said rack, extending toward but not attached to the wick-holder, substantially as set forth.

Signed by us this 16th day of April, A. D. 1884.

JAMES H. WHITE.  
THOMAS HIPWELL.

Witnesses:

ABRAM BERNARD,  
F. E. BARNES.