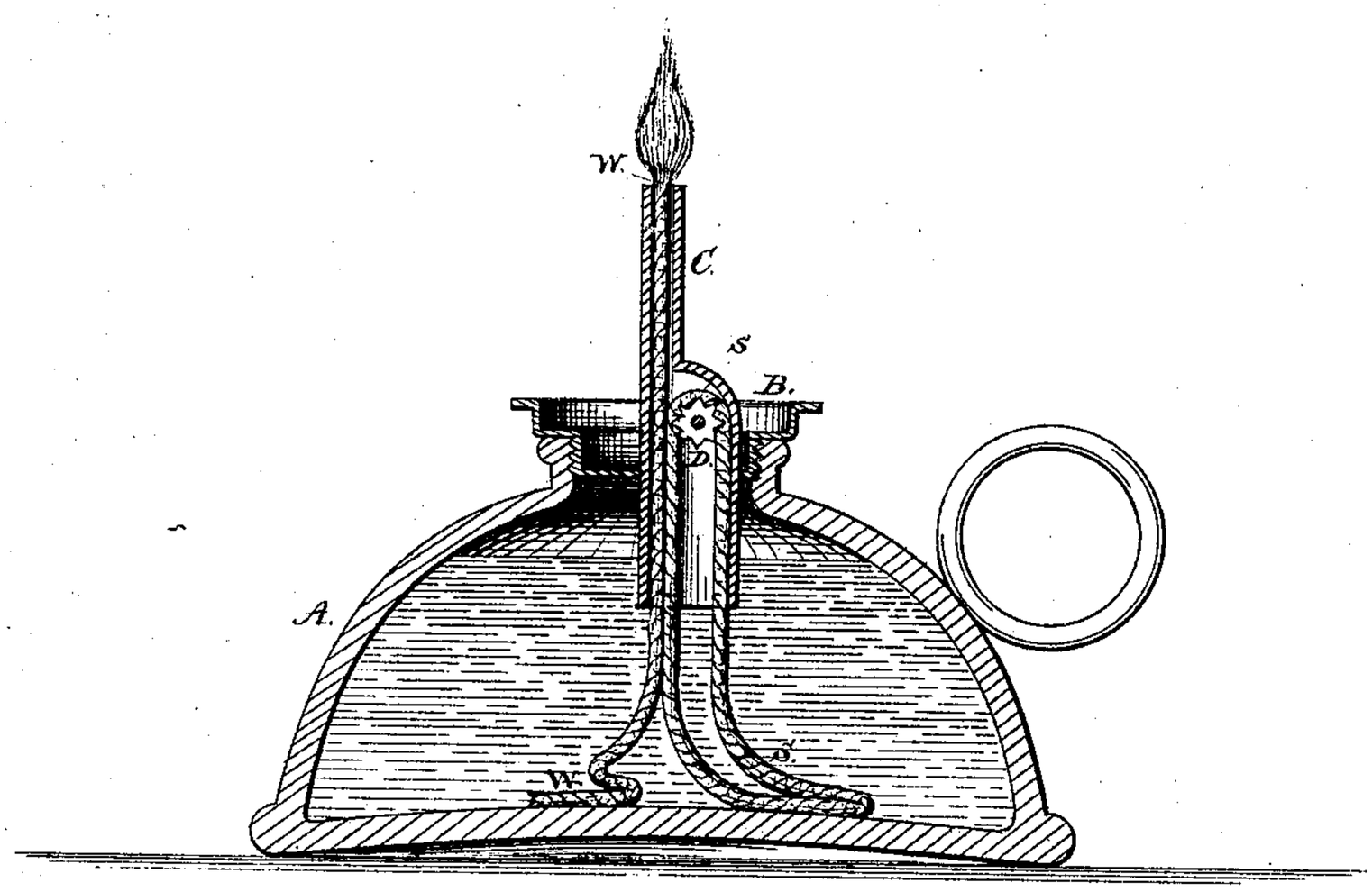
W. P. CLOTWORTHY.

Lamps.

No. 149,100. Patented March 31, 1874.

Fig. 1.



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UNITED STATES PATENT OFFICE.

WILLIAM P. CLOTWORTHY, OF BALTIMORE, MARYLAND, ASSIGNOR TO EDWIN H. TRUST, OF SAME PLACE.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **149,100**, dated March 31, 1874; application filed February 20, 1874.

To all whom it may concern:

Be it known that I, WM. P. CLOTWORTHY, of Baltimore, in the State of Maryland, have invented an Improved Burner and Wick for Lamps; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of a lamp having my improved wick-tube and endless supplemental wick applied.

In lamps having the ordinary wick, as this is consumed at top, and consequently shortened, it is gradually drawn up from the oil-chamber until it no longer reaches the surface of the oil therein, when it has to be removed and replaced by another, a large portion (on an average from one-third to one-half) of the wick being thrown away unconsumed and utterly wasted. Moreover, as the lower end of the wick is drawn up toward the surface of the oil, the capillary action diminishes in intensity, the combustion is less actively supported, and the light consequently diminished.

To secure greater uniformity of light, to economize the consumption of wicks, and the labor of their frequent renewal, are the objects sought in the present invention. The nature of my invention consists in the application to the wick-tube of an ordinary lamp of a permanent endless supplemental wick, arranged about a ratchet-wheel, and placed in contact with the ordinary wick, and made of a length to reach the bottom of the oil-chamber, so as to be at all times kept, by capillary action, full of oil, the object being to afford the burning wick an ample and continuous supply of oil when, by reason of its burning away at top, it becomes too short to reach the oil in the reservoir, thus greatly economizing the expenditure of wick, and securing uniformity in the supply of oil at the point of combustion, and consequent uniformity in the quantity of light resulting from the combustion.

In the drawings, A marks the body or oil-chamber of an ordinary lamp, B the screw-top, and C the wick-tube. The lower part of the wick-tube is enlarged, as shown, so as to cover the wheel D, which raises and lowers the wick, and to receive the endless supplemental wick S, which runs over wheel D, in close contact with the burning wick W. The endless wick, it will be observed, descends to the bottom of the oil-chamber, and is, therefore, always full of oil when there is any oil in the chamber. It is caused to revolve upon wheel D whenever that wheel is turned to raise or lower wick W. As wick W is constantly in close contact with the supplemental wick S, it will always be able to draw from the latter, by capillary action, the oil required to supply the loss caused by combustion, until the burning wick has been so far consumed as no longer to extend far enough down the wick-tube to come in contact with wick S. The piece of the burning wick which will be wasted will only be equal in length to the distance from the mouth of the wick-tube to the wheel D—a quantity less, on an average, than one-sixth of the length of the ordinary wick.

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

A wick-tube having an endless supplemental wick, S, arranged about a ratchet-wheel, D, and placed in contact with the burning wick, to secure at all times a constant supply of oil to the latter, as herein described and set forth.

The above specification of my said invention signed and witnessed, at Baltimore, this 17th day of February, A. D. 1874.

WM. P. CLOTWORTHY.

Witnesses:
E. H. TRUST,
L. MILLER.