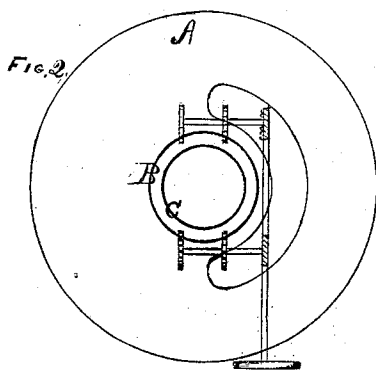
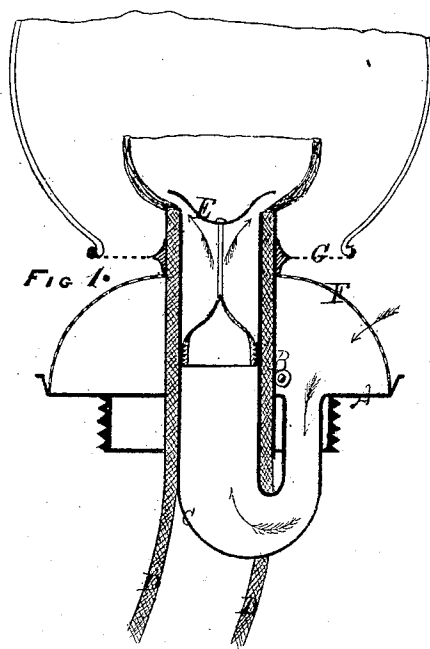


G. R. LYON.
Lamp Burner.

No. 104,971

Patented July 5, 1870.



Witnesses
Jm Machol
E. J. Smith

George R. Lyon Inventor
By *Sanford S. Prescott* atty's

UNITED STATES PATENT OFFICE.

GEORGE R. LYON, OF WATERBURY, CONNECTICUT.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 104,971, dated July 5, 1870.

To all whom it may concern:

Be it known that I, GEORGE R. LYON, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improved Central-Draft Round-Wick Burner; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a vertical cross-section taken through line *x x*, showing the manner in which the draft is introduced. Fig. 2 is a horizontal section taken through line *y y*.

Similar letters of reference, when they occur in the separate views, indicate like parts.

My invention relates to that class of lamp-burners in which a flat wick is caused to assume a circular form when ready to burn, and is provided with a central draft; and it consists in certain details of construction, which will be fully described hereinafter.

To enable others skilled in the art to make and use my invention, I will proceed to describe the construction and operation of the same with reference to the accompanying drawings and letters of reference marked thereon.

A is the base of the burner, the lower portion of which screws upon the lamp.

B is a tube passing upward from and perpendicular to the base A, and extending above it to a given height required for the flame.

C is another tube, placed within the tube B. The upper ends of the two tubes are on the same level. The lower portion of the inner tube, C, extends downward into the lamp a given distance, when it is bent upward, as shown in Fig. 1, and the end is connected with the base A, through which an opening is made and the air admitted, as denoted by arrows.

Between the two tubes B and C the wick D is passed, which is raised by two sets of serrated rolls, such as are commonly made use of for this purpose, placed upon either side of and extending through the outer tube, B, and are turned equally by means of a worm upon a shaft connecting the two at right angles,

one end of which extends beyond the burner and is provided with a finger-wheel by which it is turned.

E is a flat circular radiator placed over the upper ends of the tubes, and held in place by a shaft running down the inner tube and screwing into the same, so that it can be raised and lowered to regulate the draft of air and the flame.

F is a perforated plate extending in a curve from the base A to the outside of the tube B, simply for the purpose of strengthening the whole burner, the air being freely admitted through this plate to the tube C, as shown in the drawings.

G is another perforated plate, extending around the tube at right angles with it. Upon this plate the chimney is held. The perforations in this plate are arranged to admit a sufficient amount of air upon the outside of the flame to prevent it from smoking.

When the lamp is lighted and the chimney placed upon it the air rushes in to feed the flame through the tube C, strikes the radiator E, and is by it spread, and the whole brought in contact with the said flame. At the same time sufficient air comes up upon the outside to prevent it from smoking and give a clear and steady light. The air which passes through the inner tube, C, prevents the whole burner from becoming heated, and consequently the danger of explosion from this cause is avoided.

I do not broadly claim a round-wick burner, as such is not new; but,

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

The burner described, consisting of the base A, tubes B and C, radiator E, perforated plates F and G, when the parts are constructed and arranged as described, for the purpose set forth.

This specification signed and witnessed this 1st day of January, 1870.

GEORGE R. LYON.

Witnesses:

RUFUS H. SANFORD,
FRANK PRESCOTT.