[55.]

Alvin Taplin. Imp^t in Lamp Burners.

119,061. Patented Sep. 19, 1871.

Fig. 1

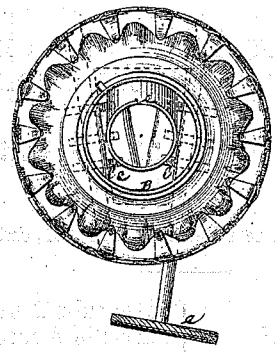


Fig. 2

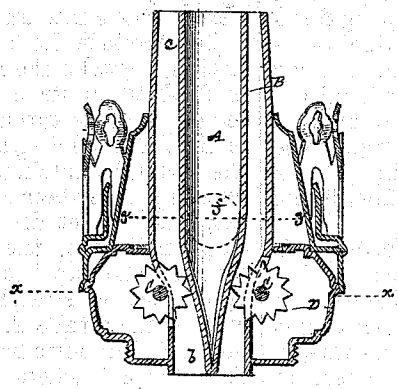


Fig. 5

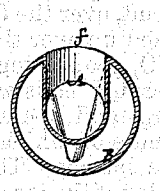


Fig. 4

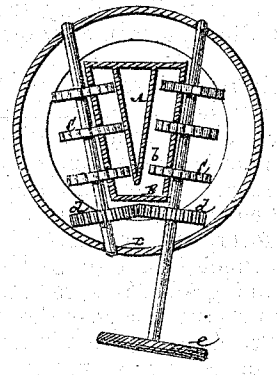
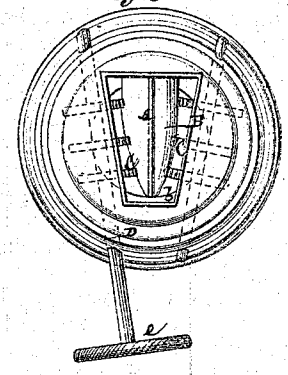


Fig. 3



Witnesses.
Fr. de Haynes
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Attorneys

UNITED STATES PATENT OFFICE.

ALVIN TAPLIN, OF FORESTVILLE, ASSIGNOR TO THE BRISTOL BRASS AND CLOCK COMPANY, OF BRISTOL, CONNECTICUT.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 119,061, dated September 19, 1871.

To all whom it may concern:

Be it known that I, ALVIN TAPLIN, of Forestville, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Lamp-Burners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a top view or plan of my improved burner; Fig. 2, a vertical or longitudinal section of the same; Fig. 3, an inverted plan or under view thereof; Fig. 4, a transverse section taken as indicated by the line *x x* in Fig. 2; and Fig. 5, a similar view through the line *y y*.

Similar letters of reference indicate corresponding parts throughout the several figures.

This improvement relates to that description of lamp-burners in which a single flat wick, as it is introduced or fed through the wick-tube, is made, when emerging from the latter, to assume an annular form; and the invention consists in a wick-tube which is of V or U-shape at its lower portion, and gradually spread or run into an annular form above, whereby the flat wick may be readily introduced by simply doubling it longitudinally, so as to lap over opposite sides of the interior lower portion of the wick-tube where it is of V or U-shape, and whereby separate and flat or approximately straight surfaces are formed on said opposite sides for the wick to travel over as it is fed up or down by a double row of ratchets, geared together at or near their one end, and operated by a single mill-head. The invention also includes a certain arrangement of an air-opening in the side of the tube for supplying the interior of the wick with air as it passes from the V or U part to the annular-shaped portion of the tube.

Referring to the accompanying drawing, A represents the inner, and B the outer tube, between which the wick is introduced and operated, said ubes constituting the wick-tube proper. The outer tube B is open at top and bottom, but the inner tube A may be closed at its lower end, where it is of a V or U-shape, and the lower portion or the outer tube of corresponding configuration, forming a V or U-shaped opening, *b*, which gradually, by the construction of the tubes, is converted above into an annular passage, *c*.

To introduce the flat wick into the wick-tube—that is, between the combined tubes A and B—it is doubled in its center, longitudinally of its length, or at its entering end, over the front edge of the inner tube A, and fed up over the sides of the latter by ratchets C C, geared together by wheels *d d* at their converging ends when said ratchets are set diverging, and operated by a single mill-head, the spindle of which projects through the cap D of the burner. The flat or approximately-straight sides of the lower portion of the inner tube A, on its exterior, establish broad and uniform bearings for the wick and for the several ratchets in each series to get a fair hold of it, free from objectional compression as regards expulsion of the oil, by reason of the separation of its folded portions, and as the wick rises in its tube it is gradually made to assume an annular form before and as it emerges from the entire tube. The inner tube A is joined at the back end of its lower portion to the outer tube B, and an opening, *f*, made in the latter at the upper part of such junction to admit air to the interior of the wick immediately before or as it assumes its closed or circular form.

What is here claimed, and desired to be secured by Letters Patent, is—

The diverging ratchets C C, geared together by spur-wheels *d* at their converging ends, in combination with the inner tube A of a V or wedge-shape, the sides of which are in the plane of the axes of the ratchets, essentially as shown and described.

Witnesses: ALVIN TAPLIN.

DAN. A. MILLER,

CHAUNCEY GOODRICH.