C. A. FERRON.

LAMP-BURNER.

No. 188,347. Patented March 13, 1877.

Fig: 1.

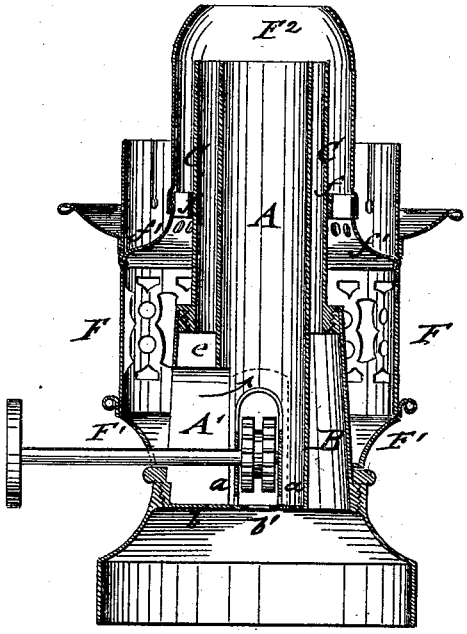


Fig: 2

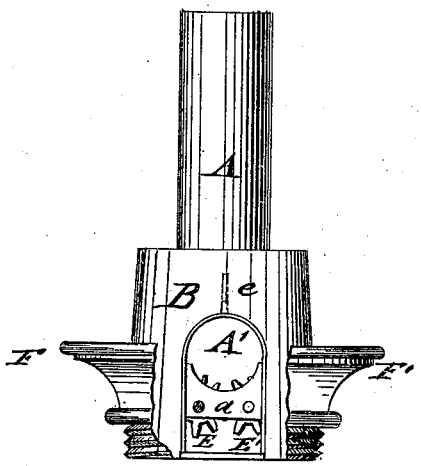
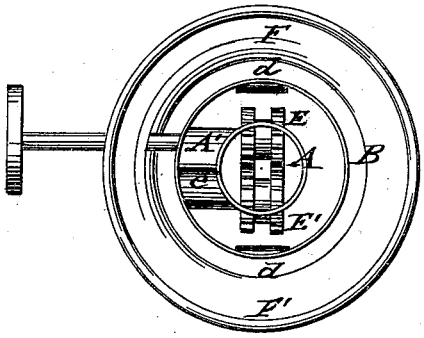


Fig: 5.

Fig: 4.

Fig: 3



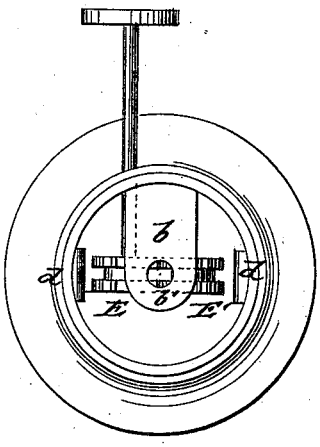
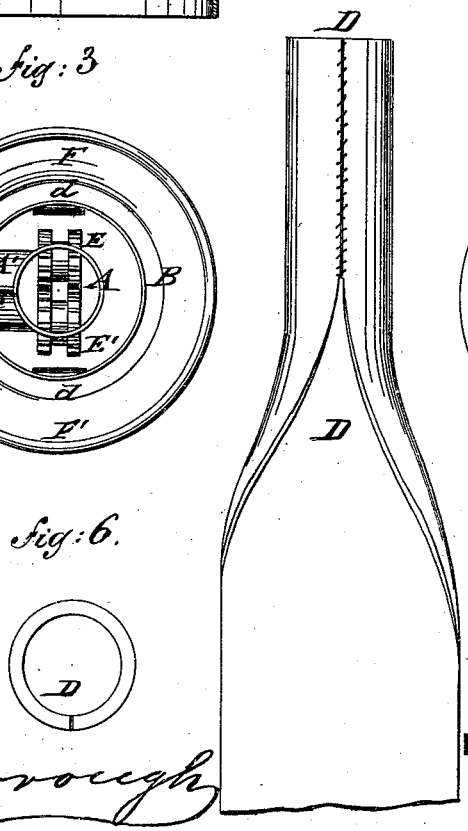


Fig: 6.



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CHARLES A. FERRON, OF PARIS, FRANCE, ASSIGNOR TO GEORGE R. TUTTLE, OF NEW YORK, N. Y.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **188,347**, dated March 13, 1877; application filed December 9, 1876.

To all whom it may concern:

Be it known that I, CHARLES A. FERRON, of Paris, France, have invented a new and Improved Lamp-Burner, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical central section of my improved lamp-burner; Fig. 2, a side elevation of the same with exterior parts detached to show inner guide-tube and spur-wheels. Figs. 3 and 4 are top and bottom views of the burner with exterior parts detached; and Figs. 5 and 6 show, respectively, side and top views of the wick used in my burner.

Similar letters of reference indicate corresponding parts.

My invention is designed to provide a round burner for petroleum and other lamps, that produces a superior light by the increased supply of air to the interior and exterior surfaces of the flame, and furnishes a wick that may be adjusted in uniform manner, and arrested at a fixed point in being turned downward.

The invention consists of an interior fixed, and an exterior detachable, guide-tube for the wick, to which the air is supplied from the outside through the base of the dome, and the inside through a radial air-channel of the conical base, arranged around the stem of the wick-adjusting spur-wheels. The wick is evenly adjusted by intermeshing double spur-wheels in connection with flat side springs of the base part. The upper part of the wick is closed, while the lower part is open, the closed part being arrested in its downward motion by a radial stop-plate or partition of the base-section. The chimney, globe, and dome holder is supported on a collar of the base-section, and by a guide-ring on the outer wick-tube.

In the drawing, A represents the interior wick-tube, that is secured rigidly to a conical base part, B, which screws, in the customary manner, on the collar of the lamp-bowl. C is the detachable exterior wick-tube, which is, like the inner wick-tube, of cylindrical shape, and concentric thereto. The lower part of the outer wick-tube screws into the threaded top collar of the base-section B, and is taken off when a new wick is to be inserted. The interior wick-tube A communicates by an arched channel or passage, A′, with the outside, and supplies the required quantity of air to the inner wick-tube and inner surface of the flame. The wick D is raised or lowered, in perfectly uniform manner, by a stem or shaft passing through the air-channel A′, and having a double spur-wheel at the inner end, which intermeshes with a second double spur-wheel, E′, whose shafts are supported in lateral plates *a* of a horizontal plate, *b*, of the base B, the lower plate *b* having a perforation, *b′*, for the admission of air to the bowl.

The double spur-wheels E E′ bear, at diametrically opposite points, on the inside of the wick, and move the same evenly in connection with band-springs *d*, that are soldered at the ends to the base-section B, bearing on the outside of the wick D. The upper part of the wick is closed by sewing the edges together, or otherwise, as shown in Figs. 5 and 6, while the lower part is flat, and passes down into the liquid at both sides of the air-passage A′ and the spur-wheels E E′.

By removing the outer wick-tube the wick may be readily inserted and taken hold of by the spur-wheels, and lowered by the same until the closed section comes in contact with a partition or stop-plate, *e*, extending from the inner to the outer wick-tube centrally above the air-passage A′, as shown in Figs. 2 and 3. The partition-plate arrests the downward motion of the wick, and retains the same positively in the wick-tube without danger of turning the same down into the bowl, indicating also the downward position of the wick and the direction in which the stem of the spur-wheels has to be turned for raising the wick.

This feature forms an essential point of my burner, as the advantage of so simple a mechanism for retaining the wick at a fixed point without the possibility of releasing the same from the action of the spur-wheels is readily perceptible.

A cylindrical holder, F, with broken-out parts, is seated on a collar, F^1, of the base-section B. The holder F supports the chimney, globe, and cone F^2, and is guided along the outer wick-tube by a ring, *f*, that slides

along the wick-tube when the holder F is taken off or replaced for cleaning, inserting a wick, and other purposes.

The dome is seated in detachable manner on an interior annular and ring-supporting collar or molding, *f'*, of the holder, to be taken off for trimming the wick. The burner facilitates the insertion of the wick, accelerates the supply of oil, feeds the wick in regular manner, and furnishes a full supply of air to the inner and outer surfaces of the flame, so as to produce a bright and economical light, and an elegant and reliably-working burner.

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

1. In a lamp-burner, the combination of the conical base-section, a fixed interior wick-tube, and an exterior detachable wick-tube, for inserting readily the wick, substantially as set forth.

2. The combination of the flat wick D, being closed at the upper part and open at the lower part, with a radial partition or stop-plate, *e*, at the base-section B, to arrest positively-downward motion of wick at a fixed point, substantially as specified.

3. The combination of the broken-out chimney, globe, and dome holder F, having inner guide-ring *f*, with the outer wick-tube C and supporting-collar F^1 of base-section B, substantially in the manner and for the purpose set forth.

CHARLES AUGUSTE FERRON.

Witnesses:
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