

(No Model.)

2 Sheets—Sheet 1.

W. DUFFIELD.

LAMP.

No. 342,826.

Patented June 1, 1886.

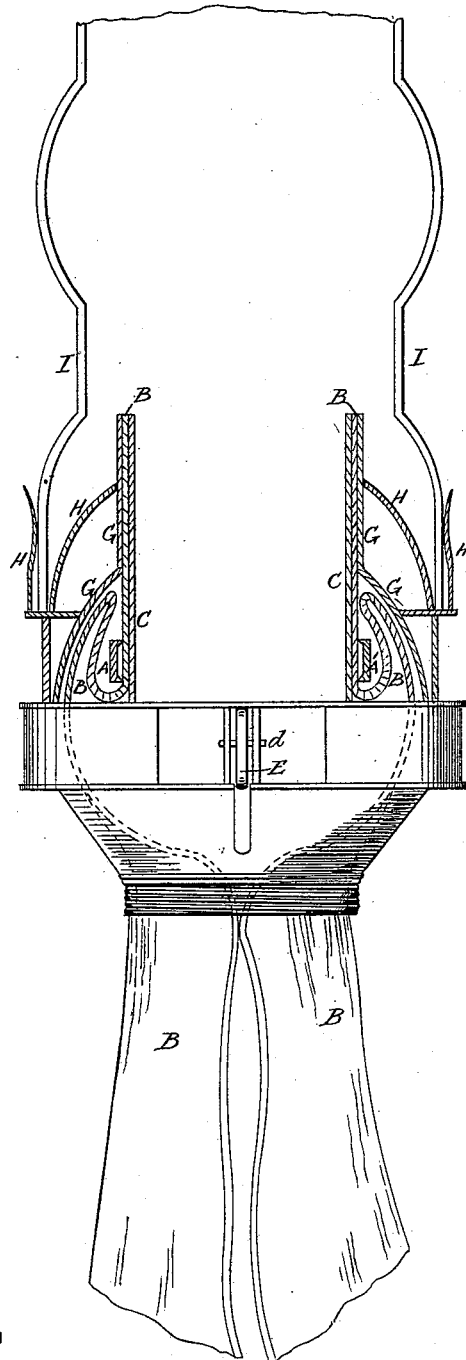


Fig. 1.

WITNESSES

N. Beech
W. Webb

INVENTOR

William Duffield
his atty
Henry Beech

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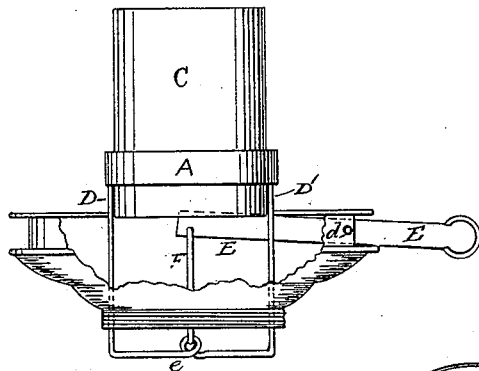


Fig. 3.

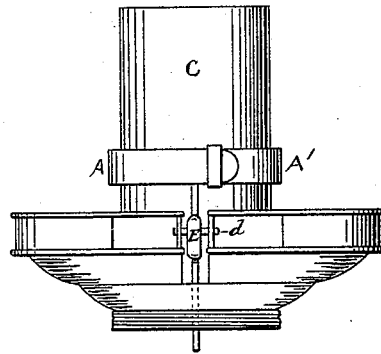


Fig. 2.

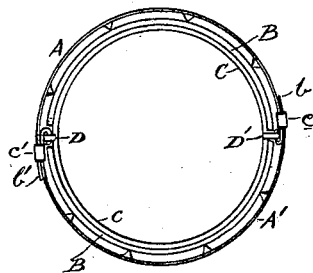


Fig. 4.

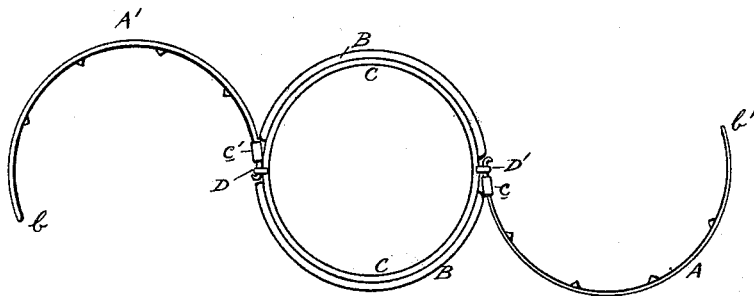


Fig. 5.

WITNESSES

H. Beech.
Wm. Webb

INVENTOR

William Duffield
by atty:
Henry Beech.

UNITED STATES PATENT OFFICE.

WILLIAM DUFFIELD, OF LONDON, ONTARIO, CANADA.

LAMP.

SPECIFICATION forming part of Letters Patent No. 342,826, dated June 1, 1886.

Application filed January 25, 1886. Serial No. 189,622. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DUFFIELD, a subject of the Queen of Great Britain, and a resident of London, in the county of Middlesex and Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Lamps, of which the following is a specification.

My invention relates to the means of raising and lowering the wicks, as hereinafter fully stated.

In the accompanying drawings, Figure 1 is a front view of burner, the upper portion being shown in central vertical section. Fig. 2 is also a front view, slightly reduced in scale, with assimilating shell and wick removed. Fig. 3 is a side view, also slightly reduced and without assimilating shell or wick. Fig. 4 is a plan view on top of wick-tube, wick, and lifting-ring, and shows the latter closed and gripping the wick. Fig. 5 is a plan view on top of same parts, showing the lifting-ring open ready to receive the wick.

A A' are two metallic semicircles, one end, *a*, of each of which is hinged to one of the upper ends of a pair of rods, D D', at opposite sides of central wick-tube, C, and each of these semicircles holds one of a pair of flat wicks, B, to the outer side of wick-tube. The opposite ends, *b b'*, of these semicircles are left free, as shown at Fig. 5, until the wicks are placed in position, when these ends are brought round and adjusted, so as to form a continuous ring, holding the wicks against the outer sides of tube C. This junction is effected by inserting the end *b* in a movable metallic loop, *c*, which surrounds the end of the opposite band near the point where it is hinged to rod D'. The loose end *b'* of corresponding semicircle is similarly brought round and inserted in movable loop *c'* on opposite section, and the two semicircles now form a continuous ring embracing the wicks and holding them against the outer sides of tube C. The inner faces of both of these sections are provided with a number of projecting teeth, which bite into wicks sufficiently to grip them and hold them in place. The spaces between the teeth allow at the same time of the ascent of the oil in the wicks, and prevent the wicks from being bound so tightly by the ring as to destroy

the capillary attraction. They also raise and lower them accordingly as the ring is moved up or down. This is effected by means of a lever, E, pivoted on pin *d*. One end of the lever projects beyond the burner, while the other lies inside under the wick-tube, and is connected there to central rod, F. The lower end of this rod is connected to cross-bar *e*, connecting the two vertical rods D D' at bottom, their upper ends being attached to the semicircular sections A A', as already described, and on raising or depressing the lever E the semicircles and the wicks are correspondingly raised or lowered. This mode of constructing the ring, embracing the wicks in two sections, greatly facilitates the placing it on the wick-tube.

It is well known that a difficulty exists in using large wicks with a lamp having a small collar, as they will not lift up and down, but become jammed in the collar. The above-described device overcomes this, as it enables the wicks to be adjusted in the following manner: The wicks are first folded in the shape shown in Fig. 1, in the cavity between the inner side of assimilating shell G and the outer side of tube C. The ring A is then buckled round them near the bottom, and as the ring is raised, and with it the wicks, the folded portion of the latter is gradually lifted upward until this reserve is exhausted, while the portion of the wicks in the reservoir remains stationary. When the reserve of the folded part of the wicks is burned out, the semicircles are unbuckled and thrown open, as shown in Fig. 5, and the wicks are pulled up from the reservoir sufficiently to fold them as before, when the circles are again buckled round them, ready for lifting, as required.

I make no claim in this specification to any of the parts or devices of an Argand lamp-burner, which are shown and described in this specification and in the annexed drawings, otherwise than those embraced in the following claims.

Having thus described my invention, what I claim as new is—

1. In combination with an Argand lamp-burner, the means for raising and lowering the wicks, consisting of rods D D', and cross-bar *e*, a spurred or toothed ring divided into two

sections, A A', hinged severally to rods D D' at opposite sides of central wick-tube, C, and having their loose ends *b b'* connected by insertion in loops *c c'*, embracing opposite sections, so as to form a continuous ring when closed, surrounding the wicks, substantially as shown and specified.

2. The combination, with an Argand burner, of the above toothed or spurred ring, a lever, E, projecting beyond the side of burner, side

rods, D D', and central rod, F, and cross-bar *e*, and said rods D D' connected to the said ring, forming a raising and lowering mechanism for similarly actuating the ring and with it the two wicks, substantially as shown and specified.

WILLIAM DUFFIELD. • [L. S.]

Witnesses:

RICHARD BAYLY,
HENRY BEECH.