

H. C. HUNT.

Lamp Burner.

No. 37,600.

Patented Feb. 3, 1863.

Fig. 1,

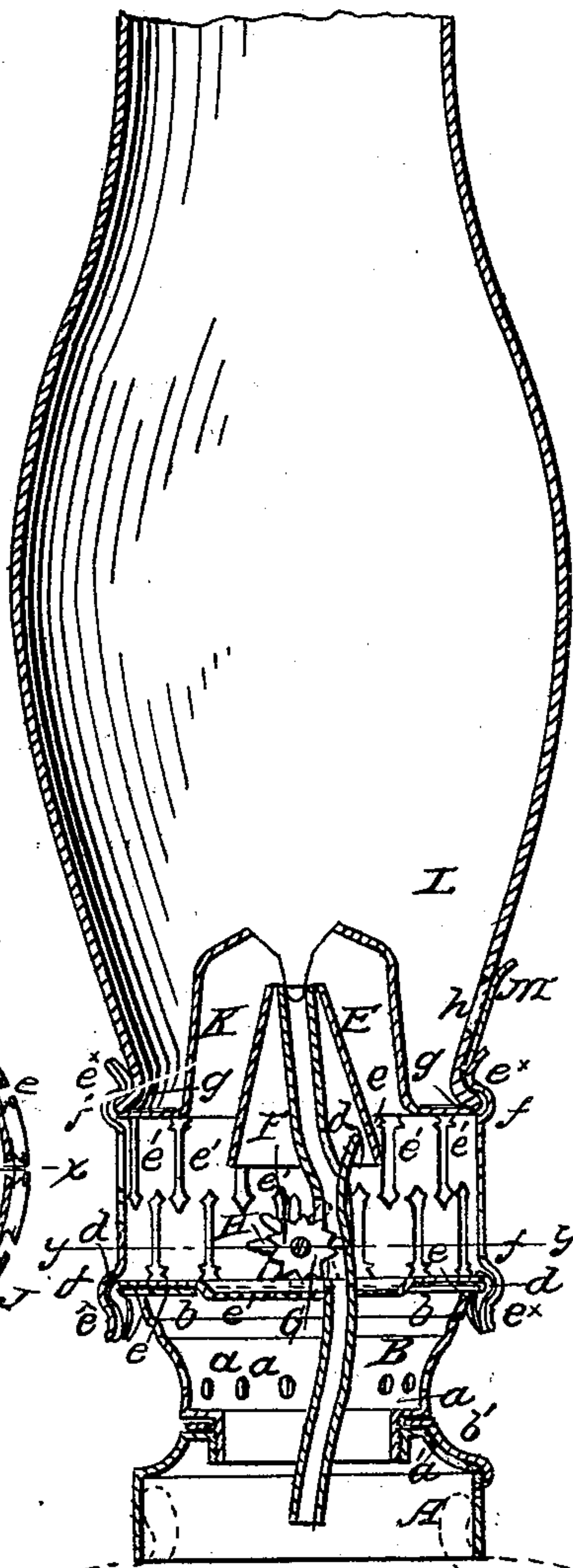


Fig. 2,

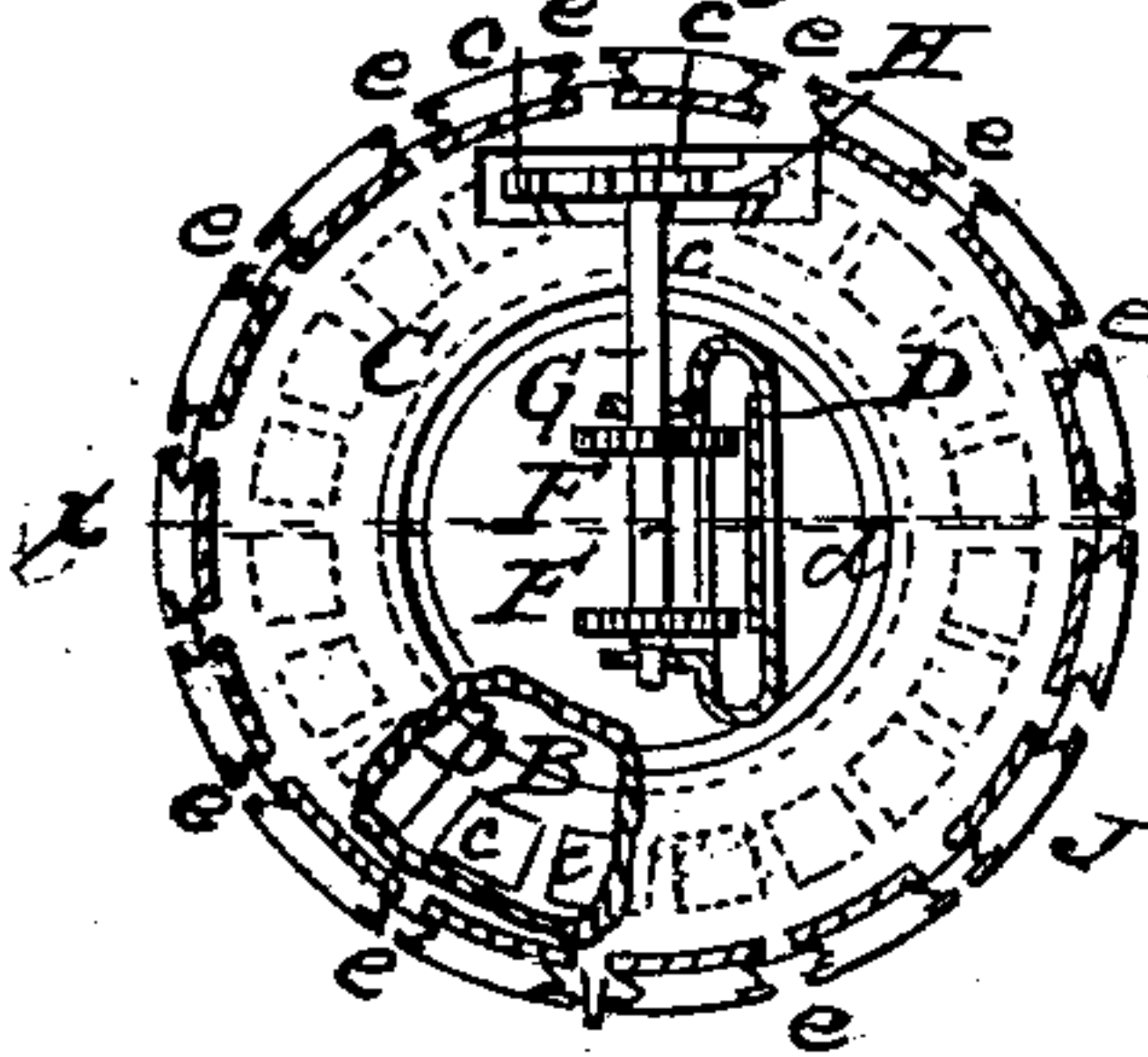
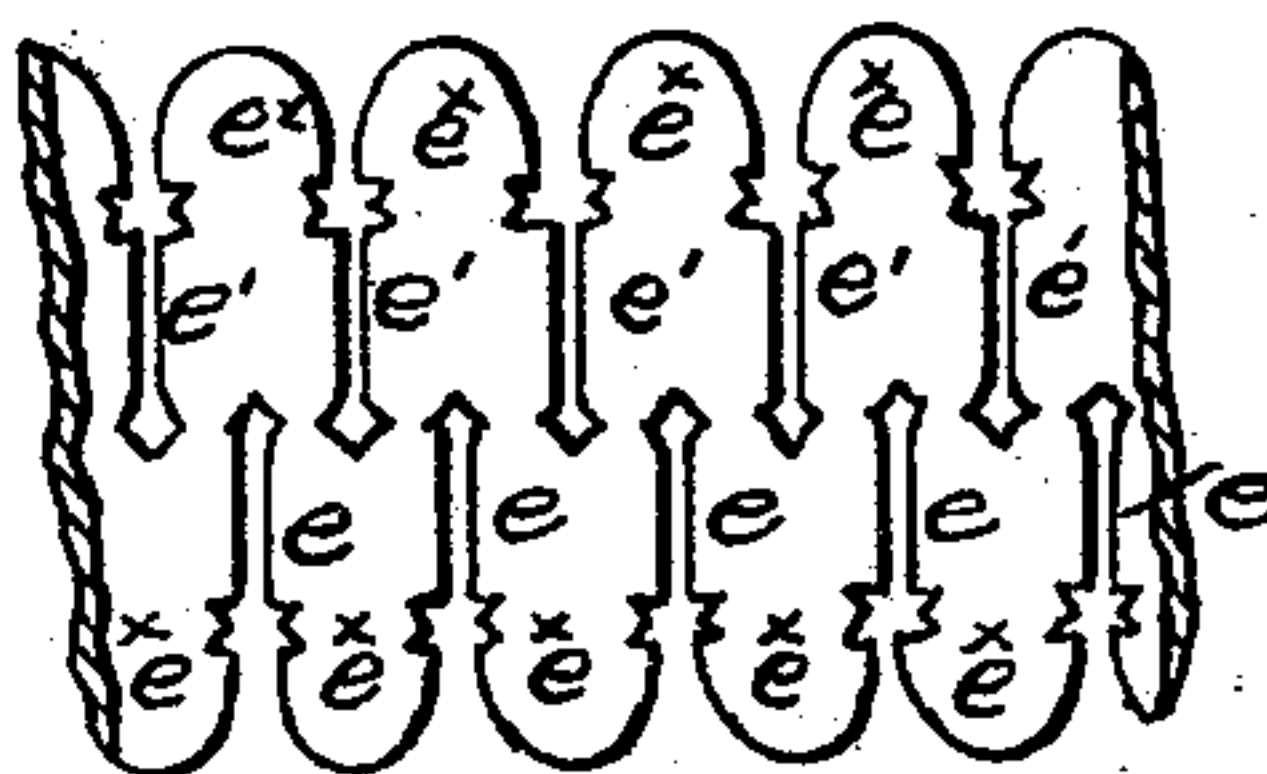


Fig. 3,



Witnesses
J. W. Corns
G. W. Reed

Inventor:
H. C. Hunt
by Wm. F. Munn
att'y

UNITED STATES PATENT OFFICE.

H. C. HUNT, OF OTTUMWA, IOWA, ASSIGNOR TO HIMSELF AND G. W. DEVIN, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 37,600, dated February 3, 1863.

To all whom it may concern:

Be it known that I, H. C. HUNT, of Ottumwa, in the county of Wapello and State of Iowa, have invented a new and Improved Lamp-Burner; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a detached vertical section of the elastic drum of the burner.

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

This invention relates to certain improvements in that class of lamp-burners which are designed for burning coal-oil and other similar fluid hydrocarbons; and consists in a novel and improved construction of the burner, whereby the wick may be readily raised and lowered, the chimney attached and detached from the lamp with the greatest facility, and the former made to fit to the burner properly, so as to avoid all shaking and jarring, the invention also possessing the advantage of retaining the wick in proper position or preventing the same from casually moving in the wick-tube.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a metal socket, which is secured to the upper part of the fountain or body of the lamp as used; and B represents the lower part of the burner, which is screwed into the socket A in the same way that an ordinary burner is screwed into its socket. The lower part, B, of the burner is perforated, as shown at *a*, and it has a horizontal flange, *b*, projecting inward all around its upper edge, said flange being perforated at equal distances apart, as shown at *c*, to form a sunken annular rack, as shown in Fig. 2. On the top of the lower part, B, of the burner there is fitted a circular disk, C, which is allowed to turn freely on B. This disk is connected to B by means of lips *d*, which are formed by projections at the edges of C, being bent or curved down over the edge of a horizontal rim or flange, *e*, at the upper part of B,

and which is a continuation of the flange *b*. The disk C has the wick-tube D secured permanently in it, said tube passing down through the part B of the burner and extending a suitable distance above it. The upper end of the wick-tube is provided with a cap, E, as shown in Fig. 1, which induces a draft to the base of the flame.

F F are two serrated wheels, which are placed on a shaft, G, the bearings of which are attached to the wick-tube. The shaft G also has a pinion, H, on one end, which pinion gears into the sunken rack *c*. The shaft G is at the center of the disk C, and the wick-tube D is somewhat curved in order to admit of this position of the shaft and still allow the upper end of the wick-tube to have a central position. The shaft G is fitted in fixed bearings, and the wick is pressed against the wheels F F by means of a spring, *d*, which is formed by slitting vertically the side of the wick-tube D, so as to form a strip of requisite width, which, on being bent as shown in Fig. 1, forms a proper spring for the purpose.

J represents an elastic drum, which is formed by slitting a strip of metal plate of suitable width, as shown at *e e'*, Fig. 3, the strip *e* at the lower part of the plate being in line with the slits *e'* at the upper part. This plate is bent in cylindrical form and soldered or otherwise connected at its edges. The slits *e e'* form scallop projections *e^x*, which serve as springs, and each projection is swaged near its end to form a continuous recess or groove, *f*, all around the inner surface of the drum, one recess or groove being at the upper and the other at the lower part of the drum. The lower part of the drum J is fitted over the edge of the disk C, the projections *e^x* firmly clamping it and forming a secure connection, the edge of the disk fitting in the lower groove, *f*. The cone or deflector K is fitted in the upper part of the drum, the edge of the former fitting in the upper groove, *f*. L is the glass chimney, which is provided with a flange, *g*, at its lower end, which also fits in the upper groove, *f*.

In order to raise and lower the wick, the drum J is turned, and consequently the disk C, and motion is communicated to the shaft G, in consequence of the pinion H gearing into the rack *c*, the wheels F F on shaft G

acting upon the wick in order to raise and lower it, according to the direction in which the drum J is turned.

Whenever it is necessary to detach the chimney from the burner in order to trim the wick or to place a wick in the wick-tube, the drum J is detached from the part B of the burner.

The principal advantages of the invention are as follows: The chimney can be readily detached from the burner when it is necessary to trim the wick or place a new one in the wick-tube in consequence of the elasticity of the drum J, to which the chimney is attached.

The drum J can be manufactured at a less expense than the corresponding parts of other lamps, as one set of machinery is all that is required, a drum being provided with more or less scallops, according to the size of the lamp, the elasticity of the drum varying according to the width and depth of the scallops.

I would remark that the socket A may be provided with a hole or opening, *a'*, having a lid or cover, *b'*, on it, on moving which to expose said opening the lamp may be filled or supplied with burning material without unscrewing the burner from the lamp. I would

also remark that the upper end of the wick-tube D may be rounded, so as to conform to the upper part of the cone or deflector. These features, however, are not new, having been previously used in other lamps.

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

1. The elastic drum J, constructed substantially as shown, so as to grasp and retain properly in position the chimney L and cone or deflector K, and also admit of being fitted snugly on the disk C and readily detached therefrom, as herein shown and described.

2. The rotating disk C, fitted on the top of the lower part, B, of the burner, in combination with the stationary rack *c* on the flange *b* of B, and the pinion H on the serrated-wheel shaft G, all arranged to operate as and for the purpose herein set forth.

3. The spring *d*, formed by slitting or cutting the wick-tube D, as described, and having such a relative position with the serrated wheels F F to operate for the purpose set forth.

Witnesses:

H. C. HUNT.

I. W. GARNER,

JOHN D. DEVIN.