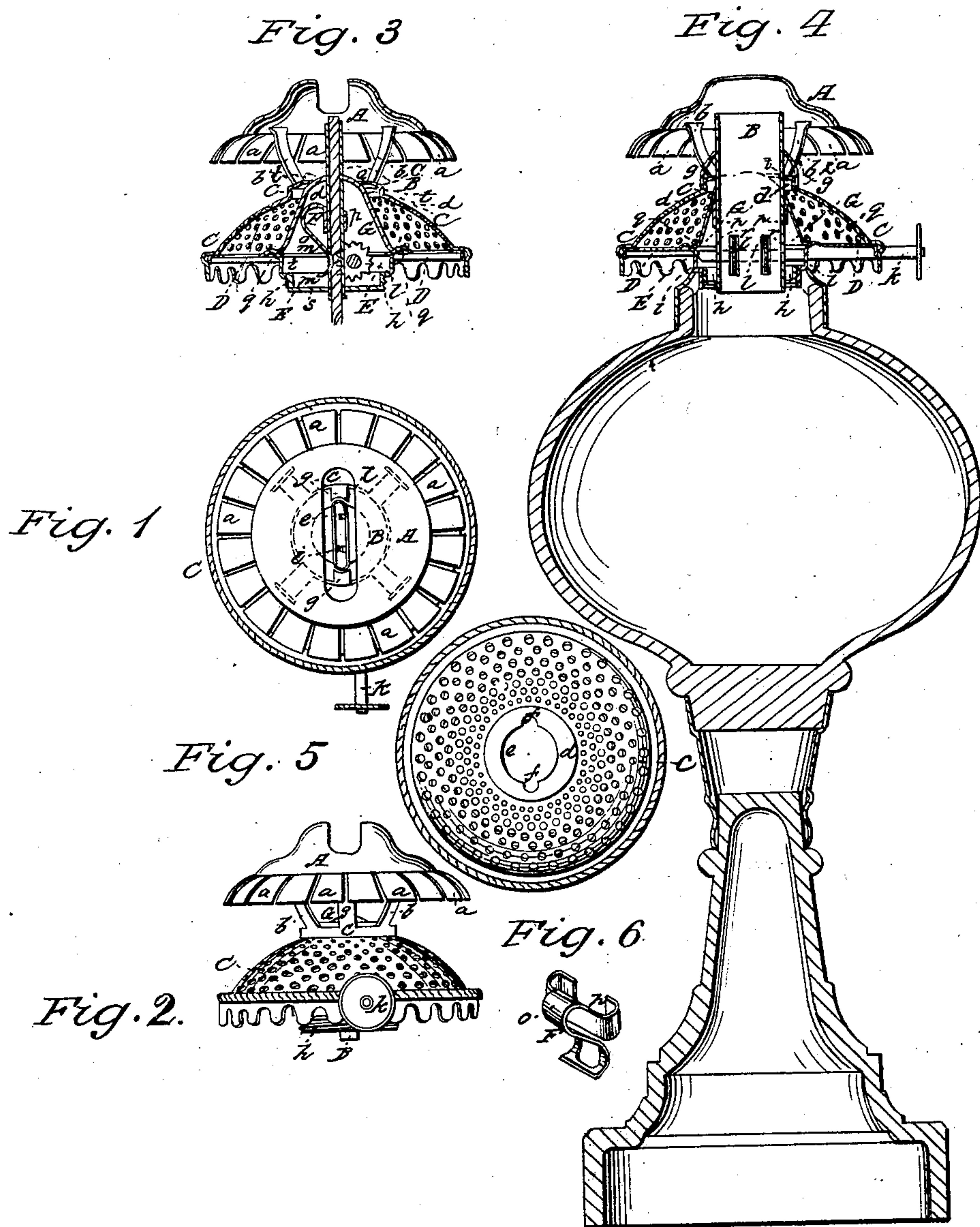


M. H. COLLINS.

Lamp Burner.

No. 100,260.

Patented March 1, 1870.



Witnesses:

J. V. Piper
J. Rehow.

Inventor:

M. H. Collins.
By his attorney.
R. H. Eddy.

United States Patent Office.

MICHAEL HENRY COLLINS. OF CHELSEA, MASSACHUSETTS.

Letters Patent No. 100,260, dated March 1, 1870.

IMPROVEMENT IN LAMP-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, MICHAEL HENRY COLLINS, of Chelsea, of the county of Suffolk, and State of Massachusetts, have made a new and useful invention having reference to Lamp-Burners designed for the combustion of a hydrocarbon fluid, in order for the production of light and heat therefrom; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view;

Figure 2, a front elevation; and

Figures 3 and 4, vertical sections of a lamp-burner provided with my invention. The lamp reservoir is also represented in fig. 4 of such drawings.

In such drawings—

A represents the cone or air-deflector, having a series of springs extended from its periphery, and separated from one another by radial slits *a a a*. This cone or air-deflector, arranged with respect to the wick-tube B, in manner as shown in the drawings, is supported above the dome-shaped foraminous air-distributor and glass chimney-rest C, by means of a series of curved arms, *b b b b*, fastened at their upper ends to the deflector, and at their lower extremities to an annulus, *c*, which encompasses and fits upon a cylindrical neck, *d*, projecting upward from the said rest C.

Figure 5 is a top view of the said rest C, and exhibits the neck as closed at top, except in having a circular orifice, *e*, made through it and opening into two semicircular notches, *f f*, arranged in the said top, in manner as shown.

The notches are intended to receive the opposite edges of the flat wick-tube B, and act as guides to direct it into the notched ends of two springs, *g g*, which are extended up from opposite parts of the annulus *c*, and by bearing against the wick-tube serve to hold the rest C in place down upon the perforated disk or supporter D, extended from and concentrically with the chambered wick-tube supporter E.

The wick-tube at its lower parts extends through and is fastened to the bottom of the supporter E, having on its outer surface a connection-screw, *h*, and a shoulder, *i*, at the upper part thereof.

The shaft *k*, carrying the spur-wheel or wheels *l l* for elevating or depressing the wick in the tube B, extends through the supporter E, and with the spur-wheels projected into the wick-tube, which, opposite to them, has an opening, *m*, made in it to receive a

wick-presser. This presser, shown at F, consists of an S-shaped spring, *o*, projected from a clasp, *p*, which encompasses and grasps the wick-tube.

Figure 6 is a perspective view of the said presser F. Its purpose is to press the wick into contact with the teeth of the spur-wheels.

A bell-shaped cover or cap, G, is applied to the chamber of the supporter E, and there is formed about the base of such cover, and in the supporter, a circular groove or channel, *q*, having one or more ducts or openings *r* leading from it into the chamber of the supporter.

A small hole, *s*, is also made through the bottom of the said chamber. The purpose of the channel *q* is to intercept the oil or liquid which, while the burner may be in operation, may escape from the wick and flow down upon the outer surface of the bell-shaped cover. Such oil, after having been so intercepted, will flow under the base of the cover or through the duct or ducts *r*, and thence into the chamber and through the hole in its bottom, and finally into the oil-reservoir of the lamp. Such means of intercepting the waste oil and restoring it to the reservoir prevent it from flowing down upon and soiling the upper surface of the lamp.

The bell-shaped cap G extends up through the circular opening, *e*.

There should be a narrow space, *t*, between the periphery of the opening and the adjacent surface of the cap, in order to allow air to flow up through such space, as it has been discovered that with such space the combustion of the oil is improved, and the light from the flame is rendered greater.

I claim in the above-described burner the following, viz:

The spring presser F, as composed of the spring *o* and the clasp *p*, or means of applying such spring to and enabling it to be removed from the wick-tube or burner.

Also, the arrangement as well as the combination of the guide notches *f f* and circular openings *e* in the rest C with the notched springs *g g*, combined and arranged with the annulus *c* of the deflector supporter, substantially as explained.

M. H. COLLINS.

Witnesses:

R. H. EDDY,

S. N. PIPER.