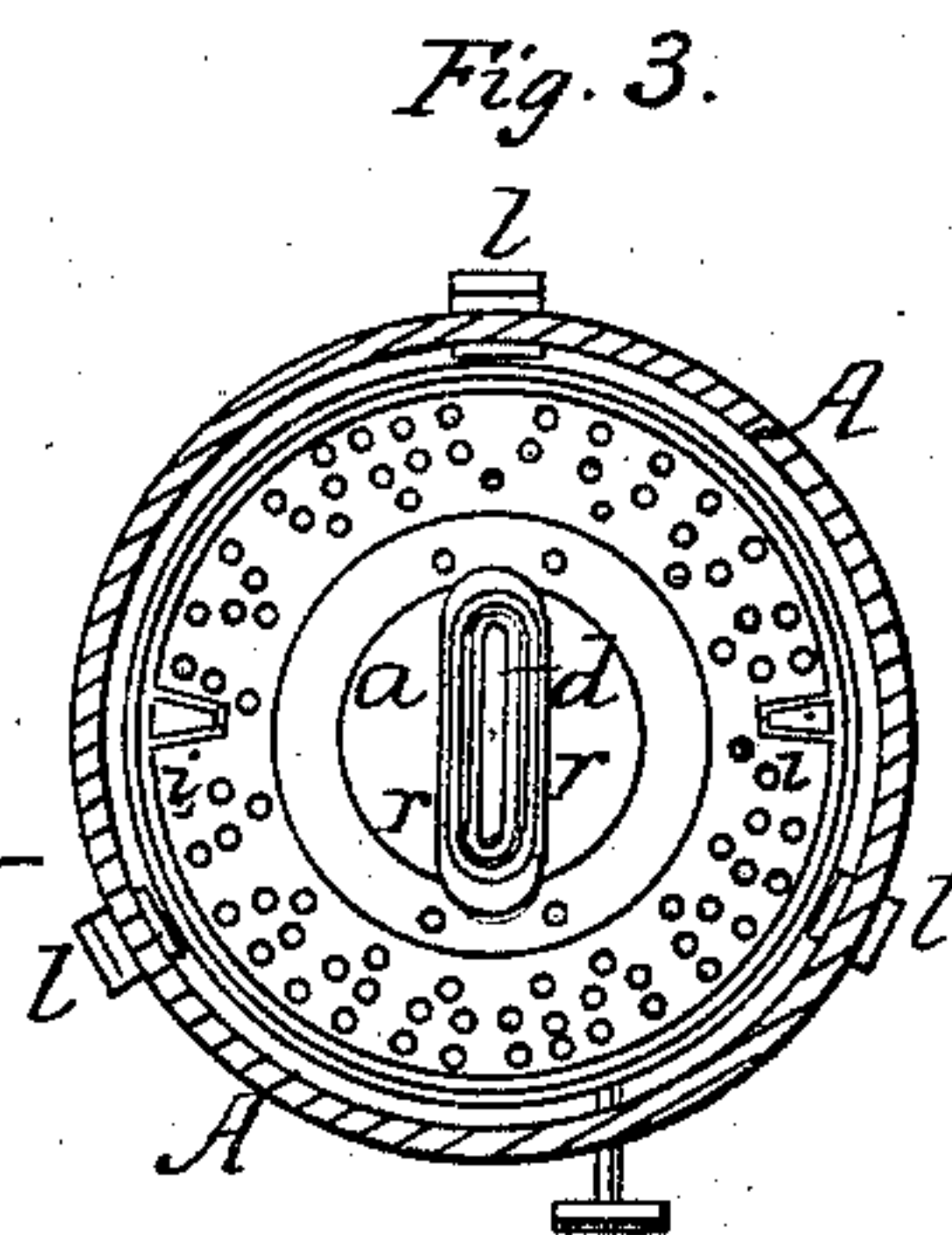
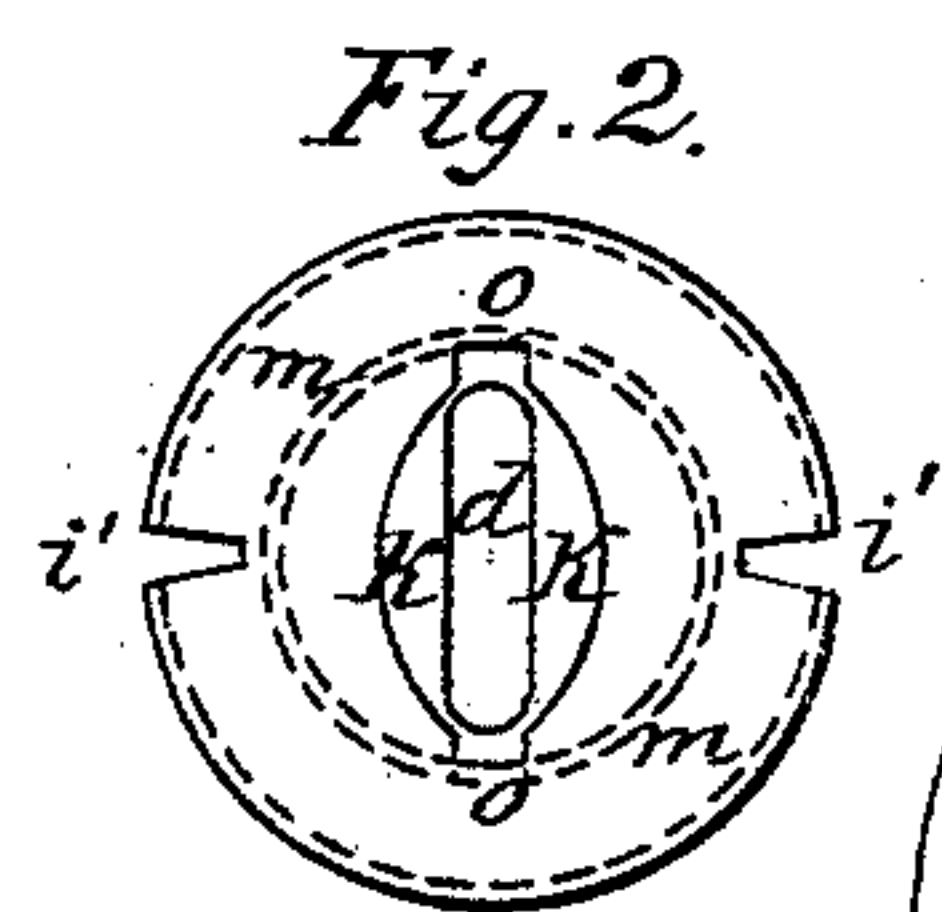
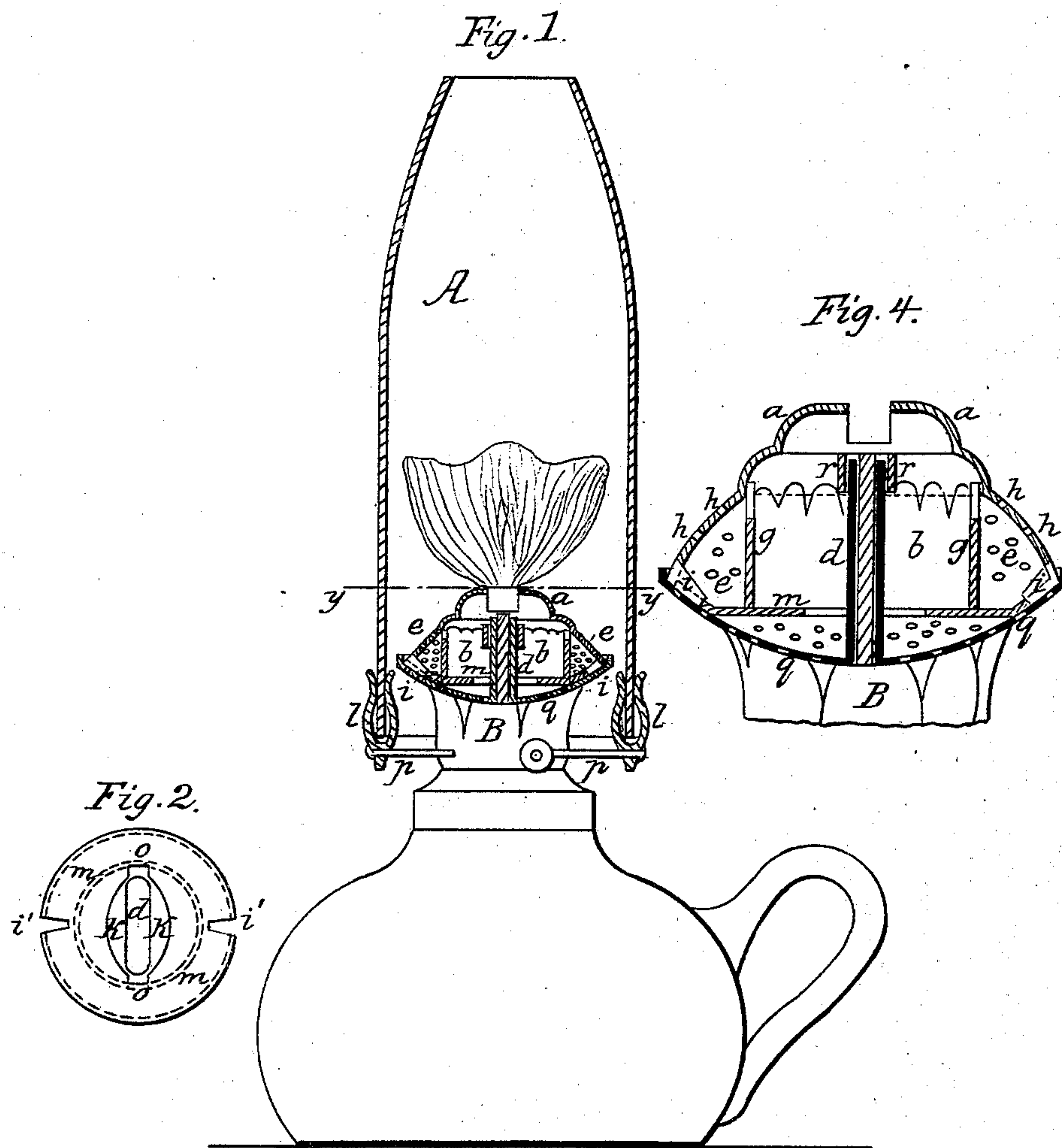


G. LAVERE.
Lamp Burner.

No. 77,821.

Patented May 12, 1868.



Witnesses.
W. C. Ashkettle
J. A. Service

Inventor.
G. Laveré
per Munnyc
Attorneys

United States Patent Office.

GILBERT LAVERE, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 77,821, dated May 12, 1868.

IMPROVEMENT IN LAMP-BURNERS.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GILBERT LAVERE, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a new and useful Improvement in Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my improved burner, through the line *x x*, fig. 3.

Figure 2 is a bottom view of the removable chambers.

Figure 3 is a plan view of the burner from a horizontal section through the chimney at the line *y y*, fig. 1.

Figure 4 is an enlarged view of the section of the burner, as shown at fig. 1.

Similar letters of reference indicate corresponding parts.

This invention consists in the combination of two chambers, forming an essential part of a burner for petroleum-lamps, together with other devices, perfecting the whole, as will hereinafter be more fully set forth.

In the drawings, *a* is the cap common to all petroleum-lamps, and the plate forming it also forms the top part of the central chamber *b*, (through which the wick-tube *d* passes,) and the annular chamber *e*, surrounding the central chamber, as shown. The bottom of the annular chamber is formed by a circular plate, *m*, which projects beyond the said annular chamber, and forms a contracted opening, *k*, around the wick-tube *d*.

The object of the chamber *e* is to prevent the radiating and conduction of heat laterally against the walls of the chimney *A*, to which it is contiguous, for the air is permitted to circulate freely through the said chamber *e*, by the holes *h h*, &c, as shown. The central chamber supplies air to the flame for combustion, the said air passing into the chamber from below through the contracted gorge or opening, *k*, around the wick. This gorge *k* is contracted, for the purpose of causing currents of air to enter the chamber through the lateral openings *o*, which currents are thereby contiguous to and directly supply the flame at its lateral edges, which the burners as heretofore made fail to do.

The cylindrical wall *g*, which divides the interior space of the burner into two chambers, *e* and *b*, as aforesaid, is scalloped or indented along its upper edges, as shown, for the purpose of allowing a free circulation of air into the chamber *e*.

The burner, consisting of the cap-plate *a* and the bottom-plate *m*, forms one and the same general part, which is removable, for it rests upon the base-plate *q*, attached to and forming part of the neck *B*, which screws into the top of the lamp in the usual manner. This plate *q* is provided on its upper surface with projections, *i*, for the purpose of fitting into corresponding recesses, *i'*, in the edge of the burner, as shown, whereby the latter is held in place, and is at the same time removable for cleaning or other reasons. The said plate *q* is also perforated, as shown, for the purpose of admitting air to the chamber *b*.

To insure more complete combustion of the oil, a metallic band, generally of brass or copper, fits with easy contact upon the exterior of the wick-tube, as shown at *r*, which is adjusted so as to barely touch the lowest part of the flame. The heat which results from this augmentation of metal at the upper part of the wick-tube, conduces to the combustion of the oil by aiding its conversion into gas. The chimney is held by means of spring-clamps *l*, at the extremity of radial arms *p*, projecting from the neck *B*, as shown. These clamps, from their positive spring-action, clasp the lower edge of the chimney, as shown, and while holding it firmly, permit it to expand without breaking the glass.

The chimney is held solely by the clamps above described, and is not in contact with the burner, the latter extending only near enough to the same to compel a sufficient quantity of air to feed the flame and accomplish complete combustion, to pass upward through the central chamber *b*.

These various devices contribute to produce a burner which accomplishes a more complete combustion of the oil than the burners heretofore used, and while it furnishes a larger and brighter flame for a given wick-surface, will burn with no diminution of its brilliancy till the whole of the oil is exhausted. It is inexpensive and simple, and not liable to get out of repair.

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

1. The combination of the central chamber *b* with the annular chamber *e* and wick-tube *d*, substantially as shown and described, and for the purposes set forth.
2. The removable burner, substantially as shown and described, in combination with a rest, *g*, the said burner being so constructed as to be lifted off from the said rest *g* without unscrewing, all as set forth.

The above specification of my invention signed by me, this 7th day of January, 1868.

GILBERT LAVERE.

Witnesses:

WM. F. McNAMARA,
ALEX. F. ROBERTS.