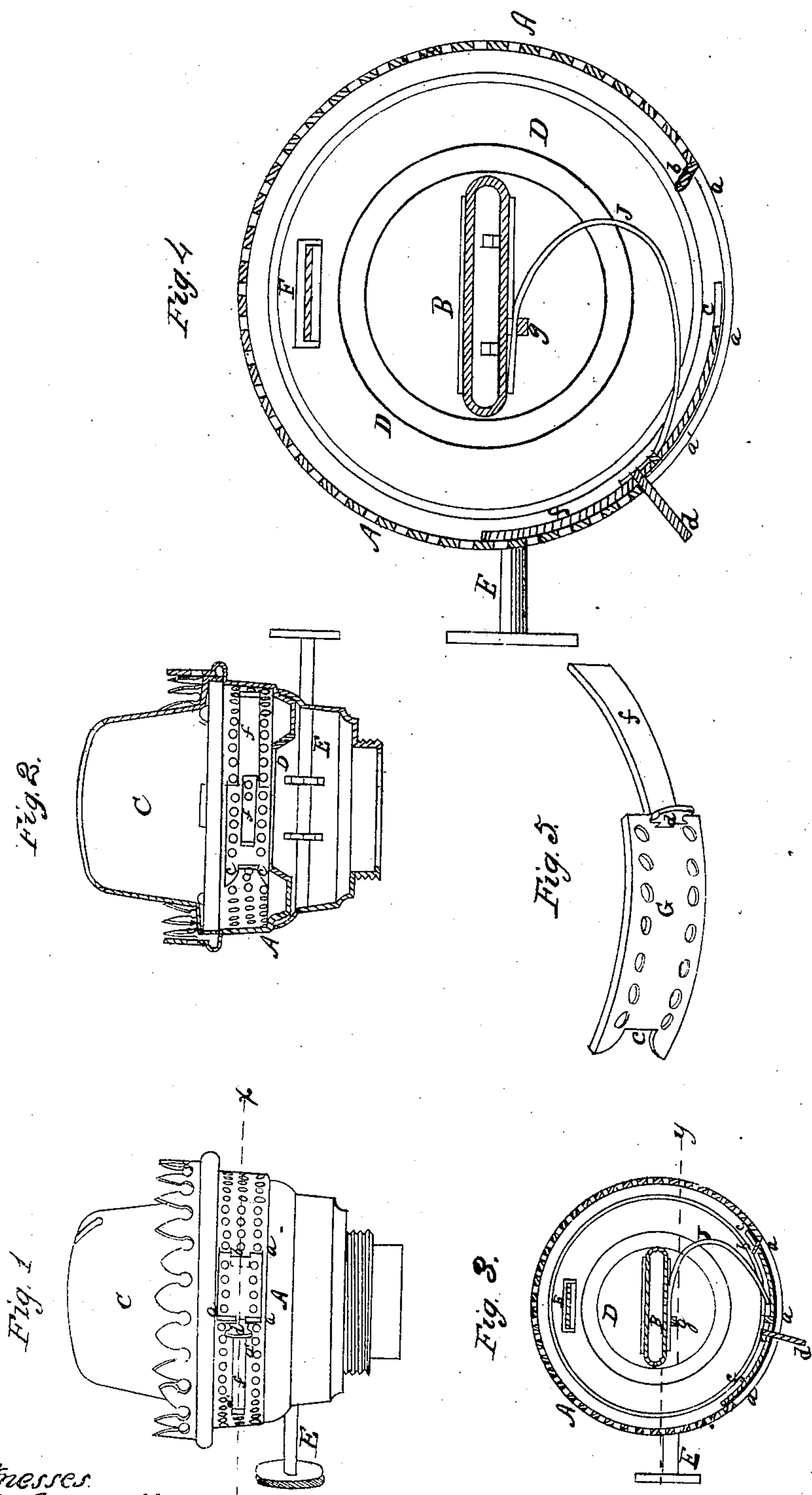


G. Smith.
Lamp-Burner.
N^o 72925 Patented Dec. 31, 1867.



Witnesses.
R. J. Campbell
Edw. Blayden

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United States Patent Office.

GEORGE SMITH, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 72,925, dated December 31, 1867.

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, GEORGE SMITH, of Providence, in the county of Providence, and State of Rhode Island, have invented certain new and useful Improvements in the Construction of Lamp-Burners; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of one side of the burner complete, showing the slide closed.

Figure 2 is a vertical section through the burner, showing the interior of the slide and its catch.

Figure 3 is a section through the burner, taken in the horizontal plane indicated by line *x x* in fig. 1.

Figure 4 is an enlarged section similar to that of fig. 3, showing the slide when pressed back.

Figure 5 is a perspective view of the slide enlarged, and detached from the burner.

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

This invention relates to certain novel improvements on the construction of the lamp-burner which was secured to me by Letters Patent, dated on the 14th day of May, 1867. In said lamp-burner a spring-valve was shown for closing an opening through the case or shell of the burner, which opening is made for the purpose of allowing of the introduction of a lighted taper for lighting the wick.

The object of my invention is to construct the slide or valve, which is used for closing the opening through the burner-case, and to apply a spring for acting upon said valve in such manner as to greatly reduce the cost of manufacture of the burners, obtain a more simple and durable attachment, and provide for making a neater burner in appearance than the one set forth in my patent of May 14 aforesaid.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents the circular shell of the burner, B the wick-tube, C the cone, D the diaphragm applied above the stem E of the wick-spurs, and F is the spring which confines the cone C in its place within the gallery of the case A. These several parts may be constructed and combined in the usual well-known manner, or, if desirable, the improvements may be applied to any of the well-known lamp-burners now in use, with a trifling expense. I make a rectangular oblong hole, *a*, through the perforated portion of the burner-case, as shown in fig. 1, and in stamping, or otherwise cutting this hole, a lip, *b*, is left at one end of it, for the purpose of receiving the forked or notched end *c* of a slide or valve, G, when this valve is closed over said hole. In order to have the lip *b* act as a catch for the slide G, for keeping one end of this latter in place when it is closed, this lip *b* is bent inward, as clearly shown in figs. 2, 3, and 4. Another slot is made through the perforated portion of the burner-case, as shown in figs. 1, 2, and 4, at *a'*. This slot is considerably narrower than the opening *a*, and extends into this opening as shown. It is designed for receiving through it the stem of a thumb-pin, *d*, and serving as a horizontal guide for this pin, and a means of keeping the valve or slide G from being moved too far back. The pin *d* is riveted to the slide G, as shown in figs. 3 and 4, and is the means by which this slide is moved.

The slide or valve G above referred to consists of a wide portion, which is designed for closing the opening *a*, terminating at one end in a fork, *c*, and at the other end in a narrow tongue, *f*. This tongue is of sufficient width and length to keep the slot *a'* covered, but it is not so wide as to cover the perforations through the case A, which are above and below said slot. The thumb-pin *d* is riveted to the valve G just at the junction of the wide and narrow portions of this valve, so that when the valve is moved back as far as it will go, the opening *a* will be uncovered and allow of the introduction of a lighted taper. The valve or slide G is curved so as to fit snugly against the interior circular surface of the case A, and to slide freely in a horizontal plane, and it is also provided with perforations which allow of a free ingress of air. In order to keep this valve in place, I employ a spring, J, which is a flat strip of steel, of suitable length to form a bow, as shown in figs. 3 and 4, when properly applied. One end of this spring J is riveted to the inner face of the valve G, about the middle of its length, and the other end is inserted through a staple, *g*, which is fastened on the wick-tube in the horizontal plane of slot *a'*. Thus applied, the spring J serves two offices—it keeps the valve G closed against the lip *b*, and it also prevents the valve from moving out of place. Spring J also presses the valve snugly against the case of the burner, and renders unnecessary the construction of flanges and other guides upon the burner. By thus constructing the valve and applying it to the burner, the valve can be detached or applied at pleasure, and very little expense attends the construction and attachment.

It will be seen, by reference to figs. 2 and 5, that I make the notch *c* in the end of the valve *G* flaring. This is done in order to have this valve centre itself properly when allowed to close. It will also be seen that the spring *J* will be held in place by the staple *g*, without using solder or rivets; hence the valve and spring can be removed at pleasure for cleaning the burner, or for other purposes. The valve is also so constructed that it allows air to circulate through it, and the tail-piece of the valve allows air to pass freely through the burner-case above and below it.

I am aware that the rejected application of William K. Johnson shows a lamp-burner having an opening through the case, which is closed by a slide, the button of which moves in a slot that is made through the burner; and that the slide is made of sufficient length to close the slot in which the thumb-button plays. I do not, therefore, claim such a contrivance as my invention.

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

1. The construction of the wide and narrow openings *a a'* through the burner-case, with a lip, *b*, formed on the case, and arranged in such a position as to receive the flaring forked end *c* of the spring-slide *G*, substantially as and for the purposes described.
2. The construction of the spring-slide *G* with a forked end, *c*, and a narrow tail-piece, *f*, this slide being curved and perforated substantially as described.
3. The manner of attaching the spring *J* to the wick-tube by a staple, *g*, substantially as and for the purposes described.

GEORGE SMITH.

Witnesses:

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