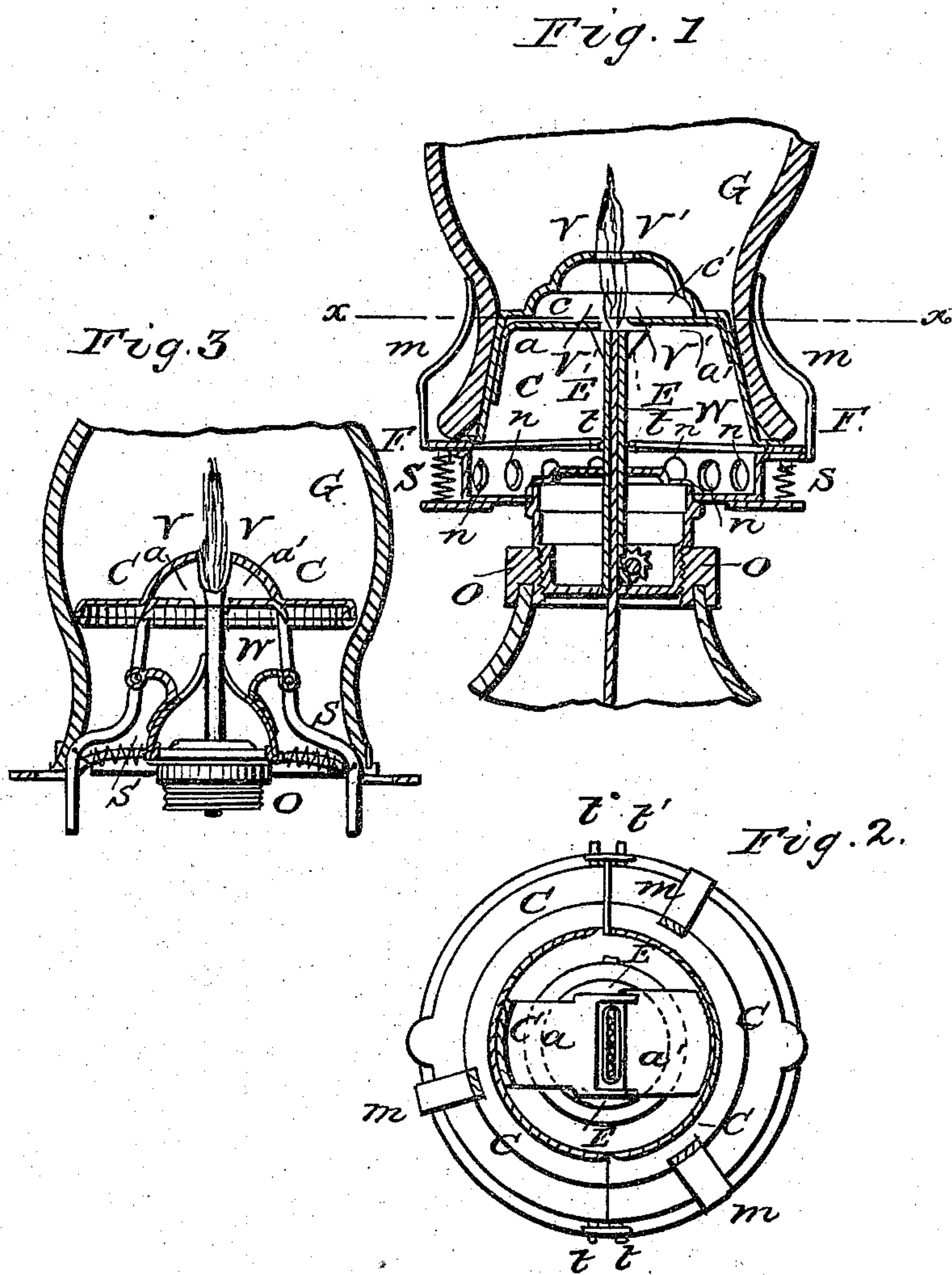


J. PONS.
Lamp Extinguisher.

No. 87,511.

Patented March 2, 1869.



witnesses
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J. Kewen

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United States Patent Office.

JOHN PONS, OF BALTIMORE, MARYLAND, ASSIGNOR TO HIMSELF,
JOHN S. RUSSELL, AND HENRY VOGLER, OF SAME PLACE.

Letters Patent No. 87,511, dated March 2, 1863.

IMPROVEMENT IN LAMP-EXTINGUISHERS.

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, JOHN PONS, of the city and county of Baltimore, and State of Maryland, have invented a new and improved Safety-Lamp Burner; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section, through line *y y* of fig. 2.

Figure 2 is a horizontal section, through line *x x* of fig. 1.

Figure 3 is a vertical section, showing a modification of the device represented in fig. 1.

The object of this invention is to provide, for public use, a lamp so constructed and operating, that, when, by being overturned, or from any other accident, the chimney shall drop off, or cease to bear upon the cap, the flame of the lamp shall be automatically extinguished, and all danger of explosion thereby avoided.

To effect this purpose, I construct the cap *C* in two parts, *c c'*, the adjacent edges of which, directly in line with the wick *w*, are sharp, and overlap or shut by each other, like the blades of a pair of scissors, or like the old-fashioned snuffers.

These two parts are pivoted at their adjoining corners upon trunnions *t t*, *t' t'*, so as to render them capable of being opened and shut, as above described.

Their outer edge, midway on their perimeter, between the trunnions *t t*, is supported upon spiral springs *s s*, which, by their upward pressure, shut the two parts *c c'* together over the wick-tube, unless the force of the springs is in some way counteracted.

The parts *c c'* may be provided also with auxiliary blades *a a'*, shutting past each other, below the edge of the cap, and almost or quite in contact with the top of the wick-tube, as shown in fig. 1.

Each of these blades may be provided with a vertical side-flange, *e e'*, shutting in connection with each other, in the same manner as the horizontal portion of the blades.

The chimney *G* rests upon the base-flange *F* of the parts *c c'*, and is held in place by springs *m m*.

The whole burner screws into the lamp by the threads *o o* in the usual manner.

Combustion is supported by air admitted through the openings *n n*, or in any other suitable manner.

The operation of the apparatus is very simple and effective. The weight of the chimney, when the latter is in place, counteracts the force of the springs *s s*, and holds the edges *v v'* and the blades *a a'* and *e e'* apart, so as not to interfere with the flame. But when, from any cause, the chimney is removed, the sharp edges snap together and extinguish the light, before any of the oil can possibly have escaped from the globe.

The device may, when the lamp is not lighted, be employed for trimming and cleaning the wick.

If it be desired to remove the chimney without extinguishing the flame, that object can be accomplished by holding down the edges of the flange near the springs *s s*, with the finger, or otherwise.

The spiral form of the springs *s s* is not, of course, material. Any form of spring may be employed which will answer best.

It is not, of course, necessary that the springs *s s* be situated vertically under the glass shade or chimney. They may be placed horizontally, as shown in fig. 3, so that when the chimney is in position, it will press inward against them, and thereby open the jaws of the cap, and when removed, the springs will close the jaws again.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. Constructing the cap of a lamp in two parts, *c c'*, each pivoted as at *t t*, and the two parts having their edges meeting or overlapping in the line of the wick-tube, substantially as and for the purpose set forth.

2. In combination with the two parts *c c'*, the springs *s s*, and chimney *G*, constructed and arranged to operate in the manner and for the purposes described.

3. Providing the two pivoted parts, *c c'*, of the cap with the auxiliary blades *a a'*, substantially as and for the purpose specified.

4. A lamp-extinguisher *c c'*, or *a a'*, so constructed and operating that the weight of the chimney resting upon it, keeps its jaws open, and when that weight is removed, by the overturning of the lamp, or otherwise, the jaws will close and put out the light.

JOHN PONS.

Witnesses:

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