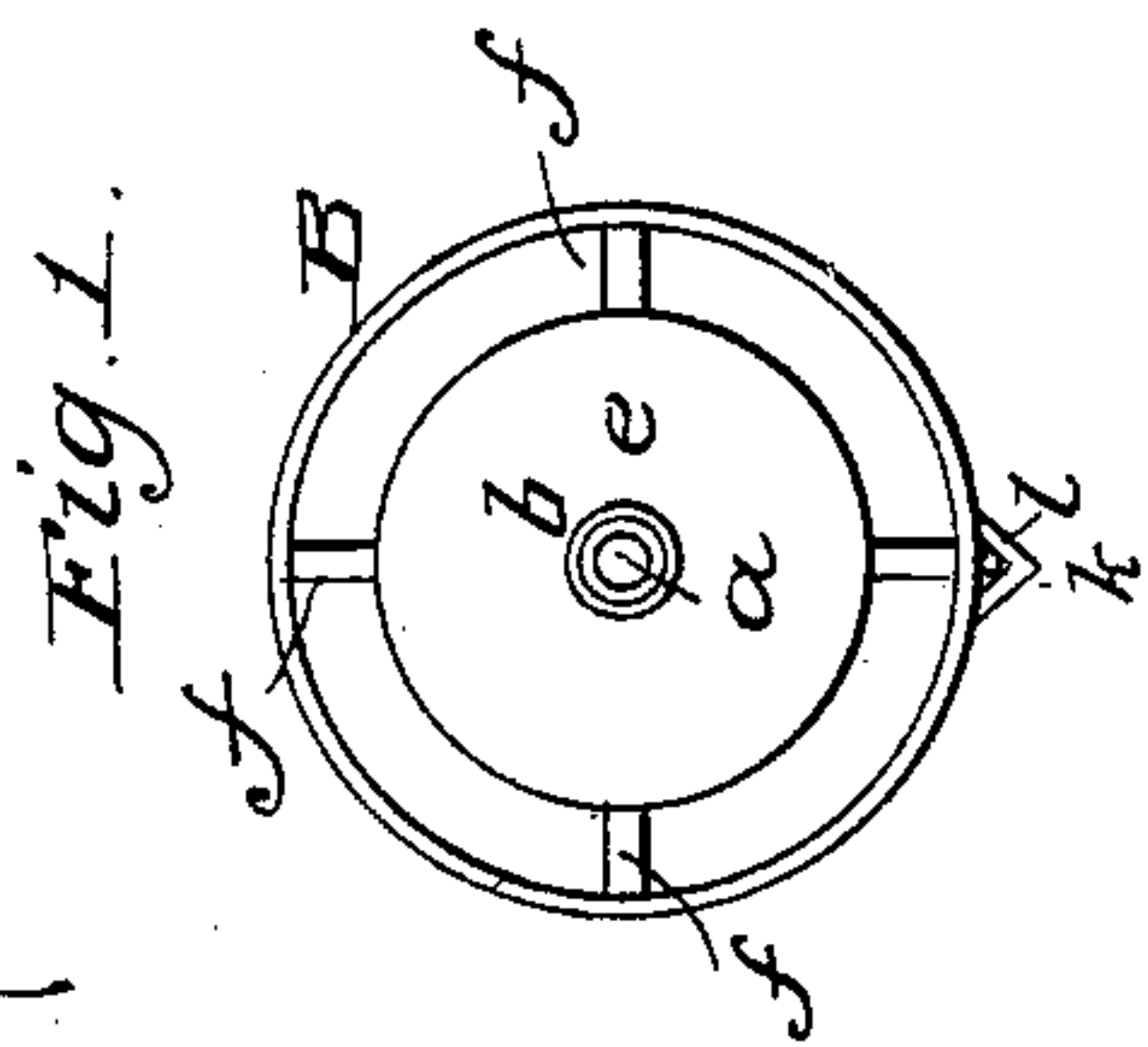
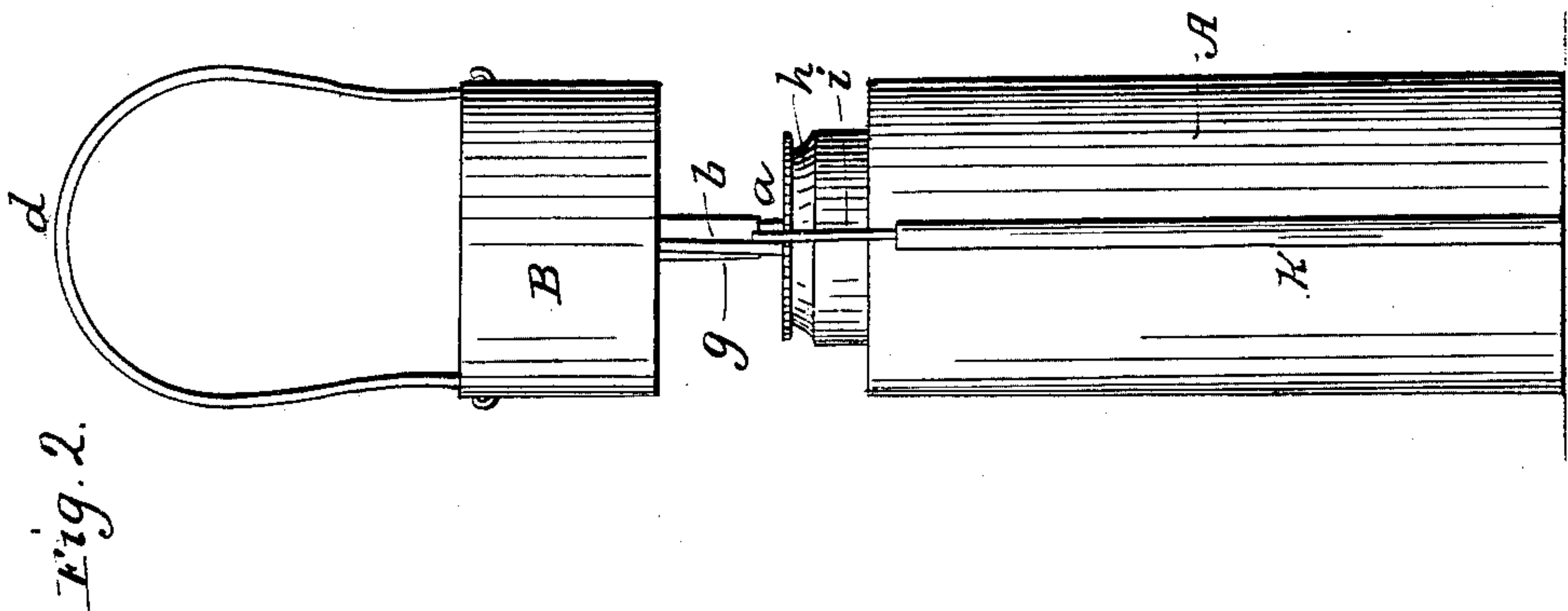
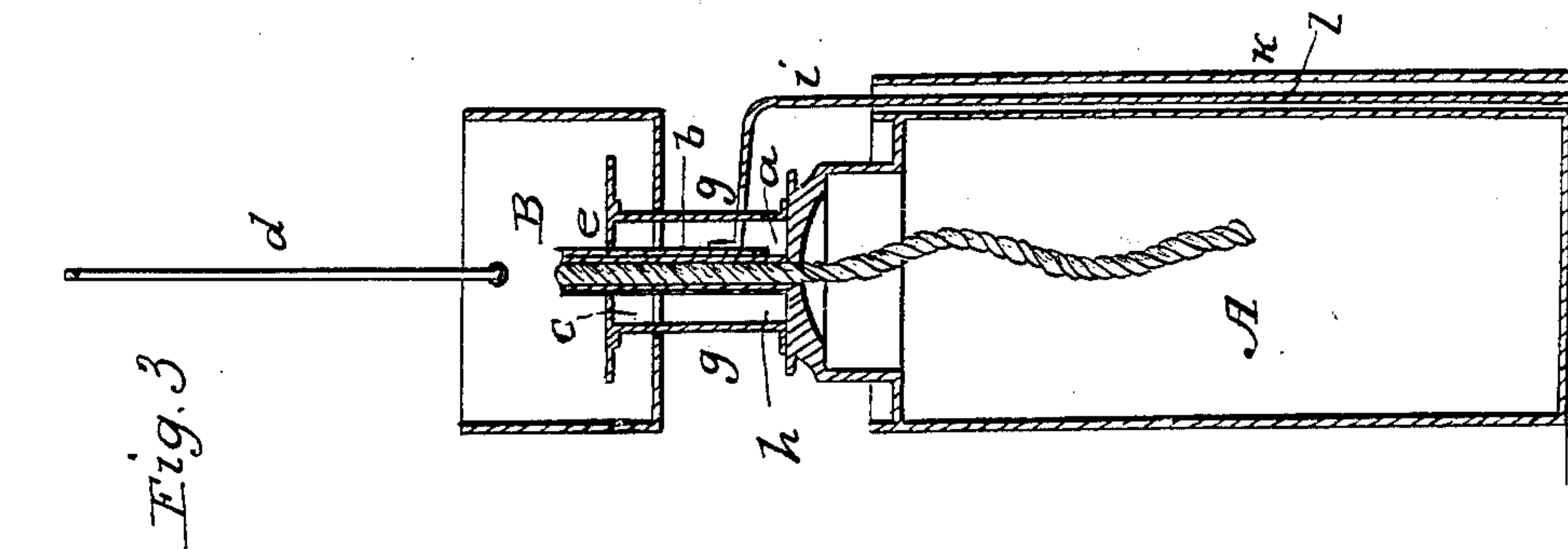


T. E. SPARKS.

Lamp.

No. 57,589.

Patented Aug. 28, 1866.



Witnesses:  
Samuel H. Pifer  
George Hadwin.

Inventor.  
Thomas E. Sparks.  
by his Attorney  
R. W. Eddy

# UNITED STATES PATENT OFFICE.

THOMAS E. SPARKS, OF NORWICH, CONNECTICUT.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 57,589, dated August 28, 1866.

*To all whom it may concern:*

Be it known that I, THOMAS E. SPARKS, of Norwich, in the county of New London and State of Connecticut, have invented a new and useful or Improved Lamp, designed principally for a cigar-lighter, although it may be used for other purposes; 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, Fig. 2 a front elevation, and Fig. 3 a vertical section, of it.

The object of my invention is to reduce the height of the flame and consequent combustion of the oil or fluid of a lamp, and keep such so reduced while the lamp may be out of use for the purpose for which it may be specially intended, the lamp being still in operation and burning to a very limited extent.

To this end I combine with the lamp and a flame reducer or tube fitted to encompass and slide freely on the wick-tube of such lamp apparatus as hereinafter described.

In the drawings, A denotes the lamp, of which *a* is its wick-tube, and *b* a flame reducer or tube, to slide freely on such wick-tube and that part of the wick which may be allowed to project from the upper end of such wick-tube. A flame-guard, B, consisting of a cylindrical box uncovered at top and having an opening, *c*, through its bottom, encompasses the tubes *a* and *b*, or is arranged with respect to them as represented. This flame-guard has a bail, *d*, or its equivalent, applied to it, and it is connected to the tube *b* by means of a disk, *e*, provided with arms *f f*, extending radially from it and fastened to the interior curved surface of the guard, the said disk being fitted on and fixed to the tube *b*.

Two standards, *g g*, rise up from the lamp-cap *h* and go through the opening *c*. Near its upper end each of these standards is bent at a right angle, so as to extend beyond the said opening and serve as stops to arrest the upward movements of the flame-guard and the tube *b*, their downward movement being estopped by contact of the bottom of the tube *b* with the lamp-cap *h*, or by the disk being brought into contact with the tops of the standards. Furthermore, a wire, *i*, joined to the tube *b*, may extend downward therefrom and

alongside of the lamp-reservoir and through a tube, *k*, applied thereto, the said wire, when the tube *b* is resting on the lamp-cap, being made to extend below the bottom of the lamp a distance equal to that to which it may be desirable to raise the tube *b* on the wick in order to reduce the flame of such wick.

When the tube *b* is in contact with the cap the upper end of such tube should be even with or a little below that of the wick-tube.

The box B serves the purpose of guarding the flame from lateral currents of air, which, acting against it when it may be in a low state, would be likely to extinguish it. The disk also protects the flame from upward currents of air tending to extinguish it. The opening in the bottom of the box B serves to admit air into the box and to supply the flame when at its highest elevation with oxygen.

On setting the lamp down on a table or body, the weight of the lamp will cause it to descend on the elevator or wire *i*, so as to effect the raising of the tube *b* on the wick. The moment the lamp is taken off a table or body, by the hand applied to the lamp-reservoir, the weight of the tube *b* and its attachments will cause the tube to descend below that part of the wick which may extend out of the wick-tube; so, while the lamp may be suspended by the bail of the flame-guard, the weight of the lamp will cause the tube *b* to be maintained at its highest position on the wick.

On taking hold of the lamp and raising it a little the wick-tube will be moved upward within the tube *b*, so as to carry the wick out of action of the said tube, and thus allow the flame to rise. Raising the tube *b* on the wick-tube effects elevation of the flame, and depressing the tube *b* relatively to the wick causes increase of the flame. Thus, whenever we desire to increase the flame for the purpose of lighting a cigar or a taper by it, we have only to lay hold of the lamp and raise it upward a little, whether it be resting upon an object or be suspended from one by the bail.

I claim as my invention the following, viz:

1. The combination as well as the arrangement of the elevator or wire *i* with the lamp A and the tube *b*, applied to the wick-tube of such lamp in manner and so as to operate substantially as described.



2. The combination of one or more standards, *g g*, or the equivalent thereof, with the lamp *A*, the tube *b*, and a mechanism applied to such tube for suspending or supporting it, whether such mechanism be composed in part of the flame-guard *B*, or the same and the disk *e*, or be otherwise properly constructed, so as to hold up the tube and allow the lamp and its wick to descend within the said tube for reduction of the flame, as specified.

3. The combination of the flame-guard *B* with the tube *b* and the lamp.

4. The combination of the disk *e* with the flame-guard *B*, the tube *b*, and the lamp.

5. The combination of both the elevator and the bail, or their equivalents, with the lamp and the slide-tube *b*, provided with means of

arresting the upward motion of such tube, and applied to the wick-tube, so as to operate with respect to the wick thereof, substantially as specified.

6. The combination of the flame-guard *B*, or the same and the disk *e*, with the elevator and the bail, or their equivalents, the lamp, and the slide-tube *b*, provided with means of arresting the upward movement of such tube, and applied to the wick-tube, and so as to operate with respect to the wick substantially as specified.

THOMAS E. SPARKS.

Witnesses:

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