

P. CRANS, Jr.  
Lamp Burner.

No. 53,953.

Patented April 17, 1866.

Fig: 1.

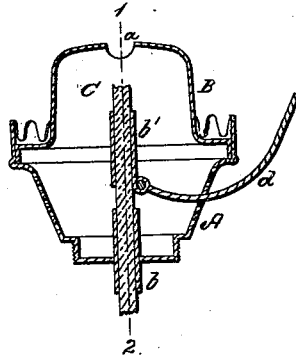


Fig: 2.

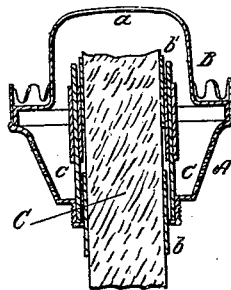
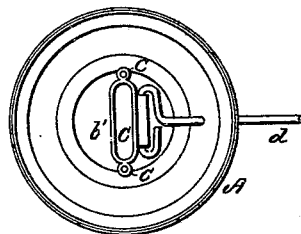


Fig: 3.



Witnesses:  
Wm. Albert Steel.  
H. H. Leary.

Inventor:  
L. G. Crans.

# UNITED STATES PATENT OFFICE.

PETER CRANS, JR., OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **53,953**, dated April 17, 1866; antedated April 2, 1866.

*To all whom it may concern:*

Be it known that I, PETER CRANS, JR., of Philadelphia, Pennsylvania, have invented an Improvement in Coal-Oil Lamps; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of an adjustable tube arranged above the wick-tube, and combined with devices described hereinafter, or their equivalents, so that the upper end of the wick may be exposed as desired, and so that the tube is prevented from becoming sufficiently heated to char the wick within the same.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a sectional elevation of the burner of a coal-oil lamp, showing my improvement; Fig. 2, a vertical section on the line 1 2, Fig. 1; and Fig. 3, a plan view.

A is the perforated base of the burner, which may be similar to that of common burners; and B is the ordinary cap or dome, in which is the usual elongated opening *a*. To the base A is secured a short wick-tube, *b*, and near each edge of the latter is a vertical guide-rod, *c*, on which slides an adjustable wick-tube, *b'*. To the lower end of the tube *b'* is jointed one end of a curved rod, *d*, which extends through the side of the base A.

The wick C is passed through the tubes *b* and *b'*, and is so adjusted that the upper end may be at the proper distance from the top of the cap, when the lamp may be lighted and burned in the usual manner.

Should it be found that too much of the wick is exposed, so as to cause the flame to

smoke, the outer end of the rod *d* should be depressed so as to raise the tube *b'*, and thereby cover a portion of the wick before exposed; but if the flame is too small the tube *b'* is depressed by elevating the rod *d*, so as to expose a greater portion of the wick.

In burners of the ordinary construction the wick-tube is liable to become so heated as to char the wick within the upper portion of the same, in which case it is necessary to remove the wick in order to insert a new one or to detach the charred portion.

It will be seen that in the above-described burner the upper tube, *b'*, is so small and so exposed to the fresh air admitted into the burner that it cannot be heated to such an extent as to injure the wick. As there is no connection between the tube *b'* and the burner, except through the medium of the rods *c c d*, the heat imparted to the tube cannot be conveyed to the burner. The latter is consequently maintained much cooler than in lamps of the usual construction.

I do not desire to claim, broadly, the use of an adjustable tube for regulating the flame by exposing more or less of the wick, as such a device is shown in the patent granted to M. B. Vidal, July 30, 1861; but

I claim as my invention and desire to secure by Letters Patent—

The adjustable tube *b'*, arranged above the wick-tube *b*, and combined with the rod *d* and guide-rods *c c*, or their equivalents, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER CRANS, JR.

Witnesses:

CHARLES E. FOSTER,  
JOHN WHITE.