

WILLIAM SCARLETT.  
Improvement in Lamps.

No. 114,609.

Patented May 9, 1871.

Fig. 1,

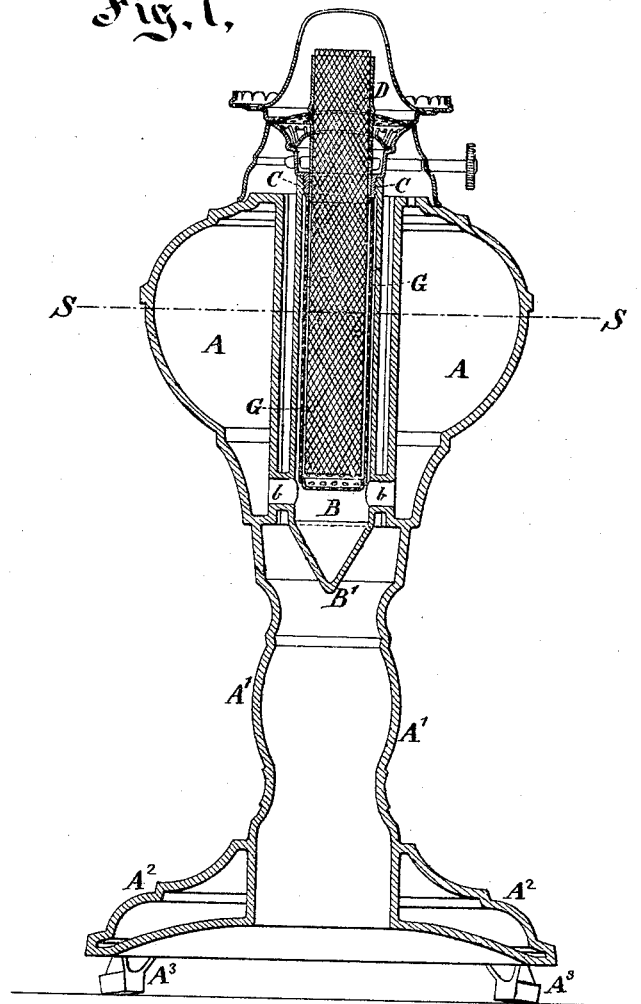
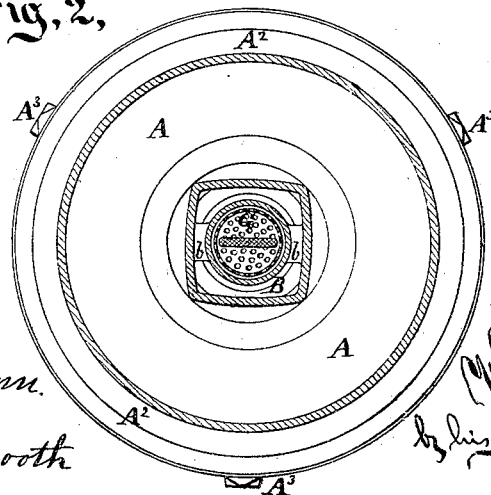


Fig. 2,



Witnesses,  
*A. Hoermann.*  
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# United States Patent Office.

WILLIAM SCARLETT, OF AURORA, ILLINOIS.

Letters Patent No. 114,609, dated May 9, 1871.

## IMPROVEMENT IN LAMPS.

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, WILLIAM SCARLETT, of Aurora, in the county of Kane, in the State of Illinois, have invented certain new and useful Improvements in Lamps.

My invention relates to that class of lamps in which a small upright reservoir, containing a small quantity of kerosene or other suitable fluid, is surrounded by a larger reservoir with an annular space between, through which a draught of air may ascend.

Lamps of this general construction have been long known, and are much approved. The external reservoir is capacious and maintains the fluid at a proper level in the small reservoir for a long time, the connection being made through a small pipe which extends across the annular space at or near the bottom of the reservoir.

My improvement relates to details of the construction. It prevents the twisting of the wick, which is always liable to lead to kinks and serious entanglements; reduces the resistance to the upward passage of the air through the structure, and may be cheaply made in a tasty and substantial form. It receives the air through the bottom.

I will proceed to describe what I consider the best means of carrying out my invention.

The accompanying drawing forms a part of this specification.

Figure 1 is a central vertical section, and

Figure 2 is a horizontal section on the line S S in fig. 1.

A is the main reservoir;

A<sup>1</sup> is the shank or shaft which constitutes the stem, which is conveniently grasped by the hand in moving the lamp about; and

A<sup>2</sup> is the extended base.

A<sup>3</sup> A<sup>3</sup> are legs which hold the base A<sup>2</sup> at a sufficient elevation above the table or other object on which it stands to allow the free access of air to the bottom, without necessitating any holes or other irregular parts difficult to clean.

B is the internal reservoir. It is pointed at its base, as represented by B<sup>1</sup>, and connected by the two opposite passages *b b* with the main reservoir A. These parts may be soldered, brazed, or otherwise permanently put together.

Any ordinary or desirable form of burner, wick-lifter, chimney, &c., may be employed to surmount the structure.

I have represented what I esteem a suitable burner. The lower or base portion, which screws into the upper part of the small reservoir B, is marked C, and the wick-tube is marked D.

To the lower edge of the male threaded part C I solder or otherwise firmly attach a perforated cylindrical casing, G. It may be opened at the lower end, or it may be closed by a bottom of similarly perforated material, as shown. This casing G, being permanently fixed to the threaded part C, is turned around

therewith, and is removed and inserted therewith, whenever the lamp is filled, cleaned, or otherwise attended to. Care must be taken that no more wick is introduced than will be properly contained within the perforated cylinder G. The turning of the ordinary wheel raises and lowers the wick within this casing as usual. The importance of the casing G is felt mainly in the introduction of the wick. In screwing in the burner the wick, instead of twisting many times around, (and becoming often shortened up and permanently deranged so that it will not extend down properly into the oil at a low level,) is certain to remain quietly extended in the inclosing-case. The inclosing-case and the wick turn round together. There is no chance of derangement.

I call the perforated casing G a wick-stiffener. Its function is mainly or entirely to stiffen the wick, and cause it to revolve therewith. It may perform its functions equally well if formed with an oval section, or even if flattened so as to press gently against the flat faces of the wick. It is possible, with such construction, to make the edges very much open, or to forego the strengthening qualities due to the joining of the edges altogether, or, in other words, to substitute for the perforated cylindrical casing G here represented two flat pieces of thin metal, or other suitable material extending down each side of the wick, and holding it forcibly against twisting or other entanglements. It is essential in any form of the structure that the wick-stiffener supports the wick, and revolves with it in its introduction and removal.

It should have been mentioned earlier that the wick-stiffener G in the form shown is also of great service in some exigencies, when, in consequence of the fracture of a full lamp, the flame running down the wick is liable to set fire to the entire mass. The wick-stiffener is likely to arrest the spread of the fire in this manner, and confine it to the small amount within the casing or stiffener.

I am aware that some or all the several features of my construction have been before known separately; but the lamp as an entirety possesses advantages over any before known to me; and

What I claim as my invention is—

The wick-stiffener G fixed to and moving with the burner or threaded part C, and adapted to support the wick against twisting and other entanglements, in combination with, and arranged as shown relatively to the internal reservoir B and the main reservoir A, formed and connected as shown, and supported on the hollow shank A<sup>1</sup> with a smooth spread base A<sup>2</sup> mounted on legs A<sup>3</sup>, so as to form the improved lamp adapted for burning kerosene by natural draught, as herein shown and described.

In testimony whereof I have hereunto set my name in the presence of two subscribing witnesses.

Witnesses:

WILLIAM SCARLETT.

CHARLES J. PFRAUGH,  
ALEXANDER C. LITTLE.