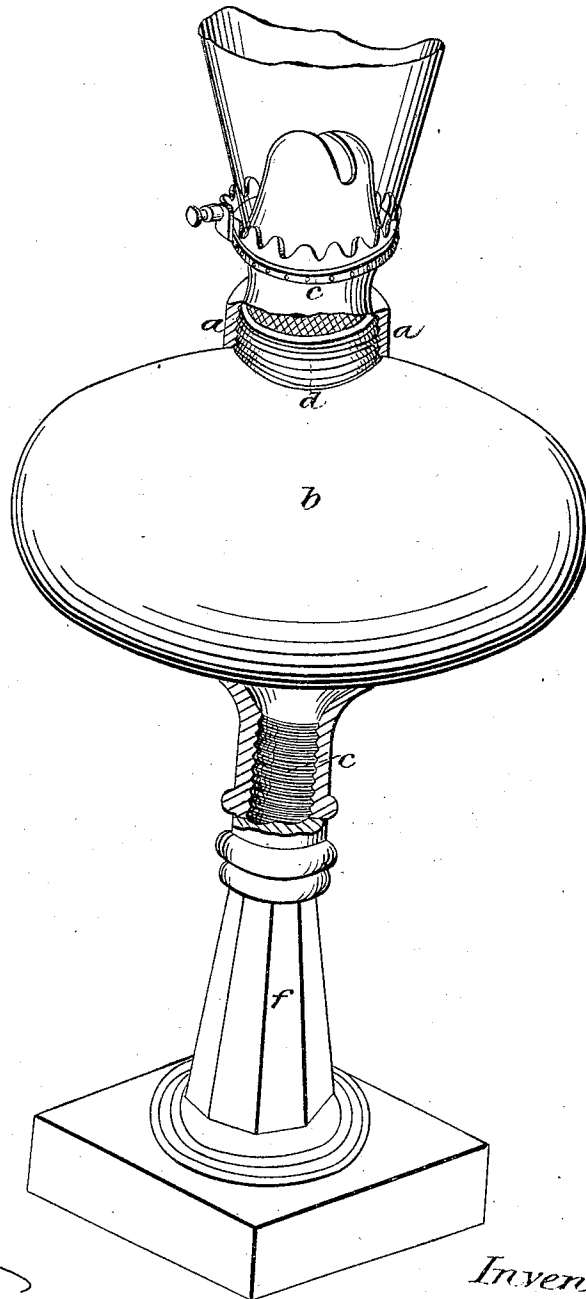


R. H. SMITH.

Lamp.

No. 96,986.

Patented Nov. 16, 1869.



Witnesses:

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ROLAND H. SMITH, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO JAMES S. AND T. B. ATTERBURY, OF SAME PLACE.

Letters Patent No. 96,986, dated November 16, 1869.

LAMP.

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, ROLAND H. SMITH, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented certain new and useful Improvements in Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, which drawing represents a perspective view of a pedestal-lamp, partly in section, having my improvements applied to it.

This invention relates to certain novel improvements on glass lamps, which are particularly designed for the burning of hydrocarbon fluids.

It consists—

First, in producing a lamp-bowl, or reservoir, of glass, or other vitreous substance, having a screw-thread formed on its peg, adapted for being screwed into a socket, which may be formed by a metallic sleeve, secured to the pedestal or lamp-stand, or which may be formed in the upper end of a metallic or vitreous lamp-stand, whereby the reservoir can be safely and quickly secured to its stand, as will be hereinafter explained.

Second, in producing a vitreous lamp-bowl or fluid-reservoir, having a screw-thread formed upon the circular collar, or flange, surrounding the opening in the top of the bowl or reservoir, whereby a metallic burner, having a corresponding female thread formed in its collar, can be readily and securely applied to said reservoir, as will be hereinafter explained.

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

The lamp-bowl or reservoir *b*, shown in the accompanying drawing, is made of glass, or other vitreous substance, which possesses the capability of being blown or cast.

This reservoir *b* may be made of any suitable shape and capacity adapted for the style of lamp for which it is intended.

In the production of this reservoir, the mould in which it is formed is made with screw-threads upon those portions of it which produce the peg *e* and collar *d*, so that in the operation of blowing or casting the reservoir, screw-threads are formed upon the external surfaces of the peg *e* and collar *d*, as represented in the drawing.

The screw-thread on the flange *d* is adapted for receiving a corresponding thread, which is formed on the collar *a* of the burner *c*, and thus allowing the collar to be screwed firmly upon the reservoir.

The screw-thread upon the peg *e* is adapted for receiving a corresponding thread, which is formed in a socket, upon the upper end of a pedestal or stand, *f*,

which latter may be made of glass, or other vitreous substance, or of metal. If made of glass, a metal sleeve may be secured to its upper end, having a screw-thread formed in it, adapted for receiving the screw-threaded peg *e*. Or, if made of glass entirely, a screw-thread may be moulded upon the inside of a socket, formed in its upper end, by inserting or screwing in such socket a metallic screw-plug, while the glass is plastic, and removing this plug before the glass cools.

I am aware that, prior to my invention, metallic caps or burners for lamps, have been constructed with threads upon them, and that metallic reservoirs have been adapted for receiving such caps.

I am also aware that, prior to my invention, metallic reservoirs have been secured to metallic pedestals or stands, by means of screw-connections.

I am also aware that, prior to my invention, glass preserve-jars have been made with screw-threads in them, adapted for receiving metal screw-caps and rings.

Also, that lantern-glasses have been produced with screw-threads upon their top and bottom ends, adapted for receiving the metallic cap and base-portions of the lanterns.

By my invention, I improve lamps whose fluid-reservoirs are made of glass, or other vitreous substance, by providing for securing the reservoirs to glass or metallic pedestals, in such manner that these parts cannot be casually disconnected.

The practice has been, before my invention, to secure the glass reservoirs to metallic sleeves or sockets, by means of plaster of Paris, moistened with water, which sleeves were also secured, in a similar manner, to the upper ends of their pedestals. The metal screw-collar sections *a* of the lamp-burners were also secured, by means of plaster of Paris, to the glass flanges surrounding the openings in the lamp-bowls.

Now, it is well known that the fluids known as hydrocarbon, which are now so universally used for illumination, are very explosive and inflammable, and that serious accidents frequently occur in the use of lamps burning such fluids, in consequence of the casual detachment of the metal burners from their glass reservoirs, and the detachment of the glass reservoirs from their pedestals. The cement, which has been used to connect the metallic parts of the lamps to the glass reservoirs, is seriously impaired by the expansion and contraction of the metallic parts; by the action of the fluids used in the lamps upon it, and by sudden shocks which lamps receive in handling them.

For these and other reasons, lamps having their parts connected together, are seriously objectionable and dangerous.

In the manufacture of such lamps, it is necessary to hold the parts in their places, after putting them

together with cement, until the latter sets, or becomes hard, which is attended with great loss of time, and imperfections in the mounting of the lamps.

By my invention, all of these objections are obviated.

I produce the screw-threads upon the pegs and flanges or collars of the glass reservoirs, at the same time and at the same operation of producing the reservoirs, and by means of tools or machinery adapted to the purpose, the collars of the burners, and the sleeves of the pedestals are screw-tapped.

Thus constructed, the parts composing a lamp can be firmly screwed together, and will not be liable to casual detachment under any circumstances.

Another advantage attending my improvement of the circular collar *d* of the glass reservoir of a lamp is, that the burner-frame *c* need not be made in two pieces, as in the ordinary practice, but the socket *a* and burner-frame *c* may be made in one piece, because it will not be necessary to unscrew the frame *c* from the socket *a* to obtain access to the interior of the fluid-reservoir, as the frame may be at once unscrewed from the neck or flange *d* of this reservoir.

Having described my invention,

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

1. A lamp which has a fluid-reservoir, of glass, or other vitreous substance, connected to its pedestal by means of a screw-thread, formed on the peg of the said reservoir, and a corresponding thread on the pedestal or sleeve thereof, substantially as described.

2. A lamp-reservoir, of glass, or other vitreous substance, produced with a screw-thread upon its peg *e*, substantially as described.

3. A lamp-pedestal, having a screw socket in it, adapted for receiving the screw-threaded peg of glass lamp-reservoir, substantially as described.

4. A lamp-reservoir, of glass, or other vitreous substance, produced with a screw-thread upon the neck or flange *d*, which surrounds the opening in the reservoir, substantially as described.

In testimony whereof, I, the said ROLAND H. SMITH, have hereunto set my hand, in presence of—

ROLAND H. SMITH.

Witnesses:

W. BAKEWELL,
ALLAN C. BAKEWELL.