S. BIDWELL.

Lamp-Wick Raiser.

No. 15,724. Patented Sept. 9, 1856.

Fig. 1

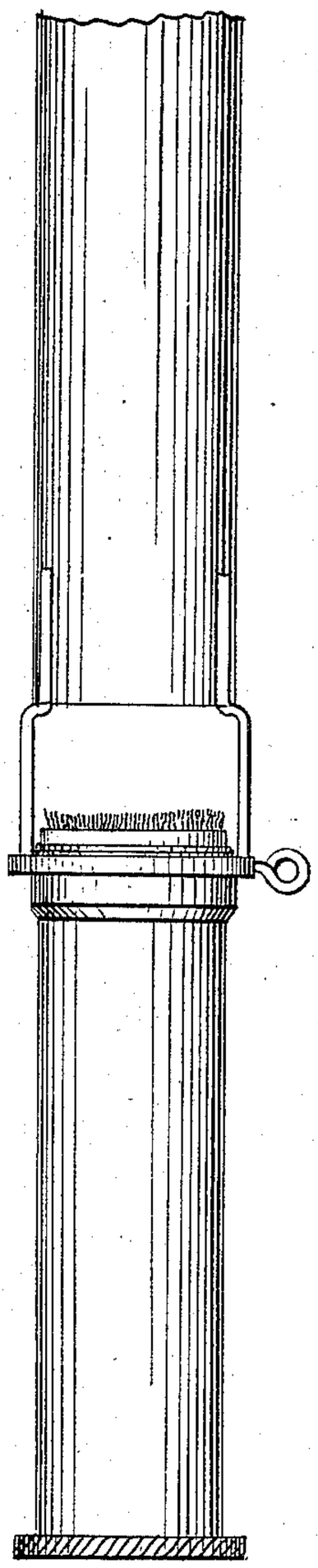
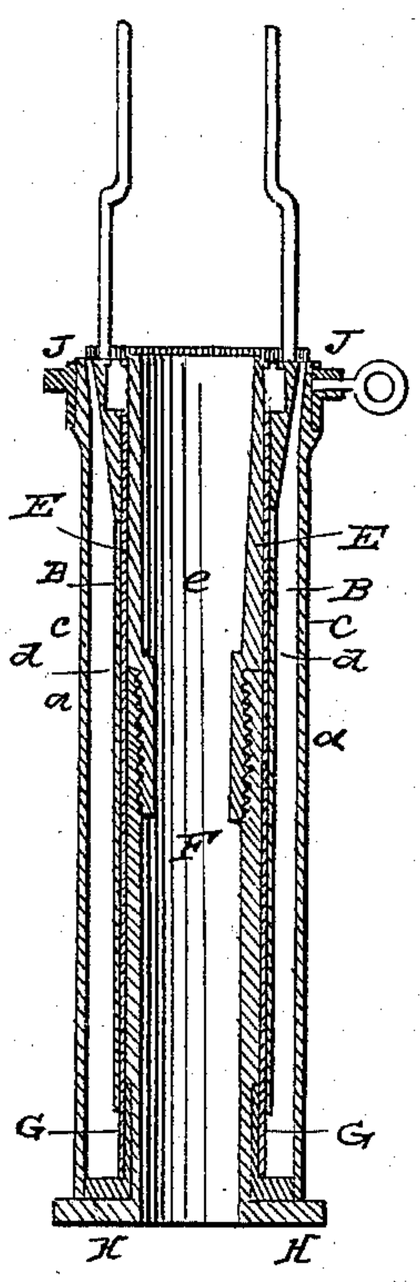


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

SALMON BIDWELL, OF ROCHESTER, NEW YORK.

LAMP FOR BURNING FLUIDS.

Specification of Letters Patent No. 15,724, dated September 9, 1856.

To all whom it may concern:

Be it known that I, SALMON BIDWELL, of the city of Rochester, in the county of Monroe and State of New York, have invented a new and Improved Mode of Burning Fluids for Lamp Purposes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in so compressing the wick of the lamp by the means hereinafter described that the fluid cannot escape faster than is desired and so as to prevent the sudden flash, depression and unsteadiness of the light and to regulate the amount of such light.

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

I construct a tube of any desirable metal and of any convenient size open at both ends the upper end being beveled out near the top so that the mouth is a little larger than the rest of the tube; which tube for convenience I shall call the outside barrel and it is stationary. I then construct another tube a little shorter than the first and as much smaller in circumference as convenient and of uniform size throughout which for convenience I shall call the inside barrel. I then construct a burner of any convenient kind of metal round in form and wedging the base or greater circumference being at the top into the bottom of which I insert another tube and rivet them together or fasten them in any other suitable manner. The burner at the top is then perforated with holes vertically through the head thereof which holes open into the space between the burner and the tube inserted into the same as aforesaid. This tube thus inserted at its lower end is a screw on its outer surface or is a male screw. Attached to such male screw by means of a female screw is a thumb plate by which the screw can be turned, and above which encircling the end of the female screw is a swivel, on shoulder of which the outside barrel rests upon said thumb plate. I then construct a common ferrule of tin or other metal. The thumb screw in a burner for use should be soldered fast at its place.

I will now proceed to describe the manner of putting the whole together with the wick adjusted for use. Take the thumb plate to which is attached the female screw and place the thumb plate downward—then insert the female screw into the inside barrel—then insert the inside barrel into the ferrule—then insert the whole into the outside barrel—then insert the male screw attached to the burner down through the whole and into the female screw. Upon the top of the outside barrel I place the chimney holder, at the bottom of which is an incline plane resting upon a pivot, the raising and lowering of which at once regulates the length of the wick and the height of the flame. The wick in this form of burner should be a round hollow wick surrounding the inside barrel and outside the tin ferrule.

In Figure 1 in the accompanying drawings I am unable to point out the parts because they are covered by the outside barrel with the exception of the chimney holder and the set screw to the same.

In Fig. 2 "A" represents the outside barrel, "B" a section of the burner, C the locality of the ferrule, "*d*" the locality of the wick, "E" the male screw, "F" the female screw, "G" the swivel, "H" the thumb plate, I the chimney holder and incline plane attached thereto.

The wick should come up around the burner head and a little above it. The fluid is supplied by an opening at any convenient place in the outside barrel where it immediately comes in contact with the wick. The ferrule may be used or not but is convenient inside and next to the wick to keep it properly in its place.

When the lamp is in use the fluid follows up the wick to the blaze and if a very volatile fluid the heat of the tubes will generate gas which may escape through the orifices made in the burner head where it is consumed.

The chief object and benefit of my invention is so to compress the wick by a convenient power of sufficient force to prevent the escape in too great quantities of volatile

fluids, such as "the burning fluid" and at the same time to secure a steady flame which requires a great compression of the wick. Every jar or movement of a lamp containing a very volatile fluid will cause a sudden flash of light and a subsequent depression of the same unless such a compression be made.

The head of the burner being an inclined plane of conical form drawn down by the screws aforesaid is capable of great compression and by its use the most desirable burning fluids can be used for lamp purpose which have been impracticable and impossible in other lamps. The generation and consumption of gas too from fluids thus used makes most brilliant light which mingles with the light from the wick. By the use of the screws the compression is effected and by the use of the chimney holder and inclined plane the length of the wick is adjusted.

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

The mode of compressing the wick in the manner as herein described so as to prevent any change in the light caused by the jar of the lamp and to prevent the escape of the burning fluid faster than is desired and to secure the gas generated from the same and to enable the use of any desirable fluid for lamp purposes.

SALMON BIDWELL.

Witnesses:
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