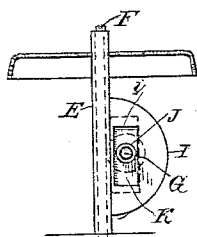
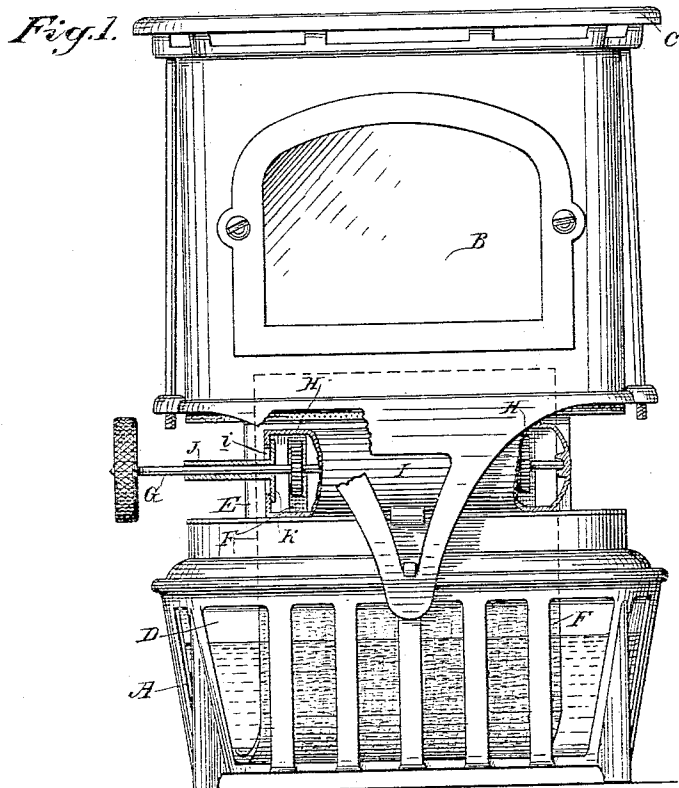


(No Model.)

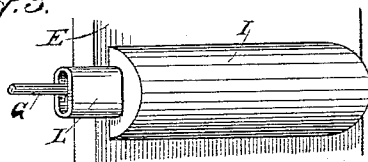
A. J. McADAM.  
WICK ADJUSTER FOR LAMPS.

No. 476,477.

Patented June 7, 1892.



*Fig. 3.*



Witnesses,  
B. H. H. H.  
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attys.

# UNITED STATES PATENT OFFICE.

ALEXANDER J. McADAM, OF SAN FRANCISCO, CALIFORNIA.

## WICK-ADJUSTER FOR LAMPS.

SPECIFICATION forming part of Letters Patent No. 476,477, dated June 7, 1892.

Application filed July 21, 1891. Serial No. 400,252. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER J. McADAM, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Wick-Adjusters for Lamps and Lamp-Stoves; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of lamps for lighting or heating in which a wide wick is employed; and it consists, essentially, in a vertically movable or tilting feed shaft or spindle, the object of which is to tilt the wick in a vertical plane while burning by raising or lowering one end more than the other. This results in leveling the wick and avoiding the necessity of that careful trimming which is usual to make the flame equal throughout its length.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is an elevation of a lamp-stove, a part of the spindle-casing I being broken away to show the interior mounting of the spindle. Fig. 2 is an end view of the casing and adjacent parts. Fig. 3 is a perspective view of a slight modification.

Though my invention is applicable to all lamps, whether for lighting or heating, in which a comparatively wide wick is used, I have herein illustrated it in connection with a lamp-stove, to which it is best adapted.

The stove consists of the usual base A, chimney B, and utensil-support C. In the base is the oil-reservoir D, to which is fitted the wick-tube E. In the tube is the usual wide wick F, which is raised and lowered, as customary, by a feed-shaft or spindle G, provided with the toothed wheels H, which engage the wick. In ordinary lamps, these wheels being all on the same shaft and equally engaging the wick, the latter upon turning the shaft will be fed equally throughout its width. As a consequence, if one end of the wick-top be higher than the other end, resulting in an unequal flame, the remedy for such disparity cannot be found in operation of the feed-shaft, but must follow from the operation of trimming the wick to reduce its top to a level throughout its width. This trimming process is at once inconvenient, uncleanly, and delicate. A suitable instrument must be hunted

up, the lamp must be extinguished, the hands will be covered with oil and soot, and, notwithstanding the greatest care, accuracy in cutting will not result and only an approximation can be had after repeated attempts. I overcome all these disadvantages by so mounting the feed-shaft or spindle that it can be bodily moved vertically or tilted in a vertical plane at one end without interfering with its regular axially-rotary movement and function. This vertical or tilting movement need not be great in extent, for the reason that as its effect is to raise or lower one side of the wick more than the other a slight adjustment of this character is sufficient to bring the wick top to a level, thereby insuring an equal flame. There are various ways in which the feed-shaft or spindle can be arranged to permit it to have this movement. In Fig. 1 a casing I incloses the main body of the shaft or spindle and its toothed wheels. The inner end of the shaft or spindle bears against one end of this casing, which is preferably made concave, and said inner end may be supported therein in a suitable socket or step-bearing, forming a fulcrum. The other end of the shaft or spindle passes through a vertical elongated slot *i* in the casing end and through the sleeve or bearing J. To the inner end of this sleeve or bearing is secured a plate K, which lies on the inner surface of the casing end, completely covering and protecting the slot *i* therein. The shaft, sleeve, and plate all play freely up and down in the slot.

In Fig. 3 I have shown a sleeve or bearing L, fixed to the casing I and made elongated or vertically oval in cross-section, whereby the shaft or spindle passing through it may be moved up or down.

Now when using a lamp having my adjuster if it be noticed that the flame is unequal in height, one end being lower than the other, it is only necessary to raise or lower the shaft or spindle G to so alter the relative positions of the wick sides to bring the whole top thereof to a level or to such a position that the flame will be equal in height. I would particularly call attention to the fact that this adjustment can be made while the lamp is burning, thereby insuring the absolute accuracy of the result. The shaft or spindle will remain in the position to which it is thus ad-

justed, owing to the tightness with which the wick always fits its tube.

All the annoyance and inaccuracy of the trimming operation are avoided and much  
5 time is saved.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lamp or lamp-stove, and in combi-  
10 nation with its wick-tube and wick, the casing having a vertically-elongated open end, and the feed-shaft or spindle fulcrumed at one end within said casing, its outer end passing freely through and movable in vertical planes up  
15 and down in the open end of the casing, substantially as herein described.

2. In a lamp or lamp-stove, and in combi-

nation with its wick-tube and wick, the casing having the vertically-slotted end, the feed-shaft or spindle within the casing and having 20 its outer end projecting freely through and movable in vertical planes up and down in the slotted end of said casing, the sleeve or bearing around said shaft or spindle, and the plate on said sleeve or bearing, covering the 25 slotted end of the casing, substantially as herein described.

In witness whereof I have hereunto set my hand.

ALEXANDER J. McADAM.

Witnesses:

GEO. KNIGHT CLARK,  
H. T. COFFIN.