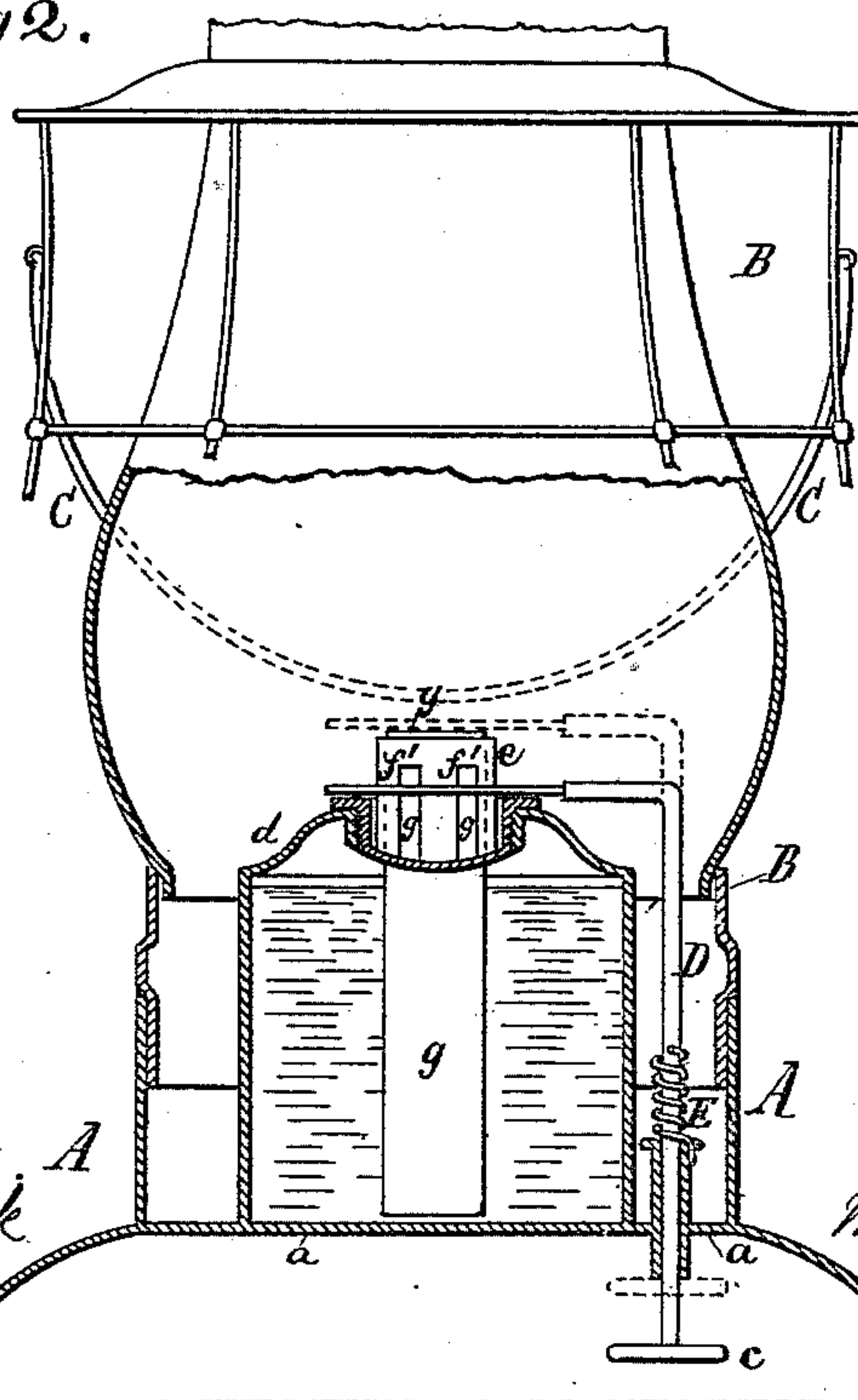
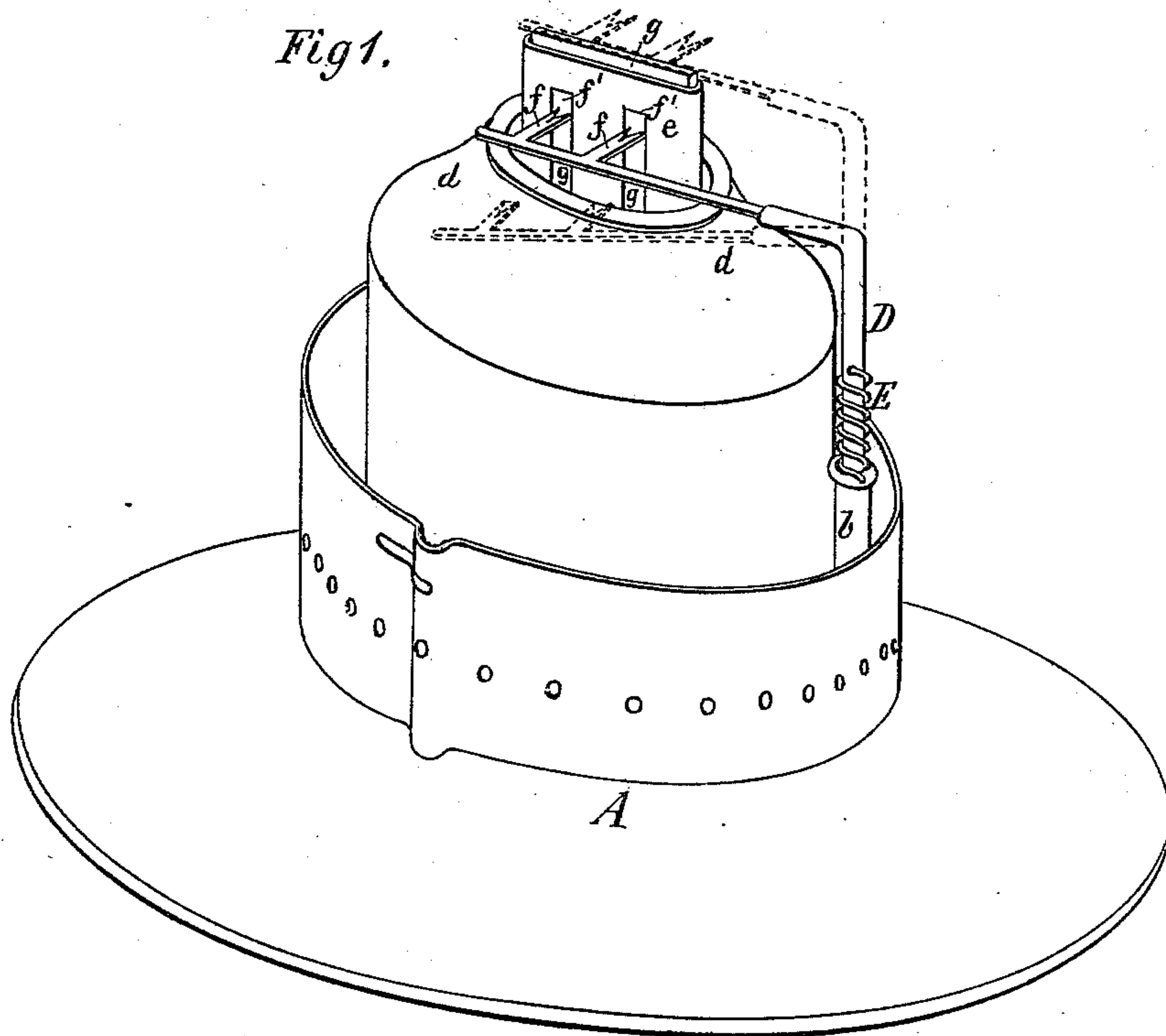


(No Model.)

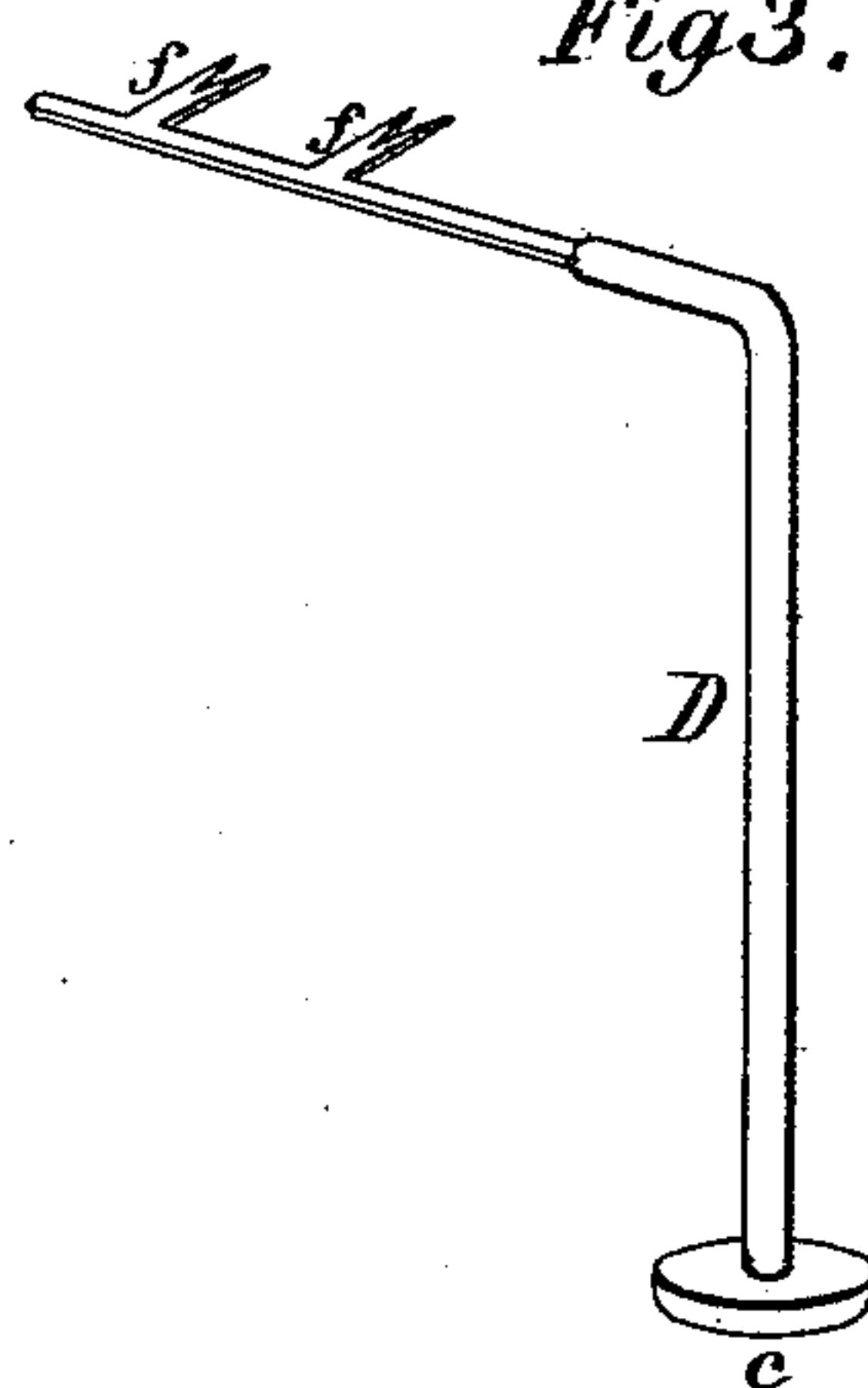
W. B. MARKS & E. H. LEA.  
WICK ADJUSTER AND TRIMMER FOR LANTERNS.

No. 424,489.

Patented Apr. 1, 1890.



*Fig 3.*



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# UNITED STATES PATENT OFFICE.

WALTER BOOTH MARKS AND EDWIN HOLMES LEA, OF RICHMOND,  
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## WICK ADJUSTER AND TRIMMER FOR LANTERNS.

SPECIFICATION forming part of Letters Patent No. 424,489, dated April 1, 1890.

Application filed March 28, 1889. Serial No. 305,070. (No model.)

*To all whom it may concern:*

Be it known that we, WALTER BOOTH MARKS and EDWIN HOLMES LEA, citizens of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented certain new and useful Improvements in a Combined Wick Adjuster and Trimmer for Lanterns; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention consists in the combination, with a lantern, of a vibrating shaft extending both inside and outside of the lantern and adapted to be operated from the outside of the lantern, and provided with an arm having one or more points or teeth by which the wick can be raised or lowered, and by which, in conjunction with the arm, the wick can be trimmed or cleaned without extinguishing it, and by which the flame can be extinguished, and by which the wick can be kept from moving when the lantern is agitated for giving signals, as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a perspective view of the base portion or section of the improved lantern separated from the upper portion or section, showing our invention. Fig. 2 is a vertical section of the improved lantern, a portion of the upper section being broken away; and Fig. 3 is a perspective view of the vibrating or turning shaft for adjusting, trimming, holding the wick, and extinguishing the flame.

A in the accompanying drawings represents the base portion or section of an ordinary lantern, and B the ordinary detachable upper portion or section of the lantern in which the glass chimney is secured, and to which the bail or handle C is attached. These parts of the lantern may be of any known construction.

D is a vertical shaft inserted through the bottom plate *a* of the base portion A and guided by a short tube *b*, as shown. This shaft is arranged to slide up and down and to vibrate or turn in said tube, its movement being limited by a thumb-button *c* on its lower end, said button serving as the means by which the shaft is raised and vibrated or turned. The upper end of this shaft is bent

over at right angles or otherwise suitably in form of an arm, so as to have said bent-over portion stand horizontally over the oil-reservoir *d* of the base portion A and extend beyond the wick-tube *e* of the oil-reservoir. This horizontal portion is reduced in diameter and for a portion of its length is flattened, and on the inner edge of its flattened portion one or more points *f*, of V or other suitable shape, are constructed or applied, as shown, so as to be in vertical and horizontal range with the wick-adjusting slot or slots *f'* of the said wick-tube and to penetrate or take hold of the wick *g* of the tube when the shaft is operated, so as to swing its attached arm inward or toward the wick-tube.

The shaft is provided with a spiral spring E, which is coiled around it and fastened by one of its ends to the guide-tube *b* or other fixed portion of the lantern-base A and by its other end to the shaft. By means of this spring the shaft is kept down in its normal position, which it occupies when the points *f* are penetrating or binding upon the wick in a manner to prevent it rising or descending under the violent agitations to which the lantern is subjected while being swung back and forth and up and down for giving signals. This spring, besides keeping the wick from moving as just described, also serves as a means whereby the shaft is automatically returned to its normal position after the arm has been raised to a plane about level with or just a little above the wick-tube, for the purpose of swinging it over the wick, and thereby trimming off or cleaning the charred end of the wick.

Our improved wick-adjuster is preferable when provided with the spiral spring and controlled so as to have only up and down and horizontal vibrating movements; but the spring might be left off and the shaft adapted to be raised and lowered, and when raised above the wick adapted to be swung entirely around for the purpose of trimming off the charred end of the wick, and the teeth might be sharp enough on one or both of their edges so as to cut off the upper edge of the wick. These proposed modifications we regard as within the scope our invention.

It will be understood from the foregoing description and annexed drawings that when the base portion A and the top portion B of



the lantern are connected the shaft can be operated from the outside and without separating said portions by simply manipulating the stop thumb-button C, and should the wick  
 5 be burning with too high a flame the same can be adjusted by pulling down upon the button; or if the wick is not burning with as high a flame as required it can be adjusted by pressing the button upward as far as nec-  
 10 essary. After either of said adjustments is made the shaft is swung partially around, so as to clear the points from the wick, whereupon the hand is withdrawn from the button and the spring allowed to return the shaft to  
 15 its normal position, and thereupon the button is again laid hold of and the points forced up or against the wick by the action of the fingers aided by the spring, so as to hold it from rising or falling under swinging agitations of  
 20 the lantern, as in giving signals. The spring might alone return the shaft and its arm to their normal altitude after the shaft has been swung around so as to clear the points from the wick; but it is customary for this to be  
 25 done by the joint action of the fingers and the spring. When it is necessary to clean off or trim the charred upper end of the wick, the shaft with its arm is raised with the fingers applied to the button, so as to bring the  
 30 points or projections of the arm above the wick, and thereupon the shaft is vibrated so as to trim off the said charred end of the wick. Then the shaft is swung so as to have its arm clear the wick-tube, whereupon it is drawn  
 35 down to its normal position by the spring and forced into the wick by the means before described. When it is desired to put out the light entirely, the wick is lowered to a certain extent by sliding down the shaft. Then the  
 40 shaft is turned so as to clear the points of its arm from the wick. Then the shaft is raised so as to bring its arm above the wick. Next the arm is swung directly over the wick, and the arm is then lowered upon the wick and  
 45 caused to extinguish it, and, finally, the arm is readjusted to its normal position by the fingers upon the button and the joint action of the spring E.

From the foregoing specification it will be  
 50 seen that by our invention a single vertical shaft having a horizontal arm with teeth projecting from its side, and which are on the same plane with the arm, is rendered capable of holding the wick against liability of casual  
 55 up and down movements when the lantern is forcibly vibrated for giving signals, of raising or lowering the wick, of trimming the wick, and, when desirable, of extinguishing the light without lowering the wick; and our  
 60 invention also provides automatic means—viz., a spring—for returning the shaft and its arm and teeth to their normal position, in which position said means act to insure a positive hold upon the wick and prevent  
 65 casual movement up and down thereof.

What we claim is—

1. A wick holder, adjuster, trimmer, and extinguisher having a rod D of greater length than the height of the lamp-body and its wick-tube and having its operating end outside the  
 70 lantern-case and provided with a horizontal arm within said case, and said arm having one or more pointed and sharp-edged teeth *f* projecting laterally from one of its sides between  
 75 its end and the rod D and on the same horizontal plane with itself, and the rod being in the same vertical plane with the wick-tube and fitted to slide up and down and be turned  
 80 horizontally, whereby its horizontal arm can be brought directly over the wick-tube and lowered for the purpose of extinguishing the light, and said arm can be swung around  
 85 above the wick-tube for the purpose of trimming the wick, and said arm can be adjusted and its teeth made to penetrate the wick for either raising it or holding it from rising  
 and descending, substantially as described.

2. The combination, with a rising, descending, and turning wick holder and manipulator, of yielding means for keeping it in con-  
 90 tact with the wick and allowing it to be moved out of contact with the same, substantially as described.

3. The combination, with a vertically-sliding and horizontally vibrating or turning  
 95 wick holder and manipulator operated from the outside of a lantern-case, of the spiral spring attached to the vertical portion of the holder and manipulator and to the lantern-case, substantially as described. 100

4. A wick holder, adjuster, extinguisher, and trimmer operated from the outside of a lantern-case, consisting of a single vertical shaft having a horizontal wick-trimming flat  
 105 arm with one or more pointed and sharp-edged teeth projecting horizontally therefrom, said rod being arranged to slide up and down and turn horizontally, substantially as described.

5. A wick-manipulator comprising a single  
 110 vertically-sliding and horizontally-turning rod having a horizontal arm which is of a length sufficient to extend over the entire width of the wick-tube, said arm being provided with one or more teeth between the end  
 115 of the arm and the rod, substantially as described.

6. A wick-manipulator comprising a single vertically-sliding and horizontally-turning  
 120 rod having a horizontal arm which is of a length to extend over the entire width of the wick-tube, said arm being provided with one or more sharp-edged teeth between the end of the arm and the rod, substantially as described. 125

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

WALTER BOOTH MARKS.

EDWIN HOLMES LEA.

Witnesses:

W. R. ROYSTER,

J. H. MAUCK.