

(No Model.)

W. M. HOERLE.

WICK RAISING DEVICE FOR CENTRAL DRAFT LAMPS.

No. 466,919.

Patented Jan. 12, 1892.

Fig. 1.

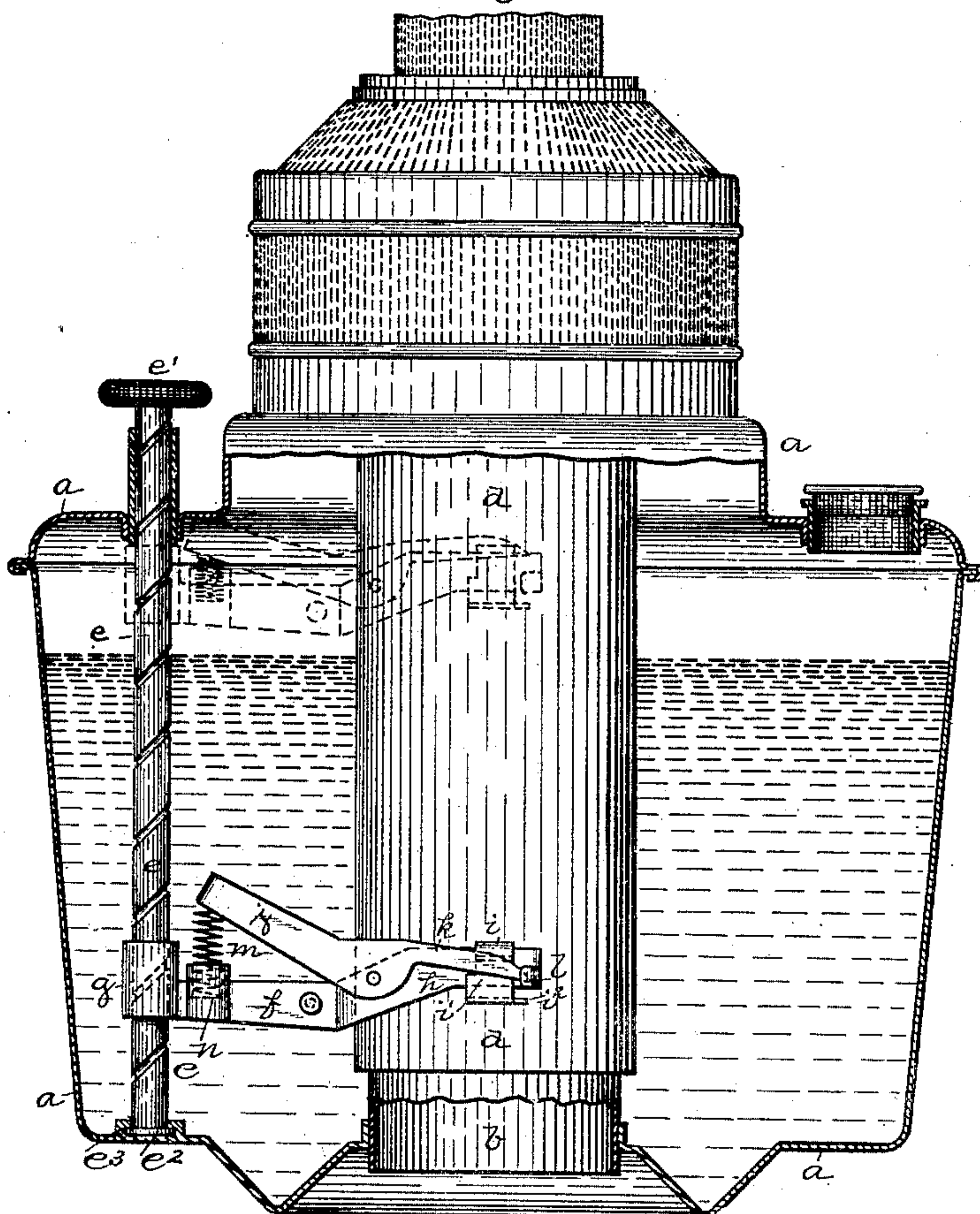


Fig. 4.

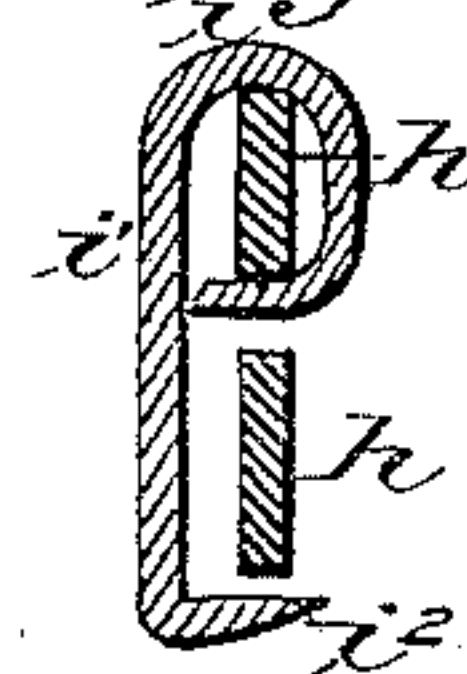


Fig. 2.

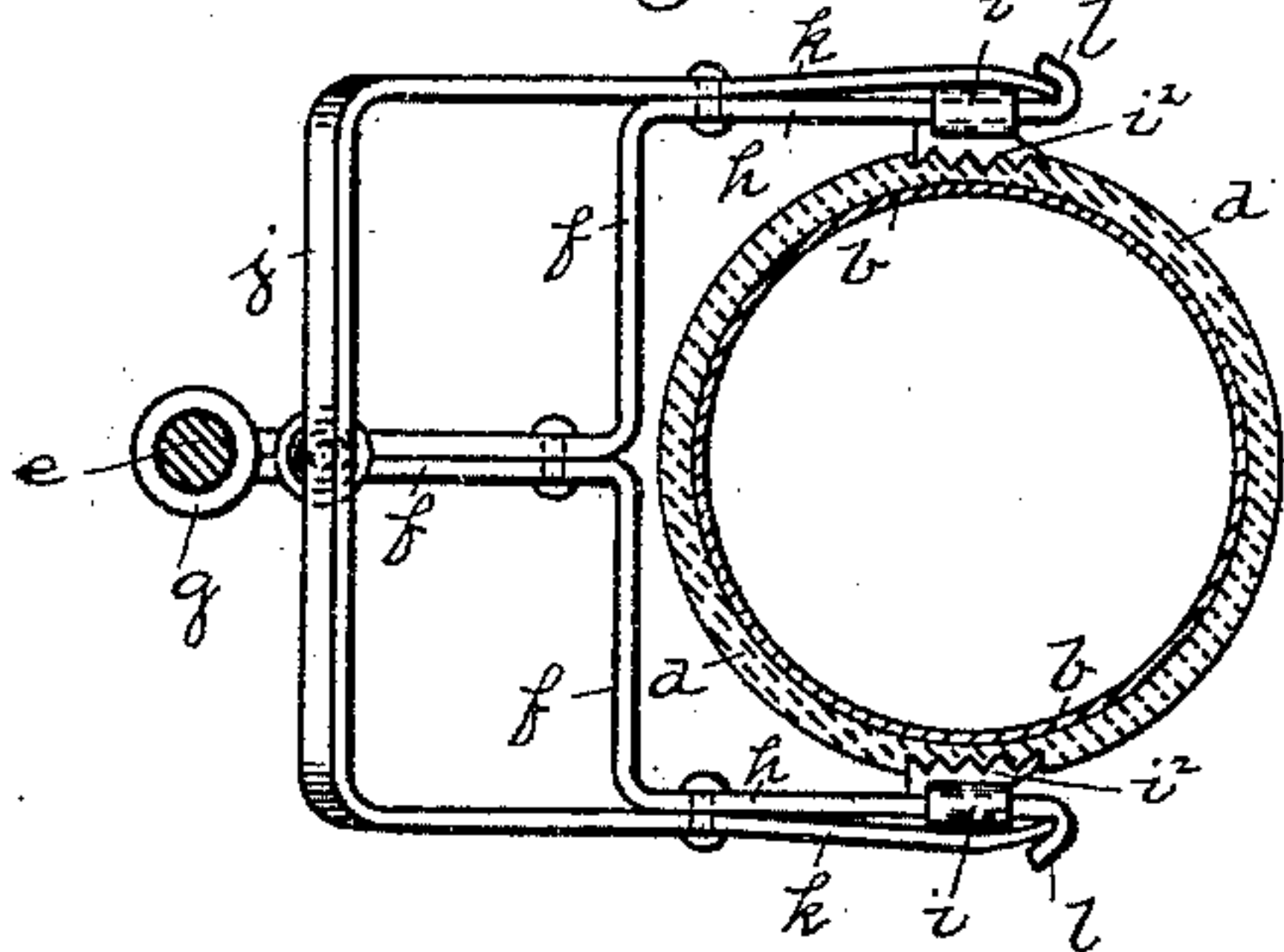
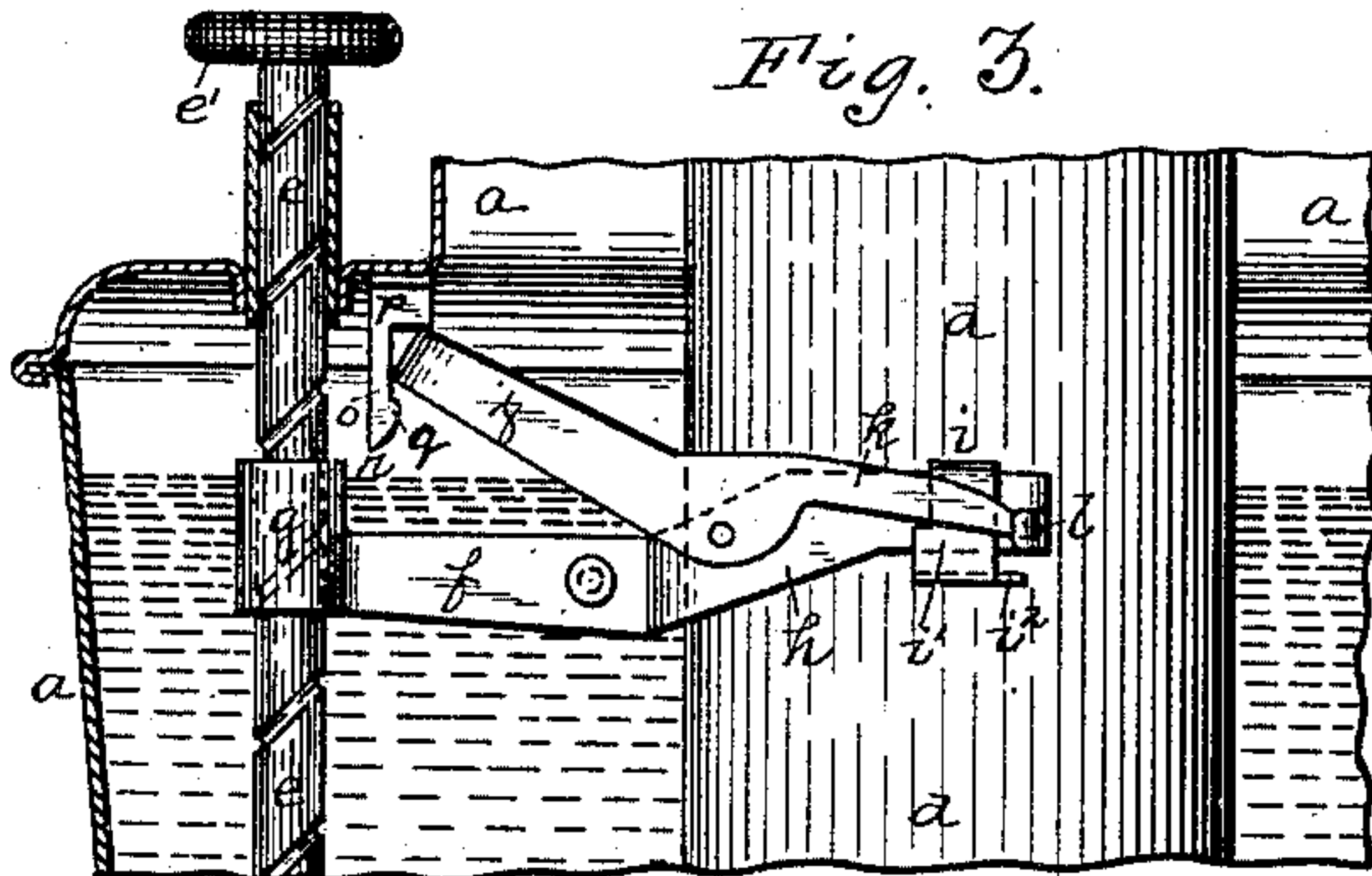


Fig. 3.



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# UNITED STATES PATENT OFFICE.

WILLIAM M. HOERLE, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR TO THE  
PITTSBURG BRASS COMPANY, OF SAME PLACE.

## WICK-RAISING DEVICE FOR CENTRAL-DRAFT LAMPS.

SPECIFICATION forming part of Letters Patent No. 466,919, dated January 12, 1892.

Application filed November 28, 1890. Serial No. 372,841. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM M. HOERLE, a resident of Allegheny, in the county of Allegheny and State of Pennsylvania, have  
5 invented a new and useful Improvement in Wick-Raising Devices for Central-Draft Lamps; and I do hereby declare the following to be a full, clear, and exact description thereof.

10 My invention relates to wick-raising devices for what are known as "central-draft lamps."

It comprises, generally stated, in conjunction with a suitable wick-raising rod and bifurcated rod secured thereto, with its arms in-  
15 closing the wick-tube, clutches journaled within said arms, and mechanism (supported on said rod) for locking said clutches to hold them rigidly in contact with the wick and for automatically releasing said clutches when  
20 the wick-raising rod has been elevated to a certain height.

To illustrate my invention I refer to the accompanying drawings, in which—

Figure 1 represents a central-draft lamp  
25 with my improved wick-raiser applied thereto, showing the clutches locked to engage with the wick, while the dotted lines show the position of the locking device when the clutches are released. Fig. 2 is a plan view of the  
30 wick-raiser proper, showing the manner in which the clutches are journaled within the arms of the bifurcated rod. Fig. 3 shows a modified form for releasing the clutches or locking the same. Fig. 4 is a sectional view  
35 showing manner of journaling clutches on the arms of the bifurcated rod.

Like letters indicate like parts.

My invention is applicable to any of the ordinary forms of central-draft lamps, of  
40 which *a* in the drawings represents one form suitable for the illustration of my device, said lamp being provided with the central draft-tube *b* and encircled by the wick *d*. Any convenient form of wick-raising rod may be  
45 employed, that illustrated consisting of the threaded rod *e*, which passes down through an opening in the top of the fount, the lower end of said threaded rod having the shoulder *e*<sup>2</sup> formed thereon, said shoulder being held with-  
50 in a seat *e*<sup>3</sup>, being in the bottom of said lamp and adapted to be rotated therein. The up-

per end of said rod *e* is provided with a knob *e*<sup>1</sup> for convenience in rotating said rod from the exterior of the fount.

The wick-raiser proper is composed of the 55  
bifurcated rod *f*, provided with the threaded connection *g*, through which the wick-raising rod *e* passes, the threads on said rods engaging with the interiorly-threaded face of said connection *g*, whereby upon the rotation of 60  
the threaded rod *e* the bifurcated rod *f* may be raised or lowered, as may be desired. Journaled on suitable bearings on the arms *h* of the bifurcated rod *f* are the clutches *i*, said  
clutches having the vertical portion *i*<sup>1</sup> and 65  
the inwardly-projecting teeth or prongs *i*<sup>2</sup>. The clutches *i* normally rest with their vertical portions *i*<sup>1</sup> in contact with the outer faces of the arms *h* of the bifurcated rod *f*, the teeth  
or prongs *i*<sup>2</sup> extending into the space inclosed 70  
by said arms, and the clutches *i* are loosely journaled in the arms *h*, so that when not locked in the manner hereinafter set forth they are  
free to swing to and from the outer faces of 75  
the arms *h*, thereby preventing any obstruction to the passage of the wick offered by the teeth *i*<sup>2</sup> when it is desired to adjust the wick or  
to withdraw it from the central draft-tube. In order, however, to securely lock said clutches in  
80 their bearings and so prevent any swinging movement on their part, a U-shaped arm *j* is pivoted to the arms *h* of the bifurcated rod  
*f*. Said U-shaped arm *j* is provided with the fingers *k*, adapted to engage with the vertical  
portions *i*<sup>1</sup> of the clutches *i*. The forward 85  
ends of the arms *h* of the bifurcated rod *f* are slightly turned back to form the flanges *l*, with which the fingers *k* engage to further  
aid in locking the clutches securely in their bearings. The normal position of the U- 90  
shaped arm *j*, as shown in Fig. 1, is such that the finger *k* will engage with the flanges *l*, while the rear portion of said arm *j* is upwardly inclined from its point of connection  
with the arms *h* of the bifurcated rod *f*, and 95  
said arm *j* is held at such an angle by the spring *m*, secured to said arm and to the seat *n* in said bifurcated rod *f*, said spring tending to force the arm *j* up and consequently  
the fingers *k* down into engagement with a 100  
flange *l*.

From the construction above described it



is apparent that when the several parts of my improved wick-raising device have assumed the position shown in full lines in Fig. 1 the teeth  $i^2$  of the clutches  $i$  will be forced into  
 5 contact with the wick  $d$ , since the fingers  $k$ , engaging with the flanges  $l$ , lock the clutches  $i$  rigidly in their bearings, holding said clutches against the outer faces of the arms  $h$  and preventing any movement to or from said arms.

10 If it is desired to raise the wick, it is simply necessary to turn the knob  $e'$  of the wick-raising rod  $e$ , when the bifurcated rod  $f$  will be elevated, and with it the wick  $d$ , traveling up over the tube. If it is desired to remove  
 15 the wick, the wick-raising rod  $e$  is turned and the bifurcated rod  $f$  raised until the U-shaped arm  $j$  comes in contact with the top of the fount, when by a still further upward movement of the bifurcated rod  $f$  sufficient pressure is exerted upon the said arm  $j$  to overcome the resistance of the spring  $m$  and to force down the said arm  $j$ . This depression  
 20 of the arm  $j$  will throw up the fingers  $k$  and free them from engagement with the flanges  $l$ , as shown in dotted lines in Fig. 1. As soon as the fingers  $k$  have been raised beyond the vertical portions  $i'$  of the clutches  $i$  said clutches will be free to swing readily in their bearings. The wick  $d$  can then be readily  
 25 withdrawn from the tube, as the teeth  $i^2$  of the clutches  $i$  are no longer forced and held in contact with said wick-body, and said clutches are free to swing in their bearings and their teeth offer no resistance to the withdrawal of  
 30 said wick.  
 35 When the wick has been removed and a new one adjusted, and when said wick has been applied to the tube and has reached a distance below the teeth  $i^2$  of the clutches  $i$ ,  
 40 the wick-raising rod is again turned and the bifurcated rod lowered, which operation will allow the springs  $m$  to force up the arm  $j$ , and consequently cause the fingers  $k$  to again engage with the flanges  $l$ , and so lock the clutches  
 45 rigidly in their bearings, forcing the teeth  $i^2$  of said clutches into the body of the wick, when the wick may be further lowered within the fount.

In the modified form of releasing device  
 50 (shown in Fig. 3) I am enabled to dispense with the spring  $m$ . In this case a releasing-arm  $o$  is rigidly secured to the inner face of the top of the fount depending therefrom. This releasing-arm  $o$  is formed with the shoulder  $p$   
 55 and the tripping-lug  $q$ . To release the clutches the wick-raiser is raised in the manner described until the arm  $j$  comes in contact with the shoulder  $p$ , which upon a further pressure

upon said arm  $j$  will force said arm down and so release the fingers  $k$ . The arm  $j$  by this  
 60 operation is brought to substantially a horizontal position, and upon its descent it will engage with the tripping-lug  $q$ , which will force up said arm  $j$  and cause the fingers  $k$  to again engage with the flanges  $l$ . When the  
 65 said arm  $j$  has reached its maximum height, it will free itself from the hooked portion  $r$  when any obstruction to the descent of the wick-raiser is removed.

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

1. In a wick-raising device, the combination, with the wick-raising rod, of a bifurcated rod secured thereto, clutches journaled in said  
 75 bifurcated rod, and mechanism supported on said rod for locking said clutches to hold them rigidly in contact with the wick and for automatically releasing said clutches, substantially as and for the purposes set forth.

2. In a wick-raising device, the combination, with the wick-raising rod, of a bifurcated  
 80 rod secured thereto, clutches journaled in said bifurcated rod, and U-shaped arm pivoted to the arms of said bifurcated rod, said U-shaped arm having fingers thereon engaging with  
 85 said clutches and locking said clutches to hold their teeth rigidly in contact with the wick, substantially as and for the purposes set forth.

3. In a wick-raising device, the combination, with the wick-raising rod, of a bifurcated  
 90 rod secured thereto, clutches journaled therein, a U-shaped arm pivoted to the arms of said bifurcated rod, said arm having fingers therein engaging with said clutches to lock said clutches rigidly in their bearings, and a  
 95 spring for holding said fingers firmly in engagement with said clutches, substantially as and for the purposes set forth.

4. In a wick-raising device, the combination, with the wick-raising rod, of a bifurcated  
 100 rod secured thereto, clutches journaled therein having inwardly-projecting teeth, a U-shaped arm pivoted to the arms of said bifurcated rod, said arms having fingers thereon engaging with flanges formed on the ends of  
 105 said arms of said bifurcated rod, and a spring for holding said fingers in engagement with said flanges, substantially as and for the purposes set forth.

In testimony whereof I, the said WILLIAM  
 110 M. HOERLE, have hereunto set my hand.

WILLIAM M. HOERLE.

Witnesses:

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ROBT. D. TOTTEN.