

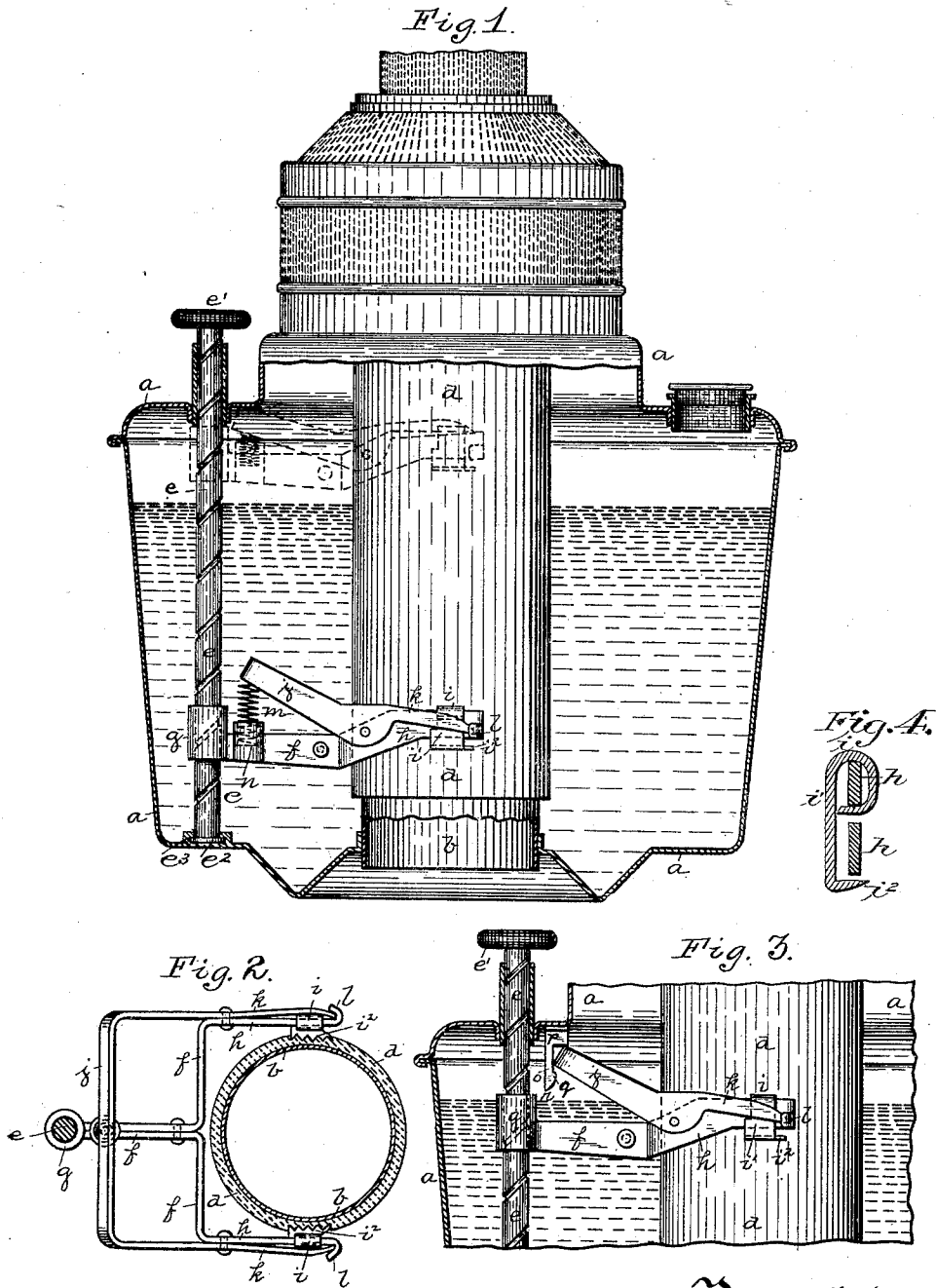
(No Model.)

W. M. HOERLE.

WICK RAISING DEVICE FOR CENTRAL DRAFT LAMPS.

No. 466,919.

Patented Jan. 12, 1892.



*Witnesses:*  
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# UNITED STATES PATENT OFFICE.

WILLIAM M. HOERLE, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR TO THE  
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## 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 inclosing the wick-tube, clutches journaled  
15 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  
60 connection *g*, whereby upon the rotation of 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  
65 clutches having the vertical portion *i*<sup>1</sup> and 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  
70 of the arms *h* of the bifurcated rod *f*, the teeth or prongs *i*<sup>2</sup> extending into the space inclosed by said arms, and the clutches *i* are loosely jour-  
naled in the arms *h*, so that when not locked in the manner hereinafter set forth they are  
75 free to swing to and from the outer faces of 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  
80 order, however, to securely lock said clutches in 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  
85 *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  
90 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  
95 bearings. The normal position of the U-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  
100 with the arms *h* of the bifurcated rod *f*, and 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  
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 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 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  
25 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 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  $i$ , 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 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.

40 In the modified form of releasing device (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  $p$  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 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 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 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 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 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 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 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 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 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 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 M. HOERLE, have hereunto set my hand.

WILLIAM M. HOERLE.

Witnesses:

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ROBT. D. TOTTEN.