

(No Model.)

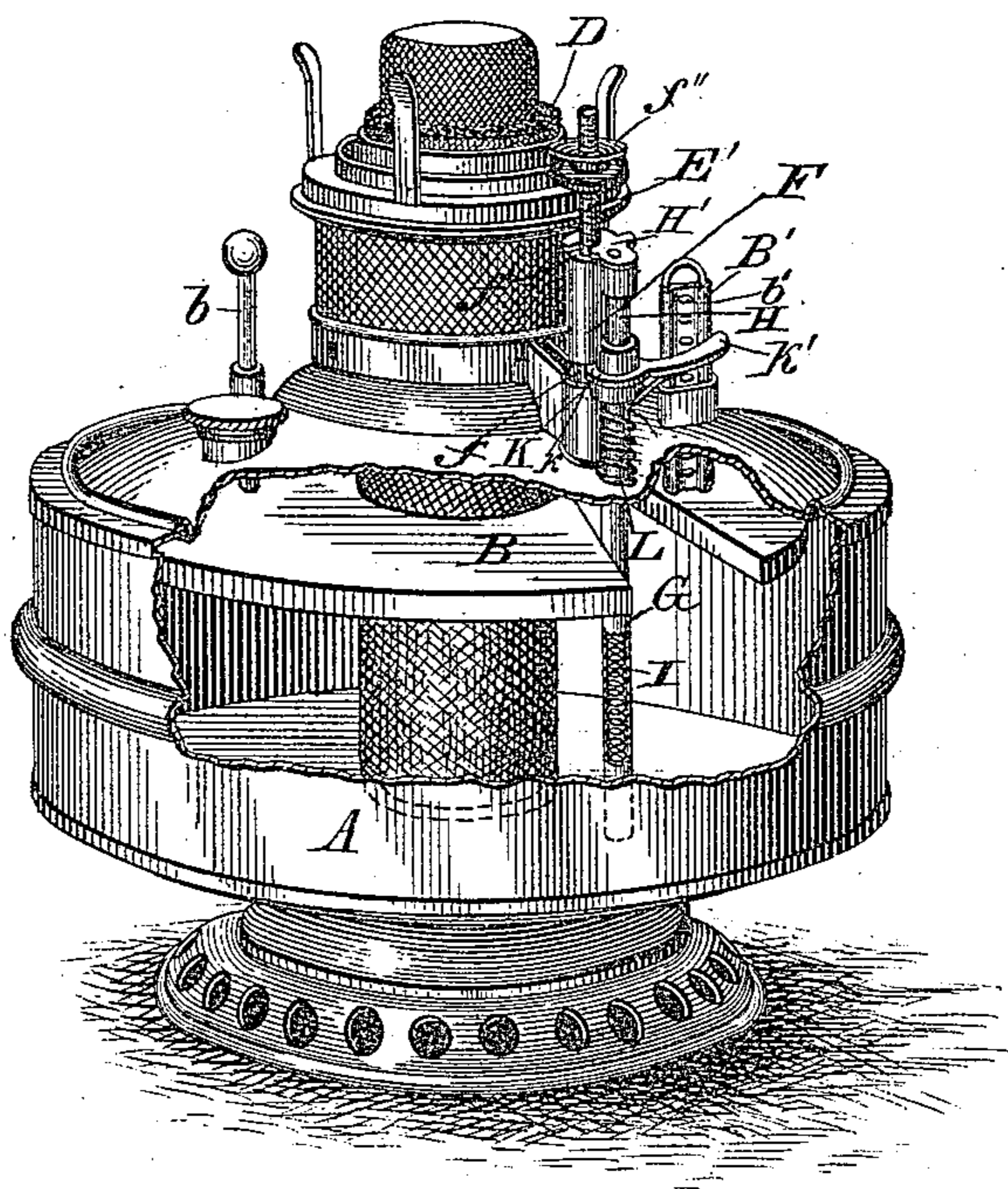
2 Sheets—Sheet 1.

F. RHIND.  
LAMP EXTINGUISHER.

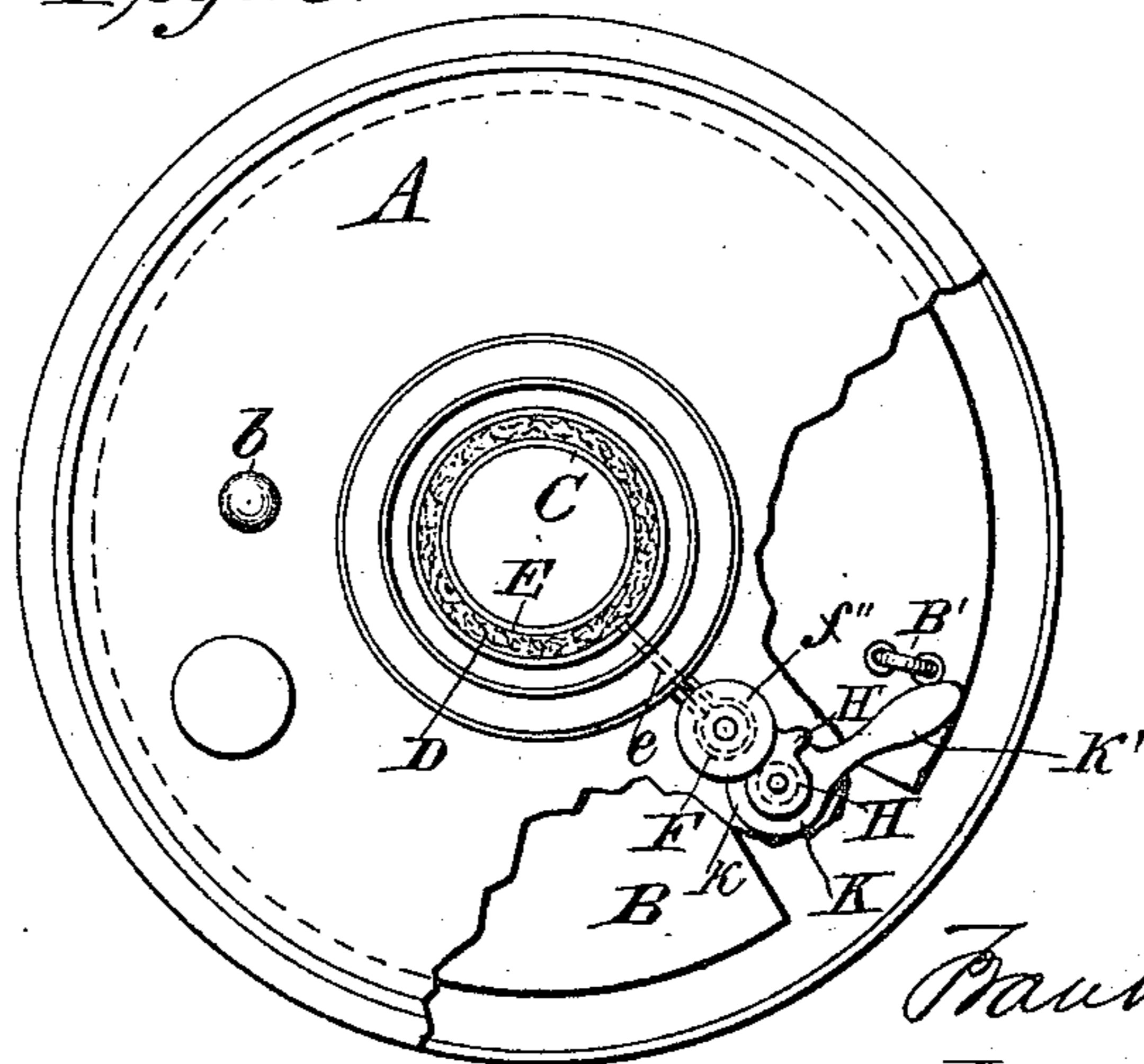
No. 440,748.

Patented Nov. 18, 1890.

*Fig. 1.*



*Fig. 2.*



Witnesses:

Annie F. Sanborn  
Lewis E. Frost

Frank Rhind  
Inventor.  
per Geo. L. Cooper  
Atty.

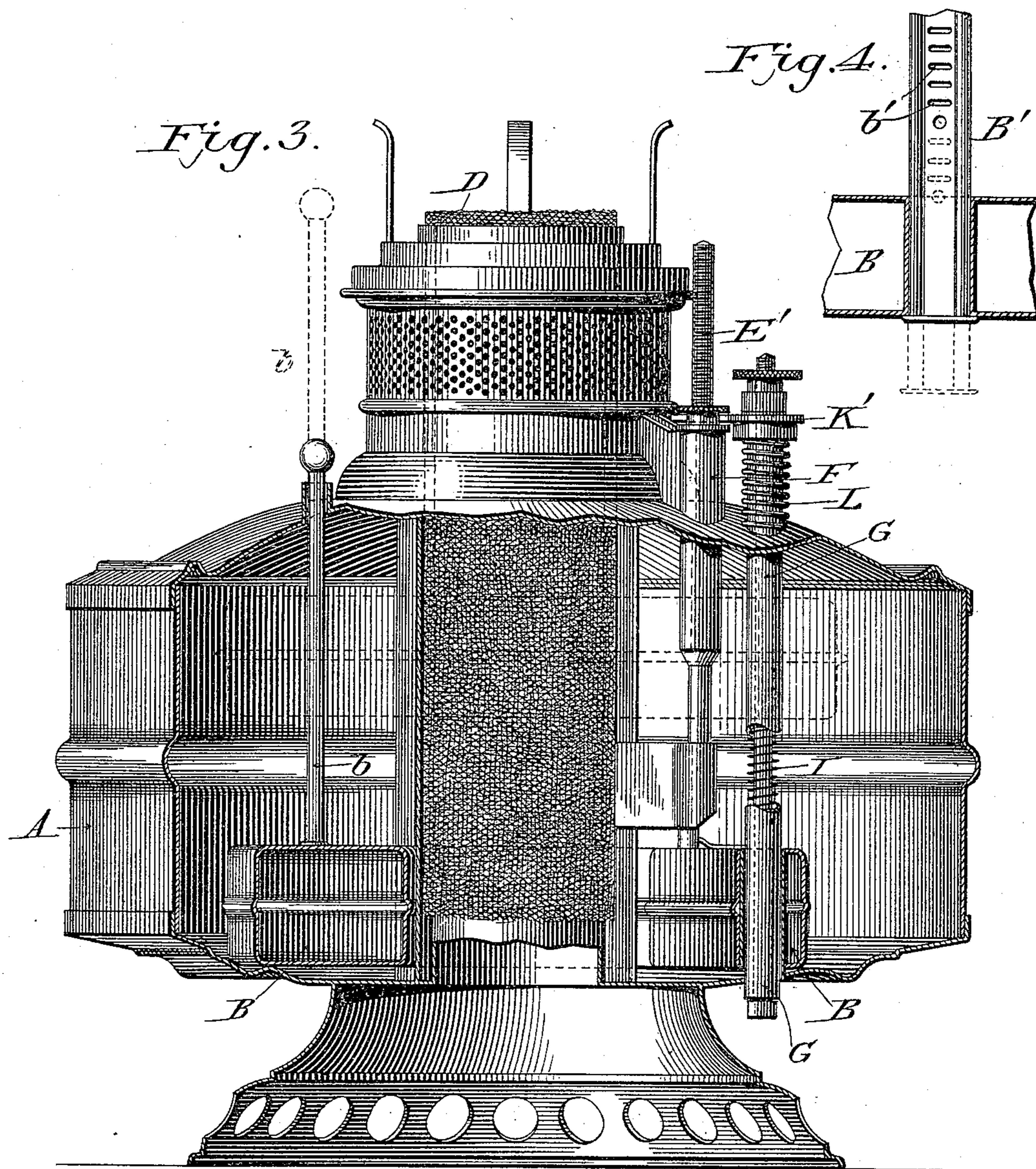
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2 Sheets—Sheet 2.

F. RHIND.  
LAMP EXTINGUISHER.

No. 440,748.

Patented Nov. 18, 1890.



Witnesses:

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# UNITED STATES PATENT OFFICE.

FRANK RHIND, OF MERIDEN, CONNECTICUT, ASSIGNOR TO EDWARD MILLER & COMPANY, OF SAME PLACE.

## LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 440,748, dated November 18, 1890.

Application filed May 19, 1890. Serial No. 352,410. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Meriden, New Haven county, Connecticut, have invented an Improvement in Lamp-Extinguishers, of which the following is a specification.

My invention relates to that class of lamp-extinguishers in which a float is connected with suitable mechanism for lowering the wick below the top of the wick-tube, and is an improvement on the construction shown in United States Letters Patent No. 390,254, dated October 2, 1888.

In the accompanying drawings, Figure 1 represents in perspective an Argand lamp embodying my invention, partly broken away to show the interior construction. Fig. 2 is a top plan view of the same, also broken away. Fig. 3 is a perspective view broken away to show the interior construction in another position, and Fig. 4 is a detail view.

The same letters refer to like parts in all the views.

A designates a lamp fount or body; B, a float; b, a rod or wire attached to the float B; B', a second rod or bar connected with the float B; b', a scale on the rod B'; C, a wick-tube; D, a wick; E, a wick-sleeve; e, an offset; E', a draw-bar; F, a sleeve surrounding the draw-bar E' and provided with groove f, shoulder f', and thumb-piece f''; G, a tube; H, a rod in the tube G; H', a catch; I, a spring also in the tube G; K, a latch or dog provided with nose k and arm k'; L, a spring.

The example of my invention illustrated in the drawings is constructed as follows: The lamp-fount A may be of desired construction, and has within it a float B. (Here shown as nearly annular in form.) Attached to the float B is the rod or handle b. The float B is also provided with a vertical tubed aperture adapted to frictional or other engagement with the rod or bar B', on the upper end of which is stamped or imprinted the scale b'. The wick D is here shown as tubular and surrounding the inner wick-tube C. In order to secure its vertical adjustment the wick is secured frictionally or otherwise to the wick-sleeve E, to which is attached by means of the offset e the draw-bar E'. The draw-

bar E' is shown as screw-threaded and surrounded by the sleeve F, which is correspondingly internally screw-threaded. Above the sleeve F is a thumb-piece f'', provided with an annular groove f and a shoulder f'. Parallel with and near the draw-bar E' the vertical tube G is secured to the fount. Through the tube G passes the rod H, bearing at its upper end the catch H'. The spring I is coiled about the rod H and serves to force it downward. Mounted on the free end of the tube G is the latch or dog K, provided with lug or nose k and arm k'. The coiled spring L is adapted to rotate the dog K on the tube G and tends to force the arm k' inward.

It will be seen that the form of construction here described bears a general resemblance to the form shown in United States Letters Patent No. 390,254, dated October 2, 1888. In its operation a corresponding similarity will be noticed. Greater accuracy of adjustment and simplicity of construction are, however, secured by my present invention.

Except when the extinguishing device is set, the wick-adjusting mechanism, consisting of sleeve E, offset e, and draw-bar E', together with the sleeve F, is capable of vertical motion in either direction. When it is desired to set the extinguishing device, the wick D is raised to the proper height for combustion and the sleeve F adjusted on the draw-bar E' so that the annular groove f will be in the same horizontal plane as the dog K. The dog K is then rotated, so as to engage the nose k with the groove f, and so as to bring the arm k' outside of—i. e., farther from—the central tube C than the rod or bar B. For this purpose the float B may be temporarily depressed by means of the rod b. It is evident that the height of the wick may be adjusted after the nose k and groove f are thus engaged by turning the thumb-piece f''. The rod H is then raised in opposition to the action of the spring I, and the catch H' rotated so as to engage the sleeve F above the shoulder f'. The rod or bar B' may then be adjusted vertically in the float B, so that a specified lowering of the float corresponding to the consumption of a predetermined quantity of oil will disengage

the upper end of the bar B' from contact with the arm *k'* of the dog K. The scale *b'* may advantageously be graduated to indicate the consumption of oil in hours and fractions of  
 5 hours. It is evident that the friction of the bar B' in the float B must be greater than that of the arm *k'* on the bar B', so that no displacement of the bar B' relative to the float B may occur, except at the will of the  
 10 operator. The oil being consumed to the determined point, the upper end of the bar B' sinks below the plane of the arm *k'*. This arm being thus released, the dog K will be rotated by the spring L, so as to withdraw the  
 15 nose or lug *k* from the groove *f* in the sleeve F. The wick with its adjusting mechanism will then be rapidly lowered by the spring I, acting through the rod H and catch H'.

As the tube G merely serves as a guide and  
 20 support to the rod H, it is obvious that it may be omitted. In the same way several other mechanical changes may be made without prejudice to my invention.

My present device differs from the form of  
 25 construction shown in my former patent above referred to chiefly in omitting the horizontal shaft and in providing means for the adjustment of the wick after the extinguishing device is set for action.

30 I do not wish to be understood as claiming anything described or claimed in Letters Patent No. 390,254.

What I claim as my present invention, and desire to secure by Letters Patent of the  
 35 United States, is as follows:

1. In an extinguishing device, the combination of an oil-fount, a float in said fount, and a rod or bar vertically adjustable in said float and adapted to engage with a detent connected with a wick-lowering mechanism, substantially as described.  
 40

2. In an extinguishing device, the combination of an oil-fount, a float in said fount, a

rod or bar vertically adjustable in said float and adapted to engage with a detent connected with the wick-lowering mechanism, and a graduated scale on said rod or bar, substantially as described. 45

3. In an extinguishing device, the combination of an oil-fount, a float in said fount, a rod or bar vertically adjustable in said float and adapted to engage with a detent connected with the wick-lowering mechanism, and a rod or handle rigidly secured to said float, substantially as described. 50 55

4. In an extinguishing device, the combination of an oil-fount, a wick-adjusting mechanism consisting of a wick-sleeve and a screw-threaded draw-bar, an internally-screw-threaded sleeve on said draw-bar, a spring-actuated wick-lowering device adapted to engage with said sleeve, and a detent connected with a float in said fount, substantially as described. 60

5. In an extinguishing device, the combination of an oil-fount, a wick-adjusting mechanism consisting of a wick-sleeve and a screw-threaded draw-bar, an internally-screw-threaded sleeve, a shoulder on said sleeve, a spring-actuated rod, a catch on said rod adapted to engage with said shoulder, and a detent connected with a float in said fount, substantially as described. 65 70

6. In an extinguishing device, the combination of an oil-fount, a float in said fount, a rod or bar connected to said float, a spring-actuated wick-lowering rod, a catch on said rod, a draw-bar, a sleeve on said draw-bar, a groove on said sleeve, and a dog adapted to engage with said groove, substantially as described. 75 80

FRANK RHIND.

Witnesses:

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