

F. HILLE.
Lamp-Extinguishers.

No. 145,870.

Patented Dec. 23, 1873.

Fig. 1.

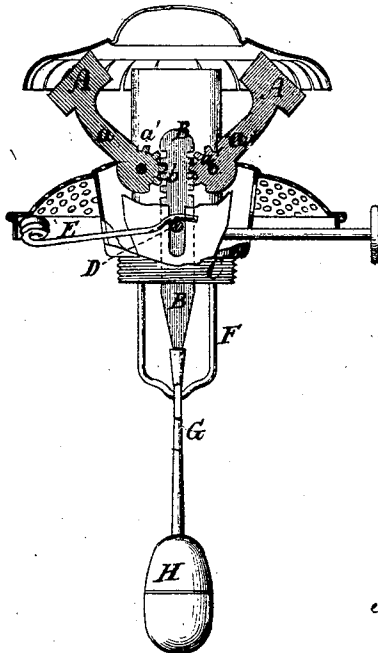


Fig. 2.

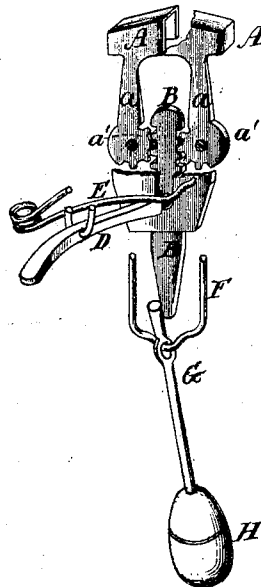
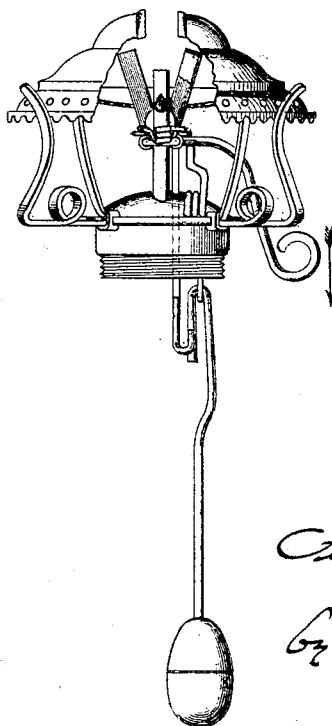


Fig. 3.



Witnesses.

A. Ruppert
H. C. Quinn

Ferdinand Hille
Inventor.
By A. Edcof. Cile
his atty

UNITED STATES PATENT OFFICE.

FERDINAND HILLE, OF LYONS, IOWA.

IMPROVEMENT IN LAMP-EXTINGUISHERS.

Specification forming part of Letters Patent No. **145,870**, dated December 23, 1873; application filed November 8, 1873.

To all whom it may concern:

Be it known that I, FERDINAND HILLE, of Lyons, in the county of Clinton and State of Iowa, have invented a certain Improvement in Lamp-Extinguishers, of which the following is a specification:

This invention relates to that class of lamp-extinguishers which are intended to automatically put out the flame whenever the lamp is accidentally upset, or in any other manner subjected to a sudden shock or blow liable to break its bowl and spill the kerosene; the object being to prevent the ignition of the kerosene and consequent explosion. My improvement consists in the employment of an extinguishing device, composed of two flanged dampers or hoods, capable of closing around the wick-tube from opposite sides, so as to also wholly cover its top and preclude the possibility of a flame existing under them, the hoods being actuated by a spring, and combining therewith a pendent rod, weighted at its lower end, and so arranged that it may serve as a prop to hold the extinguishing device away from the flame against the force of its spring under all ordinary conditions, but will release the same to put out the flame in case of an accident to the lamp.

In the annexed drawings, Figure 1 is a sectional elevation of a burner embodying one form of my improvement. Fig. 2 is a detail view of the extinguisher and mechanism connected therewith. Fig. 3 illustrates another form of my improvement.

The same letters of reference are used in all the figures in the designation of identical parts.

My invention may be readily applied to any style of the many kinds of burners now in use, and different intermediate mechanisms may be employed for transmitting the action of the spring to the extinguisher, without departing from the principle of my invention.

The extinguisher consists of two hood-like dampers, A, provided with arms *a*, by means of which they are pivoted upon one side of the flat wick-tube. The arms *a* terminate in toothed segments *a'*, which mesh into the racks *b* formed on the opposite edges of the sliding bar B, which extends down through the bottom of the usual screw-plug C into the lamp-bowl. This sliding bar is controlled by a lever, D, the inner arm of which, being connected to said

bar, is pressed down by a spring, E, which, in pushing down the rack-bar, throws the dampers over the top of the wick-tube, extinguishing the flame. From a fixed loop, F, of the plug C, is suspended a rod, G, carrying a weight, H, at its lower end.

When it is desired to light the lamp, press upon the outer end of the lever D, which will swing the dampers to clear the wick, and also raise the lower end of the rack-bar just above the upper end of the rod G, which, in seeking its equilibrium, will arrange itself perpendicularly under the rack-bar. On releasing the lever D the rack-bar will now seat itself upon the pendent rod, so that the extinguishing-dampers will be held away from the wick-tube. The force of the spring is sufficient to prevent the oscillation of the rod G, and consequent discharge of the spring and closing of the dampers over the wick-tube under ordinary usage of the lamp; but in case of any accident thereto, the weight will overcome the frictional resistance, and turning the rod from under the sliding rack-bar permit the spring to throw the dampers over the top of the wick-tube, and extinguish the flame long before the bowl is broken and the kerosene spilt.

In the modification shown in Fig. 3, the dampers are operated by a spring-hinge in closing, and opened by a wedge on a slide-bar actuated by a separate spring by drawing it down by a handle. The lower end of the slide-bar terminates in a hook, the upper end of which will hook under the bent end of the pendent weighted rod when the dampers are opened.

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

The combination of the pivoted flanged dampers or hoods A A, slide-bar B acting upon the hoods through cogs, spring E, lever or handle D, loop F, and pendent weighted rod G H, all constructed and arranged substantially as and for the purpose specified.

In testimony whereof, I have signed my name to the foregoing specification in the presence of two subscribing witnesses.

FERDINAND HILLE.

Witnesses:

M. LOUGINÉ,
GEO. W. PARKER.