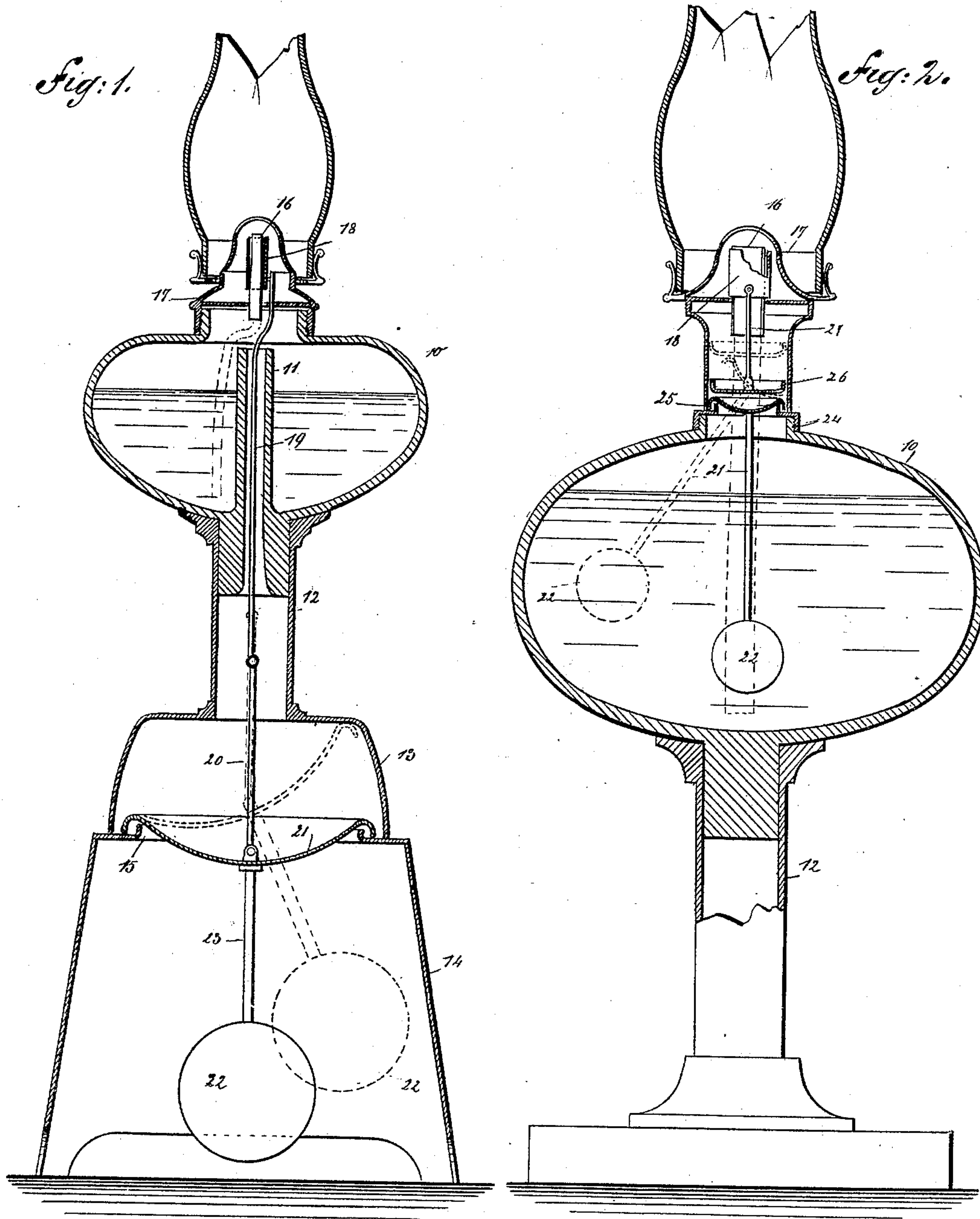


(No Model.)

J. MILLER.
LAMP EXTINGUISHING APPARATUS.

No. 412,969.

Patented Oct. 15, 1889.



WITNESSES:

Chas. Nida.
E. Sedgwick

INVENTOR:

J. Miller
BY *Munn & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOSEPH MILLER, OF OLEAN, NEW YORK.

LAMP-EXTINGUISHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 412,969, dated October 15, 1889.

Application filed January 15, 1889. Serial No. 296,381. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MILLER, of Olean, in the county of Cattaraugus and State of New York, have invented a new and useful Lamp-Extinguishing Apparatus, of which the following is a full, clear, and exact description.

My invention relates to an improvement for automatically extinguishing lamps, and has for its object to provide a simple and reliable device capable of attachment to any lamp, and wherein, should the lamp be overturned or thrown a great distance out of perpendicular, the flame will be immediately and automatically extinguished.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical section through a lamp having my improvement attached, and Fig. 2 is a similar section through a lamp, illustrating a modified view of the invention.

In the form of device illustrated in Fig. 1 the lamp-body 10 is provided with a vertical tube 11, extending from the bottom at the center upward within a distance of the burner. The body 10 of the lamp, containing the tube 11, is supported, preferably, upon a tubular pillar 12, attached to or integral with the hollow base 13, and the said base 13 is in turn supported upon a sub-base 14, having an opening in the upper surface, the wall of which opening is struck upward to form essentially a flange 15.

The wick-tube 16 of the lamp-burner 17, which may be made of any ordinary construction, is provided with a vertically-adjustable sleeve 18, to which sleeve at one side the upper extremity of a rod 19 is attached. The rod 19 is made to pass down through the body-tube 11 a distance below the same, and in the tubular pillar 12 a second rod 20 is pivotally attached to the lower extremity of the upper rod 19, and the lower extremity of the lower rod 20 is pivotally secured to a dish-shaped disk 21, which disk is adapted to close

the upper opening in the sub-base 14, the periphery of the disk 21 being flanged downward to overlap the flange 15 of the sub-base.

To the under side of the disk 21 a pendulum-weight 22 is secured by means of a pendulum-rod 23. Thus should the lamp by any possibility be thrown any great distance out of perpendicular the pendulum-weight 22 will be carried to one side, as illustrated in dotted lines, and the disk 21 will be thrown upward at an angle to the sub-base, whereupon the rods 20 and 19 will also be carried upward, which rods will force the sleeve 18 above the upper end of the wick-tube and the flame will be instantly extinguished.

It will be observed that by reason of employing two rods 19 and 20 and pivotally connecting the same a positive operation of the device is assured, since the greatest throw of the pendulum-weight 22 will not cause the joint to more than contact with the sides of the tubular pillar 12.

In Fig. 2 the tube 11 in the body 10 of the lamp is dispensed with, and the lamp-body may be mounted upon any suitable or desired pedestal. The burner 17 is, however, provided with a longer body than is usually employed, and the collar 24 of the burner, adapted to be secured upon the lamp-body, is carried inward, the flange upward, as illustrated at 25. The disk 21 is made to rest upon the inner surface of the said collar, and the pendulum-weight 22 is rigidly secured to the bottom of the said disk in substantially a similar manner to that illustrated in Fig. 1. Above the pendulum-disk 21 a second essentially cup-shaped disk 26 is placed in the body of the burner, adapted to be normally sustained by the lower disk, and the upper disk 26 is connected by a rod 27 with the sleeve 18 of the wick-tube.

In the operation of this form of device, should the lamp be tilted to any great extent, the pendulum-weight will swing to one side, as illustrated in dotted lines, whereupon the lower disk 21 will be elevated, which in turn, by contacting with the upper disk 26, will elevate the same, and by reason of the rod-connection between the upper disk and the sleeve 18 the said sleeve will be carried in a perpendicular line above the upper extremity

of the wick-tube, and the supply of air being thus cut off the flame is at once extinguished. The wick passing from the wick-tube 16 may be carried through the tube-disks 21 and 26 5 to the body of the lamp in any suitable and approved manner.

I desire it to be distinctly understood that while specific construction has been shown and described equivalent construction may 10 be employed without departing from the spirit of the invention.

The light will not be extinguished when the lamp is slightly tipped—as in carrying it, for instance—as the sleeve will not be carried up far enough to affect the flame until 15 the lamp is carried far enough out of perpendicular to bring the edge of the disk beyond the center of the weight below—that is, the weight must be swung far enough to throw it 20 beyond a perpendicular line extending down from the edge of the disk when in its normal position.

Having thus described my invention, what I claim as new, and desire to secure by Letters 25 Patent, is—

1. The combination of a lamp having inwardly-extending annular shoulder or flange, a loose disk resting upon said shoulder or flange, and a pendulum-weight secured rigidly to the center of the disk, with a movable extinguisher on the burner-tube and a rod depending therefrom and operated by the tilting of the disk, substantially as set forth. 30

2. The combination, with a lamp provided with a vertical tube attached to the bottom 35 of the body, a disk loosely supported in the lamp below the said tube, and a sleeve adjustably held upon the wick-tube above the body-tube, of a pendulum-weight attached to the under side of the disk and a jointed rod 40 connecting the disk and the wick-tube and passing upward from the body-tube of the lamp, all combined for operation as and for the purpose specified.

JOSEPH MILLER.

Witnesses:

JAMES W. DAVIS,
FRANCIS E. JOHNSON.