(No Model.) 2 Sheets—Sheet 1.

M. E. BLINN.

LAMP EXTINGUISHER.

No. 386,181. Patented July 17, 1888.

Fig. 1.

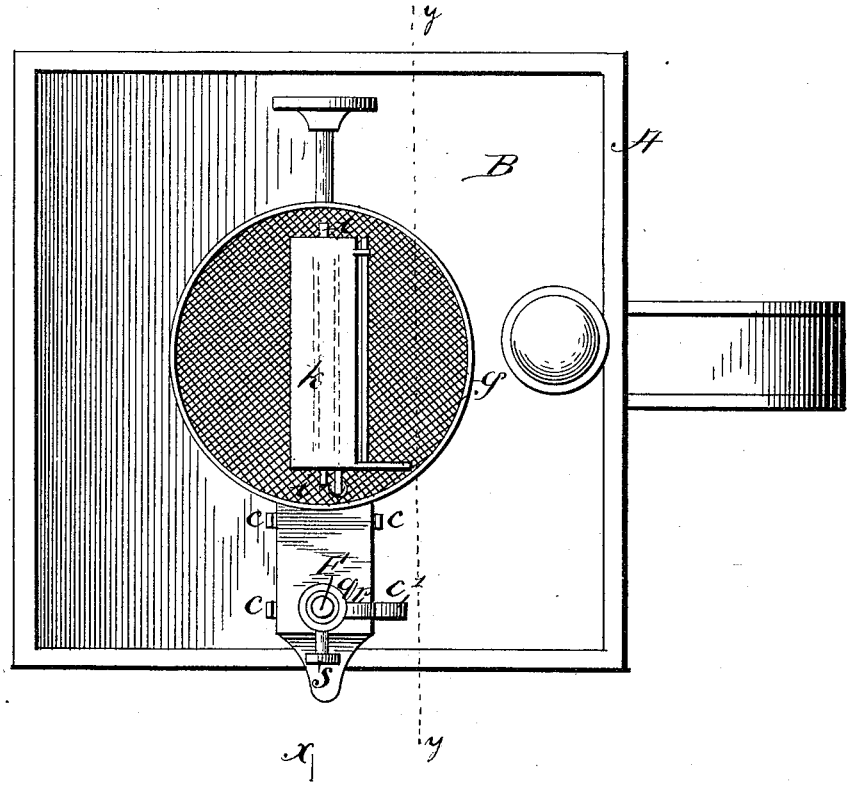
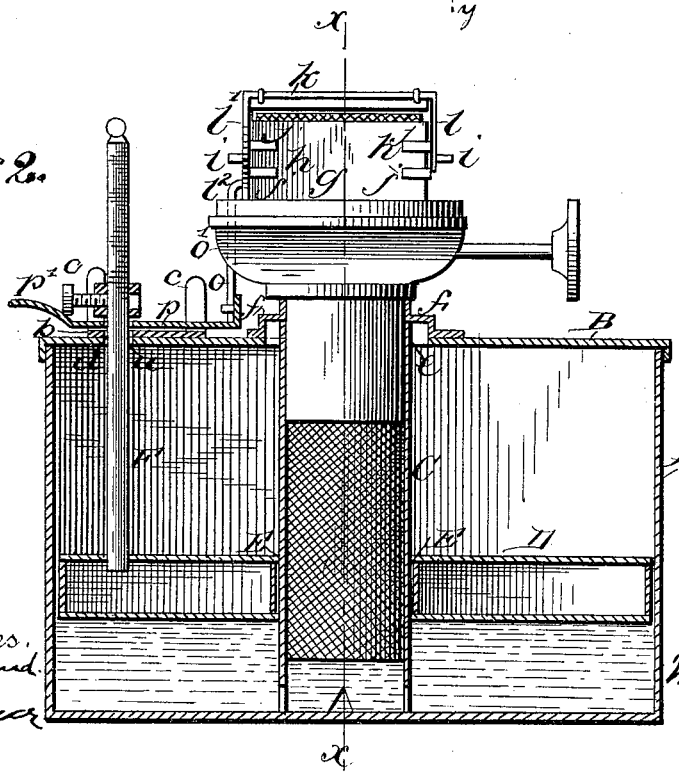


Fig. 2.



Witnesses.
H. J. England.
W. Bunyer

Inventor.
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(No Model.) 2 Sheets—Sheet 2.

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LAMP EXTINGUISHER.

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Fig. 3.

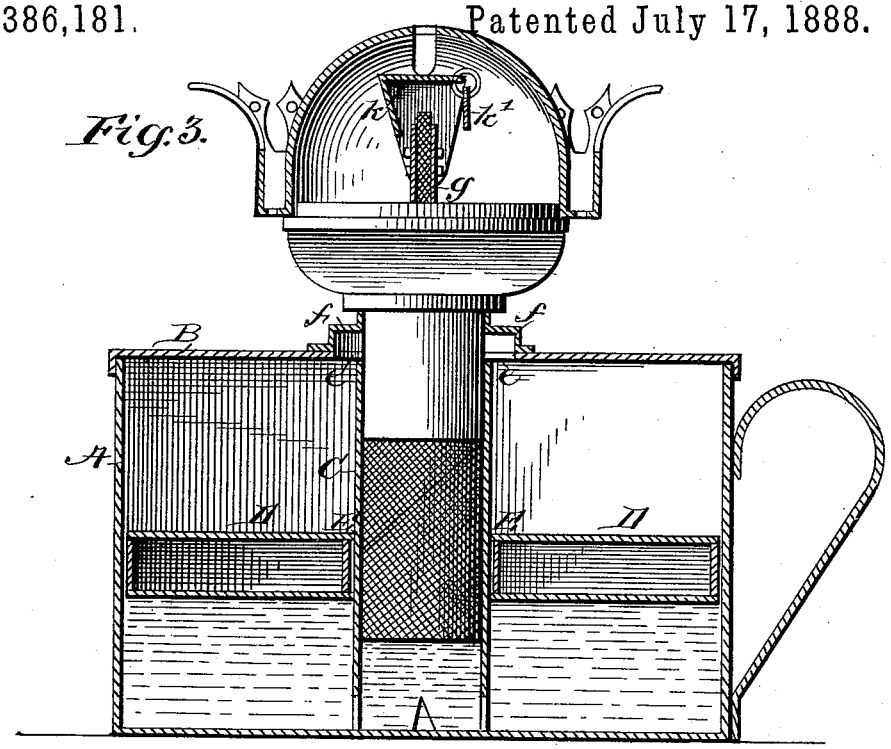


Fig. 5

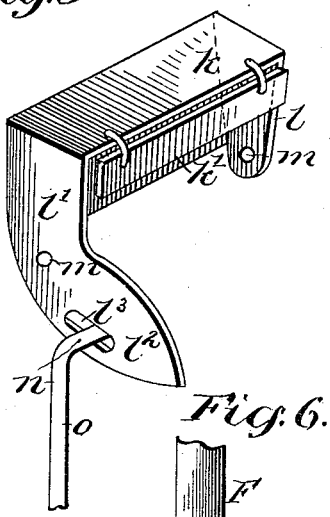


Fig. 4.

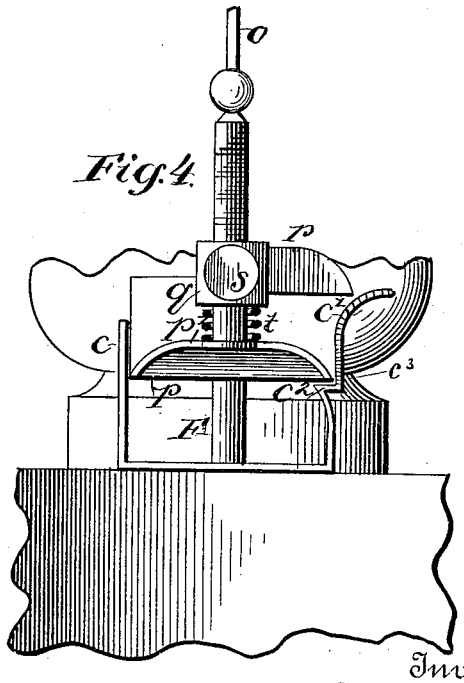
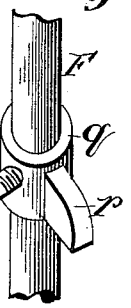


Fig. 6.



Witnesses,
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UNITED STATES PATENT OFFICE.

MARCUS E. BLINN, OF BELLE PLAIN, NEW JERSEY.

LAMP-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 386,181, dated July 17, 1888.

Application filed January 14, 1888. Serial No. 260,723. (No model.)

To all whom it may concern:

Be it known that I, MARCUS E. BLINN, a citizen of the United States, residing at Belle Plain, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Lamp-Extinguishers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in lamp-extinguishers; and it consists in a lamp having a movable flame-cover connected by mechanism to a float within the body of the lamp, whereby the flame-cover is moved by the rise and fall of the float.

The object of my invention is to extinguish the flame of a lamp automatically at any given time by mechanism connected with the lamp. I attain this object by means of the peculiar construction and arrangement of the various parts of my invention, which will be more fully described, and set forth in the specification and claim, reference being had to the drawings accompanying this application and forming part of the same, in which—

Figure 1 is a top plan view of my invention. Fig. 2 is a vertical cross-section on the line *y y* of Fig. 1. Fig. 3 is a vertical cross-section taken on the line *x x* of Fig. 2. Figs. 4, 5, and 6 are detail views.

Similar letters refer to like parts throughout the drawings.

Referring to the drawings, A represents a lamp, which has a removable cover, B, and the center of the lamp A is provided with a vertical cylinder, C, adapted to receive the lamp-wick and form a guide for the float D, which is formed of any suitable material and provided with a central perforation, E, adapted to loosely fit around the cylinder C. Said float D, being made hollow or of buoyant material, floats on top of the oil within lamp A, and at one side it has a vertical rod, F, projecting from its upper face, that extends up through a perforation, *a*, formed in the cover B. A plate, *b*, having upwardly-projecting arms *c c c c'*, and a perforation, *d*, is secured to the upper face of cover B by soldering or otherwise, and placed so that the perforations *a d*, respectively, in the plate *b* and cover B register, and through which the vertical rod F passes. One of the projecting arms, *c'*, is marked with lines c^2 across its outer face and numbered, thus forming a scale, c^3, as shown in Fig. 4.

The central portion of the cover B is provided with a central perforation, *e*, over which is secured an open ring-cap, *f*, to receive the burner *g* and the lamp-wick in the usual form.

A bracket, *h*, having end projections, *i*, and clamp-arms *j*, is secured to one side of the outer end of the wick-tube *g* by means of said arms *j* being bent around and clamping said wick-tube. An inclined hood, *k*, is formed of metal and bent at right angles to form projections *l l'*, said projections having perforations *m m*, into which are inserted the end projections, *i*, of bracket *h*, forming pivots on which said hood *k* rotates.

One of the projections, *l*, is formed with an extension, l^2, into the lower edge of which is cut a slot, l^3, into which extends the bent horizontal portion *n* of the vertical rod *o*, said rod extending down through the burner-base *o'*, and its lower end is joined to a horizontal plate, *p*, the outer end of which is formed with a curved-lip hand-piece, *p'*, and near the base of said lip *p'* is formed a perforation adapted to fit the vertical rod F.

The arm *c'*, that is formed with cross-lines as a scale, has also formed on its inner face about midway its length a shoulder projection, c^2, on which one edge of plate *p* rests when set to operate the hood *k*, as shown in Fig. 4, and by moving the arm *c'* outward the plate D is released and falls, and by means of the connecting-rod *o* moves the hood instantly over the top of the wick and extinguishes the flame.

A ring, *q*, having a projecting bracket, *r*, and a set-screw, *s*, is formed to fit over and on the vertical rod F above the plate *p*, the purpose of which is to set at the desired place on the rod F opposite the scale on arm *c'*, so that the float in its downward course by the evaporation of the oil in lamp A will bring the end of the projecting bracket *r* in contact with the inner face of arm *c'* and force it outward, releasing plate *p*, which immediately drops, causing the hood to extinguish the flame, as before stated, by means of the rod *o*, working in the slot l^3, rotating the hood *k* and curtain *k'* over

the end of the lamp-wick, said curtain being hinged to the front edge of the top of said hood, and is brought directly in contact with the flame as the hood is rotated.

To aid in forcing the plate *p* downward is placed a spiral spring around rod F between the plate *p* and the ring *q*, the ring *q* working against the tension of the spring *t* as the rod F descends.

The operation of my invention or device is as follows: Oil is placed in the lamp A. The float D is kept at the surface of the oil, the vertical rod F projecting above the plate *p*. The coiled spring I is placed over rod F, its lower end resting on the plate *p*. The ring *q* is placed on rod F, and held by set-screw *s* at any point desired within the limit of the scale on arm *c'*, the number on the scale indicating the number of hours the lamp A is required to burn before the plate *p* is pushed down by coiled spring I. The plate *p* rests on the projection c^2 of arm *c'*, and as the oil in the lamp evaporates the ring-bracket *r* comes in contact with arm *c'*, forcing it outward, thus releasing the plate *p*, when the coiled spring *t*, together with the weight of plate *p*, causes said plate to descend and with the rod-connection *o*, pulls the hood *k* over the end of the wick-tube, when the curtain *k'* extinguishes the flame. Rod F is provided with scale-marks to set ring *q*.

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

In automatic lamp-extinguishers, the float D, concentrically encircling the wick-cylinder C, having a spindle or rod, F, rigidly affixed thereto, in combination with a plate, *p*, having arms *c c'*, the latter provided with a scale encircling the graduated rod F, the spring *t*, maintained between said plate *p* and the ring *q*, having a set-screw, *s*, the rod *o*, rigidly secured to the upper surface of the plate *p* at one end and terminating in a bent arm, *n*, at the other end, which oscillates in the slot l^3 of the curved extension l^2 of the hood *k*, having a bracket or back, *h*, and extinguishing-curtain *k'*, pivotally suspended from the front of said hood, whereby each vertical movement of the float D synchronously effects a like motion of the rods F *o*, thus oscillating the hood *k* in the arc of a circle, for the purpose and in the manner specified.

In testimony whereof I affix my signature in presence of two witnesses.

MARCUS E. BLINN.

Witnesses:
WESLEY R. SHAW,
LIZZIE CAMP.