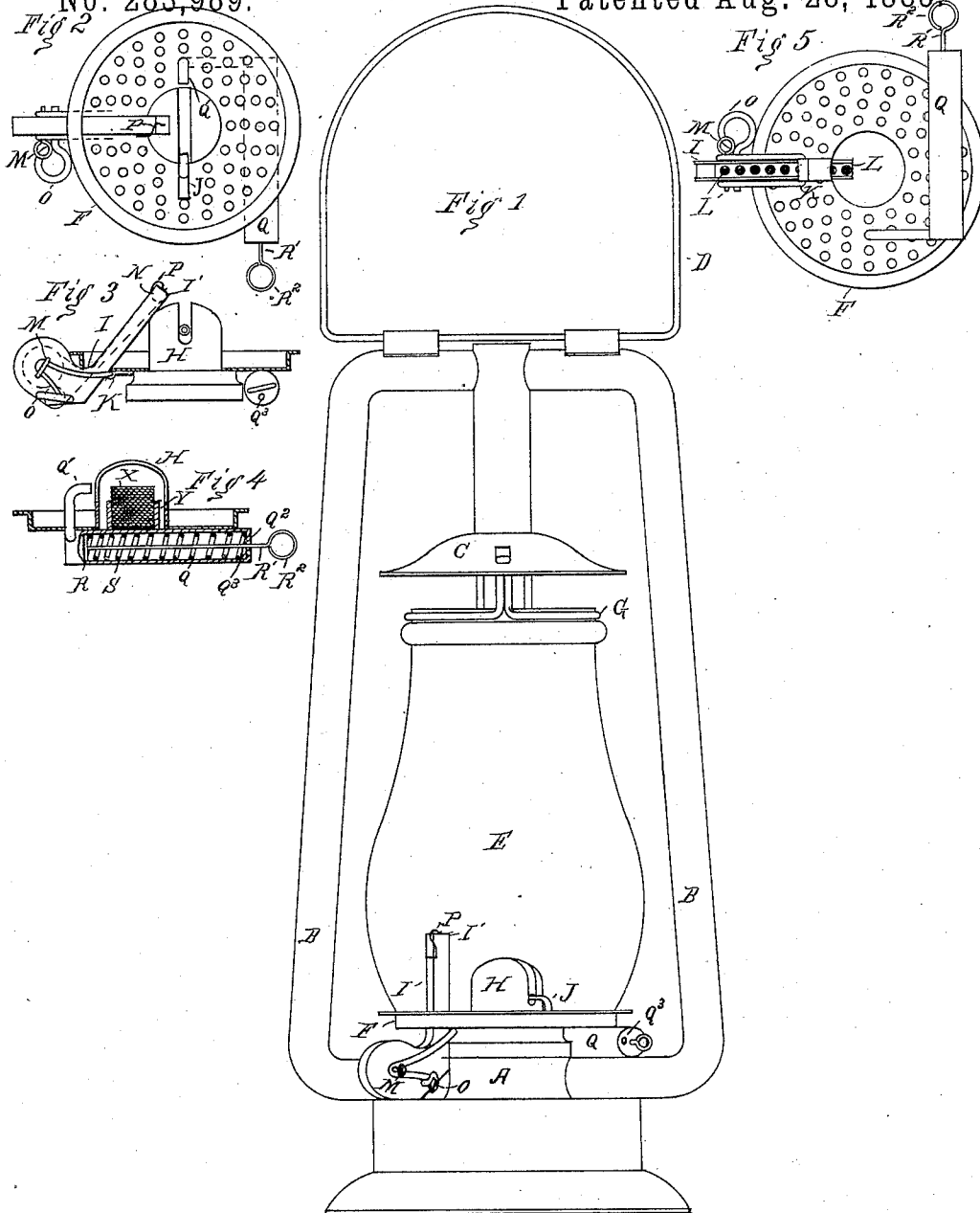


(No Model.)

C. F. FELLOWS.
LAMP AND LANTERN.

No. 283,989.

Patented Aug. 28, 1883.



Witnesses.

Edward W. Thompson
Stanley Page Young

Inventor.
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UNITED STATES PATENT OFFICE.

CHARLES F. FELLOWS, OF CHELMSFORD, ASSIGNOR TO JAMES W. BENNETT,
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LAMP AND LANTERN.

SPECIFICATION forming part of Letters Patent No. 283,989, dated August 28, 1883.

Application filed April 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. FELLOWS, a citizen of the United States, residing at Chelmsford, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Lamps and Lanterns, of which the following is a specification.

My invention relates to devices for lighting and extinguishing the flames of lamps and lanterns without removing the globes, chimneys, or other glasses therefrom.

In the accompanying drawings, Figure 1 is an elevation of a lantern to which my invention is applied; Fig. 2, a plan of the perforated draft-plate, the igniter and extinguisher applied thereto; Fig. 3, a central vertical cross-section of the same at right angles to the barrel of the extinguisher; Fig. 4, a vertical cross-section of the same through the axis of said barrel; Fig. 5, a plan of the under side of the draft-plate.

In Fig. 1, A is the lamp of a lantern; B, the tubular frame; C, the hood; D, the handle; E, the globe, glass, or chimney, held in place by the vertical annular flange of the perforated draft-plate F and by the wire springs G; H, the lamp-cone, all of the foregoing parts being of any usual construction without alteration, except the draft-plate, which differs from the usual construction only in the respects hereinbelow named. The draft-plate is slotted to allow the nose I' of the igniter I to reach up through to the cone, as hereinafter described. Heretofore igniters have been attached to the draft-plate by inserting them in a slot just large enough to receive them, and then soldering them to the draft-plate or otherwise rigidly securing them to such plate. The draft-plate ordinarily is free to turn around in its own plane, so that the nose of the igniter or lighter rigidly attached thereto is liable to be brought into the edge of the flame of the lamp, and the matches or tapes therein contained will thereby be set on fire and rendered useless. To prevent the draft-plate from turning around and to keep the igniter always away from the edge of the flame, I attach a dog, J, to the draft-plate at about ninety degrees from the igniter, the dog being a stiff wire or piece of metal. By placing the draft-plate over the

cone, so that the dog will enter the slot in the cone, the plate will be prevented from turning and the igniter will be held on the flat side of the flame and away from the edges of the flame; but the nose of the igniter must still be held very near the flame when the igniter is in use, and if the igniter is rigidly attached to the draft-plate its nose must be at all times near enough to light the lamp, and therefore near enough to the flame of the lamp (when the lamp is lighted) to be in great danger of having its tape or matches set on fire and destroyed. Accordingly I hinge the igniter to the draft-plate at K and make the slot large enough to allow the igniter to be pushed into position for use. The igniter will of its own weight, when not in use, swing so as to bring its nose away from the flame, the hinge being on the side next the burner or cone, and the heaviest part of the igniter being its lower end.

There are numerous lighters that may be used as above described. I claim nothing on the construction of the lighter or igniter, considered by itself; but I have shown in the drawings, as an example merely, an igniter substantially like that patented to I. M. Rose, May 31, 1881, No. 242,273. In this lighter there is a tape, L, provided at intervals with pellets or matches L'. A roll of such tape is placed on the wire or spindle M, the end of the tape being carried up over the roll N, then back to the wire O, which is slotted to receive the end of the tape. Upon turning the wire O the tape is unwound from the spindle M and wound up on said wire, and in so doing the pellets or matches are ignited by being scratched by the point of the wire P, which presses the tape upon the roll N. The wick X is turned up above the top of the cone when the lamp is to be lighted, the wick-tube Y being in the usual place within the cone, as shown in Fig. 4. The means I use for extinguishing the flame are the barrel Q, provided with a discharge-pipe, Q', bent up through the draft-plate, as shown, the nose of the pipe Q being placed to direct the air issuing from it through the slot of the cone from end to end of said slot; a piston, R; a piston-rod, R', terminating in a ring, R'', or other shape suitable to be grasped by the fingers, and a coiled-wire spring, S, surrounding the piston-rod between the piston

and the head Q² of the barrel. The ends of the barrel are closed except for the central opening necessary to admit and guide the piston-rods, and the opening Q³ to prevent a vacuum being formed back of the piston. When the piston-rod is drawn out, the spring is compressed between the piston and the head of the barrel, and the piston, being then suddenly let go, is thrown quickly back, and air is compressed in front of the piston, and rushing out of the discharge-pipe Q extinguishes the flame of the lamp. The barrel and its discharge-pipe are preferably soldered to the draft-plate. The nose of the discharge-pipe is kept in place by the dog J. The wick is turned down low when the extinguisher is to be used.

Evidently the igniter and extinguisher may be applied to lamps whether the same are placed in lanterns or not, and also the igniter and the extinguisher may be secured to any stationary part of the lamp by making the hinge and the discharge-tube long enough.

I claim as my invention—

1. The combination of a lamp, a mechanical igniter, and a hinge connecting said igniter to said lamp, whereby the igniter may be turned into position to light such lamp, and turned out of the reach of the flame of such lamp, as herein specified.

2. The combination of the draft-plate provided with a slot, the igniter, and the hinge connecting said igniter and said draft-plate, as and for the purpose specified.

3. The combination of the lamp-cone provided with a slot, the draft-plate, and the dog secured to said draft-plate and entering said slot in said lamp-cone, as and for the purpose specified.

4. The combination of a lamp, and a barrel provided with a discharge-pipe adapted to conduct a current of air upon the flame of said lamp, and a piston, means of drawing back said piston, and means of suddenly throwing forward said piston, as and for the purpose specified.

5. The combination of the lamp, the barrel provided with a discharge-pipe adapted to conduct a current of air upon the flame of said lamp, the piston, the piston-rod, and spring, as and for the purpose specified.

6. The combination of the lamp-cone provided with a slot, the draft-plate, the dog, the barrel provided with a discharge-pipe, said dog, barrel, and discharge-pipe being secured to said draft-plate, as and for the purpose specified.

7. The combination of the lamp-cone provided with a slot, the draft-plate, the dog, the barrel provided with a discharge-pipe, and the spring, said dog, barrel, and discharge-pipe being secured to said draft-plate, as and for the purpose specified.

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Witnesses:

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