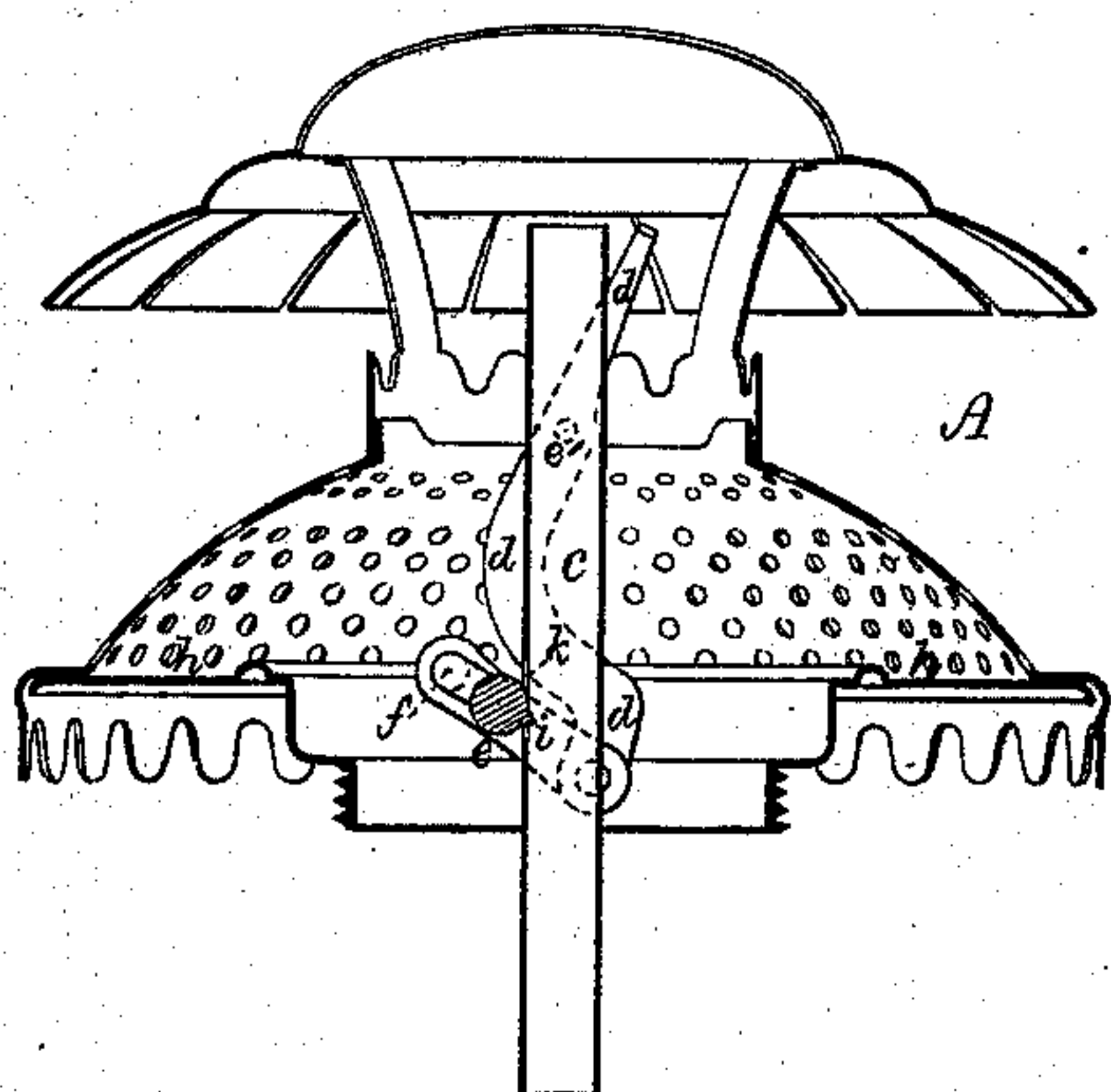


**M. A. LYNCH.**  
**Lamp-Lighting Apparatus.**

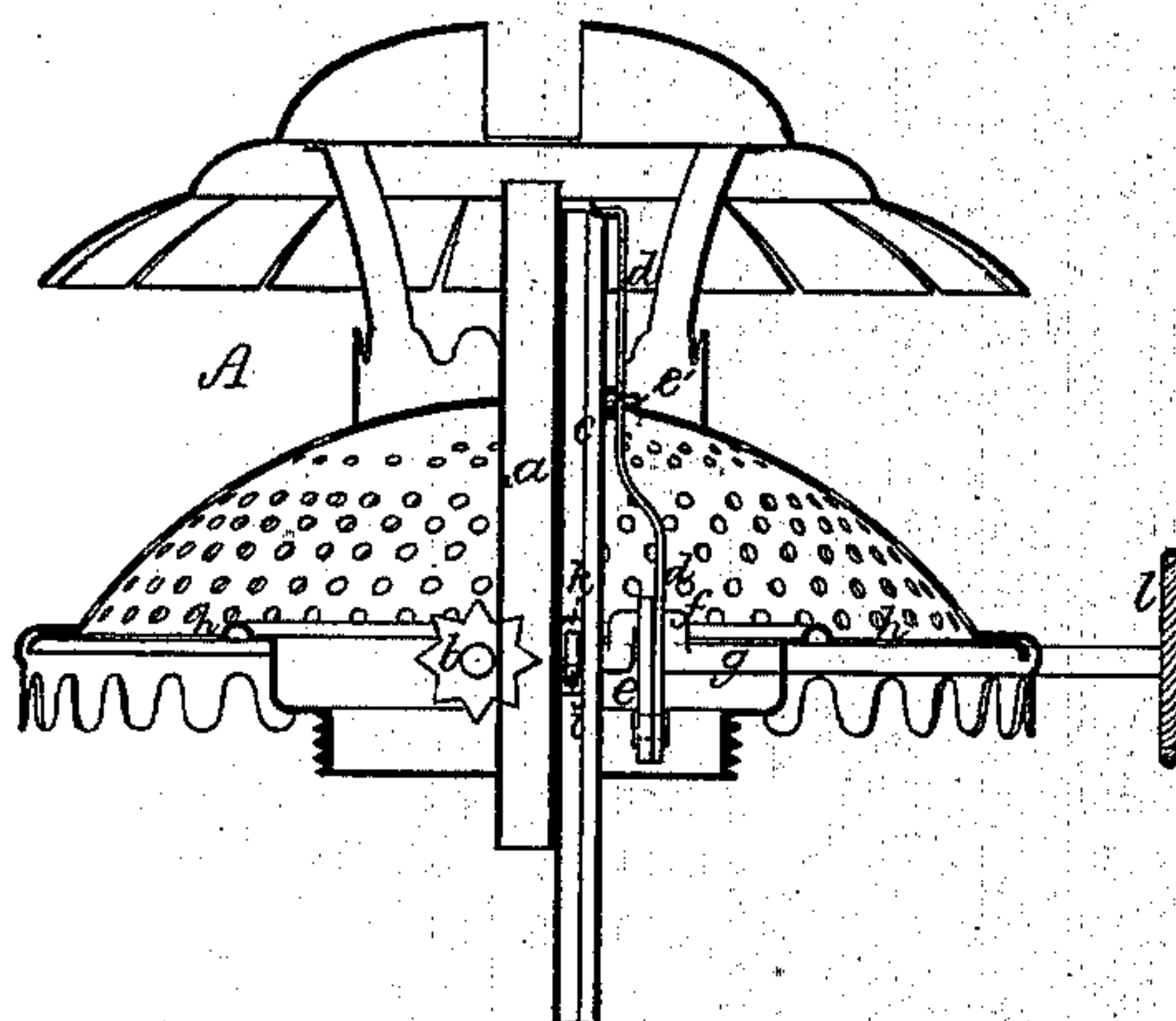
No. 139,255.

Patented May 27, 1873.

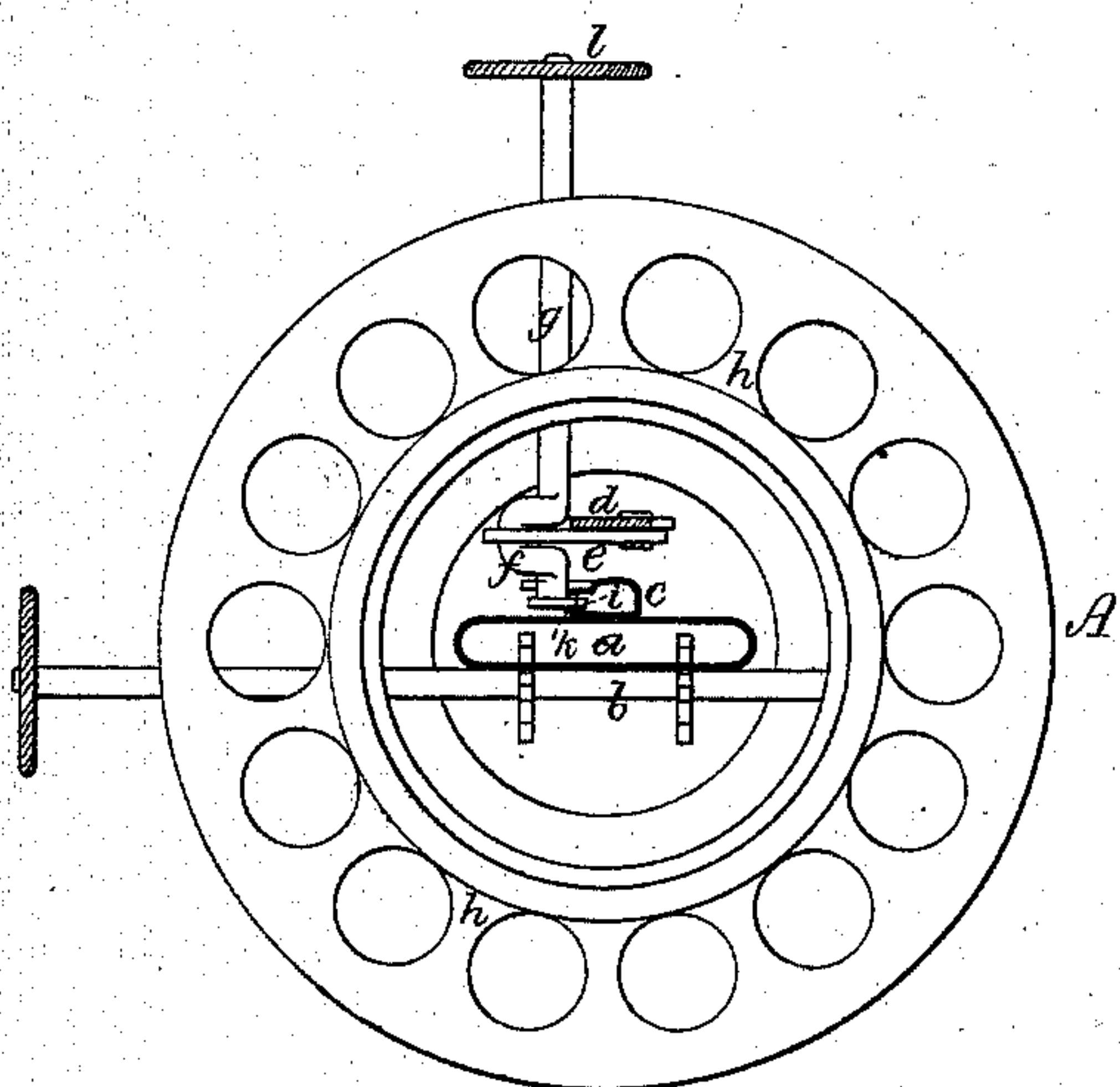
*Fig. 1.*



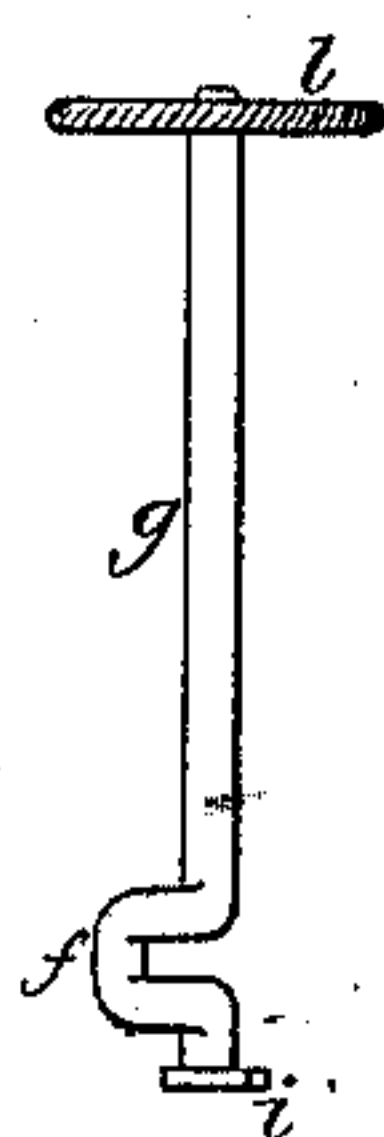
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



Witnesses.

S. W. Piper.

L. W. Möller.

Michael A. Lynch

by his attorney.

R. H. Eddy



# UNITED STATES PATENT OFFICE.

MICHAEL A. LYNCH, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN LAMP-LIGHTING APPARATUS.

Specification forming part of Letters Patent No. **139,255**, dated May 27, 1873; application filed March 6, 1873.

*To all whom it may concern:*

Be it known that I, MICHAEL A. LYNCH, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Lighting Apparatus for Lamps; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figures 1 and 2 denote transverse sections, and Fig. 3 a horizontal section of a lamp-burner provided with my invention, it being of the kind termed the "Sun-Burner," as invented by Michael H. Collins. Fig. 4 is a top view of the cranked shaft, and Fig. 5 is an end view of it and its tooth. Fig. 6 is a vertical section of the said tooth and the fuse-tube.

My invention, though somewhat analogous to that described in the United States patent No. 126,640, granted May 14, 1872, to the assignees of William A. Leonard, differs materially therefrom. I have no pointed fuse-retainer applied to the fuse-tube. I do not operate the fuse elevator and discharger by means of a single lever. In the place of the lever I employ a rotary shaft provided with a tooth, a bell-crank, and a connecting-link, all of which I arrange and combine with the fuse-tube and the discharger, in manner as hereinafter explained. During each revolution of the shaft the tooth will be caused to raise the fuse a short distance, and the discharger will be moved against the protruding part of the fuse so as to ignite it by friction, the whole being certain and simple in operation and not liable to get out of order.

In the drawing, A denotes the burner, of which *a* is the wick-tube and *b* the wick-elevator. On that side of the wick-tube, which is opposite to that to which the wick-elevator is applied, there is fixed to the wick-tube, vertically and at its middle, the fuse carrier or tube *c*, to which the discharger *d*, in the form of a lever, as shown, is pivoted. The discharger placed alongside of the fuse-tube, as

represented, turns on a pivot, *e'*, projected therefrom. At its foot the lever-discharger is jointed to a short link or connecting-rod, *e*, extended from or pivoted to the bell-crank *f* of a shaft, *g*, such shaft being arranged with respect to the fuse-tube and the base *h* of the burner, in manner as represented. At its inner end the shaft carries a small tooth, *i*, which, during each entire revolution of the shaft, will be carried into and out of an opening, *k*, in the fuse-tube. On the outer end of the shaft is a milled head or button, *l*.

On taking hold of the button and revolving it the shaft will be revolved, whereby the tooth will be made to act on the fuse of the fuse-tube so as to raise it in the tube, and the striker or discharger will be moved against and across the upper part of the fuse so as to effect its ignition. The fuse used is to be supposed to be a band of pyroxiline, or some substance easily fusible, and provided on one side with a strip or layer of match-composition, easily fired by friction. The fuse so made is to be inserted lengthwise in the fuse-tube, and should fit closely thereto, as a wick does in a wick-tube. When it may be desirable to inflame the wick of the lamp it will only be necessary to revolve the shaft, whereby the fuse will be raised and fired so as to set fire to the wick.

I make no claim to the subject of the aforesaid patent.

I claim—

The shaft *g*, its tooth *i*, and crank *f*, the connecting link *e* and the lever or discharger *d*, constructed and arranged together and with the fuse-tube *c*, substantially as and to operate as described, such fuse-tube and shaft being applied to a lamp-burner, as represented.

MICHAEL A. LYNCH.

Witnesses:

R. H. EDDY,  
J. R. SNOW.