

TYLER, CHANDLER & STANDISH.

Lighting Device.

No. 61,284.

Patented Jan. 15, 1867.

Fig. 1

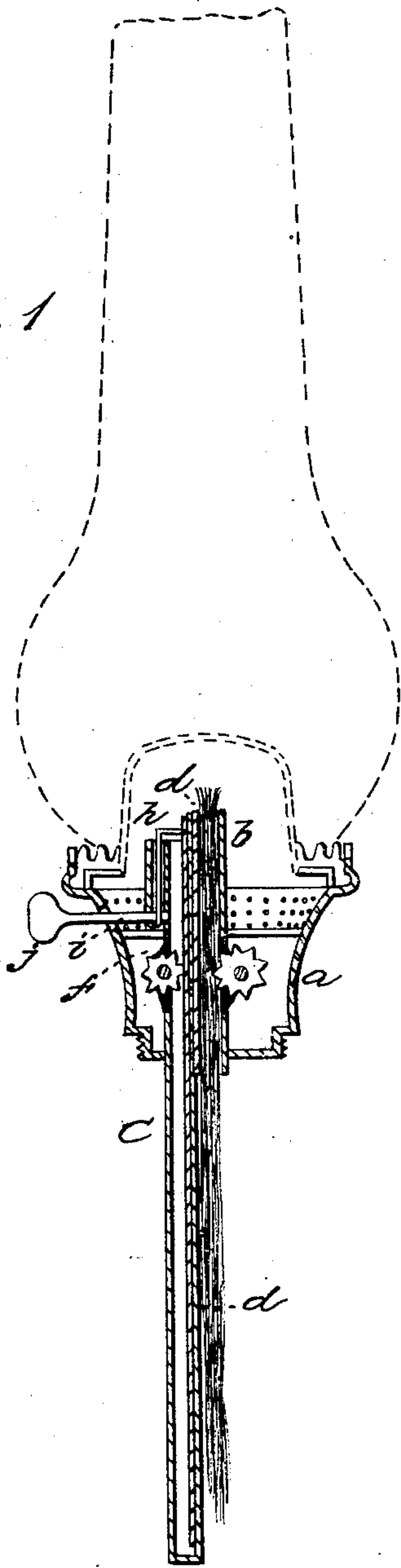
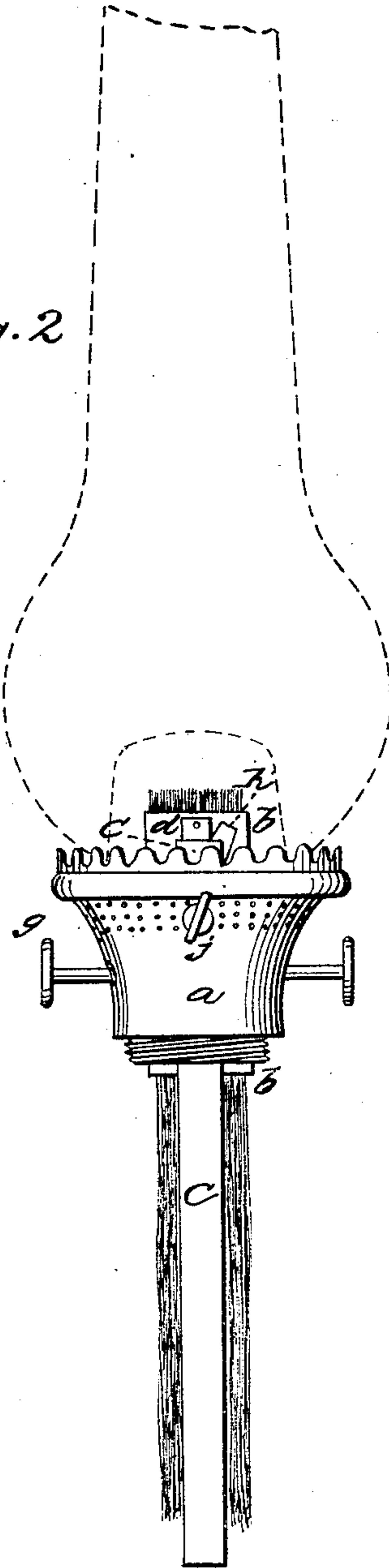


Fig. 2



Witnesses:

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# United States Patent Office.

PHILOS B. TYLER AND WILLIAM M. CHANDLER, OF SPRINGFIELD, MASSACHUSETTS, AND  
L. F. STANDISH, OF CHICOPEE, MASSACHUSETTS, ASSIGNORS TO REPEATING LIGHT  
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*Letters Patent No. 61,284, dated January 15, 1867.*

## IMPROVEMENT IN APPARATUS FOR LIGHTING LAMPS, GAS-BURNERS, &c.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that we, PHILOS B. TYLER and WILLIAM M. CHANDLER, of Springfield, in the State of Massachusetts, and L. F. STANDISH, of Chicopee, in the State of Massachusetts, have invented certain new and useful improvements in the Apparatus for Lighting Lamps, Gas-Burners, &c.; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of a kerosene lamp-burner, with our said invention attached; and

Figure 2, a vertical section, taken at right angles to the plane of the wick.

Our said invention consists in combining with the wick-tube or gas-burner, and in close proximity therewith, a tube or equivalent apparatus for containing and controlling a continuous or repeating match, and an igniter, so that the means for lighting the wick or gas shall be present at all times. By such means we avoid all the inconveniences experienced in the use of ordinary matches, which are not at all times within reach when wanted; and if a globe or chimney be used the necessity of removing it is avoided.

We will describe and represent our said invention as applied to the burner of a kerosene lamp, because that is the kind of lamp which is the most inconvenient to light with the means heretofore employed for the purpose.

In figs. 1 and 2 of the accompanying drawings, *a* represents the usual form of kerosene lamp-cap with its wick-tube *b*, the metal deflector and chimney being represented by dotted lines. By the side of the wick-tube there is a match-tube, *c*, of the required size to receive a continuous or repeating match, *d*, such as described in Letters Patent granted to us, and bearing date the 7th day of November, 1865, saturated with stearine or other equivalent substance, which, when ignited, will produce a flame; and the substance or preparation to ignite by friction may be continuous, or at given and equal or nearly equal distances apart. The strip of continuous or repeating match *d* slides in the said tube *c*, which extends down into the body of the lamp. The extension of this tube, to contain a considerable length of match, may be either straight, as represented, or it may be of any other form to suit the fancy or judgment of the constructor. This tube *c* is provided with a feeder, *f*, which feeder is a small wheel, the shaft of which extends through to the outer side of the lamp-cap, and is there provided with a thumb and finger-wheel, *g*. The feeder-wheel is cut out in sections, so that when turned each projecting section will feed or move the match the required distance and enable the person turning it to readily feel when the match has been lifted to a sufficient distance above the upper end of the match-tube. For the purpose of igniting the match after it has been elevated as before stated, there is within the match-tube a vibrating arm, *h*, mounted on a small arbor, *i*, which extends to the outside of the lamp-cap, where it is provided with a handle, *j*, by which the arm can be vibrated or moved across the surface of the match, so that its upper end, which is bent over and formed with a pointed or roughened lip, may make friction on the surface of the match to ignite it; but, as an equivalent, when the match is not continuous the vibrating arm may be dispensed with and the roughened surface made stationary, so that when the match is projected by the feeder, the ignitable matter, in passing the roughened surface, will be ignited. The match, when ignited, will produce a flame in such close proximity to the wick as to ignite it, and so soon as the match burns down near to the upper end of the tube, which cuts off the further supply of air, it will be extinguished. If desired, the burned portion of the match may be removed by a whipper projecting from a tubular arbor or sleeve on the arbor *i*, and extending to the outside of the lamp-cap, where it can be provided with a thumb and finger-wheel; and by giving a slight turn to this wheel the whipper will be vibrated and pass above the upper end of the match-tube and knock off the charred portion of the match, which will fall to the bottom of the cap. In case the vibrating igniter is not used as above suggested, the vibrating arm of the igniter can be extended up to constitute the whipper. The match-tube is represented as adjoining the wick-tube, but it may be constructed with a space between the two for the passage of a current of air which will prevent the match-tube from being overheated. If desired, however, a non-conductor of caloric may be interposed between the two tubes. The match-tube and its appendages, if desired, may be mounted in suitable slides in the lamp-cap, so that it can be lifted up to the level of the wick for the purpose of lighting it, and then depressed, or these may be stationary and the wick-tube may be mounted in suitable slides so as to be dorressed to the level of the match, and when the wick has been lighted elevated



to the height required for burning. We would remark, however, that we have successfully worked the mode of application first above described, and deem it to be the best.

We are aware that lamp-tops or caps have been made with an aperture at the side through which an ordinary match can be inserted, and with a roughened surface placed in close proximity with the wick-tube, so that when the match is forced in by hand it will be ignited to light the wick without the necessity of removing the deflector, chimney, or globe which encloses the wick; and therefore we do not claim broadly a means of lighting lamps or gas-burners without removing the deflector, chimney, or globe.

What we do claim as new, and desire to secure by Letters Patent, is—

The tube and its appendages for holding and controlling a continuous or repeating match, substantially as herein described, in combination with the wick-tube or equivalent gas-burner and an igniter, substantially as described, and for the purpose specified.

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Witnesses:

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