L. & J. THOMAS.

Lighting Attachment for Lamps.

No. 23,203. Patented March 8, 1859.

Fig: 1.

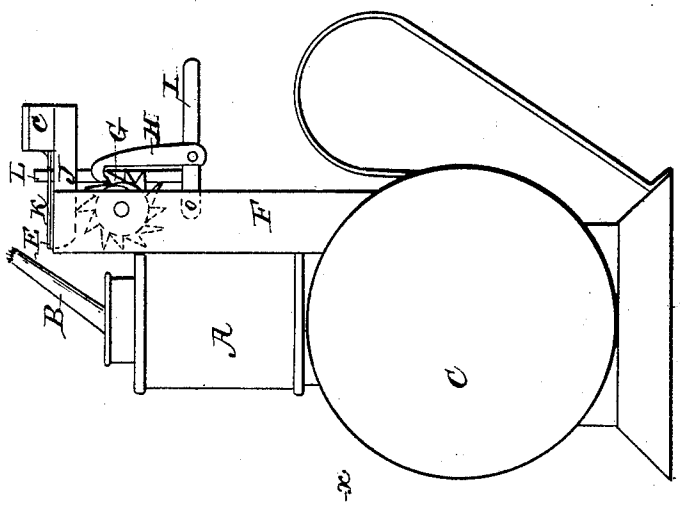


Fig: 3.

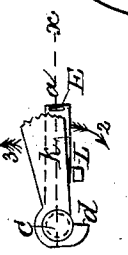
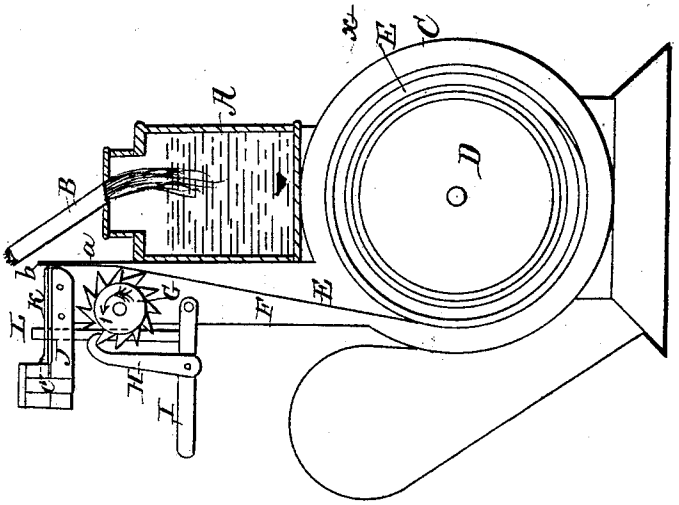


Fig: 2



Witnesses.
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UNITED STATES PATENT OFFICE.

LEOPOLD THOMAS AND JOSEPH THOMAS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN LAMPLIGHTERS.

Specification forming part of Letters Patent No. **23,203**, dated March 8, 1859.

To all whom it may concern:

Be it known that we, LEOPOLD THOMAS and JOSEPH THOMAS, both of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Attachment for Lighting Lamps; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents a side elevation of a lamp with our lighting attachment. Fig. 2 is a vertical section of the same, the line *x x*, Fig. 3, indicating the plane of section. Fig. 3 is a plan or top view of the same, the lamp being omitted.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in feeding a band which winds on a roller underneath the lamp, and which is so prepared as to take fire by friction up through a channel and in such a position before the wick of the lamp that a short piece of this fuse sticking out over the top of the channel is lighted by means of a serrated sector, which is moved by the same trigger which serves to operate the feed-wheel, and that by so lighting this fuse light is imparted to the lamp.

To enable others skilled in the art to fully understand and construct our attachment, we will proceed to describe it.

A is a lamp of the usual construction, with the exception of the wick-holder B, which is represented in an inclined position in order to bring its top in a more favorable position to receive light from the fuse, and C is a casing, which may be attached to the lamp on either side, and which contains a roller D, on which a long band E winds, which is made into fuse, so that every part of the same may easily be lighted by friction. A channel F extends from the casing C up on the side of the lamp and near to its top, and through this channel the fuse is fed up under the wick of the lamp. A ratchet-wheel G is placed into this channel, which is operated by means of a hook H, which is pivoted to a trigger I, and this trigger is in such a position that it can be moved up and down by the same hand which holds the lamp by the handle. The teeth of the ratchet-wheel G are sharp-pointed, and this wheel is placed opposite a spring *a*, which presses the fuse up against the teeth of the wheel, so that by turning the wheel in the direction of the arrow 1 the fuse is fed up. The upper part of the channel F is closed by a cover J, which leaves only a small opening *b*, through which the fuse passes, and it is fed up by the ratchet-wheel G, and the spring *a* presses against the fuse so as to secure it properly. A serrated sector K is pivoted to the cover J, which (the sector) turns easily on the pivot *c*, so that when it receives motion its serrated edge is drawn across that part of the fuse which extends beyond the cover J, and which is pressed against the same by means of the spring *a*. The sector K is operated by means of an arm L, which is rigidly attached to the trigger I, so that when the latter is moved up and down the arm receives a vibrating motion, and the sector K is provided with a projecting edge *d*, so that when the trigger is depressed the sector is thrown in the direction of arrow 2 by the action of the arm L against the edge *d*, and when the trigger is raised again the arm strikes against the side of the sector and imparts to it motion in the direction of arrow 3. (See Fig. 3.)

The operation is as follows: The fuse, of which a piece of considerable length, so as to last for a long time, is wound up on the roller D, is drawn up through the channel F, so that its upper end is grasped by the spring *a*, and the trigger I is now depressed, so that the ratchet-wheel G is rotated in the direction of arrow 1, and a short piece of fuse is fed up so that its upper end extends sufficiently beyond the upper edge of the cover J for the serrated sector K to act upon. By rapidly throwing the trigger up again the serrated edge of the sector K is drawn across the fuse, which is lighted by the friction and imparts light to the wick of the lamp. The spring *a*, which grasps the end of the fuse tightly, prevents that part of the fuse below the cover J from catching fire, so that the lamp may be lighted a great number of times, as sufficient fuse may be wound on the roller D to last for years.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of a trigger I or its

equivalent in such a relation to a serrated sector K and to a ratchet-wheel G that by the motion of the trigger a piece of fuse from a roller D is fed up and lighted, substantially in the manner and for the purpose herein specified.

2. The arrangement of a continuous fuse, in combination with the lamp, substantially as and for the purpose set forth.

LEOPOLD THOMAS.
JOSEPH THOMAS.

Witnesses:
W. TUSCH,
W. HAUFF.