

F. G. STEPHENSON.  
Lamp-Lighter.

No. 209,629.

Patented Nov. 5, 1878.

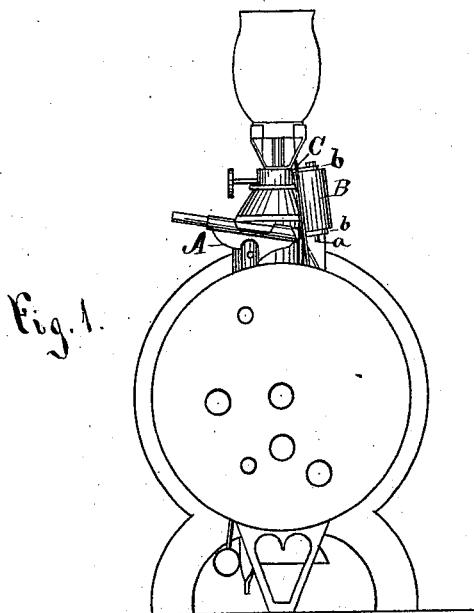


Fig. 2.

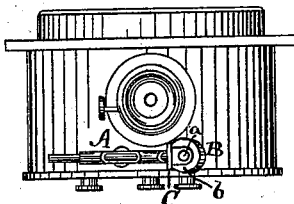


Fig. 3.



Witnesses-

W. B. Thomson  
P. J. Martley

Inventor.

Frederick G. Stephenson  
By James Shepard Atty.

# UNITED STATES PATENT OFFICE.

FREDERICK G. STEPHENSON, OF PLAINVILLE, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO THOMAS B. STEPHENSON, OF SAME PLACE.

## IMPROVEMENT IN LAMP-LIGHTERS.

Specification forming part of Letters Patent No. 209,629, dated November 5, 1878; application filed September 27, 1878.

*To all whom it may concern:*

Be it known that I, FREDERICK G. STEPHENSON, of Plainville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Lamp-Lighters, of which the following is a specification:

My invention consists of the abrading-cylinder mounted on a pin to rotate in a suitable frame, in combination with match-drawing mechanism, which carries the match substantially lengthwise with said cylinder, as herein-after described.

In the accompanying drawing, Figure 1 is a rear elevation of a clock and lamp-lighter which embodies my invention. Fig. 2 is a top view of the same, and Fig. 3 is a side elevation of a detached part thereof.

The parts, with the exception of those bearing the friction or igniting surface, are substantially the same as shown and described in my former patent, No. 207,317, dated August 20, 1878, to which reference is made for a more detailed description of said parts.

A designates the match-drawing mechanism, which consists of a match-holder mounted on a suitable frame, so as to move vertically in proper guides. It is essential to my invention that the match-drawing mechanism shall hold the match and move it in a certain direction, hereinafter specified; but the particular mechanism for moving it is immaterial, and therefore it is deemed unnecessary to represent it in the drawing, or to describe it, except by a general reference to my former patent.

B designates the block, having a friction or igniting surface. I make this block in the form of a cylinder, and coat its periphery with emery or other abrasive substance. This cylinder is hung in a suitable frame, C, adjacent to the match-drawing mechanism, and held therein by a pin, *a*, passing through said cylinder, and lugs *b b*, on the frame C, which stands in such a position that the match is drawn substantially lengthwise to the cylinder.

In the particular match-drawing mechanism herein shown the match turns toward the lamp and leaves the cylinder after traveling lengthwise with it a given distance, which, turning sidewise, imparts a slight movement to the cylinder on its axis, so that a new or fresh surface will be presented to the next match, which, in turn, will start the cylinder again, and leave another fresh surface turned toward the match-drawing mechanism.

Other match-drawing mechanism may be employed with said block B, when the slight inequalities on the surface of the block will have a tendency to turn the block on its axis, even if the match moves only in a direction parallel to the axis of said cylinder, or a match-drawing mechanism moving only in a straight line might be set slightly obliquely to the axis of the cylinder, when the same result would be accomplished of turning the block and presenting a fresh surface for the next match; or the block might be turned by hand occasionally when setting the match-drawing mechanism.

I am aware that a rotating metal disk with its abrading-surface formed on the flat side thereof is old, which disk was mounted by the side of a rotary match holder and carrier, both rotating on substantially horizontal axes, but set slightly divergent to each other and describing intersecting circles, all of which is hereby disclaimed.

I claim as my invention—

The abrasive cylinder B, mounted on a pin to rotate in a suitable frame, in combination with match-drawing mechanism, which carries the match substantially lengthwise with said cylinder, in the manner and for the purpose specified.

FREDERICK G. STEPHENSON.

Witnesses:

MARSHALL P. RYDER,  
ALPHEUS J. BUNNELL.