

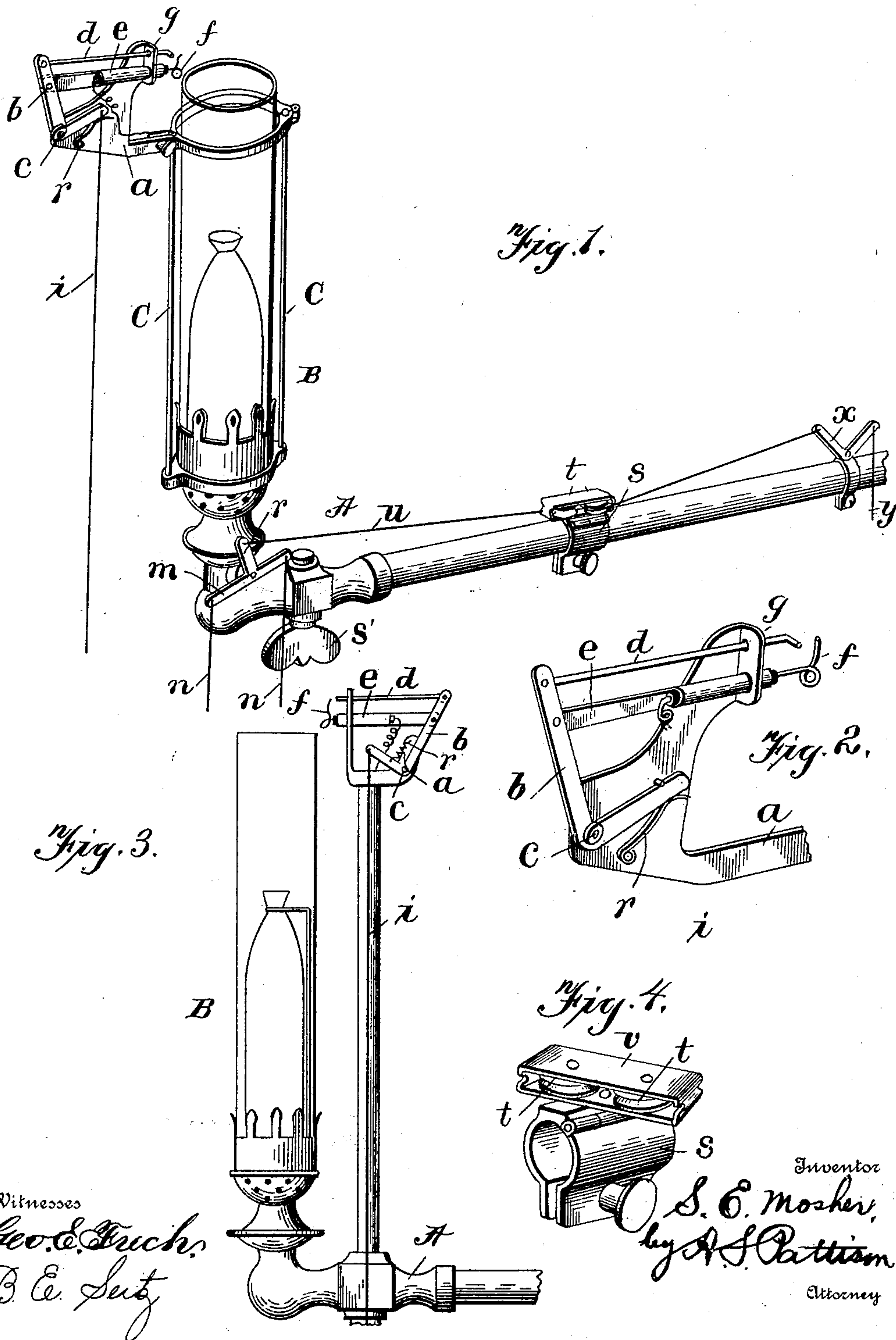
No. 625,788.

Patented May 30, 1899.

S. E. MOSHER.  
ELECTRIC LIGHTING DEVICE.

(Application filed May 2, 1898.)

(No Model.)





# UNITED STATES PATENT OFFICE.

SAMUEL E. MOSHER, OF CHILLICOTHE, OHIO.

## ELECTRIC LIGHTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 625,788, dated May 30, 1899.

Application filed May 2, 1898. Serial No. 679,506. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL E. MOSHER, a citizen of the United States, residing at Chillicothe, in the county of Ross and State of Ohio, have invented new and useful Improvements in Electric Lighting Devices, of which the following is a specification.

My invention relates to improvements in electric lighting devices, and is especially intended to be used in connection with the incandescent gas-burners, all of which will be fully described hereinafter and particularly referred to in the claims.

The object of my present invention consists in the construction of the sparking device having the two sparking members arranged upon a swinging arm, one of the members being farther from the center than the other, whereby it travels farther, the ends of the sparking members being constructed to engage each other as they pass for causing a spark, whereby the device is adapted to be moved over a burner-chimney, cause a spark, and be withdrawn therefrom.

In the accompanying drawings, Figure 1 is a perspective view of a burner with my invention shown attached to the chimney or shade frame. Fig. 2 is an enlarged detached view of the sparking mechanism. Fig. 3 is a view showing the sparker attached to a separate standard extending parallel with the chimney. Fig. 4 is a detached perspective view of a pulley-bracket adapted to be used in connection with my invention.

Referring now to the drawings, A represents an ordinary incandescent burner, B the chimney, and C the chimney or shade frame, which extends up parallel with the chimney and is of the ordinary or any desired construction.

My sparking mechanism is preferably supported by the upper end of this frame, as illustrated in Fig. 1. The sparking mechanism consists of a supporting plate or arm *a*, which is clamped or otherwise attached to the upper end of the chimney-frame C, and pivoted to this plate *a* is a swinging member *b*. This swinging member is preferably a bell-crank lever or a triangular plate, which is pivoted at its lower apex at the point *c* to the supporting arm or plate *a*. Loosely connected to the upper free end of this swinging member

*b* are the sparking members *d* and *e*. One of these sparking members is in electrical contact with the swinging member *b*, and preferably the upper member *d*, as here shown, is so connected. The lower sparking member *e* has its inner end also connected with the swinging member *b*; but the electrical connection is insulated therefrom in any desired manner. As here shown, it is accomplished by having the member *e* of a tubular form and an insulated wire passing through the tubular form, having its end *f* form one of the coacting sparking members. These two members *d* and *e* pass through perforations in the right-angle portion *g* of the supporting arm or plate *a* and through which they move endwise as the swinging member *b* is vibrated.

An operating stem, wire, cord, or chain *i* is connected with the lower end of the swinging member *b* and will extend down to a suitable distance to be grasped by the operator for causing the sparking members to move over the chimney and effect a spark.

The usual hand operating valve or cock *s'* is preferably provided to be used when the burner is removed or when it is desired to permanently cut off the gas from the burner.

The swinging member *b* is provided with a spring *r*, which normally holds it backward and the sparking members from over the chimney in the escaping gas. A downward pull upon the operating-cord *i* will cause the sparking members to move over the chimney, and the upper sparking member being farther from the pivotal point of the swinging member than the lower sparking member it travels faster, and the ends of the sparking members being bent to slightly engage each other they are caused to engage and disengage, thus causing a spark, as is well understood by those skilled in the art.

I provide a simple means for actuating the gas-cock at the lower end of the burner by providing its stem with a T-shaped arm *m*, to which are attached the depending operating-cords *n* and by means of which the gas-cock may be opened or closed. I also provide the upwardly-extending stem *r* of this arm with a cord *u*, by means of which the gas-valve may be opened from a different point. In this instance I provide a guide for the cord *u*, consisting of a band or clamp *s*, adapted to



be attached to the burner-bracket by a thumb-screw or otherwise, as illustrated, and this band is provided with the pulley *t*, as shown. These pulleys are mounted in a frame *v*, which  
 5 is pivotally connected with the band or clamps, so that it may swing around and be adapted for guiding the cord at angles when desired. The opposite end of the cord *u* is attached to  
 10 a bell-crank lever *x* at any desired point, and to which lever an operating-cord *y* is attached for operating the cord *u*, and thereby the gas valve or cock.

In Fig. 2 my sparking device or mechanism is shown supported upon a standard *H*, which  
 15 standard is connected to the burner-bracket, as shown.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

20 1. The combination with a burner having a chimney, a vertically-arranged frame situated outside of the chimney and extending to its upper portion, a laterally-projecting plate or member at the upper end of said frame,  
 25 and a laterally-moving sparking mechanism carried by said plate and adapted to move over the chimney, substantially as described.

2. A sparking mechanism comprising a swinging member, relatively-movable sparking  
 30 ing members, both of said members connected with the swinging member and the point of connection of one being farther away from the pivotal point of the swinging member  
 35 than the other, whereby one sparking member is caused to move past the other when the swinging member is actuated, substantially as described.

3. A sparking mechanism comprising a swinging member, endwise-moving sparking  
 40 members connected to the free end of the swinging member, one connected farther away from the pivotal point than the other,

and a support for the free ends of the sparking members, the ends of the sparking members constructed to engage each other, the  
 45 parts adapted to operate as described.

4. A sparking mechanism comprising a supporting-plate, a swinging member pivoted thereon, endwise-movable sparking members  
 50 having one end connected to the free end of the swinging member at different distances from its pivotal point, a support for the free ends of the sparking members, the ends of the sparking members constructed to engage  
 55 each other as they pass, whereby the device is adapted to be moved endwise over a chimney and to then cause a spark and to be withdrawn therefrom, substantially as described.

5. A sparking mechanism comprising a bell-crank lever, two sparking members pivotally  
 60 connected with one arm of said lever at different distances from the pivotal point thereof, whereby the movement of one member is greater than the movement of the other by  
 65 reciprocating the bell-crank lever, and an operating connection with the opposite end of the said lever, substantially as described.

6. A sparking mechanism comprising a supporting member, a swinging member pivoted  
 70 to the lower side thereof and extending upward, sparking members pivoted to the swinging member at different distances from the pivotal point thereof, said plate or supporting  
 75 member having supports for the free ends of the sparking members, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

SAMUEL E. MOSHER.

Witnesses:

WILBY G. HYDE,  
 MINNIE DAILY.