

(No Model.)

C. G. SAVAGE.  
ELECTRIC GAS LIGHTER.

No. 529,313.

Patented Nov. 13, 1894.

FIG. 1.

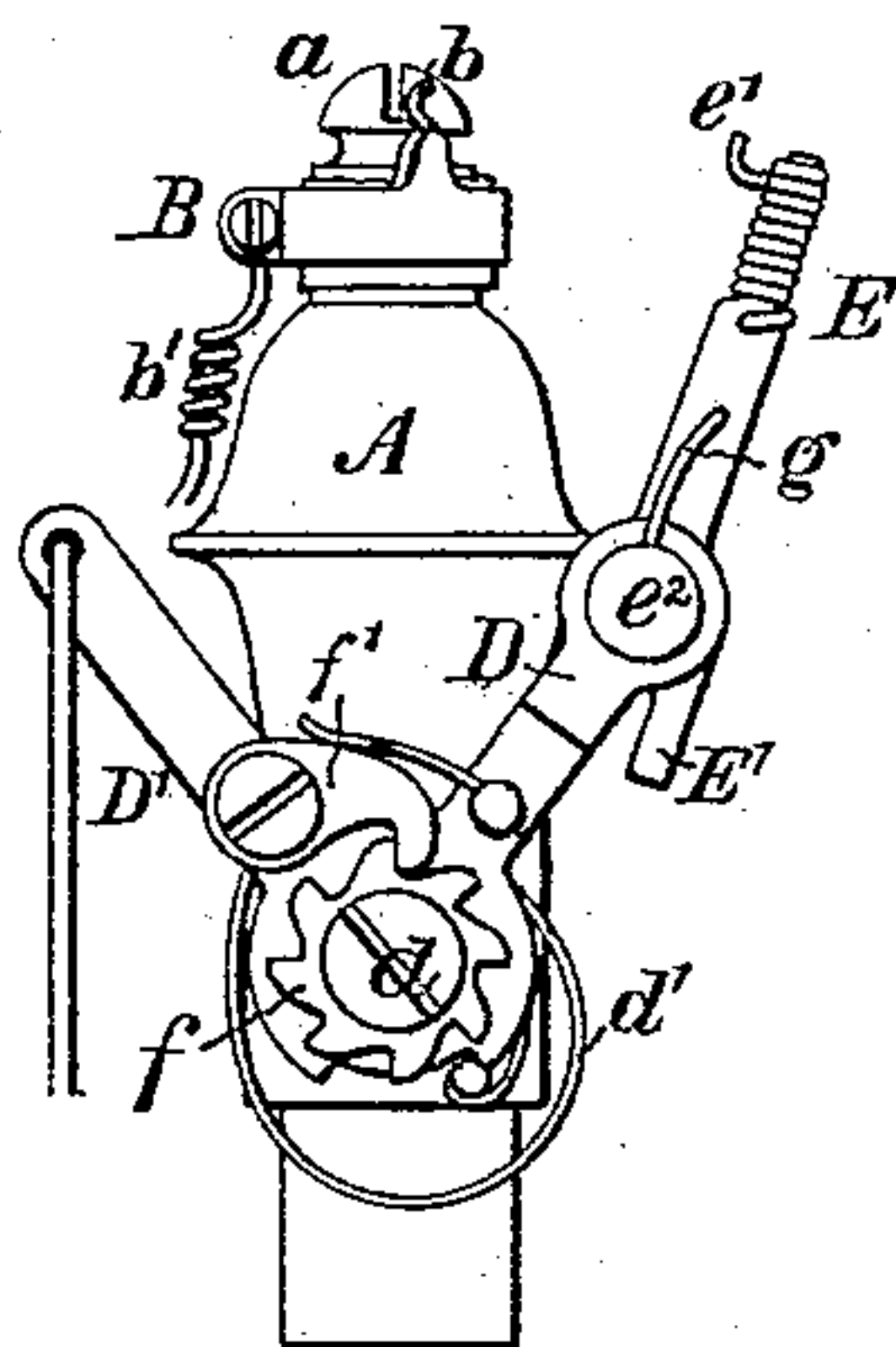


FIG. 2.

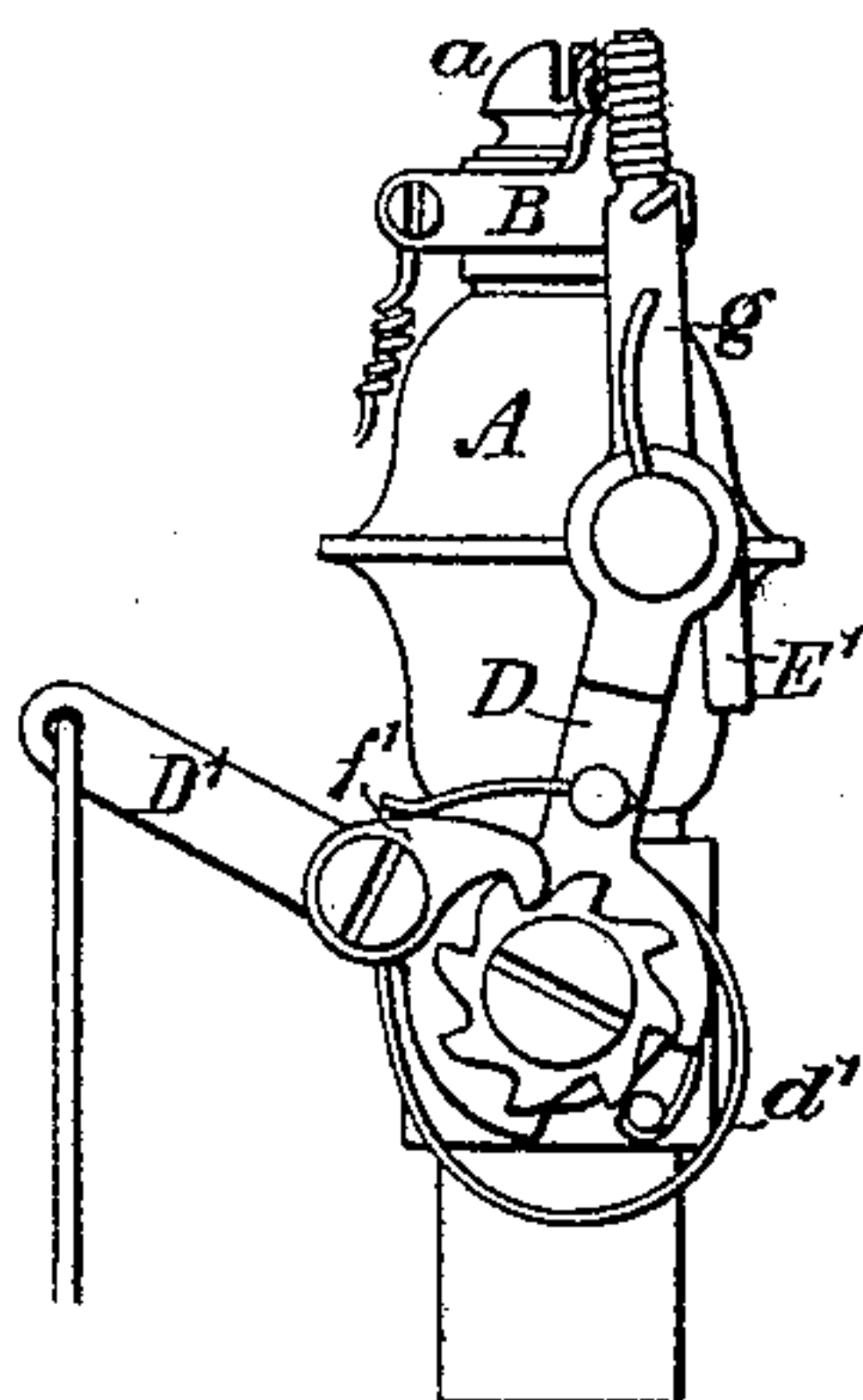


FIG. 3.

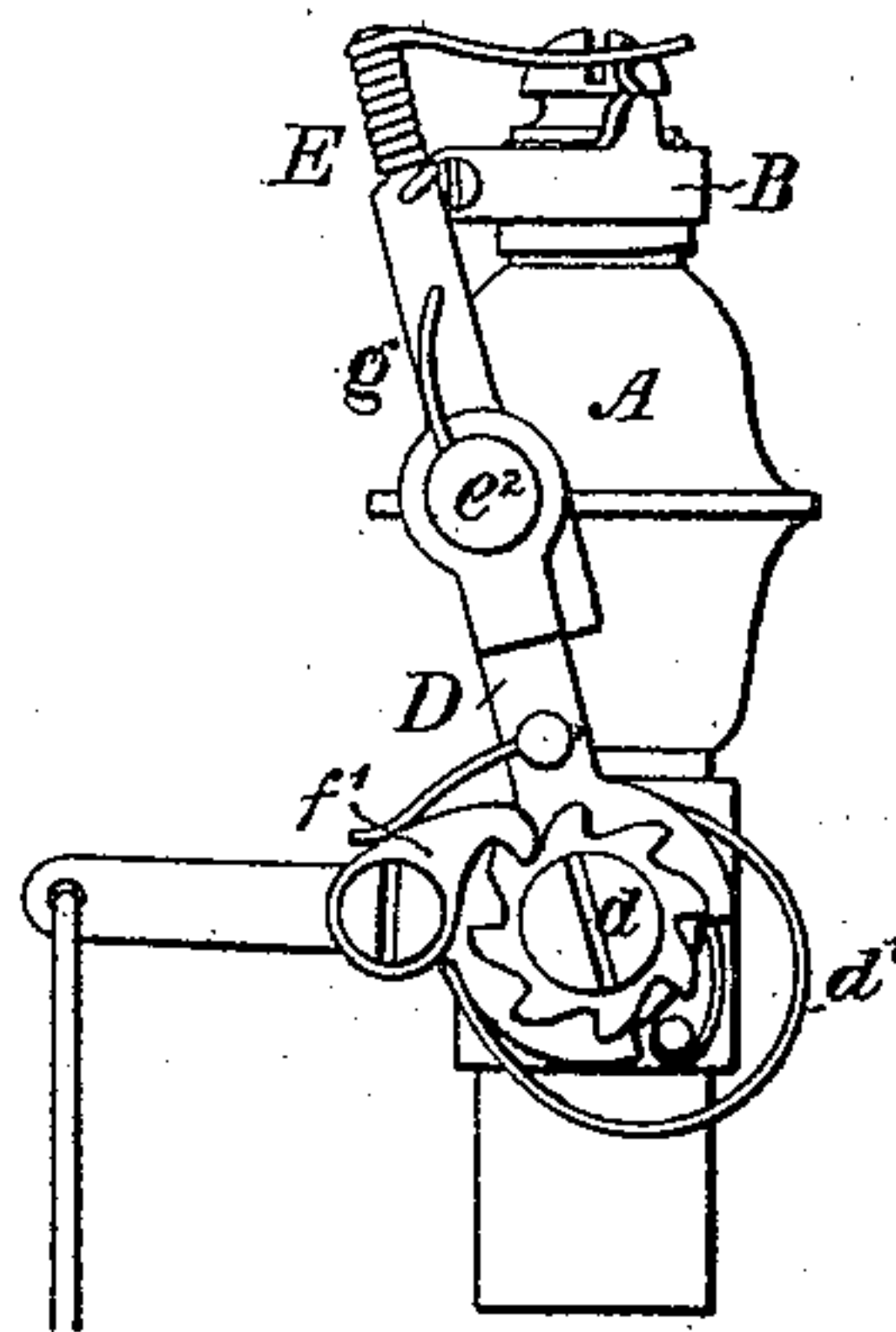


FIG. 4.

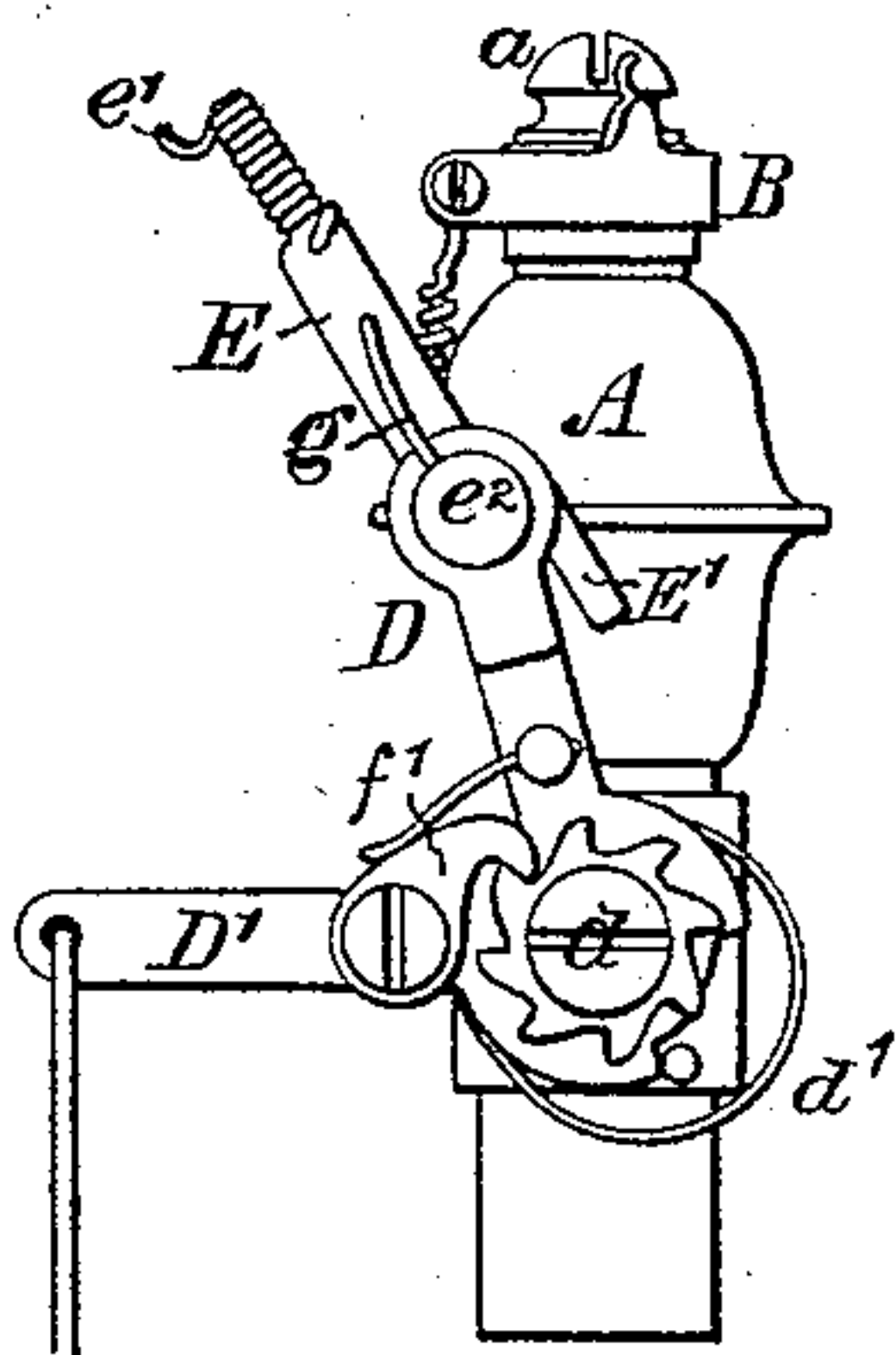


FIG. 5.

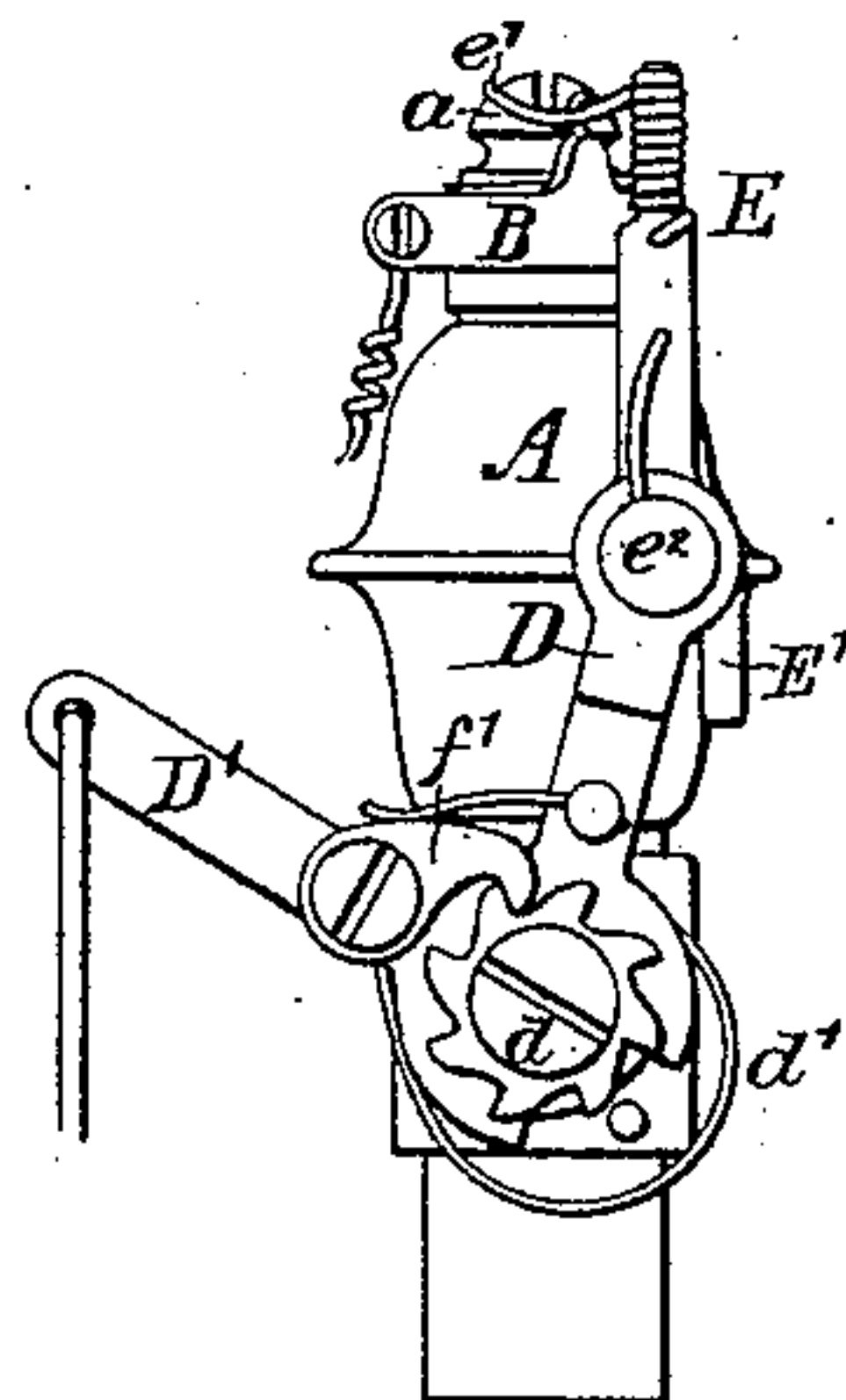


FIG. 6.

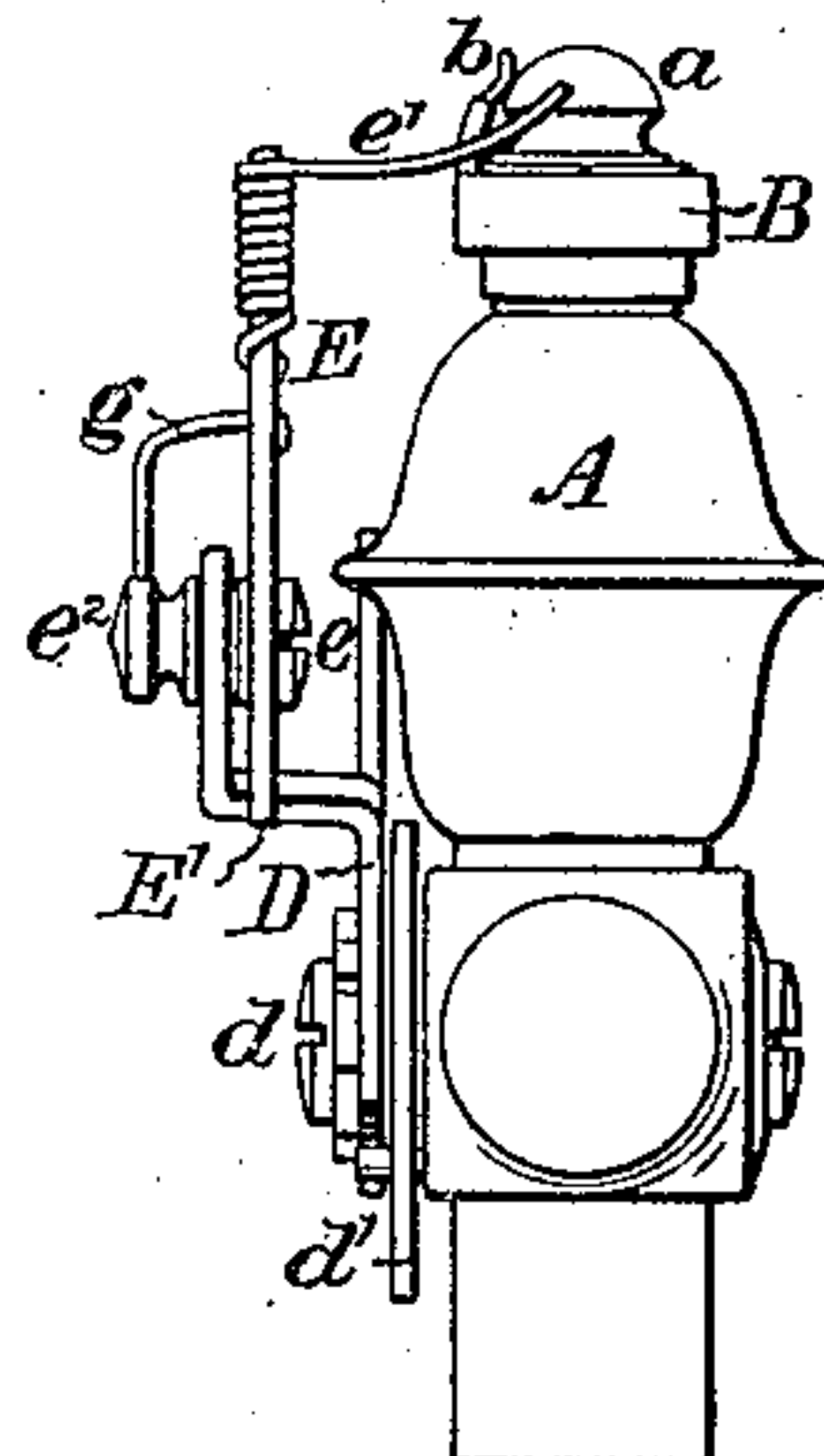
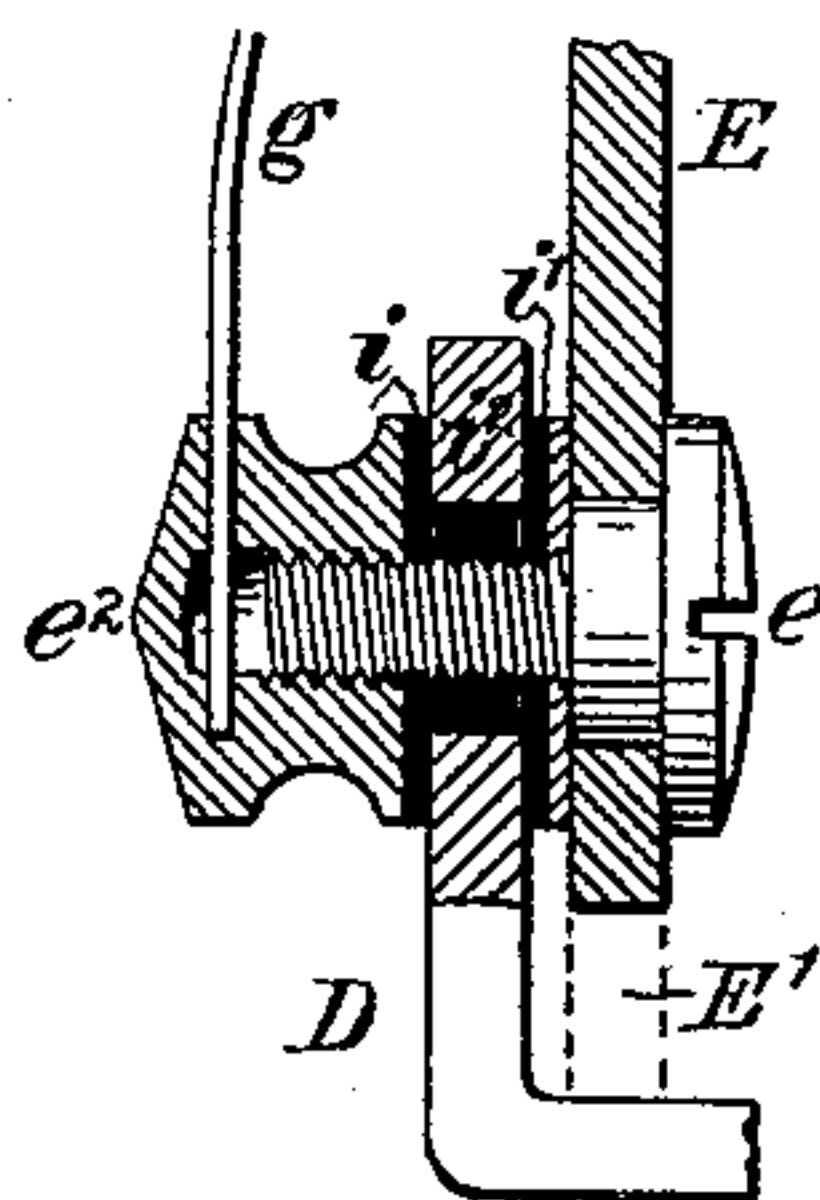


FIG. 7.



Witnesses:  
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Inventor:  
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By his Attorneys  
Howman & Howman



# UNITED STATES PATENT OFFICE.

CHARLES G. SAVAGE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO JOHN L. RICKETTS AND GRANT C. OSBORNE, OF SAME PLACE.

## ELECTRIC GAS-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 529,313, dated November 13, 1894.

Application filed June 13, 1894. Serial No. 514,397. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES G. SAVAGE, a citizen of the United States, residing at Philadelphia, Pennsylvania, have invented certain  
5 Improvements in Electric Gas-Lighters, of which the following is a specification.

The object of my invention is to so construct an electric gas lighting fixture in such a manner that it will not spark on the return movement and will not short circuit in the event  
10 of the lever catching on the contact of the burner.

In the accompanying drawings:—Figures 1, 2, 3, 4, and 5, are side views of my improved  
15 electric lighting fixture for gas burners showing it in different positions. Fig. 6, is an end view. Fig. 7, is an enlarged view showing the insulating joint.

A is the gas burner of the ordinary construction having a tip *a* and at the base of the tip is a band B insulated from the burner and having a contact arm *b*.

*b'* is a wire leading from the battery to the band and is secured to the band in the ordinary  
25 manner.

Pivoted at *d* is a lever D carrying at its outer end a pivoted arm E which is pivoted to the lever at *e*. On the extreme end of this pivoted arm is a spring contact *e'* which  
30 brushes against the contact or terminal *b* when the lever is operated.

*D'* is the operating arm of the lever D and is provided with the ordinary pull cord or chain.

*f* is a ratchet wheel connected to the gas valve and engaging with this ratchet wheel is a spring pawl *f'* carried by the lever so that on each operation of the lever the gas is either  
35 turned on or turned off.

*d'* is a spring for returning the lever D to its normal position, as shown in Fig. 1.

The pivoted arm E is insulated from the lever D as clearly shown in Fig. 7, by washers  
45 *i i'* of nonconducting material and by a nonconducting sleeve *i²*. A bolt *e* passes through the arm E and through the insulated opening in the lever D and is confined by a nut *e²*.

*g* is a spring attached to the arm E and to the nut *e²* as shown in Figs. 6 and 7, and holds  
50 the arm in the position shown in Fig. 1.

Depending from the arm E is an extension *E'* forming the contact between the arm and the lever so that the contact will not be made between the points *e'* and *b* unless the contact is made also between the extension *E'*  
55 and the lever D, and the parts are so formed that this contact is only made at the end of the forward stroke so that it is impossible for the attachment to short circuit on the return movement or at the beginning of the forward  
60 stroke.

Fig. 1, illustrates the device in its normal position. Fig. 2, illustrates the points *e'* and *b* in contact at the commencement of the stroke.

Fig. 3, shows the lever near the end of its  
65 stroke; and the extension *E'* in contact with the lever D as well as the points *e'* and *b* in contact creating the spark necessary to ignite the gas.

Fig. 4, illustrates the device in its extreme  
70 forward position with both contacts clear; and Fig. 5, illustrates the lever on its return stroke showing the contact *e'* brushing against the contact *b* and showing the contact *E'* clear  
75 of the lever. This is the position in which the ordinary lighter in time short circuits. Hence it will be seen on referring to this view, that it is impossible for the device constructed in accordance with my invention to short circuit and run down the battery, when the le-  
80 ver is in the position illustrated.

I claim as my invention—

1. The combination in an electric gas lighter, of the burner, the terminal thereon, the operating part, an arm actuated thereby,  
85 but insulated therefrom, and means tending to keep the arm out of contact with the operating part, said arm on its forward movement forming a contact with the terminal of the burner simultaneously with the contact of the  
90 arm and the operating part, substantially as described.

2. The combination in an electric gas lighter, of the operating lever, an arm pivoted thereto but insulated therefrom, said arm  
95 adapted to come in contact with the lever on its forward stroke, substantially as described.

3. The combination in an electric gas lighter, of the pivoted lever, an arm pivoted thereto but insulated therefrom, an extension  
100

of said arm forming a contact at the one point only of the stroke, substantially as described.

4. The combination in an electric gas lighter, of the burner A, the contact *b* thereon, 5 a pivoted lever D, means for operating said lever, an arm E pivoted to said lever, and having a contact brush *e'*, insulating material between the lever and the arm, a contact point E' on the arm adapted to come into contact 10 with the lever on the forward stroke, and a spring tending to keep the arm away from the lever, substantially as described.

5. The combination in an electric gas lighter, of the burner A, a band thereon hav- 15 ing a contact, a pivoted lever D, an arm E having an extension E' adapted to bear against

the lever on the forward movement, a bolt *e*, its nut, insulating material between the arm and bolt and the lever, a spring on the arm attached to the nut tending to keep the extension E' away from the lever, a spring contact on the end of the arm adapted to come in engagement with the contact *b* on the burner, substantially as described. 20

In testimony whereof I have signed my 25 name to this specification in the presence of two subscribing witnesses.

CHARLES G. SAVAGE.

Witnesses:

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WILLIAM A. BARR.