

No. 695,728.

Patented Mar. 18, 1902.

R. E. JÄHNIG.  
GAS LIGHTER.

(Application filed July 9, 1900. Renewed Apr. 8, 1901.)

(No Model.)

Fig. 1.

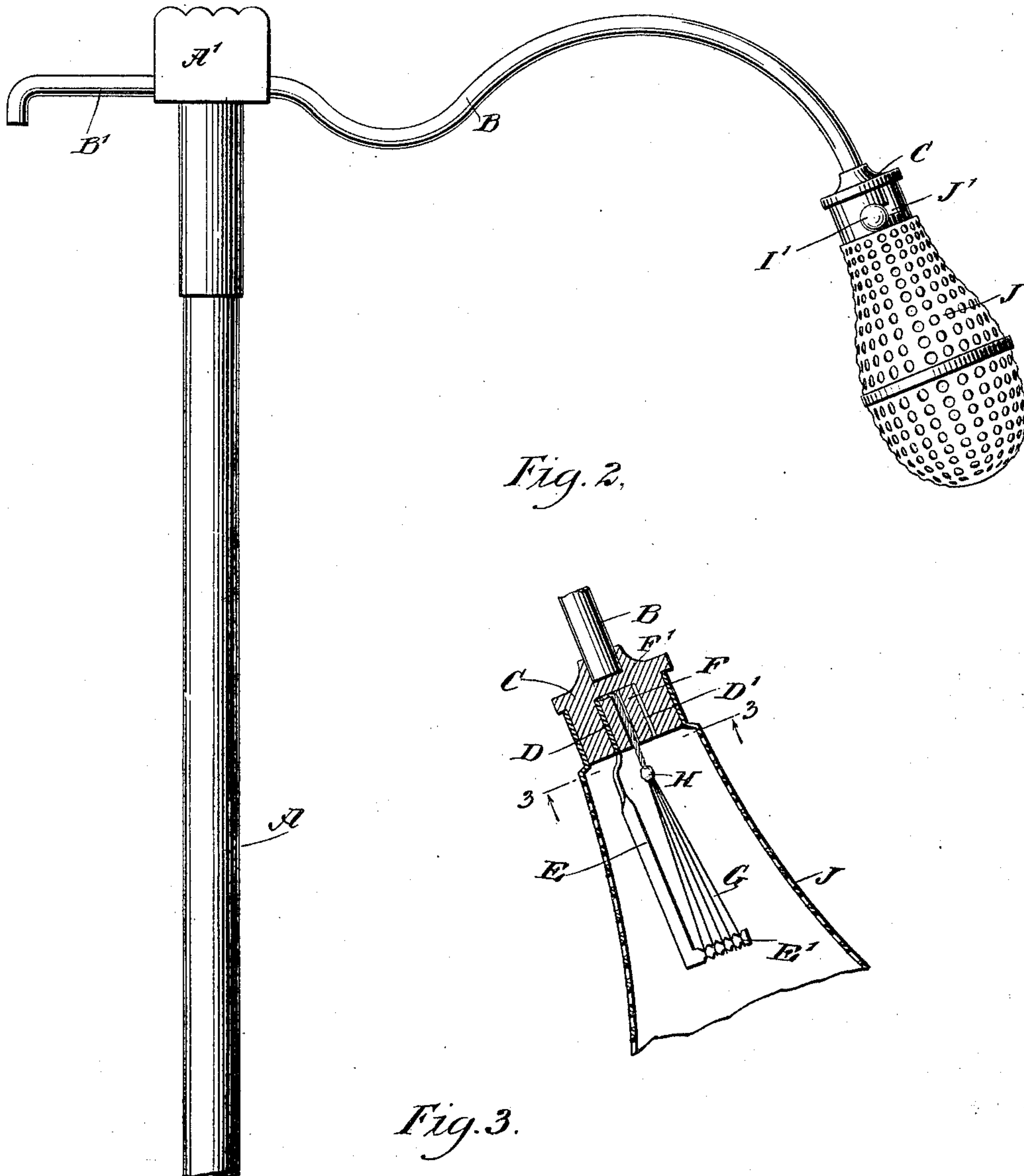


Fig. 2.

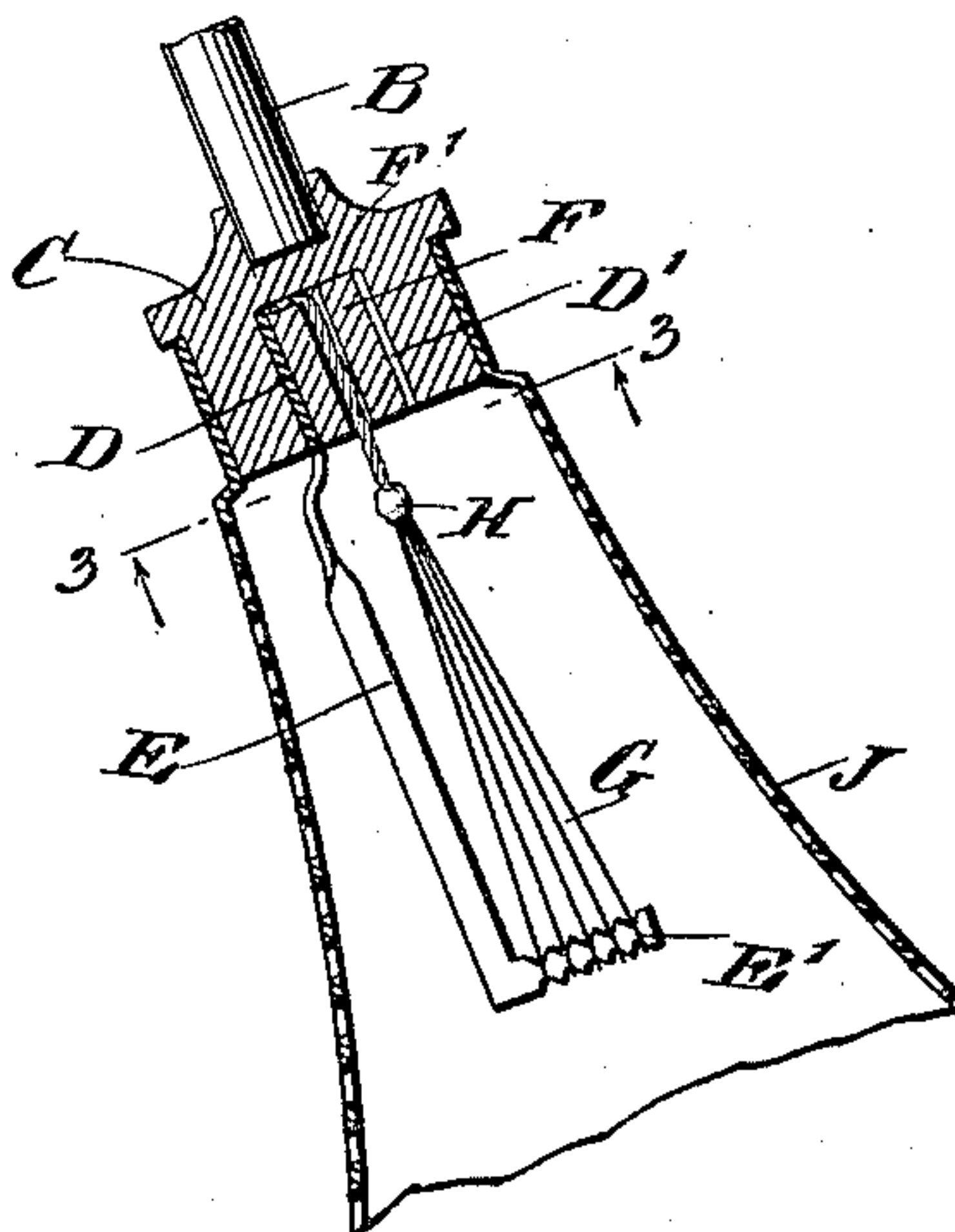
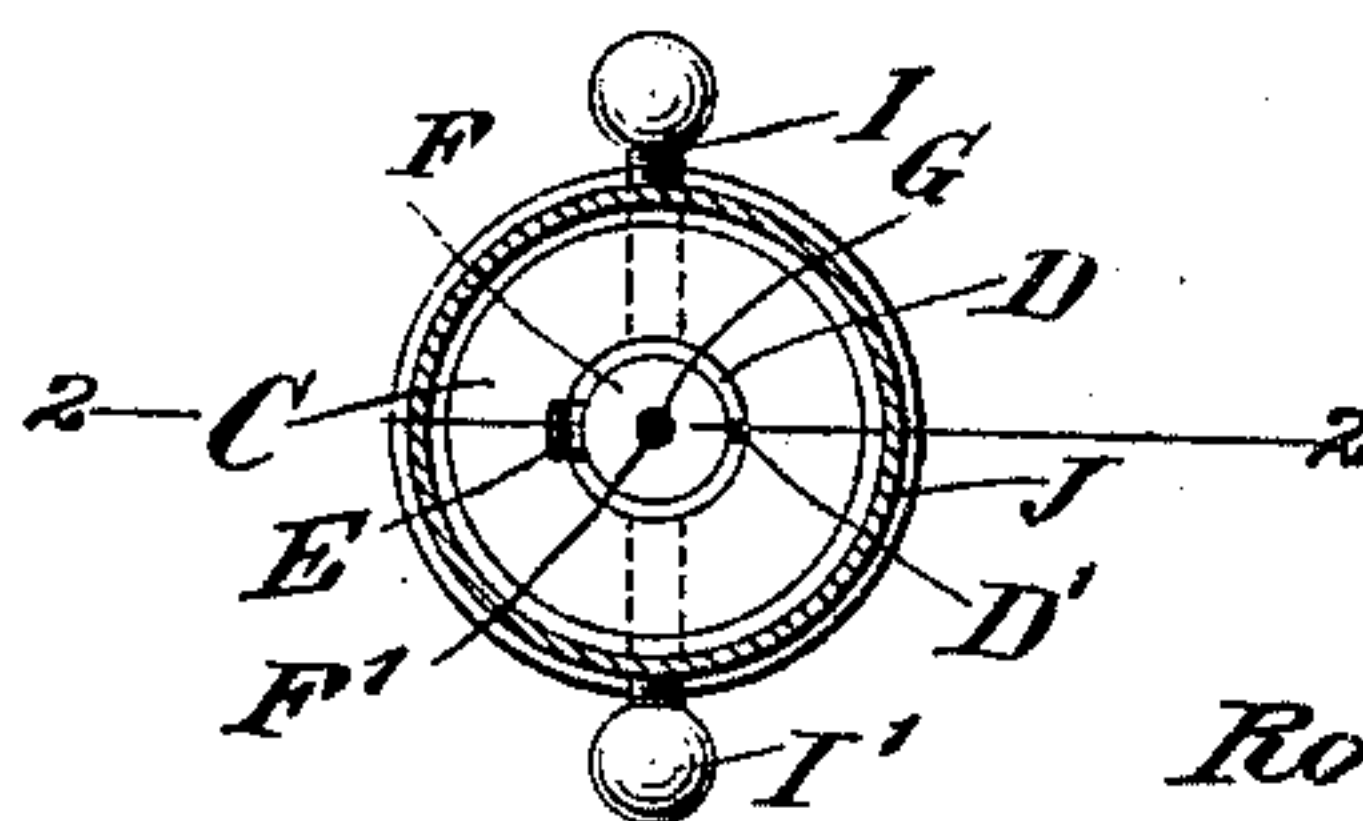


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## GAS-LIGHTER.

SPECIFICATION forming part of Letters Patent No. 695,728, dated March 18, 1902.

Application filed July 9, 1900. Renewed April 8, 1901. Serial No. 54,919. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT EMIL JÄHNIG, a subject of the King of Saxony, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Gas-Lighter, of which the following is a full, clear, and exact description.

My invention relates to devices for lighting gas, and has for its object to provide a simple device of the above-indicated class which will be effective and durable and which will render the use of matches dispensable, while being considerably cheaper than the use of self-lighting attachments on all burners.

The invention will be fully described hereinafter and the features of novelty pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improved gas-lighter. Fig. 2 is a detail longitudinal section of a portion of the gas-lighter on line 2 2 of Fig. 3, drawn upon an enlarged scale; and Fig. 3 is a cross-section on the line 3 3 of Fig. 2.

The improved gas-lighter is provided with a handle A of suitable length, which preferably at the top is furnished with any suitable or approved device for turning the cocks of burners, such as two parallel spaced plates A'. This construction being well known, I have not shown it in detail. From the top of the handle A extends an arm B, which may have an ornamental extension B', and which at its front end carries the gas-lighter proper. The latter consists of a socket or hub C, having an axial bore in its outer face. In this bore is located a sleeve D, preferably split, as at D', and carrying an arm E, having a notched cross member E' at its outer end. Within the sleeve D is arranged a core F of refractory material, such as meerschauum, having a central aperture F', through which is passed a pilule-carrier of platinum or other wire G, the outer runs of which are laid in the notches of the cross member E', while the inner runs of the wire are passed through the opening in the core and are fastened thereto in any suitable manner, as by twisting the runs

of the wire together and clamping the twisted portion between the core F and the sleeve D. Adjacent to the core F the wire carries a body H of finely-divided platinum or like material, which possesses the property of becoming highly heated when exposed to gas. The split sleeve D is held in place either simply by its elasticity or also by screws I, which project through the body C and have heads I'. The parts above described inserted in the socket or hub and secured therein constitute a cartridge or pilule carrier. To protect the delicate parts—viz., the wire G and the platinum body H—I provide a protecting-hood J, which is apertured, as shown, and has bayonet-slots J', adapted to receive the shanks of the screws I, so as to firmly connect the hood with the body C of the gas-lighter.

The operation is as follows: The cock of the burner is first opened in the usual manner to let the gas escape. Then the implement is held over the burner, so that the gas passes through the openings of the hood J and comes in contact with the platinum body H. The latter, according to the well-known property of spongy or finely-divided platinum, absorbs the gas so energetically as to become itself incandescent, thus igniting the gas. The platinum wire also becomes partly incandescent, rendering the ignition more certain.

I desire it to be understood that instead of finely-divided platinum I may employ any substance having the property of becoming incandescent when brought into a body of gas, and the claims are to be interpreted as covering such substances broadly. I am aware platinum sponge has been used in self-lighting attachments for gas-burners. The objection to this arrangement is its expensiveness, since each burner requires its individual lighting attachment; also, the life of the attachment is diminished, owing to the deleterious influence of the heat to which it is exposed while the gas is burning. With my improved gas-lighter the platinum is exposed to heat only while in use for ignition, and therefore will not need renewal for a long time.

The device is simple and efficient, comparatively inexpensive, and readily taken apart for renewal of the platinum.

Having thus described my invention, I



claim as new and desire to secure by Letters Patent—

1. The combination of a body, a refractory core set in the body, a notched arm carried by the body, a wire having its outer runs wound on the notched arm, and its inner runs secured to the core, and finely-divided platinum secured to the wire.

2. The combination of a body, an axially-apertured refractory core set in the body, an arm carried by the body, a wire having its outer runs wound on the arm and its inner runs converged and passed into the aperture of the core, and finely-divided platinum secured to the wire.

3. The combination of an apertured body, an arm carried thereby and provided with a cross member, a wire having its outer runs wound on the said cross member and its inner runs converged toward the aperture of the body and secured within the same, and finely-divided platinum carried by the wire.

4. A gas-lighter, comprising a handle, a body secured to the handle and having a recess in its outer surface, a sleeve set in said recess, an arm projecting from the sleeve and provided at its outer end with a notched cross member, a refractory, apertured core set in the sleeve, screws passing through the body and engaging the sleeve, a wire the outer runs of which are wound on said notched cross member while the inner runs converge and are passed into the aperture of the core, finely-divided platinum secured to said wire, and an apertured hood inclosing the said arm, wire and platinum and having

bayonet-slots for the reception of the screws on the body.

5. The combination of a body, an arm carried thereby and provided with a cross member, a wire having its outer runs wound on the said cross member and its inner ends converged toward the body and secured thereto, and finely-divided platinum carried by the wire.

6. The combination, in an automatic gas-lighter, of a handle, a hub at the end of said handle having a central perforation, a cartridge inserted within said perforation, a shield covering said cartridge and secured upon said hub, and a screw passing through the neck of said shield and into said hub and impinging against the said cartridge.

7. The combination, in an automatic gas-lighter, of a suitable handle-rod, a hub on the end thereof, a suitable lighting-cartridge mounted therein, a perforated shield covering said cartridge and engaging around said hub, and a screw inserted through a perforation in said shield and into a perforation in said hub and adapted to impinge against the base of said cartridge, whereby said several parts are secured in place, substantially as set forth.

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

ROBERT EMIL JÄHNIG.

Witnesses:

JOHN LOTKA,

EVERARD BOLTON MARSHALL.