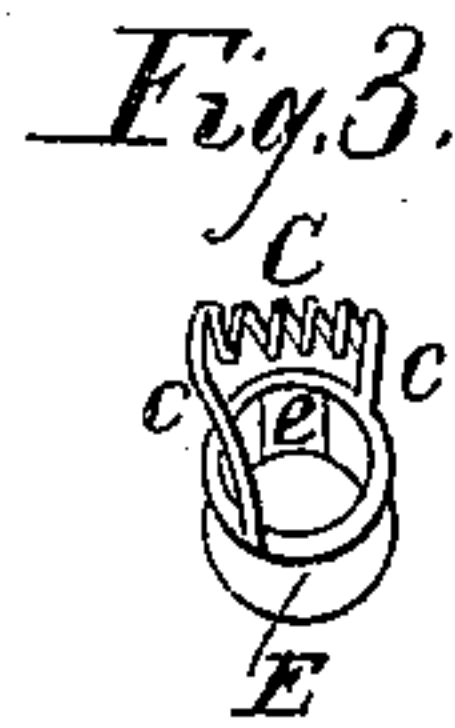
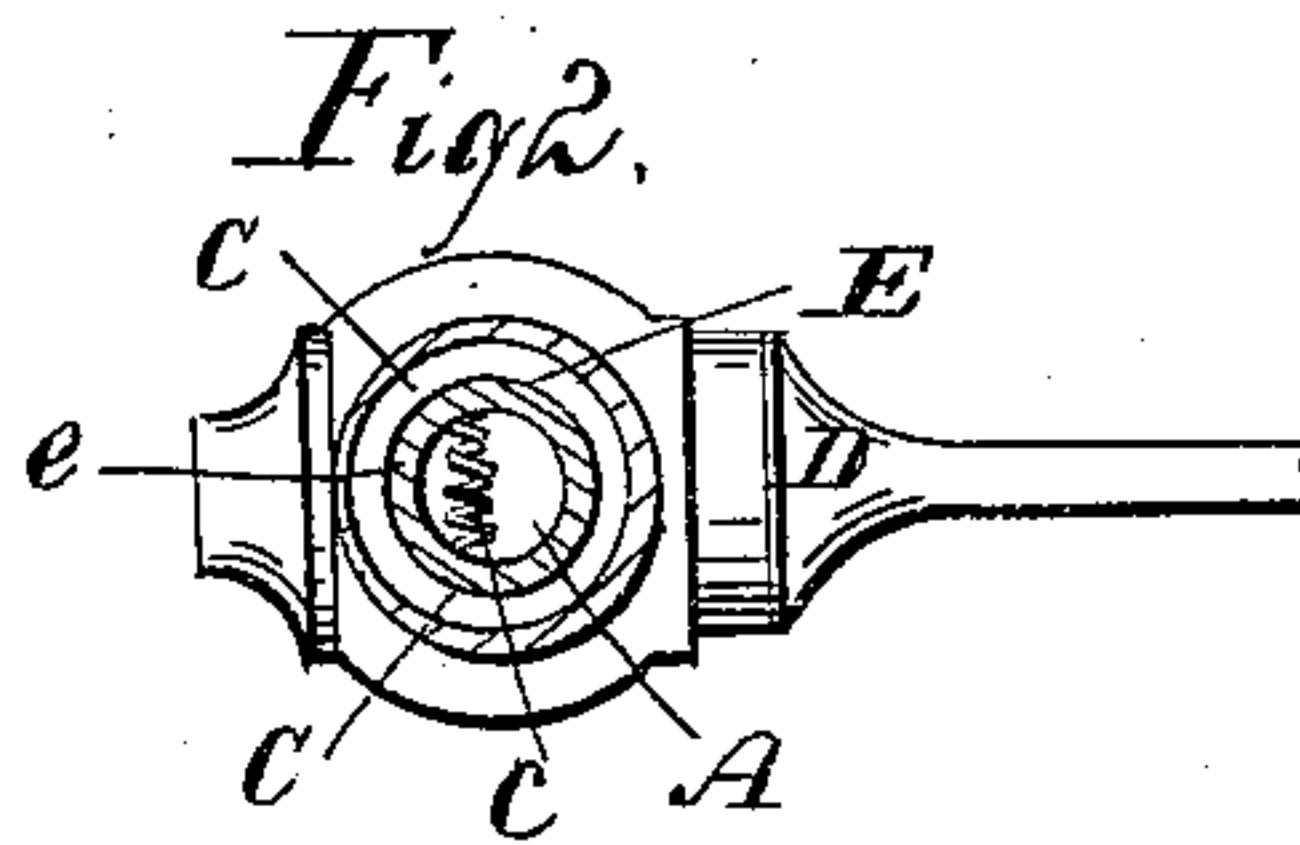
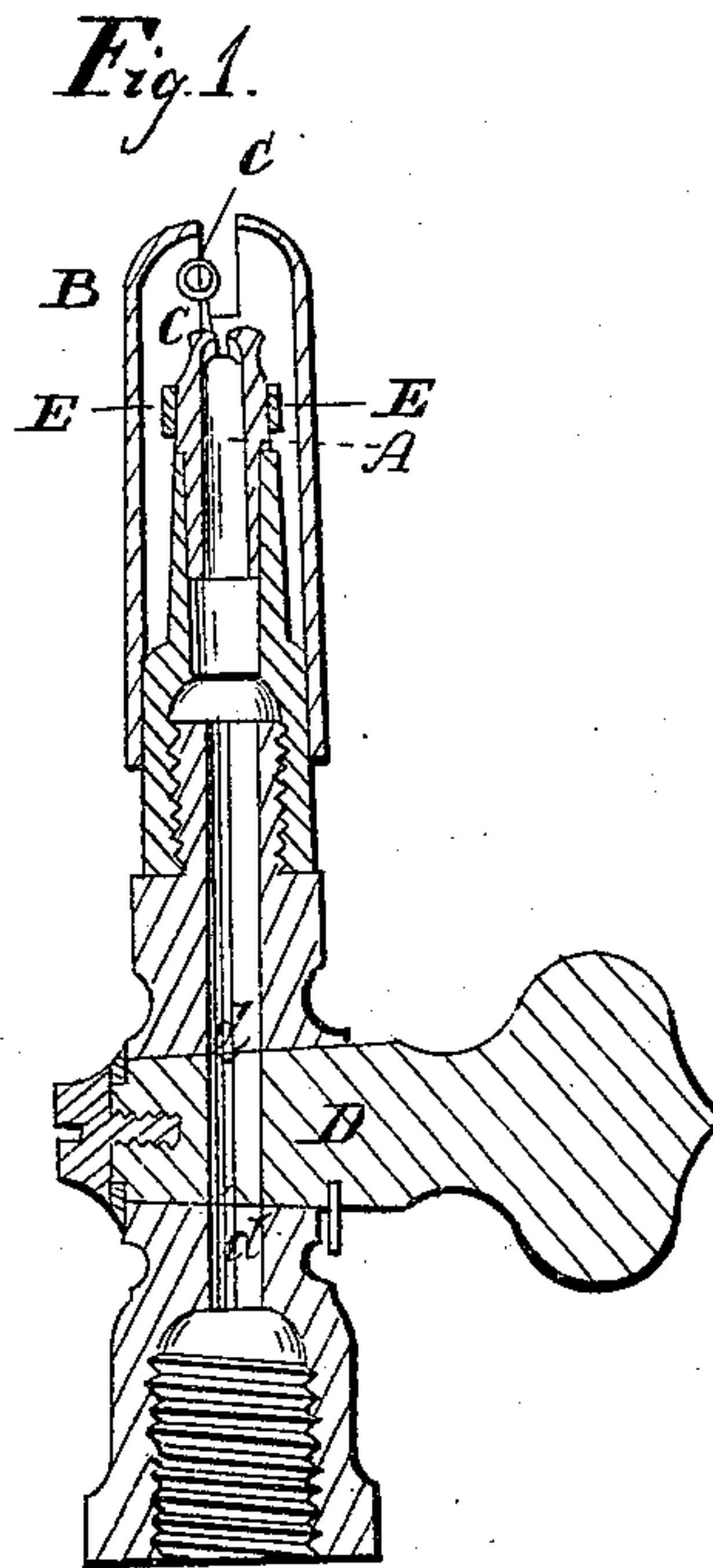


S. GARDINER, Jr.  
Gas-Lighting Device.

No. 87,039.

Patented Feb. 16, 1869.



Witnesses,  
W. B. Deming  
J. Scherlin.

Inventor.  
Saml. Gardiner Jr.  
By *Knights*  
Attys.



SAMUEL GARDINER, JR., OF NEW YORK, N. Y.

*Letters Patent No. 87,039, dated February 16, 1869.*

**IMPROVEMENT IN SELF-LIGHTING ATTACHMENT FOR GAS-BURNERS.**

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern :*

Be it known that I, SAMUEL GARDINER, Jr., of the city, county, and State of New York, have invented a new and improved Self-Lighting Attachment for Gas-Burners; and I do hereby declare that the following is a sufficiently full and exact description of my said invention, to enable one skilled in the art to which it appertains, to carry it into effect, reference being had to the accompanying drawings, which are made a part of this specification.

My invention consists in an improved manner of applying and securing a coil of platina wire, or its equivalent, to the tip of a gas-burner, within a hood, so as to cause the relighting of the gas, in the event of being extinguished, from any cause, without being turned off.

In the drawings—

Figure 1 represents a vertical section of a gas-burner with my improvement applied.

Figure 2 is a plan or top view of the same.

Figure 3 is a perspective view of the self-lighting appliance detached.

The burner A *a*, hood B *b*, and key D *d*, may be constructed as described in Letters Patent granted to me on the 16th of June, 1868, or in any other suitable manner.

The coil, C, instead of being attached to the hood B, as in my patent before referred to, is secured, by casting, soldering, or other means, to a ring, E, of suitable metal or material, which is made to fit the burner A.

I prefer to form the coil of platina wire, with two legs, *c c*, upon which a ring, E, of type-metal, may be cast under pressure.

A flat face, *e*, on the inside of the ring, fitting a similar flat face, which may be formed on the burner by

filing, insures the proper adjustment of the coil, and prevents it getting out of place.

My present improvement may be used either with or without the "leak" *d*, described in my former patent.

The hood B has a beneficial effect, but I prefer to form the slot in its top of greater width than that described in my patent mentioned above.

Instead of employing a coil of wire, a body of platina or other metal may be used, in porous or other form, which will be adapted to retain or evolve the heat necessary to produce the effect set forth.

The appliance constitutes a sure preventive of accidents by the blowing out of the gas, as it insures the instantaneous and continued relighting of the latter until it is turned off.

It is also valuable in improving the combustion of the gas, and thus intensifying the light.

My present improvement possesses this great advantage over the device described in my patent of June 16, 1868, that it adapts the attachment to be made by machinery, at a moderate cost, instead of requiring separate and careful manipulation; the application of the attachment for use is rendered more easy, and its adjustment more sure.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The platina coil C *c c*, supporting-ring E *e*, and hood B, when constructed and combined to operate in the manner and for the purposes herein set forth.

Witnesses: SAM'L GARDINER, JR.

OCTAVIUS KNIGHT,

WM. H. BRERETON, Jr.