

(No Model.)

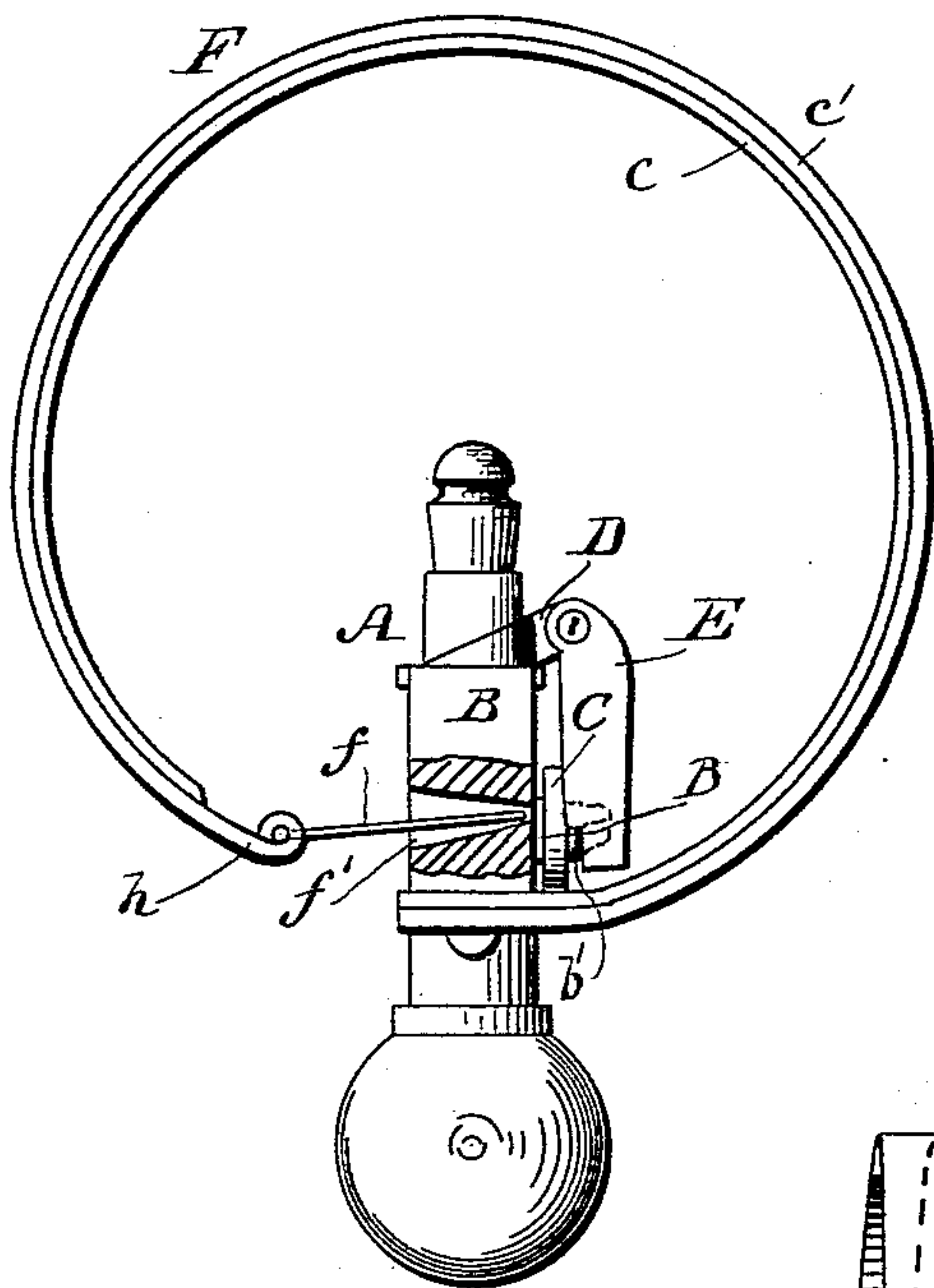
C. H. BARNETT.

AUTOMATIC COCK OR CUT-OFF FOR GAS BURNERS.

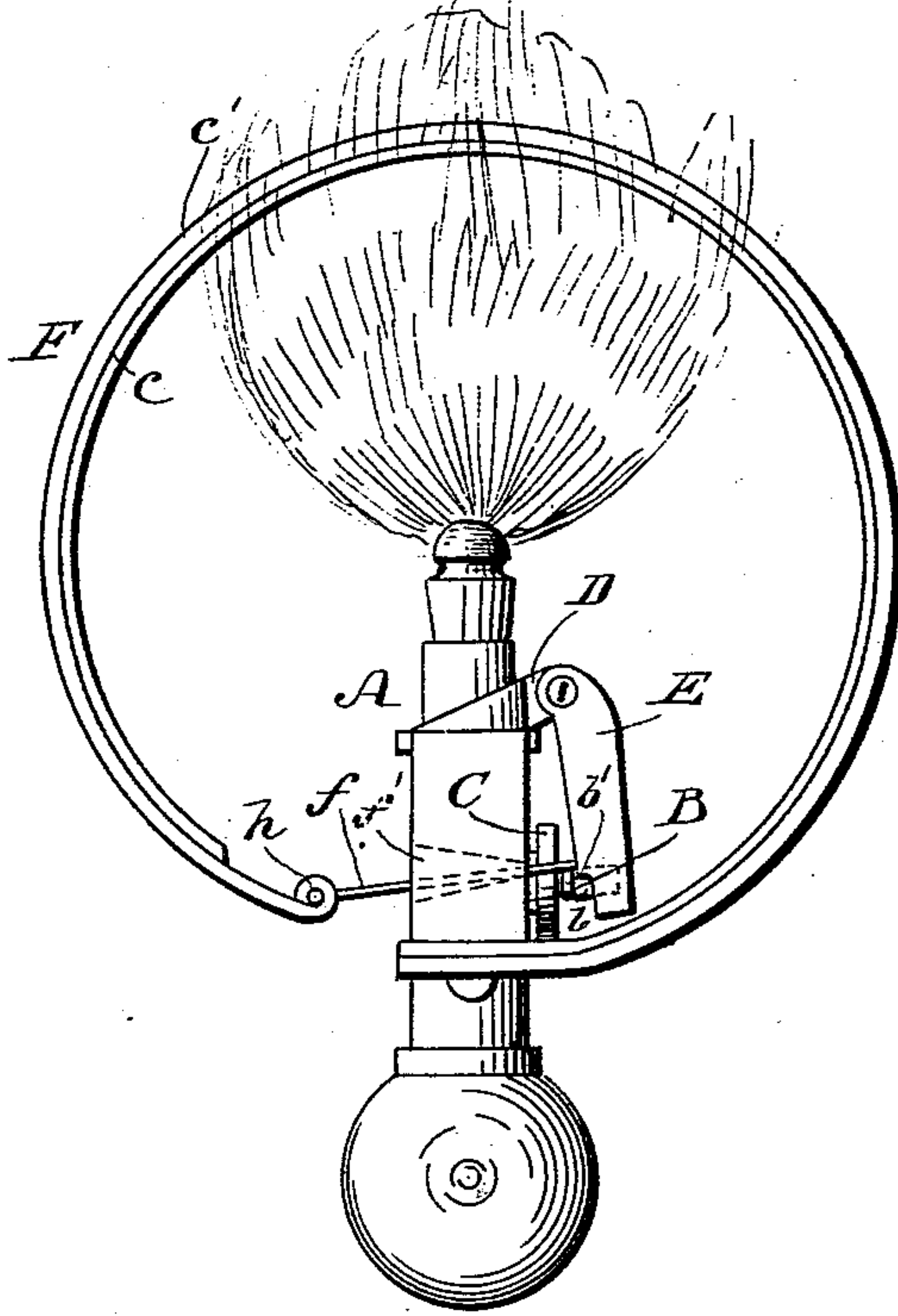
No. 411,566.

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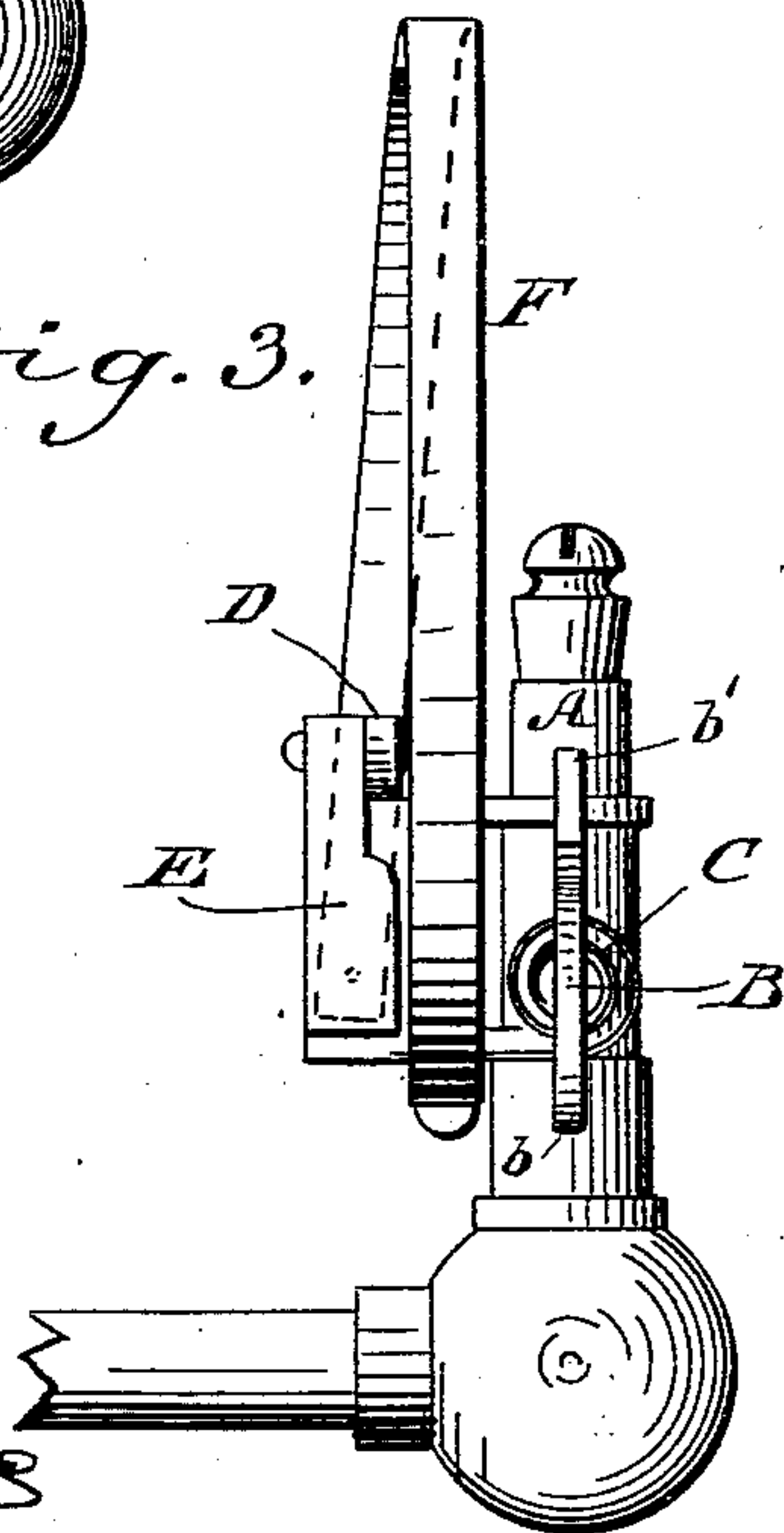
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES H. BARNETT, OF NEW YORK, N. Y.

## AUTOMATIC COCK OR CUT-OFF FOR GAS-BURNERS.

SPECIFICATION forming part of Letters Patent No. 411,566, dated September 24, 1889.

Application filed November 16, 1888. Serial No. 291,065. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. BARNETT, of the city, county, and State of New York, have invented a new and Improved Automatic Cock or Cut-Off for Gas-Burners, of which the following is a full, clear, and exact description.

The object of my invention is to provide a cheap, practical, and reliable device to be applied to gas-burners for automatically turning off the gas in case the light should be blown out or otherwise accidentally extinguished; and to this end my invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

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

Figure 1 is a broken front elevation of my invention, showing the position of the parts before the plate becomes heated, the cock being open. Fig. 2 is a similar view showing the position of the parts after the plate has become heated, and Fig. 3 is an edge view showing the cock closed.

A represents an ordinary gas-burner tip provided with cock B and spring C for closing the cock. To one side of the tip A, pivoted to a suitable support D, is a pawl E, arranged to engage the point *b'* of the finger-plate *b* of the cock when the same is turned to horizontal position for holding the cock open, as shown clearly in Figs. 1 and 2.

F is a plate of metal held adjacent to the tip, so as to be heated by the flame when the gas is lighted. This plate is by preference circular in form and composed of a layer *c* of brass and a layer *c'* of steel, brazed or otherwise secured together. The free end of the plate F is, by preference, provided with a separate point *f*, held in a guide *f'* in line with the pawl E.

When the plate F is at normal temperature, the point *f* will be carried out of contact with the pawl E, as shown in Fig. 1. If the cock

be now opened and the gas lighted, the pawl E will engage with the plate *b* and hold the cock open. The heat of the flame will expand the plate F and force the point *f* against the pawl E, pushing it off from the cock, which will now be held by the said point, as shown in Fig. 2.

If the gas be blown out or otherwise extinguished, the cooling of the plate F will withdraw the point and release the cock, whereupon the spring C will close it, and thus automatically cut off the gas.

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

1. The combination, with the burner having a horizontal cock provided with a spring holding it closed and a vertically-extending finger-plate *b*, adapted to be turned to a horizontal position, of a vertically-extending pawl swinging inwardly over the finger-plate when the latter is turned down against the action of the spring, and the vertical circular compound plate secured at one end to the burner and having a point at its free end resting against the inner edge of the pawl, substantially as set forth.

2. The combination, with the burner having a horizontal cock B, provided with a closing-spring and a vertically-extending finger-plate *b*, of a support D, secured to the burner, and provided with a depending vertically-swinging pawl E, the lower part of which swings inwardly over the finger-plate when the latter is turned down into a horizontal position, a guide *f'* in line with the pawl and in rear thereof, and the vertical circular compound plate F, secured at one end under the guide and at its opposite end provided with a horizontally-extending separate point *f*, passing through the guide against the rear side of the pawl, substantially as set forth.

CHARLES H. BARNETT.

Witnesses:

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