

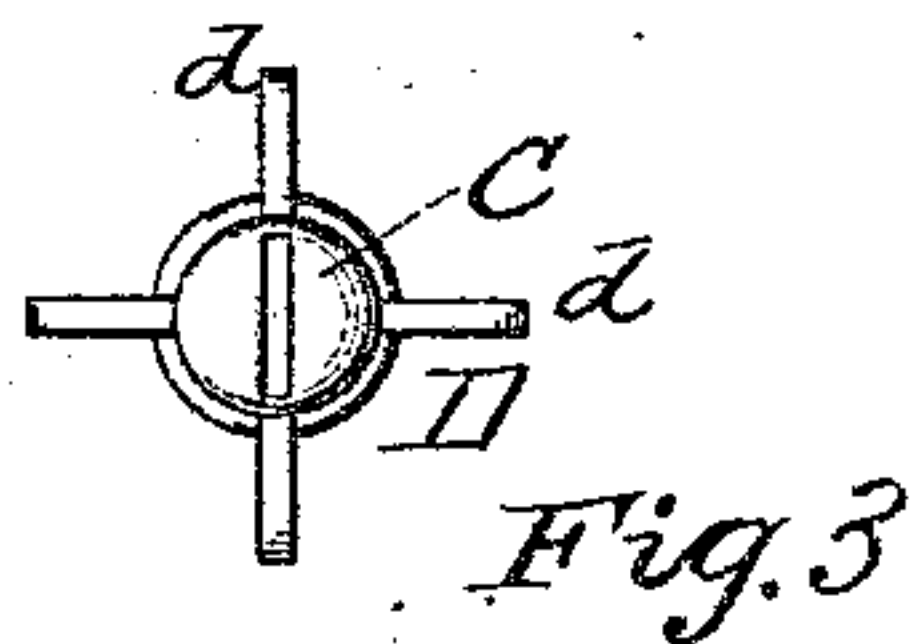
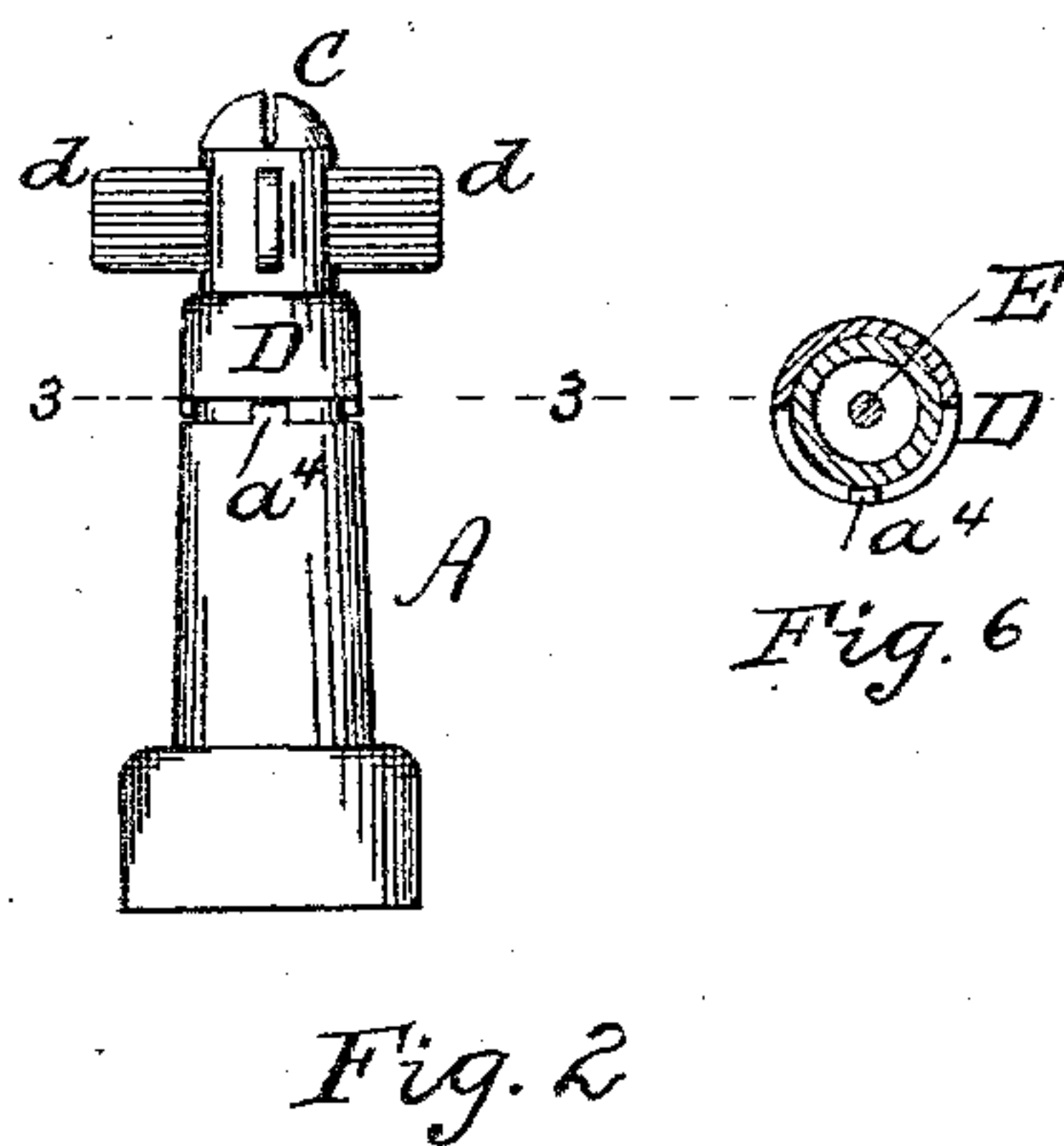
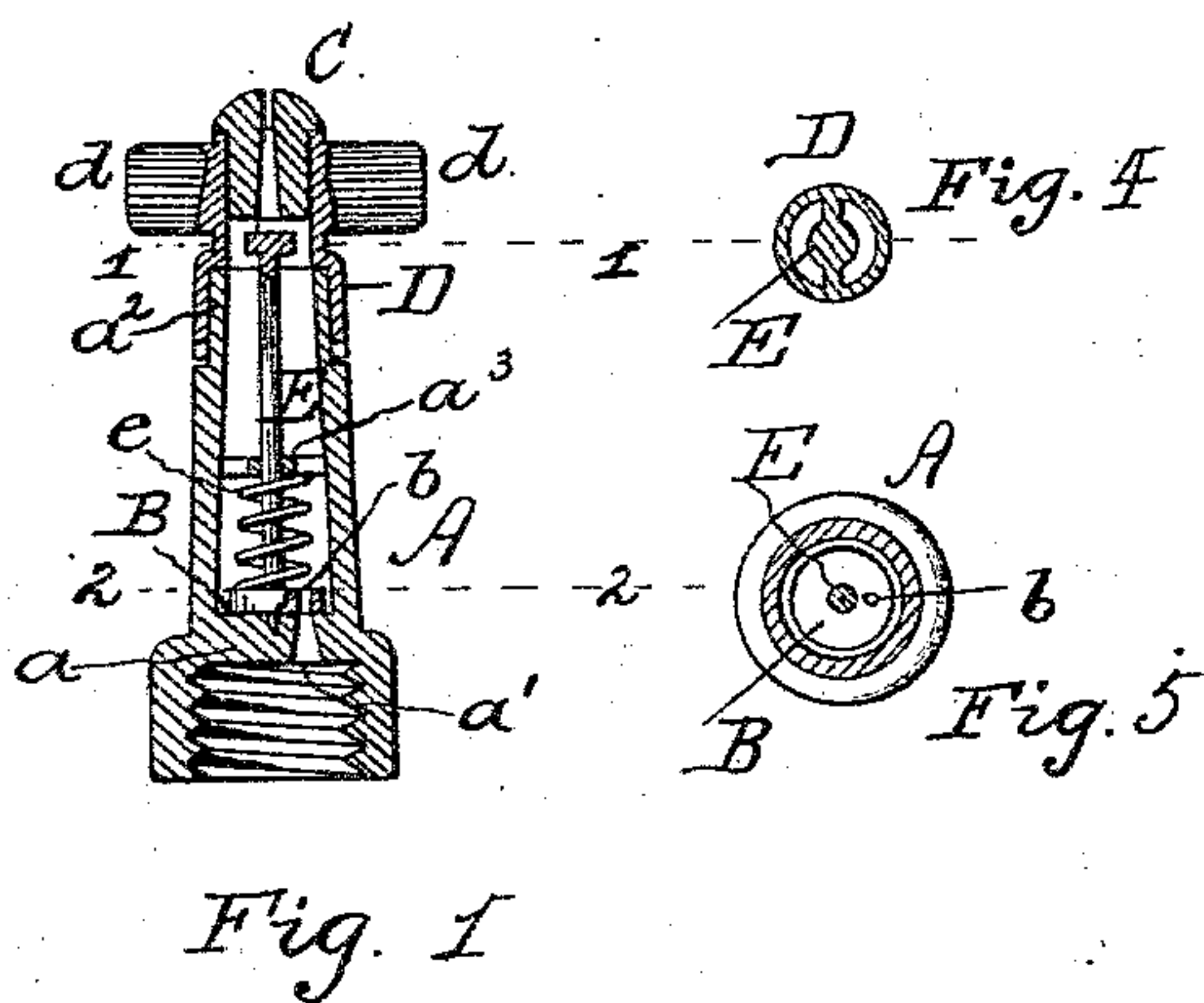
(No Model.)

G. F. HUNTINGTON.

GAS BURNER.

No. 283,608.

Patented Aug. 21, 1883.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE F. HUNTINGTON, OF PHILADELPHIA, PENNSYLVANIA.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 283,608, dated August 21, 1883.

Application filed October 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. HUNTINGTON, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification, reference being had therein to the accompanying drawings, wherein—

10 Figure 1 is a vertical transverse section of my improved gas-burner. Fig. 2 is an elevation of same. Fig. 3 is a plan. Fig. 4 is a section on line 1 1, Fig. 1. Fig. 5 is a section on line 2 2, Fig. 1, and Fig. 6 is a section on
15 line 3 3, Fig. 2.

My invention has for its object to provide a gas-burner so constructed that when its flame is blown out the supply of gas is cut off to the burner, thereby preventing incautious persons subjecting themselves to liability of death
20 by suffocation.

My invention accordingly consists of a gas-burner provided with a fan or a series of blades connected to and controlling the opening and closing of a valve within the burner, whereby, when the gas-flame is blown out, the fan revolves and turns said valve to shut off
25 the supply of gas to the burner.

Referring to the accompanying drawings, A represents the body of a gas-burner of the usual or other suitable configuration, having a diaphragm, *a*, with opening *a'* for the passage of gas. Above said diaphragm is a disk-valve, B, having an opening, *b*, which, when
30 it registers with aperture *a*, permits the gas to flow to the burner-tip C, and when said openings do not register the supply of gas is closed to said tip. The latter may be a lava or other suitable tip, and is secured to a shell
35 or sleeve, D, designed to fit loosely but snugly over the top *a''* of body A, as shown, so as to have freedom of rotary movement around the same, as hereinafter described.

E represents a rod connecting the sleeve D and valve B. Said rod passes through a cross-bar, *a'''*, in body A, and is provided with a light spiral spring, *e*, which acts to hold valve B in close contact with diaphragm *a*, to prevent leakage of gas between said parts when
40 valve B is closed, said spring having sufficient

tension to accomplish such result without retarding the rotary movement of the valve, as hereinafter explained.

To the exterior upper part of the shell or sleeve D is attached a series of blades or wings, *d d*, in close proximity to the tip C, as shown. 55

The operation is obvious. The burner is attached to a bracket by screwing or otherwise fastening it thereon. When the burner is to be lighted, the cock in the bracket is turned 60 and a match or taper applied to tip C. If valve B is not opened, the fans or blades *d* are turned to cause the openings *b a'* to register, whereupon the gas escapes from tip C and is ignited. The flame of the burner is designed 65 to be extinguished in the usual manner—*i. e.*, by closing the cock in the bracket. If, however, said flame be blown out, the forcible expulsion of the breath will cause fans *d d*, and with them the valve B, to rotate, thereby moving disk or valve aperture *b* out of registration with opening *a'* to cut off the supply of gas to the burner-tip; hence when the flame is blown out the gas-supply is cut off to the burner-tip, thereby avoiding the escape of gas 75 therefrom. If the gas be not so shut off, when the flame is blown out it would escape into the room wherein the fixture is located, and subject the occupants thereof to the liability of death by suffocation, as has heretofore been 80 the case when the flame of an ordinary gas-burner has been extinguished by blowing it out. With my improved burner, however, no such danger can occur, as the gas is cut off in the act of blowing out the flame. 85

If desired, a stop, *a''*, on body A may be provided for limiting the extent of rotation of valve B and sleeve D.

I have shown my improvements applied to fish-tail burners, but it is evident that any other burner may be similarly equipped. Again, if desired, the sleeve D, blades *d*, and valve B may be constructed substantially in the manner that is employed for the cut-off of an Argand burner, or any other desired and suitable construction and arrangement may be used. 90

What I claim as my invention is—

1. A gas-burner constructed substantially as shown and described, whereby its flame may 100

be extinguished by blowing it out, and its gas-supply cut off simultaneously with such extinguishment, substantially as set forth.

2. In combination with a gas-burner, a tip,
5 a sleeve therefor having a series of blades or wings, and a valve connected thereto, substantially as shown and described.

3. In combination with a gas-burner, a

valve and fan mechanism, as and for the purpose set forth. 10

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE F. HUNTINGTON.

Witnesses:

S. J. VAN STAVOREN,
CHAS. F. VAN HORN.