

W. AURICH.
Vapor Burner.

No. 101,079.

Patented March 22, 1870.

Fig. 1

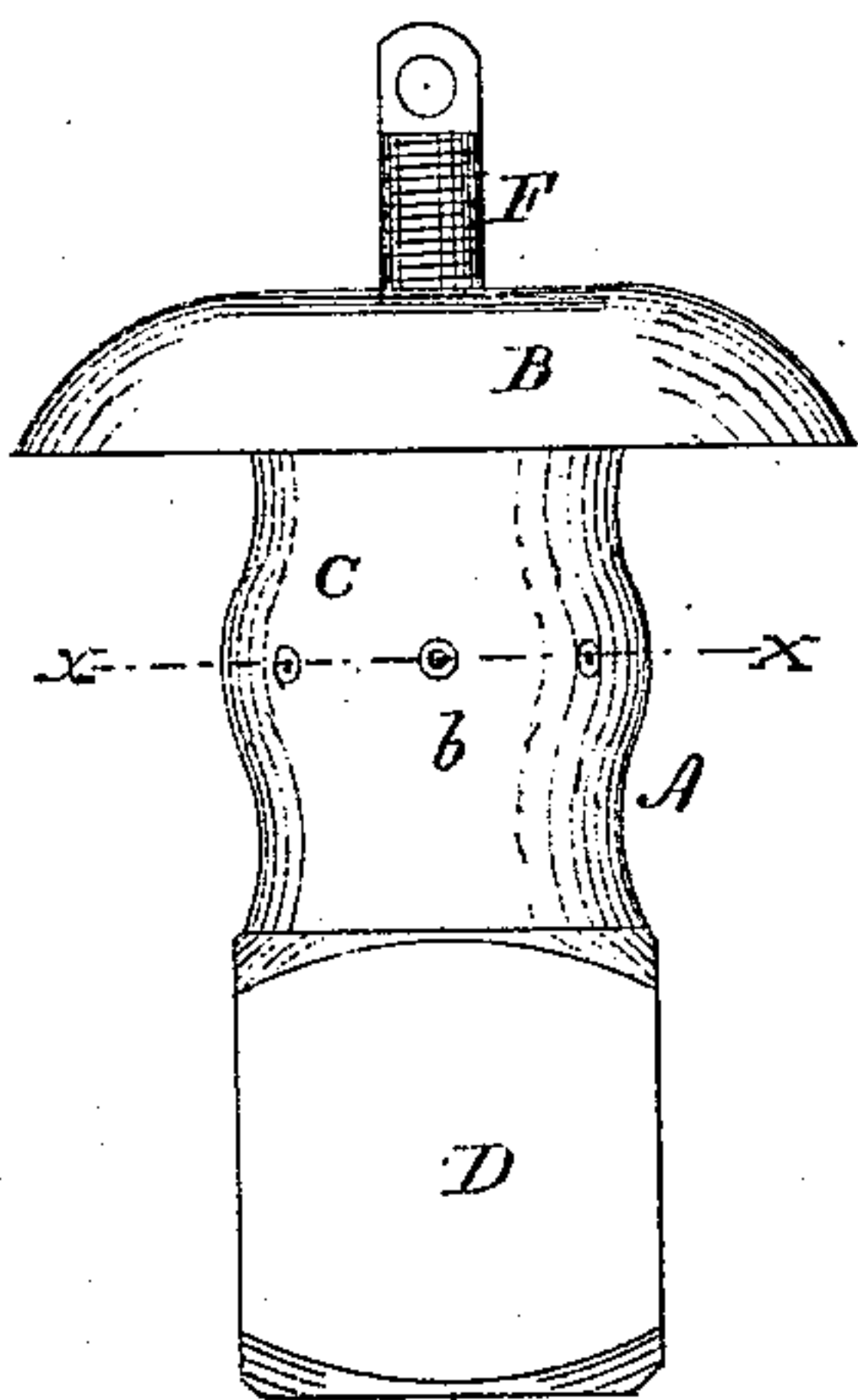


Fig. 2

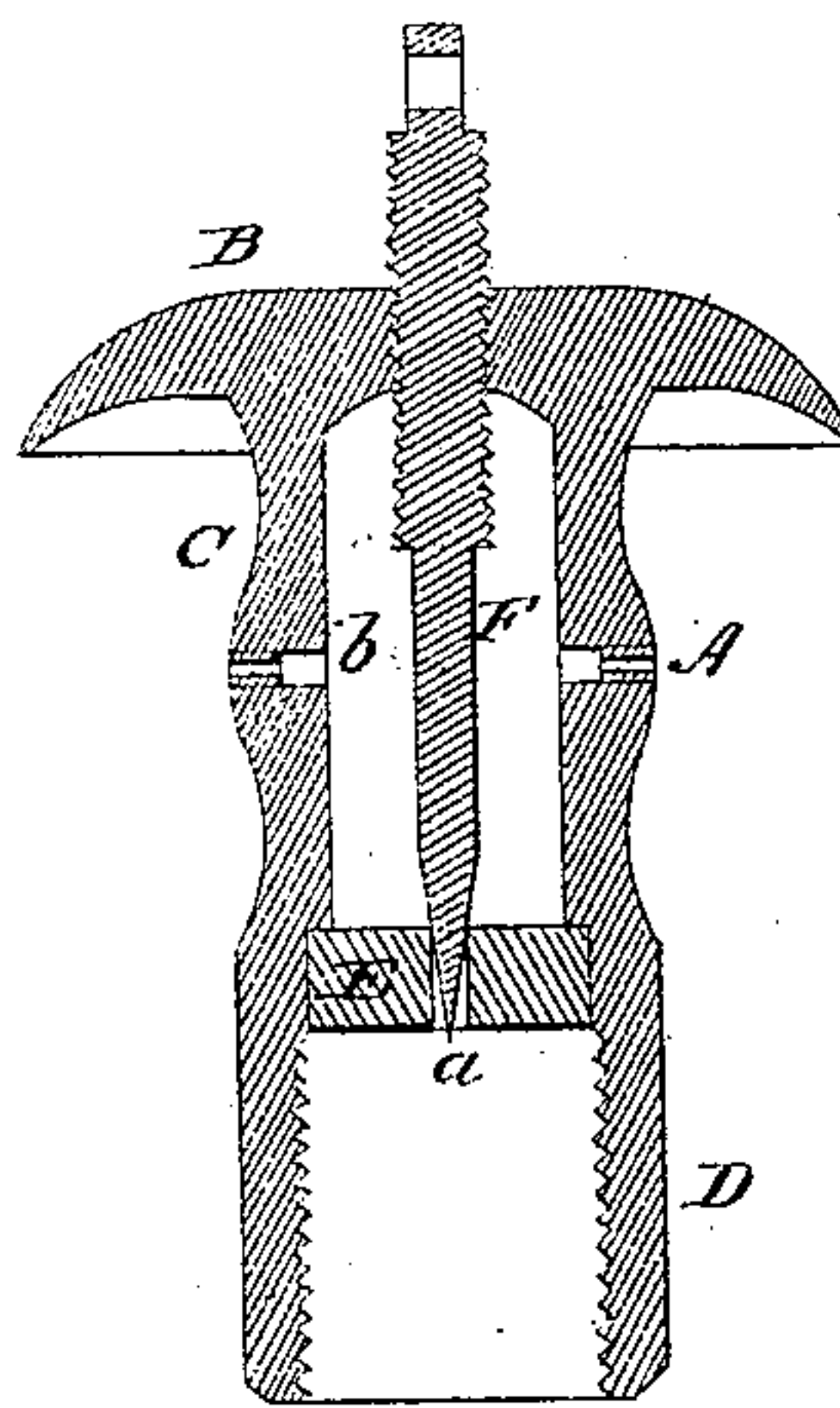
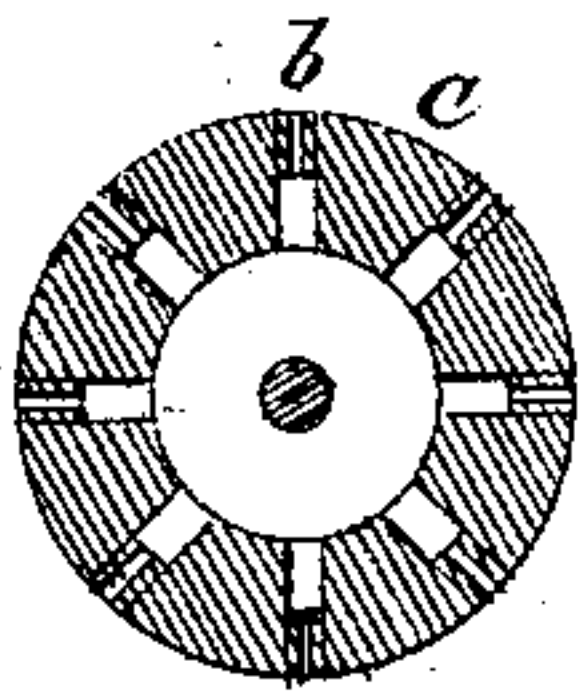


Fig. 3



Witness:
Phil. T. Dodge
L. E. Gressdell

Inventor:
Wm. Aurich
by Dodge & Munn
his atty

United States Patent Office.

WILLIAM AURICH, OF CHICAGO, ILLINOIS.

Letters Patent No. 101,079, dated March 22, 1870.

IMPROVEMENT IN VAPOR-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, WILLIAM AURICH, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Vapor-Burners, of which the following is a specification, reference being had to the accompanying drawings.

My invention consists in constructing the burner with a series of radial openings or jets immediately under a crown-plate, and without any device for the admission of air to the gas before its escape from the burner, and also in a novel device for regulating the flow of the gas.

In the drawings—

Figure 1 is a side elevation;

Figure 2 is a longitudinal vertical section; and

Figure 3 is a transverse section on the line $x-x$ of fig. 1.

I construct my burner A of brass or other suitable metal, and in the form clearly shown in figs. 1 and 2.

Its top B I make crown-shaped, the upper portion of its body C cylindrical, and its lower portion or base D square, or of any form desired.

A chamber of the usual form extends from its lower end to the crown, and is provided with a screw-thread for attaching it to the gas-pipe, and also with a partition, E, having a small opening, a , as shown in fig. 2.

From this chamber, above the partition E, and a short distance below the crown B, is a series of radial openings or jets, b , as shown in all the figures, and arranged as clearly shown in figs. 1 and 3. These openings are largest at their inner ends, their outer one being made smaller by the insertion of a tube or the use of a setting-tool, or by any other convenient device.

These radial jets are made largest at their inner ends, so that the gas may flow into them more freely from the chamber, and thus secure a constant and certain supply for the flame, and also so as to increase the velocity of the flow from the inner to the outer ends of the jets.

In the crown B is inserted a screw, F, with an eye in its upper end for convenience in turning it, and a tapering point at its lower, for closing wholly or partially the opening in the partition E, as clearly shown in fig. 2, as may be desired.

The burner thus constructed is attached to the gas-pipe, and then the crown-plate B is heated until there is a flow of gas up through its chamber and out through the jets b . After the gas escapes from the jets, and by the time it reaches the edge of the crown, a sufficient quantity of air will have become mixed with it to make a brilliant flame about the crown. The flow of gas is regulated as desired by means of the screw.

In this way I make a cheap and useful burner without the employment of any device for the admission of air to the gas-chamber.

Having thus described my invention,

What I claim is—

A vapor-burner, A, having a crown, B, partition E, screw F, and radial jets or openings b , all constructed and arranged substantially as herein described.

WILLIAM AURICH.

Witnesses:

WM. H. LOTZ,
G. LOTZ.