

(No Model.)

O. SEELY.
Vapor Burner..

No. 239,679.

Patented April 5, 1881.

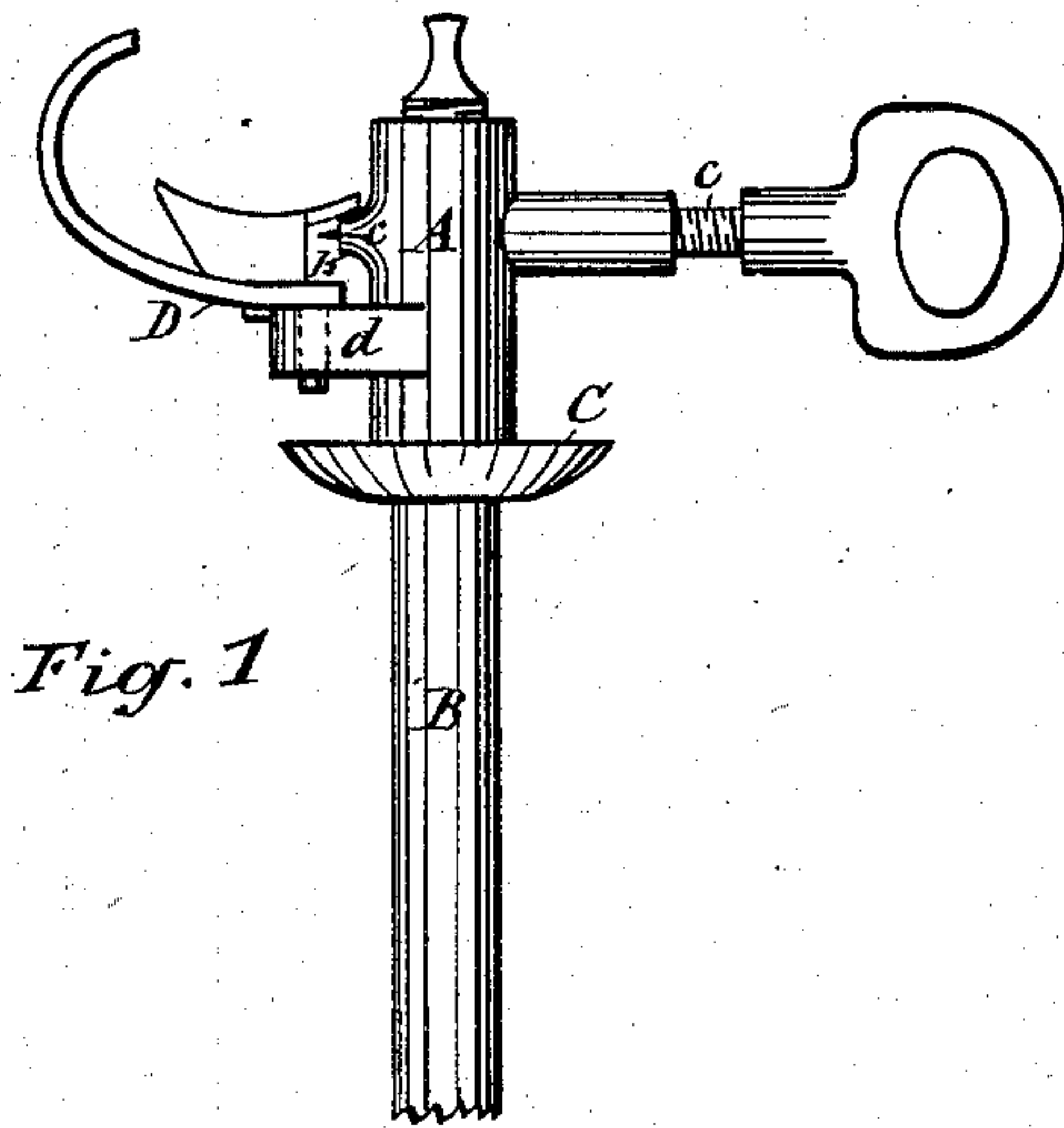


Fig. 1

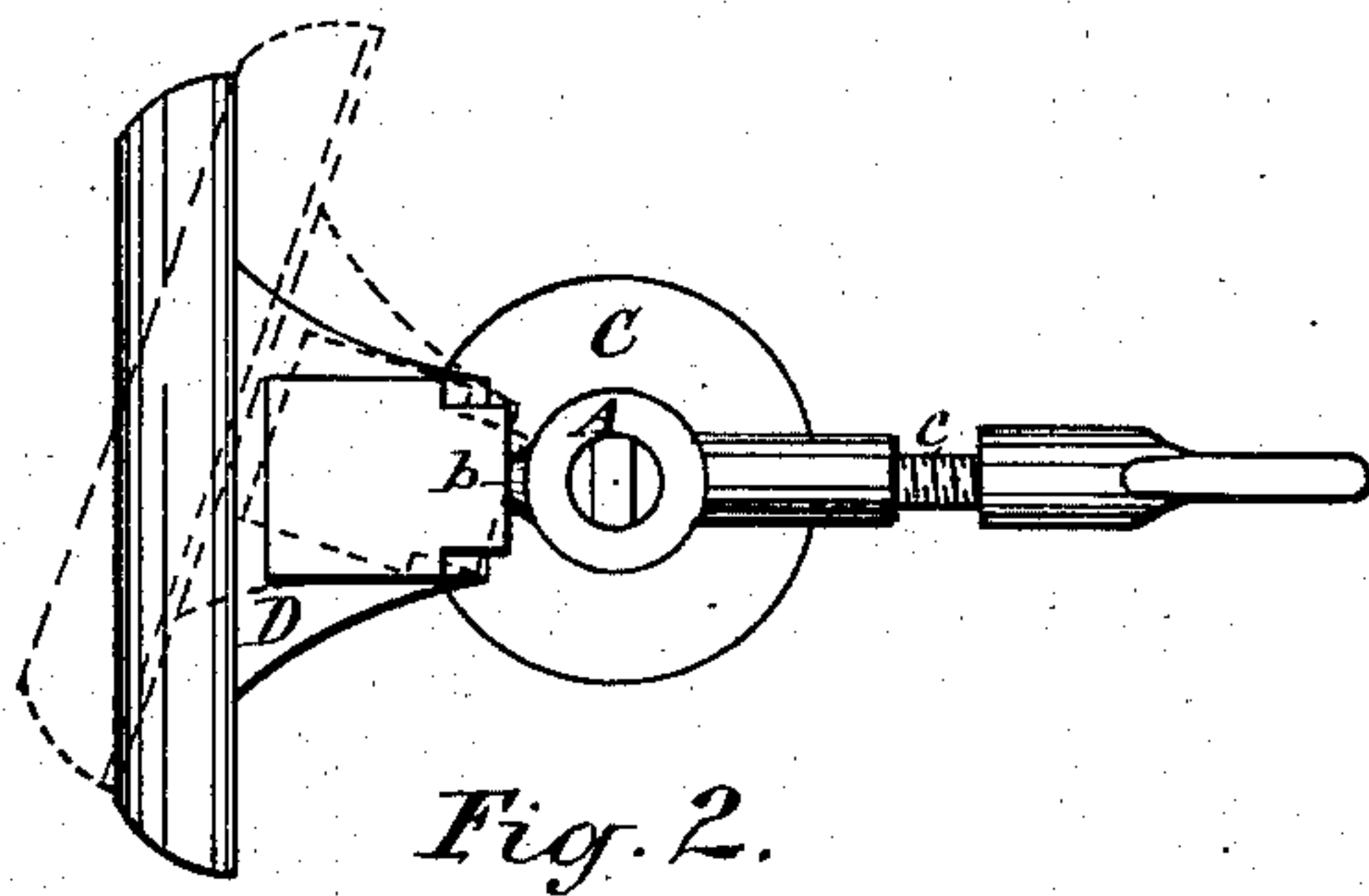


Fig. 2.

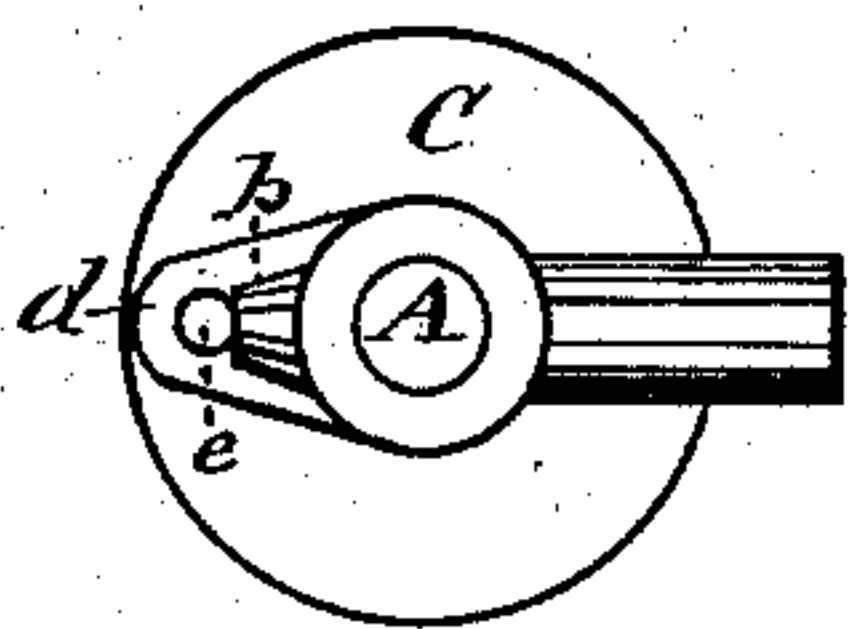


Fig. 4

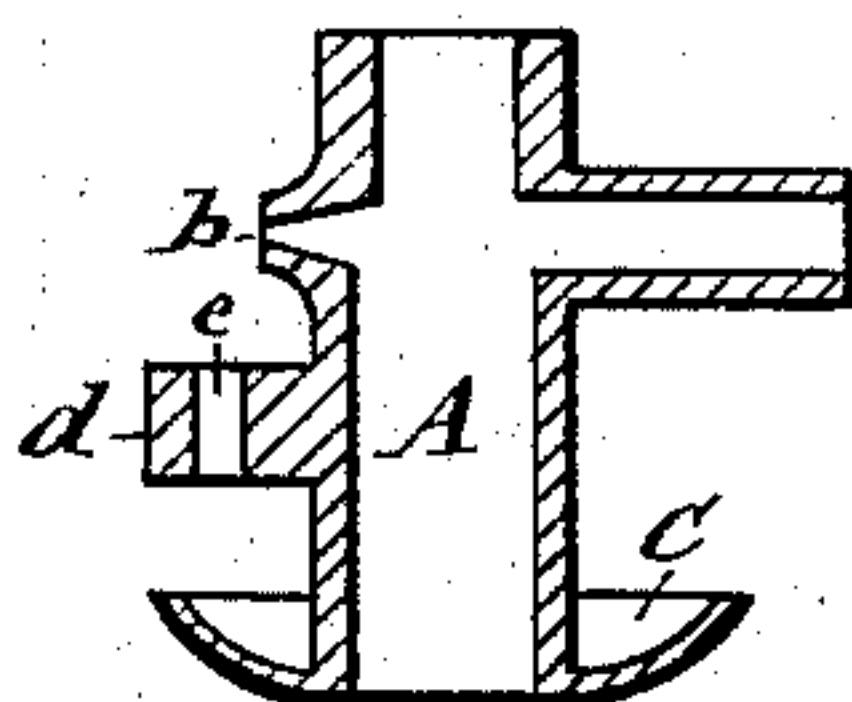


Fig. 5

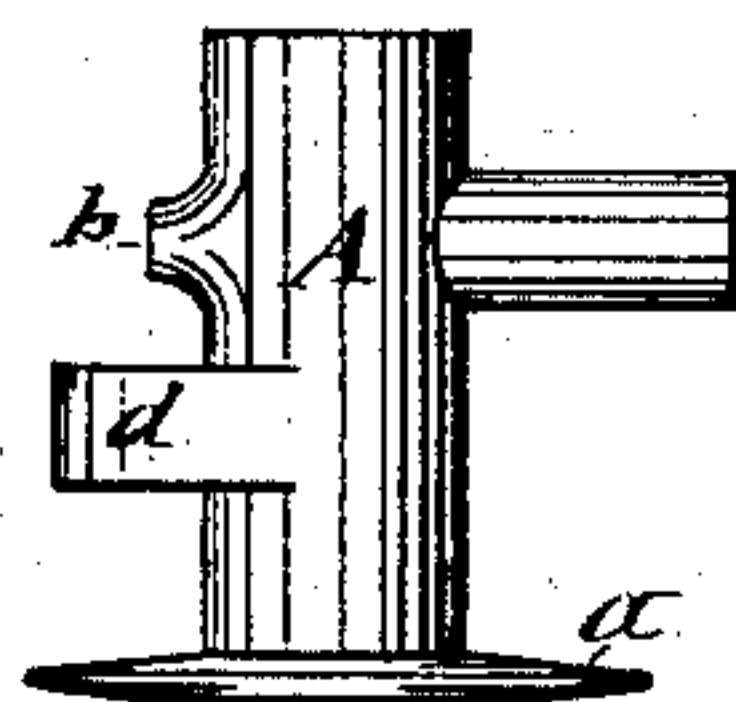


Fig. 3

WITNESSES:
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UNITED STATES PATENT OFFICE.

OBADIAH SEELY, OF SYRACUSE, NEW YORK, ASSIGNOR TO E. LAASS AND
G. W. HEY, OF SAME PLACE.

VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 239,679, dated April 5, 1881.

Application filed August 23, 1880. (No model.)

To all whom it may concern:

Be it known that I, OBADIAH SEELY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and
5 useful Improvements in Vapor-Burners, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The invention consists in the combination,
10 with a vaporizing-chamber and its needle-valve, constructed as hereinafter described, of a pivoted deflecting or spreader plate having the center of its pivot directly under the nozzle of the needle-valve, by which arrangement
15 the adjustment of said deflecting-plate is made radial from the base of the flame, and thus rendered more perfect.

The invention is fully illustrated in the accompanying drawings, wherein Figure 1 is a
20 side view of my improved burner; Fig. 2, a top view of same; Fig. 3, a side view of the pattern from which the vapor-generating chamber, with its annular cup, is molded and cast. Fig. 4 is a plan view of same; and Fig. 5 is a
25 vertical section of the vapor-generating chamber and its cup as struck up out of said casting.

Similar letters of reference indicate corresponding parts.

30 A denotes the vapor-generating chamber, usually made of cylindric form, and attached at one end to the conduit B for the hydrocarbon fluid.

C is the annular cap surrounding the base
35 of the chamber A, for the purpose of primarily heating the chamber and thus starting the generation of the gas therein, a small quantity of fluid being introduced into said cup and ignited, the flame thereof surrounding the chamber and producing the aforesaid effect. Ow-
40 ing to the difficulty of molding and casting the aforesaid cup on the vaporizing-chamber, it has hitherto been formed of a separate piece pressed onto the end of the chamber. The
45 expansion by the heat, however, frequently opened the joint between the cup and chamber

and produced leakage of the cup. I overcome all of the aforesaid difficulties by forming the vaporizing-chamber and its cup of one piece, of brass or other malleable or ductile material, cast
50 with a circumferential flange, *a*, which stands at right angles from the vaporizing-chamber, and is beveled, as shown in Fig. 3 of the drawings. This flange *a* is subsequently struck up into the requisite cup shape by means of suitable
55 swages or dies, which method of construction constitutes the subject of another application for Letters Patent, which I am about to make.

b is the nozzle, from which the flame of the burner issues, said flame being controlled by
60 a pointed pintle, *c*, arranged transversely through the chamber, in line with the axis of the nozzle, and entering, with its pointed end, the latter in the usual manner. Directly under the nozzle *b* the chamber is provided, on
65 its exterior, with a projection, *d*, having a vertical orifice, *e*, in which is pivoted the deflecting-plate D. The center of the orifice *e*, being in a perpendicular line from the center of the nozzle, brings the vertex of the deflections of
70 the plate D at the base of the flame.

What I claim as my invention is—

1. The combination, with the vaporizing-chamber A and its needle-valve *b c*, of the pivoted plate D, having the center of its pivot
75 directly under the nozzle *b*, substantially in the manner described and shown.

2. The combination of the vaporizing-chamber A, provided directly under the nozzle *b* with the projection *d*, having the vertical ori-
80 fice *e*, and the deflecting-plate or spreader D pivoted in said orifice, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence
85 of two attesting witnesses, at Syracuse, in the county of Onondaga and State of New York, this 17th day of May, 1880.

OBADIAH SEELY. [L. S.]

Witnesses:

JOHNSON L. HALL,
GEORGE W. HEY.