

(No Model.)

E. P. CORBY.

VAPOR BURNER.

No. 282,612.

Patented Aug. 7, 1883.

Fig. 1.

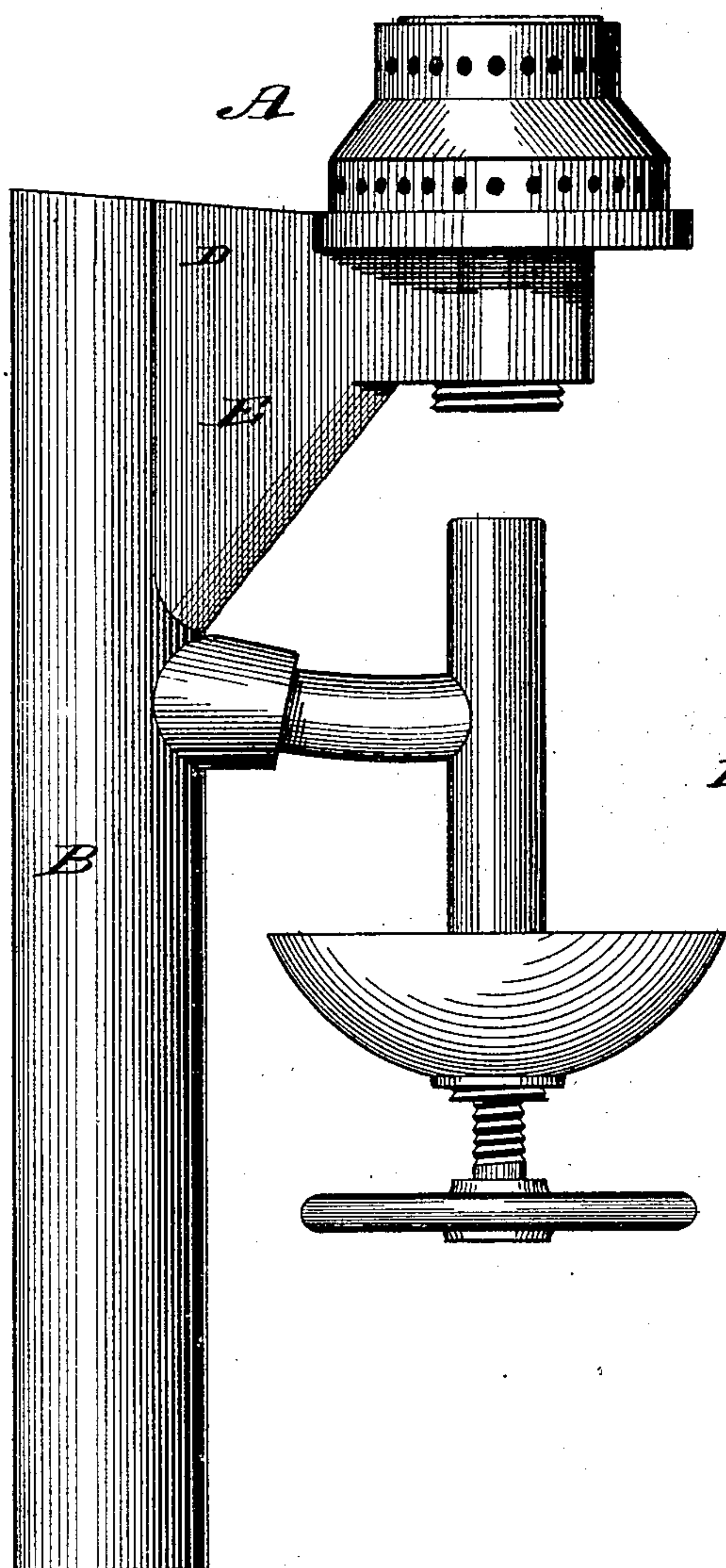


Fig. 2.

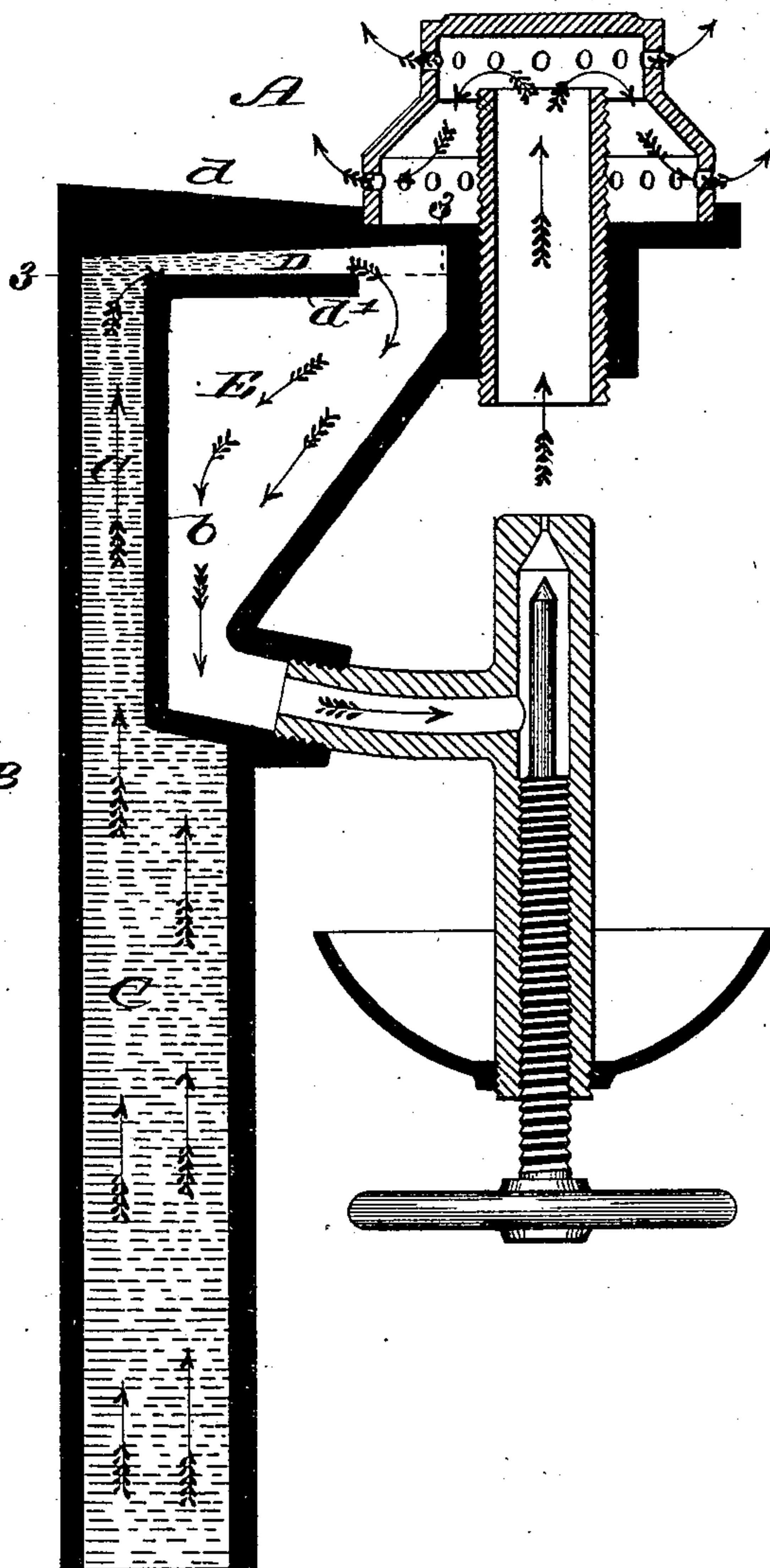
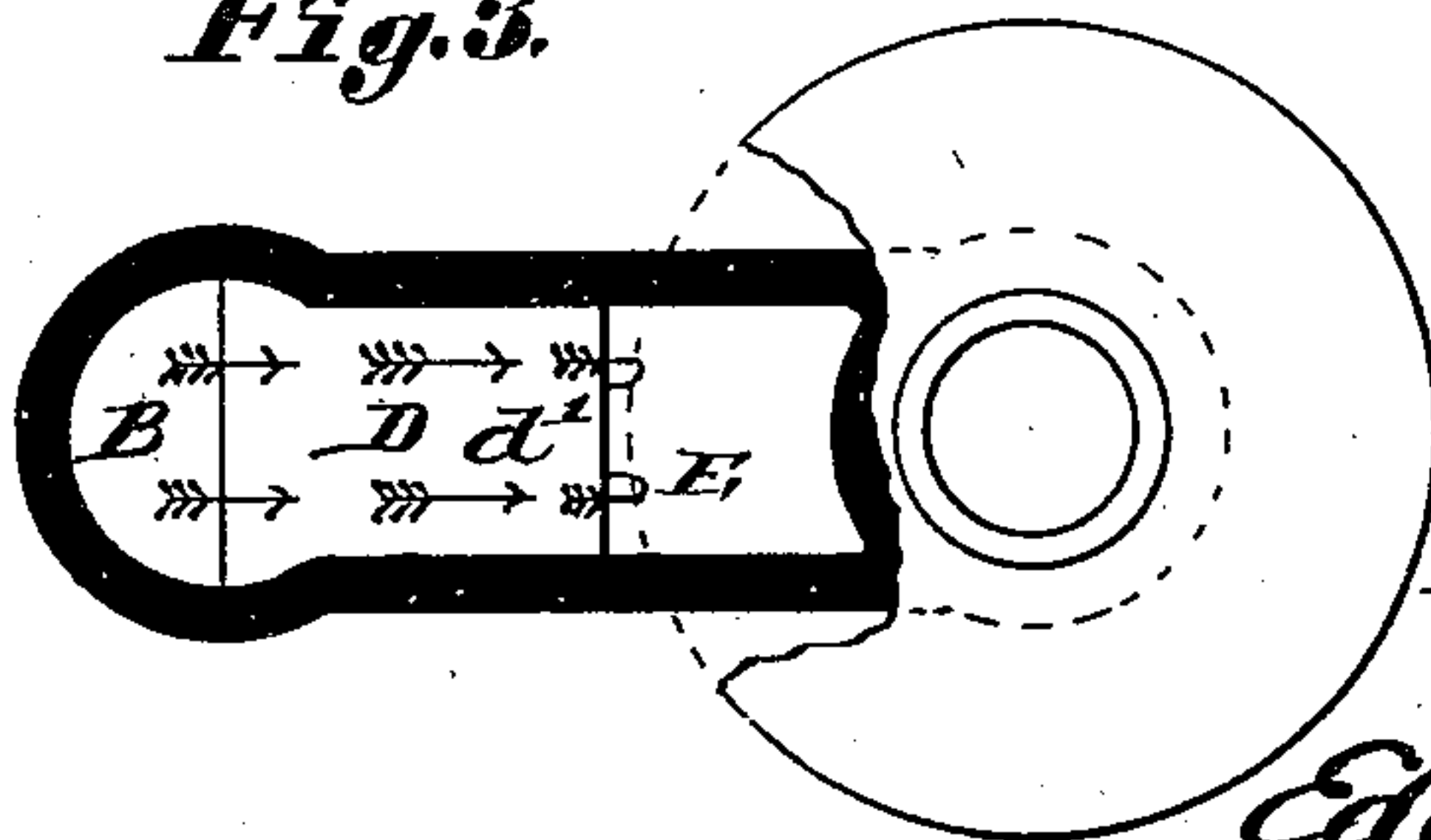


Fig. 3.



Attest;
Thos. L. Jones.
Charles Pickles

Inventor;
Edward P. Corby
by C. D. Moody atty

UNITED STATES PATENT OFFICE.

EDWARD P. CORBY, OF ST. LOUIS, MISSOURI.

VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 282,612, dated August 7, 1883.

Application filed December 28, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. CORBY, of St. Louis, Missouri, have made a new and useful Improvement in Vapor-Burners, of which
5 the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation of the improved
10 burner; Fig. 2, a vertical section, and Fig. 3 a horizontal section on the line 3 3 of Fig. 2, the burner being removed.

The same letters of reference denote the same parts.

15 The present invention relates to the retort wherein the vapor is generated, and to the reservoir wherein the generated vapor is received and accumulated before passing to the burner.

A represents a vapor-burner in which the
20 present improvement is embodied. Aside from the improvement, the burner may be of any of the well-known forms.

B represents the supply-pipe through which the hydrocarbon is delivered. The fluid C
25 rises in the supply-pipe B until it reaches the retort D. This part of the construction differs from the ordinary retort in being so made as to cause the fluid to be presented in the form of a thin layer of film to the action of the
30 heat. To this end the retort D is made quite shallow and comparatively wide, and the fluid flows in a thin stratum between the surfaces *d d'*. The upper surface, *d*, is heated by the direct heat in the usual manner. The vapor
35 passes from the retort directly into a reser-

voir, E, below the retort. The capacity of this reservoir, compared with the retort, is very large, the aim and effect of which is to enable a superabundance of vapor to be stored in the reservoir. By reason of such accumu- 40 lation the vapor is supplied in a stronger and more even current to the burner, and a steadier heat is maintained than hitherto has been practicable. Another feature of the reservoir is its being made in one piece with the sup- 45 ply-pipe and retort, without any space intervening between the reservoir and supply-pipe. In consequence of this both the reservoir and the supply-pipe are kept warmer than when separated. The fluid, therefore, by the time 50 it reaches the retort, is heated nearly to the vaporizing degree, and the vapor in the reservoir is prevented from chilling. The reservoir is separated from the supply-pipe by the partition *b*, and the plate *d'* is the roof of the 55 reservoir. From the reservoir the vapor passes to the burner in the ordinary manner.

I am aware that vapor-burners have heretofore been made with retorts wherein the oil is vaporized, and I do not broadly lay claim to 60 such; but

I claim—

The combination, in a vapor-burner, of the shallow retort D and the reservoir E, the plate constituting the bottom of the retort being the 65 top of the reservoir, substantially as described.

EDWARD P. CORBY.

Witnesses:

C. D. MOODY,
SAML. S. BOYD.