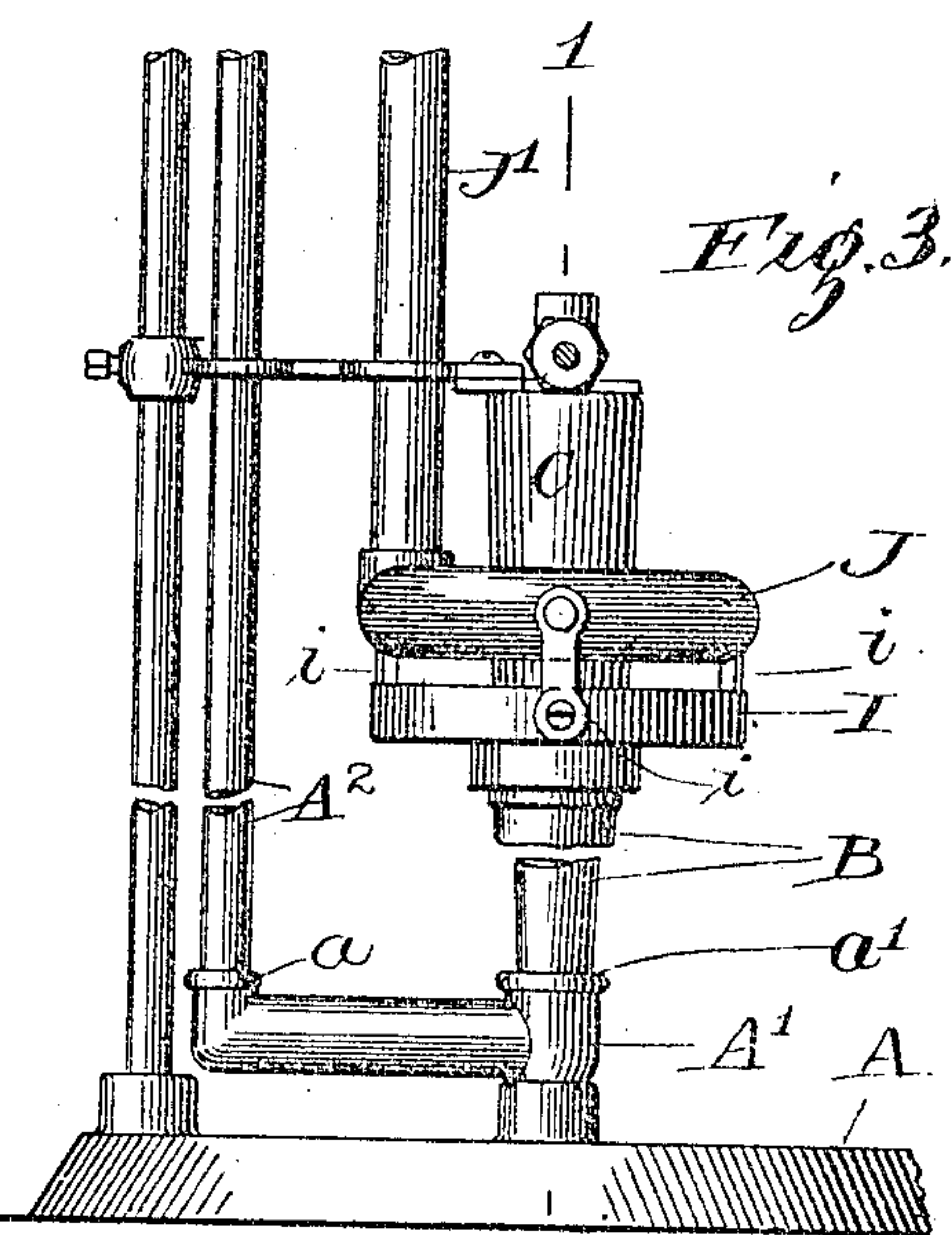
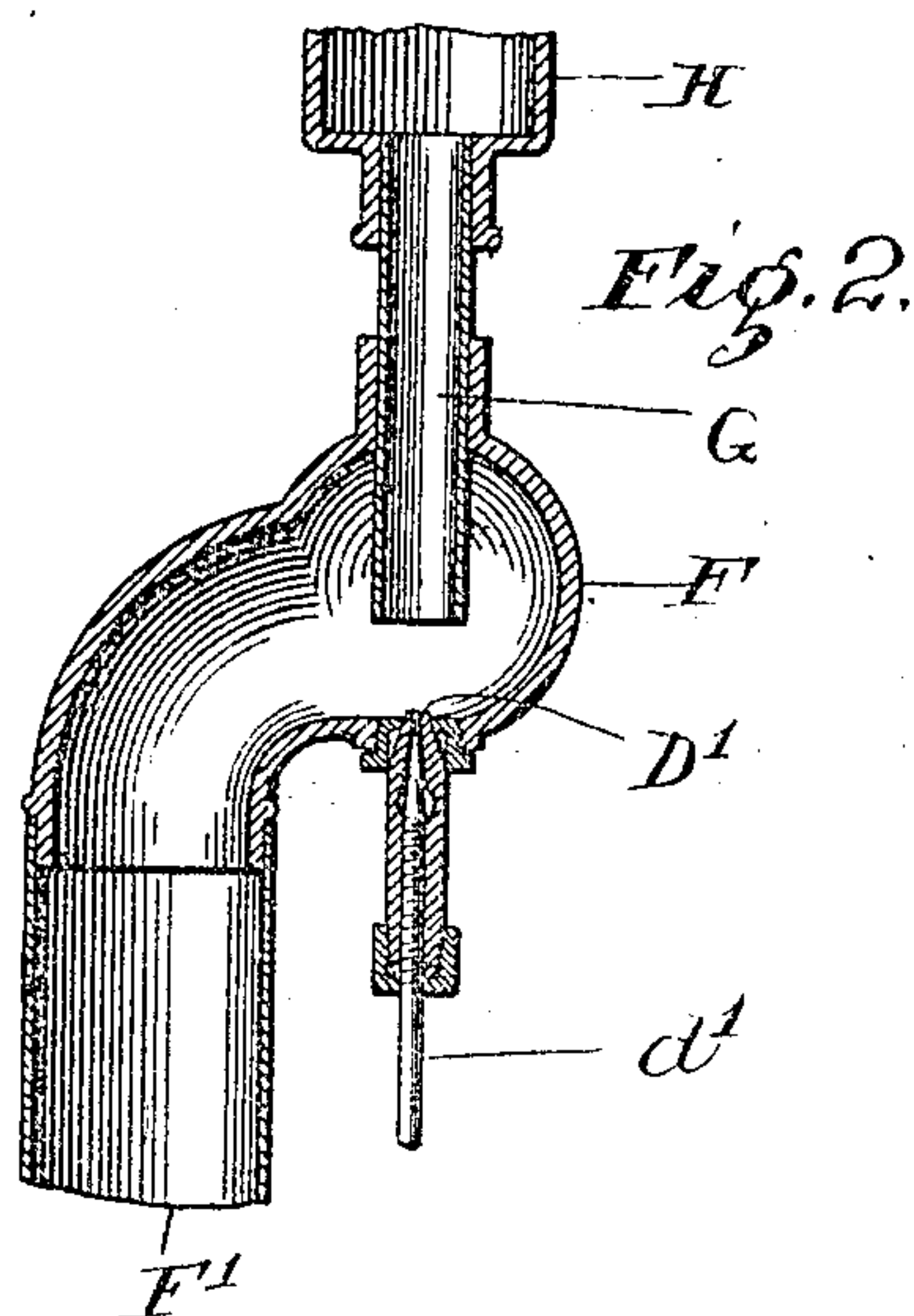
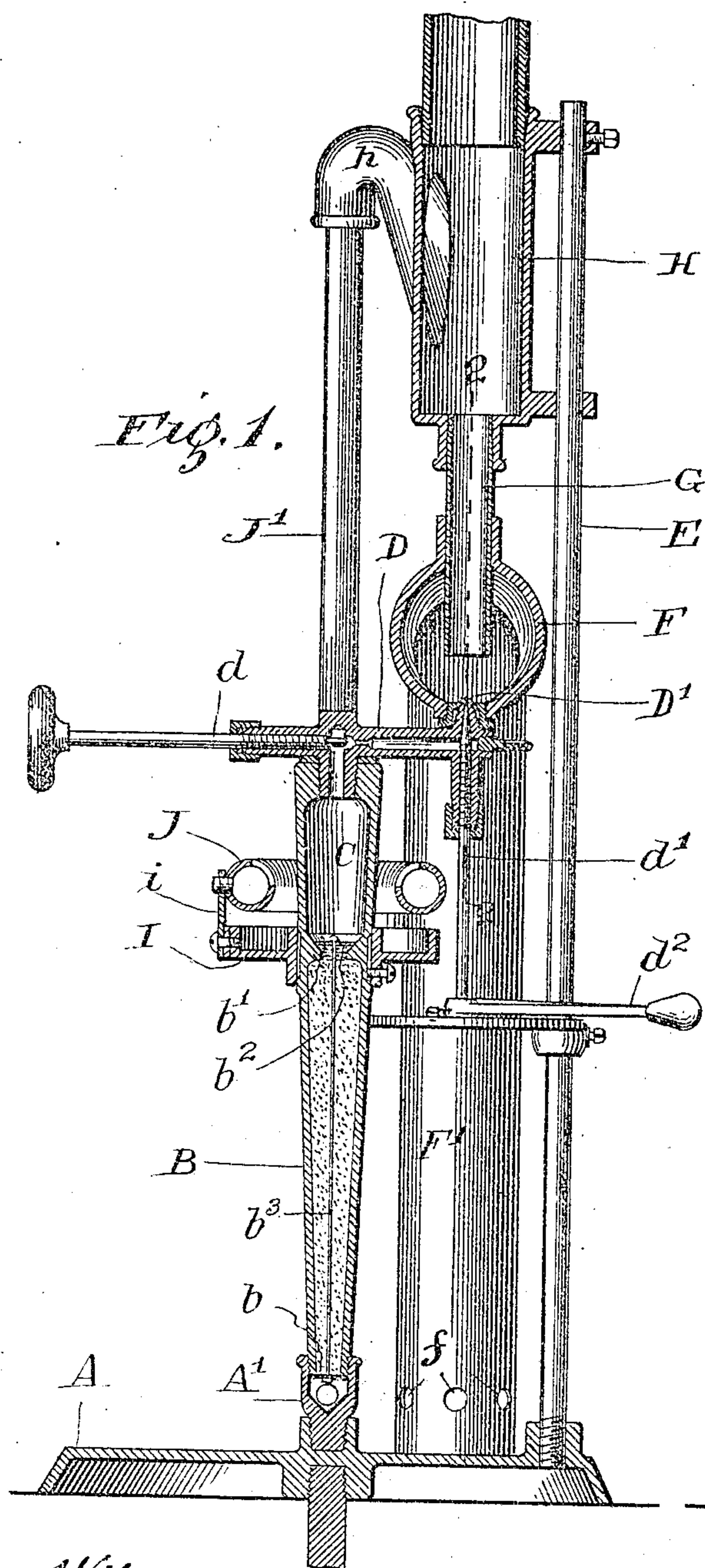


No. 807,792.

W. H. THAYER.
GENERATOR.

PATENTED DEC. 19, 1905.

APPLICATION FILED APR. 16, 1905.



Witnesses:
H. M. Cornwall
J. E. Sherry.

Inventor:
William H. Thayer
by Ritten, Miles & Sherry-
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM H. THAYER, OF CHICAGO, ILLINOIS, ASSIGNOR TO BOLTE & WEYER, OF CHICAGO, ILLINOIS, A FIRM.

GENERATOR.

No. 807,792.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed April 15, 1905. Serial No. 255,738.

To all whom it may concern:

Be it known that I, WILLIAM H. THAYER, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Generators, of which the following is a specification.

My invention relates to improvements in generators, and is fully described and explained in this specification and shown in the accompanying drawings, in which—

Figure 1 is a view, partly in elevation and partly in longitudinal section, of my improved device, the line of section being indicated at 1 1 of Fig. 3. Fig. 2 is a vertical transverse section in the line 2 2 of Fig. 1, and Fig. 3 is a side elevation of the lower portion of the burner and base.

Referring to the drawings, A is a suitable base, which supports at its center an intake-fitting A', having an upwardly-open end *a* to receive an inlet-pipe A² and a second upwardly-open end *a'*, in which is secured the lower end of a flaring filter B. At the lower end of the filter B is a gauze plate *b*, and at the upper end is an annular inwardly-extending bead *b'*, on the upper face of which is supported a second plate of gauze *b*², the two gauze plates *b b*² being secured together and held in place by a vertical bolt *b*³. The space between the upper gauze plate *b*² and the bottom of the filter is filled with a suitable filtering material—as, for example, ground mica.

Above the filter B and preferably integral therewith is a generating-chamber C. I have shown the filter and generating-chamber as made of a single integral casting separated by an inwardly-extending bead forming a constricted passage between them; but it will be obvious that these parts could be separately constructed and secured together in any desired way. To the upper end of the generating-chamber is secured a pipe D, access to which is controlled by a valve *d*, and at the end of said pipe D is an upwardly-projecting conical nozzle D', provided with a screw-threaded cleaner *d'*, which will serve as a valve for said nozzle and also to clean the same when desired. The cleaner *d'* is provided with a handle *d*², and the rotation of said cleaner in a direction to close the nozzle is limited by engagement of said handle with a vertical post E, which extends upward

from the base of the machine and serves to support certain of the parts, which will be hereinafter set forth. The handle is made adjustable on the cleaner and in practice will be set so that when the handle impinges against the post E the cleaner will just fit the nozzle without jamming or crowding of the parts. By this device accidental jamming of the parts and consequent distortion of the nozzle is prevented.

The nozzle D' is supported in the lower face of an elbow F, which is closed at its forward end, as seen in Fig. 2. The inner surface of said elbow adjacent to said nozzle slopes downward and backward therefrom into an air-tube F', extending down to the base A and perforated at *f*. This construction is such that if any liquid issues from the nozzle D' or condenses from the vapor passing therethrough it will flow off down the air-tube without clogging the nozzle.

In the upper end of the elbow F is a vertical pipe G of comparatively small diameter, which receives the vapor passing up the nozzle and transmits it into an outlet-coupling H, supported on the post E, heretofore referred to. The pipe G is vertically slidable through the upper part of the elbow F, and the outlet-coupling H is adjustable on the post E, so that the vertical height of the lower end of the pipe G from the nozzle D' can be varied. The vapor which passes through the nozzle and into the pipe G sets up an inspirator action which draws air through the air-tube and mixes it with the vapor.

A heating-pan I is adjustably secured to the generating-chamber C at or near its lower end, as illustrated, and this pan supports by struts *i* an annular burner J, which is connected by a pipe J' with an elbow *h*, opening from the outlet-coupling H.

The operation of my improved device is substantially as follows: A suitable fluid fuel is placed in the heating-pan I, thereby heating the generating-chamber C and the annular burner J. Thereupon a fluid hydrocarbon, such as gasolene, is introduced under pressure into the bottom of the filter. The fluid hydrocarbon passes up through the filter and into the heating-generator, where it is converted into gas, which passes through the pipe D and nozzle D' into the tube G, drawing with it air from the air-tube. As the mixed vapor passes from the outlet-coupling

If a portion of it enters the elbow *h* and enters the burner *J* through the pipe *J'*. As soon as this burner has begun to operate it keeps the generating-chamber at the proper temperature, so that the device operates continuously.

The device is particularly advantageous for the reasons already pointed out in describing the construction and from the fact that the nozzle *D'* is completely surrounded, so that accidental lighting of the vapor at this point is impossible.

I realize that considerable variation is possible in the details of this construction without departing from the spirit of the invention, and I therefore do not intend to limit myself to the specific form herein shown and described.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the

combination with a generating-chamber, of a heating-pan secured thereto, an annular burner surrounding the heating-chamber, struts extending upward from the heating-pan and supporting the burner, and means for supplying vapor to the burner. 25

2. In a device of the class described, the combination with a generating-chamber, of a heating-pan adjustably secured thereto, an annular burner surrounding the heating-chamber, struts extending upward from the heating-pan and supporting a burner, and means for supplying vapor to the burner. 30

In witness whereof I have signed the above application for Letters Patent, at Chicago, in the county of Cook and State of Illinois, this 10th day of April, A. D. 1905. 35

WILLIAM H. THAYER.

Witnesses:

CHAS. O. SHERVEY

K. M. CORNWALL.