

(No Model.)

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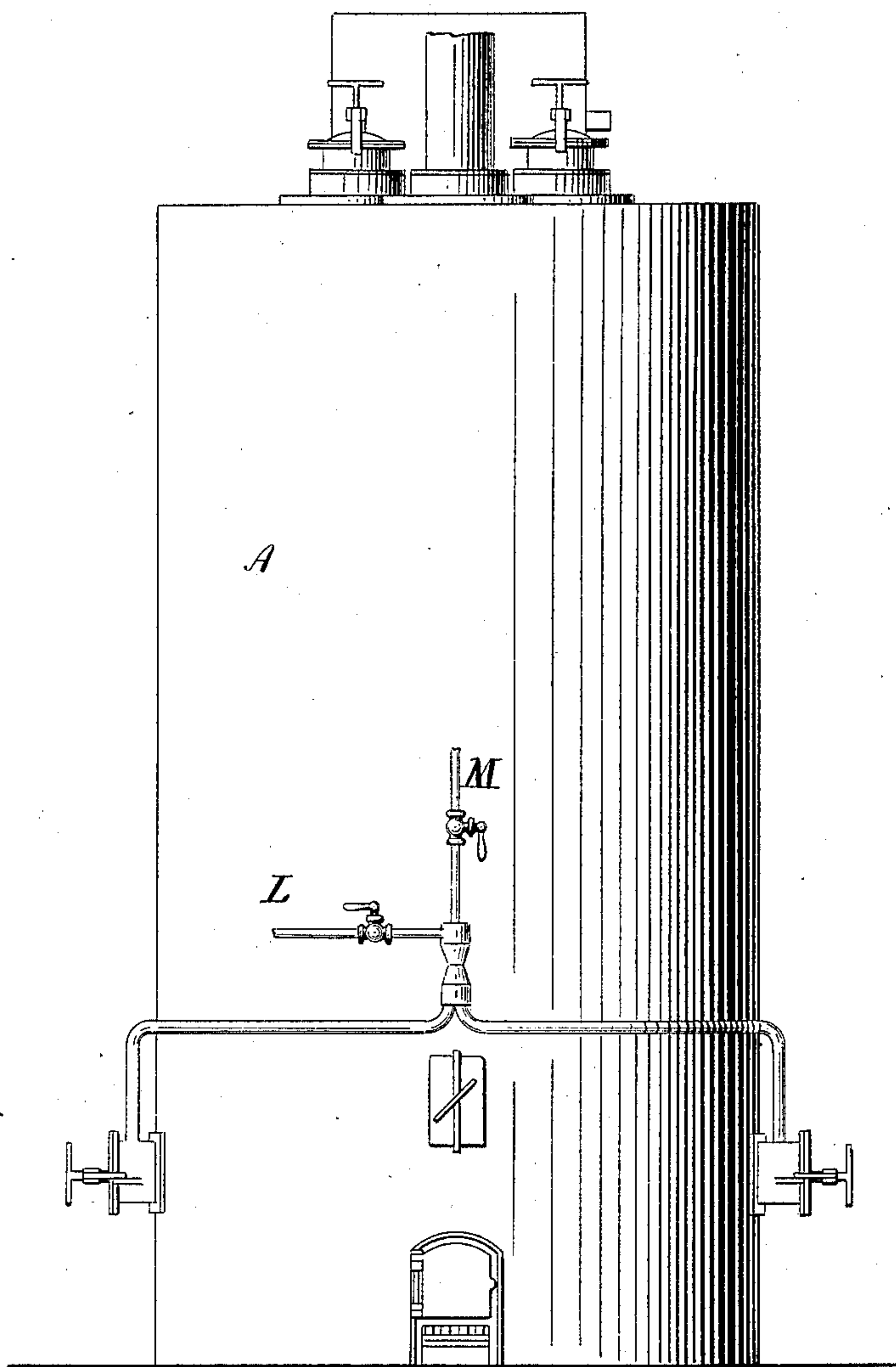
E. J. JERZMANOWSKI.

APPARATUS FOR PRODUCING ILLUMINATING GAS.

No. 341,012.

Patented May 4, 1886.

Figure 1.



Witnesses:

H. E. Stansmann.

Chas. A. Cooper.

Inventor.

Erazm J. Jerzmanowski
by his Attorneys
Foster & Friedman

(No Model.)

4 Sheets—Sheet 2.

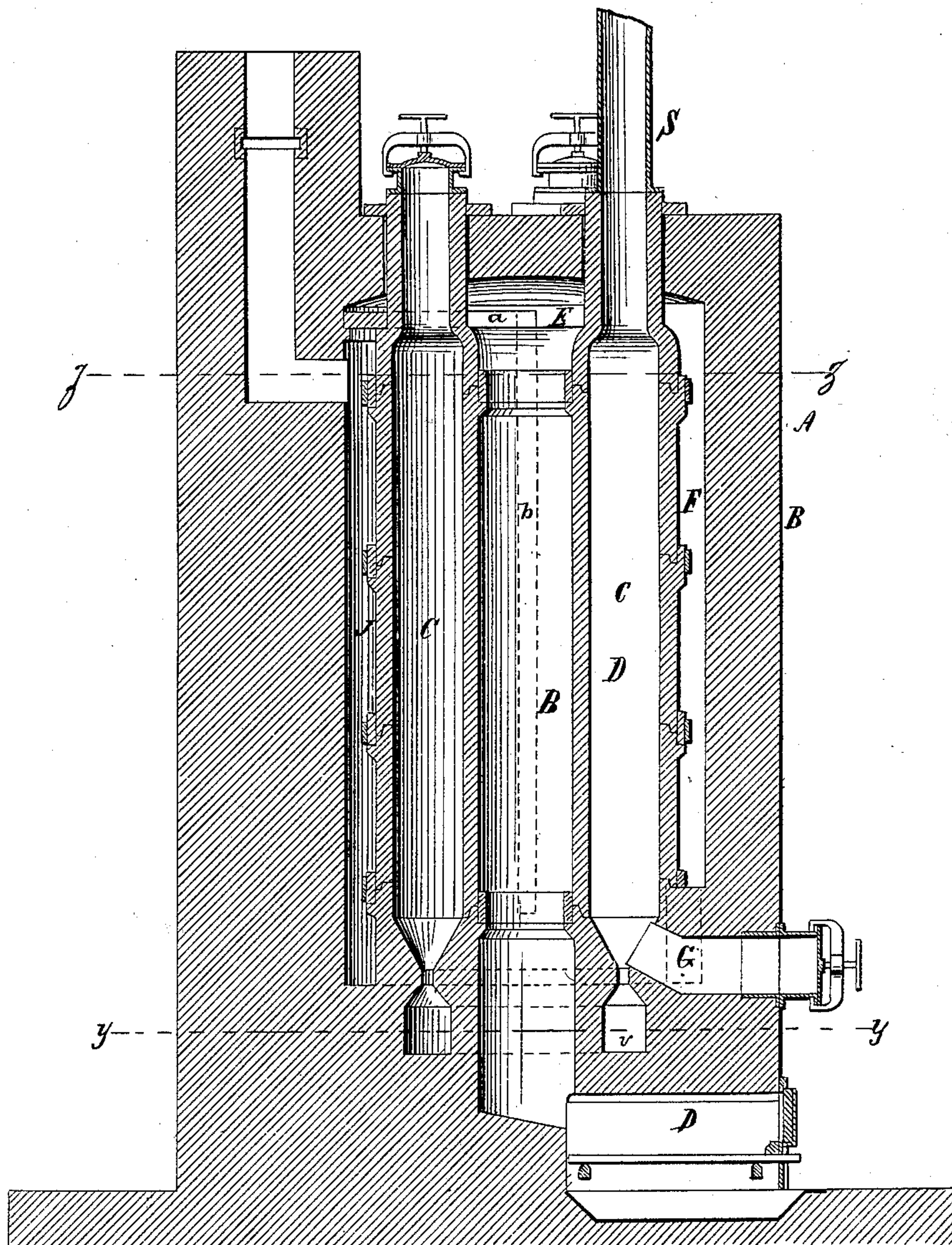
E. J. JERZMANOWSKI.

APPARATUS FOR PRODUCING ILLUMINATING GAS.

No. 341,012.

Patented May 4, 1886.

Figure 2.



Witnesses:

H. C. Hansmann.

Ant. A. Cooper.

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Foster & Freeman

(No Model.)

4 Sheets—Sheet 3.

E. J. JERZMANOWSKI.

APPARATUS FOR PRODUCING ILLUMINATING GAS.

No. 341,012.

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Figure 3.

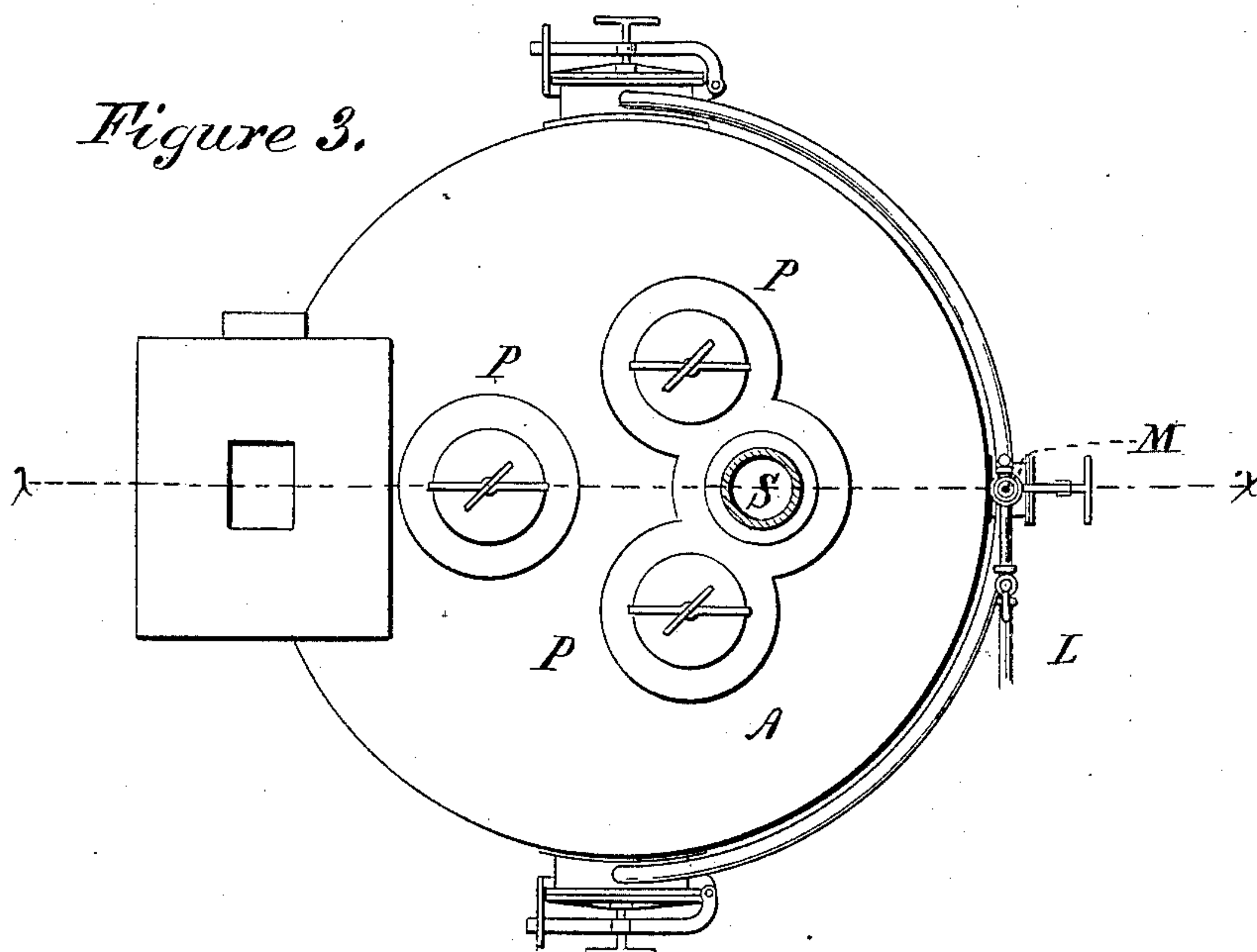
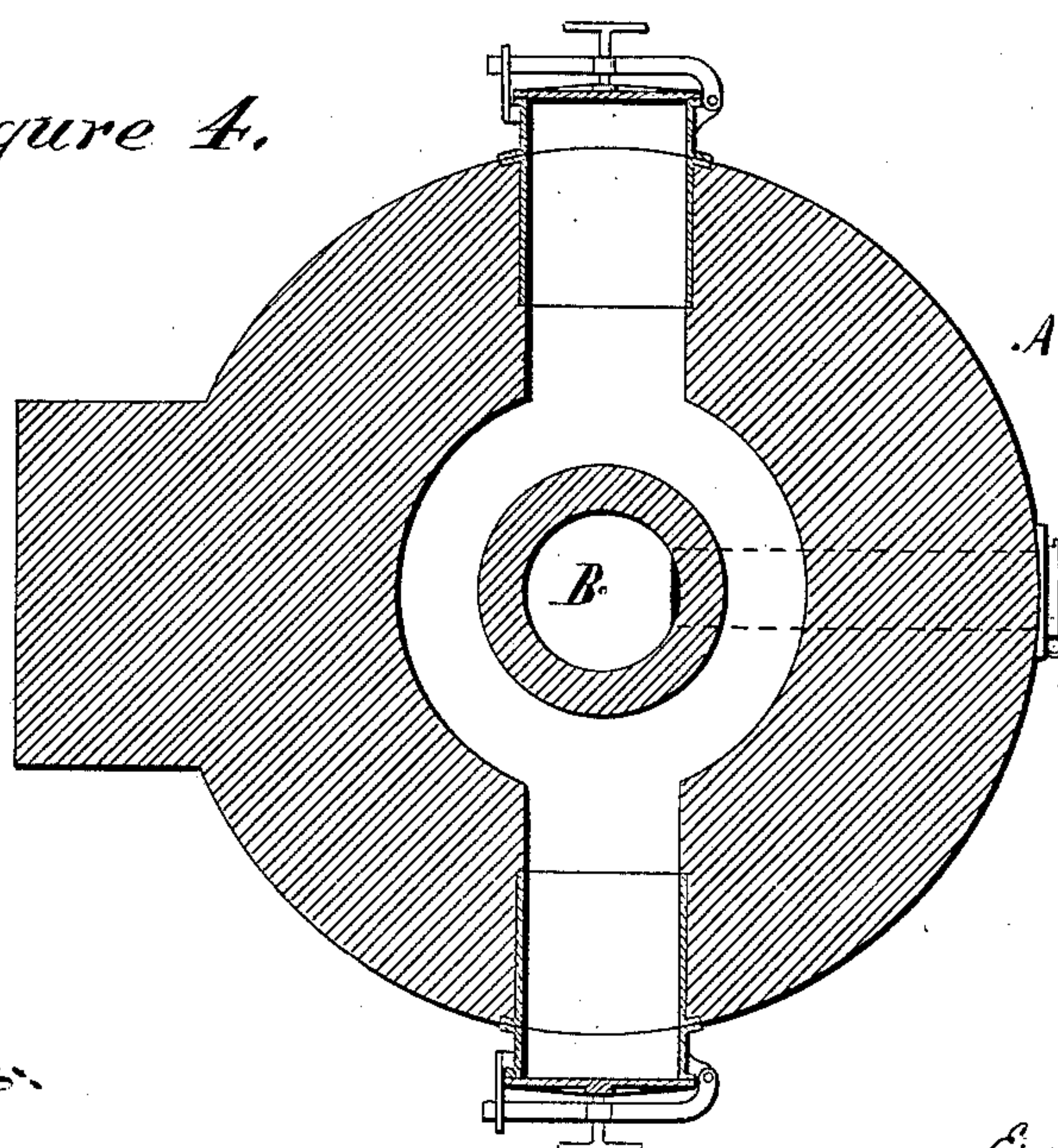


Figure 4.



Witnesses:

H. E. Lammann.
Capt. A. Cooper.

Inventor:

Erasmus J. Jerymanowski,
By his Attorneys
Woster & Freeman

(No Model.)

4 Sheets—Sheet 4.

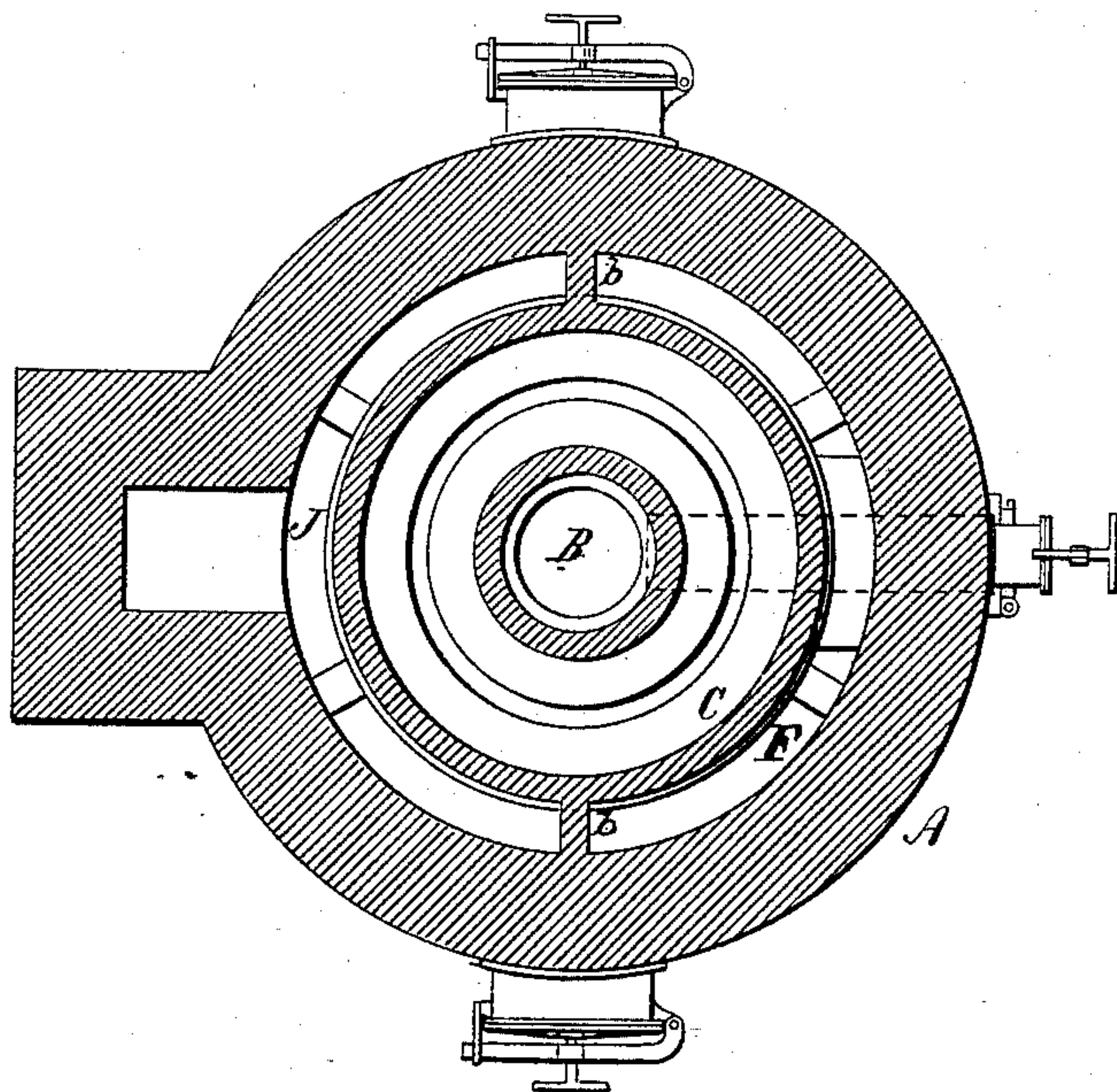
E. J. JERZMANOWSKI.

APPARATUS FOR PRODUCING ILLUMINATING GAS.

No. 341,012.

Patented May 4, 1886.

Figure 5.



Witnesses:

H. C. Tansmann.

Court A. Cooper.

Inventor:

Eugene J. Jerzmanowski

By his Attorneys

Foster & Freeman

UNITED STATES PATENT OFFICE.

ERAZM. J. JERZMANOWSKI, OF NEW YORK, N. Y.

APPARATUS FOR PRODUCING ILLUMINATING-GAS.

SPECIFICATION forming part of Letters Patent No. 341,012, dated May 4, 1886.

Application filed July 19, 1883. Serial No. 101,319. (No model.)

To all whom it may concern:

Be it known that I, ERAZM. J. JERZMANOWSKI, of the city, county, and State of New York, have invented a new and useful Improvement in Apparatus for Producing Illuminating-Gas, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

This invention relates to a simple apparatus by means of which an illuminating-gas may be produced in one operation and by one apparatus; and it consists, essentially, of an apparatus whereby a body of lime may be continuously heated, and of an apparatus whereby an illuminating-gas consisting of carbureted hydrogen and carbonic acid may be produced in the lime-chamber heated by an independent combustion.

My apparatus will be readily understood from the accompanying drawings, in which Figure 1 represents an external elevation; Fig. 2, a section through Fig. 3 on the line $x x$; Fig. 3, a plan view; Fig. 4, a section through Fig. 2 on the line $y y$, and Fig. 5 a section through Fig. 2 on the line $z z$.

My apparatus consists, essentially, of two concentric chambers, the center one of which is used for the combustion necessary to heat the contents of the external annular chamber surrounding the first, having plates and partitions arranged as hereinafter set forth, so that the products of combustion from the central chamber are caused to pass down one side, under, and up the other side of the external chamber.

A represents the circular casing containing the parts necessary for the gas production.

B represents the center chamber in which the heat necessary to heat the annular chamber C is generated.

F and G are chambers outside of the chamber C, separated from each other by partitions b , and v is an outlet at the bottom of the chamber C.

A fire may be made upon the grate-bars D, at the bottom of the combustion-chamber B, although the heat might be produced by the combustion of liquid hydrocarbon, steam, and air, if desired. The lime to be heated is placed in the annular chamber C. The pro-

ducts of combustion passing upward through the chamber B pass laterally through the passage E, thence downwardly through the passage F, thence laterally through a passage in the brick-work, (shown in dotted lines at G in Fig. 2,) thence into the chamber J, separated from the chamber F by vertical partitions b , thence escaping by the chimney. The products of combustion are prevented from passing directly into the chamber J by suitable partitions. (Partially shown in Fig. 5.) Steam and liquid hydrocarbon pipes L and M are provided for injecting steam and hydrocarbon into the bottom of the annular chamber C, thereby producing an illuminating-gas in one operation, by the action of lime heated to about a bright cherry-red upon the steam and surplus of liquid hydrocarbon admitted. Three openings for charging the lime-chamber are shown at P P P in Fig. 3. The illuminating-gas produced escapes to the hydraulic main by the opening S. Suitable discharging-openings are provided and should be readily applied by a competent gas-engineer.

I am aware that heretofore a combustion-chamber has been arranged within a generating-chamber; but I do not know of any instance of such an arrangement in connection with vertical flues, as above set forth.

What I claim as my invention, and desire to secure by Letters Patent, is—

The gas-generating apparatus substantially as hereinbefore set forth, consisting of a circular casing having a flue extending from one side and containing a central chamber having means for producing combustion therein, an annular generating-chamber surrounding the central chamber, and provided with a lower outlet and with means whereby steam and hydrocarbons may be injected therein, and suitable plates and partitions, substantially as described, whereby the products of combustion from the central chamber are caused to pass down one side, under, and up the other side of the generating-chamber and thence to the flue.

ERAZM. J. JERZMANOWSKI.

Witnesses:

GEO. H. EVANS,
WM. POLLOCK.