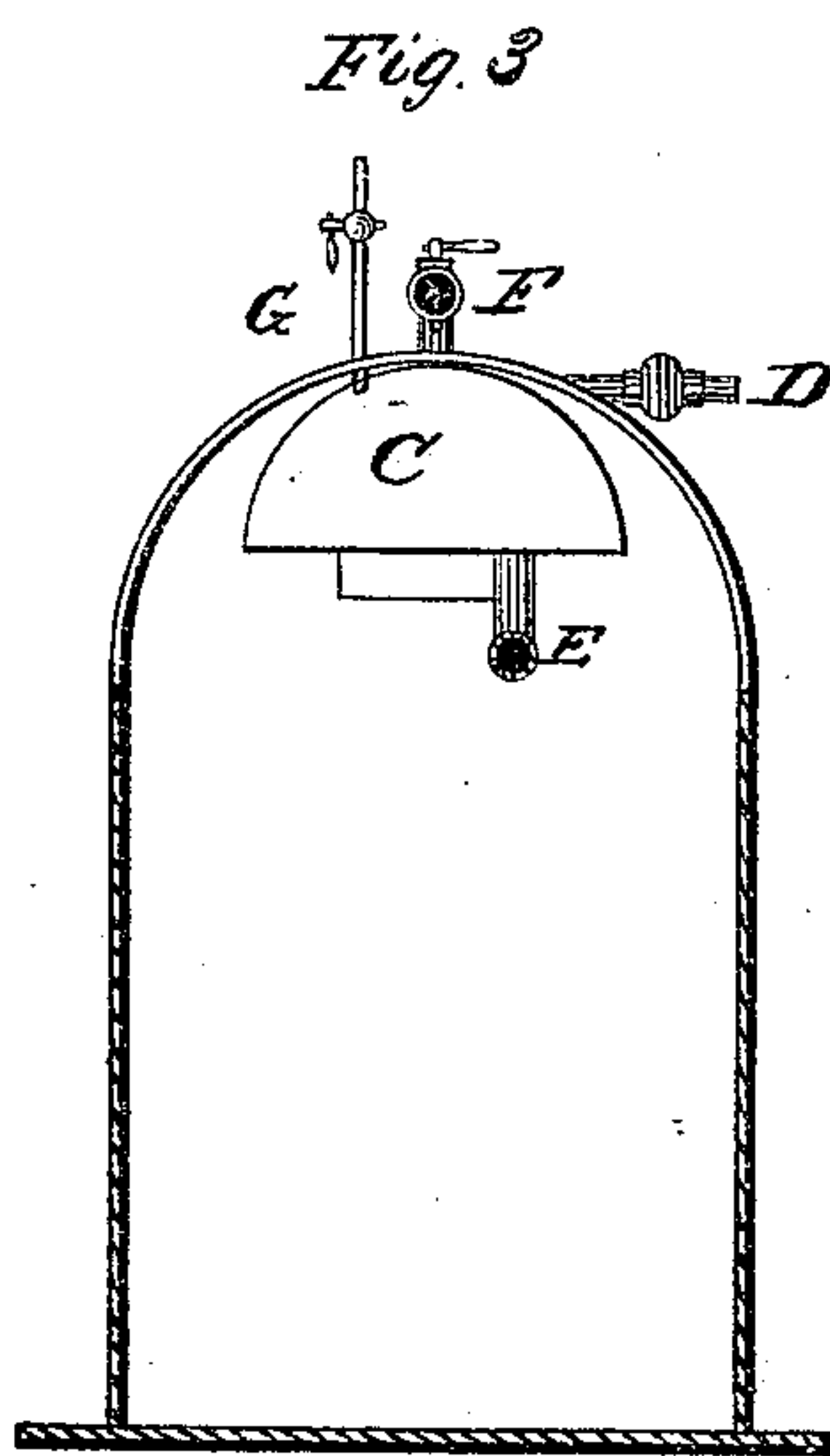
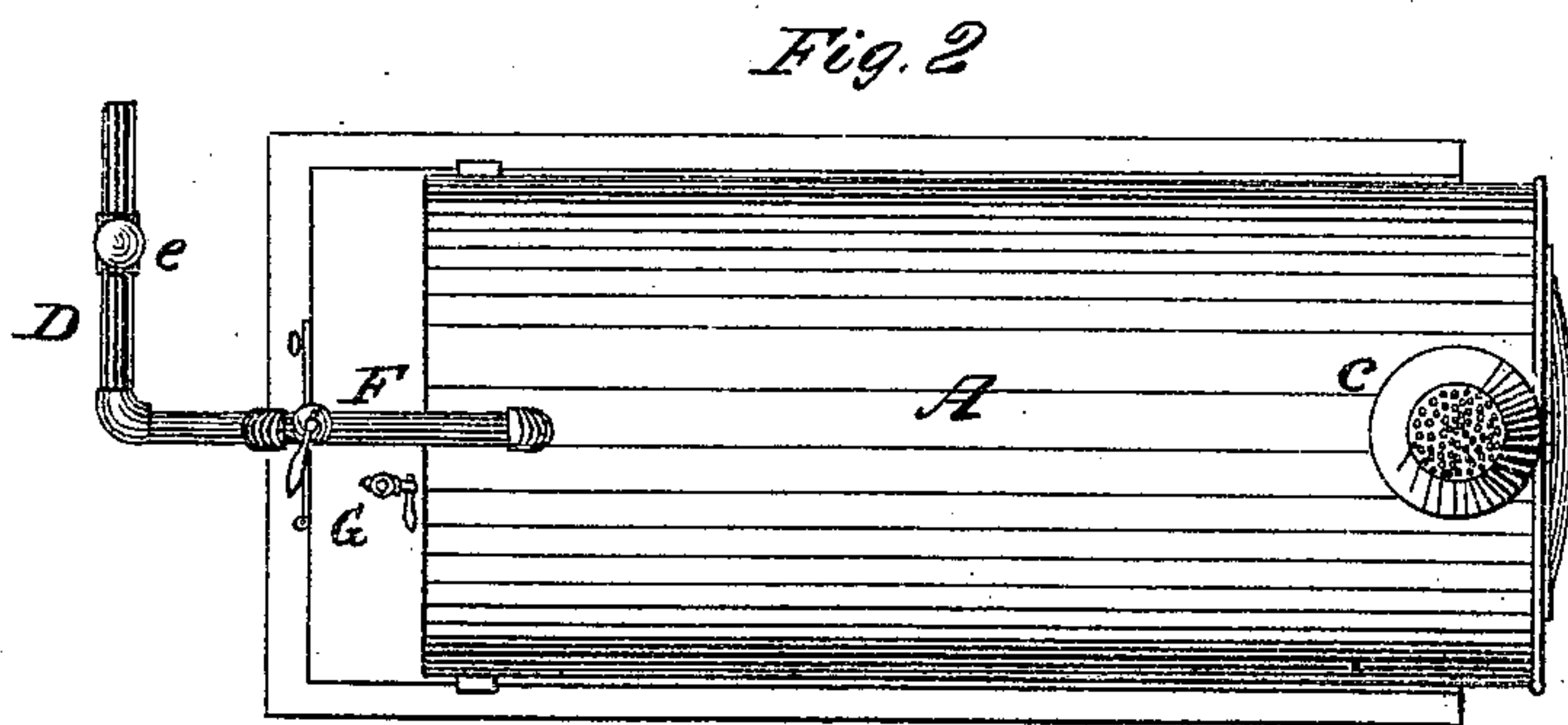
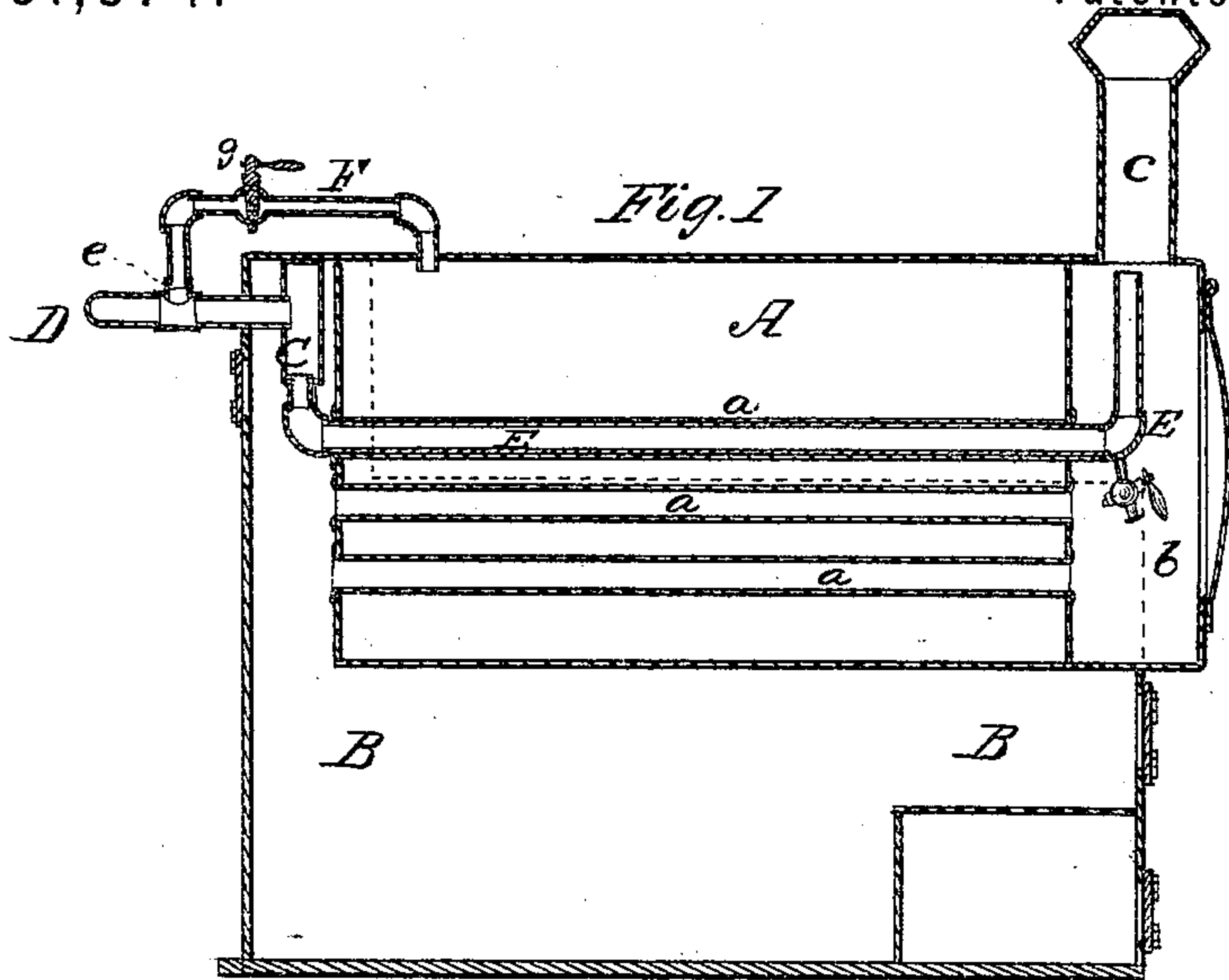


T. B. FIELD.
Steam-Blowers.

No. 151,374.

Patented May 26, 1874.



WITNESSES

George E. Upham.
Robert Everett

BY

INVENTOR

Thomas B. Field
Chipman & Son

ATTORNEYS

UNITED STATES PATENT OFFICE.

THOMAS B. FIELD, OF CORNING, NEW YORK.

IMPROVEMENT IN STEAM-BLOWERS.

Specification forming part of Letters Patent No. **151,374**, dated May 26, 1874; application filed April 11, 1874.

To all whom it may concern:

Be it known that I, THOMAS B. FIELD, of Corning, in the county of Steuben and State of New York, have invented a new and valuable Improvement in Steam-Blowers for the use of what has usually been called waste steam; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

The object of this invention is to utilize the exhaust steam from the steam-cylinders of engines by conducting this steam into a reheater, which is arranged in the fire-chamber of the boiler, thereby converting the steam into high or live steam again to be used for exciting the draft of the fire-chamber, for warming workshops and the offices belonging thereto, for drying lumber, and for other purposes, as will be hereinafter explained.

In the annexed drawings, A designates a flue-boiler; B, the fire-chamber; *a*, the flues; *b*, the smoke-box; and *c*, the smoke-stack. Inside of the fire-chamber B, and located at the rear end of the boiler, is a box, C, of suitable shape and size, which box is exposed to the flame and heated products of combustion escaping from the flues. This box C, which I denominate a reheater, communicates with the exhaust-port of a steam-engine by means of a pipe, D, in which a check-valve, *e*, is applied. This valve will allow the exhaust steam to enter the reheater, but prevents the return thereof. E designates a pipe, which communicates with the reheater at one end, and with the smoke-box *b* at the other end. This pipe E is

carried through one of the flues *a*, and that portion of it which enters the smoke-box is turned upward, so as to direct the blasts of steam into the stack *c*, thereby increasing the draft through the furnace, and facilitating combustion therein.

Instead of utilizing the exhaust steam for blowing the furnace, it may be used for warming, drying, and other purposes.

To prevent the reheater from being burned out when the engine is not running, I employ a pipe, F, which leads from the steam-space of the boiler into the reheater, to which pipe a cock, *g*, is applied for regulating the admission of steam into the reheater.

G is a water-pipe, provided with a regulating-cock, and communicating with a reservoir of water, and also with the reheater, for the purpose of supplying water thereto in small quantities for generating steam and protecting the reheater from burning out when the engine is not running.

What I claim, and wish to secure by Letters Patent, is—

The combination of a pipe, D, provided with a check-valve and leading from the exhaust of an engine into a reheater, C, a pipe, E, leading out of the reheater, and a pipe, F, communicating with the steam-space of the boiler and with the said reheater, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS B. FIELD.

Witnesses:

D. F. BROWN,
A. HADDEN.