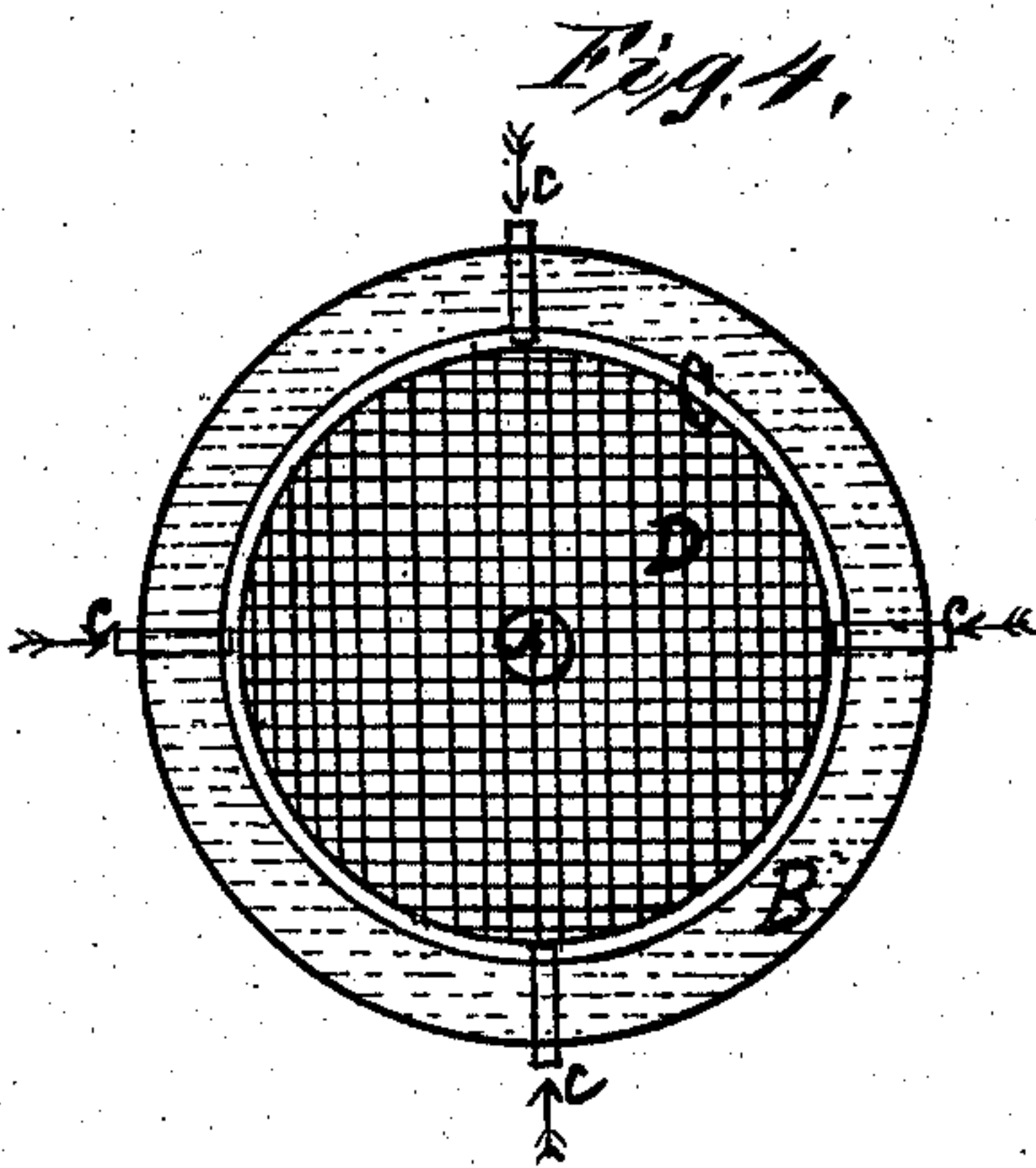
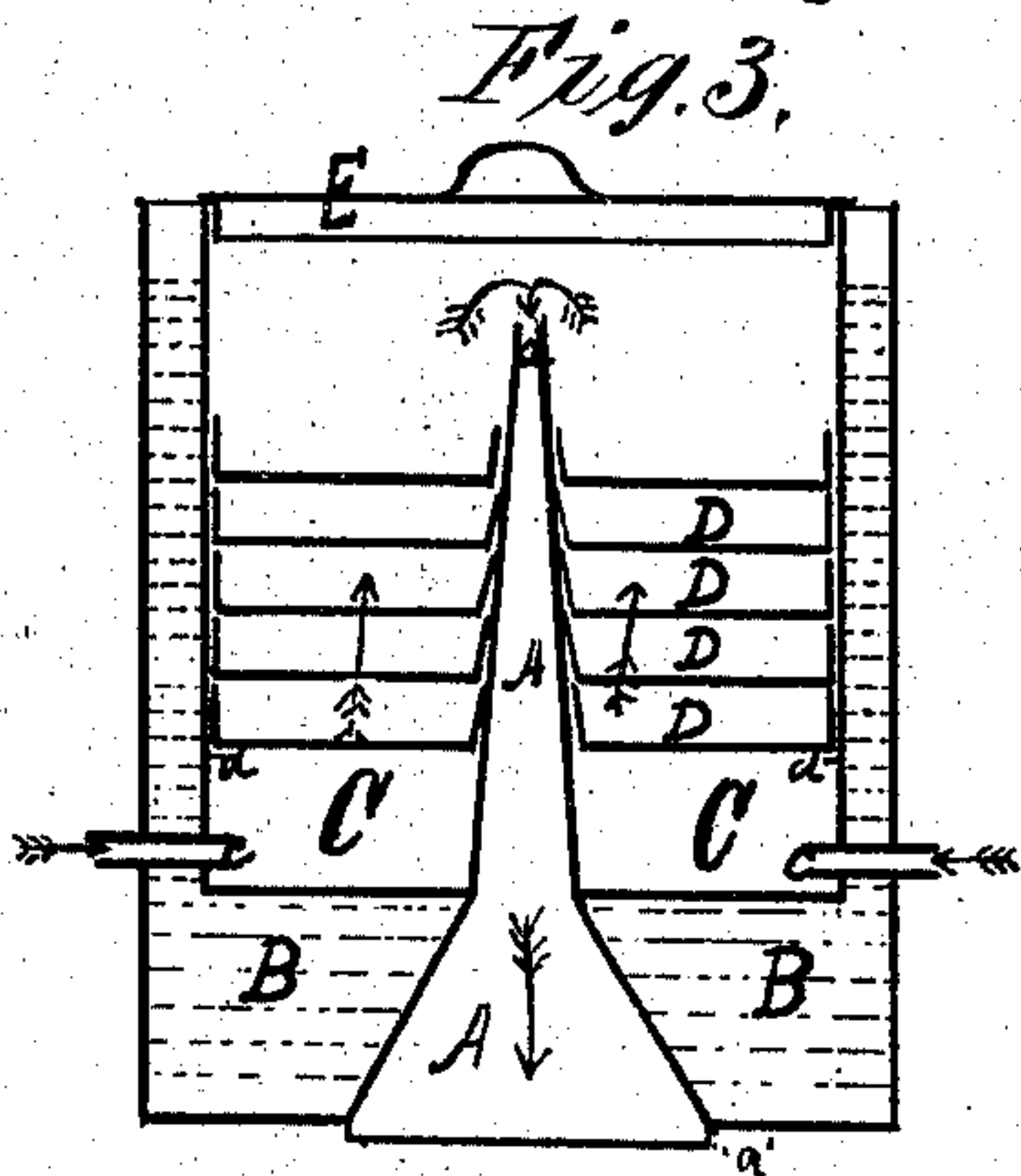
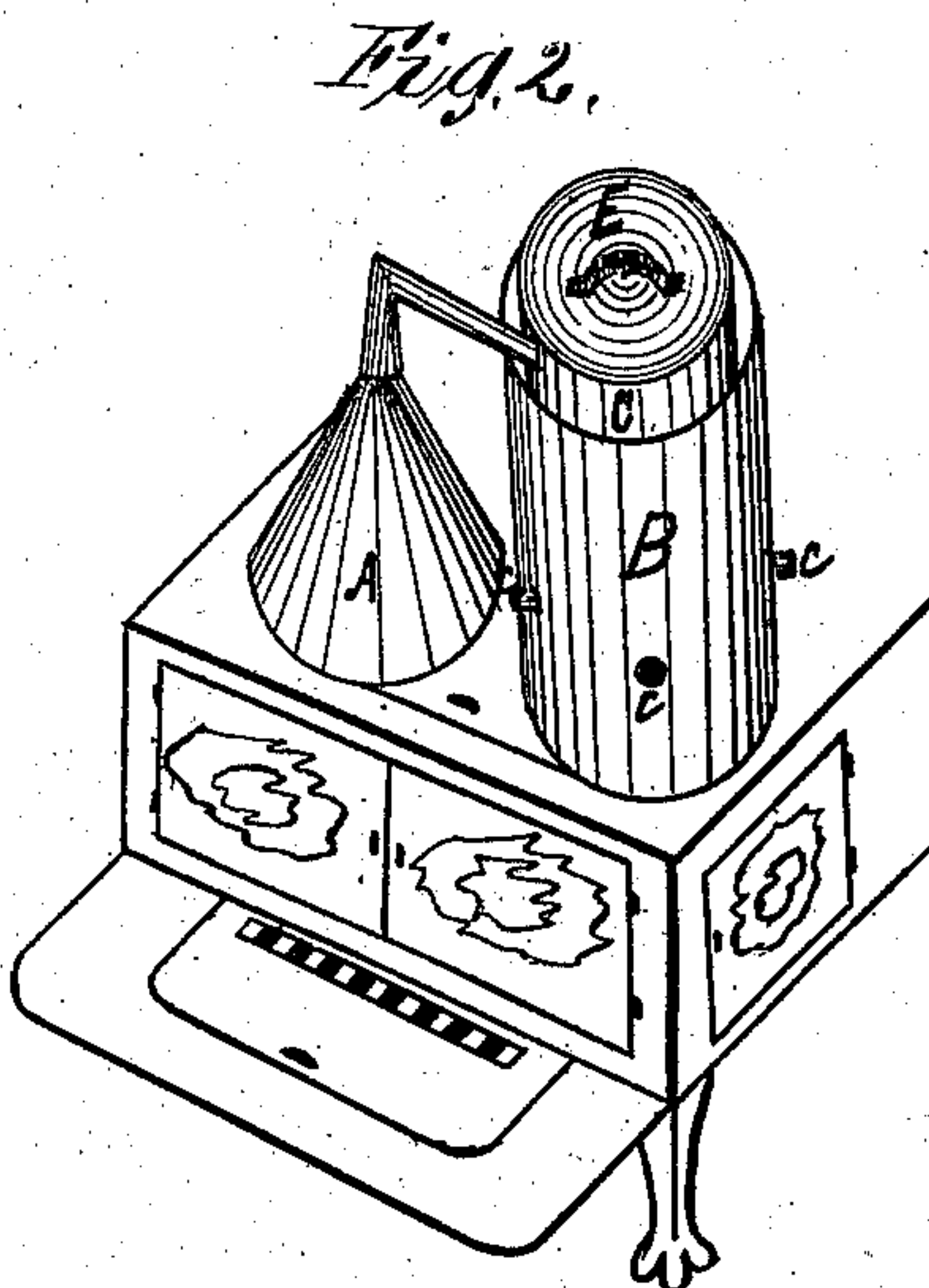
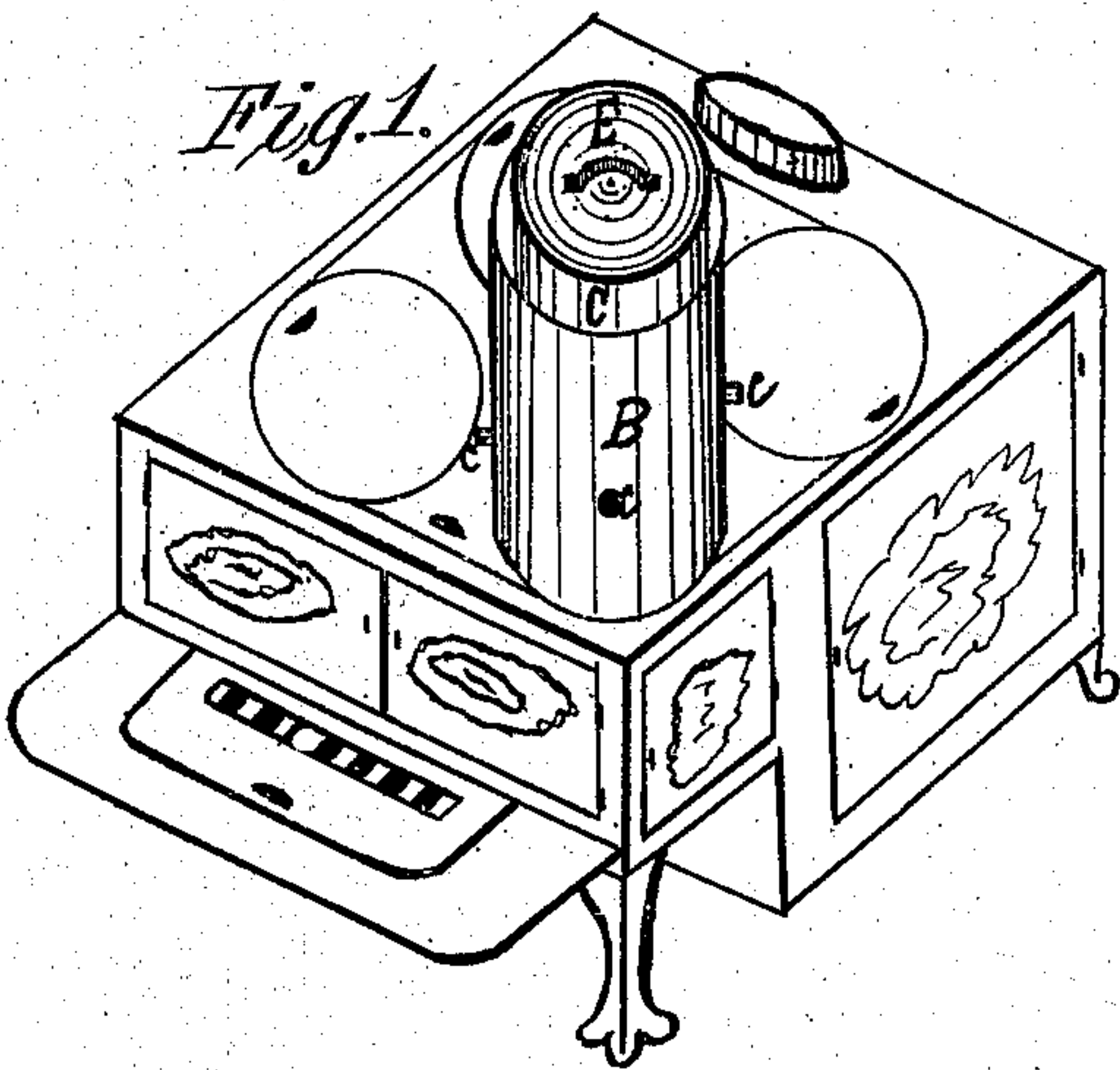


PATENTED JUN 28 1870

G. M. STERNBERG'S IMPROVED

104788



Witnesses

Philip W. Price, Jr.
H. C. Harbrouck

Inventor

Geo. M. Sternberg

United States Patent Office.

GEORGE MILLER STERNBERG, OF FORT RILEY, KANSAS.

Letters Patent No. 104,788, dated June 28, 1870.

FRUIT-DRIER.

The Schedule referred to in these Letters Patent and making part of the same.

I, GEORGE MILLER STERNBERG, of Fort Riley, in the county of Davis and State of Kansas, have invented a new and improved Family Fruit-Drier; 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 accompanying drawing making a part of this specification, in which—

Figure 1 is a view of the apparatus placed upon a cooking-stove in position for use.

Figure 2 is a view of a modified form of the apparatus for special purposes.

Figure 3 is a plan view of a vertical section of the apparatus.

Figure 4 is a plan view of a horizontal section of the same.

The object of this invention is to furnish a convenient and cheap apparatus for family and general use in the drying of fruits, berries, herbs, &c., which shall operate upon the principle of causing a constant current of heated air to pass over the article to be dried, thus rapidly depriving it of its moisture, and at a temperature so low as not to cook or otherwise alter its condition.

In the drawing—

A is an inverted funnel, secured, water tight, into an opening in the bottom of the hot-water cistern B, and having a projecting rim, *a'*, made to fit closely into one of the openings for pots and kettles on top of a cooking-stove.

The tube *a* of the funnel A opens into the upper part of the drying-chamber C.

A number of smaller tubes, *c*, open into the drying-chamber C near its bottom, and, at their outer extremity, communicate with the general atmosphere.

The drying-chamber C contains trays, D, having perforated or wire-gauze bottoms.

The lowermost of these trays rests upon a narrow projecting shelf, *d*, and the remaining trays are supported by this, one upon another. Each tray has a central opening, through which passes the tube of the funnel A when they are in position in the drying-chamber.

E is a close-fitting cover, which may be removed from the drying-chamber C to obtain access to its interior.

The mode of operation is as follows:

The fruit, or other article to be dried, is distributed in a thin layer upon the perforated bottoms of the trays D. The trays are then placed in position in the drying-chamber, and the cover E put in place. The hot-water cistern B is filled with water, and the apparatus is placed, with the funnel A over one of the openings, on top of a cooking-stove.

The draught, caused by the fire in the stove, causes the air in the upper part of the chamber C to be drawn down through the funnel A into the stove, and, in consequence the external air to rush through the tubes *c* into the drying-chamber.

A constant current of air is thus maintained through the perforated bottoms of the trays D, and over the article contained in them to be dried. The water in the vessel B, being heated by the fire in the stove, communicates heat to the air in the chamber C by radiation from the metallic walls of the chamber.

The amount of heat thus communicated will depend, to some extent, upon the height at which boiling water is allowed to stand in the vessel B. The temperature maintained within the drying-chamber will also depend upon the rapidity with which heated air is drawn through the funnel A, and cold air admitted through the tubes *c*, and may, consequently, be increased or diminished by increasing or diminishing the size of the tube *a* of funnel A, and of the tubes *c*.

A modified form of the apparatus for special purposes may be made with the funnel A without instead of within the drying-chamber C, as illustrated in fig. 2.

The apparatus may be made of tinned iron, copper, or any other suitable material.

Having thus described my invention,

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

The drying-chamber C, having a draught-funnel, A, trays D, and tubes *c*, and surrounded by a hot-water cistern, B, substantially as and for the purpose hereinbefore set forth.

GEO. M. STERNBERG.

Witnesses:

PHILIP M. PRICE, Jr.,
H. O. HASBROUCK.