No. 687,978. Patented Dec. 3, 1901.

A. CASTLE.

STERILIZER.

Application filed June 23, 1900.

(No Model.)

Fig. 1.

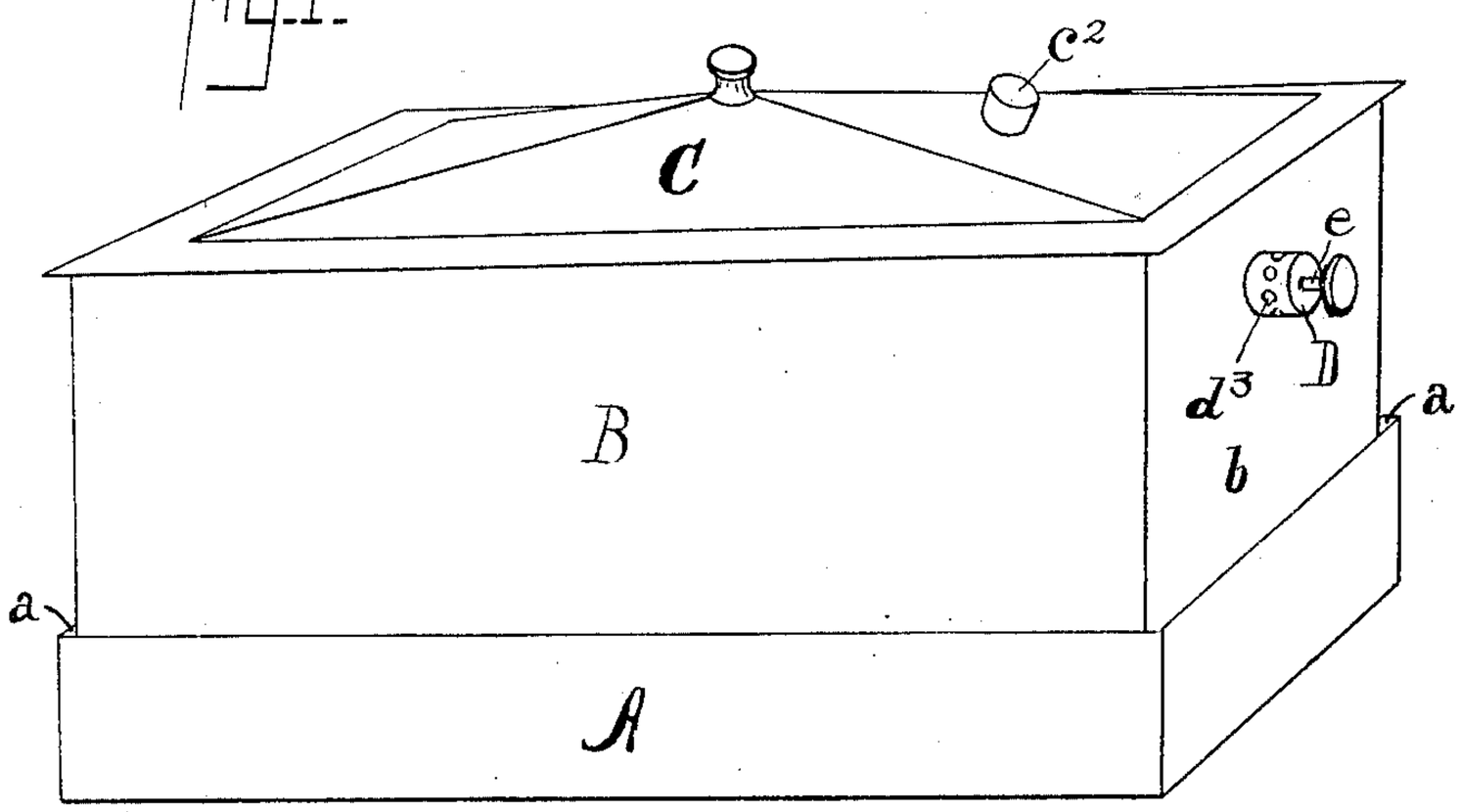
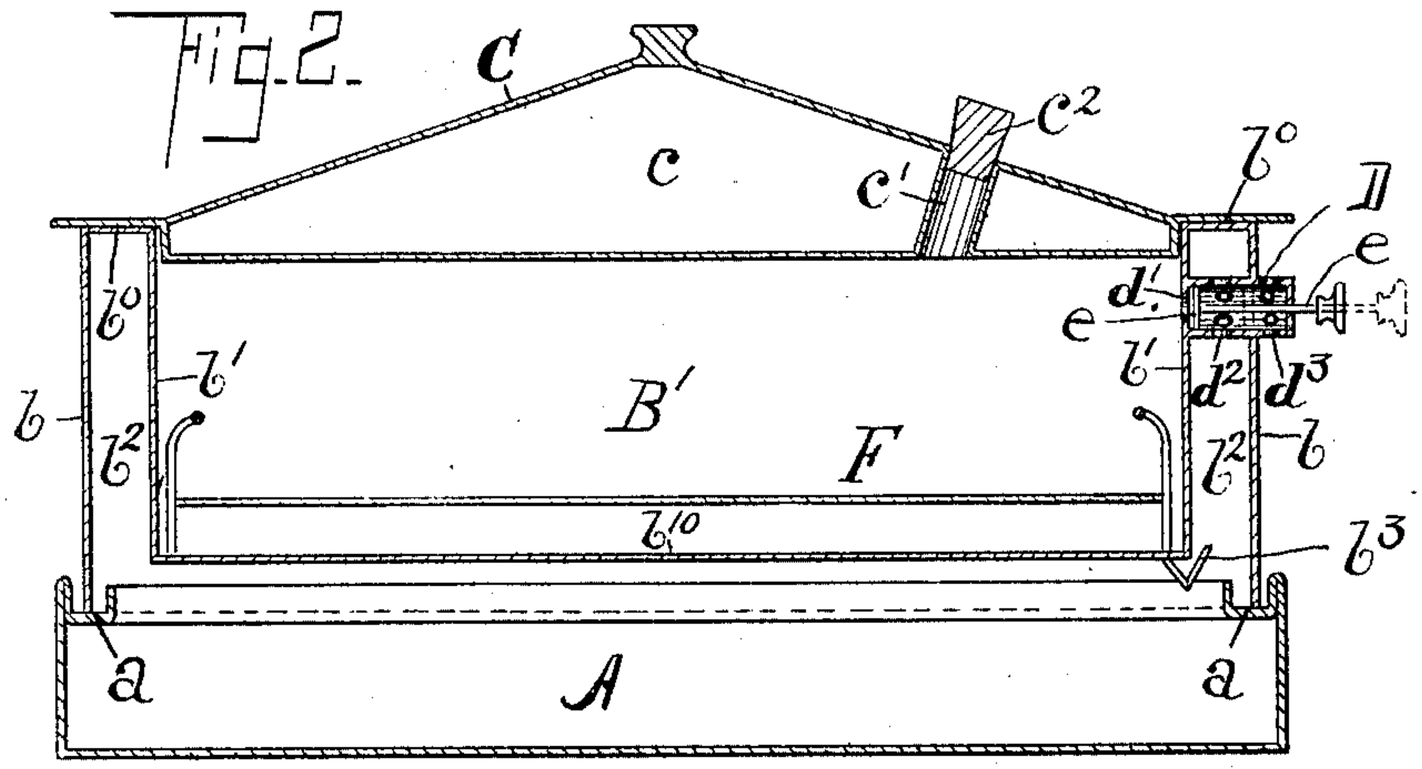


Fig. 2.



Witnesses:-
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UNITED STATES PATENT OFFICE.

ARTHUR CASTLE, OF ROCHESTER, NEW YORK.

STERILIZER.

SPECIFICATION forming part of Letters Patent No. 687,978, dated December 3, 1901.

Application filed June 23, 1900. Serial No. 21,387. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR CASTLE, a citizen of the United States, and a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Sterilizers, of which the following is a specification.

This invention relates to sterilizers.

The object of the invention is to produce a convenient and effective sterilizer; and the invention consists in the apparatus hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a sterilizer embodying this invention, and Fig. 2 is a vertical longitudinal medial section of the same device shown in Fig. 1.

In the drawings, A is the base, adapted to contain water to produce steam for the sterilizing operations. The said base has a flange or trough a on the inside, near the upper edge, that is adapted to contain water for sealing the device and also to catch the water condensed from the steam produced.

B is the sterilizer-top, which has an outer wall b, the lower edge of which is adapted to rest in the trough a of the base.

A trap b^3 is attached to the interior of the inner chamber of the sterilizer, so as to permit any water that may condense inside the same to pass out and also to seal this water-outlet against the entrance of steam therethrough.

An interior sterilizing-chamber B′ has the sides b' and the bottom b^{10}. The outer jacket-wall b is connected with the upper portion of the inner chamber in any suitable manner, as by the connecting-pieces b^0. There is consequently a steam-space b^2 between the outer wall b and the sides of the inner chamber.

A suitable cover C is provided to close the inner chamber B′ of the sterilizer and may have an air-space c within it. A tube or opening c', adapted to be closed in any suitable way, such as by the plug c^2, passes through the cover and may be opened to let out any vapor that may be in the interior chamber B′ during a drying process and may be closed to retain the vapor therein.

If water is placed in the base A and the device is placed upon a stove or other source of heat, the water becomes steam, and, passing into the steam-space b^2 around the sterilizing-chamber B′, heats the contents of the chamber B′ to a sufficient degree to prevent condensation of steam therein. The plug c^2 is removed when it is desired to dry the contents of the chamber B′. The contents of the chamber B′ must now be steamed for a proper length of time in order to sterilize such contents, and an ample amount of steam must be supplied thereto, and after the contents of the chamber have been properly sterilized it is generally necessary to dry them thoroughly. For this purpose a valve mechanism is applied to this device that is adapted to lead steam from the steam-space b^2 into the interior of the chamber B′ or to cut off the steam from passing from the steam-space into the chamber and to lead to the air. For this purpose the valve herein described is a simple and effective mechanism. It consists in a casing or tube D, passing through the outer wall b across the steam-space b^2 and connecting with the wall b' of the inner chamber B′. The tube has one or more openings d' into the chamber B′, one or more openings d^2 into the steam-space b^2, and one or more openings d^3 outside of the outer wall b. A sliding or piston valve e, provided with a stem e', rests in the tube D. If the piston e is pushed inward to the position shown in full lines in Fig. 2, the opening or openings d' into the interior chamber B′ are closed and the openings d^2 into the steam-space b^2 are connected to the outer air through the openings d^3. If the valve e is pulled out to the position shown in dotted lines in Fig. 2, the interior chamber B′ is connected to the steam-space b^2 through the opening or openings d^2 and the opening or openings d', and at the same time the opening or openings d^3 are closed or cut off, so that steam passes from the steam-space into the inner chamber B′. Suitable racks F or trays or other devices may be placed in the interior chamber B to support or contain the objects to be sterilized.

What I claim is—

In a sterilizer, a sterilizing-chamber having double walls for a steam-space, a valve consisting of a casing passing across the steam-

jacket, and having openings to the sterilizing-chamber, to the steam-space and to the outer air respectively, and a sliding valve adapted in one position to connect the openings to the sterilizing-chamber with the openings to the steam-space, and to cut off the openings to the outer air, and in the other position to connect the openings to the steam-space to the openings to the outer air, and to cut off the openings to the sterilizing-chamber.

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