A. J. GERO.

STERILIZER.

APPLICATION FILED MAY 28, 1908.

919,710. Patented Apr. 27, 1909.

Fig. 1.

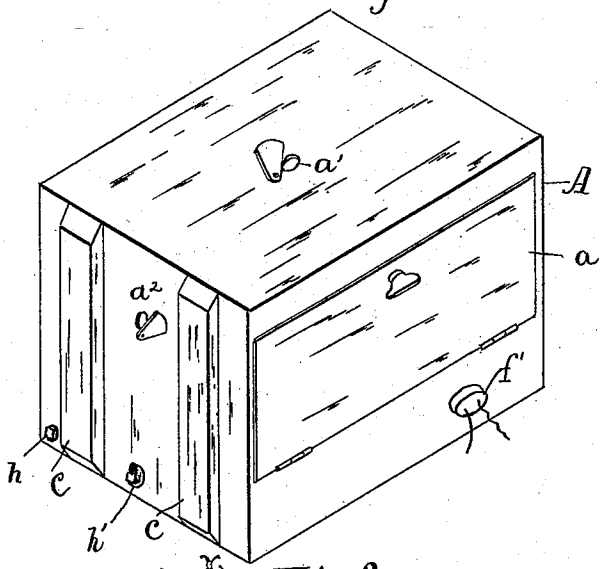


Fig. 2.

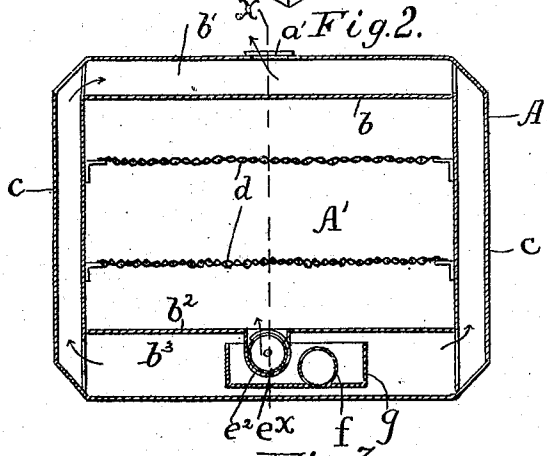
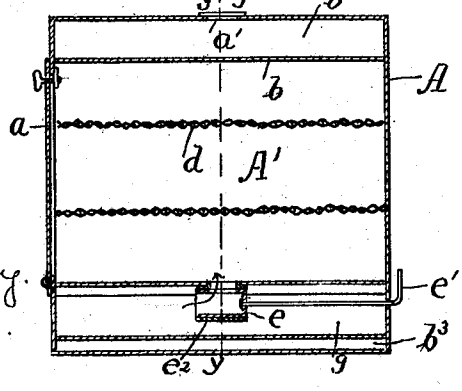


Fig. 3.



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STERILIZER.

No. 919,710. Specification of Letters Patent. Patented April 27, 1909.

Application filed May 28, 1908. Serial No. 435,389.

To all whom it may concern:

Be it known that I, ALPHONSE J. GERO, of Waterville, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Sterilizers, of which the following is a specification.

My invention relates to a sterilizer such as is used for physicians and surgeons for sterilizing bandages, garments and the like; and it relates particularly to that class of sterilizers in which steam is used in the sterilizing chamber to do the sterilizing and is then used outside of the sterilizing chamber to produce a dry heat therein to dry off the cloth and the object of the invention is to produce a sterilizer which may be heated by electricity as well as by live steam from a radiator or by a stove or any other source of heat whereby it may be conveniently used in any position.

The invention consists in the apparatus hereinafter shown and described.

I illustrate my invention by means of the accompanying drawing in which is shown a sterilizer constructed according to my invention.

In the drawing Figure 1 represents a perspective view of my sterilizer, Fig. 2 is a vertical longitudinal section taken on the line *yy* of Fig. 3 and Fig. 3 is a section taken on the line *xx* of Fig. 2.

A represents the body of the sterilizer having a door *a* opening into a sterilizing chamber A′ provided with shelves *d* preferably of wire netting and having vent openings a^2 in the upper part controlled by suitable shutters. The floor b^2 of the sterilizing chamber is separated from the bottom by a space b^3 which forms a water chamber where the steam is generated, a filling opening *h′* being formed at one end and closed by a suitable plug. The partition *b* which forms the top of the sterilizing chamber is separated from the top of the casing to form a steam space *b′* through which the steam escapes when passing outside of the sterilizing chamber at an opening *a′* controlled by a suitable cut-off or shutter. The water chamber b^3 and the steam space *b′* are connected by flues *c* which are formed on the ends here shown as four in number, two on each end.

Means are provided for admitting the steam from the water chamber direct into the sterilizing chamber or shutting it off and directing it around the sterilizing chamber through the steam space at the top. For this purpose I make use of a valve controlled from the outside of the sterilizer. As here shown the valve is composed of an outer cylindrical casing e^2 horizontally disposed beneath the floor b^2 and having an opening in the top communicating with an opening in said floor, with an inner cylindrical valve adapted to be turned by a handle *e′* which extends through the back wall of the sterilizer. The cylindrical valve has an opening which registers with the opening in the outer cylinder.

Means are provided for heating the water by the use of electricity and for limiting the quantity of water used when electricity is to be used and for this purpose I place within the water chamber and preferably beneath the valve *e* an auxiliary open topped water reservoir *g* which may be filled by pouring water through the valve. This reservoir is placed somewhat above the bottom of the water chamber as shown so that communication may be had from one end of the chamber to the other and it extends from the front to the rear wall of the water chamber. It is much smaller than the water chamber and holds much less water. Extending in from the front face of the sterilizer is a cylindrical water tight casing *f* into which a cylindrical electric heating element *f′* may be inserted without coming in contact with the water.

In case steam is to be used from a boiler or radiator, I insert a plug *h* in the end of the water chamber and by replacing this within a nipple, connection may be made with a steam radiator.

The manner in which my apparatus may be used is evident from its construction. When electricity is to be used for heating, the plug *f′* is inserted in the opening of its casing and water is poured through the open valve *e* to fill the reservoir *g*. The water becomes heated and steam passes up through the valve into the sterilizing chamber where the contents become sterilized in contact with the steam, becoming at the same time wet with the condensation. The steam passes out through the openings a^2. When the articles are thoroughly sterilized, the valve is closed and the steam is allowed to pass up the flues *c* and out through the opening *a′* in the top producing a hot dry atmosphere in the sterilizing chamber and drying off the contents.

When a stove of any kind is to be used for heating, the whole apparatus is placed on

the stove or heater with the water chamber partly filled.

When live steam can be obtained, no water is used in the water chamber but a nipple is screwed into the opening *h* and this is connected with the steam pipe by a rubber tube or other suitable means.

As thus constructed, my sterilizer may be used by simply connecting it with an electric lighting fixture in which case the small body of water to be heated makes it economical of electricity and if electricity is not available live steam or any form of stove or heater may be used.

I claim:

1. The herein described sterilizer having a sterilizing chamber, a water chamber beneath said sterilizing chamber, and connected therewith by a valve, a water tight casing in said water chamber with an opening in its end exterior to the sterilizer and an electric heating element adapted to be inserted into said casing through said opening.

2. The herein described sterilizer having a sterilizing chamber, a water chamber beneath the same and connected therewith by a valve, an auxiliary open topped water reservoir within said water chamber, a water tight casing within said auxiliary water reservoir communicating with the exterior of the sterilizer and an electrical heating element positioned within said casing.

3. The herein described sterilizer having a sterilizing chamber, a water chamber beneath the same and connected therewith by a valve, an auxiliary open topped water reservoir within said water chamber beneath the valve opening, a water tight casing within said auxiliary water reservoir communicating with the exterior of the sterilizer and an electrical heating element positioned within said casing.

In testimony whereof I have affixed my signature, in presence of two witnesses.

his
ALPHONSE J. + GERO.
mark.

Witnesses:
JOHN E. NELSON,
DAVE C. CAMPAGNE.