

(No Model.)

2 Sheets—Sheet 1.

G. W. ROBERTS.
STERILIZER.

No. 594,560.

Patented Nov. 30, 1897.

FIG. 1.

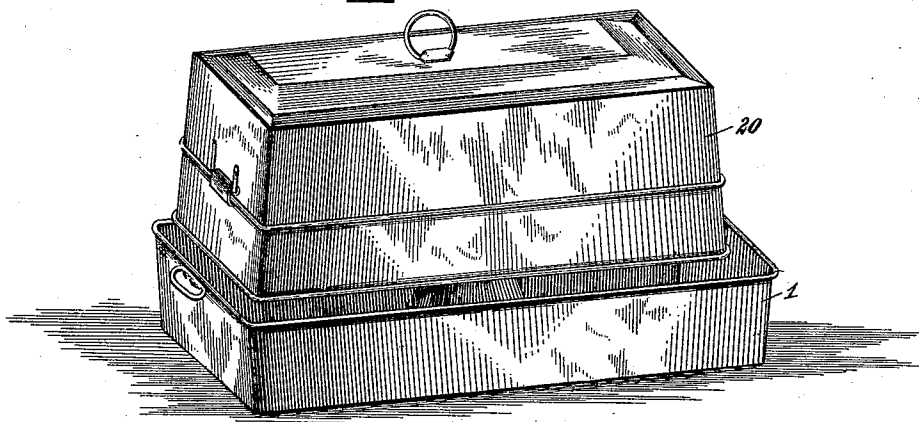


FIG. 2.

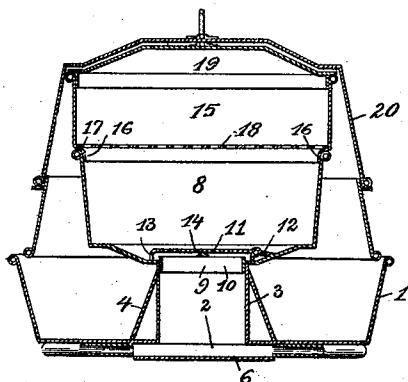
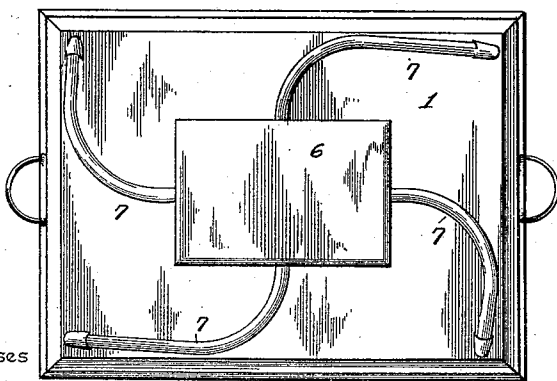


FIG. 3.



Witnesses

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George W. Roberts.

(No Model.)

2 Sheets—Sheet 2.

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FIG. 4.

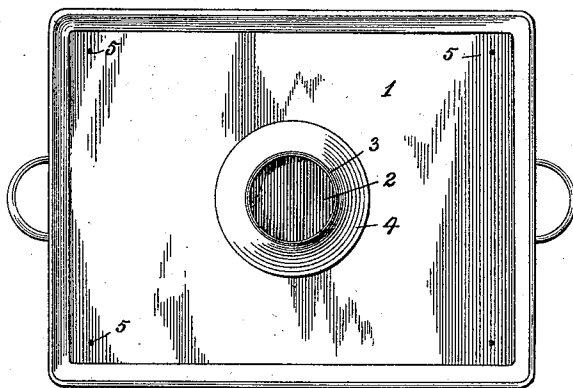


FIG. 5.

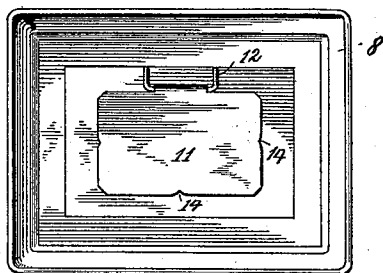
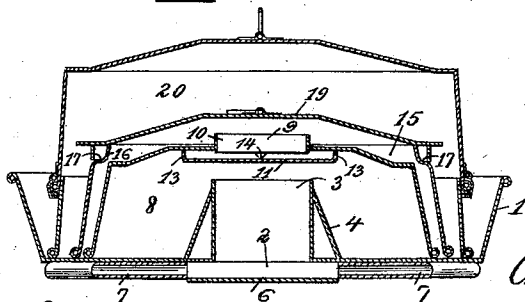


FIG. 6.



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UNITED STATES PATENT OFFICE

GEORGE W. ROBERTS, OF WEST SUPERIOR, WISCONSIN.

STERILIZER.

SPECIFICATION forming part of Letters Patent No. 594,560, dated November 30, 1897.

Application filed May 7, 1897. Serial No. 635,532. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ROBERTS, a citizen of the United States, residing at West Superior, in the county of Douglas and State of Wisconsin, have invented a new and useful Sterilizer, of which the following is a specification.

This invention relates to sterilizers especially designed for use by physicians or nurses; and the object of the invention is to provide a simple and efficient device of this character which may be easily set up for use and the several parts of which may be packed together in a small compass for storage or transportation.

The invention will be fully described hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the device set up ready for use. Fig. 2 is a vertical transverse section. Fig. 3 is a bottom plan view of the water-pan. Fig. 4 is a top plan view of the same. Fig. 5 is a plan view of the steam-chamber. Fig. 6 is a vertical longitudinal section showing the position the several parts occupy when packed together for storage or transportation.

Similar reference-numerals indicate similar parts in the several figures.

1 indicates the water-pan, which is provided with a central opening 2.

3 indicates a tube which is fitted at its lower end in the said opening 2, and 4 indicates a conical collar which is fitted over the tube 3 and soldered at its upper end thereto and at its lower end to the bottom of the water-pan. The water-pan is provided with a series of small perforations 5, which are formed in the bottom thereof. To the bottom of the water-pan is secured a shallow pan to form a chamber 6 directly below the opening 2.

7 indicates pipes which are secured to the bottom of the water-pan, exterior thereof, and lead from perforations 5 in the bottom of the water-pan to the chamber 6 and serve to convey water from the water-pan 1 into the chamber 6. Heat is applied directly to the bottom of the chamber in any convenient manner to convert the water into steam.

8 indicates the steam-chamber, which is provided with a central opening 9, from which a short collar or sleeve 10 projects down-

wardly and is adapted to fit over the upper end of the tube 3.

11 indicates a plate which is hinged at one side to the bottom of the steam-chamber, as indicated at 12, in order to fit over the opening 9. This plate is provided with downwardly-extended flanges 13 at its edges, and these flanges are adapted to rest on the bottom of the steam-chamber and are provided with a series of notches or openings 14 to permit the steam to pass into the chamber. As the steam passes from the chamber 6 up through the tube 3 it will come in contact with the bottom of the plate 11, and any moisture that is in the steam will be condensed upon this plate, and practically dry steam only will enter the steam-chamber 8.

15 indicates the sterilizing-chamber, which is provided with a downwardly-extending flange 16, adapted to fit within the upper open end of the steam-chamber, and with shoulders 17, which rest upon the upper edge of the steam-chamber. These shoulders 17 also serve as a support for a removable perforated bottom 18, upon which the material to be sterilized will be supported. This perforated bottom will preferably be made of wire-netting, or it may be made of a piece of sheet metal with a suitable number of holes formed in it.

19 indicates a removable cover for the sterilizing-chamber.

20 indicates a cap or cover adapted to fit over and inclose the sterilizing and steam chambers and is for the purpose of retaining the heat in said chambers.

The device when set up ready for use can be placed upon a stove, or heat may be applied to the bottom of the chamber 6 by means of a gas-jet, lamp, &c., and the water, which will be fed into the chamber very slowly through the small perforations 5 in the bottom of the water-pan, will be quickly converted into steam, which will pass up the tube 3 and be condensed on the plate 11, thereby permitting practically dry steam to pass into the steam-chamber 8 and from thence into contact with the material in the sterilizing-chamber. The cover 20 will serve effectually to retain the heat in the sterilizing and steam chambers.

In order to pack the device for transportation, the steam-chamber and sterilizing-cham-

ber are detached from the tube 3 and the cover 19 is removed from the sterilizing-chamber, and the latter, with the steam-chamber, are then inverted and placed in the water-pan over the tube 3. The cover 19 is then fitted over the bottom of the steam-chamber and the cap 20 fitted over the said cover and the two chambers, with its lower edge extending downwardly within the water-chamber. The position of the parts just described is clearly shown in Fig. 6, and it will be seen that the device will thus occupy but very little space.

It is of course to be understood that the several parts constituting the sterilizer may be made of any suitable sheet metal and that they may be of any suitable form, either rectangular, as shown in the drawings, or circular or oblong, this being entirely optional with the manufacturer. It is also to be understood that changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what I claim is—

1. In a sterilizer, the combination of a water-pan provided with a series of small perforations in its bottom and with a central opening, a chamber formed on the outer face

of the bottom of the water-pan with which said central opening communicates, a tube extending upwardly from said opening, horizontally-disposed pipes secured to the bottom of the water-pan exterior thereof and connecting said perforations with the said chamber, a steam-chamber supported on the upper end of said tube, a sterilizing-chamber having a perforated bottom, supported on the steam-chamber, and a condensing-plate interposed between the upper end of said tube and steam-chamber, substantially as described.

2. In a sterilizer, the combination of a steam-chamber having an opening in its bottom, a sterilizing-chamber supported above the steam-chamber, a steam-generator below the steam-chamber and communicating therewith through the opening in the bottom, and a condensing-plate hinged within the steam-chamber over said opening, said plate having downwardly-extending flanges to rest on the bottom of the chamber and said flanges having a series of openings formed therein, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

GEORGE W. ROBERTS.

Witnesses:

T. V. BADGLEY,
G. B. WILKINSON.