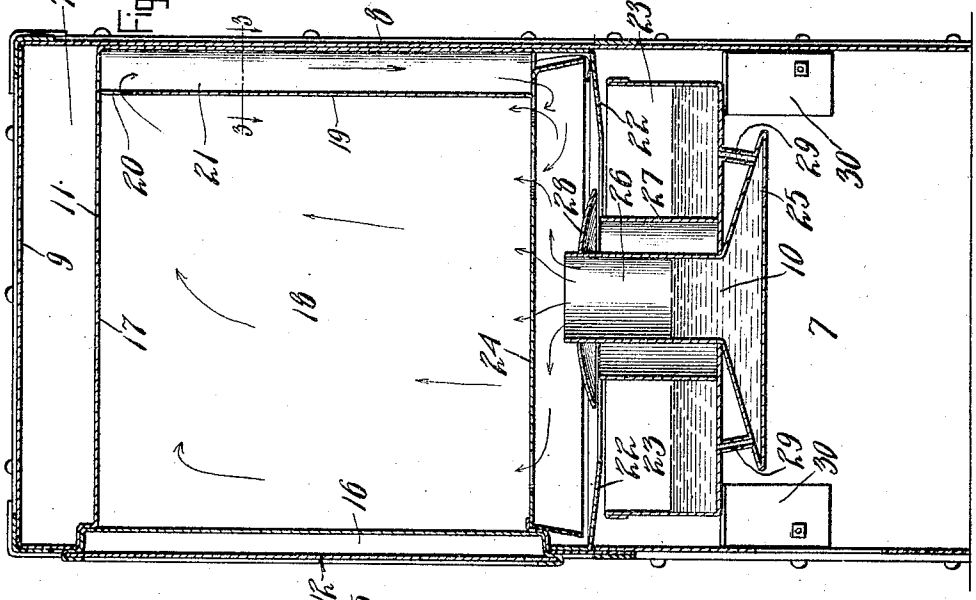
H. SPITZ.

STEAM STERILIZER.

APPLICATION FILED OCT. 1, 1918.

1,305,499. Patented June 3, 1919.

Fig. 2.



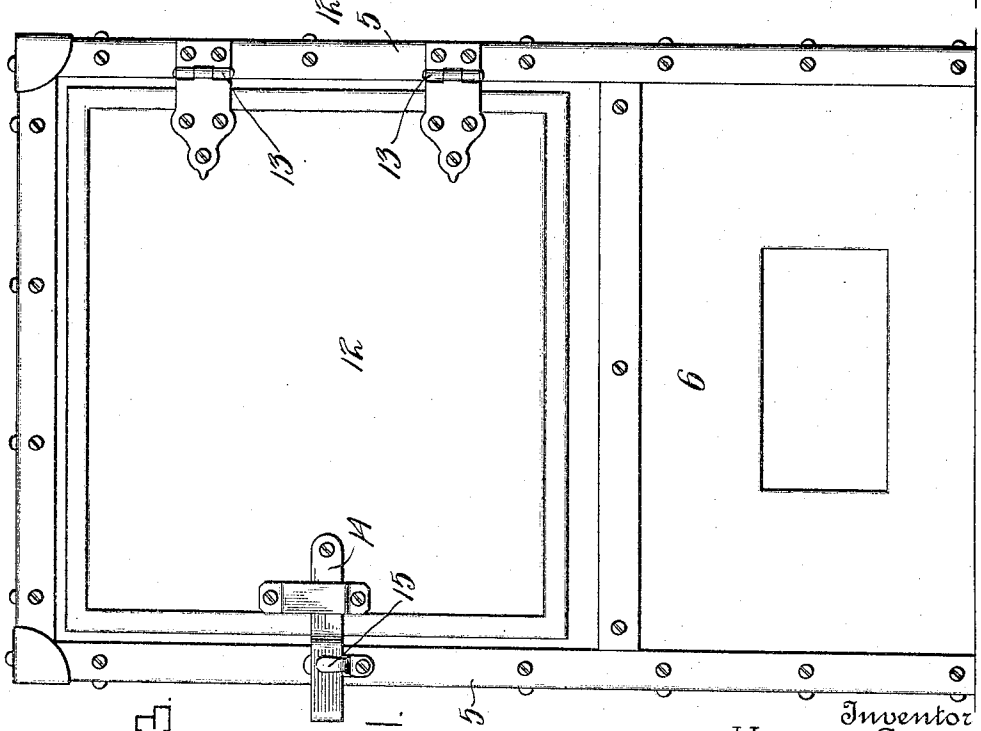


Fig. 3.

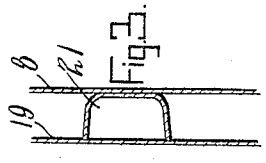


Fig. 1.

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UNITED STATES PATENT OFFICE.

HERMAN SPITZ, OF NASHVILLE, TENNESSEE.

STEAM-STERILIZER.

1,305,499. Specification of Letters Patent. Patented June 3, 1919.

Application filed October 1, 1918. Serial No. 256,454.

To all whom it may concern:

Be it known that I, HERMAN SPITZ, a citizen of the United States, residing at Nashville, Davidson county, and State of Tennessee, have invented and discovered certain new and useful Improvements in Steam-Sterilizers, of which the following is a specification.

My said invention relates to steam sterilizers and consists in the combination and arrangement of elements hereinafter described and particularly set forth in the accompanying claims.

The purpose of the invention is to produce a sterilizing apparatus which will continuously operate under a relatively thin film of water to the end of readiness for use and economy of fuel, and wherein the steam is maintained under a very low pressure to avoid the disadvantages and dangers attending the use of so called steam pressure sterilizers.

A further object resides in constructing a portable sterilizer apparatus of few parts that may be readily assembled for use without securing means and which parts may be conveniently disassembled and arranged for shipment, or when assembled may be transported or moved from one location to another without attaching or detaching from permanent fixtures.

The invention is shown by way of illustration in the accompanying drawings wherein;

Figure 1 is a front elevational view of the sterilizer.

Fig. 2, a longitudinal sectional view thereof, and

Fig. 3, a detail section on the line 3—3 of Fig. 2.

Referring to the construction in further detail and with like reference characters designating corresponding parts in the several figures, the sterilizer comprises the corner posts 5 which are united by metal plates to form the front 6, sides 7, back 8 and top 9, forming a chamber or casing inclosing a steam generator 10 and a sterilizing chamber 11. Said chamber 11 comprises a rectangular receptacle, open in front and communicating with a similar opening in the portion 6. Said opening is provided with a door 12 hinged at 13 to one of the corner posts 5 and having a pivoted latch 14 secured thereto and adapted to co-act with a hook member 15 secured to the opposite corner post 5 for holding the door in a closed position. As a means of retaining the heat in the receptacle, the door 12 is made with a double wall forming a dead air space 16. The chamber 11 is provided with a solid top 17 and solid sides 18, spaced from the corresponding portions of the outer casing of the sterilizer. The back portion 19 thereof is similarly spaced from the back portion 8 and is provided adjacent the top 17 with an opening 20 which communicates with a passage-way 21 which leads downward toward an inwardly directed, inclined flange 22 positioned immediately above the reservoir 23 of the steam generator 10. A perforated plate 24 forms the bottom of said chamber 11 and one of said perforations communicates with the lower end of the passage-way 21. Steam that is generated passes through the perforations in the bottom plate 24 and circulates around the articles that have been placed in the chamber 11 to be sterilized, through the opening 20, down the passage-way 21 and back again through the plate 24. That steam which has become condensed will be caught by the flange 22 and returned to the reservoir 23 of the steam generator. Any suitable means for heating the water may be employed, such as a gas stove or oil burner.

The steam generator consists of a vessel 25, of a truncated cone design in cross section, with a tube 26 leading from the top thereof up to within a short distance of the plate 24. This tube is surrounded by the reservoir 23 which is spaced therefrom by the tubular partition 27 which is open at its upper end and shielded by a hood 28. The vessel 25 and the reservoir 23 are connected by a series of very small tubes 29 which are of a size to maintain a thin layer of water in the vessel 25 under all conditions. The generator is held in place by means of angle brackets 30 secured to the corner posts 5 as shown.

It can be readily seen from the foregoing that the sterilizer operates under substantially atmospheric pressure, and that no considerable time is needed to get the same in proper working order.

The sterilizer is particularly adapted for use at soda fountains, bacteriological laboratories, and in general at all places where the sterilization of articles is necessary on a reasonably large scale. The apparatus is highly sanitary inasmuch as all foreign matter is prevented from entering into the sterilizing

chamber, the condenser, or into the generator. And the flame of the heater is shielded from all drafts and is itself guarded from liability of spreading.

It is obvious that those skilled in the art may vary the details of construction and arrangement of parts without departing from the spirit of my invention and I therefore do not wish to be limited to such features except as may be required by the claims.

Having thus fully described my said invention what I claim as new and desire to secure by Letters Patent, is,—

1. In a sterilizing apparatus, the combination of a sterilizing chamber having a dead air space at its top, bottom and sides, a small circulating passage connecting the upper end of said chamber with the lower end thereof, said circulating passage lying within said dead air space.

2. In a sterilizing apparatus, the combination of an outer casing having a door provided with a dead air space, a sterilizing chamber mounted within said casing and spaced therefrom, a perforated bottom for said chamber, an inturned flange arranged below said bottom, an opening in one of the side walls of said chamber adjacent the top thereof, and a passage lying between said casing and said chamber and communicating through said perforated bottom with said inturned flange, in and for the purpose described.

In witness whereof, I have hereunto set my hand and seal at Nashville, Tennessee, this 11th day of September, A. D. nineteen hundred and eighteen.

HERMAN SPITZ. [L. S.]

Witnesses:
W. M. CARR,
H. J. BROCKMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."