May 15, 1951 H. F. FROMME 2,553,180

RACK FOR STERILIZING BOTTLES

Filed Jan. 20, 1950

Fig. 1.

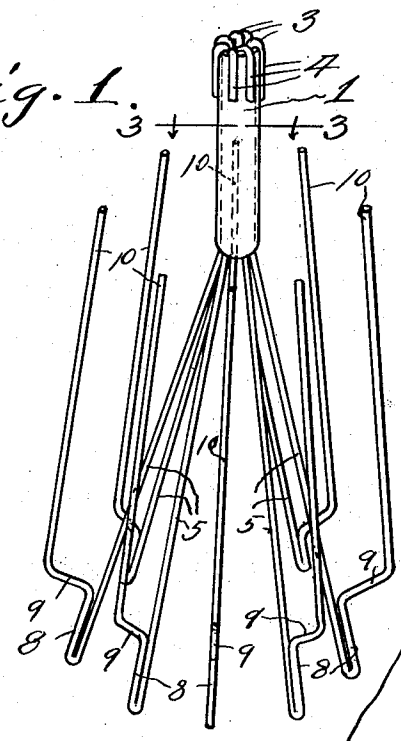


Fig. 3.

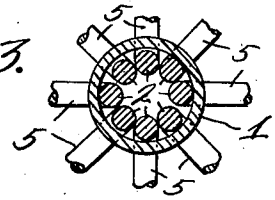


Fig. 2.

Inventor

Harry F. Fromme

By Philip A. H. Terrell

Attorney

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RACK FOR STERILIZING BOTTLES

Harry F. Fromme, Jacksonville, Fla.

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3 Claims. (Cl. 211—74)

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The invention relates to racks for sterilizing bottles, and particularly nursing bottles, and has for its object to provide a rack on which a plurality of bottles may be supported on individual members in an inverted position so the rack, when placed in a receptacle, will support the bottles with their neck ends spaced from the bottom of the receptacle, thereby allowing steam to enter the bottles and sterilize the bottles.

A further object is to provide a bottle sterilizing rack for the reception of inverted bottles, said rack comprising a plurality of downwardly diverging arms pivotally mounted in a sleeve, said arms at their lower ends terminating in upwardly extending outwardly offset bottle receiving arms having portions for engaging the bottle necks spaced from the lower ends of the downwardly diverging arms so the bottles will be supported spaced from the bottom of a receptacle when the lower ends of the downwardly diverging arms engage the bottom of a receptacle.

A further object is to rotatably mount the upper ends of the downwardly diverging arms in a sleeve so the rack, as a whole, can be collapsed to a substantially flat package.

A further object is to provide the upper ends of the arm portions within the sleeve with downwardly bent members engaging the outer periphery of the sleeve.

With the above and other objects in view the invention resides in the combination and arrangement of parts as hereinafter set forth, shown in the drawing, described and claimed, it being understood that changes in the precise embodiment of the invention may be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing:

Figure 1 is a perspective view of the rack.

Figure 2 is a vertical transverse sectional view through the rack showing the rack disposed in a receptacle.

Figure 3 is a horizontal sectional view taken on line 3—3 of Figure 1.

Referring to the drawing, the numeral 1 designates the cylindrical sleeve forming the handle member of the device and the means for maintaining the bottle supporting arms grouped at their upper ends in a pivotal manner, so the device can be collapsed to substantially a flat package with its arms distributed in flat engagement at opposite sides of sleeve for shipment and storage purposes.

Rotatably mounted within the sleeve 1 are the straight parallel portions 2 of the bottle supporting members. The upper ends of the portions 2 are bent over the upper edge of the sleeve, as at 3, and terminate in downwardly extending arms 4 engaging the outer periphery of the sleeve 1. The lower ends of the portions 2 terminate in downwardly diverging arms 5, the lower ends of which are adapted to engage the bottom 6 of a receptacle, as at 7. The arms 5 are bent at their lower ends, upon themselves, as at 8, and these portions terminate in outwardly and upwardly extending portions 9, which in turn terminate in upwardly and inwardly converging bottle receiving arms 10 adapted to enter the bottles 11 through their neck ends 12 for supporting the bottles in inverted position so that the steam created within the receptacle 13 will enter the bottles and sterilize the bottles. It will be noted that the portions 9 engage the bottle necks 12 and support the bottles spaced from the bottom 6 so that the steam can easily enter the bottles for the sterilizing operation. After the sterilizing operation, the operator grasps the handle 1, removes the rack with the bottles thereon from the receptacle, and after the removal of the sterilized bottles from the rack, the supporting arms are pivotally moved, some to each side of the sleeve, for forming a flat package for storage purposes.

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Although a rack is shown for supporting eight bottles, it is obvious the number of arms may be increased or lessened as desired.

From the above it will be seen that a bottle receiving sterilizing rack is provided which is simple in construction, foldable, and one wherein the bottles are supported in an inverted position within a sterilizing receptacle with their necks spaced from the bottom of the receptacle. It has been found, with the rack, it will not be necessary to provide a closure for the receptacle, and the water level rises above the mouth of the bottles, and a sterilizing temperature of 212 degrees Fahrenheit can be obtained within the bottles without confining the steam by the use of pressure through a container with a lid.

The invention having been set forth what is claimed as new and useful is:

1. A bottle receiving rack adapted to be supported on the bottom of a receptacle and for supporting inverted bottles with their necks spaced from the bottom of the receptacle, said rack comprising a sleeve, members rotatably mounted within said sleeve, the lower ends of said members terminating in downwardly diverging arms, the lower ends of said arms being adapted to engage the bottom of the receptacle, said lower ends of the diverging arms terminating in upwardly

extending bottle receiving arms, said upwardly extending bottle receiving arms having portions adapted to engage the bottle necks and support said necks spaced from the bottom of the receptacle.

2. A device as set forth in claim 1 wherein the upper ends of the members within the sleeve terminate in members extending over the upper edge of the sleeve and extending downwardly into engagement with the outer periphery of the sleeve.

3. A device as set forth in claim 1 wherein the lower ends of the diverging arms are bent upon themselves to form upwardly converging members, said upwardly converging members terminating in outwardly extending portions for engaging the necks of the bottles, said outwardly extending portions terminating in upwardly extending members adapted to extend into the chambers of the bottles.

HARRY F. FROMME.

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The following references are of record in the file of this patent:

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