

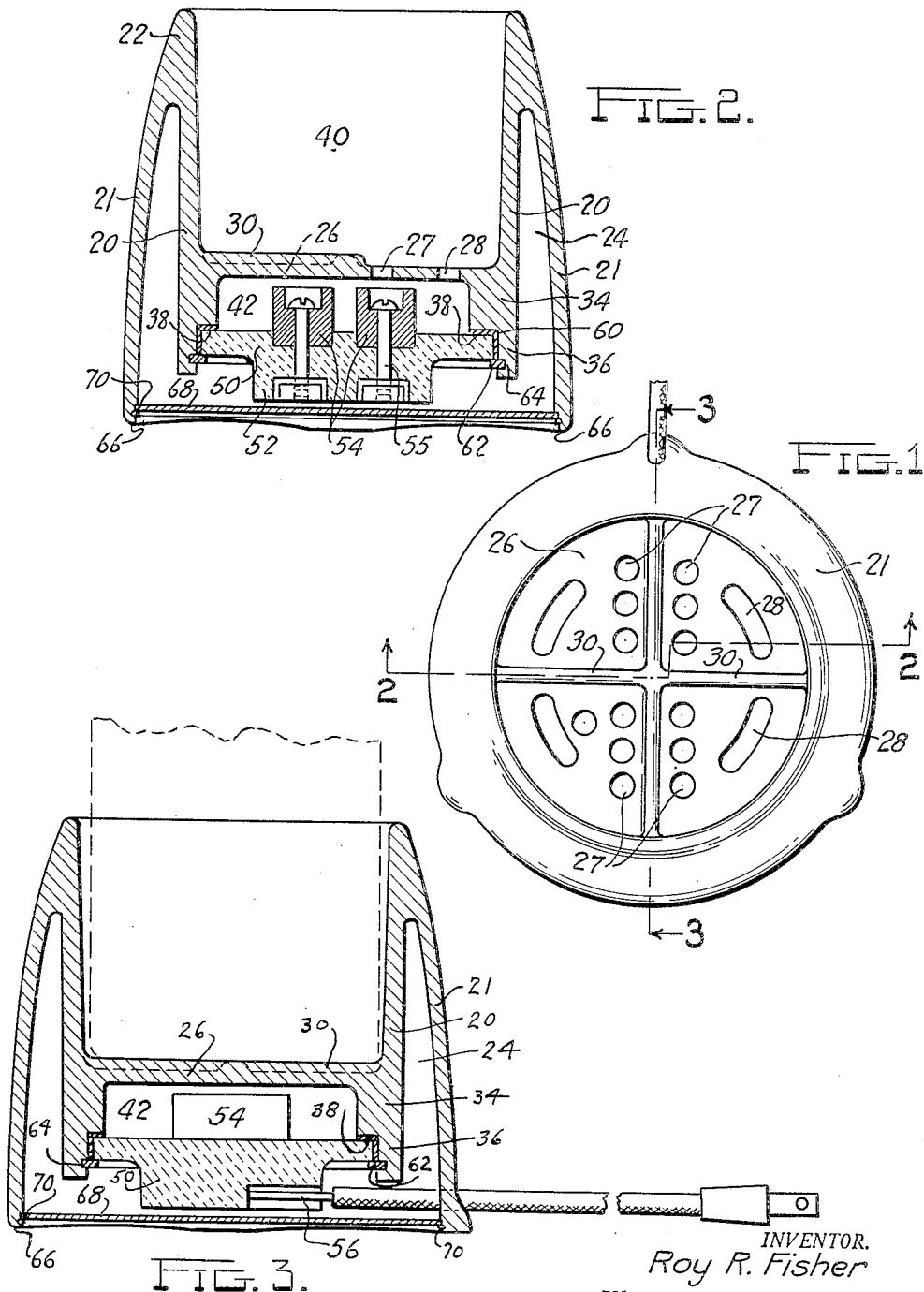
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BOTTLE WARMER

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BOTTLE WARMER

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4 Claims. (Cl. 219-40)

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This invention relates to a bottle warmer and has particularly to do with an improved construction for a bottle warmer which lessens manufacturing costs and results in a better product for the ultimate user. Bottle warmers are used for heating formula bottles for infants, and also for vaporization purposes, and other household needs. The bottle warmer under consideration is of the type where spaced electrodes are connected by a limited quantity of water which serves as a conductor between the electrodes and is, consequently, heated to a boiling temperature.

It is important that these bottle warmers be insulated from the supporting surface and be of such construction that they may be handled either when in operation or shortly thereafter when the heating chamber is extremely warm. The present construction contemplates concentric spaced walls in which one wall serves not only as a decorative outer surface but also as a handling surface and the supporting means for the entire assembly.

Other objects and features of the invention will be found in the following description and claims.

Drawings accompany the description and a brief description of the figures is as follows:

Figure 1 is a plan view of a bottle warmer.

Figure 2 is a vertical section of an upright bottle warmer on line 2-2 of Figure 1.

Figure 3 is a vertical section of the bottle warmer on line 3-3 of Figure 1.

The simplified construction of the present invention includes a one-piece unit consisting of concentric walls 20 and 21 which are integrally joined at the top 22. The wall 20 is substantially cylindrical in shape, while the wall 21 curves and tapers outwardly and downwardly to provide an air chamber 24 between the walls. Also formed integrally with the spaced concentric walls is a bottle supporting bottom 26 perforated at 27 and 28 and provided with raised ribs or ridges 30 extending above the perforations.

Below the wall 20 and the bottom 26 is a thickened wall 34 which narrows at 36 to provide a shoulder 38. The wall 20 may be said to form a bottle supporting chamber 40, while the wall 34 forms a heating chamber 42. The wall 21 extends quite a distance below the depending wall 36 for reasons which will be explained.

The heating element of the unit is supported on a disk 50 which is received within wall 36 and intended to abut against the shoulder 38. The thickened center 52 of disk 50 supports electrodes

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54 held in place by bolts 55, which bolts also serve to conduct electricity from lead wires 56 shown in Figure 3.

The disk 50 is preferably formed of a ceramic material which is non-conductive and heat-resistant. Electrodes 54 are preferably formed of carbon although metallic electrodes may be used. The unitary housing is preferably formed of a decorative plastic which is non-conductive to heat and electricity.

In assembly a cement 60 is placed against the shoulder 38 and within wall 36 and the ceramic disk is moved into place where it is retained by a split ring 62 located in groove 64. Thus assembled, the bottom 52 of the heating chamber is still within and above the lower edge 66 of wall 21, and a closing disk 68 may be inserted within the walls 21 and held in place by a retaining ring 70.

In operation water is poured into the well 40 where it passes through the perforations 27 and 28 to the heating chamber 42. When current is passed between the electrodes 54, the water will heat and boil. The wall 21 serves to insulate the outside of the device from the heating chamber so that the device may be grasped with the fingers when in use. It will be noted that the support wall 21 also spaces the heating chamber from a supporting surface to prevent injury thereto.

What I claim is:

1. A bottle warmer comprising a plastic cylindrical portion provided with a bottle holding well, a depending cylindrical wall forming a heating chamber below said well, a spacing shoulder formed internally of said depending wall, a ceramic disk for holding heating elements having an annular edge to seat against said shoulder within said depending cylindrical wall, a retaining ring to hold said disk against said shoulder, and means to support said assembly in spaced relation to a supporting surface comprising a unitary wall surrounding said cylindrical wall and joined integrally therewith adjacent the top but spaced and entirely free therefrom in increasing increments toward the bottom, said supporting wall extending to a point below the heating chamber and ceramic disk and entirely disassociated from the same to space the same from a supporting surface.

2. A bottle warmer comprising cylindrical means forming a bottle supporting well and heating chamber with a bottle support therebetween, and supporting means for said well and heating chamber comprising a continuous wall surrounding said well and chamber joined

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integrally with said cylindrical bottle supporting well at the top thereof, and extending in spaced relation to said well and heating chamber to a point below the same and entirely disassociated therefrom to space the heating assembly from a supporting surface to serve as an insulated handling surface.

3. A bottle warmer comprising cylindrical means forming a bottle supporting well and heating chamber with a perforated bottle support therebetween, and supporting means for said well and heating chamber comprising a wall surrounding said well and chamber joined integrally with said well wall at the top and extending downward in increasing spaced and unconnected relation to a point below the heating chamber to space the assembly from a supporting surface and to serve as an insulated handling surface.

4. A bottle warmer comprising spaced, concentric walls of water-resistant, non-conducting material, the inner of said walls having a sup-

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porting bottom therein, and the outer wall being joined integrally with the inner wall at one end and extending axially beyond the inner wall in spaced relation thereto at the other end, and a heating chamber including heat-resistant elements supported within said outer wall and below said bottom by said inner wall and entirely free of said outer wall.

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