April 15, 1947. J. STEPANIAN 2,419,040

BOTTLE DRYER

Filed Dec. 28, 1944

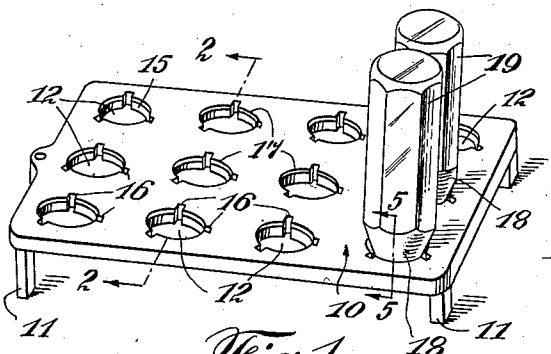

Fig. 1.

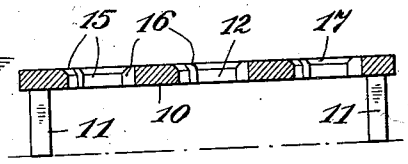

Fig. 2.

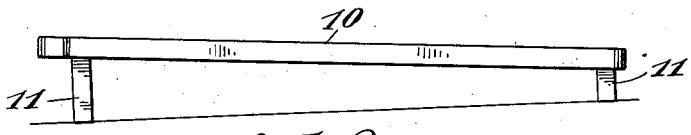

Fig. 3.

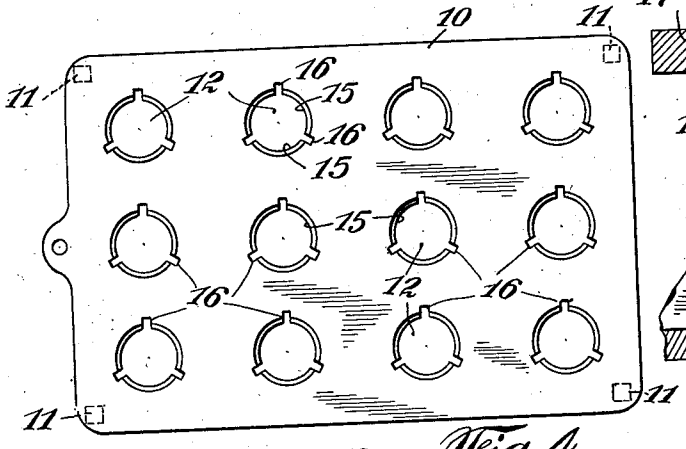

Fig. 4.

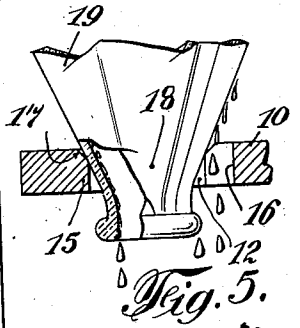

Fig. 5.

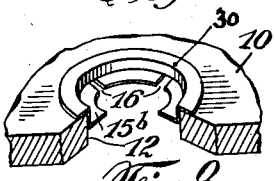

Fig. 8.

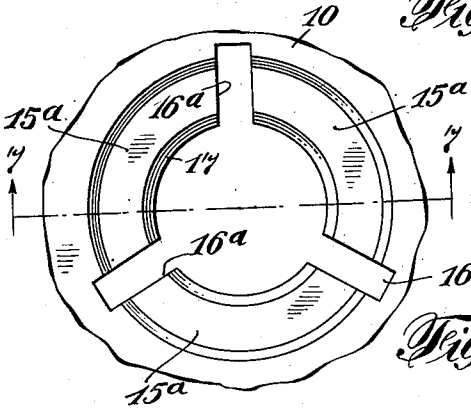

Fig. 6.

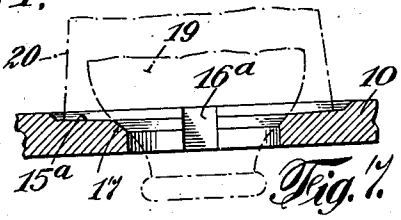

Fig. 7.

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BOTTLE DRYER

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Application December 28, 1944, Serial No. 570,137

1 Claim. (Cl. 211—74)

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This invention relates to bottle dryers.

Milk bottles for infants require frequent cleansing, and to facilitate the same, a group of bottles are used, all of which are usually cleaned at the same time. After the rinsing of the same, if placed upon the sink shelf, they are subjected to certain objectionable features. If the shelf surface is not clean, the bottle neck end becomes soiled when the bottle is placed upside down, and infectious germs may be transmitted to the infant. In that position, any grease or water may form a seal with the bottle opening and thus the netted water on the inside of the bottle does not evaporate, and becomes mixed with the milk. If the bottle is placed on its bottom, the net water accumulates at the bottom, and again part may be mixed with the milk.

The invention has for its object to provide a bottle drying device which facilitates the drying of the bottles in a hygienic manner. The invention consists of a board preferably arranged in an inclined direction, and provided with a plurality of openings, each having marginal tongues to support the open ends of the bottles, the tongues being preferably shaped to conform to the curved outer surface of the bottle neck, the spaces between the tongues providing drainage channels and air circulating channels. As a modification, these tongues can be made sufficiently long to support different sized glasses or tumblers, so that the device can be alternately or simultaneously used for infant bottles or for glasses.

The invention will be further described hereinafter, embodiments thereof shown in the drawings, and the invention will be finally pointed out in the claim.

In the accompanying drawings:

Fig. 1 is a perspective view of the improved device;

Fig. 2 is a transverse section taken on line 2—2 of Fig. 1;

Fig. 3 is a longitudinal side view;

Fig. 4 is a plan view;

Fig. 5 is a vertical fragmentary section taken on line 5—5 of Fig. 1;

Fig. 6 is a fragmentary plan view of a modified form;

Fig. 7 is a vertical section taken on line 7—7 of Fig. 6, and

Fig. 8 is a fragmentary view of another modification, being a broken away perspective.

Similar characters of reference indicate corresponding parts throughout the various views.

Referring to the drawings, the board 10 may

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be made of wood and suitably varnished, or lacquered or the like. Or it may be made of plastic material, or of suitable metal or other material.

The board 10 is provided with legs 11, one pair shorter than the other pair, so as to arrange the board at an inclination, which permits suitable drainage.

The board 10 is provided with a plurality of openings 12, preferably circular in shape. Tongues 15 are spaced from each other by spaces 16 and are shaped with bevel surfaces 17 to conform generally to the shape of the outside of the bottle neck 18 of the bottle 19. These tongues 15 are made integral with the board, but they can be inserted separately if desired, as shown in Fig. 8, where tongues 15b are part of a cap inserted in the opening 12.

After the bottles have been washed and rinsed, they are inverted, and the bottle tops are inserted into the openings 12, until the bottle necks rest upon the bevel seats 17. The net water on the inside of the bottles can drain off unimpeded and drop below the board. The net water on the outside of the bottles can drain off and some of it will pass directly through the spaces 16, and the rest may accumulate on the tongues and then also drain off through the spaces 16. The air below the board can ascend through the spaces 16 and flow along the outside of the bottle and thus assist in drying the outside by evaporation. The air can enter the unobstructed opening of the bottle, and circulating within the bottle it serves to dry the inner surfaces of the bottle. There will be no accumulated moisture within the bottle, as is the case when a bottle is attempted to be dried when upside down and with the opening sealed.

Similarly, when a tumbler or glass is rinsed and then placed upside down, unwiped, there appears an accumulation of moisture within the glass. To avoid this, the tongues 15 are increased in size as shown in Fig. 6, to conform in length to the average largest diameter of the usual glass or tumbler 20, that is, the length of the spaces 16a, is such as to extend under the largest sized tumbler or cap intended to be used. The spaces 16a then act as drainage channels, or as air guiding channels, to assist, by evaporation, in the drying of the interior of the objects to be dried. The surfaces 15a are inclined as shown in Fig. 7. The bottle 19 and tumbler 20 are shown in dotted lines, but as the bottles are usually longer than the tumblers, only one bottle can be used for one opening at one time.

The board may be provided with openings 12

as shown in Fig. 8, and a cap 30 having tongues 15b inserted in an opening 12, the tongues being separated by spaces 16. Such caps may be made of any suitable material and the perimeter of the tongues may be bevelled as shown in the other embodiments.

A baby milk bottle may also be placed on the form shown in Fig. 6, as shown in Fig. 7, or, the edge of the bottle neck can be placed against the bevel 17, this being made of coincident diameter. Or, the diameter of the opening can be smaller in order that the bottle neck edge rests upon the tongues in a manner as described for the tumbler. In any event, the spaces between the tongues provide for circulatory currents, ascending and descending, which serve to evaporate the adhering net water, both in the inside, and outside, of the bottle or tumbler.

The device is simple in manufacture, and can be supplied at a low cost, and acts as a kitchen accessory reducing the work by performing a selfdrying operation.

I have described several forms of my invention, but obviously various changes may be made in the details disclosed without departing from the spirit of the invention as set out in the following claim:

I claim:

A bottle dryer, consisting of a board having a plurality of circular openings, each opening having outwardly extending spaces formed by marginal tongues, circumferentially spaced from each other, said tongues providing a seat for the bottle neck extending through the opening, said seat having a surface inclined to the surface of the board and in general conformance to the inclination of the bottle neck, the diameter of the opening being substantially the same as the mean diameter of the bottle neck, said outwardly extending spaces providing drainage from the exterior of the bottle, and providing air circulation for the exterior of the bottle, the open end of the bottle extending below the board providing for air circulation within the bottle.

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