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April 18, 1939. J. T. DICKSON 2,155,259

LIQUID DISPENSER FILTER

Filed April 3, 1937

Fig. 1.

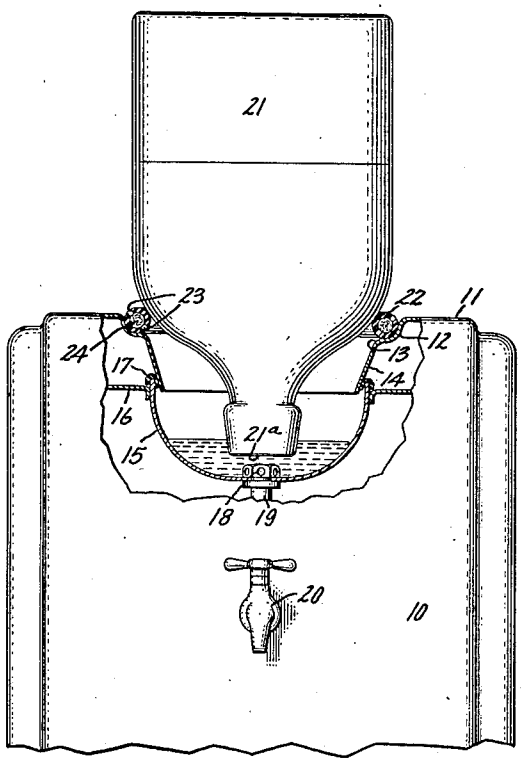
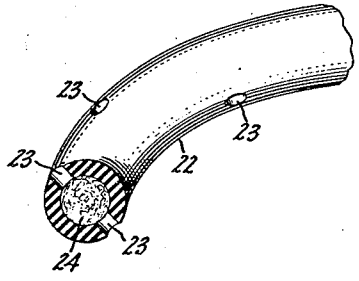


Fig. 2.



Inventor:
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UNITED STATES PATENT OFFICE

2,155,259

LIQUID DISPENSER FILTER

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Application April 3, 1937, Serial No. 134,910

1 Claim. (Cl. 183—49)

My invention relates to liquid dispensers of the inverted bottle type and more particularly to a gasket therefor.

It is an object of my invention to provide a gasket for liquid dispensers of the inverted bottle type which embodies an improved arrangement for filtering air passing therethrough.

Further objects and advantages of my invention will become apparent as the following description proceeds, and the features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of my invention, reference may be had to the accompanying drawing, in which Fig. 1 is a fragmentary front elevation, partly in section, of a liquid dispenser provided with a gasket embodying my invention; and Fig. 2 is a fragmentary perspective view of the gasket shown in Fig. 1.

Referring to the drawing, in Fig. 1, I have shown the upper portion of a liquid or water dispenser provided with a cabinet including a sheet metal outer shell 10 having a substantially flat top wall 11 in which an annular depression 12 is formed. The inner periphery of the annular depression 12 defines an opening 13 in the top wall 11 about which there is disposed an annular flange 14 projecting into the interior of the cabinet. Preferably, the annular flange 14 is formed integral with the top wall 11 of the sheet metal outer shell 10 and has the shape of an inverted frustum of a cone. A bowl 15 is arranged in the cabinet to receive the lower end of the annular flange 14, the bowl being supported in the cabinet by a suitable frame 16. A rubber gasket 17 is arranged about the upper edge of the bowl 15 and in engagement with the outer surface of the lower end of the annular flange 14 in order to provide a liquid tight seal therebetween. The annular flange 14 and the bowl 15 thus constitute a liquid container in the cabinet arranged below the opening 13 in the top wall 11. A liquid outlet plug 18 is secured in an opening in the bottom of the bowl 15 and is connected by conduit 19 to a faucet 20 supported by the front wall of the sheet metal outer shell 10. A suitable heat exchange device may be associated with the conduit 19 in order to cool the liquid dispensed at the faucet 20. A liquid or water storage bottle 21 is supported in an inverted position in the opening 13 with its mouth 21*a* projecting into the bowl 15 by an annular flexible rubber gasket 22 positioned in the annular depression 12 formed in the top wall 11. The resilient gasket 22 is seated in the annular depression 12 and against the outer wall of the bottle 21. Ordinarily, the weight of bottle 21 is sufficient to form a tight seal between bottle 21 and gasket 22 and also between gasket 22 and the annular depression 12 thereby substantially sealing the space between the opening 13 and the bottle 21 and preventing the entry of dust or other foreign matter into the liquid container.

As shown in Fig. 2, the gasket 22 includes a tubular body provided with a plurality of spaced apart apertures 23 for the passage of air therethrough, and a core 24 of any suitable air filtering material.

In the liquid dispenser illustrated, liquid is stored in the inverted bottle 21 and supplied to the liquid container formed by the annular flange 14 and the bowl 15 arranged therebelow, from which the liquid is drawn off at the faucet 20 for use as desired. As the liquid is drawn off at the faucet 20 the level of the liquid standing in the liquid container falls until the mouth 21*a* of the bottle 21 is only slightly submerged. Air in the upper portion of the liquid container then enters the mouth 21*a* of the bottle 21 and replaces a quantity of the liquid therein, which quantity of liquid is supplied to the liquid container to be dispensed at the faucet 20. The air which enters the bottle from the upper portion of the container is replaced by air passing through the apertures 23 and the core 24 of air filtering material in the gasket 22 from the exterior of the cabinet. The gasket 22 being tightly sealed between the annular depression 12 and the bottle 21 positively prevents dust and other foreign matter from entering the liquid container through the opening 13 in the top wall 11, except through the filtering material 24, and insures that the replacement air drawn into the liquid container from the exterior of the cabinet is free of impurities. Obviously the openings 23 need not be directly opposite each other as in the section illustrated in Fig. 2 but may be staggered as are the other two openings 23 shown in Fig. 2. This staggered arrangement of the openings makes possible a considerably longer filter path for the air passing through the gasket.

While I have shown a particular embodiment of my invention, I do not desire my invention to be limited to the particular construction shown and described, and I intend in the appended claim to cover all modifications within the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

A gasket comprising a resilient tubular body provided with a plurality of apertures spaced apart in staggered relation to provide air paths through said gasket of greater length than the diameter of said tubular body, and a core of air filtering material arranged in said tubular body.

JAMES T. DICKSON.