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P. J. KAPSCH
ELECTRICAL WATER HEATER

2,554,745

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Fig. 1.

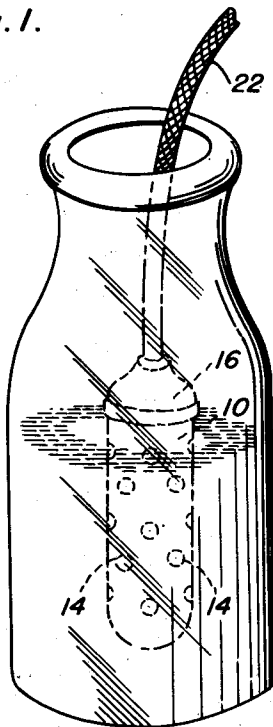


Fig. 2.

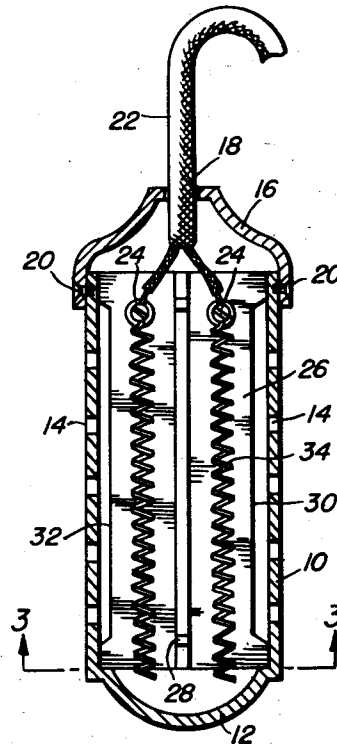
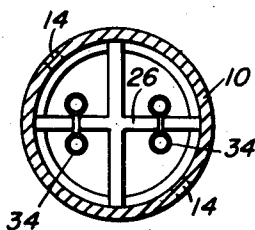


Fig. 3.



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ELECTRICAL WATER HEATER

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2 Claims. (Cl. 219—41)

1

This invention appertains to novel and useful improvements in heaters, particularly adapted to heat liquids.

An object of this invention is to provide means for heating a liquid such as a cup of tea, a portion of milk, and the like.

Another purpose of this invention is to provide small, efficient and compact means for carrying out the above mentioned function.

Another purpose of this invention is to provide a foraminous housing having heating elements therein which may be easily positioned in a receptacle containing liquid which is to be heated.

Another purpose of this invention is to provide electrically operative heating elements for use in association therewith.

Ancillary objects and features of novelty such as ease of manufacture and commercial feasibility will be apparent to those skilled in the art, in following the description of the preferred form of the invention, illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view of a receptacle showing the invention utilized in association therewith;

Figure 2 is a longitudinal sectional view of the invention; and

Figure 3 is a transverse sectional view of the invention shown in Figure 2 and taken on the line 3—3 thereof and in the direction of the arrows.

Referring now in detail to the illustrated preferred form of the invention, like reference characters are used throughout to indicate similar elements.

As is well known, it is sometimes desirous to heat a small quantity of liquid such as a predetermined amount of water prior to the making of tea. Utility of the present invention renders this function extremely simple. It is understood, of course, that utility of the present invention has many fields or uses, and the preferred form of the present invention may be utilized for many purposes without departing from the actual spirit of the invention.

A foraminous housing 10 is provided with a preferably semi-spheroidal shaped base 12. Many materials of construction may be utilized, such as metal, commercial plastic or the like. It is noted further that the said foraminous housing 10 is provided with a plurality of apertures 14 therearound, thereby rendering the said housing foraminous.

A cover 16 is detachably positioned at the up-

2

per, open portion of the said housing 10 and has an aperture 18 therein. Suitable screws 20 may be utilized for the purpose of retaining the cover 16 on the said housing 10.

A conductor 22 extends through the said aperture 18 and terminates at the contacts, which may be conventional screws 24.

These contacts or screws 24 are secured to a selected partition 26 which forms one of a series of such partitions within the said housing 10. It will be noted that the said partitions 26 have apertures 28 therein to permit free flow of liquid therethrough, and further, the said partitions 26 are longitudinally aligned with the axis of the said housing 10. Also, recess portions 30 and 32, respectively, are positioned about the marginal edges of the said partitions 26 to further inhibit free flow of liquid through the said housing 10.

It will be noted that electrically operative heating elements, preferably in the form of elongated coiled elements 34, extend around selected partitions 26 and terminate at the screws 24. Obviously, current may be conducted through the conductors 22, thence through the heating elements 34, whereby the elements may be heated.

By utility of the present invention, small quantities as well as large quantities of liquid may be heated easily and conveniently. Also, the invention may be manufactured in such sizes as to efficaciously treat a very small amount of liquid without any waste thereof.

It is apparent that variations may be made from the inventive concept without departing from the spirit thereof. Accordingly, limitation is sought only in accordance with the scope of the following claims.

Having described the invention, what is claimed as new is:

1. An electric immersion heater comprising a cylindrical housing open at one end and having a plurality of fluid inlet apertures, a cover detachably secured to the open end of said housing and having an opening therein for receiving a conductor, a plurality of radially disposed, longitudinally extending partitions mounted in said housing and including inner and outer longitudinal edges, the inner longitudinal edges of said partitions being joined, longitudinal recesses provided in the outer longitudinal edges of said partitions to permit free flow of fluid through said housing, and a pair of heating elements embracing a pair of said partitions and connected to a conductor extended through the opening in said cover, the outer longitudinal edges of

said partitions including upper and lower end portions bearing against the inner periphery of said housing to restrict lateral movement of said partitions relative to said housing.

2. The combination of claim 1 wherein said partitions include lower transverse edges, said housing including a semi-spherical shaped base having an inner concave surface, and an annular shoulder provided on the inner wall of the housing adjacent said base adapted to support the lower transverse edges of said partitions spaced from the concave surface of the base.

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

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