

May 13, 1930.

H. MOCK

1,758,008

REFRIGERATING UNIT

Filed Oct. 12, 1926

Fig:1.

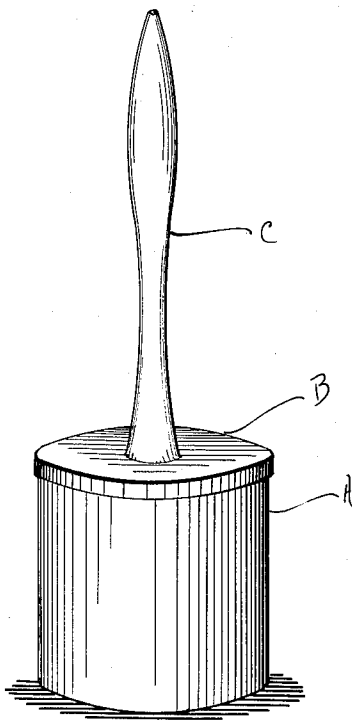


Fig:2.

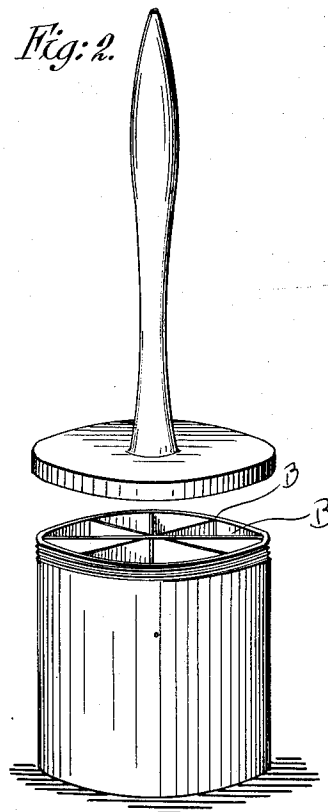


Fig:5.

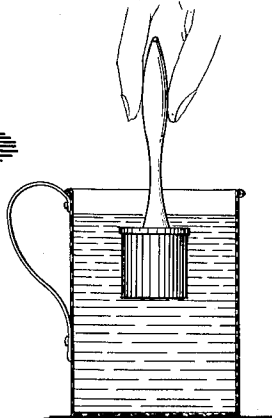


Fig:3.

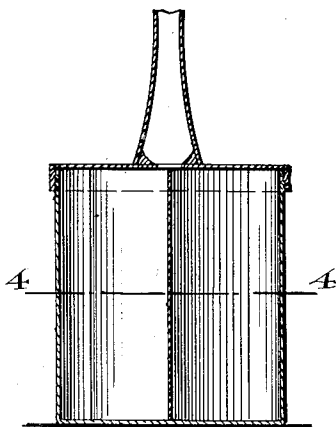


Fig:4.

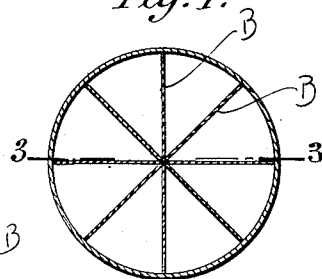
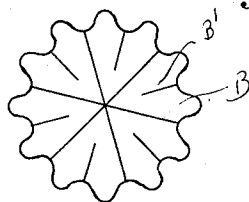


Fig:6.



H. Mock INVENTOR

UNITED STATES PATENT OFFICE

HUGO MOCK, OF NEW YORK, N. Y.

REFRIGERATING UNIT

Application filed October 12, 1926. Serial No. 141,209.

This invention relates to refrigerating units and more especially to the type of refrigerating unit usable in connection with iceless refrigerators.

5 The particular object of this invention is to provide a refrigerating unit which will be valuable in cooling liquids and more especially where it is desired to cool liquids without adding melted ice to the liquid as, for instance, in the cooling of milk, mineral waters, etc.

Further objects of the invention will be apparent from the specification and drawings in which—

15 Figure 1 is a perspective view of the complete unit,

Figure 2 is a perspective view of the unit with the cover detached,

Figure 3 is a vertical section,

20 Figure 4 is a horizontal section along the line 4—4 of Figure 3,

Figure 5 is a perspective view showing the manner of employing the refrigerator unit in cooling a liquid, and

25 Figure 6 is a modification showing a body with a corrugated surface so as to provide greater heat conducting space.

A is a cup with a cover B and the handle C. The cover is threaded as is also the top of the cup so as to hold the cover tightly so that if the cup is submerged in the liquid, the contents of the cup will not mix with the liquid. The handle C has an opening throughout its length communicating with the air so that in case the water frozen in the cup needs room for expanding, the necessary room is provided for by the opening in the handle C. In the cup A are a series of metal ribs B which are good conductors of heat so that the liquid frozen in the cup is divided into a number of small units so that when the cup containing water frozen therein is submerged in the liquid, these small units will be quickly melted by reason of the heat conducting qualities of the ribs B. A satisfactory ma-

terial from which to fashion the cup and ribs is aluminum as this is an efficient heat conductor.

In Figure 6 is shown a cup with a corrugated surface having a double set of ribs B 50 and B' which gives an increased amount of surface of ice contacting with metal so that any liquid in which such a unit is plunged will be cooled quickly.

In operation, the cup A is filled nearly to 55 the top with water, the cover is inserted on the cup, and the water therein is frozen in the iceless refrigerator. When it is desired to cool any liquid therefore, the unit with the ice frozen therein is stirred in the liquid 60 to be cooled and owing to the heat conducting qualities of the material of which the cup is composed and the large amount of metal contacting with the cooled material in the cup, it will be readily understood that the liquid 65 will be quickly cooled without adding to the volume of the same.

Having fully described my invention, what I claim is:—

1. In a device for cooling liquids, a metal 70 holder containing a refrigerant, a detachable top for said holder, a handle attached to said top, said handle having an opening therein to allow for the contraction and expansion of the fluid within the holder. 75

2. In a device for cooling liquids, a metallic holder for a refrigerant, a number of heat-conducting plates within said holder and a handle connected to said holder and an opening 80 in the top of said handle normally out of contact with the surface of the liquid in which said holder is placed.

3. In a device for cooling liquids, a metallic holder for a refrigerant, a number of heat-conducting plates contacting with the surface of said holder and with a refrigerant therein, a handle for said holder, said handle having an opening at the top thereof so that said holder may be immersed in a liquid to 85 90

be cooled without permitting the contents of said holder to mix with said liquid.

4. In a device for cooling liquids, a metallic holder for a refrigerant, a number of heat-conducting plates contacting with the surface of said holder and with the refrigerant therein, a handle for said holder and means within said handle so as to allow for the expansion of the liquid within the holder.

In testimony whereof I hereunto affix my signature.

HUGO MOCK.