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W. F. THOMPSON ET AL

2,102,496

WATER COOLER FOR USE IN REFRIGERATORS

Filed June 4, 1936

2 Sheets-Sheet 1

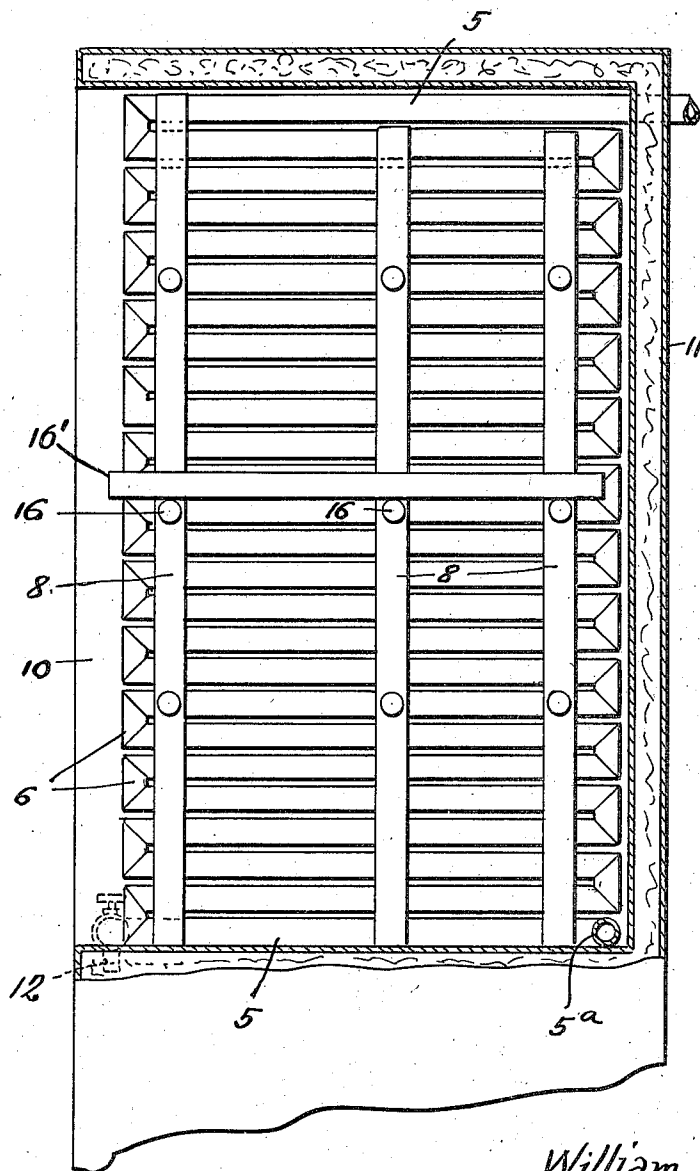


Fig. 1.

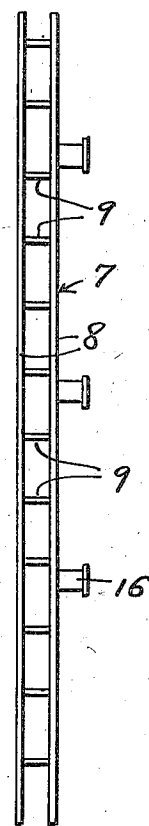


Fig. 2.

Inventor

William F. Thompson
Russell Whitten

By

Clarence A. O'Brien
Hyman Berman

Attorneys

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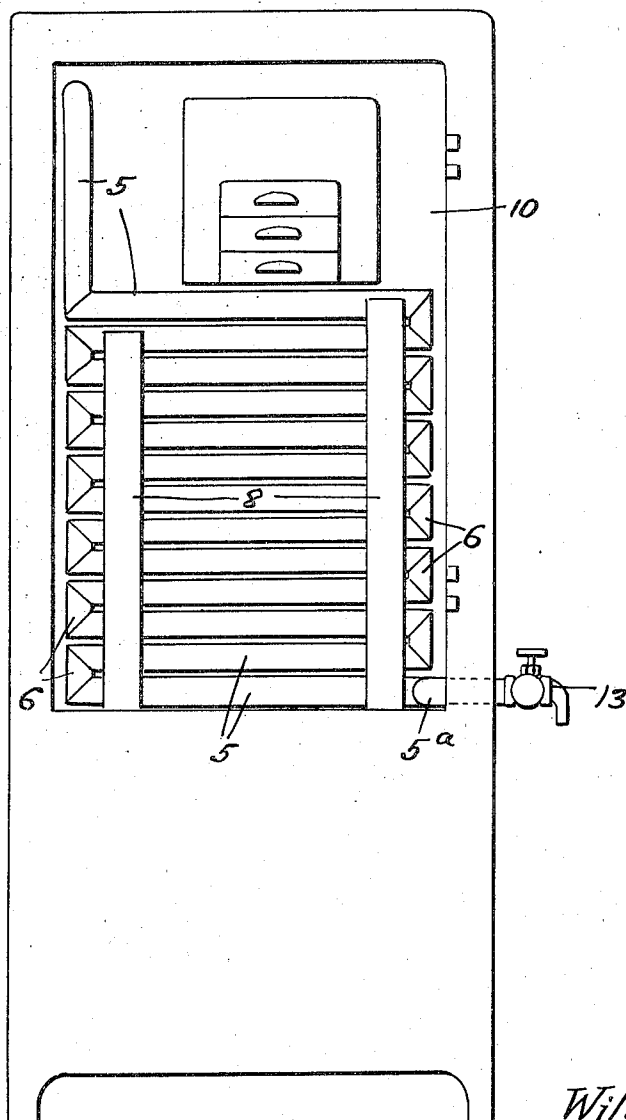
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Fig. 3.



Inventor

William F. Thompson
Russell Whitten

By

Clarence A. O'Brien
Hyman Berman

Attorneys

UNITED STATES PATENT OFFICE

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WATER COOLER FOR USE IN
REFRIGERATORS

William Floyd Thompson and Russell Whitten,
Alton, Ill., assignors of thirty-three and one-
third percent to A. W. Tiska and Mary Tiska,
Alton, Ill.

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2 Claims. (Cl. 62—89)

This invention relates to water coolers of the type readily attachable to existing cabinets of refrigerators either of the ordinary ice-box type or of the mechanical (electrical or gas) refrigerators.

The invention together with its objects and advantages will best be understood from a study of the following description taken in connection with the accompanying drawings wherein:—

Figure 1 is an enlarged fragmentary sectional view through a refrigerator cabinet illustrating the application of the invention.

Figure 2 is an edge elevational view of a coil bracing structure forming part of the invention.

Figure 3 is a front elevational view of a refrigerator cabinet with the door removed and illustrating a second application of the invention.

In accordance with the present invention it will be seen, that in each form thereof the coil consists of a plurality of metal tubes 5 arranged one above the other and in the same vertical plane. The tubes 5 are connected by tube or pipe sections 6, it being understood that each tube 5 is connected at one end with the corresponding end of each next adjacent tube 5 by a tube 6 as clearly shown.

Each tube 5 at the end thereof connected with a tube section 6 is bevelled and the joined end of the tube section 6 is complementarily bevelled, and at the joined ends thereof each tube 5 and connecting tube 6 are welded or otherwise secured together.

Further in accordance with the present invention there is provided for the coil two or more supporting or bracing units 7.

Each of the units 7 as best shown in Figure 2 comprises a pair of narrow elongated strips 8 of metal or other suitable material connected together at intervals through the medium of vertically spaced, relatively narrow connecting strips 9 of wood, metal or other suitable material and secured at the respective opposite edges to the strips 8 by, in the case of metal, being welded thereto, or in any other suitable manner.

The strips 9 are so spaced as to be disposed in alternate spaces between the tubes 5 of the associated coil so as to prevent the tubes 5 from sagging under their own weight or the weight of the water contents.

Further, in accordance with the present invention, the coil is placed in the selected compartment 10 of the cabinet, whether it be the cabinet of an ice-box, an electric refrigerator, a gas refrigerator, or any other type of domestic refrigerator, and when placed within the com-

partment is disposed immediately adjacent one wall of the compartment. In Figure 1 the coil is shown as disposed against one side wall of the compartment while in Figure 3 the coil is shown disposed against the rear wall of the compartment, and in this connection it will be noted that in this figure there is illustrated the application of the invention to an electric refrigerator.

Further it will be noted that the strips 8 at one side of the unit 7 serve to space the tubes of the coil from the adjacent wall of the compartment 10 while the strips 8 of the unit 7 at the opposite side of the coil will serve to prevent direct contact of the food stuffs or other contents of the compartment 10 with the coil.

As shown in Figure 1 the uppermost tube 5 of the coil is extended through the rear wall 11 of compartment 10 to be connected to a water main or other suitable source of water supply.

The lowermost tube 5 at its free end is suitably connected with a tube or pipe extension 5a which, in the application of the invention shown in Figure 1, extends along the back of the compartment 10 then forwardly adjacent the opposite side wall of the compartment and then is directed laterally through said side wall of the compartment 10 where it is connected with a spigot, faucet or the like 12 as indicated in dotted line in Figure 1. Thus it will be seen that the faucet 12 is conveniently located for drawing water from the coil, the contents of which will be cooled by the same cooling medium placed in the cabinet for influencing the temperature of the refrigerator cabinet.

When the water cooler coil is placed within the compartment 10 of the cabinet of an electric or other mechanical refrigerator as suggested in Figure 3, said coil may be placed adjacent a rear wall of the compartment 10 instead of adjacent the side wall as shown in Figure 1.

Also, and as suggested in Figures 1 and 2, and herein described in detail, the strips 8 at the side of the coil, facing the centre of compartment 10, may be provided with rows of vertically spaced lugs or projections 16 upon which the end edges of trays or the like may rest, as shown in 16' in Figure 1, for supporting the trays at the desired adjustment within the compartment 10, it being understood that the lugs 16 will be so placed as to be used complementarily to the usual tray-supporting elements which may be provided on the side wall of the compartment 10 farthest remote from the cooling coil.

It will also be understood that where desired, instead of having the inlet end of the coil con-

ected with a water main, said inlet end, externally of the refrigerator cabinet, may be equipped with a funnel through which water may be introduced into the coil, or said end may be suitably
5 connected with an inverted water bottle as may be found desirable.

It is thought that a clear understanding of the construction, utility and advantages of an invention of this character will be had without a
10 more detailed description.

Having thus described the invention what is claimed as new is:—

1. In a refrigerator, the combination with a cabinet including a compartment of a water cooling coil therein, said coil comprising a plurality
15 of spaced parallel tubes disposed one above the other and in the same vertical plane, and relatively short vertical tubes connecting the horizontal tubes in alternation at opposite ends of the
20 horizontal tubes to provide for a through circulation of water through the tubes, the uppermost horizontal tube of said coil extending through the wall of the cabinet for association with a source of water supply, the lowermost horizontal
25 tube of the coil having a part extending through a wall of the cabinet and equipped with a spigot, and a supporting stand for the coil including vertical strips disposed at opposite sides of the horizontal tubes, and spacer strips connecting

said vertical strips and arranged in alternate spaces between the horizontal tubes of the coil.

2. In a refrigerator, the combination with a cabinet including a compartment, and trays in said compartment, of a water cooling coil in said
5 compartment adjacent one wall thereof, said coil comprising a plurality of spaced parallel tubes disposed one above the other and in the same vertical plane, and relatively short vertical tubes connecting the horizontal tubes in alternation at
10 opposite ends of the horizontal tubes to provide for a through circulation of water through the tubes, the uppermost horizontal tube of said coil extending through the wall of the cabinet for association with a source of water supply, the
15 lowermost horizontal tube of the coil having a part extending through a wall of the cabinet and equipped with a spigot, and supporting elements for the coil, each of said supporting elements including vertical strips disposed at opposite sides
20 of the horizontal tubes, and spacer strips connecting said vertical strips and arranged in alternate spaces between the horizontal tubes of the coil, the vertical strips disposed at the side of the coil farthest from the wall of the cabinet being
25 provided with tray engaging and supporting means.

WILLIAM FLOYD THOMPSON.
RUSSELL WHITTEN.