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WATER COOLING ATTACHMENT FOR REFRIGERATORS

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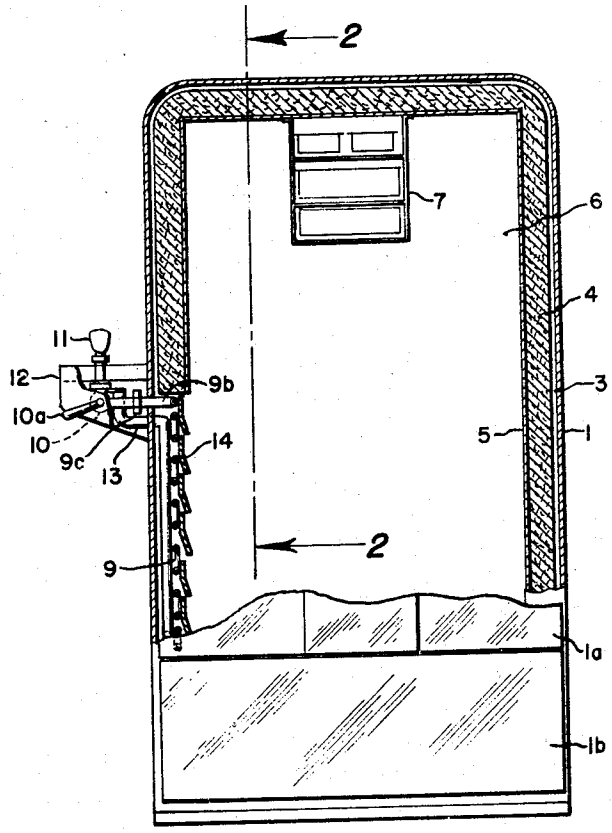


FIG. 1

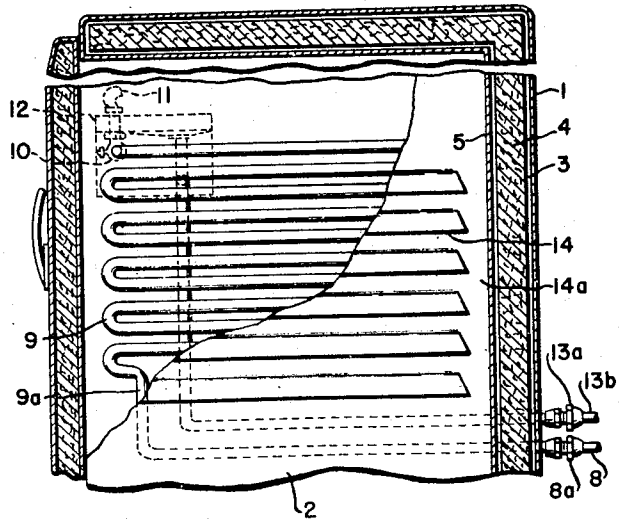


FIG. 2

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WATER-COOLING ATTACHMENT FOR REFRIGERATORS

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1 Claim. (Cl. 62—89)

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My invention relates to a water cooling attachment for refrigerators and the objects of my invention are:

First, to provide a water cooling attachment for refrigerators in conjunction with a drinking fountain located exteriorly of the refrigerator;

Second, to provide a device of this character which will supply at all times drinking water sufficiently cooled to satisfy the normal pallet without endangering the rupture of a water pipe by freezing;

Third, to provide a device of this character in a form rendering it applicable to many kinds of refrigerators and ice boxes, either as an attachment or as initial equipment;

Fourth, to provide a device of this character with all pipes enclosed and hidden from view and without involving any serious cleaning problem or any great loss of space or refrigerator capacity;

Fifth, to provide a device of this character which is inexpensive and practicable to manufacture, simple and convenient to use, and which will give enduring and efficient service.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claim, reference being had to the accompanying drawings and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a front view of a refrigerator of household type with my invention incorporated therein, the figure being partly in elevation and partly in section, portions of the door and wall structure being broken away to facilitate the illustration; Fig. 2 is a fragmentary transverse sectional view of an upper portion of the same apparatus taken on a line 2—2 in Fig. 1, a portion of the louvered wall being broken away to show the convolutions of the cooling coil and adjacent structure more clearly.

Similar characters of reference refer to similar or identical parts and portions throughout the several views of the drawings.

The casing 1, mechanical apparatus compartment 2, dead air space 3, insulation 4, inner casing 5, food compartment 6, low temperature compartment 7, service water pipe 8, cooling coil 9, valve 10, fountain unit 11, catch basin 12, drain pipe 13 and louvered wall 14 constitute the principal parts of the refrigerator and my invention incorporated therewith.

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Referring now to the drawings, the outer shell or casing 1 of household refrigerator illustrated comprises a metal rectangular box with an open front closed by the main door 1*a* and the lower door 1*b* closing the mechanical apparatus compartment 2.

Inside the outer casing 1 is a dead air space 3 between the outer casing and the perforate insulation layer 4 which is bounded on the inside by the inner casing 5 on all sides of the chilled food compartment 6. To complete the essential structure of such a refrigerator I have indicated the low temperature compartment 7 at the top of the food compartment 6.

A water pipe 8 usually an extension of the city service water pipe at the rear of the refrigerator, is connected as at 8*a* with the convolutions of the water cooler 9 by the inlet pipe 9*a* extending from the pipe connections 8*a* into the insulation space between the outer casing 1 and the inner casing 5 at one side of the refrigerator. These convolutions 9 are actually in communication with the chilled food compartment 6 and are disposed parallel with the contiguous portion of the outer casing 1 throughout the lower portion of one side of the chilled food compartment 6 and at the upper end of the convolutions, a cross pipe 9*b* is connected thereto and extends through suitably a drilled hole in the outer casing 1 to an adapter fitting 9*c*. The fitting 9*c* connects the valve 10 to the cross pipe 9*b* and this valve is provided with a manual control 10*a* of any suitable character. A drinking fountain unit 11 is secured to this valve 10 and both valve and fountain unit may be incorporated with a catch basin 12 in more or less conventional manner. I prefer to use a catch basin 12 shaped, as indicated in Fig. 1, with a flat abutment face to facilitate the attachment thereof to the side of the outer casing 1 and to accommodate the upper end of the drain pipe 13 which is secured to an outlet fitting in said catch basin. The drain pipe 13 is curved near the upper end to enter through a suitably drilled hole in the outer casing 1 and I prefer to lead this drain pipe downwardly through the perforate insulation 4 and rearwardly through suitably drilled holes in the rear wall of the refrigerator and this pipe should be connected as at 13*a* with a pipe 13*b* leading to the disposal system of the home. A louvered wall 14 secured by marginal flanges 14*a* to the inner casing 5 is provided to completely cover the convolutions 9 of the cooler, the louvers allowing chilled air from the compartment 6 to reach the cooler convolu-

tions 9 chilling the water contained therein to a temperaure desirable for water for drinking purposes. The drinking fountain unit 11 should be located approximately four feet from the bottom of the refrigerator.

In use the valve 10 is turned to the open position allowing chilled water to flow from the inlet pipe 8 through the pipe 9a, convolutions 9 and cross pipe 9b, through the open valve to the drinking unit 11. Overflow water is deflected by the catch basin 12 into the drain pipe 13. Obviously the valve 10 is opened only when someone desires to drink from the fountain 11.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement but desire to include in the scope of my invention, the construction, combination and arrangement substantially as set forth in the appended claim.

Having thus described my invention, what I

claim as new and desire to secure by letters patent is:

A combination refrigerator and water cooler, comprising a cabinet having a wall, an inner liner for said wall, a pipe including an inlet and outlet, a portion of said pipe being within said wall, adjacent said inner liner and convoluted in shape, a drinking fountain communicating with said pipe outlet, and an overflow drain pipe, a portion of said liner adjacent said convoluted pipe being foraminous.

GEORGE H. VON KOSCIELSKI.

REFERENCES CITED

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

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