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MECHANICAL REFRIGERATION

Filed Jan. 29, 1927

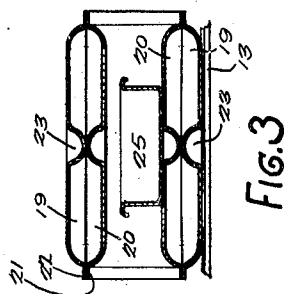


FIG. 3

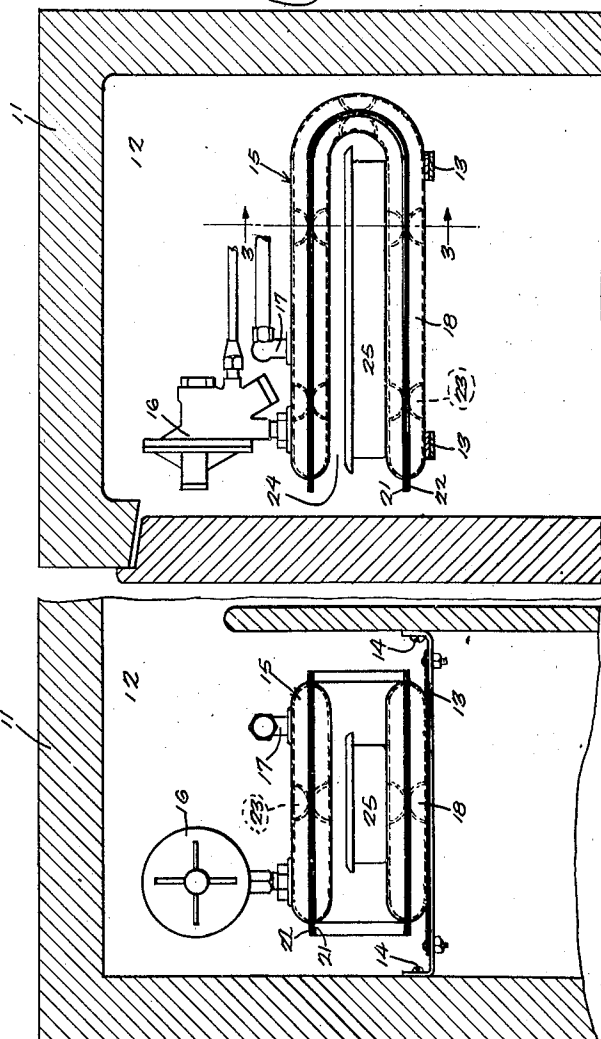


FIG. 2

FIG. 1

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MECHANICAL REFRIGERATION.

Application filed January 29, 1927. Serial No. 164,429.

My invention relates to mechanical refrigeration, and particularly to a refrigerant expander unit adapted to be inserted in a refrigerator cabinet of the domestic type, and the principal object of my invention is to provide a new and improved unit of this type. In the drawings accompanying this specification and forming a part of this application I have shown, for purposes of illustration, one form which my invention may assume, and in the drawings:

Figure 1 is a front elevation of this embodiment of my invention,

Figure 2 is a side elevation thereof, while

Figure 3 is a section on the line 3—3 of Figure 2.

The embodiment of my invention herein shown is applied to a refrigerator cabinet 11 having a refrigerating compartment 12 in which is supported by means of bars 13, attached to the side walls of the compartment 12 by screws 14, my improved refrigerant expander unit 15 carrying an inlet valve 16 and a connection 17 for the pipe leading to the compressor of the system, not shown, and comprising a U-shaped container 18 consisting of two cupped sheet metal plates 19 and 20 having flanges 21 and 22 about their peripheral edges adapted to overlie and contact with each other when the plates are arranged with their edges in abutting relation. The flanges 21 and 22 may be secured together in any suitable manner which forms a leak proof joint as by brazing, soldering, or welding. The plates 19 and 20 are also provided with inwardly extending dimples 23 of such depth that when the sections are assembled the dimples of the oppositely disposed plates contact with each other and may be secured together in any suitable manner, as by spot welding, thereby providing reinforcing means for the container. The recess 24 between the legs of the U-shaped container 18 is formed and proportioned to be utilized to support trays 25 for freezing ice under the refrigerating action of the refrigerant expander unit.

From the above disclosure it will be obvious to those skilled in the art that I have provided a new and improved refrigerant expander unit adapted to be inserted in a refrigerator cabinet of the domestic type.

At the same time it will be obvious to those

skilled in the art that the embodiment of my invention herein shown and described may be variously changed and modified without departing from the spirit of my invention or sacrificing the advantages thereof, and it therefore will be understood that the disclosure herein is illustrative only, and that my invention is not limited thereto.

I claim:

1. In a mechanical refrigerating system, a U-shaped refrigerant expander unit including a container for refrigerant comprising two sheet metal plates joined at their peripheral edges and affording a chamber therebetween, to thus form said container, the legs of said U-shaped expander being spaced to receive an ice tray therebetween supported on the top surface of the lower leg of said expander when said legs extend horizontally one above the other.

2. In a mechanical refrigerating system, a refrigerant expander unit including two sheet metal plates joined at their peripheral edges and bent to form a container of substantially U-shape, the legs of said container being spaced to form a tray receiving recess therebetween, and spacing means intermediate the peripheral edges of said plates within said container.

3. In a mechanical refrigerating system, a refrigerant expander unit including two sheet metal plates joined at their peripheral edges and bent to form a container of substantially U-shape, the legs of said container being spaced to form a tray receiving recess therebetween, and spacing means for said plates intermediate the peripheries thereof, said spacing means being formed integrally with said plates.

4. In a mechanical refrigerating system, a refrigerant expander unit including two sheet metal plates joined at their peripheral edges and bent to form a container of substantially U-shape, the legs of said container being spaced to form a tray receiving recess therebetween, spacing means intermediate the peripheral edges of said plates within said container, and means associated with said container for connection with a refrigerant circuit.

In testimony whereof I hereunto affix my signature.

CHARLES C. SPREEN.