

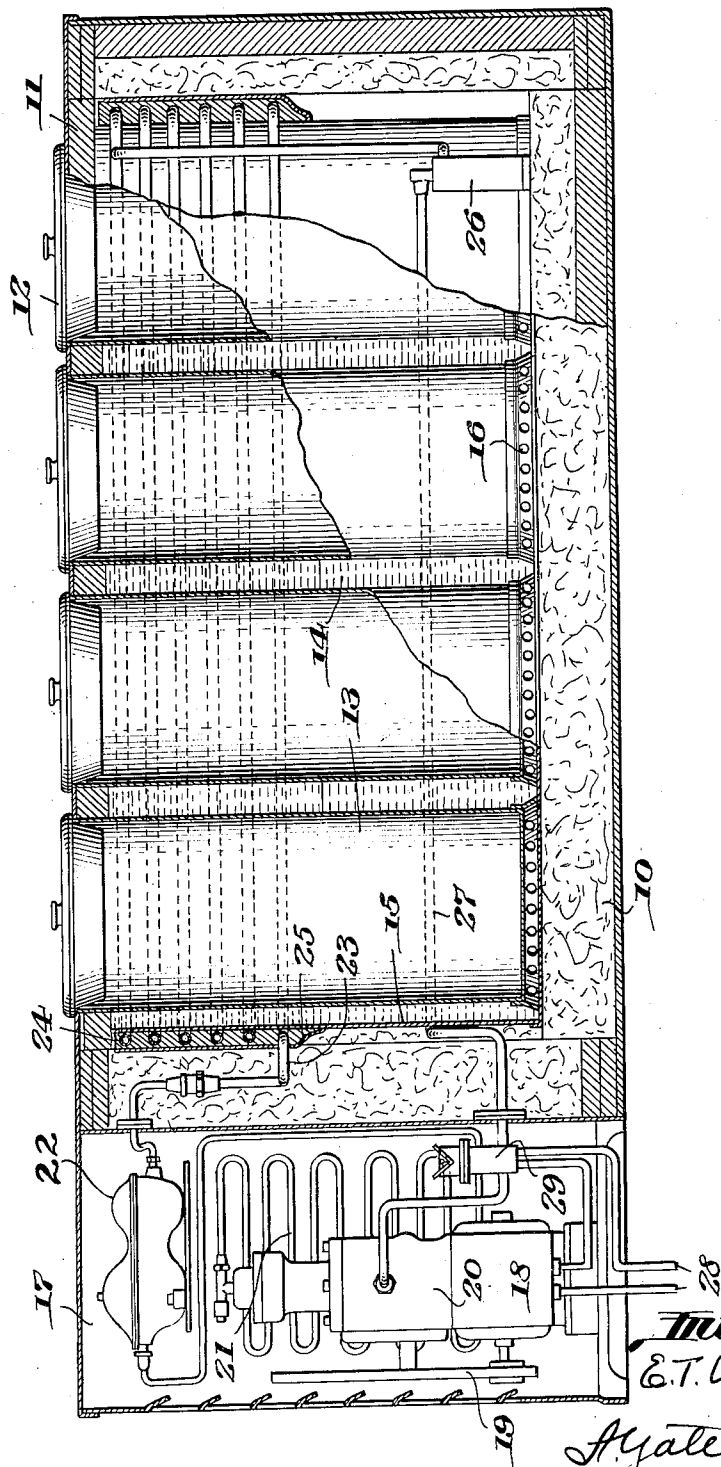
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REFRIGERATION

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REFRIGERATION

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2 Claims. (Cl. 62—95)

This invention relates to the art of refrigeration and more particularly to food or ice cream cabinets wherein a plurality of compartments or chambers are provided for housing and refrigerating containers of ice cream or other substances.

Among the objects of the invention is to provide an improved mechanically refrigerated ice cream cabinet in which the refrigerating action or cooling effect is more efficiently transmitted to the receptacles or containers for such food products.

The single figure of the drawing is a vertical, longitudinal section illustrating one application of the invention.

Referring to the drawing, a cabinet 10 formed of insulated material of well known construction is provided with a top 11 having removable insulated covers 12. Within the cabinet 10, beneath the respective covers 12, are disposed a plurality of receptacles 13 which may be of either circular, square, or other desired shape in cross section. These receptacles 13 are adapted to be surrounded by a brine solution 14 contained within a receptacle or brine tank 15 which forms a shell or casing about all of the receptacles 13. Beneath the lower ends of the receptacles 13 are disposed spacing elements 16 for maintaining the said lower extremities of the receptacles a sufficient distance from the bottom of the member 15 to permit circulation of the brine not only around the sides of the receptacles 13, but beneath the bottom of the same. These spacing elements 16 may be of any desired construction, for example a perforated plate or the like.

At one end of the cabinet 10 is provided a machine compartment defined by a removable casing 17, adapted to enclose the refrigerating machine. For the purpose of illustration I have shown in the machine compartment a motor 18, which drives by means of a belt 19, a compressor 20 which forces the refrigerant through a condensing coil 21, into a high side float chamber 22. From the high side float chamber 22, the liquid refrigerant passes through a connection 23 into the lowermost turn of the refrigerating coil or pipe 24 around the exterior of the brine tank 15 for cooling the solution within the brine tank. The extremity of the uppermost coil 24 extends downward and is connected to an accumulator 26 of conventional construction which is adapted to boil off liquid and oil before returning the wet gas through the compressor. The accumulator is connected by means of a pipe or suction line 27 with the compressor 20. The motor 18 is supplied with current by means of leads 28, a pressure control switch 29 being utilized for controlling the operation of the motor and the compressor operated thereby.

The coils 24 are enclosed in a chamber formed by a metal jacket 25 which snugly houses the coils

24, and such chamber formed by the metal jacket is filled with soft metal or has molten metal poured into same so that a good thermal contact is provided between the refrigerating coils 24 and the brine tank 15. The exact plan of securing the refrigerating coils to the brine tank is not limited to this particular means, but instead the pipe may be fused to, soldered, or otherwise intimately secured to such brine tank. It has been found very desirable, however, to place these coils on the exterior of the brine tank 15 instead of on the interior of the same, as has been previously done. With this construction the cooling action in the coils 24 is transmitted by conduction directly to the brine within the chamber.

The invention is not limited to the use of a brine tank as such; brine tank may be omitted and the cooling coils attached directly to the receptacles 13.

It will be obvious that various changes may be made without departing from the spirit of the invention, and the invention is not limited to the specific arrangement of parts and details of construction shown, but only as indicated in the appended claims.

I claim:

1. A device of the class described comprising an insulated cabinet, a brine tank within said cabinet, one or more receptacles within said brine tank adapted to contain a commodity to be heated or cooled, said receptacles being spaced from the brine tank in a manner to permit free circulation of brine about the same, a coil disposed about the exterior of the brine tank in intimate contact with the same, a jacket enclosing said coil, and a filling for said jacket about said coil and of good heat conducting properties.

2. A device of the class described comprising an insulated cabinet, a closed tank within said cabinet adapted to contain a fluid, one or more receptacles within said tank adapted to contain a commodity to be heated or cooled, said receptacles being spaced from the tank in a manner to permit free circulation of the fluid about the same, a coil disposed about the exterior of the tank in intimate contact with the same, a jacket enclosing said coil, and a filling for said jacket about said coil and of good heat conducting properties.

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