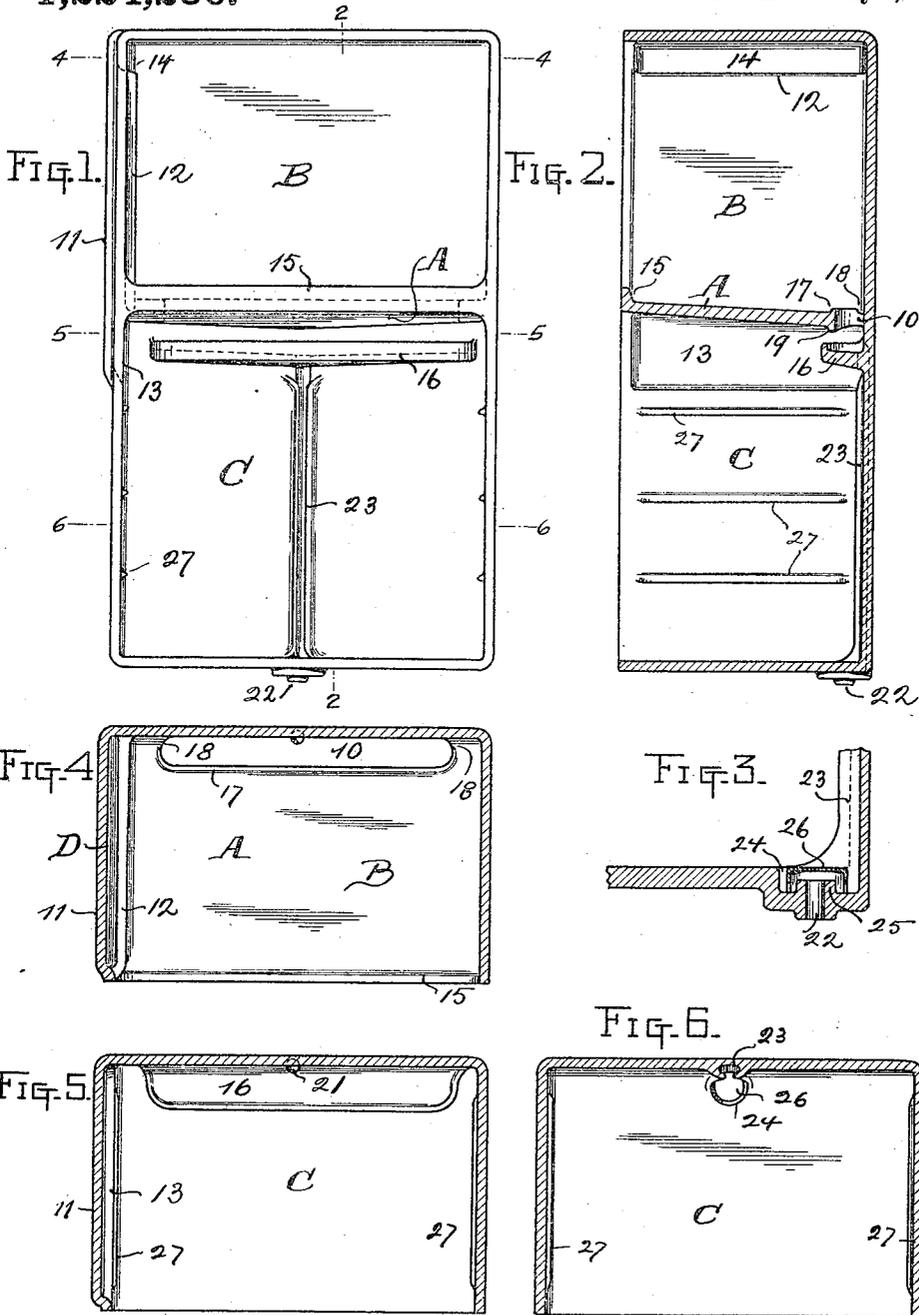


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 REFRIGERATOR LINING.
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WITNESSES.
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REFRIGERATOR-LINING.

1,224,236.

Specification of Letters Patent.

Patented May 1, 1917.

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To all whom it may concern:

Be it known that I, CHARLES TETTENBORN, residing at Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Refrigerator-Linings, of which the following is a clear, full, and exact description, attention being called to the drawing which accompanies this application and forms a part thereof.

This invention concerns an article of manufacture which enters into the construction of refrigerators and serves as a lining for the chambers and compartments thereof. These linings are made of various materials and my invention concerns more particularly such linings which are made of mineral matter, such as is involved in, or similar to that used in the manufacture of glazed earthenware, pottery ware, porcelain, etc.

One or more of such linings may be used in a particular style of refrigerator, this being dependent on the size of the refrigerator, its purpose and special requirements.

Such linings are used in connection with an inclosure, the walls of which and the linings mentioned, are fitted to each other, reservation being made for insulating space and where more than one lining is used they are also fitted to each other so as to produce in conjunction with the inclosure a compact structure.

The invention consists of the specific construction of such linings with particular reference to the formation of the means for effecting drainage and as hereinafter described and claimed and as illustrated in the accompanying drawing in which:

Figure 1. shows such a lining in front elevation.

Fig. 2. shows the same in vertical section taken on a plane indicated by line 2—2 of Fig. 1.

Fig. 3. shows part of a similar section enlarged and taken on a vertical plane which passes through the center of the lower part of Fig. 1.

Fig. 4. is a horizontal section taken on line 4—4 of Fig. 1.

Fig. 5. is a similar section taken on line 5—5 of Fig. 1.

Fig. 6. shows a similar section taken on line 6—6 of Fig. 1.

Refrigerators are divided in compart-

ments, there being usually at least two of them, one below the other, one to receive the ice and the other serving as a chamber which receives food and provisions. Where there are additional provision chambers they may be below the ice-chamber or to the side thereof with connecting flues between them.

These compartments are open on one side, which is usually the front side in refrigerators of the type here under consideration. Doors are provided to close this open side. The other sides are lined with various materials suitable for the purpose.

In some kinds of refrigerators these linings are made of glazed earthenware, such as pottery-ware or porcelain and are integrally connected to form a self-contained structure. These structures are fitted to each other and to a suitable inclosure with insulating material interposed between. Structures of this kind are here under consideration.

The drawing illustrates a five-sided box-shaped structure subdivided by a partition A in an upper compartment B which serves as an ice-chamber and in a lower compartment C which serves as a provision chamber.

The sides of this structure and said partition as well as any parts to be presently described, are formed of a material of the kind above mentioned and are all integrally connected. The ice is supported in ice-compartment B in any suitable manner. Cold air from this compartment is admitted to provision chamber C below, through an opening 10 formed in partition A and close to one of the upright sides of the structure.

This presumes of course displacement of warmer air in the provision chamber which is rendered possible by permitting this warmer air to pass out through a flue D. This flue connects the provision chamber with the upper part of the ice-chamber and serves for establishing the necessary air circulation, cold air from chamber B to chamber C through opening 10 and warm air from chamber C to chamber B through flue D.

This latter is formed by two spaced walls 11 and 12, of which the latter, to the extent of its height and width, serves also as one of

the sides of ice-compartment B. The other wall extends below partition A to permit provision of an opening 13 in one of the upright sides of the structure and below said partition for communication with the space between walls 11 and 12. The outlet 14 from it is obtained by limiting the height of wall 12 so that it terminates below the top of the ice-compartment.

Water which results from the melting of the ice is permitted to drain from the ice-chamber B through opening 10 which serves also for air circulation. Partition A is given a slope sufficient for the purpose. An integral marginal curb 15 is provided on the front edge of said partition from which it projects upwardly so as to prevent any of this water from passing over said edge and to the front.

The drainage from chamber B is received by a trough 16 which projects from the inside of one of the walls of the provision chamber and extends below opening 10 and to an extent sufficient to catch also any condensation which may form on the underside of partition A. To reduce possibility of any of the drainage splashing into the provision chamber before it reaches trough 16, I confine this discharge by providing a ridge 17 around the edge of opening 10 and on the upper side of partition A which ridge follows said edge and partly around the ends of the opening. It terminates close to the wall of the structure from which trough 16 projects, but is spaced from said wall so as to leave gaps 18, 18 through which the drainage passes out.

A similar ridge forming a drip-nose 19 is provided around this opening on the underside of partition A to further guard against splashing. Drainage received by trough 16 leaves through an opening 21 therein and is guided to a final outlet 22 by a waste duct 23 formed as shown.

A recess is provided in the bottom of the provision chamber which forms a sump 24 to which waste-duct 23 leads and which contains also outlet 22. A lip 25 is formed around the upper end of this outlet and serves to retain a body of water in said sump to form a water-seal therein at a level below the bottom of the provision chamber. Outlet 22 is air-trapped by a cap 26 which rests upon the bottom of sump 24 and is spaced from lip 25. Notches in the edge of said cap permit the waste-water to reach the outlet but being below the water-seal, prevent entrance of air.

The floor of the provision chamber may slightly slope toward this sump so that moisture, spilled liquids, etc., may drain into it. A nipple is provided around the lower end of the outlet to permit connection of a waste-pipe.

Ledges 27, positioned opposite each other,

are provided integrally with the sides of the structure to serve for the purpose of supporting shelves in the provision chamber.

Having described my invention I claim as new:

1. A lining for refrigerators comprising a main body consisting of continuous vertical side and back walls and horizontal top and bottom walls and having an open front, an intermediate horizontal partition dividing such body into a food and a superposed ice compartment both accessible through said open front, said partition being provided adjacent to one of said vertical walls with an elongate opening forming a cold air flue and drip discharge passage, the top and bottom faces of said partition sloping downwardly toward said opening, and a supplementary vertical wall adjacent to but spaced at an interval from another of said main body vertical walls and forming with said other wall a warm air flue extending from the top of the food to the top of the ice compartment, said several walls and partition being formed of glazed earthenware integrally united into a unitary structure.

2. A lining for refrigerators comprising a main body consisting of continuous vertical side and back walls and horizontal top and bottom walls and having an open front, an intermediate horizontal partition dividing such body into a food and a superposed ice compartment both accessible through said open front, said partition being provided adjacent to one of said vertical walls with an elongate opening forming a cold air flue and drip discharge passage, the top and bottom faces of said partition sloping downwardly toward said opening, a trough below and of greater width and length than said opening and adapted to receive melt water from the upper side and water of condensation from the lower side of said partition, said trough being provided with a drain opening, and a supplementary vertical wall adjacent to but spaced at an interval from another of said main body vertical walls and forming with said other wall a warm air flue extending from the top of the food to the top of the ice compartment, said several walls, partition and trough being formed of glazed earthenware integrally united into a unitary structure.

3. A lining for refrigerators comprising a main body consisting of continuous vertical side and back walls and horizontal top and bottom walls and having an open front, an intermediate horizontal partition dividing such body into a food and a superposed ice compartment both accessible through said open front, said partition being provided adjacent to one of said vertical walls with an elongate opening forming a cold air flue and drip discharge passage,

the top and bottom faces of said partition sloping downwardly toward said opening, a trough below and of greater width and length than said opening and adapted to receive melt water from the upper side and water of condensation from the lower side of said partition, the lower side of said partition being provided with a depending flange to direct water into said trough, and a supplementary vertical wall adjacent to but spaced at an interval from another of said main body vertical walls and forming with said other wall a warm air flue extending from the top of the food to the bottom of the ice compartment, said several walls, partition and trough being formed of glazed earthenware integrally united into a unitary structure.

4. As an article of manufacture, a structure comprising integrally connected sides meeting at right angles and arranged to permit access to the structure, an integral partition whereby the structure is subdivided to form a provision-chamber and a superposed ice-chamber, said partition being provided with an elongated opening arranged parallel and adjacent the rear side of the structure, an elongated trough below this opening adapted to receive drainage from the ice-chamber and projecting co-extensively with said opening and from the same

side of the structure of which it forms an integral part, a ridge on the upper side of this partition arranged around the opening therein and terminating at the ends of the same with spaces between its ends and the rear side of the structure to limit drainage of melt-water to these spaces and a waste-outlet in the trough for this drainage.

5. As an article of manufacture, a structure comprising integrally connected sides meeting at right angles and open at the front, an integral partition whereby this structure is subdivided to form a provision-chamber and a superposed ice-chamber, an elongated opening in this partition to permit melt water to drain through, a trough below this partition, spaced therefrom and projecting integrally from the rear side of the structure so as to extend under said opening to receive the drainage, a drip-nose provided on the lower side of this partition around the opening therein and projecting toward the trough and a waste-outlet from the trough.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHARLES TETTENBORN.

Witnesses:

E. W. MARTSOLP,
PAUL F. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."