

Aug. 16, 1938.

N. B. GEDDES

2,127,212

REFRIGERATOR

Filed July 24, 1935

2 Sheets-Sheet 1

Fig. 1.

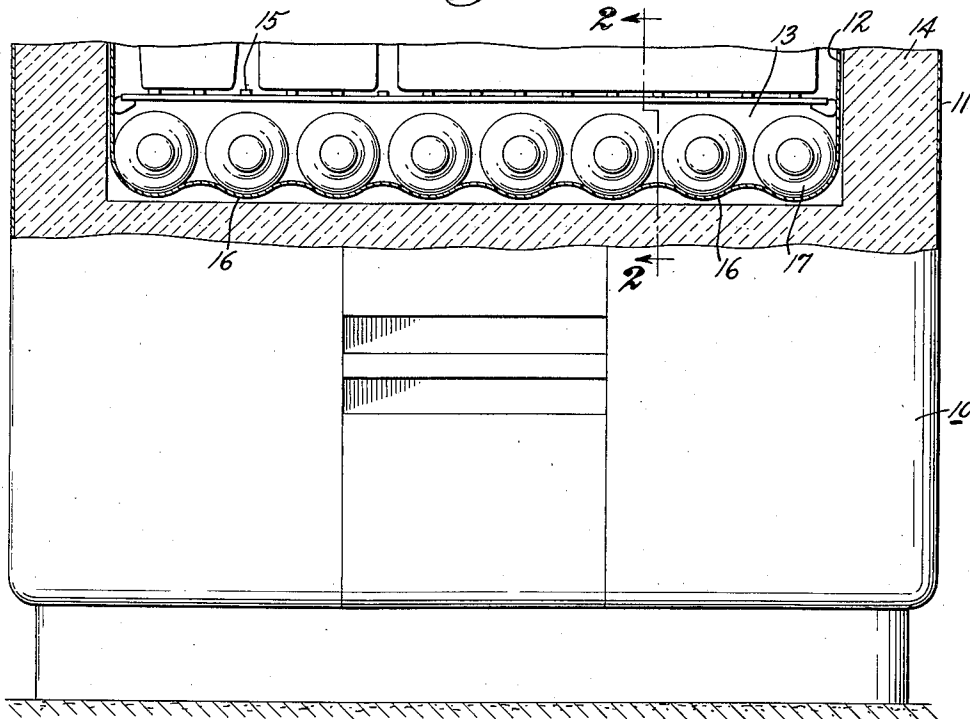
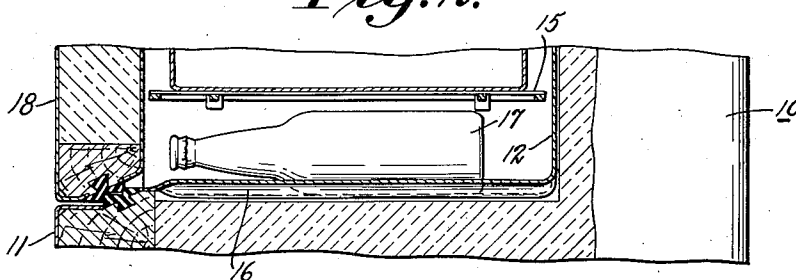


Fig. 2.



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2 Sheets-Sheet 2

Fig. 3.

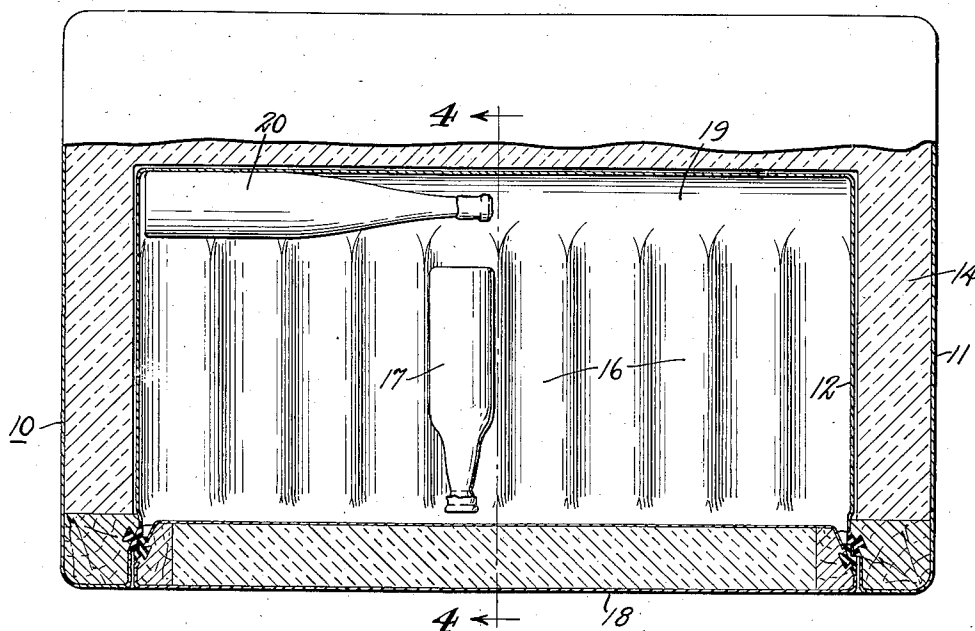
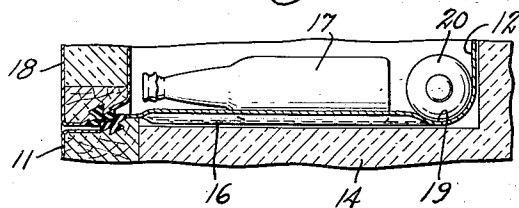


Fig. 4.



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UNITED STATES PATENT OFFICE

2,127,212

REFRIGERATOR

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of Delaware

Application July 24, 1935, Serial No. 32,839

3 Claims. (Cl. 312-172)

This invention relates to refrigerators and more particularly to an improved refrigerator compartment.

In refrigerators, as at present constructed, there is generally a limited amount of space for the storage of tall bottles in an upright position. Consequently, if it is desired to cool a relatively large number of bottles, such as, for example, beer or ginger ale bottles, it is necessary to place them horizontally on the shelves of the refrigerator. With this arrangement the space between the bottles and the shelf immediately above is useless for storage of other articles and may be considered for all practical purposes as waste space.

It is an object of the invention to overcome this objection and to provide a convenient storage space for bottles whereby bottles may be inserted into and withdrawn from a refrigerator cabinet without disturbing any other articles stored therein.

It is a further object of the invention to utilize a minimum amount of space for such bottle storage and make available for the storage of other articles space which would ordinarily be wasted.

Further objects and advantages will be apparent from consideration of the following description taken in conjunction with the accompanying drawings forming part of this specification, and of which:

Fig. 1 is a front view partly broken away to show the lower interior of a refrigerator embodying the invention;

Fig. 2 is a sectional view taken on the line 2-2 in Fig. 1;

Fig. 3 is a horizontal section of a refrigerator showing a modification of the invention; and

Fig. 4 is a detail section taken on line 4-4 in Fig. 3.

Referring to Figs. 1 and 2 of the drawings, there is shown the lower portion of a refrigerator cabinet 10 having an outer shell 11 and an inner shell or liner 12 defining a food storage compartment 13. Between the outer shell 11 and the storage compartment is disposed thermal insulation material 14. The storage compartment is accessible by means of a door 18.

The bottom of the liner 12, forming the bottom of the storage compartment 13, is undulated by forming with a plurality of corrugations or shallow grooves 16. The grooves or concave surface portions 16 alternating with convex surface portions have a relatively large radius of curvature and need to be only of such depth that bottles

17 placed horizontally therein will remain in position in the grooves without rolling. A shelf 15 is positioned above the grooved bottom of the liner 12 at a height sufficient only to provide clearance for the bottles so stored. It will be apparent that the space on the shelves in the refrigerator may thus be utilized to best advantage.

In Figs. 3 and 4 here is shown a modification of the invention which may be employed in refrigerators having a depth appreciably greater than the height of the standard beer bottle, in order to fully utilize the space at the bottom of the storage compartment. The bottom of the storage compartment at the rear portion may be formed with a groove 19 parallel with the rear wall of the storage compartment and perpendicular to the grooves 16. The groove 19 may be advantageously used for the storage of bottles larger than the standard size, such as wine bottles 20.

If no bottles are stored in the refrigerator the grooved bottom of the liner may advantageously be used for the storage of small fruits, such as apples, oranges, and the like, resulting in a similar optimum utilization of space in the cabinet. The corrugated bottom, which has a wavy appearance approximating a flat appearance, may of course be used for the storage of dishes or other flat articles, the corrugations permitting circulation of air entirely around each article as if it were on the usual wire shelf, but not as on the usual flat bottom of the liner.

Various changes may be made within the scope of the invention as indicated in the following claims.

What is claimed is:

1. Refrigerator cabinet construction comprising a sheet metal liner defining a storage space for matter to be refrigerated, insulation about said liner for retarding heat flow therethrough, said liner having its bottom wall deformed to provide alternate depressions and projections to increase the moment of inertia of the bottom wall and of the entire liner thereby making the liner more efficient in resisting bending stresses, said depressions being formed of such configuration as to provide for the reception of bottles and other rollable objects in a manner to maintain them in a definite position.

2. A sheet metal liner of relatively thin gauge for a refrigerator cabinet comprising a shell defining a storage compartment for matter to be refrigerated, the bottom portion of said shell being formed to provide a corrugated surface for receiving bottles or other rollable objects to

maintain them in a definite position, the formation of said bottom wall being such as to substantially strengthen the same by increasing its moment of inertia.

- 5 3. A refrigerator cabinet comprising a food storage compartment having a front door opening, a sheet metal liner of relatively thin gauge, the bottom wall of said liner being formed with

corrugated units each of which substantially corresponds to the contours of the sides of generally cylindrical bottles, the axes of the units adjacent the front door opening being perpendicular to the plane of the door opening and the axes of the units remote from the door opening being parallel to the plane of said door opening.

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