Sept. 4, 1923. 1,466,941

L. HOUZE

ICE BOX

Filed May 17, 1920

Fig. 1.

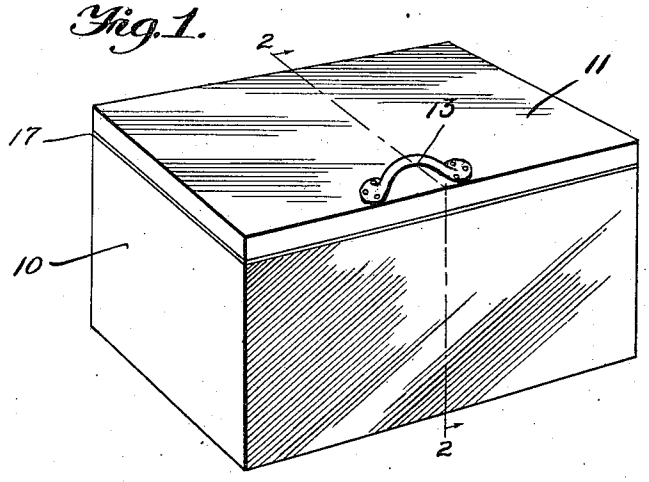


Fig. 2.

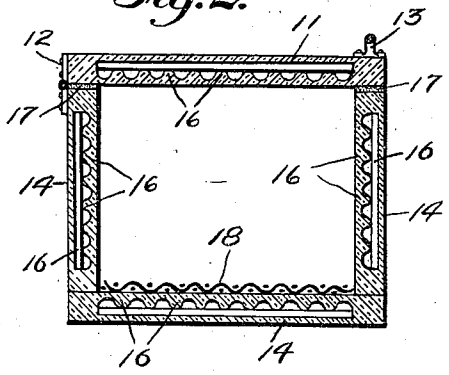


Fig. 3.

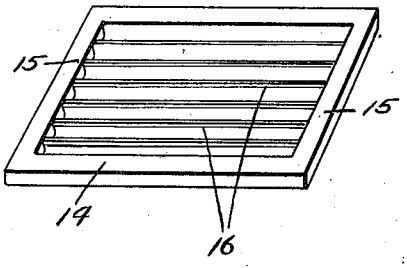
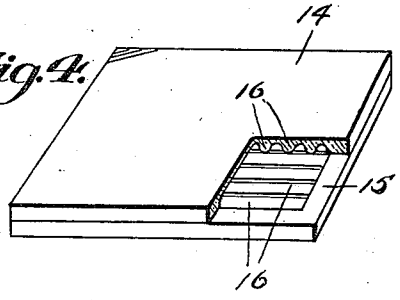


Fig. 4.



Luke Houze
Inventor

By Victor J. Evans
Attorney

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UNITED STATES PATENT OFFICE.

LUKE HOUZE, OF STOCKTON, CALIFORNIA.

ICE BOX.

Application filed May 17, 1920. Serial No. 381,970.

To all whom it may concern:

Be it known that I, LUKE HOUZE, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented new and useful Improvements in Ice Boxes, of which the following is a specification.

This invention relates to improvements in insulating material and has for an object the provision of an insulating material designed for use in the construction of ice boxes, refrigerators, fireless cookers or other articles wherein it is desirable to insulate against the passage of either heat or cold.

Another object is the provision of an insulating material, which is formed of plates having recessed faces arranged in opposed contacting relation and secured together, the method of securing resulting in the partial elimination or air within the space between said plates, so that a partial vacuum results, which serves to prevent the passage of either heat or cold.

Another object is the provision of an insulating material for wall construction, which will be attractive in appearance and of a sanitary character.

Other objects and advantages of the invention will appear as the following description is read in connection with the accompanying drawings.

In the drawings:

Figure 1 is a perspective view showing an ice box constructed of insulating walls, embodying the present invention.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a detail perspective view of one of the plates of which the walls are formed.

Figure 4 is a perspective view illustrating the wall construction, one corner of one of the plates being broken away to provide clear illustration.

Referring in detail to the drawings wherein like characters of reference denote the corresponding parts, the reference character 10 indicates an ice box of any preferred size and which is provided with a cover 11, hinged to the box as shown at 12 and having a handle 13 for convenience in raising the cover.

The walls and cover of the box are constructed of the improved insulating material, which may be formed of glass, porcelain or similar material, each of said walls comprising plates 14. One face of each of the plates 14 is recessed to provide a marginal flange 15 and located within this flange are corrugations 16. The plates are arranged one upon another with their recessed edges opposed and are secured together by subjecting them to sufficient heat to cause the contacting faces or surfaces to fuse together by softening or melting the glass sufficiently for this purpose. The heat to which the plates are subjected, expands the air between the plates, so that some of the air escapes during the fusing process and when the air contracts a partial vacuum is created thereby providing a substantial insulation.

In the formation of an ice box, refrigerator or other receptacle, the adjacent corners of the walls may be cemented or otherwise secured together, while a suitable gasket or packing 17 may surround the upper edge of the side and end walls for contact with the cover 11 to provide a tight closure. The interior of the box may be provided upon its bottom with a wire or other protecting member 18, so as to prevent damage to the bottom from the heavy blocks of ice.

While the invention is illustrated as applied to an ice box, it is of course obvious that the material may be formed into the walls of a refrigerator or any other receptacle of a like nature, wherein it is desired to insulate against heat or cold.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claim.

Having described the invention what is claimed is:

An ice box having its respective walls formed from plates recessed to provide a marginal flange on the edges of each plate, corrugations formed within the flange and said plates having their flanges fused together in pairs with the corrugations of one plate transversing those of the other and thereby creating a partial vacuum between the corrugations for the purpose specified.

In testimony whereof I affix my signature.

LUKE HOUZE.