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AIR PURIFYING AND DEODORIZING DEVICE

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Fig. 1.

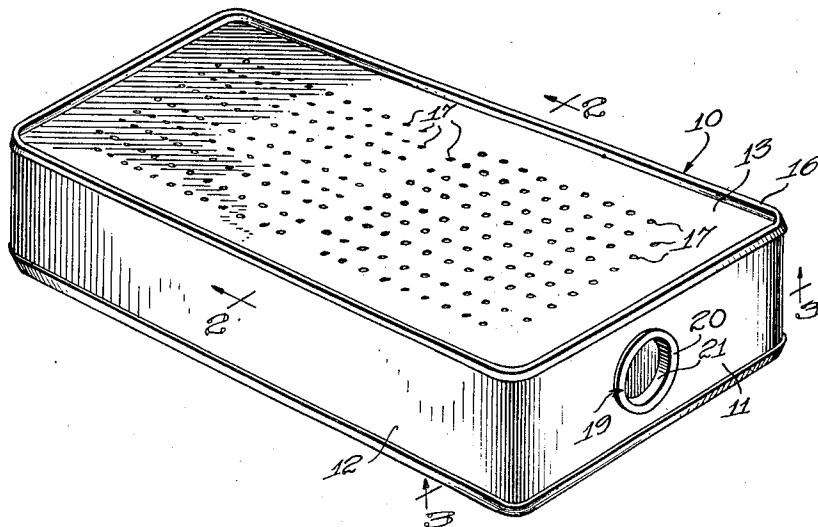


Fig. 2.

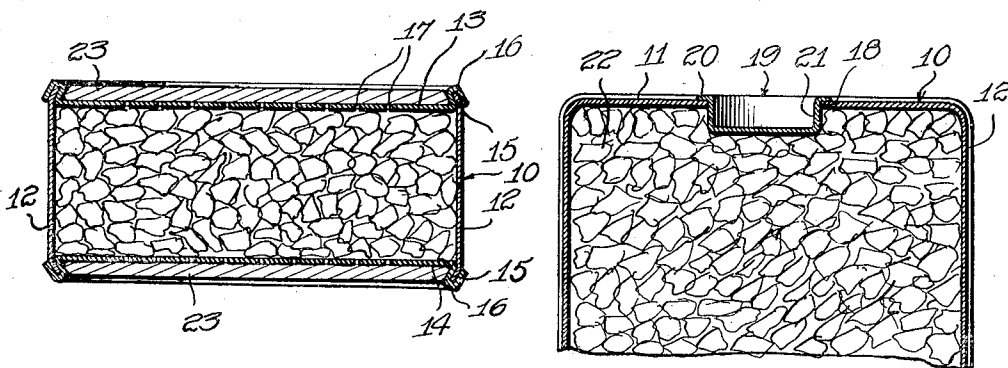


Fig. 3.

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AIR PURIFYING AND DEODORIZING DEVICE

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This invention relates to air purifying devices, and more particularly to a device adapted for use in refrigerators for purifying and deodorizing the air therein.

5 An important object of the invention is to provide a device adapted to be placed in a refrigerator or other place in which odors are apt to be present, and which is adapted to absorb such odors.

10 A further object is to provide a device of the above mentioned character which permits foods of different kinds to be placed in an ice box without the danger of one food becoming contaminated by the odor or flavor of another food therein.

15 A further object is to provide an air purifying and deodorizing device of the character referred to which is convenient in form, and which is adapted to be shipped without becoming contaminated with odors whereby the purifying and deodorizing agent will be fresh and uncontaminated when placed in a refrigerator or the like.

20 A further object is to provide a metallic or similar container having a body of an absorbent deodorizing material therein and perforated to permit a circulation of air there-through, and to provide means for substantially sealing the perforations until such time as it is desired to place the device in a refrigerator or the like.

25 A further object is to provide a device of the above mentioned character having novel means for retaining the sealing means in position.

30 Other objects and advantages of the invention will become apparent during the course of the following description.

35 In the drawings I have shown one embodiment of the invention. In this showing, Figure 1 is a perspective view showing the sealing means removed,

40 Figure 2 is a section on line 2—2 of Figure 1 showing the sealing means in position, and, Figure 3 is a fragmentary horizontal sectional view on line 3—3 of Figure 1.

45 Referring to the drawings, the numeral 10 designates a container preferably formed of sheet metal having end walls 11 and side walls 12. Top and bottom walls 13 and 14

are connected to the side and end walls by suitable seams 15 which extend upwardly and downwardly beyond the top and bottom walls to form inwardly inclined flanges 16 for a purpose to be described. The top and bottom walls 13 and 14 are perforated as at 17.

55 One of the end walls 11 is provided with an opening 18 normally closed by a cap 19 having a flange 20 seating against the end wall 11 and an inwardly projecting cylindrical flange portion 21 frictionally engaging within the opening 18. The cap 19 is removed whereby a body of an absorbent deodorizing material 22 may be introduced into the container through the opening 18. The body of material 22 preferably contains a number of ingredients such as charcoal combined with other ingredients having germicidal qualities whereby the body of material as a whole is adapted to absorb gases and odors and at the same time has the effect of retarding decomposition of adjacent perishable materials.

60 When the container is filled with the body of material 22 a pair of sealing members 23 is arranged against the top and bottom walls 13 and 14, the sealing members being engaged by the inwardly inclined flanges 16 to be retained in position thereby. The sealing members are in the form of sheets of material corresponding in size substantially to the size of the top and bottom walls 13 and 14, and these sheets of material may be impregnated with paraffin or otherwise treated to render them substantially moisture-proof. In shipment the device with the sealing members in position is preferably wrapped in moisture excluding material such as paraffin paper, glassine or the like, to insure the exclusion of moisture and odors from the device until it is ready for use.

65 The operation of the device is as follows:

70 The container is filled with the purifying and deodorizing material 22 in the manner referred to whereupon the sealing members 23 are pressed into position against the perforated walls 13 and 14, the sealing members being retained in position by frictional engagement with the inclined flanges 16. The device is then wrapped in a suitable moisture

excluding covering whereupon it is ready for shipment.

When it is desired to use the device, the wrapping is removed whereupon the sealing members readily may be removed by prying them from the top and bottom walls of the container. The device is particularly adapted for use in refrigerators, and the circulation of air in a refrigerator is such that odors or any impurities in the air will be absorbed by the material 22. It has been found that various kinds of foods may be placed in a refrigerator without danger of one food becoming contaminated by another food. For example, the present device will prevent the contamination of fresh butter or other food by the presence of any rancid butter which may have been left in a refrigerator. The device is relatively cheap to manufacture and will absorb odors over substantially long periods of time. It has been found that a device of convenient size may be made which will be thoroughly efficient in operation in a refrigerator for at least three months.

While the device has been described as being particularly adapted for use in refrigerators, it will be apparent that it may be employed in toilets, sick rooms, or any other places as may be desired. When employed in a refrigerator the germicidal ingredients have the effect of retarding the decomposition of foods.

The provision of the sealing members permits the device to be stored over considerable periods of time, and to be shipped without losing its effectiveness whereby the body of material 22 is always fresh and effective for absorbing odors when the device is unwrapped for use.

The body of material 22 is granular in form and is normally dry, and since it consists principally of charcoal, it is odorless and consequently its use is wholly inoffensive. When employed for purifying the air in a refrigerator, it cannot contaminate any of the articles of food therein.

It is to be understood that the form of the invention herewith shown and described is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

I claim:

A device of the character described comprising a sheet metal container having side and end walls, and opposite relatively closely arranged walls provided with perforations, each of said last named walls being connected to the other walls by a seam forming a flange the opposite portions of which are inclined inwardly toward each other, a body of a deodorizing material in said container, and a sealing sheet arranged against each of said

opposite walls to seal the perforations therein, said sheets frictionally engaging said flanges to be held in position thereby.

In testimony whereof I affix my signature.

GEORGE B. ALLEN.

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