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1,928,243

DEHUMIDIFYING REFRIGERATING DISPLAY CASE

Filed July 29, 1932

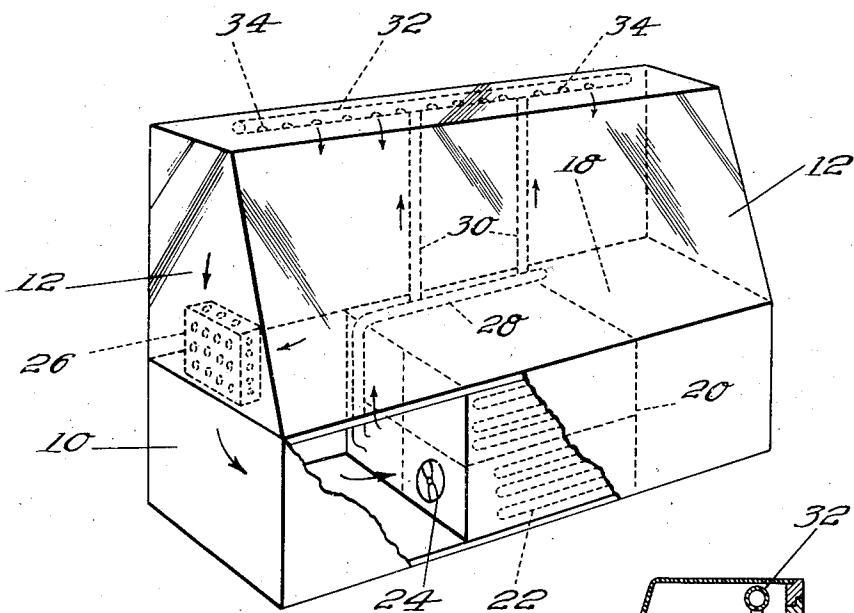


FIG. 1

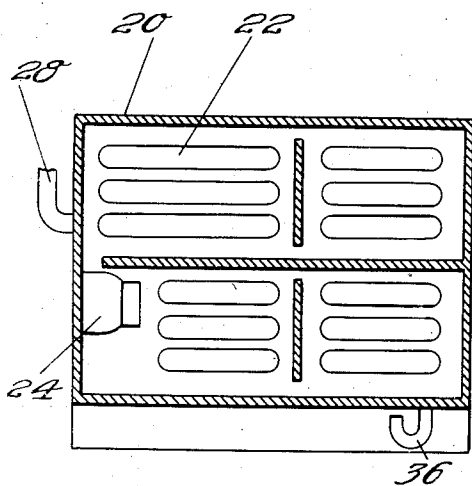


FIG. 3

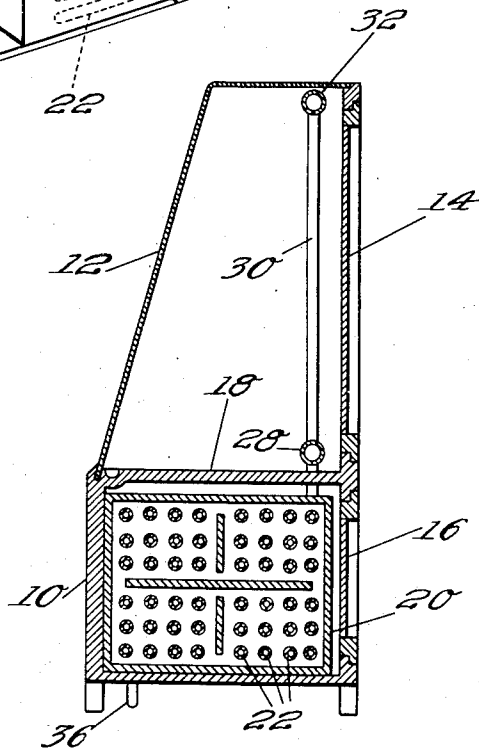


FIG. 2

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1,928,243

DEHUMIDIFYING REFRIGERATING
DISPLAY CASEAlfred Beaudry, Los Angeles, Calif., assignor to
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2 Claims. (Cl. 62—72)

This invention relates to an improved dehumidifying refrigerating display case and has for one of its principal objects the provision of a display case which was refrigerated and which at the same time includes provisions for dehumidifying the air therein.

One of the important objects of this invention is to provide a refrigerating display case, particularly for candies and especially candies of the type known as chocolate candies which, in addition to combining means for refrigerating the contents, also includes means whereby the air in the case is deprived of a considerable content of moisture or humidity, whereby the appearance of the candies for sales purposes is considerably enhanced.

Another and still further important object of the invention is the provision of a refrigerated dehumidifying display case for candies or the like which includes a self-contained unit and refrigerator coils together with means for effecting the circulation of air in removing the contained moisture therefrom.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawing and following specification.

The invention, in a preferred form, is illustrated in the drawing and hereinafter more fully described.

In the drawing:

Figure 1 is a perspective view of the improved dehumidifying refrigerating display case of this invention, the essential portions of the interior construction being shown in dotted lines and by breaking away parts of the case.

Figure 2 is a vertical sectional view of the display case taken on a line through approximately the middle of the refrigerating coil.

Figure 3 is a longitudinal sectional view through the cooling coil case, showing particularly the air suction fan housing, the cooling coils and the moisture trap.

As shown in the drawing:

The reference numeral 10 indicates generally the base of an improved dehumidifying refrigerating display case of this invention, this base being preferably of wood or metal or some opaque material and surmounted by a display case portion 12 having a glass front, top and sides. The rear of the display portion of the case is closed by hinged doors or the like 14, and the rear of the base portion is also closed by hinged doors 16. A platform 18 is provided in the casing covering the lower portion 10 and providing a

support for the merchandise placed in the display portion of the case.

A refrigerating chamber 20 is provided having the usual coils 22 therein, and this refrigerating chamber is mounted in the base of the device as shown. A suction fan 24 is positioned in a suitable opening in the chamber 20, this fan being for the purpose of circulating air through the display case and over the refrigerated coils 22. The air is drawn from the upper part of the case through a ventilator or the like 26 positioned at one end thereof, thence over the refrigerated coils in the chamber 20 which chamber is divided into a plurality of cells for insuring complete circulation of air, and the cooled air is then forced out of the chamber through a tubing or pipe 28, and thence upwardly through pipes 30 to a horizontal tube or pipe 32 in the upper part of the case 12 from whence it escapes through openings 34 in the pipe 32. The travel of the air through the case, ventilator, base portion, refrigerating chamber and pipes is indicated generally by the various arrows in Figure 1.

In its circulation through the cooling chamber 20, the air loses a good deal of its humidity which condenses on the walls and partitions of the chamber 20 and finally flows to a trapped drain or the like 36.

As the air loses temperature in the coil chamber, it deposits a good deal of its moisture, and as the same air is used over and over plus whatever outside air comes in when the case is opened, there is a precipitation of moisture caused by reduction of temperature of this air below its dew point. A reduction of about twenty degrees of the humidity of the air can be very readily obtained. Any suitable means is employed for refrigerating the coils 22 in the chamber 20, as a conventional compressor or the like which can be placed in the left-hand end of the lower portion of the base 10, the space in the right-hand end of the base being available for storage purposes.

It will be evident that herein is provided a refrigerating display case which is particularly adapted for the storage and efficient display of chocolate candies or the like as the ordinary open coil type of case gives a high humidity which results in the imparting of a greyish surface film to the candy which is undesirable. By the present invention, a dry cold is provided which preserves the original luster rendering the candies much more acceptable to the eye and consequently more desirable, and in addition some advantage in keeping qualities results in that undesirable moisture is eliminated.

I am aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from the principles of this invention, and I, therefore, do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

I claim as my invention:

1. In a refrigerating display case, means for circulating and dehumidifying the contained air, said means including a refrigerating chamber, a plurality of cooling coils in the chamber, and a suction fan for passing the air over the coils, together with a trapped drain in the lower portion of the refrigerating chamber, and means for conveying chilled dehumidified air to the upper portion of the case, said means comprising a system of pipes leading from the refrigerating chamber to the upper portion of the display case, together with a ventilator in one side of the display portion of the case for delivering air therefrom to the

lower portion of the case and the refrigerating coils.

2. In a refrigerating display case, means for circulating and dehumidifying the contained air, said means including a refrigerating chamber, a plurality of cooling coils in the chamber, and a suction fan for passing the air over the coils, together with a trapped drain in the lower portion of the refrigerating chamber, and means for conveying chilled dehumidified air to the upper portion of the case, said means comprising a system of pipes leading from the refrigerating chamber to the upper portion of the display case, together with a ventilator in one side of the display portion of the case for delivering air therefrom to the lower portion of the case and the refrigerating coils, and a storage chamber located in the base of the device below the ventilator and adjacent the refrigerating chamber.

ALFRED BEAUDRY. 95

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45	120
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70	145
75	150