April 10, 1934. T. P. REDDIN 1,954,577

PACKAGE HUMIDIFIER AND DRIER

Filed March 29, 1932

Fig. 1.

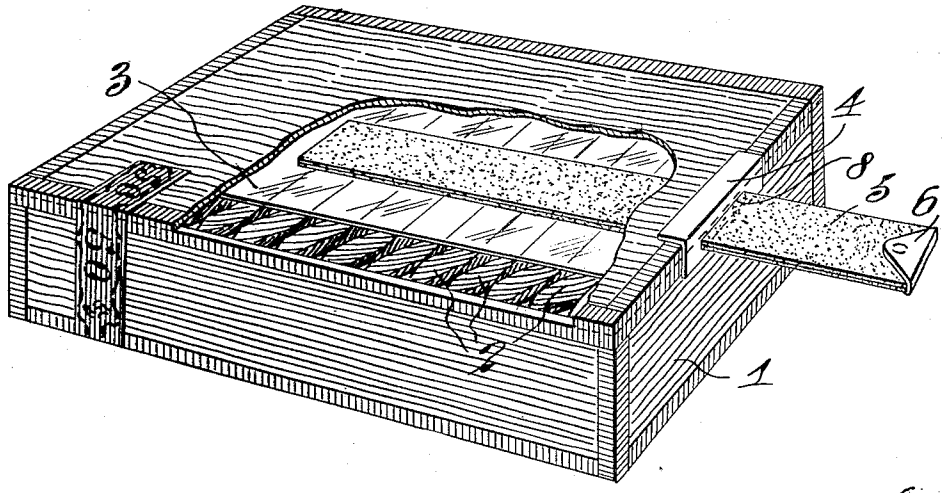
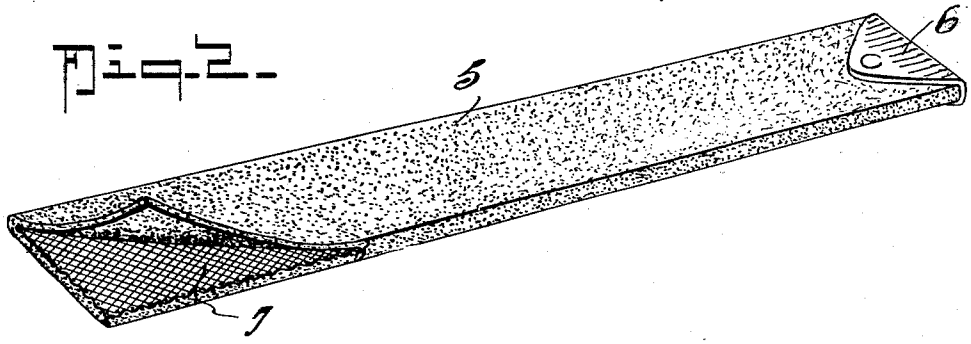


Fig. 2.



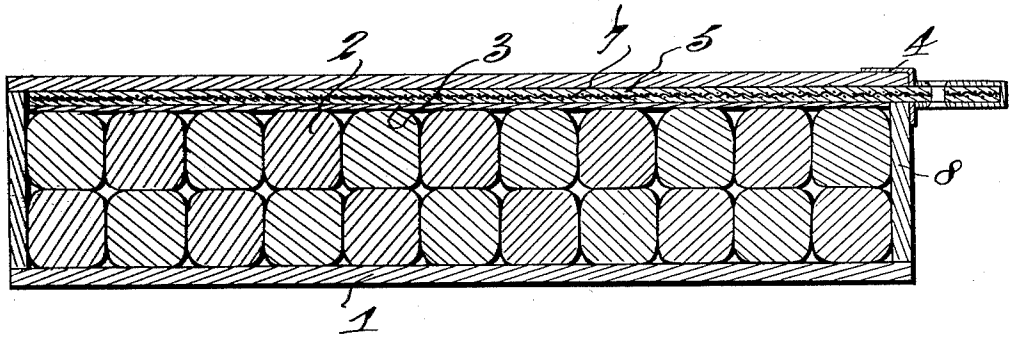


Fig. 3.

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PACKAGE HUMIDIFIER AND DRIER

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Application March 29, 1932, Serial No. 601,840

4 Claims. (Cl. 206—46)

My invention relates to certain new and useful improvements for supplying moisture to packages of merchandise which require a humid atmosphere for the proper preservation of their contents, and for removing moisture from the interior of those packages whose contents must be kept dry.

Further, the invention provides a moisture exchanger for conveying moisture from an external atmosphere into the atmosphere within a chamber having a dry content or from a chamber having a moist content into a surrounding atmosphere having a dry content.

Other objects will in part be obvious and in part be pointed out hereinafter.

To the attainment of the aforesaid objects and ends, the invention still further resides in the novel details of construction, combination and arrangement of parts, all of which will be first fully described in the following detailed description, then be particularly pointed out in the appended claims, reference being had to the accompanying drawing, in which:—

Fig. 1 is a perspective view illustrating my invention as applied to packages wherein the package is to function as a humidor.

Figure 2 is a detail perspective view of the moisture exchanger, part being broken to show the reinforcing element.

Figure 3 is a vertical longitudinal section of the package and parts contained in Figure 1 with the moisture exchanger all the way in.

In the drawing in which like numerals of reference indicate like parts in all of the figures, 1 represents the sealed package, 2 its contents which are to be humidified, and 3 a moisture-proof sheet interposed between the contents 2 of the package and the moisture exchanger 5.

In using my invention I provide a moisture exchanger consisting of a suitable material 5 in the form of a ribbon. The material used may be wicking. In order that the moisture exchanger may be kept stiff it may be reinforced in any suitable manner as for example by the use of a piece of wire screening 7. 6 is a finger piece riveted to the end of the member 5 by which it may be pulled out or inserted as desired.

The package 1 is provided with a slot 8 over which a correspondingly slotted guard 4 of any suitable material may be placed, the moisture exchanger 5 being inserted through the slot 8.

In order to supply moisture to the interior of the package 1 the member 5 is pulled out as indicated in Figure 1 and the external portion is moistened in any suitable way as by immersion in a suitable liquid, or it may be left in the position shown in Figure 1 in a moist atmosphere, in either of which events the moisture is conveyed into the interior of the package 1 to humidify the air within the package. The moisture-proof shield 3 prevents the moisture from the ribbon 5 coming in direct contact with the contents 2 of the package.

Although my invention is primarily for the purpose of supplying moisture to sealed packages, it may also be continued as a means for supplying moisture to the contents of a package after the package is opened.

The invention can also be applied to the exhaustion of moisture from the interior of packages which contain merchandise which must be kept free from moisture. Placing the package containing such articles in a warm dry oven with the ribbon 5 partly protruding from the opening 8 the interior of the package can be freed of moisture since the evaporation of the moisture from the protruding part of the wick causes the moisture to be withdrawn from the interior of the package.

From the foregoing description, taken in connection with the accompanying drawing, it is thought the construction and advantages of my invention will be clear to those skilled in the art to which it appertains.

What I claim is:

1. In combination with a sealed package having a goods holding chamber and having an opening in one of its walls, a stiff absorbent wick insertable through said opening constituting a closure therefor, and a moisture-proof guard located in the package between the wick and the contents of the package the wick being in contact with the atmosphere within the goods chamber.

2. In a sealed package containing at least one article of merchandise to be kept moist, an absorbent ribbon extending into said package and protruding externally therefrom for the purpose of conveying moisture to the interior of said package and the article within the package.

3. In a sealed package containing at least one article of merchandise to be kept free from moisture, an absorbent ribbon extending into said package and protruding externally therefrom, for the purpose of exhausting moisture from the interior of said package.

4. In a sealed package having a space containing at least one article of merchandise to be kept moist and having a suitable opening, a movable ribbon movable through said opening, said ribbon being of absorbent material with means rendering it stiff, said ribbon being arranged to be withdrawn either partly or wholly through said opening to be saturated with moisture and be returned to the interior of the package, and a means by which the ribbon may be returned to the interior of said package, the ribbon being within the same space as that containing the article of merchandise.

THOMAS PAUL REDDIN.