

# United States Patent

[11] 3,575,287

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**Continuation-in-part of application Ser. No.**  
**751,420, Aug. 9, 1968, now abandoned.**

[51] Int. Cl. .... **B65d 65/16**  
[50] Field of Search ..... **206/45.33,**  
**45.31; 229/2.5; 99/174**

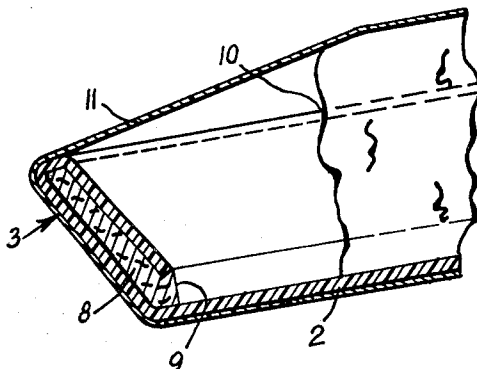
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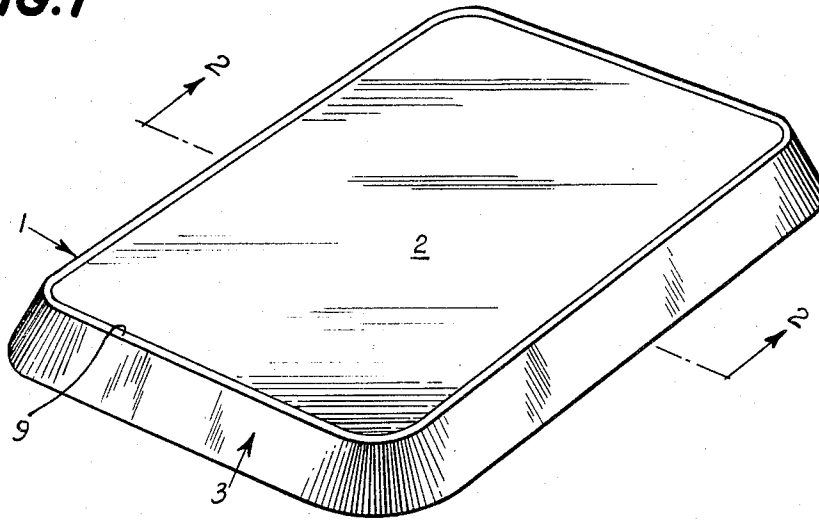
[54] **PACKAGING CONTAINER FOR MEAT PRODUCTS**  
**AND THE LIKE**  
**10 Claims, 4 Drawing Figs.**

[52] U.S. Cl. .... **206/45.33,**  
**99/174, 206/45.31, 229/2.5**

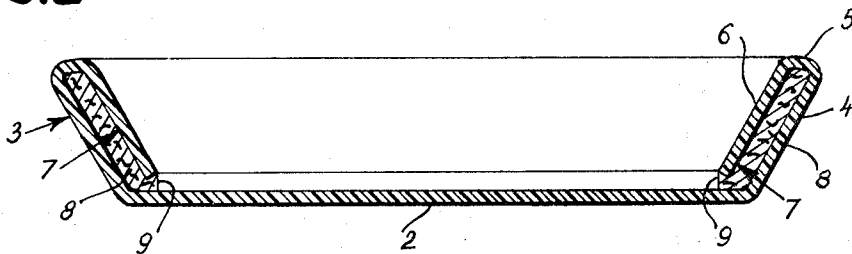
**ABSTRACT:** A packaging container including a tray having a transparent bottom and an upstanding rim. A channel in the rim is open to the bottom, and moisture-absorbing material in the channel is exposed at the juncture between the bottom wall and rim to absorb juices.



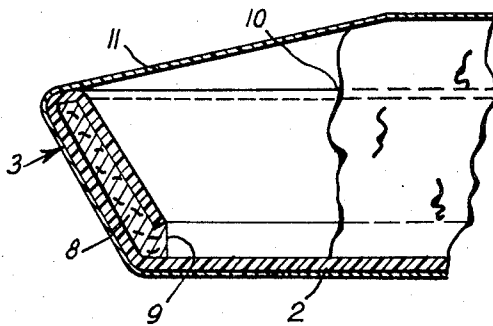
**FIG. 1**



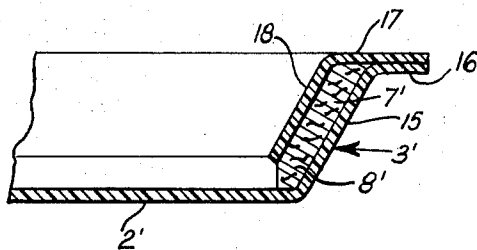
**FIG. 2**



**FIG. 3**



**FIG. 4**



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## PACKAGING CONTAINER FOR MEAT PRODUCTS AND THE LIKE

### CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of my pending application Ser. No. 751,420 entitled "Packaging Tray For Meat Products and the Like" filed Aug. 9, 1968, and now abandoned.

### BACKGROUND OF THE INVENTION

This invention relates generally to the packaging art, and more specifically to a new and useful packaging tray for meat products and the like.

Meat products often are packaged in a tray overwrapped with a transparent material. Such trays customarily are made of pulpwood or the like, with the disadvantage that the customer can see only the upper portion of the meat product.

The trend today is to package foodstuffs in a manner permitting the customer to see the undersurface as well as the upper surface of the packaged product, and various states have enacted legislation mandating such "see-through" packaging.

Meat-packaging trays of a transparent plastic material are known. However, they have the disadvantage that the plastic material will not absorb moisture. As a result, juices from the meat simply collect in a pool in the tray, with the danger of spillage during handling. In addition to possible customer discomfort, bacteria growth is facilitated when meat sits in such pooled juices frequently producing an unsightly and unappetizing appearance.

Meat-packaging trays must be self-supporting in use, and any construction which employs both transparent and moisture-absorbing materials must satisfy the somewhat conflicting requirements of structural rigidity and moisture absorption. Indeed, such economically desirable materials as pulpwood while having satisfactory moisture-absorbing qualities lose strength and rigidity as they are wetted.

### SUMMARY OF THE INVENTION

A primary object of this invention is to provide a meat-packaging tray of substantial transparency, sufficient to comply with existing and contemplated legislation and to provide the desired "see-through" characteristic, in a construction having structural rigidity and moisture-absorbing capability sufficient to avoid the above-stated problems.

To this end, I provide a tray of rigid material having a transparent bottom and an upstanding rim. Moisture-absorbing material, such as pulpboard, is included in the rim and is exposed to the bottom. The meat is placed in the tray on the transparent bottom portion, and the moisture-absorbing material serves to draw moisture away from the meat. The moisture-absorbing material need have no structural strength, even when dry, because the rigid material itself renders the tray self-supporting.

The foregoing and other objects, advantages and characterizing features of my invention will become clearly apparent from the ensuing detailed description of an illustrative embodiment thereof.

### DESCRIPTION OF THE DRAWING FIGURES

FIG. 1 is a perspective view of a meat-packaging tray of my invention, in inverted position;

FIG. 2 is an enlarged sectional view thereof, taken about on line 2-2 of FIG. 1 but shown in its normal, upright position;

FIG. 3 is a further enlarged, fragmentary sectional view thereof, showing the same incorporated in a complete package; and

FIG. 4 is a fragmentary sectional view of an alternative construction of the rim portion of the tray provided by this invention.

## DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

Referring now to the illustrative embodiment depicted in the accompanying drawing, there is shown a packaging container of my invention generally designated 1 and comprising a tray of rigid material having a transparent bottom portion 2 and an upstanding rim portion 3 around the periphery thereof. While a two-part tray could be used, with only the bottom 2 being transparent, I preferably form the entire tray as a one-piece member of material having sufficient structural rigidity and transparency. Polystyrene is such a material, although other suitable plastics can be employed. In addition, the material of course must be inert to the packaged product under normal conditions of use.

As distinguished from a conventional pulpboard tray which has an opaque bottom extending completely thereacross, permitting the customer to see only the exposed upper portion of the packaged product, it is a particular feature of my invention that tray bottom 2 is transparent thus allowing the customer to see the other side as well. Indeed, the entire bottom is transparent and thus affords a greater inspection area than trays of comparable size having only a window opening in the bottom portion.

In addition, the tray of my invention, unlike a conventional plastic tray, functions to absorb moisture. In particular, moisture-absorbing material is included in the tray and is exposed to the bottom portion thereof. A preferred arrangement is shown in the drawing wherein rim 3 includes a first surface 4 which extends upwardly from bottom portion 2 and preferably is inclined at less than a right angle with respect to the plane of bottom portion 2. Rim 3 includes a second surface 5 extending inwardly from surface 4 and disposed in a plane generally parallel with respect to that of tray bottom 2. Finally, rim 3 includes a third surface 6 which extends downwardly from surface 5 toward bottom portion 2 in a direction generally parallel to and spaced from surface 4. Surface 6 terminates short of bottom 2 in proximity to the juncture between tray bottom 2 and rim 3. By virtue of this preferred configuration a channel 7 of inverted, generally U-shape is provided in rim 3 and communicates with the juncture between tray bottom 2 and rim 3.

In accordance with this invention, channel 7 is filled with moisture-absorbing material 8, which is of cellulose origin. One desirable material is pulpboard because of its ready availability and low cost, but others, for example ordinary blotting paper, can be employed. For maximum absorption capacity channel 7 preferably is completely filled with moisture-absorbing material, although this will not always be necessary. In either case, the filler 8 terminates in a bottom, inner marginal edge portion 9 which encircles and is directly exposed to the inner surface of tray bottom 2. Material 8 extends down to bottom 2, for contact with moisture on the bottom, and preferably fills the gap between bottom 2 and the lower end of wall surface 6 for maximum surface exposure to liquids on the tray bottom. This construction is of considerable significance because juices emanating from the packaged meat product will not simply accumulate on the tray bottom as they would tend to do in a conventional plastic tray. Instead, the exposed encircling marginal edge portion 9 of moisture-absorbing material 8 will absorb such moisture into the material 8 in channel 7 by capillary action. The channel 7, filled with moisture-absorbing material of high capability, provides a sufficient body of moisture-absorbing material to handle all of the juices and other liquids normally present in a package of this type. With tray bottom 2 being flat, juices flow easily to the exposed edge portion 9 of moisture-absorbing material 8 and are removed thereby from contact with the packaged product.

Thus, in the tray of my invention the moisture is absorbed, unlike a conventional plastic tray. Furthermore, in my tray the moisture is removed from the meat-containing portion of the

tray by the moisture-absorbing action of the surrounding material, as distinguished from a conventional pulpboard tray where the moisture absorption takes place in the area of the pulpboard which is in contact with the meat product.

Moreover, in the tray of my invention the moisture-absorbing material need have no structural strength. The material 8 is merely a filler in the tray for the purpose of absorbing moisture. The tray itself is formed from material having sufficient structural strength to render it self-supporting in use. This is important because a meat-packaging tray should be self-supporting in use, and most moisture-absorbing materials, for example pulpboard, although shape-sustaining when dry lose their strength when wetted. By providing a tray of self-supporting material with a filler of moisture-absorbing material, the tray will remain shape-sustaining and sufficiently rigid even after the filler material has absorbed a substantial amount of moisture.

In the preferred form as described, an encircling chamber is provided in the rim of the tray which chamber is filled with moisture-absorbent material. The chamber-defining channel additionally reinforces and strengthens the tray. However, alternative methods of providing the moisture-absorbing material in the tray can be employed. For example, upstanding rim 3 could be solid and a band of moisture-absorbing material then secured to and around the rim inner surface. The edge of the band would encircle and be exposed to the tray bottom. While the exposed marginal edge of the moisture-absorbing material preferably is located at the juncture between the tray bottom wall and rim, to enable one to see through the entire bottom portion, the material alternatively could extend inwardly along the bottom wall a short distance whereby the exposed marginal edge of the material would define a well with the tray bottom but still would encircle the meat placed in the tray and would leave substantially the entire tray bottom transparent.

In the illustrative construction of FIGS. 1—3, channel 7 is defined by an integral rim portion 3 including surfaces 4—6. The moisture-absorbing material can be inserted in channel 7 after rim 3 is molded into the illustrated configuration, or the transparent plastic material could be molded over an element of the moisture-absorbing material to define rim 3. FIG. 4 shows an alternative construction of rim 3' which defines a similar channel 7'. Tray bottom 2' extends upwardly and outwardly in a surface 15 which terminates in a generally horizontal external flange 16. A separate piece of plastic material defines the rest of rim 3' and includes a horizontal flange 17 and a downwardly and inwardly directed surface 18 which, like surface 6 (FIG. 2) is generally parallel to surface 15 and terminates short of bottom 2'. Flanges 16 and 17 are secured together as by heat sealing, and channel 7' thus defined is filled with moisture-absorbing material 8'. Flanges 16,17 impart additional strength to the tray. While the material of portions 17,18 usually will be the same as the material of portions 2', 15 and 16, a different material bondable to flange 16 can be used if desired.

In use, a meat product 10 is positioned on tray bottom wall 2,2', preferably in spaced relation to the exposed marginal edge portion 9 of moisture-absorbing material, 8,8'. Indeed, this orientation of meat product 10 relative to edge 9 requires no conscious effort with the preferred form as illustrated because edge 9 encircles the entire bottom wall 2,2' adjacent to juncture with rim 3,3'.

Then, the tray and meat product 10 are overwrapped with

transparent plastic sheet material 11. The overwrap can extend completely around the package, as indicated in FIG. 3 to completely enclose the same, with its ends heat sealed or otherwise secured together to provide a complete meat package.

Accordingly, it is seen that my invention fully accomplishes its intended objects. There is provided a tray possessing both the requisite strength and the desired moisture-absorbing capability, while offering the "see-through" characteristics obtainable only with a completely transparent bottom. Only the margin, adjacent the juncture with the outer rim wall, is covered. By spacing the product 10 from the tray rim, all sides of the product are exposed to view. While only two embodiments thereof have been disclosed in detail herein, it will be appreciated that this has been done by way of illustration only. Also, it will be appreciated that the tray of my invention is usable with foodstuffs other than meat. Indeed, it can be used wherever there is a packaging problem requiring the characteristics and capabilities of the tray of this invention.

I claim:

1. A packaging container for meat products and the life comprising a tray having a transparent bottom portion and an upstanding rim portion, and moisture-absorbing material in said tray exposed to and encircling a major portion of said tray bottom.

2. The packaging container as defined in claim 1 wherein said tray is formed from a transparent plastic material.

3. The packaging container as defined in claim 1 wherein said moisture-absorbing material is of cellulose origin.

4. The packaging container as defined in claim 1 together with an overwrap of transparent sheet material enclosing said tray and any product therein to comprise a complete package.

5. The packaging container as defined in claim 1 wherein said tray rim portion is provided with a channel therein communicating with said tray bottom and wherein said moisture-absorbing material is in said channel.

6. The packaging container as defined in claim 5 wherein said tray is formed from polystyrene material.

7. The packaging container as defined in claim 5 wherein the edge of said moisture-absorbing material exposed to said tray bottom is closely adjacent the juncture between said bottom and said rim.

8. The packaging container as defined in claim 5 wherein said tray comprises a one-piece construction formed from a sheet of transparent plastic material extending horizontally to define said bottom portion, upwardly to define an outer surface of said rim, inwardly to define a top surface of said rim and downwardly toward said tray bottom in spaced relation to the outer surface of said rim to define an inner surface of said rim.

9. The packaging container as defined in claim 5 wherein said tray comprises a two-piece construction formed from a first sheet of transparent plastic material extending horizontally to define said bottom portion and upwardly to define an outer surface of said rim, and a second piece of rigid material joined to said first piece extending inwardly to define a top surface of said rim and downwardly toward said tray bottom in spaced relation to the outer surface of said rim to define an inner surface of said rim.

10. The packaging container of claim 9, wherein said pieces of material overlap to define a laminated external flange encircling said tray adjacent the top surface of said rim.

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UNITED STATES PATENT OFFICE  
CERTIFICATE OF CORRECTION

Patent No. 3,575,287

Dated April 20, 1971

Inventor(s) Oscar W. Graveley

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Claim 1, line 1 change "life" to --like--.

Signed and sealed this 1st day of January 1974.

(SEAL)  
Attest:

EDWARD M. FLETCHER, JR.  
Attesting Officer

RENE D. TEGTMEYER  
Acting Commissioner of Paten