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PERFORATE PACKAGE STRUCTURE

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FIG. 1

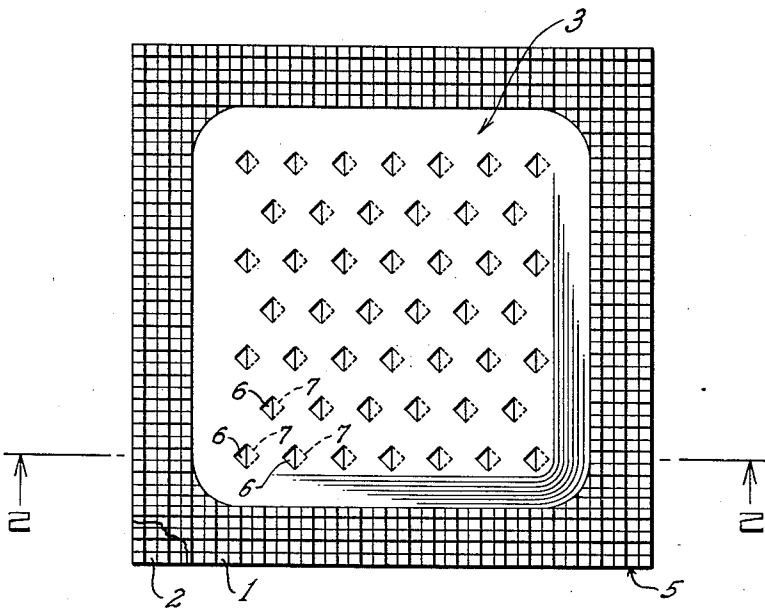
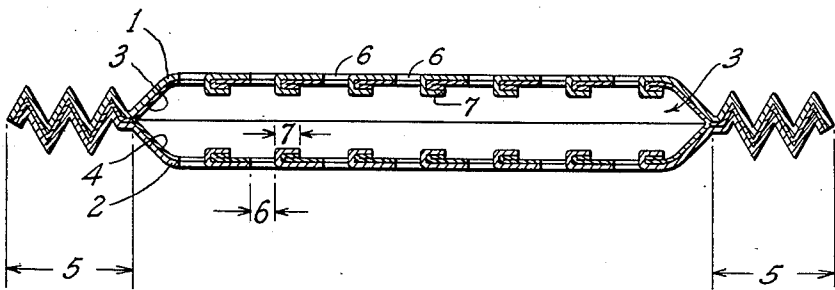


FIG. 2



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PERFORATE PACKAGE STRUCTURE

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5 Claims. (Cl. 99—77.1)

This invention pertains in general to packaging structures and specifically relates to a package having a perforate wall structure.

Heretofore in the art, tea leaves and like commodities adapted to be immersed for infusion have been packaged in porous and water-pervious structures such as loosely-knit bags and the like. The present invention deals with a container for such commodities formed of sheet packaging material in a rapid fabrication process. The packaging material is composed of a chemically inert and tasteless water-insoluble substance coated with a thermo-plastic material which will fuse within certain sealing temperature ranges, but which will not fuse in the temperature range of boiling water in which the container is adapted to be used.

Since the material of such a package unit is insoluble, it is necessary to provide openings for permitting the infusion of the liquid in which the container is immersed. Ordinary punchings for such a package structure introduce various difficulties such as small particles of the material which, in the packaging operation, may mix with the contained commodity and become objectionable to the user. The principal object of the present invention consists in providing a perforate package structure with openings which, in the perforating operation, do not permit stray portions of the package to accumulate in the contained commodity.

Another object comprises providing a package structure having a multiplicity of perforation flaps attached to the package structure.

In the drawing accompanying this specification in which like reference numerals designate corresponding parts:

Fig. 1 is a view of one embodiment of the perforate package structure of the invention; and

Fig. 2 is a cross-sectional view of the package structure taken along the line 2—2 of Fig. 1.

According to the drawing in detail, opposed layers of the packaging material 1 and 2 are joined together in an encircling sealing flange 5 forming a centrally disposed commodity containing envelope receptacle 3. The flange 5 extends entirely around the envelope 3. In the area of this encircling flange the layers 1 and 2 are interdigitated by crimping. Further, the layers of thermo-plastically coated material 3 and 4, facing each other, are fused intermediate the layers 1 and 2 in the flange areas.

In accordance with the invention, each of the side walls of the envelope 3 is cut off on two sides of a triangle in a multiplicity of places to form a plurality of triangular openings 6. The

sides of the triangular openings which are not cut out form flaps 7 integral with the wall of the envelope.

In accordance with one aspect of the invention, these flaps are folded over, as will be seen in Fig. 2, so that they contact the inside of the layers 1 and 2 forming walls of the envelope 3. In the construction of the package, a heated ironing implement is pressed over the inner surface of the layers to cause these flaps to adhere to the layers 1 and 2 by reason of fusion of the thermo-plastic coating.

Although a preferred embodiment of the perforate bag structure has been disclosed, it will be understood that various changes and equivalent structures can be produced without departing from the intended scope of the invention. Therefore, no limitation other than described by the appended claims is intended.

What is claimed as new and original, to be secured by Letters Patent of the United States is:

1. A package structure for commodities such as tea leaves and the like comprising an envelope structure formed of opposed layers of packaging material joined together by the fusion of an intermediately disposed thermo-plastic material, and having a multiplicity of flap openings to permit the infusion of a liquid such as water to intermingle with the contained commodity.

2. A package for commodities such as tea and the like comprising, opposed layers of packaging material of a substantially inert character when in boiling water, joined together in an encircling flange to form a centrally disposed commodity containing envelope, said layers being crimped together in said flange areas and sealed by the fusion of thermo-plastic material, the walls of said envelope structure being provided with a multiplicity of flap openings for permitting the introduction of a liquid, such as water, into said envelope to mix with the contained commodity.

3. The package in accordance with claim 2 in which said flaps extend internally of said envelope and have the surfaces thereof attached to the inside of said envelope by said fused thermo-plastic material.

4. A package structure for commodities comprising, walls of heat sealable material joined together in a heat seal in restricted areas to form a container, said container having openings therein of cut-out areas of said wall structure heat sealed to the wall structure.

5. A package structure comprising a container including a wall of heat sealable material having perforation flaps folded back and heat sealed to the wall by virtue of the thermo-plastic coating.

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