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C. NICOLLE
MULTICELLULAR PACKAGE

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Fig. 1

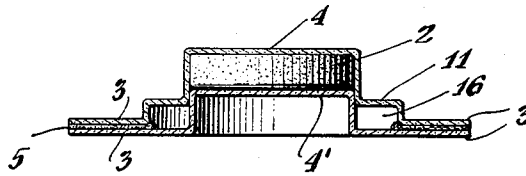


Fig. 2

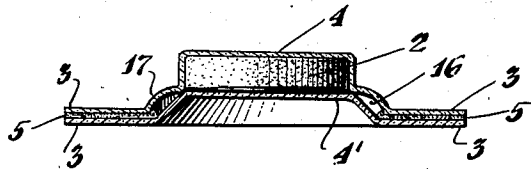
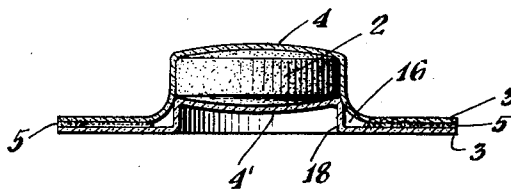


Fig. 3



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MULTICELLULAR PACKAGE

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3 Claims. (Cl. 206—46)

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Multiple packings are already known being made of plastic matter and formed by two sheets between which the products to be packed, such as pharmaceutical products, e. g. pellets, are filled in compactly, these sheets being attached to each other in the intervals obtaining between the individual pellets, the packings being presented in the shape of small slats, strips, etc., with various means of separating and opening same being provided.

Among the packings of this type, those made of prealveolated sheets approximating the shape of the product to be packed, present certain advantages as compared to those made of plain plastic sheets between which the pellets are packed and held.

The invention has for one of its objects to still further improve these packings made of prealveolated sheets in order to obtain a better protection of the packed products or objects against possible shocks during transportation, handling and use, as well as to more firmly hold them in place between the alveolated sheets.

It is a further object to simplify and accelerate the assembly of the sheets and to produce an improved sealing of them together.

It is a still further object to provide a multicellular package which may be more readily separated into elements containing individual or a selected plurality of individual packed objects or quantities of the material packed therein.

All these and other advantages of the invention will now be more fully described in the following.

According to the essential characteristic of the invention, two thin sheets of plastic material are utilized in the making up of the packing, these sheets being stamped or molded, so as to form in one of them alveoli of a different depth than the alveoli formed in the other sheet, so that the shallower alveoli will fit into the deeper ones to bring the plane parts of both alveolated sheets into juxtaposition, the shapes of the alveoli being such that the cells formed by the combination of the two types of alveoli will compactly enclose the product or object to be packed.

These objects are attained by arrangements illustrated in the accompanying drawing showing, by way of example, several embodiments of the invention and also, by way of comparison, several embodiments of packings as hitherto known, and in which:

Fig. 1 is a cross-sectional view showing one cell of a multiple cell package embodying my invention.

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Figs. 2 and 3 are cross-sectional views similar to Fig. 1 showing modified forms of the invention.

The packing according to the invention comprises two prealveolated sheets 4, 4'. These alveoli have different depths and are turned in the same direction so that the shallow alveolus 4' penetrates into the deeper one 4, the difference in depth corresponding substantially to the maximum thickness of the pellet 2 or of any other product to be packed.

These two alveolated sheets are likewise united along their plane portions 3 which may be indented, embossed or grooved similarly as in the already known packings.

In the packing according to the invention, the two bottoms of the cell wherein the product is placed, are formed by the inner face of the deeper alveolus and the outer face of the other alveolus. The plane portions 3 of the sheets are sealed together by glue or other suitable adhesive material 5.

The various embodiments of the invention provide a better protection of the packed products against a possible excess of glue. To this effect the alveolated plate 4 may be formed with a rim or shoulder 11 into which the other shallow alveolated plate 4' will fit.

A trap chamber is provided by having the sheet carrying the shallow alveoli 4' fit directly into the deeper alveolus 4, this being attained by a suitable reinforcement or bulging out 17 (Fig. 2) or 18 (Fig. 3) formed on the sheet 4 or 4' respectively.

The invention has a still further advantage in that, the two elements 4 and 4' being easily separated from each other, the pellets, on opening the packing, can be taken out without any difficulty.

Furthermore, the various embodiments shown have a high suppleness and they consequently present a high flexibility to the action of shocks.

As has been stated hereabove, it should be understood that the packings with interengaging alveoli formed according to the invention, may be used in combination with any other system of separation and of starting the tearing of the packing as heretofore practiced. Furthermore, the alveoli 4, 4' may be obtained by any suitable method such as by stamping, molding, etc., and the sheets 4, 4' instead of being made of plastic matter, may be formed of any composition such as, for example, of composite impervious sheets. The shape itself of the alveoli may be varied so as to fully embrace that of the products to be

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packed. It is finally well understood that the alveoli might even be formed with outlines not exactly espousing the shape of the product to be packed.

It is to be noted that the relative proportions of the packing according to the invention as shown for the purpose of illustration in the annexed drawing, have been substantially exaggerated so as to more clearly set out the essential characteristic and advantages of the invention thus, e. g. the shallow alveolus might be much less deep than shown in the drawing.

What I claim is:

1. A multicellular package of articles, comprising first and second sheets of plastic material, each sheet having formed therein a plurality of recesses separated by substantially plane portions of said sheet, each recess having a bottom and a peripheral side wall connecting said bottom to said plane portions, the recesses of said first sheet being deeper and slightly wider than the recesses of said second sheet, and adhesive material sealing said sheets together only at said plane portions with said second sheet recesses nested within said first sheet recesses to form article receiving cells between the bottoms of the nesting pairs of recesses, so that said sealed plane portions are spaced from said cells along the axes thereof, the side walls of said first sheet recesses having spreading portions of enlarged diameter adjacent said plane portions of the first sheet, said spreading portions being spaced radially from the adjacent portions of the side walls of the second sheet recesses to provide radial spacing between said sealed plane portions and the peripheries of said cells, said radially spaced side wall portions cooperating to form trap chambers extending around the peripheries of said cells to receive any excess of said adhesive material, said axial and radial spacing also cooperating to pre-

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vent any excess of said adhesive material from reaching said articles.

2. A multicellular package of articles as defined in claim 1, in which the spreading portions of the side walls of said first sheet recesses comprise shoulders extending parallel to the plane portions of said sheets and spaced therefrom, and connecting portions extending between the peripheries of said shoulders and said plane portions at right angles thereto, and the side walls of said second sheet recesses are deeper than said connecting portions and extend at right angles to said plane portions with a substantially constant peripheral dimension throughout their depth.

3. A multicellular package of articles as defined in claim 1, in which said spreading portions of the recesses in said first sheet are outwardly convex and said adjacent radially spaced portions of the recesses in said second sheet are conically tapered.

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