Oct. 14, 1947. S. F. JONES ET AL 2,429,063

PACKING TRAY FOR CAPSULES AND THE LIKE

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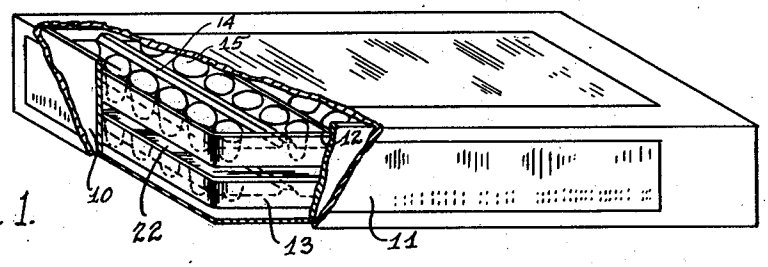


Fig. 1.

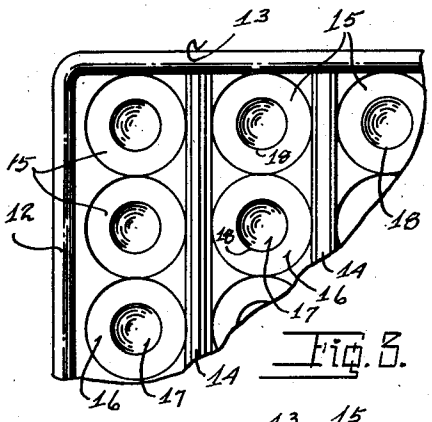


Fig. 3.

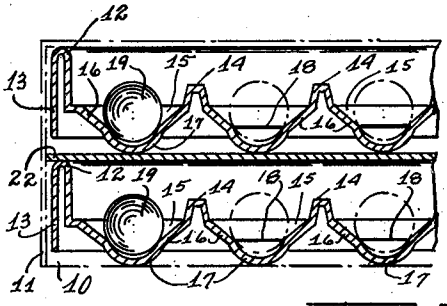


Fig. 2.

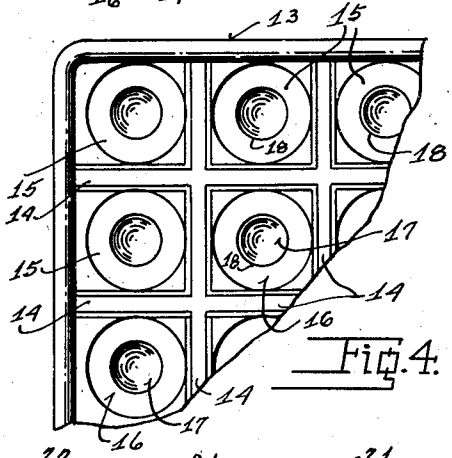


Fig. 4.

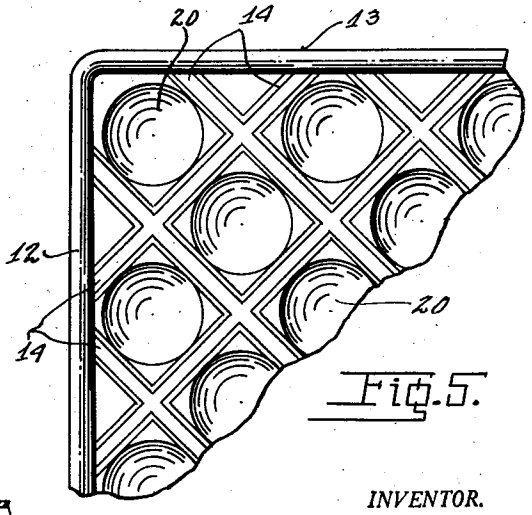


Fig. 5.

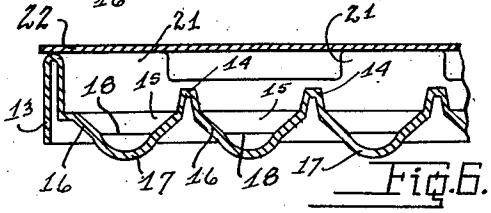


Fig. 6.

INVENTOR.
SAMUEL FLOYD JONES
WARCUP WILSON PLEWES

BY

Joseph A. Rave
Attorney

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PACKING TRAY FOR CAPSULES AND THE LIKE

Samuel Floyd Jones and Warcup Wilson Plewes, London, Ontario, Canada, assignors to Jones Box & Label, Ltd., London, Ontario, Canada, a corporation of Ontario, Canada

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3 Claims. (Cl. 217—26.5)

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This invention relates to packings for capsules, pills or other fragile articles and particularly to a tray formed preferably from acetate material or other thermal plastic material adapted for containing capsules and similar articles such as the gelatine capsules containing fluid.

The primary object of this invention is the provision of a tray formed from moldable material such as acetate and the like and adapted to retain capsules or other fragile articles in segregative arrangement in a suitable container such as a cardboard carton or the like.

Another important object of this invention is the provision of a tray, as set forth in the above object, in which there are provided individual recesses or cups for the partial suspension of the articles for the purpose of preventing the said articles from rolling or turning and further, to alleviate crushing of the capsules if the container is subjected to rough handling.

Another object of this invention is the provision of a tray, as above set forth, having ridges or ribs molded or stamped into the body of the tray for the purpose of strengthening the same and to prevent warping, and for which purpose there is also provided around the peripheral edge of the said tray body an upstanding ridge or rib.

Other objects and advantages of the present invention should be readily apparent by reference to the following specification considered in conjunction with the accompanying drawings forming a part thereof and it is to be understood that any modification may be made in the exact structural details there shown and described, within the scope of the appended claims, without departing from or exceeding the spirit of the invention.

In the drawings:

Fig. 1 is a perspective view of a container partly broken away to illustrate the trays of this invention stored therein.

Fig. 2 is a detailed fragmentary vertical sectional view of the trays stacked one above the other.

Fig. 3 is a fragmentary plan view of a tray.

Fig. 4 is a view similar to Fig. 3 illustrating a slightly modified construction.

Fig. 5 is a view similar to Figs. 3 and 4 illustrating a further modification in the construction.

Fig. 6 is a view similar to Fig. 1 of a single tray showing a further modification of the invention.

Throughout the several views of the drawings

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similar reference characters are employed to denote the same or similar parts.

The trays may be molded in the desired shape, according to the dictates of the invention or the solvent, such as acetone, may be dispensed with and the material, such as acetate, stamped into the desired shape under heat and pressure. However, this invention is not particularly concerned with the method of making the tray but only with the improved, novel and useful shape thereof which is hereinafter described.

It should be understood that the modification shown in the drawings is interchangeable, for example, the raised peripheral edge shown in Fig. 6 may be used with the ribs of either Figs. 3 or 4 or any transposition found suitable may be made.

Referring more in detail to the drawings, it will be seen that the invention consists of trays for capsules or other fragile articles which are disposed in a suitable container such as a cardboard box 10 having a suitable cover 11, Fig. 1.

The tray is provided with a peripheral edge 12 which is raised substantially above the plane of the tray surface and bent back on itself thereabout to form an outer wall 13 which is of less depth than the bottom-most surfaces of the tray. This outer wall 13 is, however, subject to modification in that it may, under certain circumstances, be practical to extend it so that the tray is supported on the bottom edge of the outer wall 13.

There are provided ridges or ribs 14 between the depressions 15 in which the capsules are disposed. The said ribs 14 impart strength to the tray, prevent warping thereof and in addition assist materially in the complete segregation of the capsules or like articles. The ribs, are of primary importance, but the disposition thereof may be varied, for example, in Fig. 3 the ribs are shown dividing the depressions 15 in rows; in Fig. 4 the ribs 14 lie transversely and longitudinally of the tray so that each depression is separated from the next adjacent depression. A further modification, Fig. 5, is shown wherein the ribs are disposed angularly to the tray walls.

The depressions 15 are preferably formed irregular, and consist of an upper bevelled zone of depression 16 and a lower arcuate zone of depression 17, which meet at 18. It is obvious that the wall of the depression is irregular and in reality consists of two walls separated by the circular protuberance 18. The capsules 19 rest in the depressions 15 upon the circular protuberance 18 which has a tendency to frictionally grip the capsules in partial suspension within the de-

pression 16—17 so that the smallest possible area of the capsule or other article is actually contacted by the tray.

If desired, the irregular depressions may be dispensed with and in their place, as shown in Fig. 5, use may be made of depressions which consists of semi-circular recesses 20.

As hereinbefore stated the edge 12 extends considerably above the plane of the tray surface in the preferred disclosure. As shown in Fig. 6 there is provided a plurality of spaced apart, raised ridges 21 around the periphery of the tray.

In use the lower tray (if packed in tiers) is filled with capsules or other articles and a suitable sheet 22 of a suitable material such as acetate or other composition placed thereon. The edge 12 or the ridges 21 hold the sheet above the capsules so that no contact is made. The said sheet provides a base for the second tray to rest on which is in turn filled and so on until the container 10 is completed.

From the foregoing it will be seen that we have provided a structurally sound tray of the class described which will hold fragile articles in partial suspension so that the smallest possible area of the capsules is contacted by the tray and also for partial protection from shock. It is believed that the foregoing has fully determined the nature of the invention and while the preferred embodiment of the invention has been disclosed it is understood that further modifications may be made without departing from the scope or spirit of the appended claims.

We claim:

1. A tray for packing gelatine capsules and like articles in segregative arrangement formed of a continuous flat sheet of material, such as acetate, forming the body portion of the tray and having a raised peripheral edge, said peripheral edge being raised to a point above the body portion to be above articles supported thereby, and outer side walls bent downwardly from the edge, a series of depressions in the tray body portion, and ribs formed in the tray body portion between the depressions for strengthening the body portion and extending from the raised peripheral edge at one side of the body portion to the raised peripheral edge at the opposite side of the body portion, the said depressions consisting of an upper zone of depression and a lower zone of depression, their line of contact forming a circular protuberance to form a suspension support.

2. A tray for packing gelatine capsules and like articles in segregative arrangement formed of a continuous flat sheet of material, such as acetate, forming the body portion of the tray and having a raised peripheral edge, said peripheral edge being raised to a point above the body portion to be above articles supported thereby, and outer side walls bent downwardly from the edge, a series of depressions in the tray body portion, and ribs formed in the tray body portion disposed between the depressions, for strengthening the body portion and extending from the raised peripheral edge at one side of the body portion to the raised peripheral edge at the opposite side of the body portion, the said depressions consisting of an upper bevelled zone of depression and a lower arcuate zone of depression, their line of contact forming a circular protuberance to form a suspension support.

3. A tray for packing gelatine capsules and like articles in segregative arrangement formed of a continuous sheet of material, such as acetate, forming the body portion of the tray and having at intervals its peripheral edge raised to form spaced apart ridges, said spaced apart ridges being raised to a point above the body of the tray to be above articles supported thereby, and outer walls bent downwardly from the said ridges, a series of depressions in the tray body portion, the said depressions consisting of an upper zone of depression and a lower zone of depression, their line of contact forming a circular protuberance to form a suspension support, and upstanding ribs from the tray body portion disposed between the said depressions for strengthening the body portion and extending from the raised peripheral edge at one side of the body portion to the raised peripheral edge at the opposite side of the body portion.

SAMUEL FLOYD JONES.
WARCUP WILSON PLEWES.

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