Jan. 22, 1952 A. E. BLUMNER 2,583,081

DISH CARTON

Filed July 18, 1946 2 SHEETS—SHEET 1

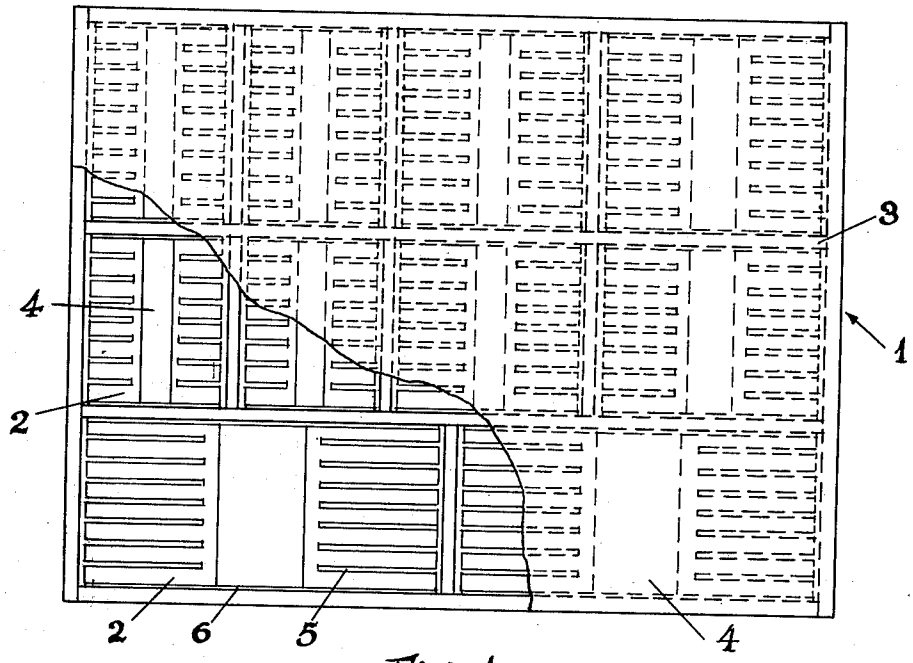

Fig 1

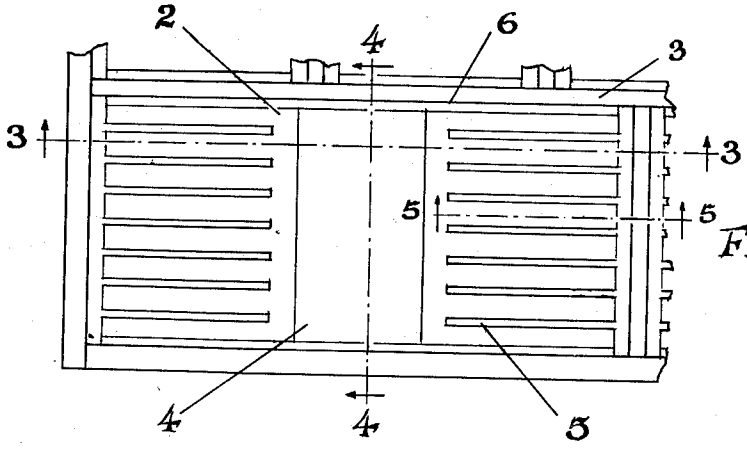

Fig 2

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DISH CARTON

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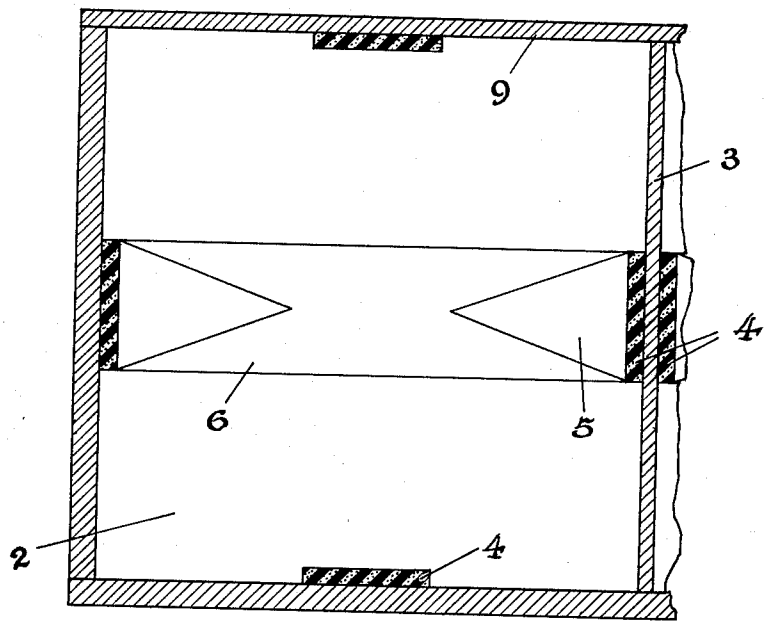

Fig. 3

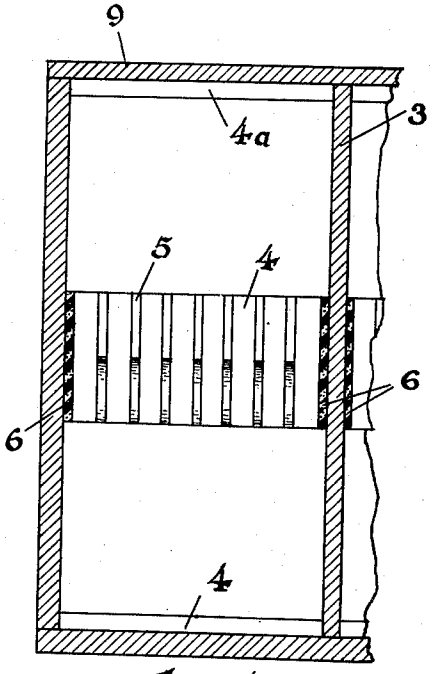

Fig. 4

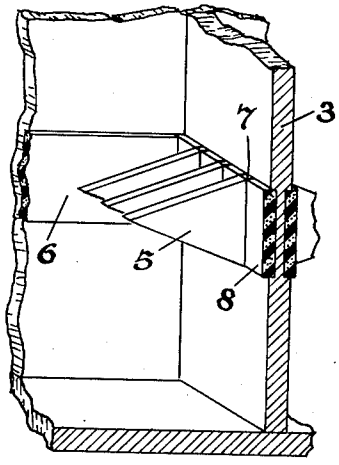

Fig. 5

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DISH CARTON

Aline E. Blumner, New York, N. Y.

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2 Claims. (Cl. 217—35)

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This invention relates to shipping cartons and particularly to cartons for packing dishes and like fragile items.

In shipping dishes it has heretofore been customary to pack the dishes in a carton in which the individual pieces are separated by excelsior or shreaded paper. To be effective the carton must be so packed that the individual pieces are separated both from each other and from the walls of the carton by layers of padding sufficiently thick to absorb any shocks or sudden jolts to which the carton may be subjected in handling. To ensure this result considerable skill is required of the packer. Another method proposed has been to provide rubber separators, moulded in the configuration of the dishes to be shipped, which are adapted to be inserted between adjacent dishes and by completely filling the space within the carton, cushion the dishes against breakage. This method has the disadvantages not only of requiring a special separator for each type of dish shipped, but of adding considerably to the weight of the carton, thus rendering the carton excessively costly, of limited flexibility and relatively expensive to ship.

The primary object of this invention is to provide an improved shipping carton for dishes and the like in which the dishes are cushioned by resilient means having a minimum of bulk whereby breakage in shipment is effectively prevented.

Another object of the invention is to provide a shipping carton for dishes and the like in which the individual dishes are separated from each other and from the walls of the carton by preformed cushioning devices of uniform configuration whereby dishes of any character can be packed safely for shipment.

A further object of the invention is to provide cushioning means for cartons for shipping dishes and the like which can be removably attached to cartons of any size and shape and by use of a relatively few standard sizes can accommodate dishes of all types, whereby the carton can be prepared and packed with a minimum of skill and the cushioning means can be reused with consequent saving in ultimate cost.

Other objects and features will appear hereinafter in the detailed description of the invention, be particularly pointed out in the appended claims and illustrated in the accompanying drawings in which:

Figure 1 is a plan view of a compartmented carton provided with the improved cushioning means, a portion of the cover being broken away

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to more clearly show the details of construction.

Figure 2 is a plan view on an enlarged scale of one of the compartments of Figure 1 with the cover removed.

Figure 3 is a vertical sectional view taken along lines 3—3 of Figure 2.

Figure 4 is a vertical sectional view taken along lines 4—4 of Figure 2.

Figure 5 is an isometric view taken along the lines 5—5 of Figure 2, with portions broken away, illustrating another embodiment of the improved cushioning means.

Referring now in detail to the drawings, illustrating a preferred embodiment of the invention, the improved dish carton is designated generally as 1. The carton, container or box 1 may be made of pasteboard, plywood, light metal such as aluminum or the other materials generally employed for this purpose. While the carton may be of any size and shape and employed for one or several types of dishes, that illustrated is designed for shipping a so-called "set" of dishes. For this purpose it is divided into a plurality of compartments, sections or divisions 2 by dividing walls 3 of pasteboard, plywood or like material, an individual compartment being provided for the dishes of each type.

To prevent breakage of dishes in shipment, cushioning means is provided within each of the compartments 2. This means may be made of rubber of various types, resilient plastics or other resilient material but is preferably made of sponge rubber, either natural or synthetic. To be effective the cushioning means must resiliently support each dish within the compartment, as well as separate the dishes from each other. For supporting the dishes the entire compartment may be lined with sponge rubber. However, it has been found adequate to apply the rubber as strips, braces, pads or bumpers 4 in relatively narrow sheet form to the bottom and sides of each compartment. These strips desirably extend the full length of the compartment, overlying those portions which the edges of the dishes would normally abut or engage. For dishes of a particular type a very narrow strip only wide enough to cover the lines of contact between the dishes and the walls of the carton would suffice, but for more general application strips of sufficient width to be employed with dishes of various shapes from round to square are preferred. The thickness of the strips may also vary within a rather wide range. In practice a strip approximately ½" in thickness has proved adequate to

cushion any shocks to which the carton may be subjected.

Depending upon the material of which the carton and its divisions are made, the strips 4 may be applied either over the faces of the bottom and the side walls of each compartment or laid in appropriate slots or grooves formed in these walls.

For separating the dishes within the individual compartments from each other there are provided a series of fins, separators or spacers 5 attached to and projecting inwardly of each of the side walls of the compartment. The fins of each wall are correspondingly positioned, thus providing a plurality of pairs of confronting fins extending longitudinally of the compartment. Each of the pairs is so spaced from the next adjacent pair as to form a series of slots, each of which will accommodate a dish. As in the case of the strips 4, the fins are preferably made of sponge rubber in sheet form. While they may be of a variety of shapes a substantially triangular fin of sufficient height to reach the base or deepest part of the dish will provide adequate separation with a minimum of material. Since exposed to less stress than the strips 4, the fins may be made of thinner rubber, around one-half the thickness of the strips. To protect the end dishes in each compartment a strip or separator 6 of substantially the same thickness as the fins, is applied to the end walls of the compartment.

The fins may be formed and applied individually or moulded in one piece with the side wall strips. If the former, each fin is formed with a substantially rectangular base 7 and the side strips are formed as individual sections or blocks 8 of the width required to obtain the desired spacing between the fins. The bases of the fins are then interposed between the adjacent blocks of the side strips. With this construction it is preferable that the side walls of the compartment be grooved to facilitate mounting or applying of the side strips and fins, as well as to hold these members in place after they have been applied to the walls. If moulded in one piece the fins and side strips can be applied readily to any compartment, whether or not its side walls are grooved. As will be understood, the side and bottom strips 4, as well as the end spacers 5, can be attached or secured to the walls of the compartment by glue, nails, screws or other appropriate means.

Once the resilient supporting and separating means have been applied to the various compartments in the carton, the dishes are packed simply by inserting them in the slots formed by the spaced fins. The cover or lid 9 is then applied to the box. It also is preferably provided with strips or braces 4a similar to and in line with the strips 4 on the bottom of each compartment. For cartons so compartmented that two or more of the individual sections are in vertical layers the horizontal dividing walls would also be provided with bumper strips.

After the carton has been packed and its cover applied the dishes are individually cushioned and, regardless of the position in which the box may be turned in handling, resiliently spaced or separated from the walls of the carton and each other, effectively preventing breakage during shipment. Since substantially flat surfaces are employed as the resilient spacing means considerable play of the dishes within their individual slots is possible without damage and a single spacing of fins will accommodate dishes of a comparatively wide range of depths. It is accordingly feasible, by moulding the side strips and fins in continuous strips and employing a relatively few standard spacings, to adapt the side strips for use with dishes of all types. These and the other strips can then be cut to the desired length to fit shipping cartons of any size and compartmentation.

From the foregoing detailed description of the invention it will be apparent that there has been provided an improved shipping carton for dishes and the like, which is of wide application, simple and inexpensive in construction and extremely efficient in use. It should be understood that the described and illustrated embodiment is merely exemplary of the invention and that all modifications are intended to be included which do not depart either from the spirit of the invention or the scope of the appended claims.

Having described the invention, I claim:

1. A shipping carton for dishes and the like, comprising a compartment, a resilient strip attached to and extending longitudinally of the bottom wall of said compartment, resilient means attached to and extending longitudinally of the side walls of said compartment, said means being formed as a series of resilient blocks, and resilient fins interposed between and spacing said blocks, said fins projecting inwardly of the side walls of said compartment.

2. A shipping carton for dishes and the like, comprising a compartment, a resilient strip attached to and extending longitudinally of the bottom wall of said compartment, resilient means attached to and extending longitudinally of the side walls of said compartment, said means being formed as a series of resilient blocks, resilient fins interposed between and spacing said blocks and projecting inwardly of the side walls of said compartment, and resilient means attached to the end walls of said compartment.

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