Oct. 10, 1961 J. S. HARDIGG 3,003,622

CUSHIONED CONTAINER UNIT

Filed Aug. 26, 1953 2 Sheets-Sheet 1

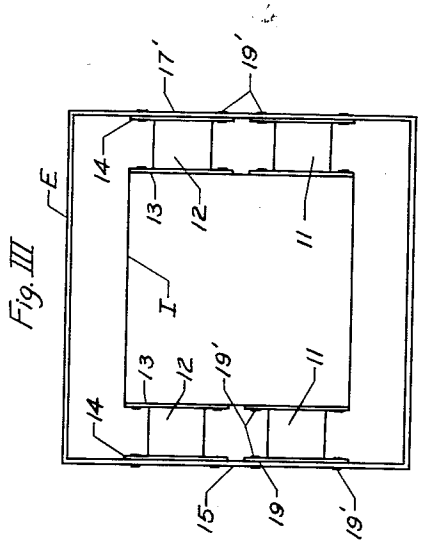


Fig. III

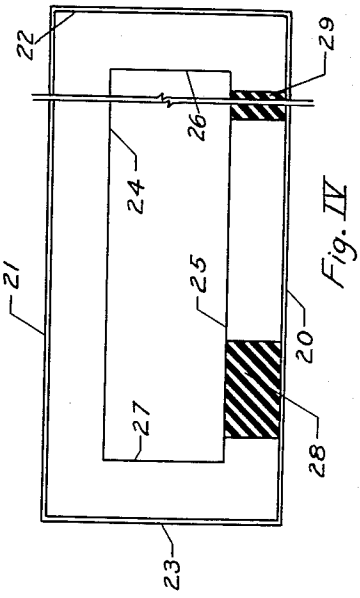


Fig. IV

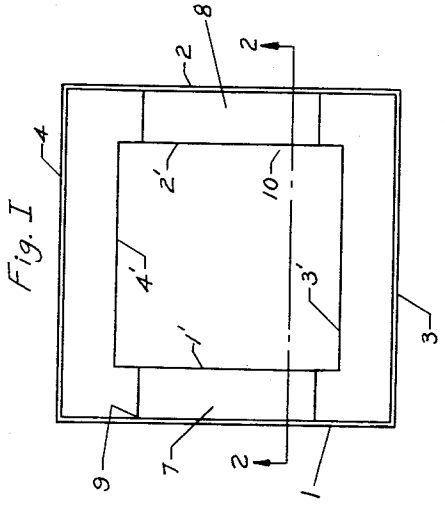


Fig. I

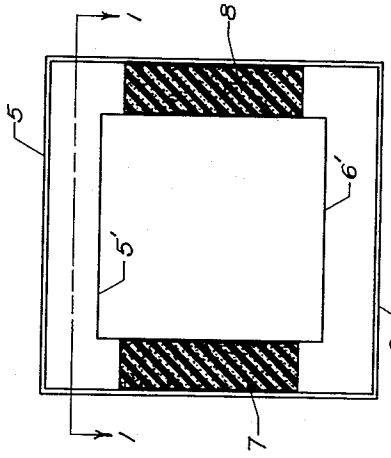


Fig. II

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Oct. 10, 1961 J. S. HARDIGG 3,003,622

CUSHIONED CONTAINER UNIT

Filed Aug. 26, 1953 2 Sheets-Sheet 2

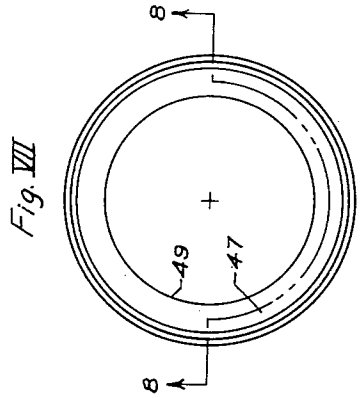


Fig. VII

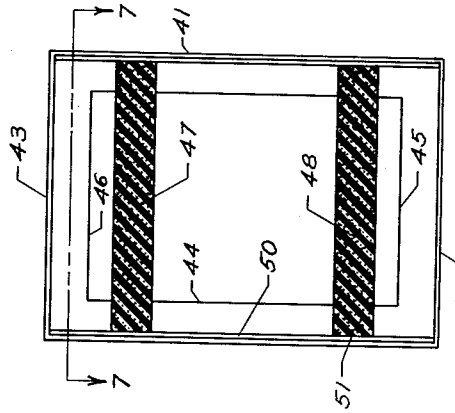


Fig. VIII

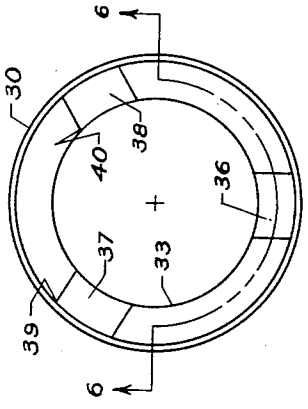


Fig. V

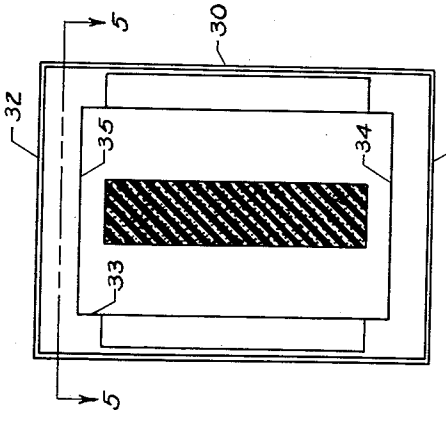


Fig. VI

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3,003,622

CUSHIONED CONTAINER UNIT

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7 Claims. (Cl. 206—46)

This invention relates to improvements in packaging, more particularly to improved cushioned packages or containers.

As is known, the transportation of frangible materials such as eggs, glass containers, and the like, and readily bruised edible products, such as fruits, poses a real problem in the packaging art. The prior patent art and pertinent literature is replete with suggestions as to particular transportation packages which would minimize breakage or fracture of the packaged contents. Generally considered, the packages which have been proposed, as well as those currently in use, are of two types. One type is exemplified, for example, by egg cartons and comprises an external package or container of cellulose within which is mounted one or more sheets or padding members so designed as to contact each individual item in the package. Such sheet members or padding units comprising specially designed pulp sheets, perforated rubber sheets and the like, the function of all of which is to interpose a cushioning medium between each item in the package and between the interior walls of the encasing container and the contents of the package.

Another type of package currently employed comprises an exterior carton of any chosen material, such as corrugated paper board, wood and the like within which is nested a similarly shaped or conformed package of smaller dimensions. Such inner package is cushioned with respect to the outer container by a variety of expedients the most common of which is the interposition of a cushioning medium such as soft, matted cellulosic pads or sheets, or pads of sponge rubber. In this type of package the cushioning medium is placed between each of spaced, parallel walls of the two-nested cartons or packages. Thus, in the case of the common cubical container, this older method requires a symmetrical arrangement involving six pads or cushioning members in order to reduce the impact thrust incidental to handling and transportation. In such packages the relative movement between adjacent faces is only buffered or cushioned by compression of the padding or cushioning interposed between such faces. During such a unidirectional relative movement, the remaining pads or cushioning members do not function to any material extent as energy absorbing units. Thus a shock normal to one face of such a package is absorbed almost solely by the compression of the cushion adjacent to that face while the cushions adjacent to the remaining five faces absorb practically none of the shock.

A modification of the above described cushioned package comprises spaced, nested, outer and inner packages between all of the respectively parallel sides or surfaces of which, are interposed compression spring members adapted to floatingly support the inner package or container on and within the outer container. This type functions like the type using the symmetrical arrangement of sponge rubber pads; this is to say that the force of impact on one side or face of the package is taken up almost entirely by compression of the springs interposed between the parallel faces of the container on such impact side.

Another modification of this type utilizes tension springs between each of the adjacent corners of the nested inner and outer containers. In this type of structure a shock normal to one face or side of the package is absorbed by the increased tension of the springs on the corners of the opposite side.

It is apparent that the above described type of symmetrically cushioned package or carton presents many disadvantages. A major disadvantage is the very substantial cost involved in the cushioning material especially where the more efficient sponge rubber cushioning pads are used. As noted in the case of the typical cubical package, six pads or sheets are required. This high cost, while perhaps not inordinate for packaging of special highly priced articles, such for example as thermionic tubes and other electronic elements or devices, does greatly militate against the use of such package for cheaper items. Another disadvantage is the fact that the assemblage of such a package is time consuming, requiring as it does the insertion of the large number of pads.

As a result of considerable experiment and test, it has been found that excellent asymmetrically, dynamically balanced packages may be economically produced using but a modicum of cushioning material, which, as will be seen hereinafter, may be approximately one-sixth of that now required in the current type.

The invention is based on the concept which is as novel as it is simple and efficacious. Broadly considered, the invention is based on the concept of advantageously and fully utilizing the elastic characteristics of a resilient or elastomeric material, such as sponge rubber, as a suspension and cushioning medium in cushioned packages. The novelty of the invention can be more readily appreciated by reverting again to the type of cushioned package previously discussed. In such typical prior art package, as explained, a pad or sheet of sponge rubber is inserted between each of the spaced parallel sides or surfaces of the package and is unattached to such surfaces. Each of such pads function in only one direction of relative movement of such two sides to absorb and cushion such movement, this absorption of energy being taken up in compression of the pad or sheet. Thus in such packages only the elastic compressive strength of the cushioning material on one side is utilized while the pads on the remaining sides are substantially inoperative because they absorb practically none of the energy of shock and hence a truly symmetrical arrangement of the cushioning materials to the planar or curvilinear parallel sides of the nested container is necessary.

In sharp contradistinction to this, the present invention contemplates an association of an elastomeric cushioning material with an inner and outer container such that each cushioning unit, such as a sponge rubber pad, functions as an energy absorption element whatever be the direction of relative movement between the exterior and interior nested container. This association, as will be seen, is such that in each cushioning unit energy is absorbed under compression and/or tension and/or shear. This, as will be seen more fully hereinafter, can be simply accomplished by physically attaching or bonding one or more cushioning pads to a section of each of opposed parallel surfaces of the inner and outer containers, so that each pad, in effect, is a tridimensional cushioning unit. Invoking this multidirectional cushioning effect, it will be apparent that the arrangement of the cushioning units with the container units need not be symmetrical but may be asymmetrical.

The invention will be more readily comprehended, and its utility evaluated, from a consideration of certain typical physical embodiments as depicted in the accompanying drawings in which:

FIG. 1 is a horizontal cross-sectional view, taken on line 1—1 of FIG. 2 of a typical form of a nested, cubical package embodying novel features of the invention;

FIG. 2 is a vertical sectional view taken on line 2—2 of FIG. 1;

FIG. 3 is a horizontal sectional view of a modification of the invention;

FIG. 4 is a horizontal sectional view of another modification of a container according to the invention;

FIG. 5 is a horizontal cross-section taken on line 5—5 of FIG. 6, illustrating the invention embodied in a cylindrical type cushioned container;

FIG. 6 is a vertical section taken on line 6—6 of FIG. 5;

FIG. 7 is a horizontal section, taken on line 7—7 of FIG. 8 showing a further modification of a novel cylindrical container; and

FIG. 8 is a vertical section taken on line 8—8 of FIG. 7.

The invention may be embodied in any type and shape of cushioned container structure of which that shown in FIGS. 1 and 2 is typical and illustrative. As there shown, the dynamically balanced and cushioned container structure comprises an exterior cubical package or container comprising the parallel side walls 1 and 2, adjacent side walls 3 and 4 and the top and bottom walls 5 and 6. These latter walls, as in typical box construction, are formed of two sections which are adapted to be folded down and taped or otherwise attached to form flush top and bottom walls of the container.

Nested within the exterior container is a similarly conformed interior container in which the transportable items or devices are packed. Such interior container comprises the parallel side walls 1′ and 2′, connected adjacent side walls 3′ and 4′ and the top and bottom walls 5′ and 6′. The two containers may be made of any suitable materials, such as paper box board, wood, plywood, metals, plastics and reinforced plastics and the like. The materials used in fabrication of the outer container may be the same as or different from that employed for the inner container. When the containers are made of box board, they may be formed in the flat and assembled in rectilinear form in the conventional manner.

As shown in FIGS. 1 and 2, the inner container is spaced from the outer container on all of its sides. In accordance with the invention, the inner container is suspended or floatingly mounted on the exterior container by elastomeric pads or units adapted to function as energy absorption elements. In the simple embodiment shown in FIGS. 1 and 2 such units may comprise the sponge rubber pads 7 and 8. Preferably these are of a length and width somewhat less than that of the continuous sides 1′ and 2′ of the inner container. Where circumstances dictate, they may be of the same or slightly longer and wider than the continuous sides of the inner container. In assembling the unit, the opposite faces of the pads are glued or adhered respectively to the inner surface of the outer container and the outer surface of the inner container as indicated at 9 and 10.

In the preferred form of the invention, the thickness of the pads 7 and 8 is selected as slightly greater than the distance between container walls 1 and 1′ and 2 and 2′. In these circumstances, when the pads 7 and 8 are glued or adhered to the contiguous walls of the outer and inner containers, in the assembled form shown, the two pads are slightly compressed and the inner container is thus suspended or mounted on the outer container under resilient compression and the weight of the inner package or carton is thus flexibly supported and without placing any material normal stress on the glue or adhesive joint.

It will be observed that with the spacing of the inner and outer containers and with the type of compressive and elastic mounting means shown, a number of advantages accrue. While such mounting, involving but two units 7 and 8 is asymmetrical, the interior package is nevertheless symmetrically and dynamically balanced within the outer container and the two pads function as cushioning media whatever be the direction of the relative movement between the two containers. This is because the elastic pads are attached or locked to the two containers and thus uses the tridimensional elasticity (in compression or tension or shear) of the cushioning material for absorbing, for example, the energy of impact on the outer container. This can readily be seen from a consideration of the assembled package, as shown in FIGS. 1 and 2. For example, if an impact force were applied to side 3 of the outer container, this is not transmitted directly to the inner container but is transmitted through the pads 7 and 8 where the energy is substantially absorbed by these pads in shear, i.e., in the direction 3—4. If such a force were applied to wall 1 of the outer container then the energy is absorbed by pad 7 acting under compression and simultaneously by pad 8 acting under tension. Conversely, if the force were applied to side 2, then pads 8 and 7 function in a similar complementary manner, pad 8 absorbing energy under compression and pad 7 under tension. While the two pads 7 and 8 thus act in a complementary manner, it is to be observed that each single pad performs the described triple function of multidirectional energy absorption. Thus it is not essential that two opposite absorption units, such as 7 and 8, be employed in all package construction. It is feasible, in certain cases, as will be more fully described in connection with FIG. 4, to attach the elastomeric cushioning unit or units to but one opposed side of each the inner and outer container.

It is apparent that by invoking the concepts of the invention, a package, such as is shown in FIG. 1 provides the full cushioning effect heretofore thought to be achievable only by cushioning on all spaced sides of the nested package units. Thus, it is obvious that a completely cushioned package may be fabricated using but a modicum of the elastic cushioning material and that the expense of fabrication is commensurately reduced. Each of the pads can be made relatively small as compared to prior art pads because a certain amount of energy is absorbed by the simultaneously operating pad or pads.

It will be appreciated that the invention is susceptible of a wide permissive variation in embodiment in various types and designs of packages. Thus, for example, the invention may be embodied in what, for the sake of a term, is a permanent rugged unit for continuous use with a number of packages which in use become distorted, broken, etc. An example of such a structure is shown in FIG. 3. This, as will be seen, functions in a similar manner to the packages previously described. In such a unit the elastomeric cushionings are attached to intermediate rugged panel members to form a relatively permanent unit which may be attached to nested containers and later removed for reemployment with other nested packages or containers.

As shown in FIG. 3, a single pad or two relatively spaced sponge rubber cushioning pads 11 and 12 are attached as by the adhesive joints to the rigid panels 13 and 14 to form a rugged unit structure. The panels may be of any suitable stiff material such as plywood, plastic sheeting, relatively thin gauge sheet-metal and the like, and the panels may be tapped or perforated, as shown at 19, to provide apertures for the subsequent insertion of staples or other attaching means whereby the units may be firmly and rigidly attached to containers of limited durability such, for example, as the typical box-board cartons.

In assemblying this type of package, the prefabricated suspension units embodying the parallel panels and interposed, firmly attached elastic cushioning pads 11 and 12 are inserted between the spaced sides 15 and 16, and 17 and 18 of the nested containers designated generally as E and I. As shown, the size of the panels preferably generally conforms to the size of the contiguous sides of the inner container. As in the case of the unit of FIG. 1, it is preferable, although not essential, to have the over-all width of the unit 11—12—13—14 slightly greater than the distance between the parallel walls 15—16 and 17—18. Upon insertion of the cushioning unit the pads 11 and 12 are slightly compressed and the panels

are rather firmly abutted against the contacting surfaces of the nested containers. After emplacement of the cushioning units, the panel 14 is attached to the wall 15 and the panel 13 to the wall 16 by means of staples or other suitable attachment means 19', such attachment means passing through apertures 19 previously formed in the panels or being forced through with a suitable tool depending on the material of which the panels are formed. In these circumstances, the inner container is attached to the outer container through the medium of the pads 11 and 12 and a strong package of desirable rigidity is formed. This assembled cushioned package functions in the same manner as the unit shown in FIG. 1. Because of their firm attachment to the walls of the inner and outer containers (through the medium of the sandwich panels 13 and 14) the pads 11 and 12 acting under compression and/or tension and/or torsion and/or shear function to absorb the impact energy imposed on the packaging unit.

When the exterior container E or interior container I becomes broken, damaged or otherwise rendered undesirable or unfit for further use, the permanent panel units can then be detached and reused by assembly in a new nested container structure.

The special cushioning means comprehended by the invention may be embodied in nested packages of other and specifically different designs. This is because of the fact that each elastic pad, when attached to the inner and outer container is, in effect, a complete or universal cushioning medium because it is capable of absorbing energy under compression and/or tension and/or shear and/or torsion or combinations thereof.

A modification of the invention which accomplishes the purpose of the invention and which is very economical to assemble is shown in FIG. 4. This type of package is especially useful for shipment of articles or materials whose gross weight is relatively small. Such a unit may comprise an external container comprised of the relatively long parallel side walls 20 and 21 and the connected shorter side walls 22 and 23 together with bottom and top walls (not shown). Nested within the exterior container and spaced from the side, top and bottom walls is a second similarly shaped container comprised of elongated side walls 24 and 25 and the connected end walls 26 and 27, together with top and bottom walls (not shown). Interposed between the parallel walls on one side of the units, for example, between side wall 20 of the exterior container and side wall 25 of the interior container is sponge rubber cushioning medium. Preferably such cushioning attachment is comprised of two spaced pads 28 and 29 which, as previously described are each anchored to the walls 20 and 25 by means of a suitable adhesive. The pads 28 and 29 as in previously described modifications are of a length approximately equal to the height of the side wall 25 of the inner container.

It will be seen that in this type of structure, as in the previous modifications, the elastomeric cushioning elements 28 and 29 perform the complete functions of the six cushioning units of the prior art. The units 28 and 29 by reason of their direct attachment to the exterior and interior containers support the latter in spaced position in the former. The units act under elastic compression to absorb energy of impact applied to side 20 and act under elastic tension to absorb energy of impact applied to opposite side 21. As previously explained, such cushioning medium acting under shear absorbs energy of impact applied to end walls 22 or 23. The energy of relative rotational movement of the interior and exterior containers is absorbed in the units under elastic torsion.

A unit of the type shown in FIG. 4 is particularly easy to assemble. In the fabrication of the unit, the pads 28 and 29 may be adhered to the side wall 20 at any convenient stage in the formation of the outer container. To assemble the final or complete package, it is only necessary to apply the chosen adhesive to an area (which may be previously indicated or marked) on the wall 25 of the inner container and to insert or slide the inner container into the outer container until the marked section on the inner container is juxtaposed to the pads 28 and 29. This insertion may be made without contact of the pads with the wall of the inner container by sliding the inner container along the opposite wall (e.g. wall 21) until the inner container reaches its proper matched position whereupon the inner container may be pressed against the pads to establish the adhesive point.

As indicated previously, the invention is not limited or restricted to any particular shape or size of the nested containers. The invention can be embodied in the typical cubical or other forms of rectilinear packages such as is shown in FIGS. 1, 3 and 4, or in any other shape of package such as the nested tubular or cylindrical shipping containers shown in FIGS. 5 and 7. In the case of cylindrical shipping containers, the same essential concepts of the invention are invoked, as will be appreciated from a consideration of the illustrative embodiments shown in FIGS. 5 and 7.

Thus the essentially novel features of the invention may be embodied in a nested cylindrical-type shipping unit comprised of nested, spaced cylindrical units in which the stress-taking elements are advantageously positioned about the circumference of the two concentric packages comprising the complete unit. The rationale of utilization of the invention in a cylindrical type container can more readily be appreciated from a consideration of one typical specific embodiment, such as is shown in FIGS. 5 and 6. In this embodiment, as in those previously described, the full potential energy-absorbing function of the interposed elastomeric buffer elements is utilized.

The shipping container, as illustrated in FIGS. 5 and 6, may comprise the outer tubular or cylindrical container or casing 30. This may be of the type now generally employed and may be fabricated of paper board stock, metals and the like. Such container is provided with an integral or detachable bottom wall or face 31, and a top cover or closure 32. This latter may comprise, for example, a removable closure which can be locked or anchored to the container 30 in any conventional manner, as by means of a metallic locking ring having a toggle type or other locking mechanism.

Associated with such external container 30 is a conformed inner cylindrical container comprising the cylindrical unit 33, formed with the bottom wall 34 and the top wall 35. Either the bottom wall 34 or the top wall 35, or both, may be formed as a detachable closure which is frictionally or positively locked to the cylindrical unit 33 by any appropriate means. The interior container (in which the transportable articles are packed), is spaced throughout from the exterior container and as in the modifications previously discussed is resiliently mounted on the outer container. The suspension or mounting means comprises elastomeric material so respectively associated with the two nested containers that each such mounting element functions as an energy-absorption or buffering unit in any direction of relative movement of the two nested containers, which may be occasioned by an impact force applied to the outer container and which is incident to normal handling during shipment or delivery.

As shown in FIGS. 5 and 6, such resilient, energy-absorption inter-connection between the nested containers may comprise a series of elastomeric cushioning elements 36, 37 and 38. As shown, particularly in FIG. 6, these preferably consist of elongated, relatively narrow strips of elastomeric material, such as sponge rubber, which can be of the same lengths, or as shown, slightly less than the axial length of the inner container 33. In this modification the cushioning strips 36, 37 and 38 are positioned

equidistantly around the spaced cylindrical surfaces of containers 30 and 33, i.e,. at about 120 degrees apart. The suspension and energy-absorbing units 36, 37, and 38, as in the modification previously described, are firmly adhered or locked to both the outer cylindrical container 30 and the inner container 33 by means of the adhesive or glue joints 39 and 40.

In light of the previous discussion it will be apparent that the package unit shown in FIGS. 5 and 6 functions in a manner similar to the rectangular packages in FIGS. 1 and 3. This is to say that a shock normal to a particular portion of the surface of the exterior container 30 or to the top or bottom thereof, is absorbed in part by each of the cushioning units. Thus a shock applied normal to the surface of the exterior container 30 adjacent the cushioning mounting 38, will be absorbed by all three elastomeric suspension units. In such event, a portion of the energy is absorbed by pad 38, acting under resilient compression, and a portion by pads 36 and 37, acting simultaneously under elastic tension and shear. Similarly, a shock applied to either the bottom or top surfaces 31 or 32 will be absorbed by all three elastomeric suspension or mounting units, acting under elastic shear.

It will be apparent from the previous discussion that a wide variety of specific designs of nested cylindrical containers which invoke the novel concept of the invention may be devised and used. Thus it is not necessary that the elastic cushioning means be in the form of vertical strip or pad elements, such as is shown in FIGS. 5 and 6. Such elements may be in the form of one or more circumferential or ring-like cushioning units, such as is shown in FIGS. 7 and 8, or any desired combination of such circumferential and planar cushioning means. It is also apparent that the interlocking resilient mounts need not be continuously circumferential, but may comprise curvilinear segmental units attached at chosen portions of the peripheries respectively to the inner and outer cylindrical tubular containers.

A modification of the invention in which the resilient supporting and shock-absorbing or cushioning elements are circumferentially attached to nested cylindrical containers is shown in a typical simple embodiment in FIGS. 7 and 8.

As there shown, the shipping container may comprise the outer cylindrical package or container 41, provided with a bottom 42 and top 43, either or both of which may be a detachable and removable closure. Nested within and spaced from the cylindrical and planar surfaces of the outer container is a similarly conformed inner container comprised of the cylindrical wall 44 and the bottom and top surfaces 45 and 46, either or both of which may be detachable closure members. The inner container, as shown, is associated with the upper sponge rubber ring 47 and a similar lower ring 48. These are preferably spaced a short distance from the top 46 and bottom 45 of such container. The suspension and stress-taking rings are attached to the outer wall of the inner container by application of a suitable adhesive. In the modification shown in FIGS. 7 and 8 a separate sleeve 50 is fitted within the outer container. This is of substantially the same axial length as that of the wall of the outer container and fits more or less snugly against the inner tubular wall of such outer container. It will be seen that the sleeve abuts the top 43 and bottom 42 of the outer container and is thus firmly held in position within the outer container. The cushioning rings 47 and 48 are attached to the contiguous inner surfaces of the sleeve by means of the adhesive bond 51.

The sleeve 50 may be constructed of any suitable material such as relatively heavy box board, suitable sheet or corrugated metals and the like which can impart strength and rigidity to the container.

In fabricating such a container, the inner package or container may be first attached to the sleeve 50 by means of the glue joints 49 and 51 bonding the intermediate rings 47 and 48 to both the container 44 and sleeve 50. This unit may then be inserted in the exterior container so that the sleeve 50 closely abuts the cylindrical wall of such container. The sleeve is locked or held in position in the container upon closing the top and/or bottom closures 43 and/or 42. This type of structure provides an eminently strong package and one in which the exterior container may be readily replaced when desirable as, for example, when such outer container becomes damaged and unfit for further serviceable use. The inner container unit with its attached sleeve can thus be reemployed for a very considerable period.

This structure functions essentially in the same manner as those previously described, in that each pad functions simultaneously with the other pad to absorb the energy of impact in whatever direction such impact is applied. Such energy absorption, depending on the direction of the applied impact force, may be taken up under elastic compression, tension, shear or torsion or a combination of one or more of these.

While in the unit shown in FIGS. 7 and 8 the elastomeric cushioning units are shown as complete rings, it is apparent that they may comprise one or more segmental units. These units may, for example, comprise two semicylindrical pad members one of which may be attached to the upper portion of the inner container and sleeve at one side and the other of which may be attached the lower portion of the inner container and sleeve at the opposite or diametric side. Also such segmental cushioning units need not necessarily comprise semicylindrical segments but may comprise a number of small segments attached to the inner container and sleeve at appropriate circumferential points.

It is apparent that in lieu of utilizing the sleeve unit 50 the elastomeric pads may be adhered directly to the inner and outer containers as is done in the structure shown in FIGS. 5 and 6.

It will be apparent, also, that such segmental cushioning units may be associated in the same shipping container with elongated strips of the cushioning medium which may be attached to the opposing walls of the nesting container either in a vertical or diagonal position. As will be understood by those skilled in the art, the allocation and relative positioning of the cushioning units will be largely determined by the effectiveness of the elastomeric material, that is to say, the relative energy absorption efficiency of the material in compression or tension or shear or torsion will enter into the design of the package and particularly the relative position of the cushioning medium with respect to the type and direction of shock which is normally expectable in a particular package.

It will now be evident that the invention presents many advantages in the field of cushioned packages. In the improved package marked economies in production are secured particularly in respect to the reduced cost for the cushioning materials as compared to prior packages. As explained heretofore, in prior packages the force of impact was taken up or absorbed by one single pad acting only under compression, interposed between the nested faces of the package to which the force was applied; to secure complete cushioning in such packages it was necessary to provide six such single acting pads. In the invention, on the other hand, the full cushioning effect throughout the container can be secured by utilizing only the quantity of material used in one such prior art pad. This is because of the fact that when following the instructions of the invention and anchoring the pad or pads to adjacent surfaces of the inner and outer containers, the full elastomeric qualities of the cushioning material are completely utilized so that each pad acts in multiple directions establishing an elastic resistance under compression, tension, shear and torsion. Thus, in the improved package of the invention which is of com-

parable size to such prior art package, but one-sixth of the cushioning material is required to secure the same cushioning effect.

While preferred embodiments of the invention have been described, it will be understood that these are given didactically to illustrate the underlying principles involved and not as limiting the useful scope of the invention to such illustrative embodiments.

I claim:

1. A cushioned shipping container unit comprising an outer container, an inner article of smaller size disposed within said outer container and completely spaced therefrom, and a plurality of compressible cellular elastomeric pads interposed between facing surfaces of said container and said article, each of said pads being firmly attached to each of the adjoining facing surfaces whereby said pads provide elastic resistance to movement of said inner article relative to said outer container in every direction.

2. A shipping container unit as defined in claim 1, wherein said pads are initially and normally slightly compressed.

3. A cushioned shipping container unit comprising an outer container, an inner article of smaller size disposed within said outer container and completely spaced therefrom, and a plurality of compressible cellular elastomeric pads interposed between facing surfaces of said container and said article, said pads being on opposite sides of said article, each of said pads being firmly attached to each of the adjoining facing surfaces whereby said pads provide elastic resistance to movement of said inner article relative to said outer container in every direction.

4. A cushioned shipping container unit comprising an outer container, an inner article of smaller size disposed within said outer container and completely spaced therefrom, and a pair of solid pads of compressible cellular elastomeric material interposed between facing surfaces of said container and said article, said pads being on opposte sides of said article, each of said pads being firmly attached to each of the adjoining facing surfaces whereby said pads provide elastic resistance to movement of said inner article relative to said outer container in every direction.

5. A cushioned shipping container unit comprising an outer container, an inner article of smaller size disposed within said outer container and completely spaced therefrom, and a plurality of compressible cellular elastomeric pads interposed between facing surfaces of said container and said article, said pads being on only two opposite sides of said article and being the sole support of said article, each of said pads being firmly attached to each of the adjoining facing surfaces whereby said pads provide elastic resistance to movement of said inner article relative to said outer container in every direction.

6. A cushioned shipping container unit comprising a fragile outer container, an inner article of smaller size disposed within said outer container and completely spaced therefrom, and a plurality of compressible cellular elastomeric pads interposed between facing surfaces of said container and said article, each of said pads being firmly attached to each of the adjoining facing surfaces whereby said pads provide elastic resistance to movement of said inner article relative to said outer container in every direction.

7. A cushioned shipping container unit comprising an outer container, an inner article of smaller size disposed within said outer container and completely spaced therefrom, and a plurality of compressible cellular elastomeric pads interposed between opposed side facing surfaces only of said container and said article, said pads being the sole support of said article, each of said pads being firmly attached to each of the adjoining facing surfaces whereby said pads provide elastic shear resistance to movement of said inner article relative to said outer container in endwise direction.

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