Jan. 17, 1950 J. LE R. REMCO 2,495,132

SECTIONAL PLATE

Filed June 23, 1947

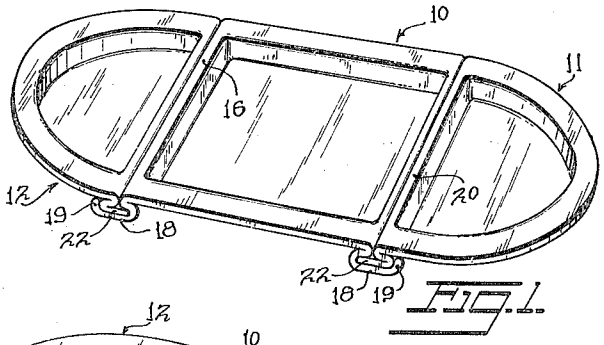


FIG. 1.

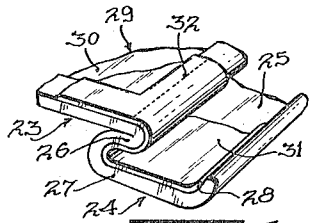


FIG. 4.

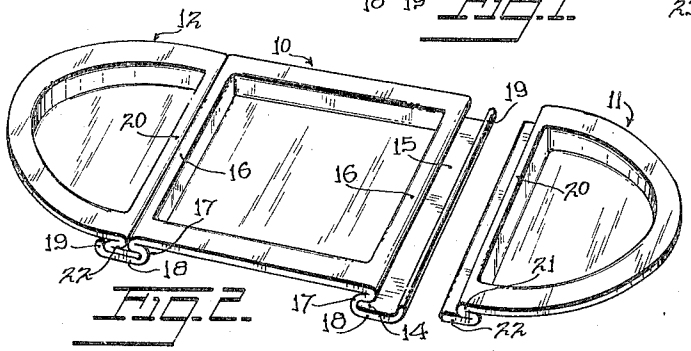


FIG. 2.

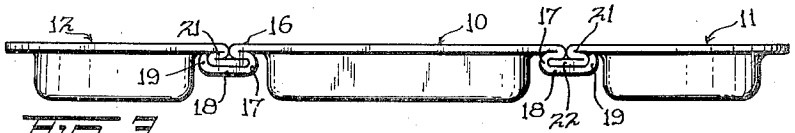


FIG. 3.

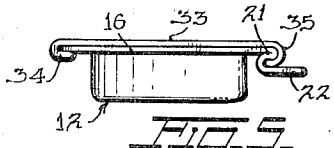


FIG. 5.

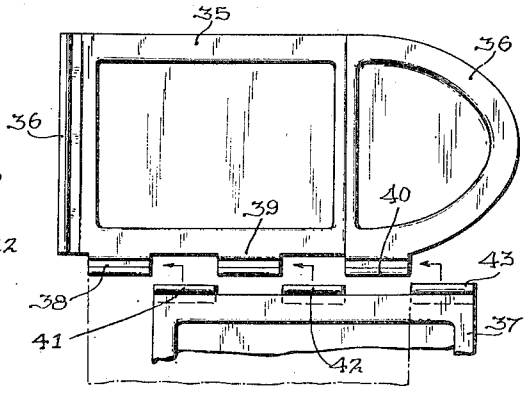


FIG. 6.

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SECTIONAL PLATE

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2 Claims. (Cl. 220—23.4)

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This invention relates to food packages.

In my copending patent application Serial No. 713,293, filed on November 30, 1946, there is disclosed a food package arrangement whereby the packages are so constructed that they can be interfitted with other packages to make up a complete assembly, for instance, a meal assembly, including a meat or fish meal portion, in a separate package, and one or more meal components of a vegetable, salad or dessert type, each also in a separate package.

The present invention also provides a package assembly the packages of which are adapted to be interfitted, but in a manner different from that in said copending application.

The preferred use of the interfitted package assembly of the present invention is the same as that set forth in detail in said copending application, and in this connection it may be here repeated that the meat or fish and the various accompanying meal portions, preferably as frozen foods, are placed in the separate packages at the store where they are to be purchased either before or at the same time a customer orders the same, or in a single plate comprising the assembly of interfitted packages.

As also stated in said copending application, the meat and vegetables are in containers or sections of the plate; such sections being made of material which will not warp, discolor, crack, bend or dissolve while under process of sterilization, plant freezing or oven heating. Such containers may be made of wood pulp, a specially prepared plastic, or aluminum or other metal, but are preferably made of such material that the containers can be discarded after they have been used without a great loss or expense.

According to the present invention, the packages to be interfitted may be individually of any outline, as rectangular or otherwise shaped to have a plurality of straight sides, and, furthermore, when desired, such packages may be used with other packages having an outline curvilinear in part.

Also, according to the present invention, the interfitting formations on the packages are of a different type than those in said copending application, for increasing the ability of the interfitting of said formations to resist sagging of one individual package from the plane of a contiguous one.

Furthermore, according to the present invention, a novel type of cover element is provided for an individual package.

For further comprehension of the invention,

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and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a perspective view looking down on a package made of three interfitted individual packages, the central one of which is rectangular in outline and the other two of which have boundaries which are partly curvilinear.

Fig. 2 is a similar view, but showing the central and one end package interfitted, but with the other end section not yet interfitted with the central one.

Fig. 3 shows the package assembly of Fig. 1, in side elevation.

Fig. 4 is a fragmentary perspective, on an enlarged scale, showing a corner of an individual package and a cover element therefor.

Fig. 5 is a side elevation of such an end package as is illustrated in Fig. 1, and a cover element therefor.

Fig. 6 is a top plan view, showing a modified assembly of individual packages or sections, and also a modification of the interfitting formations.

Referring now to the drawings in detail, and first to Figs. 1, 2 and 3, 10 represents a central section, 11 is one terminal section, and 12 is another terminal section.

At each end of the central section, which is here shown as in the shape of an oblong quadrilateral, is the female one of a pair of interfitting formations the complementary male one of which is carried by a straight side of one of the terminal sections.

Such female formation has a groove as indicated at 14 in Fig. 2, of trough type, that is, open along its top, as shown at 15 in Fig. 2, with the width of the trough extended laterally beyond both edges of the opening 15.

The groove or trough 14 is formed by bending or otherwise shaping a strip extension from the flange 16 of the section 10, where said flange extends as a straight stretch across an end of said section, to establish a sharp reverse bend 17, then a bend 18 again in a reverse direction to establish a trough bottom and a trough side, and then an upwardly and backwardly curved end bend, to complete formation of the trough. This female conformation may therefore be defined as a trough of a cross section like that defined by a flattened C, with the C a lazy C and with its mouth uppermost.

The complementary male formation, on a terminal section 11 or 12, is formed by bending or otherwise shaping a strip extension from the flange 20 of such section, where said flange extends as a straight stretch along the straight part of the boundary of the terminal section, to establish a sharp reverse bend 21, and then another sharp bend again in the reverse direction, to establish a projection for fitting snugly in the trough of a female formation on another package section.

The union of a pair of contiguous sections is effected by endwise sliding of a male formation of one of the terminal sections 11 or 12 into the trough 14 of a female formation on the central section 10.

In the central section 10 there may be placed a meat or fish portion, and in the terminal sections 11 and 12 there may be other desired meal portions; for example, in the terminal section 11 a vegetable portion, and in the other terminal section 12 another vegetable portion, a salad portion or a dessert portion.

Referring now particularly to Fig. 4, here a central section 23 is shown as carrying along one straight side thereof a female formation 24, incorporating parts 25, 26, 27 and 28 corresponding to the parts 14, 17, 18 and 19, respectively, of Figs. 2 and 3.

Also shown is a cover element 29 including a sheet 30 for covering the compartment in the central section 23. Assuming said section to be shaped like the section 10, the sheet 30 would be of an outline such that the marginal portions of the sheet 30 would lie over the top surfaces of the flange of the central section 23 which, like the flange 16 extending all around the section 10, extends all around the central section 23.

The cover element 29 is of a length to reach to the far end of the central section 23, after an end portion 31 of the cover element 29 has been liningly fitted into the groove or trough 25.

With this cover element made as a very thin transparent sheet from any of the well known plastics, it will be very inexpensive, while capable of being formed to retain a resilient bias such that any area thereof shaped to incorporate a curvature yieldingly retains that curvature and such that any area thereof shaped to incorporate a uniplanar extension yieldingly retains this flat characteristic. In this way the cover element 29 is provided so that its portion 31 may be slightly collapsed laterally and then entered endwisely into the groove 25, whereby on release of the collapsing pressure said portion 31 will snap into secure frictional engagement with the groove interior, and at the same time the sheet 30 will spring down for close engagement at the underside of its marginal portions with the top surface of the flange surrounding the section 23.

A line of fine perforations 32, or a scored or otherwise weakening line, may be provided in the cover element 29, so that after lifting the sheet 30, as when the meal is ready for serving, said sheet may be torn off.

Where an analogous type of cover element is to be employed for a package section the interfitting formation of which is of the male type, as in the case of the end sections 11 and 12 of Fig. 1, the arrangement shown in Fig. 5 may be adopted. Here the package section 12 of Fig. 1 is again shown. The cover element 33 is formed from such a plastic or other suitable material as just above mentioned, but with the cover element formed when completed so that at opposite ends thereof, corresponding to the left and right hand ends of the package 12 as seen in Figs. 1 and 5, there are curled under hook portions 34 and 35, resiliently deformable for snapping of the former under the flange 16 at the left hand end of the package, and for snapping of the latter into the male formation between the portions 21 and 22 of that formation as shown at the right in Fig. 5.

Referring to Fig. 6, this shows a modification of the interfitting male and female formations along straight sides of a pair of sections to be coupled. Here the package assembly is shown as including a central section 35 like central section 10 of Fig. 1, a terminal section 36 of any desired outline but here shown as of the same outline as the terminal sections 11 or 12 of Fig. 1, this terminal section 36 interfitted with the right hand end of the central section 35, and another section 37, shown as a rectangular one and of greater length than the central section 35.

With package sections thus related, several advantages are obtained, one of which is that any number of such sections, provided the central sections are bounded all around by straight sides, may be variously interfitted; as for an elaborate meal, and yet due to the nature of the interfitting formations of the present invention, to provide a package assembly which even when quite expansive may be safely handled.

This last advantage may be increased in efficiency by having an interfitting formation or a plurality thereof on one package section, and a plurality of complementary formations on a plurality of other sections to be coupled to the first-mentioned section.

Thus, for example, when the central section 35 has at each of its opposite ends female formations corresponding to the female formations at the opposite ends of the section 10, one of the former being shown at 36, another package section carrying a male formation, or other such sections each carrying a male formation, may be interfitted with the central section 35, at either or at both ends of the latter. One of these said other sections is here constituted by the terminal section 36. At the same time, both of the sections 35 and 36, in addition to having the formations whereby they are interfitted, may also carry additional formations along straight edge portions thereof angularly offset from their sides which carry the formations interfitted to couple said sections 35 and 36, and which additional formations interfit with a complementary formation or formations on the section 37.

As here shown, said additional formations are indicated at 38, 39 and 40, and as of the female type, and with the formations 38 and 39 on the central section 35 and the formation 40 on the terminal section 36; these formations so arranged that their grooves align when the sections 35 and 36 are coupled by the formations thereof which interfit for their coupling.

The formations 38 and 39 are spaced apart, and arranged along a side of the central section 35 in such manner that when the sections 35 and 36 are coupled the formation 40 is spaced from the formation 39.

Along a straight side of the package section 37, the latter carries spaced formations 41, 42 and 43, these of the male type, and for interfitting with the formations 38, 39 and 40 respectively.

To couple the package 37 with both of the previously coupled packages 35 and 36, the package

section 37, placed opposite the sections 35 and 36 as shown, is first advanced toward the latter until the formation 41 enters the space between and lines up with the formations 38 and 39 and until the formations 42 and 43 are similarly alternately placed relative to the formations 39 and 40, and then the male formations 41, 42 and 43 are simultaneously endwisely entered into the female formations 38, 39 and 40 respectively.

Preferably, as shown, all of said formations are of the same length, and the space between the formations 38 and 39 and between the formations 39 and 40 are of like length.

In an arrangement thus providing a plurality of spaced lengths of male and female formations on a plurality of package sections, which concept may be applied to any number of sections to be coupled according to the invention, there is an important reduction in the extent of movement of one section relative to another required to accomplish a coupling.

In an arrangement wherein interfitting of a male or female formation or formations on one package section, with complementary formations on two other sections, is provided for, and the two sections last-mentioned are coupled along a line at an angle to the line of interfitting of the formations first-mentioned, an assembled package is provided which is very considerably strengthened against possible sag of any section out of the intended general flat of the assembly.

This advantage is retained, of course, even when the coupling between one package section and a pair of others is effected as in Figs. 1, 2 and 3, that is, for instance in connection with sections grouped as in Fig. 6, by substituting for the female formations 38 and 39 a single continuous such formation extending from end to end of the section 35 and by substituting for the male formations 41, 42 and 43 a single continuous such formation extending from end to end of the section 37.

It is to be understood that this food package may include any design and/or number of sections, and may be held together by any suitable clamping arrangement; also that the plates may be made of any desired material, shape and ornamentation.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. In an article of the class described having adjacent sections releasably connected together along adjacent straight sides and having straight sides in end alignment extending at right angles to the releasably connected straight sides, a third section having a straight side parallel to the end aligned straight sides of the adjacent sections, said third section being longer than either of the adjacent sections to be coextensive with one of the adjacent sections and have a portion extended along an adjacent portion of the other of the adjacent sections, spaced female connector formations formed on the end aligned straight sides of the adjacent sections, and spaced male connector formations formed along the straight side of said third section and engaging said female connector formations of the adjacent sections connecting the third section to the adjacent sections and securing the adjacent sections to prevent relative lateral movement of the adjacent sections in a direction to disconnect them.

2. In an article of the class described having adjacent sections releasably connected together along adjacent straight sides and having straight sides in end alignment extending at right angles to the releasably connected straight sides, a third section having a straight side parallel to the end aligned straight sides of the adjacent sections, said third section being longer than either of the adjacent sections to be coextensive with one of the adjacent sections and have a portion extended along an adjacent portion of the other of the adjacent sections, spaced female connector formations formed on the end aligned straight sides of the adjacent sections, and spaced male connector formations formed along the straight side of said third section and engaging said female connector formations of the adjacent sections connecting the third section to the adjacent sections and securing the adjacent sections to prevent relative lateral movement of the adjacent sections in a direction to disconnect them, said male and female connector formations being of equal length and the spaces between the adjacent ends of said male and female connector formations being equal in length to the length of said male and female connector formations, whereby said third section may be disengaged from the adjacent sections by sliding said third section in a direction relative to the adjacent sections to disengage said male connector formations from the female connector formations and align said male connector formations with the spaces between the adjacent ends of the female connector formations after which said third section may be moved away from the adjacent sections.

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