

June 20, 1939.

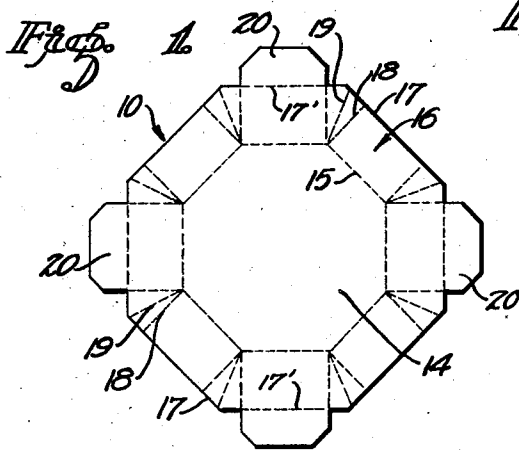
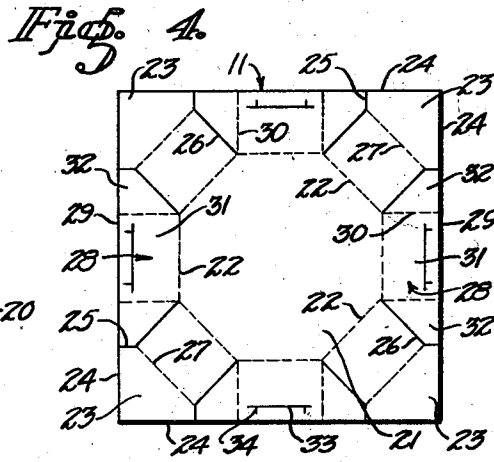
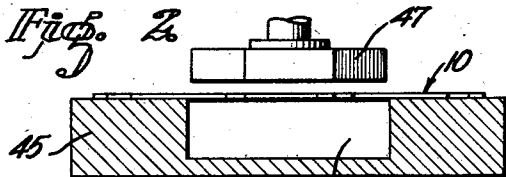
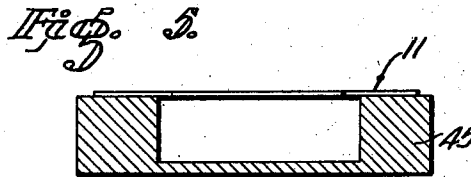
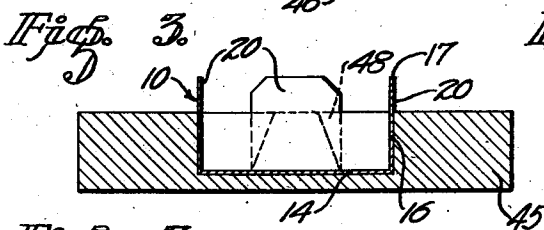
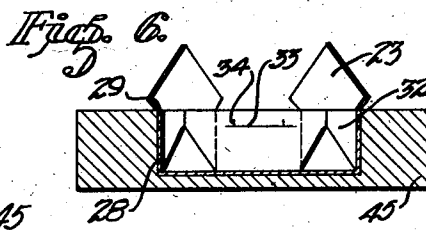
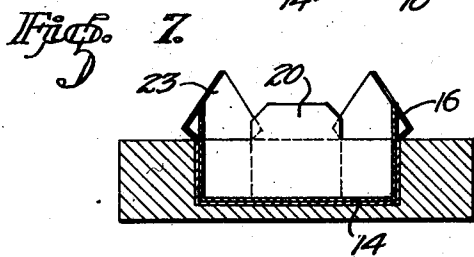
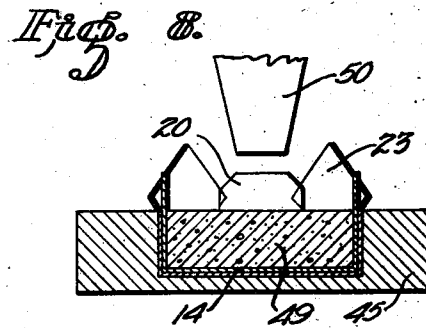
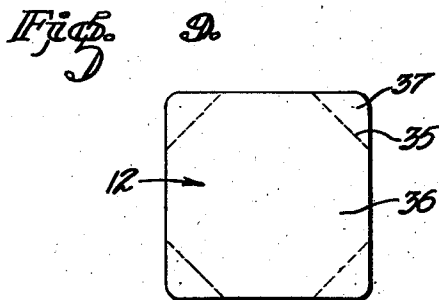
D. RAY

2,163,060

PACKAGE

Original Filed May 24, 1937

3 Sheets-Sheet 1



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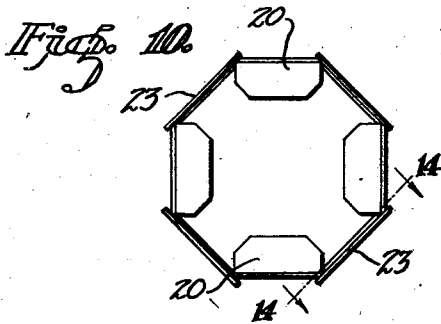
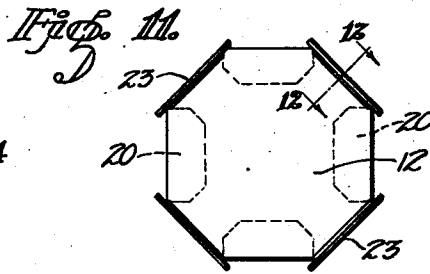
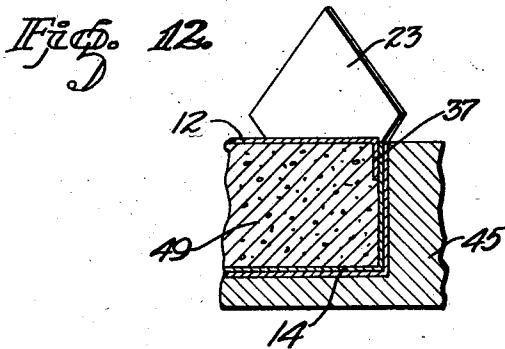
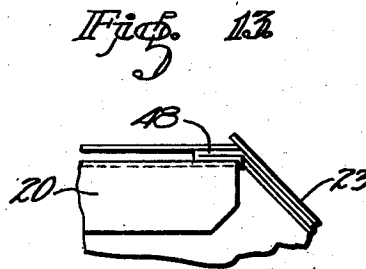
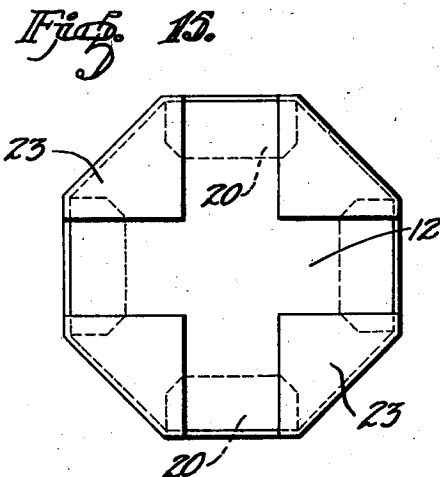
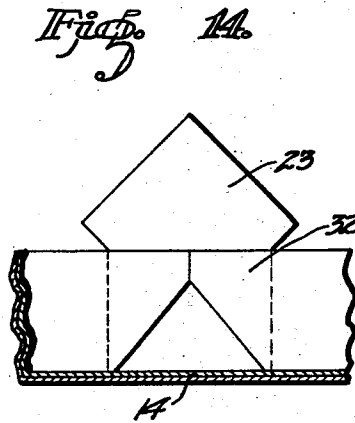
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PACKAGE

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PACKAGE

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3 Sheets-Sheet 3

Fig. 16.

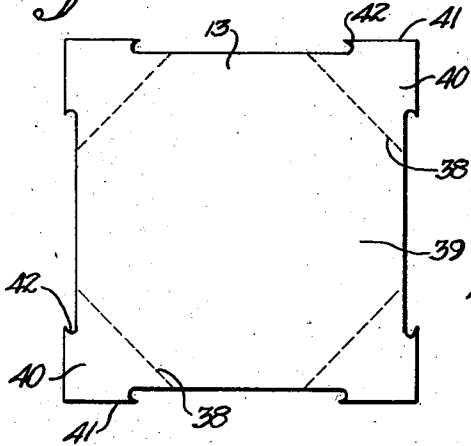


Fig. 17.

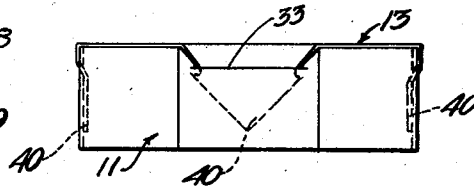
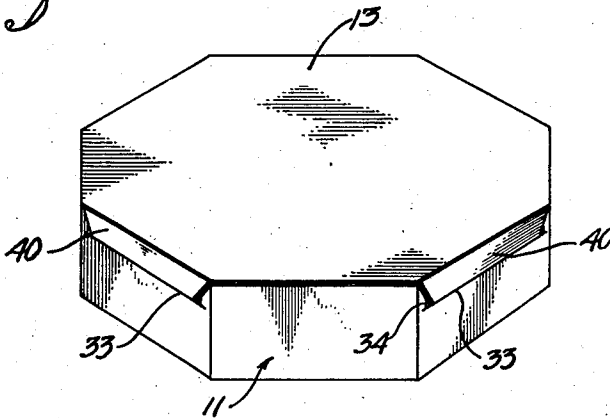


Fig. 18.



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UNITED STATES PATENT OFFICE

2,163,060

PACKAGE

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Application May 24, 1937, Serial No. 144,377

Renewed December 24, 1938

10 Claims. (Cl. 228-14)

This invention relates to containers for food and the like, and particularly pertains to a package.

When dispensing various products, such for example as food products, and particularly butter, cheese, ice cream and the like, it is desirable to provide a package within which the product may be thoroughly wrapped to preserve its flavor and to prevent it from contamination and deterioration before it is consumed. Various cartons have been devised within which such products may be placed, but these cartons are relatively expensive and consume considerable bulk before they are filled. It is the principal object of the present invention to provide wrapping elements adapted to be cooperatively assembled to form a package within which a product may be placed and sealed, the said elements being normally in the form of flat sheets of material designed to be folded to receive a product, and having parts interlocking in a manner to maintain a sealed package without the necessity of using additional sealing means.

The present invention contemplates the provision of a lining element initially in the form of a flat sheet of foldable material, and used in connection with an outer cover, the said two elements being folded together and after receiving a product to be interlocked to enclose and seal the product.

The invention is illustrated by way of example and in the accompanying drawings in which:

Figure 1 is a view in plan showing the lining wrapper of the package indicating its configuration and the score marks thereon for folding.

Fig. 2 is a view in section showing the mold into which the package is assembled and indicating in edgewise position the lining wrapper before it is folded.

Fig. 3 is a view showing a mold similar to that of Fig. 2, and disclosing the lining wrapper folded to form a container.

Fig. 4 is a view in plan showing the cover wrapper of the package indicating its lines of severance in solid lines and the score marks for folding in dotted lines.

Fig. 5 is a view similar to Fig. 2 showing the initial position of the cover wrapper before folding.

Fig. 6 is a view similar to Fig. 3 showing the folded position of the cover wrapper prior to receiving the folded lining wrapper.

Fig. 7 is a view in vertical section showing the cover wrapper and the lining wrapper disposed therein.

Fig. 8 is a view in vertical section showing the lining wrapper and the cover wrapper and indicating the filling operation.

Fig. 9 discloses a lining top sheet which is disposed over the product with which the lining wrapper is filled.

Fig. 10 is a view in plan showing the assembled package with the tangs of the lining wrapper folded down over the product.

Fig. 11 is a view in plan similar to Fig. 10 showing the lining top sheet in place.

Fig. 12 is an enlarged view in vertical section showing the manner in which the lining top sheet is disposed over the product and in which the corners of the top sheet are bent downwardly around the product as seen on the line 12-12 of Fig. 11.

Fig. 13 is an enlarged fragmentary view in elevation showing the folded position of the lining wrapper at its corners and the position of the cover wrapper therearound.

Fig. 14 is an enlarged fragmentary view showing the folded corners of the lining wrapper, as seen on the line 14-14 of Fig. 10.

Fig. 15 is a view drawn on a slightly larger scale than Fig. 10, showing the corner tangs of the cover wrapper folded down over the lining top sheet.

Fig. 16 is a view drawn on substantially the same scale as Fig. 15, showing a cover top sheet and indicating the scoring marks for its folds by dotted lines.

Fig. 17 is a view in side elevation showing the cover top sheet folded and assembled with the cover wrapper.

Fig. 18 is a view in perspective showing the assembled package.

Referring more particularly to the drawings, 10 indicates a lining wrapper within which a food product is directly placed. 11 indicates a cover wrapper within which the final package is formed. 12 indicates a lining top sheet to be disposed over the product placed within the lining wrapper and 13 indicates the cover top sheet by which the final package is held and sealed in its assembled condition. The four elements previously mentioned are all of the elements required to form the package with which the present invention is concerned. These elements are formed by machinery and are preferably folded and assembled by machinery so that it is not necessary for the human hand to touch the product within the finally sealed package.

Referring particularly to Fig. 1 of the drawings in which the lining wrapper 10 is disclosed, 55

it will be seen that a central field 14 is formed and is defined by scoring marks 15 which here are shown as defining an octagonal field. The field 14 is bounded by a marginal portion of uniform width whereby a larger octagonal shaped sheet is defined. This marginal portion comprises a plurality of rectangular fields 16 bounded on their inner sides by the scoring marks 15 and on their outer sides by an edge 17. The ends of these rectangular fields are defined by parallel score marks 18 which are disposed at right angles to the score marks 15. The outer edges 17 continue beyond the score marks 18 to a point of intersection and a median score mark 19 extends from this point to the point of convergence of contiguous score marks 18. Alternate fields 16 are formed with tangs 20 which extend beyond score marks 17, which marks are a continuation of the marginal edges 17 of these fields. The tangs are of a width agreeing with the distance between score marks 18 and of a suitable length for a purpose to be hereinafter set forth. The corners of the tangs have been cut away at an inclination to facilitate in a sealing operation to be hereinafter described.

Referring more particularly to Fig. 4 of the drawings, it will be seen that the cover wrapper 11 is shown in detail. The cover wrapper 11 is in the form of a flat sheet of material and is square in shape. This sheet of material is cut and scored to form a folding structure. An octagonal center field 21 is disclosed bounded on its sides by score marks 22. The size of the octagonal field 21 is slightly greater than the size of the octagonal field 15 of the lining wrapper, since the lining wrapper fits within the folded cover wrapper as will be hereinafter described. Corner tangs 23 are formed as a part of the cover wrapper and occur at the corners of the square blank of the cover wrapper. These tangs are defined by marginal edges 24 which are the corners of the blank. The edges 24 terminate in shoulders 25 disposed at right angles thereto. The shoulders 25 extend inwardly toward each other until they intersect the edges 26 which emanate from and are at right angles to score marks 22. The score marks 22 as previously stated define the configuration of the octagonal field 21. The edges 26 are parallel to each other and are spaced apart a distance equal to the length of a score mark 22. Formed parallel to the score marks 22 and extending from the inner end of one shoulder 25 to a complementary shoulder 25 is a score mark 27 provided for a purpose to be hereinafter set forth. Occurring between the corner tangs 23 are side folds 28 which have an outer marginal edge 29 being continuations of edges 24 of the tangs 23. The length of the edges 29 represent the distance between shoulders 25 on adjacent corner tangs 23. The folds 28 are defined along their inner edges by previously mentioned score marks 22. Two score marks 30 extend from the ends of the score mark 22 to the outer edge 29 and divide the folds 28 into three sections, a rectangular center section 31 and two end flaps 32. The end flaps are of a configuration supplemental to that of a shoulder 25 and a side 26 of a corner tang 23. Cut into each of the rectangular sections 31 is a slit 33 which is parallel to the outer marginal edge 29 and is also spaced relatively close thereto. This slit extends for a major length of the distance between the score marks 30 and adjacent to its ends are small right angle slits 34. These members receive tangs of a part 75 hereinafter to be described.

Referring to Fig. 9 of the drawings the lining top sheet 12 is disclosed. This is a square flat sheet having diagonal scoring marks 35 across its corner portions so that the marginal edges and the scoring marks will define an octagonal field 36 and will cause corner tangs 37 to be provided. The size of the field 36 is substantially the size of the field 14 on the lining wrapper and provides a cover for a product placed within the wrapper.

Referring particularly to Fig. 16 the cover top sheet is disclosed. This top sheet is the final element placed over the formed and filled package. It is substantially square, its corner portions being scored transversely at 38 so that the score marks 38 and the marginal portions of the edges of the blank will form an octagonal field 39 substantially that of the octagonal field 21 of the cover wrapper. Corner tangs 40 will thus be formed. These tangs have marginal edges 41 disposed at right angles at the corners of the blanks and locking shoulders 42. The overall distance from the juncture of the marginal edges 41 and the locking shoulders 42 is slightly less than the length of the slits 33 in the cover wrapper 11. The width between the inner ends of the shoulders 42 on the tang substantially agrees with the distance between the short slits 34 on the cover wrapper 11, so that these parts will be locked together.

In forming a package with the lining wrapper 10, the top lining sheet 12, the cover wrapper 11, and the cover top sheet 13, the following procedure is preferable. A mold 45 is provided having a cavity 46 therein. This cavity is of the same configuration as the center field 14 of the lining wrapper, the dimensions, however, being slightly greater than the dimensions of that field. A plunger 47 is provided to operate in conjunction with the mold 45. The lining wrapper 10 is then suitably positioned over the cavity in the mold, as shown in Fig. 2, after which the plunger moves downwardly to fold the lining wrapper so that the field 14 will represent the bottom of a formed container and the marginal portions 16 will fold up along the sides to provide the sides of an octagonal wall structure. The tangs 20 will extend upwardly around the edges of the container thus formed and the portions of the blank occurring between the adjacent rectangular sections 16 will be folded upon themselves, as indicated at 48 in Figs. 3 and 13. The outer cover wrapper 11 is then placed in a similar mold 45 and folded from the position shown in Fig. 5 to that disclosed in Fig. 6. In this position it will be seen that the corner tangs 23 extend upwardly at alternate sides of the octagonal structure and that the portions 32 overlap the wall sections of the corner tangs 23 as clearly shown in Fig. 6. The lining wrapper 10 in its folded form is then positioned within the cover wrapper 11. It may have been positioned within the cover wrapper 11 while the cover wrapper was being formed, thus eliminating a second assembly operation. When the two wrappers 10 and 11 have been assembled as shown in Fig. 7 it will be seen that around the mouth of the receptacle thus formed there will be the corner tangs 23 and the intermediate tangs 26 alternately disposed. A product, such for example as ice cream, is filled into the formed receptacle, as indicated at 49, in Fig. 8. This product in a semi-solid state may be delivered from the hopper 50. When the receptacle has been properly filled the tangs 28 are folded over it as indicated in Fig. 10, after which

the lining sheet is laid over the top of the product and the tangs and its corners 37 are folded downwardly as indicated in Fig. 12. In this position the cover 12 will appear as shown in Fig. 11. The corner tangs 23 of the cover wrapper 11 are then folded down as shown in Fig. 15. Here it will be seen that these corner tangs 23 also overlap the tangs 20 of the lining wrapper. When in this position the cover top sheet 13 is placed over the complete package and the corner locking tangs 41 are inserted through the slits 33 of the cover wrapper and locked therewith. It will be seen that in this condition the shoulder portions 25 of the corner tangs of the cover wrapper 11 will interlock with the folded portion of the corners 40 of the top sheet so that the entire carton will be held in an assembled and sealed position as shown in Fig. 18 of the drawings.

It will thus be seen that the package here disclosed is formed by the use of inexpensive flat sheets of suitable material which do not require the use of expensive machinery or preforming dies in making a container, but make it possible for a package to be made and assembled progressively as the parts are folded and as the food product is deposited therein and sealed.

It will also be evident that due to the shape of the package formed it may be placed in a storage space, such as a mechanical refrigerator, either flat or edgewise, since it occupies a small space and can be conveniently packed in with other containers.

While I have shown the preferred form of my invention, as now known to me, it will be understood that various changes might be made in the combination, construction, and arrangement of parts by those skilled in the art, without departing from the spirit of the invention as claimed.

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

1. A package to receive a product to be packed, which package comprises an inner wrapper formed from a sheet of material and adapted to be folded to provide a container for the product, a top sheet for said inner wrapper to be placed over the product and to cooperate with the inner wrapper in providing a complete closure for the product, an outer wrapper formed of a flat sheet of material to be folded to provide a container for the product and the inner wrapper, a flat top cover sheet for the outer wrapper, and cooperating means on the outer wrapper and the flat top cover sheet for interlocking said parts together and completely enclosing the inner wrapper and its cover sheet.

2. A container comprising a lining wrapper for a product, said wrapper having a central polygonal field and a marginal field adapted to be folded upwardly at right angles to the central field to embrace a product of polygonal shape, a top lining formed of a square sheet of material and folded down at its corners to form a polygonal cover with the folded portions extending downwardly into the folded lining, a cover wrapper formed of a square sheet of material and scored to form a polygonal center field, tangs emanating from each edge of the polygonal center field and adapted to be folded upwardly to form a container within which the aforementioned lining wrapper is disposed, a top cover of polygonal shape to be placed over the folded cover wrapper, tangs on said top cover, and cooperating means on the cover wrapper for interlocking the cover wrapper and the top cover together in sealing the package.

3. A package to receive a product to be packed comprising an outer wrapper having a body portion, side flaps, end flaps and extension flaps connected to the outer edges of said end flaps, triangular portions on the ends of said side flaps adapted for connection to the sides of said end flaps, an inner wrapper having a body portion adapted to fit within said outer wrapper and having side flaps, end flaps and extension flaps connected to the outer edges of said end flaps, said side flaps having a portion intermediate said flaps to fold upon the same, a top sheet for said inner wrapper to be placed over the product and to cooperate with the inner wrapper in providing a complete closure for the product, a cover sheet for the outer wrapper, and cooperating means on the outer wrapper and the cover sheet for interlocking said parts together and enclosing the inner wrapper and the cover sheet.

4. A package to receive a product to be packed comprising an outer wrapper having a body portion, side flaps, end flaps and extension flaps connected to the outer edges of said end flaps, extensions on the sides of said side flaps adapted for connection to the sides of said end flaps, an inner wrapper having a body portion adapted to fit within said outer wrapper and having side flaps, end flaps and extension flaps connected to the sides of said end flaps, said side flaps having portions intermediate said flaps foldable upon the same, a top sheet for said inner wrapper to be placed over the product and to cooperate with the inner wrapper in providing a complete closure for the product, a cover sheet for the outer wrapper, and means on said cover sheet cooperating with said outer wrapper for interlocking said parts together and completely enclosing said inner wrapper and said top sheet.

5. A package to receive a product to be packed comprising an outer wrapper formed from a blank having a body portion, side flaps, end flaps and extensions connected to the upper part of said end flaps, extensions on the sides of said side flaps adapted for connection to the sides of said end flaps, said side flaps having slots provided therein, an inner wrapper formed from a blank having a body portion adapted to fit within said outer wrapper and having side flaps, end flaps and extensions connected to the upper part of said end flaps, said side flaps having intermediate portions foldable over the sides of said end flaps, a top sheet providing a closure for said inner wrapper, a cover sheet for said outer wrapper, and means on said cover sheet cooperating with said slots on said flaps for interlocking said cover sheet and said outer wrapper together and enclosing said inner wrapper and said top sheet.

6. A package to receive a product to be packed comprising an outer wrapper formed from a blank having a body portion, side flaps, end flaps and extensions connected to the outer edges of said end flaps, extensions on the sides of said side flaps adapted for connection to the sides of said end flaps, said side flaps having slots provided therein, an inner wrapper formed from a blank having a body portion adapted to fit within said outer wrapper and having side flaps, end flaps and extensions connected to the outer edges of said end flaps, said side flaps having a portion intermediate said flaps foldable over the sides of said end flaps, a top sheet providing a closure for said inner wrapper, a cover sheet for said outer wrapper, and tangs on said cover sheet engageable with said slots on said side flaps for interlocking said cover sheet and said outer wrapper

per together and completely enclosing said inner wrapper and said cover sheet.

7. A container comprising a lining wrapper for a product, said wrapper having a central polygonal field and a marginal field adapted to be folded upwardly at right angles to said central field to embrace the product, a top lining for said lining wrapper, a cover wrapper having a polygonal field and a marginal field adapted to receive said lining wrapper, a top cover of polygonal shape adapted to be placed over said cover wrapper, tangs on said top cover, and walls providing slits in the marginal field of said cover wrapper adapted to receive said tangs for interlocking said top cover and said cover wrapper together and completely enclosing said lining wrapper and said top lining.

8. A container comprising an inner wrapper for a product, said wrapper having a central polygonal field and a marginal field having side flaps and end flaps connected together by foldable portions, a cover wrapper having a central polygonal field and a marginal field adapted to receive said inner wrapper, a top lining for said inner wrapper, a top cover of polygonal shape adapted to be placed over said cover wrapper, tangs on the ends of said top cover, and walls providing slits in the marginal field of said cover wrapper adapted for the reception of said tangs for locking said top cover and said cover wrapper together and completely enclosing said inner wrapper and said top lining.

9. A container comprising a lining wrapper for a product, said wrapper having a central polygonal field and a marginal field comprising side

and end flaps adapted to be folded upwardly at right angles to said central field to embrace a product of polygonal shape, a polygonal cover for said lining wrapper, a cover wrapper having a polygonal center field and a marginal field comprising side and end flaps adapted to be folded upwardly to receive said lining wrapper, extensions on said side flaps adapted for connection with the sides of said end flaps, a top cover of polygonal shape adapted to be placed over said cover wrapper, tangs on said top cover, and walls providing slits in the side flaps of said cover wrapper adapted for the reception of said tangs for locking together said cover wrapper and said top cover to seal said container.

10. A cover wrapper for packages comprising a blank of material having an octagonal center field defined thereon, side and end flap members emanating from the center field and adapted to be folded at right angles to the plane of said field to form the sides of a container, extensions provided on the upper ends of the end flap members and adapted to be folded downwardly parallel to the plane of the octagonal field, extensions provided on the sides of the side flap members adapted for connection to sides of the end flap members, a top sheet of octagonal shape to be placed under the folded extensions, a cover sheet of octagonal shape to be placed over the cover wrapper and having tangs provided on the corners thereof, and walls forming slits in the side flap members adapted to receive said tangs for interlocking the cover sheet and the cover wrapper together.

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