

1,247,237.

Fig. 1.

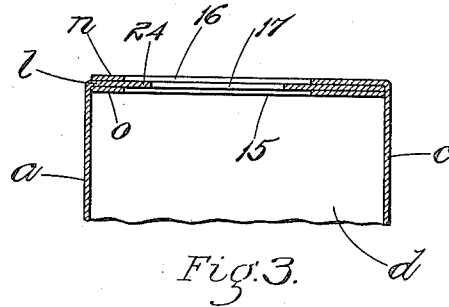


Fig. 3.

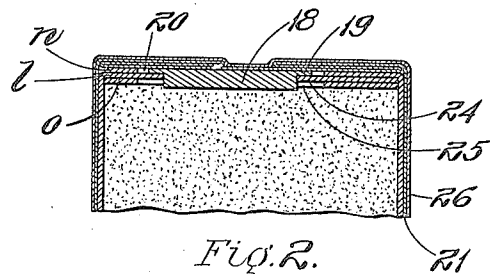


Fig. 2

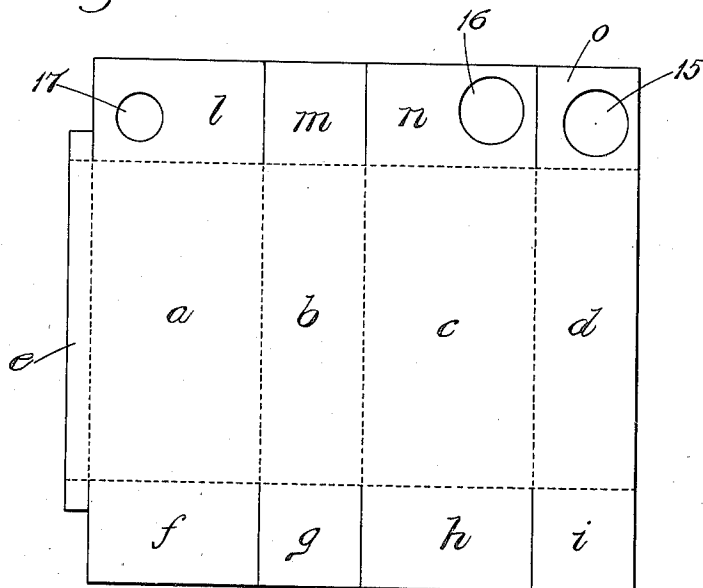


Fig. 4.

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UNITED STATES PATENT OFFICE.

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CONTAINER FOR PACKAGE GOODS.

1,247,237.

Specification of Letters Patent.

Patented Nov. 20, 1917.

Application filed March 26, 1917. Serial No. 157,310.

To all whom it may concern:

Be it known that I, CARL F. DOBLE, citizen of the United States, residing at Quincy, county of Norfolk, State of Massachusetts, have invented a certain new and useful Improvement in Containers for Package Goods, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to an improvement in packages for package goods, so called, and especially to paper packages in which the goods are packed in paper cartons which in turn are inclosed in a paper wrapper which is adhesively secured to the carton and sealed. A special object of the invention is to provide such a package with a convenient discharge opening in the carton through which the goods may be removed, and to provide said discharge opening with a plug which is sealed and securely held in place by the overlying wrapper. Another object of the invention is to provide the wrapper with suitable indicia to denote the location of the plug so that although the wrapper itself has no aperture, yet the location of the underlying plug will be so indicated that when it is desired to open the package the customer can easily cut out an opening in the wrapper in the proper place to afford access to the plug.

The invention will be fully understood from the following description taken in connection with the accompanying drawings and the novel features thereof will be pointed out and clearly defined in the claims at the close of this specification.

In the drawings, Figure 1 is a perspective view of a closed and sealed package embodying the invention.

Fig. 2 is a section on line 2—2 of Fig. 1 on an enlarged scale and partly broken away.

Fig. 3 is a sectional view on the same line as Fig. 2 but showing simply the inner carton before it is filled and before the wrapper is put on and before the plug is inserted.

Fig. 4 is a plan view of a blank for forming the inner carton.

Referring now to the drawings, the blank of which the carton or inner shell is formed

is cut and scored to form the side forming panels *a, b, c, d*, and side sealing lap *e*, bottom forming flaps *f, g, h, i*, and top closing flaps *l, m, n, o*. The blank as thus far described is merely one of the well known forms of blanks for forming a carton.

When the blank is folded to form the carton it will first be folded into tubular form so that the panels *a, b, c, d*, form four sides of the carton and the sealing lap *e* laps on to the edge of the panel *d* and is adhesively secured thereto. The bottom forming flaps *f, g, h, i*, are folded in the usual way to form the bottom of the carton and are preferably glued so as to form a tight bottom, and after the package is filled the top is closed by folding in the top forming flaps *l, m, n, o*, as shown in Fig. 3. The two small flaps *m, o*, are usually turned in first, each of which is only about one-half as long as the wide panels *a* and *c* so that instead of overlapping each other the two flaps *m, o*, will meet midway of the width of the panels *a, c*, or at any rate only slightly overlap. Next, the flap *l* is folded over outside of the two flaps *m, o*, and lastly the flap *n* is folded over the flap *l*.

In order to provide an aperture through the top of the carton for the purpose of my invention, the flaps *n, l*, and *o* are formed with apertures 16, 17, 15, respectively, which are so located in the respective flaps that when the flaps are folded as in Fig. 3, said apertures will be concentric. Preferably the aperture 17 in the flap *l* which becomes the intermediate aperture when the flaps are folded, as in Fig. 3, is of less diameter than the upper and lower apertures 16, 15. Preferably the aperture 15 in the inner flap is of greater diameter than the aperture in the intermediate flap to afford greater flexibility to the margin of the intermediate flap, as will be hereinafter explained.

After the carton has been filled with the goods and the top closing flaps closed and sealed, a plug 18 of the same diameter as the smaller aperture 17 is inserted into the aperture, said plug being formed with an annular flange 19 which is of somewhat less diameter than the diameter of the aperture 16 in the outer top closing flap so that when

the plug is inserted there will be an annular groove 20 around the outside of the flange 19 between it and the periphery of the aperture 16. Preferably the flange 19 is of the same thickness as the thickness of the stock of the carton so that the outer surface of the plug will be in about the same plane as the outer surface of the outer top forming flap *n*.

As the plug has a tight fit within the aperture 17 of the said flap *l*, the opening will be closed tight.

A paper wrapper 21 is wrapped around the carton after the plug is inserted and said wrapper is folded as shown in Fig. 1, being adhesively secured to the carton throughout its entire contacting surface, and the top and bottom closing flaps or folds are also glued. The bottom will be folded in the same manner as the top shown in Fig. 1, but there is no need of a plug in the bottom and, therefore, there are no apertures in the bottom. The groove 20 formed between the flange 19 of the plug and the periphery of the aperture 17 affords a convenient place for insertion of a blade of a suitable tool such as a screw driver or a knife, to pry out the plug when the proper incision is made through the wrapper. In order to indicate just where the incision should be made after the wrapper is put on, the wrapper has marked thereon the two concentric circles 22, 23, which are concentric with the apertures 16, 17, 15, in the top closing panels, the outer circle 22 being of the same diameter as the larger apertures 15, 16, and the smaller circle 23 being of the same diameter as the flange top of the plug 18. The space between the two circles 22 and 23 is directly in alinement with the annular groove 20, thus indicating exactly where the slit should be made in the covering to give access to the plug and to insert the tool beneath the flange 19 to remove the plug.

The blank which forms the outside wrapper has printed thereon before it is wrapped around the package the several arcs of circles which together form the circles as shown in Fig. 1 when the wrapper is properly folded. The wrapper blanks are folded about the package in such manner as to bring the several arcs into proper relation to form the circles and in such position as to be concentric with the plug.

After the wrapper has been completely folded and glued, the package is dipped in paraffin or other waterproofing fluid to form a complete waterproof skin coat 26 over the entire package.

Preferably the aperture 15 in the innermost flap *o* through which the plug extends is made of the same diameter as the aperture 16 in the outermost flap *n*, or at least it is of larger diameter than the aperture

17 of the intermediate flap *l*, so that when it is desired to open the package and the circular slit is cut through the wrapper, as already explained, to afford access to a tool to engage with the flange 19 of the plug, the inner marginal portion 24 of the intermediate flap *l* may be flexed downward into the annular space 25 left between the smaller portion of the plug and the periphery of the aperture 15 of the inner flap *o* so that the tool may be allowed to engage on the under side of the flange 19 to pry out the plug.

If it is desired to remove only a portion of the contents of the package at a time, the plug can be reinserted after the package has been opened, and thus serve as a closure for the package until it is desired to remove the plug again to permit discharge of additional amount of the contents.

What I claim is:

1. A carton having flaps which are adapted to be folded into overlapping relation to each other to form one end of the carton, there being three of said flaps in overlying relation to each other, each of which is formed with an aperture, all of said three apertures being coaxial with each other, the aperture in the intermediate flap being of less diameter than the aperture in the outside flap, and a plug fitted into said intermediate aperture and having a flange which laps over on to the upper face of said intermediate flap within the aperture formed in the outside flap, the diameter of the flange top of the plug being less than the diameter of the aperture in the outside flap whereby there is formed an annular groove between the flange of the plug and the periphery of the aperture in the outside flap.

2. A carton having flaps which are adapted to be folded into overlapping relation to each other to form one end of the carton, there being three of said flaps in overlying relation to each other, each of which is formed with an aperture, all of said three apertures being coaxial with each other, the aperture in the intermediate flap being of less diameter than the aperture in the outside flap, a plug fitted into said intermediate aperture and having a flange which laps over on to the upper face of said intermediate flap within the opening formed in the outside flap, the diameter of the flange top of the plug being less than the diameter of the opening in the outside flap whereby there is formed an annular groove between the flange of the plug and the periphery of the opening in the outside flap, and a paper wrapper entirely inclosing and adhesively secured to said carton, the portion which covers the end of the carton containing the plug having concentric markings on its outer surface in alinement with

the outer periphery of the flange of the plug and the periphery of the aperture in the outside flap.

5 3. A carton having flaps which are adapted to be folded into overlapping relation to each other to form one end of the carton, there being three of said flaps in overlying relation to each other, each of which is

formed with an aperture, all of said three apertures being coaxial with each other, the aperture in the intermediate flap being of less diameter than the apertures in the outside flap and the inside flap, and a plug fitted into said intermediate aperture. 10

In testimony whereof I affix my signature. 15

CARL F. DOBLE.