J. F. CRAVEN.

COLLAPSIBLE PACKAGE.

APPLICATION FILED DEC. 13, 1913.

1,234,634. Patented July 24, 1917.

FIG. 1

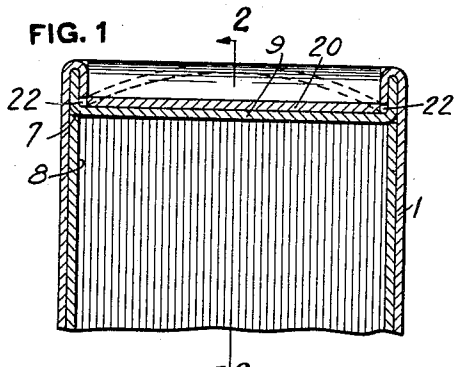


FIG. 2

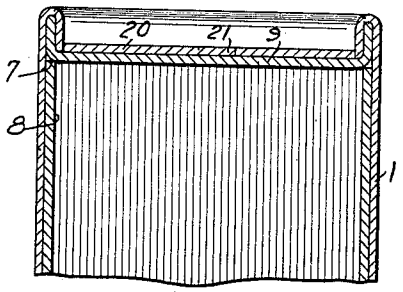


FIG. 3

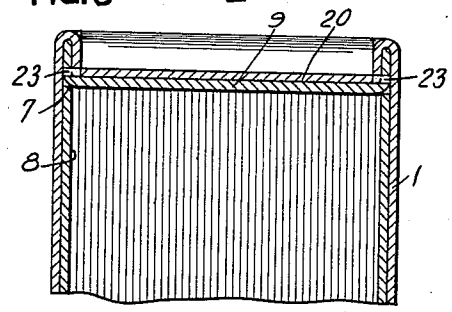


FIG. 4

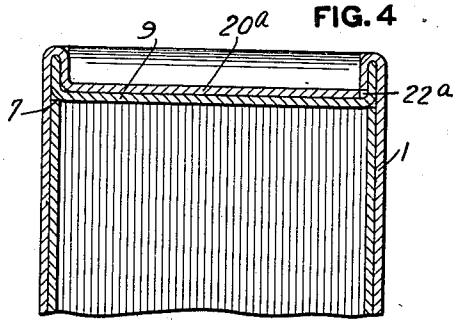


FIG. 5

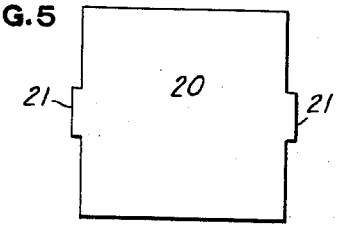


FIG. 6

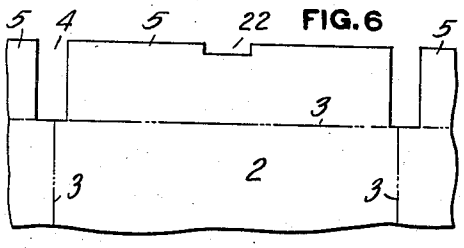
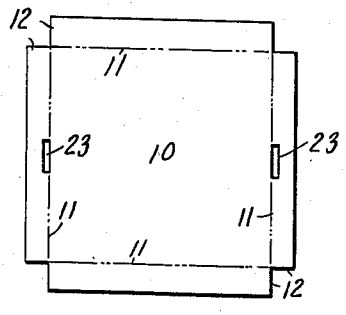


FIG. 7



WITNESSES

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COLLAPSIBLE PACKAGE.

1,234,634. Specification of Letters Patent. Patented July 24, 1917.

Application filed December 13, 1913. Serial No. 806,597.

To all whom it may concern:

Be it known that I, JAMES F. CRAVEN, a resident of Crafton, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Collapsible Packages, of which the following is a specification.

This invention relates to collapsible or folding packages or cartons, such as are used for mailing, shipping and storing purposes.

The object of the invention is to produce a simple, strong and durable package which can be made at low cost, which is light in weight, and which can be readily assembled and filled, or opened without the use of special tools or implements, and therefore is especially adapted for parcel post use. A further object of the invention is to provide a collapsible package whereby substances may be put up in substantially sealed condition, thereby protecting them from contamination, but which permits ready inspection of the contents without destroying or mutilating the package, thereby enabling it to be again closed after inspection of the contents.

The invention comprises the construction and arrangement of parts hereinafter described and claimed.

In the drawings, Figure 1 represents a longitudinal sectional view, illustrating one form of package embodying the invention, and indicating in dotted lines the method of inserting a sealing member; Fig. 2 is a cross section on the line 2—2 of Fig. 1; Fig. 3 is a view similar to that of Fig. 1, showing one form of sealing member; Fig. 4 is a similar view showing a modified form of sealing member; Fig. 5 is a plan view of the sealing member itself; Fig. 6 is a detail view of a portion of the body forming blank; and Fig. 7 is a plan view of a blank for forming the end cap or head of the package.

The shape of the package may vary in accordance with special uses, and it has been shown square in the drawings for convenience, but it is to be understood that it is not limited to this shape. Referring to Fig. 1, the package comprises a body member 1, which is preferably formed of paper, paperboard or other suitable material. Said body is formed from a suitable blank 2, provided with the several creased lines of fold 3, and notched at intervals, as at 4, to form a plurality of end flaps 5. The ends of the blank may be brought together and secured by a pasted strip to form a hollow rectangular shell, as will be readily understood. This shell, so assembled, may be folded up flat when shipping or storing the packages or cartons in knock-down condition.

The body member may be provided at each end with an inner shoulder 7, facing outwardly, which may be formed by a part of the body member 1 itself, that is, by reducing the thickness of the end portions thereof as in Fig. 4, or by a separate member 8 slightly shorter than the body member and which is placed within the same, as shown in Fig. 1. Said inner member, when separate, is formed from a folded blank in the same manner as the body member. It need not be made of as heavy material as the body, as its main function is to keep the end caps or heads from falling inwardly.

Each end of the carton is closed by an end cap or head 9, preferably formed of the same material as the body, and which is made from a blank 10, shown in Fig. 7, provided with the lines of fold 11, and notched at the corners to form a plurality of side flaps 12, which are folded up into a rim or flange extending around the margin of the end cap. Said end cap is slipped into the open end of the opened-out shell or body and rests on one of the end shoulders 7. The rim or flange formed by the flaps 12 of each of the end caps lies within the body member and extends toward its open end.

The end cap or head is held in place by folding the end flaps 5 of the body member around the rim or flange of the cap, each end flap 5 being preferably creased, in order that it may be readily folded without breaking or cracking.

In the form shown in Figs. 1, 2 and 3 the folded flaps of the body are locked in place by a keeper member 20, formed of stiff paper, cardboard or like material and provided with two or more tongues 21 adapted to be sprung into notches 22 in two oppositely disposed flaps of the body, the keeper being moved from the position shown in dotted lines to that shown in full lines in Fig. 1. The other two end flaps are not notched, and project down past the side edges of the keeper member 20 into contact with the end cap or head. They are therefore also locked in place by the keeper member.

In Fig. 1 the tongues on the keeper extend

only through notches in the folded flaps. If desired, however, the folded side portions 12 of the end caps may also be provided with openings 23, the tongues on the keeper being made long enough to project clear through the folded portions of both the body and end cap, as shown in Fig. 3.

Fig. 4 shows an arrangement in which the keeper member is continuous with one of the four folded end portions of the body. Said keeper member, shown at 20^a, is provided at its free end with a tongue 22^a which is sprung into a notch in the oppositely disposed folded portion of the body.

In most forms of the invention the end cap or head is secured directly to the body and will not fall inward, and for this reason the inner member 8 may usually be omitted. With all forms of the invention the carton may be readily opened by unfastening the securing means or lifting out the retaining member and then pulling out the folded end flaps of the body. This enables the end cap or head to be removed for inspection of the contents of the receptacle. After inspection the package may be closed and restored to its original condition without special tools.

What I claim is:

1. A collapsible receptacle, comprising a body member open at both ends and folded along longitudinal lines of fold, a closure for the open end of said body member, said closure having a flange extending toward the open end of the receptacle, the end portions of the side walls of the body member being folded over said flange, and a keeper member lying flat against the outer surface of the closure and provided with a tongue entering an opening in the folded portion of the body.

2. A collapsible receptacle, comprising a body member open at both ends and folded along longitudinal lines of fold, a closure for the open end of said body member, said closure having a flange extending toward the open end of the receptacle, the end portions of the side walls of the body member being folded over said flange, and a keeper member lying flat against the outer surface of the closure and provided with a tongue projecting from one edge thereof and entering alined openings in the folded portion of the body and the flange of the closure.

3. A collapsible receptacle, comprising a body member open at both ends and folded along longitudinal lines of fold, a closure for the open end of said body member, said closure having a flange extending toward the open end of the receptacle, the end portions of the side walls of the body member being folded over said flange, and a keeper member lying flat against the outer surface of the closure and at its edges abutting the folded portions of the body and provided on two opposite edges with tongues entering alined openings in the folded portion of the body and flange of the end cap or head.

In testimony whereof, I have hereunto set my hand.

JAMES F. CRAVEN.

Witnesses:

ELBERT L. HYDE,

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