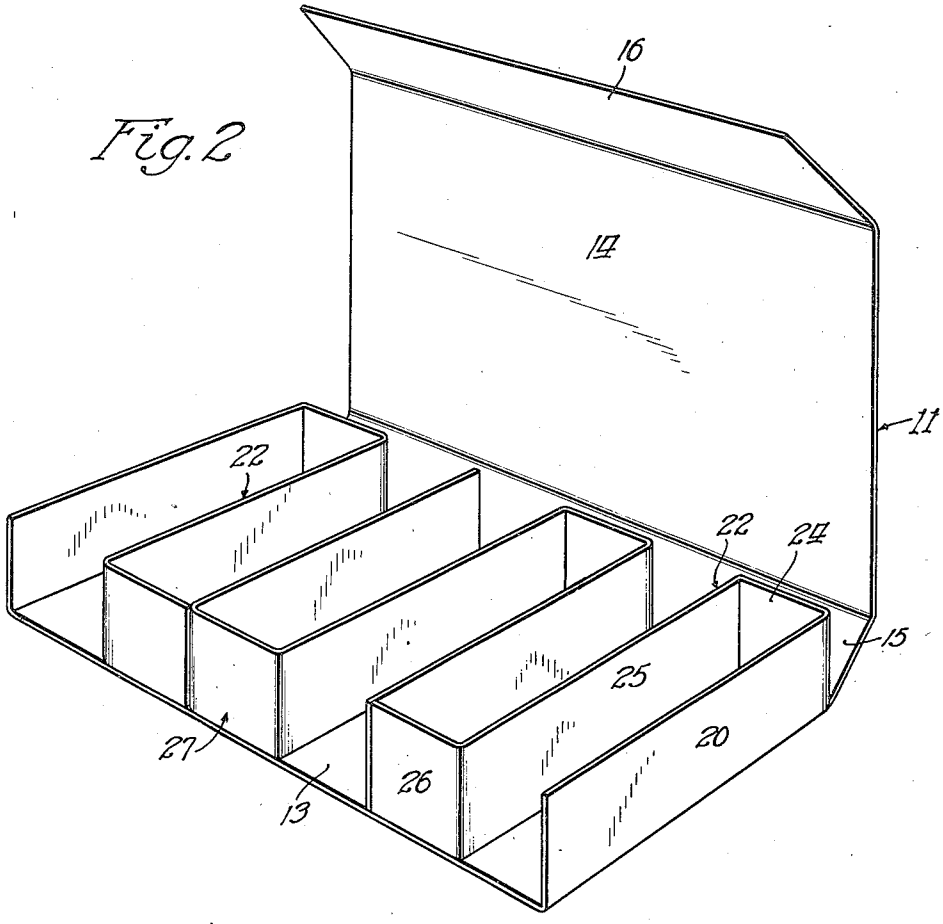
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CONTAINER

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Fig. 2



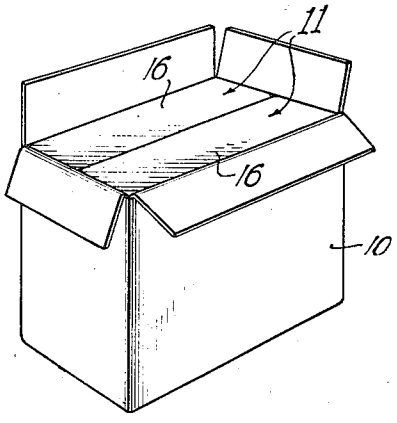


Fig. 1

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Fig. 3

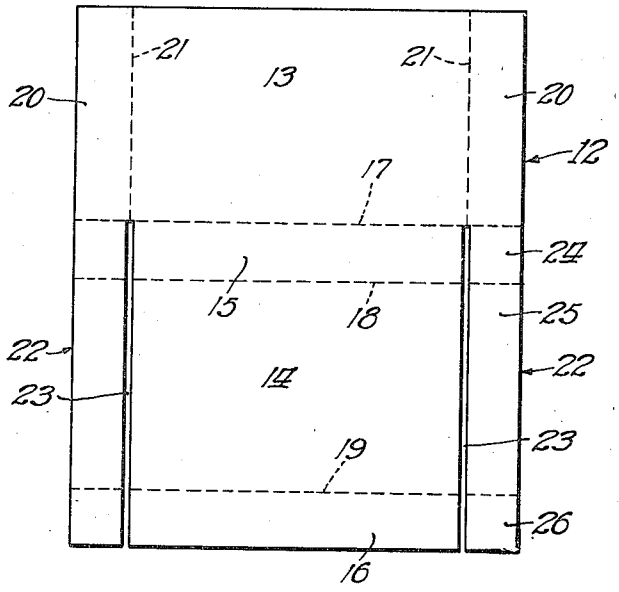


Fig. 4

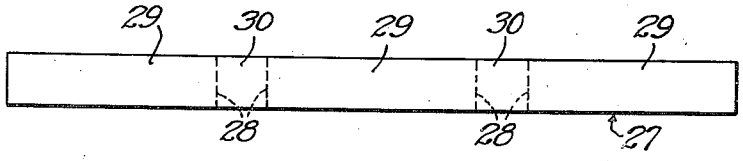
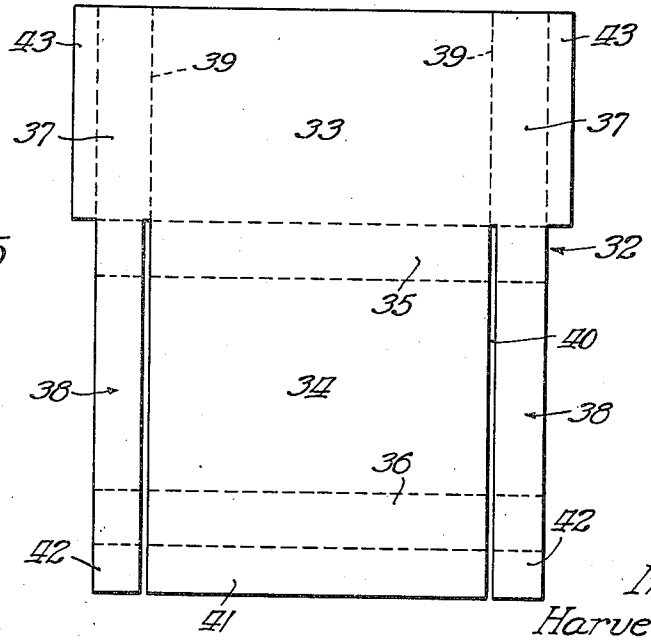


Fig. 5



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CONTAINER

Application filed November 30, 1928. Serial No. 322,811.

This invention relates to containers and more especially to shipping containers for fragile articles, such as bottles and other glassware, which must be well protected from rough handling during shipment. One object of the invention is to provide a container for this purpose which is simple in construction and economical in manufacture and use. Another object is to provide a container of the class described which can be used both as an auxiliary inner packing unit within a larger shipping container and as a convenient temporary container for facilitating the packaging of small lots of goods by the retailer and for making a more convenient package for the purchaser to carry such small lots of goods from the retail store to his home. A further object is to provide a convenient packing container which can be constructed from sheet material with only an insignificant amount of waste.

To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Fig. 1 is a perspective view illustrating one manner of assembling the containers of the present invention inside a larger container;

Fig. 2 is a perspective view of a partially set-up container made in accordance with one embodiment of this invention;

Fig. 3 is a plan view of the blank from which the container shown in Fig. 2 is formed;

Fig. 4 is a plan view of the blank from which is formed a separating member for maintaining articles within the container out of contact with each other; and,

Fig. 5 is a view of a modified type of blank for forming a container somewhat different from the form shown in Fig. 2.

Similar reference numerals throughout the several views indicate the same parts.

The present embodiment of the invention provides a shipping container which is light in weight, easy to pack, and economical to manufacture, being particularly advantageous in the packing and shipping of bottled goods, such as bottles of beverages which are usually bought several at a time by the householder. The form of the container is such that it serves to protect the goods during shipment and can be used in an efficient manner as a temporary containing unit for delivery of small lots of the goods from retailer to purchaser. The invention, as disclosed, is embodied in a single blank of sheet material which is scored and slotted in a manner to permit it being formed with few and simple operations into a container and providing portions within such container which form division plates for articles carried thereby.

Referring more particularly to the drawings, there is shown at 10 a shipping container capable of holding two packing units 11, 11 embodiyng the present invention. Each packing unit comprises a rectangular blank 12 (see Fig. 3), which is preferably made from corrugated board, although it is to be understood that any other form of light sheet material may be employed to advantage. The blank 12 may be either square or oblong, as desired, depending upon the size and character of the articles to be packed. In practice the blanks from which the packing units are formed will be made as a continuous operation as the board comes from a forming machine, but for the purposes of this description the blanks will be described as individual units.

As shown in Fig. 3, the blank 12 comprises two main side portions or walls 13 and 14, and two edge portions or walls 15 and 16. The edge wall 15 is separated from side walls 13 and 14 by score lines 17 and 18 respectively, and the edge wall 16 is separated from side wall 14 by score line 19. At each end of one of the side walls, in the present instance side wall 13, there are provided end walls 20, 20 separated from said side wall by score lines 21, 21. The width of end walls 20, 20 and edge walls 15 and 16 is substantially the same. It will be apparent that from the parts just described a six-sided container will be provided.

Means are preferably provided integral

with the parts of the container for maintaining the individual articles contained therein out of contact with each other. For this purpose similar flaps 22, 22 are formed, one at each side of the blank 12. Each flap 22 is integral with one of the end walls 20 and is separated from the main portion of the blank 12 by a slot 23 which, in the present embodiment, is cut substantially in line with the center of score line 21. It will be noted that score line 17 runs entirely across the blank 12 and separates the flaps 22 from the end walls 20. The score lines 18 and 19 also run entirely across the blank and divide each flap 22 into three sections 24, 25, and 26. When the container has been formed for the reception of articles, as shown in Fig. 2, the end walls 20 will be bent at a right angle to the side 13 and flaps 22 will be arranged on the inside of the container where they are adapted to function as division members for the articles contained within said container to prevent the articles from striking against each other in shipment. The part 24 of the flap 22 will lie adjacent and substantially parallel to the edge wall 15 when the container has been set up and the portion 25 of the flap 22 will extend transversely of the walls 13 and 14. The portion 26 of the flap 22 will extend inwardly of the container and away from the adjacent end walls 20.

While in some cases the flaps 22 will of themselves be sufficient to maintain separate all of the articles in the container, it is preferable, as shown in the present embodiment, to provide additional division members or plates, and for this purpose an additional member 27, as shown in Fig. 4, is utilized. The member 27 is preferably formed from a strip of suitable sheet material approximately the same width as the flaps 22. This strip is divided by score lines 28, 28 into relatively long sections 29, 29 and relatively short sections 30, 30. The long sections 29 are preferably of the length substantially equal to the length of sections 25 of the flaps 22, and the short sections 30 are approximately the same length as the sections 24 and 26 of the flaps 22 although the sections 30 may be made considerably shorter if desired. The strip 27 is folded into zig-zag form and placed within the container between the flaps 22 at each end thereof, substantially as shown in Fig. 2. The number of sections in the strip 27 is immaterial as, obviously, a greater or less number may be employed, depending upon the number of articles within the container. In the present instance, where the strip 27 is formed into three long sections, these sections, together with sections 25 of the flaps 22 will form a sufficient number of division members for six bottles or other articles to be packed within the container.

After the container, formed as shown in Fig. 2, has been packed with articles, one article being placed in each of the compartments thus formed, the side wall 14 will be swung down into position against the division plates, and the edge wall 16 will be bent around to close the space between the side walls 13 and 14. The container thus formed is then preferably placed within a large outer container together with one or more other similarly formed containers, as shown in Fig. 1.

When the container of the present invention is to be used for packing bottles, the latter may be placed therein in any desired manner but preferably the bottles will be placed with their cap ends bearing against the short sections 24 and 26 so that there will be a double thickness of material between the cap ends of the bottles and the outside of the container.

Another manner of packing articles, such as bottles, within the containers of the present invention is to first assemble containers 11 within the outer container 10, substantially as shown in Fig. 1, except that the edge walls 16 will not be bent into position to close the package. The packer will then place a bottle at each end of each container 11, between sections 25 and the end walls 20. He will next place a bottle in each container 11 approximately centrally thereof. The next step will be to insert the member 27 which has previously been folded, in the manner shown in Fig. 2, so that two of the sections 29 of said member will engage on each side of the bottle which has been placed centrally of the container. After three bottles have thus been placed in each container 11, the packer will then place the remaining bottles in the empty compartments which, as shown in Fig. 2, will be the second, third, and fifth compartments from the right hand end of the container. The flaps 26, 26 will then be bent into position above the bottles and the edge walls 16 of each container will be bent downwardly to close the same, after which the outer container 10 will be sealed ready for shipment. This procedure of packing may be varied somewhat, according to the desires of the packer.

It will be apparent from Figs. 2, 3, and 4 that the containers, as shown in these figures, can be manufactured with scarcely any waste of material since all of the parts are rectangular in form. It will also be noted that there are no superfluous parts in the container, each part thereof having a definite function to perform.

In some instances, in order to somewhat facilitate the packing operation, it may be desirable to cut away the sections 26, 26 of flaps 22 at the corners of the blank 12. While this, in some instances, makes for greater efficiency in packing, such increase of efficiency is some-

what offset by the loss of the cushioning effect of these sections on the bottles.

When containers, made as herein described, are packed with a convenient number of bottles, as for example, six bottles in each unit, the retailer, upon receiving a request from a customer for one-half dozen bottles of beverage, will be able to fill such an order with a minimum of time and trouble by merely removing one of the units containing such number of bottles, wrap it or simply tie a light piece of cord around the side walls 13, 14, and edge walls 15, 16, of the container to keep the same from coming open and spilling out the contents. The container may also be sealed by using a short piece of gummed tape to secure edge wall 16 to side wall 13. There will be no danger of the end walls 20, 20 becoming displaced as they are held in position by reason of the engagement of the flaps 22 between the side walls of the container.

In some instances it is desirable, in order to gain greater strength and rigidity of the package, to provide additional flaps which may be tucked in, and for this purpose a blank, such as shown in Fig. 5, is provided. This blank, designated at 32, provides two large side walls 33 and 34 and two narrow side walls 35 and 36, similar respectively to corresponding walls 13, 14, 15, and 16 of the first form of the invention. End walls 37, 37 are similar to corresponding end walls 20, 20. Flaps 38, 38 are generally similar to flaps 22, 22 of the first form of the invention. Edge walls 37, 37 are, as in the first embodiment, separated from the side wall 33 by score lines 39, and flaps 38, 38 are integral with said end walls 37, 37 and are separated from the main part of the blank 32 by slots 40.

It will be observed that the blank 32 is somewhat longer than the blank 12 for the purpose of providing a flap 41 which can be tucked inside the container when the same has been formed. The flaps 38 also have a corresponding section 42 at the ends thereof the same width as the flap 41. The sections 42 may be dispensed with, if desired, but for purposes of economy of manufacture they are preferably left on the blanks as they are not particularly objectionable from a packing standpoint. When the tucked-in flap 41 is used it will be apparent that the inside dimension of the container will be reduced by the thickness of this flap. In order to compensate for the reduced dimension of the container at this point and prevent undue bulging due to the division members, such division members including flaps 38 are made slightly narrower than the width of the edge walls 35 and 36. In the present instance the flaps 38 are made narrower by the simple expedient of placing the slots 40 along lines offset outwardly from the center of the score lines 39 a distance equal to the thickness of the material of the blank. Thus after packing the container, according to one of the methods described above in connection with the first embodiment, the operator will bring the edge wall 41 into position and at the same time will insert the flap 41 between the division members and the inside surface of side wall 33.

Additional flaps may be provided on each side of the blank 32 integral with end walls 37 as shown at 43, 43. These flaps fold inwardly over the contents of the box when the same has been set up and serve as an additional protection to the contents and to give additional strength to the container. Obviously these flaps may be dispensed with without departing from the spirit of the invention.

The present invention thus provides a container for bottles and other similar objects of a fragile nature which can be cheaply manufactured and set up and can be speedily packed and sealed ready for shipment. The container thus formed can be used with equal facility as an auxiliary container to go inside of a larger box or it may be used without any outer protective box especially where it will not be subjected to rough handling for any considerable period of time. The invention is particularly advantageous for handling of such goods as bottled ginger ale and other beverages as the units may be made up in sizes such as to hold a convenient number of bottles, for example six bottles, which number is frequently purchased from a retailer for household use and carried by the purchaser to his home. Two or more of these convenient units will be packed by the manufacturer within a larger container having strength sufficient for shipment by freight or express and the goods will be delivered to the retailer in such condition. The retailer will merely be required to open the outer box and remove the units all ready for final delivery to the customer, except where it may be desired to wrap or tape the unit container to prevent its flaps from opening up.

Containers as disclosed herein are designed to replace packing constructions which have heretofore been in general use. Such packing constructions usually comprise a number of separate pieces of corrugated board placed within a larger container to maintain the bottles from contact with each other. The retailer upon receiving a package of bottles of this type is unable to use these pieces as a receptacle to deliver the goods to a customer but must place the bottles in a bag or other package, which takes more of his time and adds to the total expense of handling the bottles as well as making an unhandy package which does not so well protect the goods as a container of the present invention.

It has also been heretofore customary, in packing lots of a dozen bottles each in a slotted fibre or corrugated container, to provide containers for this purpose in which the

bottles can be packed in two layers laid flat. This necessitates the use of a container having its upper and lower closure members or flaps disposed so as to form the two largest sides of the box. In boxes having flaps formed in this manner there must always be more material used than in other boxes of the same dimensions but having closure flaps which form one of the smaller sides of the box. It will be noted, as shown in Fig. 1, that the present invention permits the efficient use of slotted cartons which have their closure flaps on one of the smaller sides of the carton thus effecting a definite saving of the material used in the outer protective box without in any way decreasing its efficiency.

Having described my invention, I claim

1. A container for packing bottles and similar fragile articles comprising a rectangular blank of sheet material, said blank having a plurality of score lines therein to form two relatively wide sides for enclosing a layer of articles to be packed within said container and two relatively narrow edge portions adapted to enclose two edges of said layer, said sides and said edge portions being alternately disposed on said blank, a flap on the edge portion lying adjacent one end of said blank, said flap running the length of said edge portion and adapted to be tucked within the container when the latter is formed, score lines in said blank along opposite sides thereof to form an end member for the container at each end of that one of said sides lying adjacent the other end of the blank from said edge portion, slots cut in said blank along the edges thereof and offset outwardly approximately equal to the thickness of the material of the blank and extending from one end of said blank to the near edge of said end portion, whereby, when the container is set up, the flaps formed by said slots will be narrower than the corresponding dimension of the box by the thickness of the material of the blank so that the edges of said flaps may bear against the flap above mentioned, which is adapted to be tucked within said box, without causing said box to bulge at the point of contact of said flaps when the box has been set up.

2. A container for packing bottles and similar fragile articles comprising a flat blank of fibre or paper board providing a bottom wall, top wall, two edge walls and two end walls, said end walls being disposed at opposite ends of said bottom wall, said edge walls and said top wall being disposed entirely at one side of said bottom wall, a flap extending from each of said end walls and at but one end thereof, said flaps being approximately equal in width to said end walls and being of a length substantially equal to the combined widths of the two side walls and top wall, said flaps being adapted to be bent within the container formed from said blank and to serve as division members for maintaining at least some of the individual articles therewithin out of contact with each other.

3. A container for packing a layer of bottles or similar fragile articles comprising a single blank of sheet material providing side walls, edge walls and end walls, said end walls being disposed at opposite ends of one of said side walls, said edge walls and the remaining side wall being disposed entirely at one side of said first mentioned side wall, an elongated flap extending from but one end of each of said end walls and adapted to be folded so as to lie respectively within said container and between at least two of the individual articles of said layer, and an additional strip of a width substantially equal to the width of said elongated flaps adapted to be folded to lie within said container intermediate said elongated flaps to provide a division member for two or more additional articles of said layer.

HARVE L. KELLY.