July 31, 1951 G. G. BUTTERMANN 2,562,599

DISPENSER FOR ICE CREAM CONES AND THE LIKE

Filed April 5, 1949

Fig. 1.

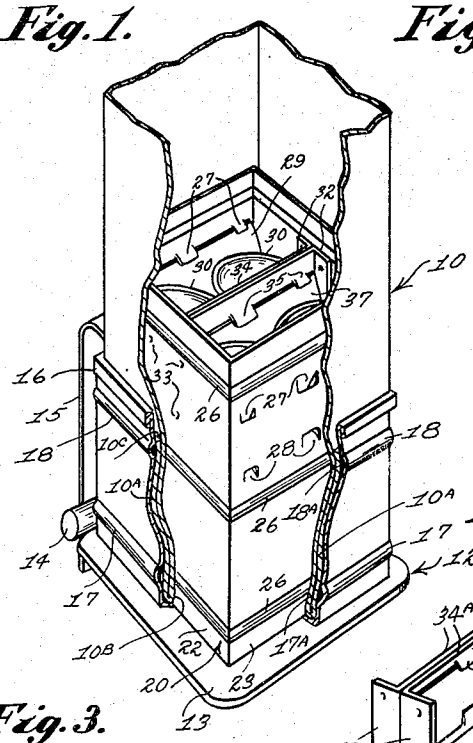


Fig. 2.

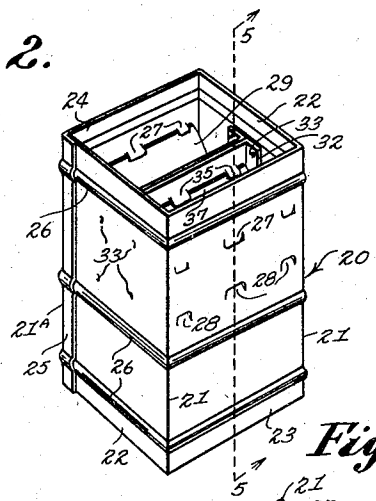


Fig. 4.

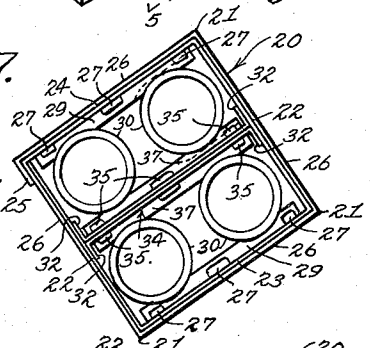


Fig. 7.

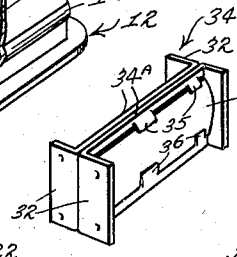
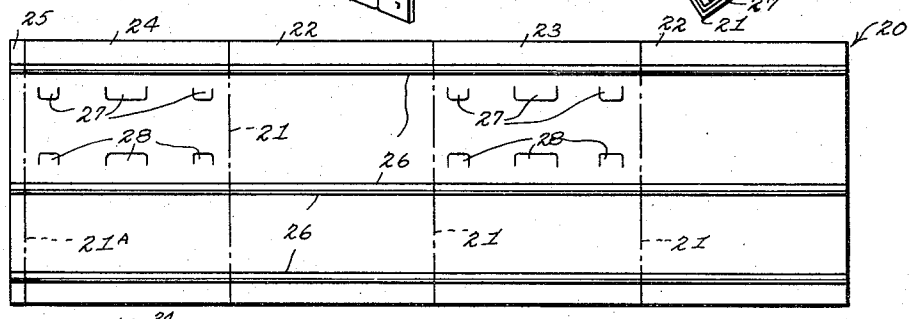


Fig. 3.



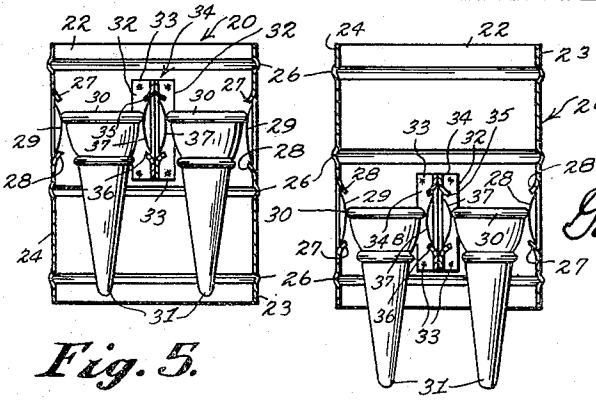


Fig. 5.

Fig. 6.

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DISPENSER FOR ICE-CREAM CONES AND THE LIKE

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6 Claims. (Cl. 312—43)

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My invention relates to improvements in dispensers for ice cream cones and the like, and has for its primary object to provide a device as characterized which may be readily applied to the usual carton in which the stacked cones are shipped to soda fountain proprietors, etc., the device functioning to facilitate the one-at-a-time withdrawal of the cones from the stack, or stacks.

Additionally, the invention contemplates a device for the purpose specified which may be used with or without the cone stack-containing shipping carton and is also useful in reinforcing the opened end of a shipping carton when the latter is inserted in a holder such as is frequently used at soda fountains for maintaining cone stacks in upright position with the bottommost cone available for manual withdrawal when an order of a customer is to be filled.

Additionally, it is an object of the invention to provide a device for facilitating the one-at-a-time dispensing of ice cream cones which device is simple in construction, inexpensive to manufacture, highly efficient in practical use; and which furthermore enables ice cream cones and the like to be packed much tighter in carrying cartons than heretofore, which means that smaller cartons may be used than formerly with the consequent saving of cardboard or other carton material. And, of course, it follows from the foregoing that an economy in shipping space and storage space will also be effected.

Other objects and advantages of the invention will be readily understood and appreciated upon reference to the accompanying drawing in connection with the detailed description thereof.

It is to be understood that the drawing illustrates the invention in its now preferred form. However, my inventive concept is susceptible of other mechanical expressions within the spirit and scope of the subject matter claimed hereinafter.

In the drawing, wherein the same reference characters have been used to designate the same parts throughout the several views—

Fig. 1 is a perspective view, partly broken and partly in section, illustrating a wall- or counter-carried holder for the opened end of a cone-carrying shipping carton, there having been inserted into the end of said carton the unit for facilitating one-at-a-time dispensing of cones from each of the four stacks illustrated;

Fig. 2 is a perspective view of the carton-receiving cone dispenser of Fig. 1;

Fig. 3 is a plan view of the blank from which the cone dispenser casing of Fig. 2 is formed;

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Fig. 4 is an end elevational view of the dispenser shown in Fig. 2;

Fig. 5 is a vertical sectional view taken on the line 5—5 of Fig. 2;

Fig. 6 is a view similar to Fig. 5 but showing the dispenser casing 20 inverted so as to allow the closed lower ends of the cones to protrude below the proximate end of the dispenser casing; and

Fig. 7 is a detail perspective view showing a removable partition element which is incorporated in the dispenser casing of Fig. 6.

Referring to the drawing by reference characters, numeral 10 denotes the opened end of an ice cream cone shipping carton which, as suggested, carries four stacks of nested cones 30, the closed reduced ends 31 of the cones being directed downwardly as viewed in Fig. 1.

Fig. 1 also shows the shipping carton 10 as having its ends flaps 10a turned back as indicated at 10b and the carton end inserted into the open top end of a fixed tubiform holder 12 such as is disclosed in my Patent No. 2,289,099, dated July 7, 1942.

The holder 12, as shown, has its upper end open, and reinforced by the upper marginal beading 16. The lower end of the holder 12 is closed by the door 13 having the outwardly projecting marginal portion for engagement by the operator's hand. The door 13 is pivoted to the rear lower end of the holder 12 (the pivot not shown) and the rear of the door beyond the pivot has the counterweight 14 secured thereto so as to normally maintain the door closed as shown in Fig. 1. Also carried by the back of the holder 12 is the bracket 15 which is adapted to be rigidly mounted to a wall or counter so as to maintain the holder 12 upright as shown in Fig. 1. Other types of holders than that illustrated in Fig. 1 may be used; and the particular holder, per se, forms no part of the present invention although patentability is claimed for the pressing of the ends 10c of the carton tabs 10a into the inner surface grooves 17a and 18a of the holder which are provided by the exterior convex ribs 17 and 18 as shown in Fig. 1. This action is produced by vertically spaced ribs 26 extending entirely around the dispenser unit 20 and which register with the grooves 17a and 18a to force intermediate portions of carton 10 and tabs 10a thereof into such grooves, as is suggested in Fig. 1. Ribs 26 also serve to stiffen unit 20. Further references will be had to this feature of novelty later on.

Turning now to the dispenser unit 20 and re-

ferring to Figs. 2 and 3, it will be seen that the blank of Fig. 3 provides what might be termed the side walls **22** and the front and rear walls **23, 24**, respectively, the walls being in the present instance of the same width and separated from one another by fold lines **21** which define the corners of the dispenser unit **20** as indicated in Fig. 2.

The unit of Fig. 2 is formed by successively bending each of the walls **22, 23, 22, 24** outward, ninety degrees and counterclockwise; and then bending the fastening tab **25** which is carried by rear wall **24** outwardly on fold line **21***a* to engage the outer surface of the proximate side wall **22**. Then the portion **25** is soldered, welded, or otherwise fastened to maintain the device **20** in its rectangular tubiform shape shown in Fig. 2.

Each of the front and rear walls **23, 24** have inwardly of their upper ends, as viewed in Figs. 2 and 3, a row of three downwardly directed tongues **27** which are laterally spaced from one another and adapted to be pressed inwardly, as indicated in Figs. 2 and 5. Then spaced below the row of tongues **27** are similar rows of upwardly directed tongues **28**, also indicated in Fig. 5.

The opposed tongues **27, 28** of each wall **23** and **24** are adapted to overlie the ends of normally inwardly bowed thin spring plates **29** which frictionally engage the rim portions **30** of cones **31** at the widened open ends of the lowermost cones of the stacks. It is understood that plates **29** are so held by tongues **27, 28** that those portions of the plates which engage the cones may flatten out temporarily under the pressure of the withdrawal of a cone downwardly and thereafter spring back to the bowed shape shown. However, the opposite end portions of such plates **29** (and plates **37**, to be described later) are not flattened so a cone in the adjacent stack is not released as the first mentioned cone is withdrawn. This action is illustrated in broken lines, Fig. 4.

The dispensing unit casing **20**, as indicated in Figs. 2 and 4, is divided transversely by means of the short partition **34** (Fig. 7) which is formed by the rigidly fastened together flat units **34***a*. Flat units **34***a* have angularly directed end tabs **32** adapted to abut the inner surfaces of side walls **22**, and to be secured thereto in any suitable manner as by spot welding **33**.

Fig. 5 illustrates that the cross partition **34**, whose upper edge is disposed well below the top edge of the casing unit **20**, extends down only about to the plane of the middle of the casing **20**.

As in the case of the front and rear walls **23, 24** of the casing **20**, each flat unit **34***a* of the partition **34** has a top series of three outwardly inclined downwardly directed integral tabs, or ears, **35** and also an opposed bottom series of like upwardly directed tabs **36**. Thus, there is a series of tabs **35, 36** at each side of the partition **34**, as best shown in Fig. 5. The set of ears, or tabs, **35, 36** at each side of the partition **34** engages the ends of a normally outwardly bowed flexible spring metal sheet **37** corresponding to the springs **29** aforesaid and cooperating therewith to yieldably retain the lowermost cones in the unit **20**.

It should be noted that by positioning the cross partitions **34** adjacent an end of the dispensing unit **20**, not only may the unit be reversed in use as shown in Fig. 6, but the partition provides a convenient handle for handling the unit. Obviously, the partition **34** provides a cross brace for the unit **20** also.

The dispensing units **20** while in the carton **10** reinforce the lower end of the latter whereby a tight fit in the dispensing holder **12** is possible without crushing the cones. This is a particularly useful feature while the assembled carton **10** and unit **20** is being forced into the holder **12**. As soon as a unit **20** is applied to a carton **10**, which is done by applying the unit over the tapered ends of the cones while the adjacent carton end is uppermost, the carton can be inverted to the Fig. 1 position without danger of the cones falling out of the open lower end of the assembly.

Obviously, the unit **20** and holder **12** can function without the carton **10** but for sanitary reasons it is best to use unit **20** with the carton as shown.

In use, the carton **10**, dispenser unit **20** and holder **12** are assembled as in Fig. 1 with the lowermost cones **31** of each stack disposed as in Fig. 5. Thus, the lowermost cone of each stack may be withdrawn as aforesaid upon opening of door **13** and is replaced immediately as the cone next above drops down by gravity. If door **13** is removed or in doorless holders, the unit **20** may be reversed (Fig. 6) so that the lowermost cones extend below the unit **20**.

As aforesaid, the action of the ribs **26** in pressing interposed portions of the carton **10** and/or **10***a* thereof into the grooves **17***a* and **18***a* of the holder **12** operates to maintain carton **10**, dispenser unit **20** and holder **12** assembled even when the holder is doorless. At the same time, the parts may be readily disassembled when a carton is empty and unit **20** may be reassembled with a filled carton.

While I have shown and described what is now thought to be the preferred embodiment of the invention, it is to be understood that the same is susceptible of other forms and expressions. Consequently, I do not limit myself to the precise structure shown and described except as hereinafter claimed.

Having thus described my invention, what I claim is:

1. A dispensing carton adapted to hold a vertical stack of articles to be dispensed comprising a carton of rectangular form, said carton having bottom closure flaps which are bent outwardly to open one end of the carton and thereafter bent backwardly along and in contact with the outer sides of the carton, a carton holder of rectangular form into which the lower end of the dispensing carton is inserted and frictionally held in place within the holder, a pivoted closure on the bottom of the holder and closing the bottom opening of the carton, and a rectangular article receiver mounted in the carton and pressing the lower wall portions thereof against the corresponding walls of the carton holder to support the same in dispensing position.

2. A dispensing carton adapted to hold a vertical stack of articles to be dispensed comprising a carton of rectangular form, said carton having bottom closure flaps which are bent outwardly to open one end of the carton and thereafter bent backwardly along and in contact with the outer sides of the carton, a carton holder of rectangular form into which the lower end of the dispensing carton is inserted and frictionally held in place within the holder, a pivoted closure on the bottom of the holder and closing the bottom opening of the carton, a rectangular article receiver mounted in the carton and pressing the lower wall portions thereof against the corre-

sponding walls of the carton holder to support the same in dispensing position, the walls of the carton holder having convex ribs therein, and complementary ribs on the wall surface of the article receiver forcing portions of the intermediate carton body into the convex rib spaces to hold the parts together.

3. A dispensing carton adapted to hold a vertical stack of articles to be dispensed, comprising a carton of rectangular form, carton bottom closure flaps bent to open the carton and lie flush along the respective sides of the carton, a carton holder of rectangular form having spaced circumferential ribs, an article receiver of rectangular form fitting within the carton and having spaced ribs, the ribs of the article receiver forcing portions of the carton wall into the recesses formed by the ribs on the carton holder to support the carton in article-dispensing position.

4. A dispensing carton adapted to hold a vertical stack of articles to be dispensed comprising an elongated carton, a carton holder for receiving the lower portion of the carton and having a circumferentially convex rib formed in the walls thereof, an article receiver fitting within the dispensing carton and having a rib in the walls thereof complementary to the rib of the carton holder, the rib of the article receiver pressing the carton dispensing wall into the convex portion of the rib on the carton holder to hold the parts together.

5. A dispensing carton adapted to hold a vertical stack of articles to be dispensed comprising an elongated carton having lower end closure flaps, a carton holder for receiving the lower portion of the carton and having laterally directed projections along the walls thereof, an article receiver fitting within the carton and having complementary projections in the walls thereof deforming the walls of the carton laterally whereby to provide means for frictionally maintaining the assembly together.

6. A dispensing carton adapted to hold a vertical stack of articles to be dispensed comprising an elongated carton, a carton holder having laterally spaced projections therearound, and an article receiver fitting within the dispensing carton and having laterally spaced projections complementary to the carton holder projections, said projections laterally deforming the walls of the dispensing carton to frictionally hold the assembly together.

GARRY GEORGE BUTTERMANN.

REFERENCES CITED

The following references are of record in the file of this patent:

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