April 17, 1962 W. A. RINGLER 3,030,002

HANDLE FOR LARGE CARTON

Filed March 16, 1960

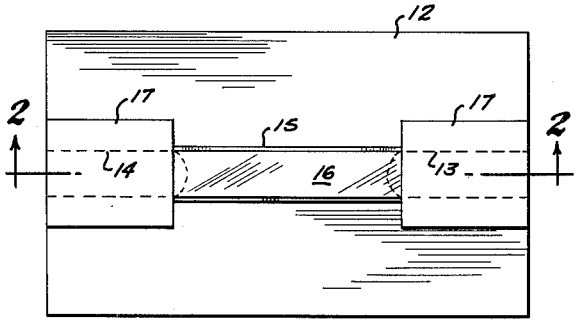


FIG. 1.

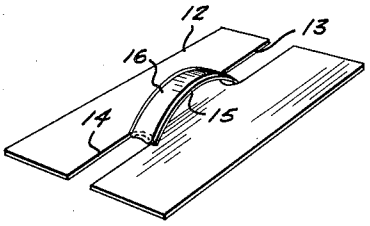


FIG. 3.

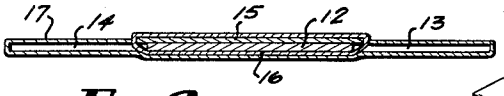


FIG. 2.

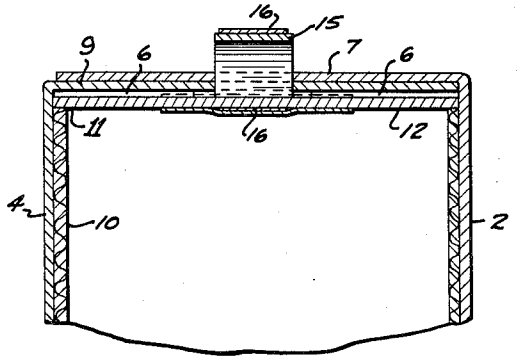


FIG. 7.

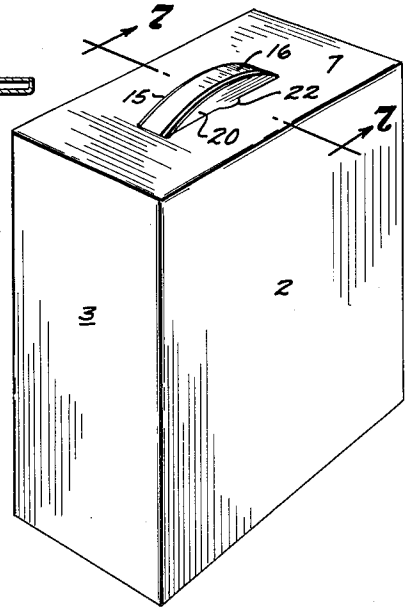


FIG. 6.

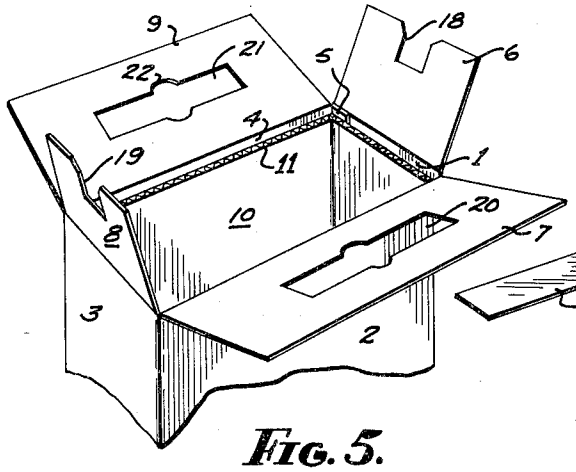


FIG. 5.

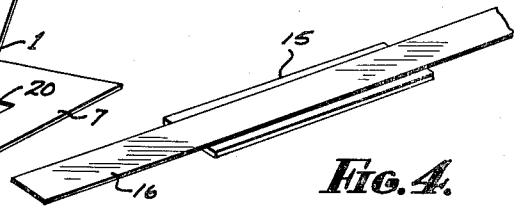


FIG. 4.

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HANDLE FOR LARGE CARTON

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This invention has to do with paperboard containers and relates more particularly to a handle structure for use with large containers or cartons of the type employed to package bulk lots of soaps, detergents and similar products intended for home use.

In recent years there has developed an ever increasing consumer demand for large economy size packages of products which are in daily use in the home, and it is not uncommon to find such products packaged in twenty and twenty-five pound containers. These containers are, of necessity, relatively large and difficult to handle and carry. Often the products are packaged in sealed buckets or pails provided with a bail type handle so that the product may be readily carried home by the purchaser. Such buckets and pails do not, however, readily lend themselves to convenient stacking and storage on the dealer's shelves; and by reason of their generally cylindrical shape, they require more space than a rectangular package capable of holding an equal amount of material.

Accordingly, a principal object of the instant invention is the provision of a large size carton structure provided with a carrying handle by means of which the package may be conveniently carried by the purchaser.

Another object of the instant invention is the provision of a reinforced flexible handle structure associated with the upper end of a conventional seal-end paperboard carton, the handle structure being of inexpensive construction and formed in such a way that the cartons may be stacked one upon the other on the dealer's shelves and yet when the carton is removed from the shelf, the handle may be readily extended for immediate use.

The foregoing together with other objects of the instant invention which will appear hereinafter or which will be apparent to the skilled worker in the art on reading these specifications, I accomplished by that construction and arrangement of parts of which I shall now describe in exemplary embodiment.

Reference is now made to the accompanying drawings wherein:

FIGURE 1 is a plan view of a handle element constructed in accordance with the instant invention.

FIGURE 2 is a sectional view taken along the lines 2—2 of FIGURE 1.

FIGURE 3 is a perspective view of the handle structure of FIGURE 2 with the bail portion thereof in raised or carrying position.

FIGURE 4 is a perspective view of the handle.

FIGURE 5 is a fragmentary perspective view of a carton in accordance with the instant invention showing the top closure flaps in open position prior to the insertion of the handle structure.

FIGURE 6 is a perspective view of the carton structure with the parts in assembled and sealed condition.

FIGURE 7 is a fragmentary vertical sectional view taken along the line 7—7 of FIGURE 6.

Referring first to FIGURE 5 of the drawings, the carton body may conveniently comprise a series of body walls 1, 2, 3 and 4 in side by side articulation, the body walls being joined together in tubular form by means of the glue flap 5. At its upper end, the tubular body is provided with end closure flaps 6, 7, 8 and 9 adapted to be juxtaposed and sealed together. It will be understood that similar end closure flaps will be provided at the bottom end of the carton for forming a bottom closure therefore.

In accordance with the instant invention, the tubular body of the container is provided with an insert or sleeve 10 which is preferably formed from corrugated board, the sleeve seating at its bottom end on the bottom end closure of the carton and terminating at its upper end just short of the top closure flaps, thereby providing an annular shoulder or ledge 11 on which the handle structure is adapted to be seated. The corrugated inner sleeve 10 serves to not only support the handle structure but also to strengthen the sidewalls of the carton.

The handle structure, as best seen in FIGURES 1, 2 and 3, comprises a rectangular body panel 12 of a size to just nicely fit within the carton body with its marginal edges seated against and supported by the annular shoulder 11 of the inner sleeve 10. The body panel 12 will be preferably formed from heavy paperboard and may be composed of a plurality of laminated plies of board, thereby lending additional strength and rigidity. At its opposite ends the body member 12 is provided with elongated inwardly projecting slots 13 and 14.

As best seen in FIGURE 4, the handle element comprises a paperboard strap 15 which, as will be explained more fully hereinafter, has a length slightly in excess of the distance between the inner ends of the slots 13 and 14, the strap 15 having a strip of pressure sensitive filament tape 16 secured to the upper surface thereof, the tape extending beyond the ends of the strap 15 and of a length such that when the handle strap is deposited on the body member 12 in the manner illustrated in FIGURE 1, the free ends of the filament tape 16 may be passed downwardly through the slots 13 and 14 and secured, preferably in overlapping relation, to the undersurface of the body member 12, as will be apparent from FIGURE 2. After this has been done, the slots 13 and 14 are covered by a length of gummed tape 17 which extends outwardly from the inner ends of the slots, passes about the opposite ends of the body member and extends lengthwise along its undersurface, thereby closing and sealing the slots.

As was indicated earlier herein, the handle strap 15 is slightly longer than the distance between the inner ends of the slots 13 and 14, as will be clearly seen in FIGURE 2, thereby permitting the handle element to be elevated to the position illustrated in FIGURE 3, the pressure sensitive filament tape 16 being pulled upwardly about the inner ends of slots as the strap is raised. It will be evident that the filament tape 16 is the actual load bearing element of the handle, the strap 15 providing a transversely rigid yet longitudinally bendable reinforcement for the filament tape.

It will be understood that the handle structure just described will be preformed and inserted in the erected cartons prior to the infolding and sealing of the top closure flaps. As best seen in FIGURE 7, the body member 12 of the handle member, when seated on the annular shoulder 11 of the inner sleeve, will provide a supporting surface for the infolded closure flaps 6 and 8. As will be seen from FIGURE 5, the last named closure flaps are provided with elongated slots 18 and 19 in alignment with the opposite ends of handle members 15 and 16; and similarly the closure flaps 7 and 9 are provided with elongated cut-outs 20 and 21 through which the handle members may project. One or both of last named cut-outs may be provided with centrally disposed finger openings 22 by means of which the user may engage the opposite edges of the handle strap so as to pull it to its elevated or bail forming position when it is desired to carry the carton by means of the handle.

As will be evident from the foregoing, the construc-

tion just described provides a reinforced carrying handle for a large sized carton which handle is initially nested within the cut-outs in the top closure flaps and hence does not form an obstruction where the cartons are stacked one upon the other. Yet, in the hands of the user, the handle strap may be readily engaged and extended to form a carrying bail. The filament tape 16, which is preferably formed from nonfibrous film reinforced on its adhesive surface with longitudinally extending reinforcing strands, provides the necessary strength to bear the weight of the filled carton, which may be twenty-five or more pounds, and at the same time it provides a flexible handle which readily accommodates itself to the user's hands, the paperboard strap lending transverse rigidity to the handle and at the same time permitting it to bend longitudinally. The strip of gummed tape which covers the slots through which the ends of the handle tape pass provides a sift proof closure for the slots, thereby preventing the contents from sifting through the slots.

Having thus described the invention in an exemplary embodiment and with the understanding that modifications may be made without departing from its spirit and purpose, what I desire to secure and protect by Letters Patent is:

1. In combination, a paperboard carton having a tubular body and end closure flaps at the top and bottom ends thereof, a tubular sleeve juxtaposed to the inner surfaces of said carton body walls, said tubular sleeve terminating upwardly in an annular shoulder underlying the end closure flaps at the top end of said tubular body, a flat body member marginally supported on said annular shoulder, said shoulder being displaced downwardly from the upper edges of said carton body walls by the approximate thickness of said flat body member, said body member having elongated slots extending inwardly from opposite ends thereof in general axially alignment, the inner ends of said slots lying in spaced apart relation, a handle strap juxtaposed to the upper surface of said body member and spanning the distance between the ends of said slots, a length of reinforced tape overlying and secured to said handle strap, said tape being longer than said handle strap and extending beyond the opposite ends thereof with the extending ends of the tape folded downwardly about the inner ends of said slots and secured to the undersurface of said body member, said handle strap being longer than the distance between the inner ends of said slots so as to project outwardly therebeyond to provide a slack in said tape when said tape and said handle strap are displaced upwardly to provide a carrying bail, and mating slots in the end closure flaps at the upper end of said carton body adapted, when said closure flaps are juxtaposed and sealed, to define an elongated opening in said top closure through which said handle strap and tape may be displaced upwardly.

2. The combination claimed in claim 1 wherein said inner sleeve is formed from corrugated paperboard, wherein said reinforced tape comprises a pressure sensitive filament tape, and wherein said handle strap comprises an elongated strip of paperboard.

3. The combination claimed in claim 2 including a second length of tape secured to said flat member and covering the elongated slots therein.

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