Oct. 14, 1958 R. E. PAIGE 2,856,068

SHIPPING AND DISPLAY CARTON

Filed March 21, 1955

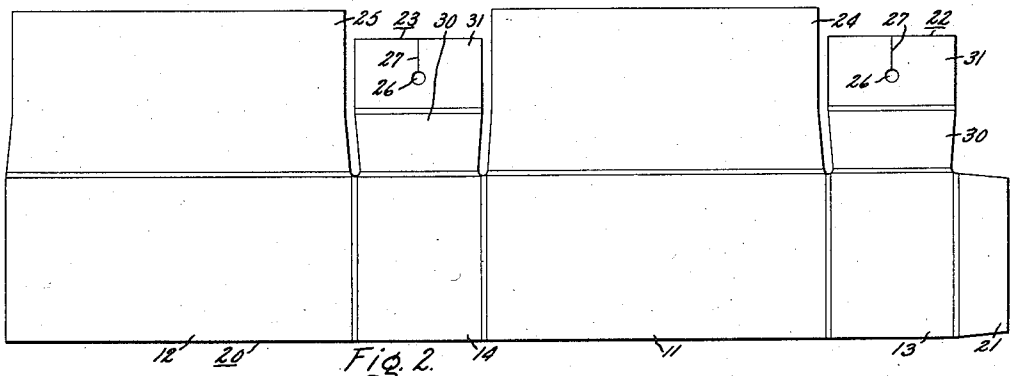


Fig. 2.

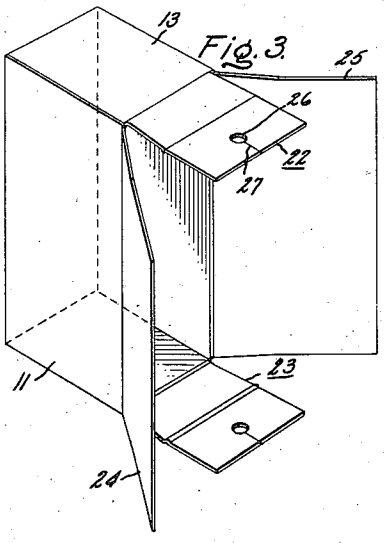


Fig. 3.

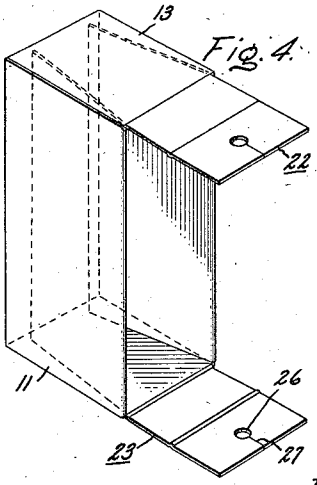


Fig. 4.

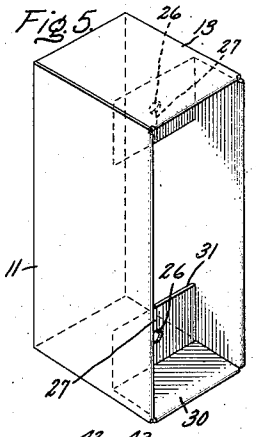


Fig. 5.

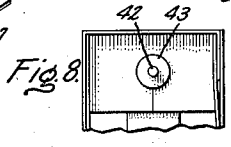


Fig. 8.

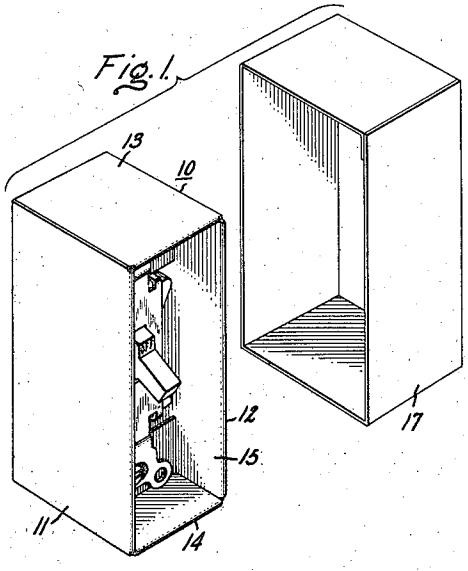
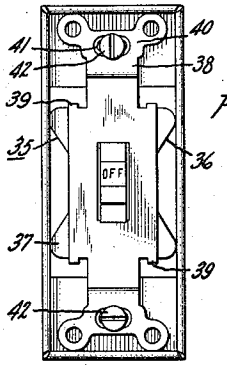


Fig. 1.

Fig. 6.



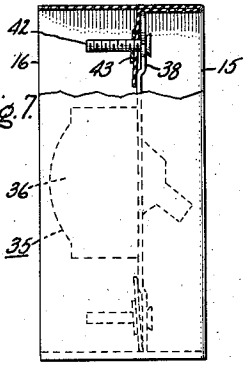


Fig. 7.

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SHIPPING AND DISPLAY CARTON

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5 Claims. (Cl. 206—45.14)

The present invention relates to cartons for various articles and in particular to a combined shipping and display carton for an electrical wiring device such as a switch or a convenience outlet. In the home, electrical switches are mounted in the walls to control the lighting circuits as well as electric appliances and motor driven equipment, while convenience outlets are likewise mounted in the walls for making electrical connection with portable electrical cords provided with attachment plugs that fit into the outlet. Wiring devices such as these switches and outlets are sold in two markets, namely, to the electrical contractor through wholesale distributors and to the general public through chain stores and hardware stores. In the past, when these wiring devices were sold to contractors, they were shipped in simple closed boxes having movable flaps which may be opened at each end. Usually these boxes had very little display value; therefore, they would not attract the general public if sold from a counter of an electrical supply or hardware store. In preparing these same devices for counter sale, they were oftentimes mounted on small cardboards which were prominently decorated to attract attention and to give instructions as to where and how the particular device was to be used.

The present invention was developed to simplify the packaging of wiring devices and similar articles so that a single carton could be used for selling these items in the different markets. The carton embodying the present invention comprises a four-sided cylindrical or tubular figure of folded cardboard construction which is open at both its front and back. This open configuration is mainly for display purposes to allow the purchaser to observe the construction of the device from nearly all sides while it remains secured in the carton. Inwardly projecting flaps are formed from the top and bottom walls of the carton to extend inwardly toward each other. These flaps are so situated within the carton that the wiring device such as a switch or outlet may be suspended therebetween so that the device is completely within the carton and protected from damage by dropping, scratching or contact with other objects. These inwardly projecting flaps are of a similar width to the width of the top and bottom walls of the carton so that they serve to brace the side walls of the carton when a device is fastened therebetween to form a strongly reinforced carton.

The principal object of this invention is to provide an open carton for an article which is to be secured therein so as to serve as both a shipping carton and a carton to prominently display the features of the article.

A further object of this invention is to provide a carton with an open front and back in which a wiring device may be secured while still retaining the features of a rigid container for the device.

A further object of this invention is to provide a carton in which an article may be secured by a separable

fastening means which is engaged in inwardly projecting flaps formed on opposed walls of the carton.

A further object of this invention is to provide a carton in which an article such as a wiring device may be secured by suitable fastening means which extend through supporting flaps within the carton and are held fixed therein by means of resilient washers.

A still further object of this invention is to provide a carton in which an article such as a wiring device may be secured although it may readily be withdrawn from the carton when it is to be installed for its intended use.

My invention will be better understood from the following description taken in connection with the accompanying drawing and its scope will be pointed out in the appended claims.

Figure 1 is a perspective view of a four-sided tubular carton embodying my invention having an electrical switch secured therein and showing a sleeve member which may be fitted over the carton to provide a dust cover therefor.

Figure 2 is a plan view of a cardboard blank which is used to form the carton embodying my invention.

Figure 3 is a perspective view of the carton of Figure 1 embodying my invention in the preliminary steps of assembly showing the assembled relation of the four main wall portions of the carton with the hinged flaps extending outwardly from the front of the carton.

Figure 4 is a perspective view similar to Figure 3 but showing the side flaps of the carton folded inwardly thereof.

Figure 5 is a perspective view of an assembled carton showing the top and bottom flaps within the carton and braced between the side walls thereof.

Figure 6 is a front elevational view of the carton of Figure 1 clearly illustrating the position of the electrical switch secured therein.

Figure 7 is a left side elevational view of the carton of Figure 6 with the switch mounted on the inwardly extending flaps by means of fastening screws held in place by fiber washers.

Figure 8 is a partial back elevational view of the carton of Figure 7 showing the relationship of the fiber washer and how it secures the fastening screw to the inwardly projecting flap.

Referring in detail to the drawing, Figure 1 shows a cardboard container 10 of generally four-sided tubular construction having vertical side walls 11 and 12 and top wall 13 and bottom wall 14. This configuration provides an open front 15 and an open back 16, as seen in Figure 7. In order to provide a dust cover for carton 10, a tubular sleeve 17 of four-sided construction is made of such a size that it may be slid over the carton to extend around the front 15, over the top wall 13, back opening 16 and bottom wall 14. Thus, this provides a total enclosure for the article secured within the carton to protect it further from damage during handling, shipment or storage over long periods of time.

The present invention is primarily concerned with the carton 10 which may be used without the sleeve 17 for display purposes for over-the-counter sales.

Turning to Figure 2 of the drawing, the cardboard blank 20 for forming carton 10 of the present invention is shown in plan view. This blank 20 is divided into sections, by the scoring lines to form the top wall 13, side wall 11, bottom wall 14 and side wall 12. The top wall 13 is to be permanently secured to the side wall 12 by means of a small flap 21 formed as a side extension of the top wall 13 so that it may be glued or otherwise fastened to the inner surface of the side wall 12. Each main wall 11–14 of the carton has a forward extension,

as best seen in Figure 3, and will be hereinafter referred to as securance flap 22 formed as part of the top wall 13 and securance flap 23 formed integrally with the bottom wall 14. Also, there are side flaps 24 and 25 which are extensions of the side walls 11 and 12 respectfully. It is well to note from Figure 2 that when the blank 20 of the present invention is cut from strip cardboard material, there is a minimum amount of scrap material which must be thrown away, and that the cutting lines and fold lines are relatively simple and easy to execute, requiring the use of standard paper box cutting machinery now available on the market. It should also be noted that the securance flaps 22 and 23 are each folded adjacent their transverse center line to form the wall section 30 and the apertured section 31 containing the aperture 26. A slit 27 is cut from the free edge of each section 31 of flaps 22 and 23 inwardly to the aperture 26 for a reason which will be made clear hereinafter.

The carton 10 of the present invention may be assembled from the blank 20 in the following manner. First the main wall portions 11–14 are folded inwardly toward each other making a four-sided construction of generally rectangular cross-section and the extension flap 21 may be glued or otherwise fastened to the inner surface of the side wall 12 to form a carton in a condition as is best seen in Figure 3.

Turning now to a consideration of Figure 4 of the drawing, it may be seen that the side flaps 24 and 25, which are front extensions of the side walls 11 and 12 respectively, have been folded inwardly of the carton and against the inner surface of said side walls 11 and 12. Although these side flaps 24 and 25 are of a greater width than the width of the carton, they may be easily folded back into the carton since this carton is made of flexible cardboard material which is suitable for this purpose. Accordingly, each side flap 24 and 25 may be flexed about one of its vertical axes so that the free end of each flap will clear the opposite side wall of the carton to enter the interior of the carton and substantially cover the inner surface of its related side wall. The securance flaps 22 and 23 are then forced into the carton 10 so that the wall sections 30 bear against the inner surfaces of the top and bottom walls 13 and 14 of the carton. The apertured sections 31 of the flaps 22 and 23 are arranged substantially perpendicular to the side walls 11 and 12 of the carton as well as to the top and bottom walls 13 and 14 thereof. The width of the securance flaps 22 and 23 is substantially equal to the spacing between the side walls 11 and 12 so that when the wall sections 30 are flush against the inner surfaces of the top and bottom walls the flaps 22 and 23 serve to reinforce the walls of the carton to resist any force applied to the carton that might reduce the interior size thereof. This is especially true when a wiring device such as a switch or convenience outlet is secured to the flaps 22 and 23 to form a rigid connection therebetween.

Looking at Figures 6 and 7 of the drawing, there is mounted in the carton 10 an electric switch 35 of conventional design comprising a recessed body portion 36 having its open front end covered by an insulating plate 37 which is held in place by a metal mounting strap 38 joined to the body member 36 by means of the bent-over tangs 39 in a well-known manner as is common in the switch art. The mounting strap 38 is provided with end extensions 40 each having an elongated transverse aperture 41 for receiving a fastening screw 42 therein. These fastening screws 42 are needed by the electrician to mount the switch in an electric switch box supported in or on a wall and they are usually provided with each switch by the switch manufacturer. In order to retain the screws 42 in the mounting strap 38, a resilient fiber washer 43 is forced over the end of the screws 42 as is best seen in Figures 5 and 7. Accordingly, the switch 35 may be mounted in the carton 10 by placing the apertures 41 of the mounting strap 38 in alignment with the apertures 26 of the securance flaps 22 and 23. Then the fastening screws 42 are forced through the mounting strap and securance flaps and finally held in place by means of the fiber washers 43. It can thus be seen that the mounting strap 38 of the switch 35 serves as part of the reinforcing means for the carton 10 and provides a most satisfactory construction which will withstand the abuse of handling, shipping and storage so that it may be used to advantage to prominently display the article secured therein to its best advantage.

Also, it will be clear that the slots 27 in the securance flaps 22 and 23 come into use when it is necessary to remove the switch from the carton so that it may be installed in the home. The switch is removed by holding the carton 10 steady with one hand while the fastening screws 42 are pulled out through the slots 27 without removing the fiber washers 43 that hold the fastening screws to the mounting strap 38.

Accordingly, it will be readily understood by one skilled in this art that I have provided an open-ended carton in which an article may be suspended by a separable fastening means in order to enhance the appearance and utilitarian features of the article carried therein. While the drawings show the side flaps 24 and 25 as being substantially of the same size as the side walls 11 and 12, the principal purpose of the side flaps 24 and 25 is to introduce color into the inside of the package and add further to its acceptability. This is possible since the side flaps 24 and 25 may be printed at the same time as the side walls 11 and 12. Looking at the design of the blank 20 in Figure 2, it will be seen that if the side flaps 24 and 25 are removed, it will merely represent scrap material so that it is more economical to leave them on the carton. In the design as illustrated in the drawing, this additional material has been used to its best advantage although it should be readily understood that it may be eliminated without departing from the true spirit and scope of this invention.

Modifications of this invention will occur to those skilled in this art and it is to be understood, therefore, that this invention is not limited to the particular embodiments disclosed but that it is intended to cover all modifications which are within the true spirit and scope of this invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A display package comprising a carton and a rigid article that is secured therein, the carton being of flexible material such as paperboard forming an open-ended rectangular tube that is open at the front and back so that the article may be inspected from all sides, the front edge of two opposing walls of the tube having extensions that serve as securance flaps, each flap being folded about a transverse line into a wall section and a securance section, each wall section being disposed against the inner surface of its supporting wall, while each securance section is arranged substantially perpendicular to its related wall section inwardly of the open ends of the tubes, and has substantially the same width as the width of the tube to brace the walls against collapsing forces, each securance section containing an opening for receiving a fastening means, there being a slit in each securance section extending from the opening to the innermost edge of the section, and an article suspended between the said securance sections by fastening means held in the said openings so that the article is completely within the confines of the tube, it being possible to pull the article from the tube without disturbing the fastening means by merely forcing the fastening means from the openings by way of the said slits.

2. A display package as recited in claim 1 wherein the said fastening means for each securance section comprises a screw which extends through the opening in the section and is held in place by a fiber washer forced over the end thereof.

3. A display package as recited in claim 2 wherein a paperboard sleeve is telescopically arranged over the tube to close the open front and back as a dust cover as well as to reinforce the tube against damage during handling and shipping.

4. A display package comprising a carton and a rigid article that is secured therein, the carton being a single blank of flexible material such as paperboard forming an open-ended rectangularly shaped tube that is open at the front and back so that the article may be inspected from all sides, the front edge of two opposing walls of the tube having outward extensions as hingedly connected securance flaps, each flap being divided by a transverse fold line into a wall section and a securance section, each wall section being disposed against the inner surface of the wall from which it extends, while each securance section is arranged substantially perpendicularly to its related wall section inwardly of the open ends of the tube, and has substantially the same width as the width of the tube to brace the walls of the tube against collapsing forces, said securance sections lying in a common plane and terminating short of each other, and a rigid article fastened to the securance sections and suspended therebetween in a manner to insure that the article is completely within the confines of the tube, whereby the rigid article serves as a strut member to reinforce the carton.

5. A display package comprising a carton and a rigid article that is secured therein, the carton being an open-ended rectangular tube of paperboard that is open at the front and back so that the article may be inspected

from all sides, the front edge of each wall of the tube having initially an outwardly extending flap that is adapted to be folded into the interior of the tube and against the inner surface of its supporting wall, two of the flaps on opposed walls of the tube having end portions which are folded transversely to lie in a common plane at an angle that is substantially perpendicular to the remaining portions of the flaps, the end portions being disposed inwardly of the open end of the tube and of substantially the same width as the width of the tube to brace the walls against collapsing forces, said inwardly extending flaps terminating short of each other and supporting a rigid article that is fastened at its opposite end therebetween in a manner to insure that the article is completely within the confines of the tube, whereby the rigid article serves as a strut member to resist external forces tending to collapse the tube.

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