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2,422,152

CONTAINER HAVING AN INNER SLIDABLE MERCHANDISE CARRIER

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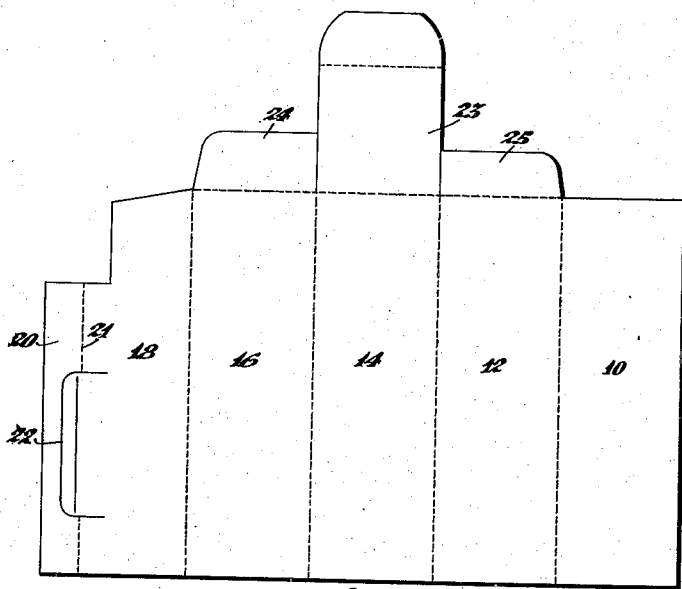


Fig. 1

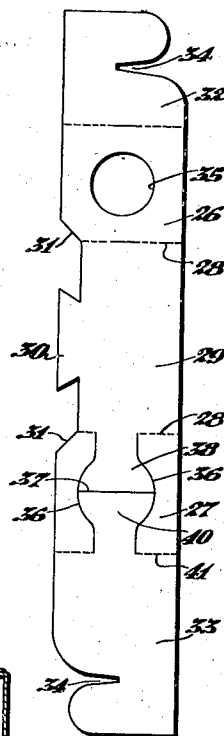


Fig. 2

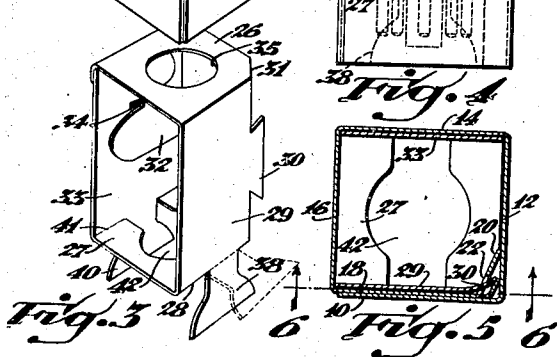
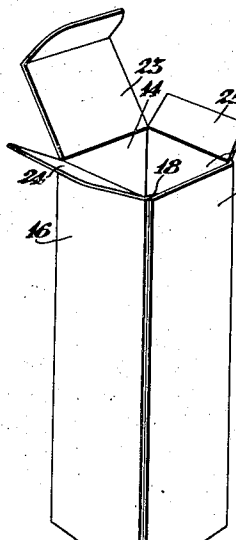


Fig. 4

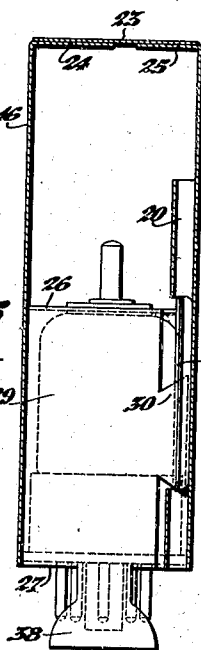


Fig. 5

Fig. 6

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UNITED STATES PATENT OFFICE

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CONTAINER HAVING AN INNER SLIDABLE
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Application February 9, 1945, Serial No. 577,005

1 Claim. (Cl. 229—6)

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This invention relates to containers and is directed particularly to so-called slide cartons comprising an outer shell and an inner merchandise container which is extensible telescopically from the outer shell for a limited distance to expose the contents of the carton. The merchandise container interlocks with the outer shell to prevent removal of the merchandise while exposure of the merchandise permits it to be examined, inspected and tested. Containers of this sort have found extensive usage in the merchandising of radio tubes, the exposure of the tube prongs from the carton enabling them to be inserted in the plug of a tube testing machine while the tube is locked against removal in the carton.

The present invention provides an improvement in cartons of the general type shown in an earlier Vatter Patent No. 2,353,376, dated July 11, 1944, and is addressed particularly to the construction of the merchandise-containing slide member within which the merchandise is disposed and which, in turn, is interlocked within the outer shell.

According to the Vatter patent a slide is constructed in the form of an elongated strip having wings or flaps extending laterally therefrom in one or more pairs at those portions of the slide member through which the merchandise is exposed. The flaps form feet through which a platform is provided to protect the merchandise during shipment by absorbing shocks. Insofar as usage is concerned the construction shown in the patent is eminently satisfactory, but the principal purpose of this invention has been to provide a slide carrier for the carton which is equally suitable for use but which may be fabricated with less paper waste and assembled with greater facility.

According to this invention a slide carrier is constructed in the form of an elongated strip devoid or substantially devoid of extensions or flaps projecting laterally beyond its general strip-like contour; one or more access openings are provided in foldable portions of the strip through which merchandise may be exposed for inspection or testing, and feet capable of providing a yieldable platform for the merchandise when it is disposed within the carrier are furnished by delineation of the material within the access openings. One or both of those portions of the slide carrier which form its ends when folded may be constructed in this manner. No flaps or projections extend beyond the sidewise edges of the strip and its width, therefore, corresponds to the crosswise dimension of the outer shell which is

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to receive it. By virtue of this construction paper waste is eliminated to the extent of 25% to 50% and fabrication is facilitated in that the carrier may be made by die cutting marginal portions of paper in continuous narrow strip form. In the present construction a greater number of the individual slide carriers may be printed and die cut from a sheet to reduce manufacturing cost, and the absence of substantial flaps and projections facilitates removal of the die cut carriers from the sheet.

In the present carriers fold lines extending transversely of the strip and spaced apart from one another delineate therebetween a portion which forms an end of the carrier when it is set up. The material of this portion, within its confines, is severed appropriately to delineate one or more feet adapted to be bent laterally from the plane of configuration of the end portion of the carrier, while the bending of such material also furnishes an aperture through which the contents of the carton become accessible. Thus, the feet or legs for the slide carrier are formed from material within its general contours, not from material extending outwardly beyond it as in past constructions. It is also to be noted that this construction furnishes one or more feet which always tend to lie within the contours of the slide carrier after it has been set up to receive merchandise and therefore no flaps are present which must be held toward one another, as in the construction shown in the patent, before the carrier can be inserted in the carton.

Other advantages and further details of the construction are disclosed in the following detailed description of the drawings in which a preferred embodiment of the improvement is illustrated. From the foregoing principles of the invention and from the following detailed specification, those skilled in the art readily will comprehend the various modifications to which the improvement is susceptible.

In the drawings:

Figure 1 illustrates in plan view the blank from which the outer shell is fashioned.

Figure 2 illustrates in plan view the blank from which the slide member is fashioned.

Figure 3 illustrates the manner in which the slide member is inserted in the shell after both have been set up.

Figure 4 is a vertical view of the assembled carton loaded, for example, with a radio tube, the slide member being positioned entirely within the shell.

Figure 5 is a cross sectional view taken on the line 5—5 of Figure 4.

Figure 6 is a view similar to Figure 4 showing the slide member extended from within the carton for exposure of the tube prongs to the plug of a tube testing machine.

It is to be understood that the references herein to the dispensing and packaging of radio tubes is by way of example and that the cartons of the invention may receive other types of merchandise, as described in the aforesaid patent.

The outer shell (Figure 1) is formed from a blank which comprises side wall panels 10, 12, 14 and 16 delineated by fold lines, and a fifth panel 18 which is of somewhat less width than the others but connected thereto. The panel 18 has a tab 20 extending from it along a fold line 21 and the material of the tab is severed to provide a slot 22 intermediate its ends.

In the particular construction illustrated, what may be termed the base of the shell is designed to be left open, while at the top of panel 14 a closure flap 23 is provided, flanked on either side by supplemental flaps 24 and 25 extending respectively from panels 12 and 16. If desirable both ends of the outer shell may have such a closure.

The blank from which the slide member is fashioned, as shown in Figure 2, comprises end wall portions 26 and 27. The end walls 26 and 27 are attached along fold lines 28, 28 to a side wall portion 29 which has a locking member 30 attached to a longitudinal edge thereof for reception within the slot 22 of the outer shell. It is to be noted that the side wall portion 29 is of less width than the end wall portions 26 and 27 and that the locking member 30 extends laterally, with its longitudinal edge being substantially aligned with the longitudinal edge of the endwise portions 26 and 27. The locking member is delineated by cutting away marginal edgewise portions of the strip, and corners of the endwise portions are cut off diagonally or rounded as at 31 for the purpose of clearing the flap 20 of the outer shell which extends across a corner thereof when the outer shell is set up.

The details of cooperation of the locking member with the slot to limit the extensibility of the slide carrier within the outer shell are fully described and claimed in Patent No. 2,353,376 and are not repeated here except to note that the slot 22 is delineated by die-cut lines which do not cross but only approach one another so that the portion within the die-cut lines is loosely left in place. The locking member displaces this loose material upon being introduced into the slot 22, but should the effort be made to tamper with the carton and remove its contents without authorization then the loose material becomes disconnected and mutilated to evidence the effort.

Flaps 32 and 33 extend respectively beyond the endwise portions 26 and 27 of the strip. These flaps have cooperating notches 34 through which they may be interlocked to form a side wall for the carrier opposite to side wall portion 29.

In the form of carrier which is shown in Figure 2 one end portion thereof, 26, has an opening 35 while the other end portion 27 is configured to provide an opening bounded by feet as previously described. It will be understood that the latter construction may be employed at both ends of the carton if desirable. In the case of radio tubes for which the container illustrated is designed, the apertures in the end flaps cooperate

with the extremities of the radio tube to support it within the carrier.

At the end wall 27 the material is severed in a direction longitudinally of the carrier strip as at 36. These lines of severing may be straight lines or better still curved outwardly at their central portions to describe portions of a circle, and in the preferred form, the material also is severed transversely of the strip, as at 37, whereby two legs or feet 38 and 40 are delineated which respectively may be folded laterally from the endwise portion 27 of the carrier along fold line 28 and a fold line 41 at its opposite edge.

Figure 3 shows the manner in which the legs are bendable outwardly to lie in planes substantially flush with the planes of the side walls 29 and 32, 33. This formation opens up the end wall 27 at the aperture 42 through which the prongs of a radio tube may extend.

As shown in Figure 4 the bottom wall 27 is disposed inwardly of the outer shell while the feet 38 and 40 bent outwardly terminate from the bottom wall at points substantially adjacent the outer end of the shell to form supports for the inner carrier whereby its free movement is limited. The endwise portion 27, being weakened through the cutting out of its central portion, forms a resilient platform upon which the tube is rested. This platform absorbs shocks and is most effective in preventing rupture or damage to the tube. The tube at its opposite end in the form shown in Figure 2 is centrally confined at the aperture 35 and is protected by the flaps 23, 24 and 25 forming the end closure. Moreover, in the preferred construction the member 30, engaging the extremity of the slot 22, limits the movement of the slide carrier so that if the carton is upside down the tube still is free from contact with the endwise portion of the container. In this manner the tube resiliently is supported in either direction.

In the use of the slide carrier merchandise is placed conveniently upon the side wall 29 intermediate its end and the endwise portions 26 and 27 are then brought up and tabs 32 and 33 are folded over the merchandise and interconnected. During such folding the end of the merchandise presses upon the legs or feet 38 and 40 forcing them outwardly from one another at the same time that the flaps 32 and 33 are being interlocked together, whereby the end aperture is prepared and the legs or feet are bent out in one operation rapidly and conveniently. Legs 38 and 40 now either lie flush with the side walls 29 and 32, 33 of the carrier or are turned slightly inwardly therefrom. The projection of the merchandise into the opening exposed by the wings holds the legs in separated condition, and the carrier is introduced readily into the outer shell without requiring extra manipulation of the legs.

It also is to be noted that the legs 38 may be bent outwardly or sidewise from the carton after the slide carrier has been extended therefrom so as to leave the contents of the tube in a well exposed position. This feature is particularly advantageous in the testing of radio tubes where prongs must be accessible for insertion in the test plugs.

As the carrier is introduced into the shell with the member 30 properly aligned for engagement with a slot 22 the member 30 is bent inwardly on a slight angle so that it may be disposed over the surface of flap 20 until it reaches the slot 22 after which it relaxes to its normal extended

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position and becomes locked in the outer shell.
Having described my invention, I claim:

A slide carton comprising an outer shell and a merchandise-containing member slidably received therein, said merchandise-containing member comprising an elongated strip having portions thereof foldable with respect to one another to form a rectangular box having side walls and end walls disposed to embrace the respective sides and ends of an article of merchandise, and lines of severing within the confines of at least one endwise portion of said rectangular form delineating portions which are bendable outwardly to constitute extended legs projecting beyond the said endwise portion and also to thereby provide an opening in said merchandise-containing

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member through which a portion of the merchandise in the slide carrier may be exposed, said last named endwise portion being integrally connected to the side portions along fold lines.

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REFERENCES CITED

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

UNITED STATES PATENTS

Number	Name	Date
2,353,376	Vatter -----	July 11, 1944
2,368,753	Elliott et al. -----	Feb. 6, 1945
2,125,716	Golisane -----	Aug. 2, 1938
1,039,026	Carter -----	Sept. 17, 1912