

Oct. 17, 1967

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3,347,355

SHIPPING CARTON AND MOUNTING MEANS THEREFOR

Filed Oct. 14, 1965

3 Sheets-Sheet 1

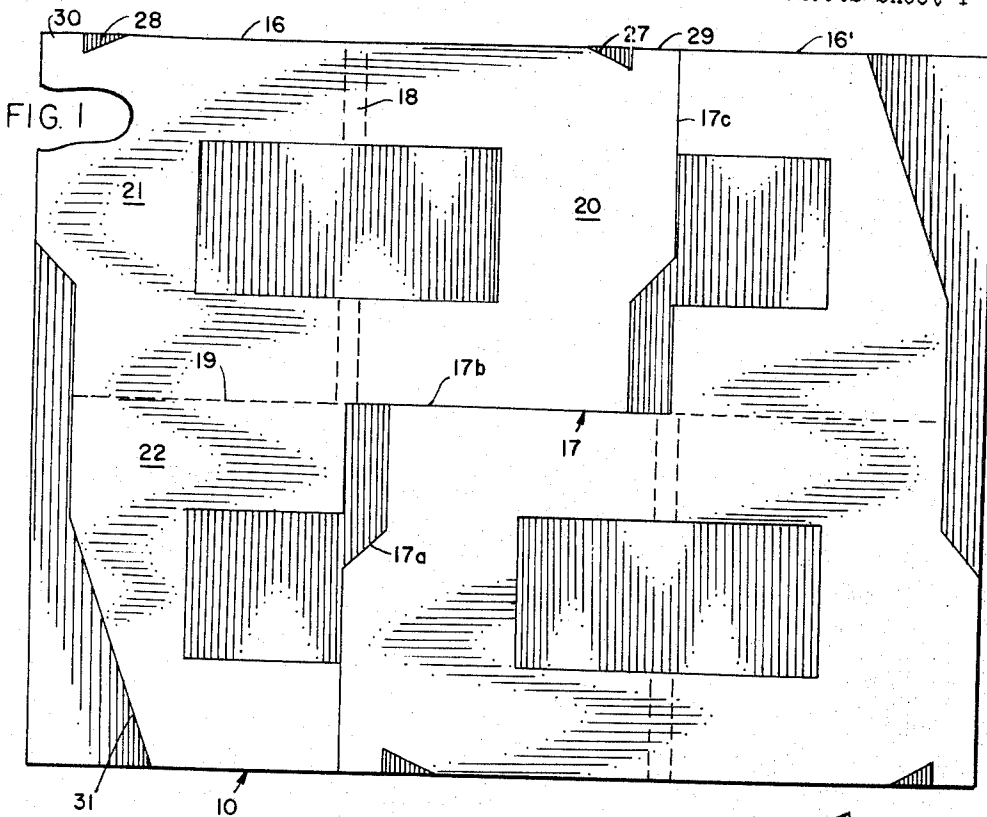


FIG. 2

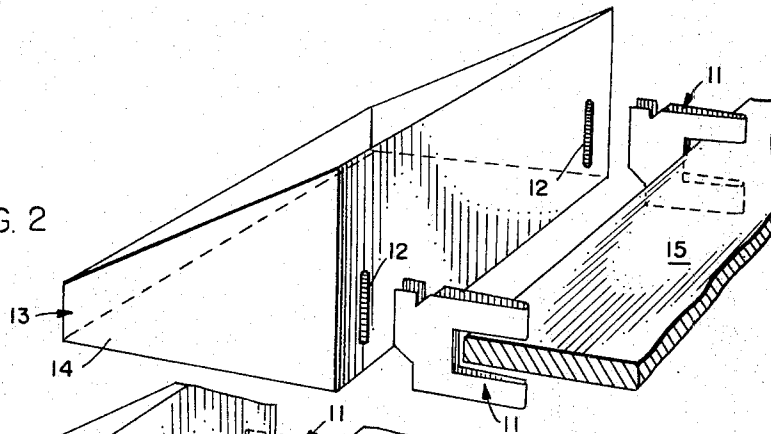
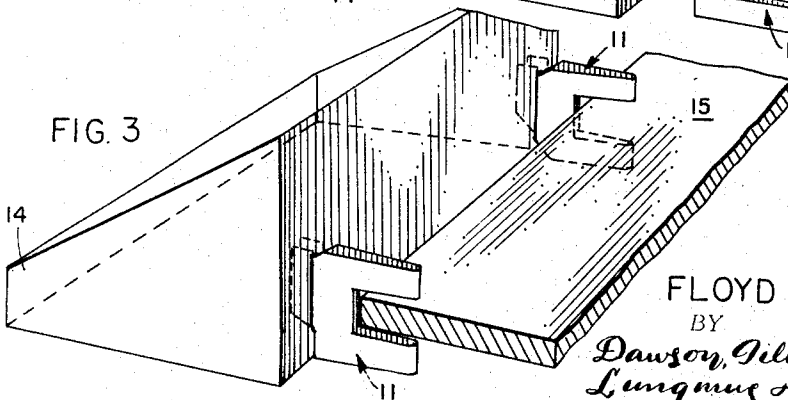


FIG. 3



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FIG. 4

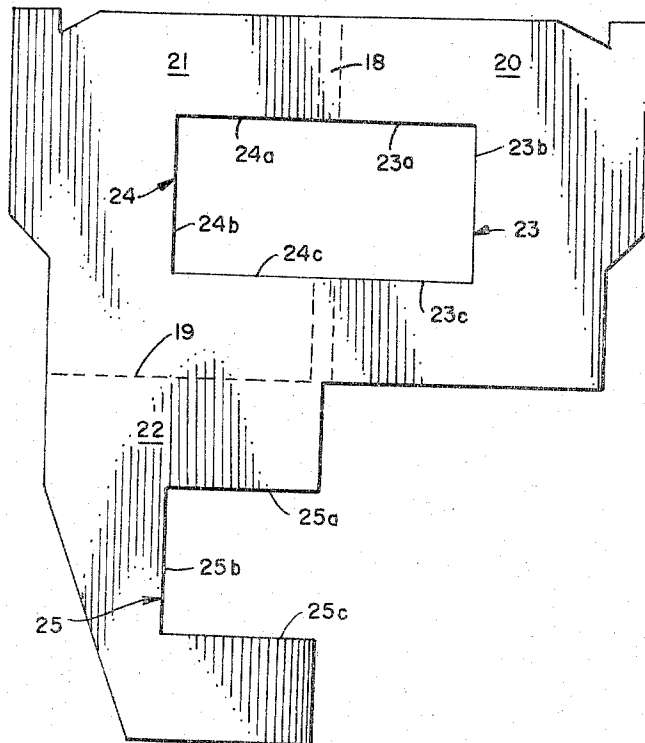
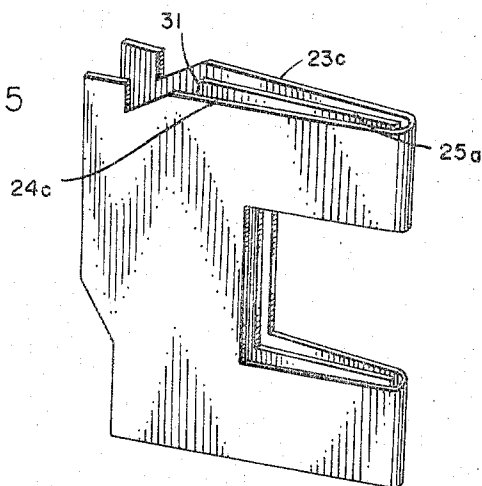


FIG. 5



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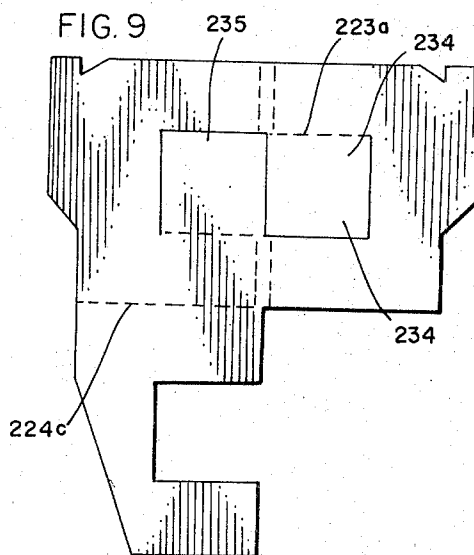
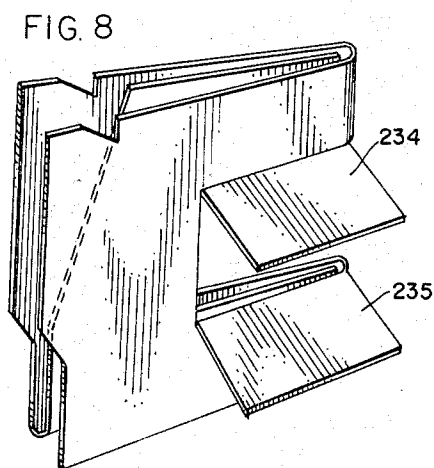
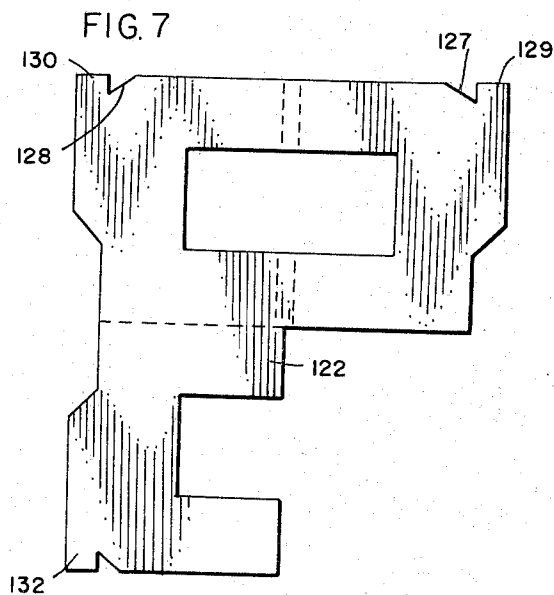
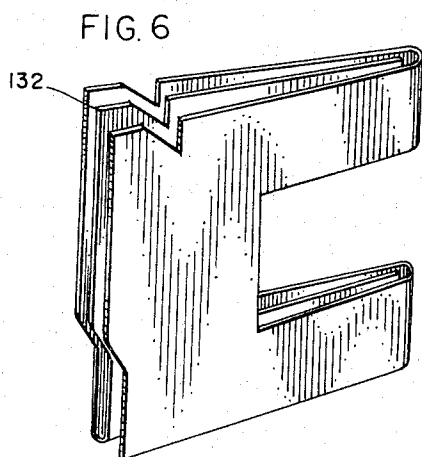
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SHIPPING CARTON AND MOUNTING
MEANS THEREFOR

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ABSTRACT OF THE DISCLOSURE

A shipping carton and removeable liner. The liner, when removed from the carton after shipment of the goods packed in the carton, may be separated into a pair of sub-blanks. Each sub-blank is foldable into a reinforced, C-shaped extender. The back of the C-shaped extender locks into slots provided on one side of the carton; and the open portion of the C is adapted for releaseably engaging a shelf. Thus, the carton may be supported in cantilever fashion from a shelf thereby extending the useful storage space of the shelf.

This invention relates to a shipping carton and mounting means therefor and, more particularly, to a separable carton liner which can be advantageously converted to a pair of extenders for supporting the carton on a shelf, or the like.

Although it is shown to support cartons in cantilever fashion on shelves, this technique has not been broadly utilized. The extenders or arms heretofore available have not properly satisfied the needs of economy and strength. These requirements are essentially conflicting—the more material and structural features put into the extenders to strengthen them, the less economical they are.

This dilemma is compounded by yet another requirement—that the extenders be conveniently at hand when desired. For an expensive, sturdy extender, this objective is difficult to realize, since storage space for the extenders cannot always be provided at the site of proposed use. Further, any storage increases the chance that the extenders will be damaged or lost. On the other hand, a cheap expendable extender can be readily damaged if provided incident to the carton shipment. This could be especially disadvantageous if the extender is constructed of the carton material such as the widely-employed corrugated board. Damage of such extenders incident to shipment could readily render them useless. These drawbacks are overcome by the instant invention, and the provision of means for this purpose constitutes an important object of the invention.

According to the invention, the extenders are provided as blanks incorporated into a liner or similar generally planar element used in a shipping carton. From this it can be seen that not only do the extenders lead dual useful lives, but that the invention meets the above requirements in a unique fashion. The expense is minimal, since the element is used doubly—the strength features are automatically protected until used, and, most importantly, there is no problem about locating the extenders at the time of desired use.

Thus, another object of the invention is to provide a carton equipped with a suitable blank which may serve advantageously as a liner or pad during shipment and which is readily convertible to extenders for supporting the carton in the above-mentioned cantilever fashion.

Still another object of the invention is to provide a novel blank, initially useful as part of a shipping carton and later selectively foldable and separable to define a pair of extenders or projections which can be arranged

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and adapted to support a carton from a shelf in generally cantilever fashion.

A further object is to provide a blank of the character already described hereinabove which is equipped with novel folding portions rendering the extenders developable from the blank suitable for installation on a variety of shelves.

Other objects and advantages of the invention may be seen in the details of construction and operation set down in this specification.

The invention is described in conjunction with the accompanying drawing, in which FIG. 1 is an elevational view of the inventive blank; FIG. 2 is an exploded perspective view in fragmentary form of the extenders developed from the blank of FIG. 1 and in position on a shelf about to receive a carton; FIG. 3 is a fragmentary perspective view of the extender-equipped shelf supporting the carton; FIG. 4 is an elevational view of one the extenders prior to folding but after the same has been detached from the blank of FIG. 1; FIG. 5 is a perspective view of the folded extender blank portion of FIG. 4; FIG. 6 is a perspective view of a modified form of the extender seen in FIG. 3; FIG. 7 is an elevational view of the undeveloped extender of FIG. 6, i.e., a half portion of the modified blank; FIG. 8 is a perspective view of yet another form of extender; and FIG. 9 is a perspective view of the blank from which the extender of FIG. 8 is developed.

In the illustration given and with reference to FIG. 1, the numeral 10 designates generally a blank from which the inventive extenders 11 can be developed (see FIGS. 2 and 3). In the latter views, the extenders 11 are seen to be aligned with slots 12 provided in one face of a carton 13, the carton 13 being truncatable to the form designated 14 in FIGS. 2 and 3 and thereupon carried by the shelf 15 through the cooperation of the developed extenders 11.

Referring again to FIG. 1, it will be seen that the blank 10 is divisible into generally L-shaped sub-blanks 16 and 16' by a Z-shaped line of weakness—here a line of potential severance developed by interrupted die cutting—generally designated 17 and which includes segments 17a, 17b and 17c. These segments become edges defining a part of the sub-blank 16 seen in FIG. 4. The sub-blank 16 is equipped with further lines of weakness, here lines of potential folding as at 18 and 19 and developed by scoring, which are generally mutually perpendicular and which further divide the sub-blank 16 into thirds as at 20, 21 and 22 (for the latter see particularly FIGS. 1 and 4). The line of weakness 18 may be a double line depending upon the thickness of the blank 10—to accommodate the insertion part seen in FIG. 5. Folding the blank third 22 along the line 19 and thereafter folding the third 20 along the line 18 results in the configuration seen in FIG. 5.

The shelf-supporting portion is provided by segmented lines of weakness as at 23 relative to the third 20, including the line segments 23a, 23b and 23c. In like fashion, the segmented line generally designated 24 is provided relative to the third 21 and includes the lines of weakness 24a, 24b and 24c. In still further like fashion, the line of weakness generally designated 25 and including the lines 25a, 25b and 25c is provided in the sub-blank third 22. When the sub-blank 16 is folded to develop the generally C-shaped extender 11 in the manner seen in FIG. 5, it will be noted that the lines 23c and 24c are aligned, along with the segment 25a of line 25. These coact to define the shelf-receiving cutout 26.

Referring now to FIG. 1, a notch-providing line of weakness 27 is seen to be provided in the third 20 and which serves to define a hook portion 29, and notch-providing line of weakness 28 ultimately provides the hook portion 30 relative to the sub-blank third 21. The

numeral 31 designates a line of weakness in the sub-blank third 22, which eliminates a portion thereof that would otherwise interfere with the contour of the hook portions 29 and 30 when the various thirds are superposed. The thirds 20 and 21 can be considered as constituting the arm portion of the L-shaped sub-blank 16, and in each of these there is a notch—i.e., 27 and 28. The leg portion of the L shape is provided by the third 22 which has no hook-providing notch.

The hook portions 29 and 30 are seen to be aligned with the slots 12 of the carton 13 (see FIG. 2). Advantageously, the carton is pre-slotted, thereby insuring uniformity of the slot. However, the slots can be cut into the carton when the carton itself is truncated for display.

In operation, the carton 13 being used is ordinarily pre-slotted to allow insertion of the corrugated support assembly. The blank 10 which serves as a shipping pad (advantageously of the corrugated type) is die-cut for the portions to be punched out and scored for the portions to be folded. Upon receipt of the carton equipped with its blank used as a liner, pad, etc., and after the slots have been provided, if not already in existence, the carton 13 is cut along sloping lines, i.e., truncated, so as to properly display the product previously shipped in the carton 13. To use the blank 10 as a support assembly, it is only necessary to punch out the various portions defined by the lines of potential severance 23, 24 and 25, fold along the lines 18 and 19, insert the hook portions 29 and 30 within the slots 12, and slide the extenders thus developed onto the shelf 15.

A modification of the invention is seen in FIG. 6, where the leg third 122 is equipped with a hook part as at 132 defined by a line of weakness 133 like the line of weakness 127 and 128 providing the hook parts 129 and 130. The additional tab provides extra support when inserted into the carton 13.

A still further modification is possible, as seen in FIGS. 8 and 9, wherein the flaps 234 and 235, developed by making the weakness lines 223a and 224c fold lines, as contrasted to lines of potential severance as shown in FIG. 1, being readily developed by scoring or less weakening than die-cutting. With this arrangement, the flaps necessarily developed thereby can be swung about the fold lines to accommodate the extender to shelves of different thickness. For a very thin shelf, the flaps 234 and 235 can be swung in the same direction, thereby, in effect, reducing the vertical height of the cut-out portion. For a slightly larger shelf, the flaps can be pivoted in opposite directions, while for a still larger shelf, the flaps can be dispensed with altogether, either right from the very beginning by using a die-cutting technique as performed relative to the embodiment seen in FIG. 1 and which results in the extender seen in FIG. 5, or by severing the flaps 234 and 235 just prior to erection of the extender.

The invention is seen to uniquely serve the needs of merchandisers seeking to expeditiously display goods in a secure fashion. It will be immediately appreciated that the ready enlargement of available shelf space is most desirable, since it serves the main purpose of merchandising—selling more merchandise. Not only does the invention make it possible to sell more merchandise by virtue of having more on display, but it does so in a manner wherein the merchandise is at an attractive shelf level, readily catching the eye of the purchaser. With the unique protection afforded the supporting members until actual use, this means a sturdier installation, so that customer manipulation can be tolerated and, in fact, even invited, so as to serve the basic purpose of merchandising more goods.

The advantages of the inventive construction do not end with merely providing the additional display space, but extend beyond that since there is no need to store the structural elements after use, no need to reorder wood, wire, etc., units for shelf clamping when the units are damaged, destroyed, or lost, and all of this is made pos-

sible in a desirable manufacturing operation where the shipping pad is die-cut or scored as necessary incident to the basic severance of the panel.

It will be appreciated that the blank 10 can be made from a variety of materials such as the above-mentioned corrugated paperboard, plastic, metal, cellulosic and fiber materials in general, and the mirror image arrangement affords two extenders without the need for elaborate and supplemental hooks.

The arrangement is simple to assemble and use, an important feature when it is considered that assembly is often performed by unskilled store personnel, and because of the protection afforded the blanks until the time of actual use, if desired, the blanks can be overprinted with direction instructions without fear that the same will be defaced or otherwise rendered illegible.

The unique pad affords advantages even prior to its use in developing the carton-supporting extenders. The shipper of the goods is able to store a sizable quantity of liners or pads in compact arrangements which make warehousing problems minimal and handling problems negligible, especially in comparison with the difficulty in handling already articulated pieces made according to prior art techniques. Even prior to the use of the pad by the shipper, advantages accrue to the manufacturer, since again there are no problems of separation of bulky and awkwardly-contoured elements, this allowing a single manufacturer to develop the carton, its liner pad, and thereby necessarily the supporting extenders.

Lastly, at the other end of the operation, the extenders can be readily disposed of as burnable waste without thought to the need for replacement or storage. Incident to this, the locking engagement of the extenders with the carton they support is an advantage, since the lock can be made source without thought for having detachment capabilities—necessary in the prior art. It will be appreciated that once used and detached, extenders according to the prior art may be weakened unknowingly to the user, so that they will not stand up in subsequent use. This latent defect is avoided according to the invention.

While in the foregoing specification a detailed description of the invention has been set down for the purpose of illustration, many variations in the details herein given may be made by those skilled in the art without departing from the spirit and scope of the invention.

I claim:

1. A shipping carton for transporting goods selectively convertible to a shelf extender display means comprising carton means for enclosing and protecting the goods to be transported and liner attachment means, said liner attachment means being configured, arranged and located to provide a protective internal liner means for the contents of said shipping carton during transporting thereof, said liner attachment means being selectively removable, foldable and separable into attachment means for locking to said carton means and for releasably coupling said carton means to a shelf.

2. A blank selectively partable along a plurality of lines of weakness provided therein to provide a pair of shelf supports for a carton, comprising a blank adapted to function as a liner, or the like, for a shipping carton, said blank being equipped with a generally Z-shaped line of weakness defining two generally L-shaped sub-blanks, each of said sub-blanks being equipped with additional lines of weakness generally normal to each other to divide each sub-blank generally into thirds whereby said sub-blanks are foldable along the third-providing lines of weakness to superpose said thirds, each said sub-blank third being equipped with a segmented line of weakness to develop a generally C-shaped carton extender, and notch-providing lines of weakness on at least two of said thirds to develop notches interlockable with slots on said carton.

3. The blank of claim 2 in which said segmented line of weakness defined a cut-out-defining tab, said tab being

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hingedly connected to the remainder of a sub-blank third to be selectively pivotable for more secure engagement of the extender with a shelf.

4. The blank of claim 2 in which each of said thirds is equipped with notch-providing lines.

5. The blank of claim 2 in which said L shape includes an arm portion defined by two of said thirds, the remainder of said L shape including a leg portion defining the remaining third, said arm thirds being equipped with said notch-providing lines while said leg third is equipped with a line of weakness to facilitate removal of an edge portion aligned with said notches when said thirds are superposed.

6. A method of carton handling, comprising installing a pad-like, generally planar element in said carton, said element being selectively weakened along predetermined lines to provide shelf extenders, transporting said carton to a site of installation, removing said element from said carton and separating said extenders therefrom, and coupling said extenders to said carton and to shelf means for supporting said carton in cantilever fashion.

7. A shipping carton comprising: a container, and a removeable blank integrated with said carton during shipment as a liner, said carton including lines of potential severance in one wall to define spaced-apart slots,

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said blank including a generally Z-shaped line of weakness defining two generally L-shaped sub-blanks, each of said sub-blanks including additional lines of weakness for dividing each sub-blank generally into thirds whereby said sub-blanks are foldable along said additional lines of weakness to superpose said thirds upon each other, each sub-blank third including a segmented line of weakness for developing a generally C-shaped carton extender and notch-providing lines of weakness on at least two of said thirds to develop notches interlockable with said carton slots.

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