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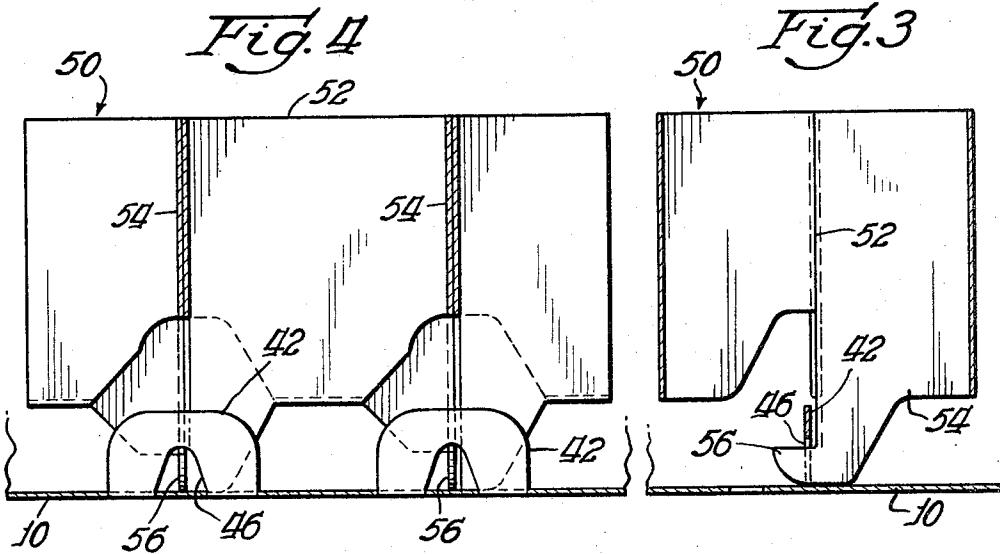
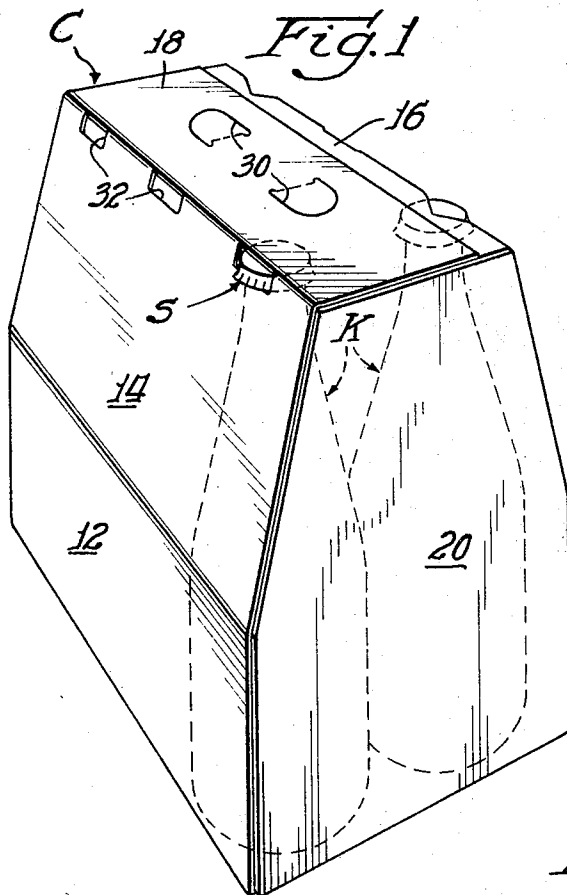
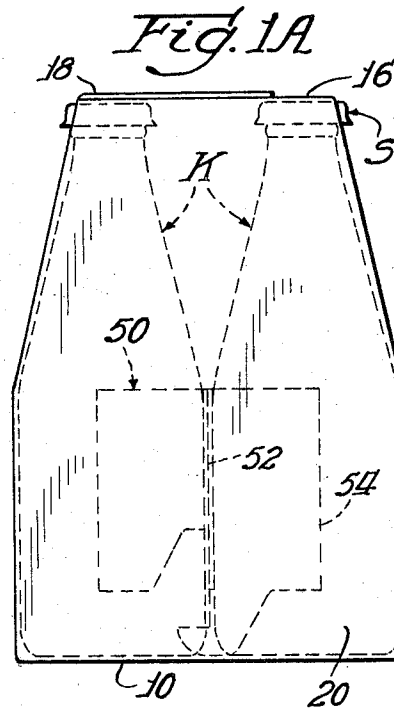
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3,283,989

PARTITION LOCK FOR BOTTLE CARRIER

Filed Sept. 24, 1964

2 Sheets-Sheet 1



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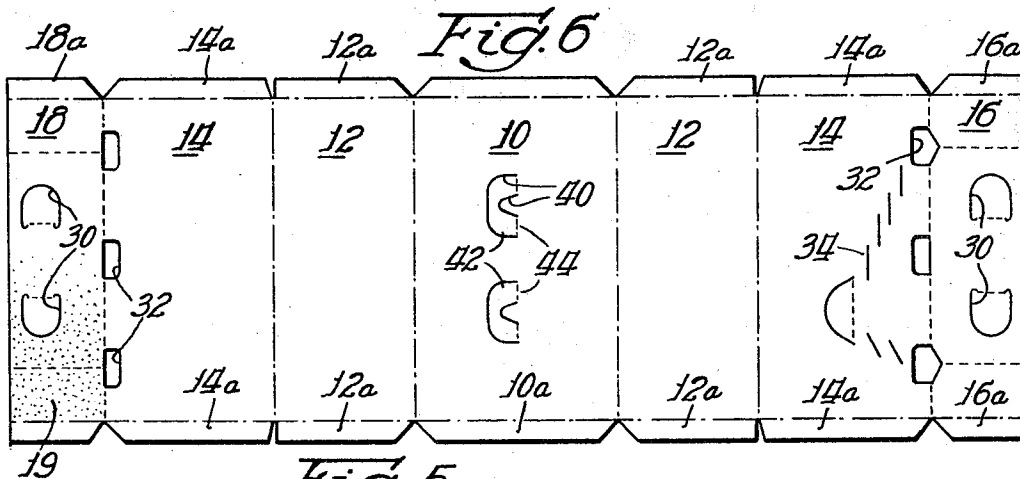
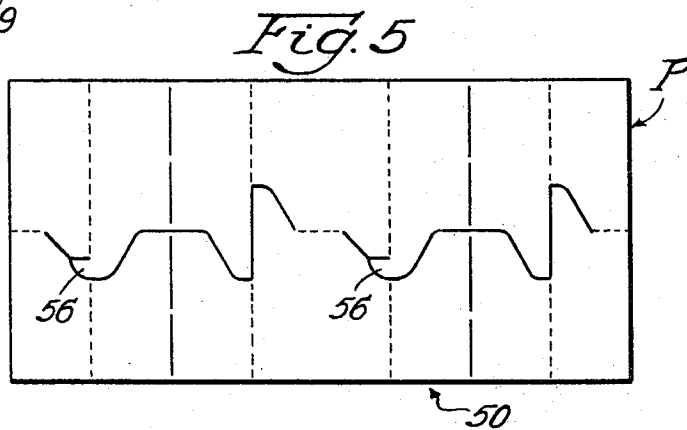
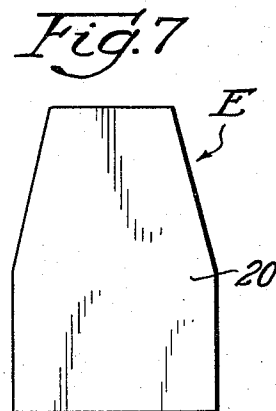
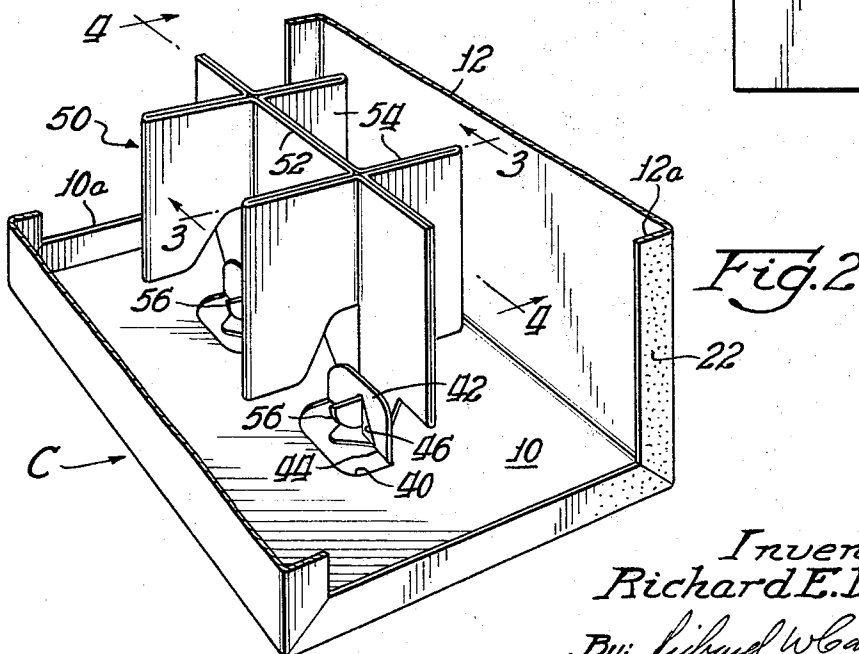
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PARTITION LOCK FOR BOTTLE CARRIER

Filed Sept. 24, 1964

2 Sheets-Sheet 2



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**PARTITION LOCK FOR BOTTLE CARRIER**  
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Filed Sept. 24, 1964, Ser. No. 398,939

6 Claims. (Cl. 229-15)

This invention relates to paperboard cartons of the type used to package a plurality of cylindrical articles such as glass bottles.

The invention comprehends an improvement in a partition arrangement for a carrier carton.

In carrier cartons of the type employed for the packaging of a plurality of glass bottles, or similar fragile articles, it is usually necessary to provide some type of partition to prevent the articles from coming in contact with each other.

In the case of bottles or other fragile articles having tapered portions, there is no purpose served in having the partition extend the full length between the top and bottom walls of the carton. It is only necessary that the partition be inserted between the widest portions of the bottles which can come in contact with each other. To provide a full depth partition is not only unnecessary but substantially increases the cost of the package.

One problem that is frequently encountered in packages of this type having partial depth partitions is that as the packages are jostled about during handling or shipment the partitions tend to move out of position between the widest portions of the packaged articles, and when this occurs the partitions no longer serve their purpose.

It is therefore an object of this invention to provide, in a package of the type described, a partition securing arrangement adapted to maintain the partition in a predetermined position.

A more specific object of the invention is to provide, in a carton of the type described, an integral locking arrangement adapted to secure the lower portion of a partition to the bottom wall of a carton and thereby prevent its upward movement within the carton.

These and other objects of this invention will become apparent after examining the specification, including the drawings, wherein:

FIG. 1 is a perspective view of the outside of a carton embodying features of the invention;

FIG. 1A is an end elevational view of the carton of FIG. 1;

FIG. 2 is a perspective view similar to FIG. 1, but with portions of the structure being broken away;

FIG. 3 is a transverse vertical section taken on line 3-3 of FIG. 2;

FIG. 4 is a longitudinal vertical section taken on line 4-4 of FIG. 2;

FIG. 5 is a plan view of the blank from which the partition illustrated in FIG. 2 may be formed;

FIG. 6 is a plan view of the blank from which the main portion or body of the carton illustrated in FIG. 1 may be formed; and

FIG. 7 is a plan view of the blank from which the end wall of the carton illustrated in FIG. 1 may be formed.

It will be understood that, for purposes of clarity, certain elements have been intentionally omitted from certain views where they are believed fully illustrated in others.

Referring now to the drawings for a better understanding of the invention, it will be seen that the carton C illustrated in FIG. 1 is adapted to enclose two adjacent rows of cylindrical objects such as glass bottles K which have upwardly tapering neck portions and caps S.

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The carton illustrated in FIGURE 1 includes a central or body portion, which may be formed from the blank B of paperboard illustrated in FIGURE 6, and a pair of separate end walls each of which may be formed from the blank E illustrated in FIGURE 7. Within the interior of the carton there may be provided a partition which may be formed from the blank P illustrated in FIGURE 5.

It will be understood that the essential feature of this invention resides in the connection between the partition and the bottom wall of the carton, as will be more fully explained later in the specification, and that the particular structure arrangement of the carton is not limited to the specific example shown and disclosed.

Referring now to FIGURE 6 it will be seen that the main portion or body of the carton is formed from a rectangular blank of paperboard which is divided by a plurality of transversely extending, parallel crease lines into a series of panels wherein the central panel 10 serves as the bottom wall of the carton.

Hingedly attached to the side edges of bottom wall 10 are a pair of side wall lower portions 12 which in turn have hingedly attached to their upper edges a pair of side wall upper portions 14. Hingedly attached to the upper edges of side wall upper panels 14 are a pair of inner and outer top wall panels sections 16 and 18, respectively, which are disposed in overlapped relationship, as shown in FIGURE 1, and adhesively connected to each other, as at 19, to provide an uninterrupted sleeve or tubular structure open at the ends.

Hingedly attached to the opposite end edge of panels 10, 12, 14, 16, and 18 are relatively narrow elongated end wall securing flanges 10a, 12a, 14a, 16a, and 18a, respectively, which are folded inwardly at right angles to the panels to which they are attached so as to present, at each end of the carton, a plurality of coplanar surfaces extending substantially around the periphery of the open end of the carton.

In order to close the ends of the carton there may be provided a pair of end wall panels 20 which are disposed to overlie the ends of the carton with marginal portions of their inside surfaces adhesively secured to the outwardly facing surfaces of the end wall securing flanges, as at 22. Again, it is to be understood that this invention is not restricted to a carton having closed end walls, for other means may be provided for preventing the articles from moving out of the ends of the carton.

In order to provide means for lifting the carton the upper or top wall panels 16 and 18 may be provided with aligned finger grip openings 30. To assist in positioning the articles within the carrier the upper portions of side wall upper panels 14 may be provided with longitudinally spaced aligned openings 32 which receive portions of the cap of the bottles. Also, in order to facilitate the opening of the package one of the side wall upper panels 14 may be provided with a series of cuts to form a tear out section 34, in a manner well known in the art.

Again turning to FIGURE 6, it will be seen that there is provided in bottom wall panel 10 one or more pairs of generally parallel U-shaped cuts 40 which define therebetween a generally U-shaped female locking flap 42 hingedly attached to the bottom wall panel 10 along a pair of aligned hinge lines 44 extending longitudinally of the carton and located substantially midway between the side edges thereof. It will be seen that when the U-shaped locking tab 42 is folded upwardly at right angles to the bottom wall panel there is presented an opening or passageway 46 extending therethrough the purpose of which is described later in the specification.

Now turning to FIGURES 2 and 5, it will be seen that there is provided within the carton a so-called "butterfly"

type partition 50 formed from the rectangular blank illustrated in FIGURE 5 which is cut and scored so that it can be folded into the configuration shown in FIGURE 2 in a manner known to the art. Partition 50 comprises a longitudinal member 52 and pair of longitudinally spaced transverse members 54. The exact type and configuration of the partition is not limited to the specific structure herein shown and described, but other types of partitions may be used in connection with this invention so long as they are provided at their lower portions with bottom wall engaging members or hook elements 56. As will be seen from an examination of FIGURE 2, when the locking tab in the bottom walls are bent upwardly at right angles to the bottom wall the hook portions 56 of the partition may be disposed to extend through the openings 46 in the locking tabs to effect a connection between the partition and the carton bottom wall to prevent vertical movement therebetween. If desired, of course, the hook may be provided on the transverse portions of the partition, in which case the carton bottom wall tabs would be rotated 90° so they are hinged on hinge lines extending transversely of the bottom wall.

By this novel securing arrangement it is possible to provide a partition which is of a height sufficient to present engagement between adjacent bottles at the widest portions of the bottles but which does not extend up to the upper portion of the carton where it would serve no useful purpose. This construction therefore results in saving of board because it makes it possible to use a partition of lesser height than would be possible without a securing arrangement of this type.

What is claimed is:

1. A sleeve-type, wrap-around, paperboard, carrier carton for enclosing two parallel rows of glass bottles having generally cylindrically shaped lower body portions and tapered upper neck portions, comprising:

- (a) opposed pairs of top and bottom walls and side walls hingedly interconnected on parallel hinge lines to form an outer tubular structure;
- (b) a separate internal partition for separating the lower body portions of the bottles from each other;
- (c) said partition having a height substantially equal to that of the lower body portions of the bottles and less than the distance between the top and bottom walls of the carton;
- (d) means for restricting vertical movement of the partition within the carton to maintain the partition in a predetermined position relative to the carton bottom wall;
- (e) said means including:
  - (i) a generally U-shaped tab cut from and hinged to said carton bottom wall;
  - (ii) said tab extending upwardly from said bottom wall and having an opening therein; and
  - (iii) a generally J-shaped tab projecting downwardly from said partition and having a free end portion disposed to extend through the opening in said carton bottom wall tab to provide an interlocking connection between the tabs of said carton bottom wall and said partition.

2. A sleeve-type, wrap-around, paperboard, carrier carton for enclosing two parallel rows of glass bottles having generally cylindrically shaped lower body portions and tapered upper neck portions, comprising:

- (a) opposed pairs of top and bottom walls and side walls hingedly interconnected on parallel hinge lines to form an outer tubular structure;
- (b) a separate internal partition for separating the lower body portions of the bottles from each other;
- (c) said partition having a height substantially equal to that of the lower body portions of the bottles and less than the distance between the top and bottom walls of the carton;
- (d) means for restricting vertical movement of the partition within the carton to maintain the partition

in a predetermined position relative to the carton bottom wall;

(e) said means including:

- (i) a tab cut from and hinged to said carton bottom wall;
- (ii) said tab extending upwardly from said bottom wall;
- (iii) a tab projecting downwardly from said partition for engaging said carton bottom wall tab to provide an interlocking connection between the tabs of said carton bottom wall and said partition.

3. For use in a paperboard carton for carrying rows of glass bottles having generally cylindrically shaped lower body portions and tapered upper neck portions, a partition arrangement comprising:

- (a) a separate internal partition disposed between and separating from each other the lower body portions of the bottles;
- (b) said partition having a height substantially equal only to that of the lower body portions of the bottles and consequently being less than the total height of the bottles;
- (c) means for restricting vertical movement of the partition within the carton to maintain the partition in a predetermined position relative to the bottles;
- (d) said last mentioned means including:
  - (i) a generally U-shaped tab cut from and hinged to the bottom wall of the carton at a location thereon spaced from all of the bottles;
  - (ii) a generally J-shaped tab projecting downwardly from said partition and disposed generally in line with the bottom wall tab and engaging the bottom wall adjacent thereto;
  - (iii) the bottom wall tab and the partition tab interlocking with one another to provide an interlocking connection between the carrier bottom wall and the partition.

4. For use in a paperboard carton for carrying rows of glass bottles having generally cylindrically shaped lower body portions and tapered upper neck portions, a partition arrangement comprising:

- (a) a separate internal partition disposed between and separating from each other the lower body portions of the bottles;
- (b) said partition having a height substantially equal only to that of the lower body portions of the bottles and consequently being less than the total height of the bottles;
- (c) means for restricting vertical movement of the partition within the carton to maintain the partition in a predetermined position relative to the bottles;
- (d) said last mentioned means including tabs respectively cut from and hinged to the bottom wall of the carton at a location thereon spaced from all of the bottles and formed on said partition engaging the bottom wall, the tabs interlocking with one another to provide an interlocking connection between the carrier bottom wall and the partition.

5. A sleeve-type, wrap-around, paperboard, carrier carton for enclosing a plurality of articles arranged in side-by-side relation, comprising:

- (a) opposed pairs of top and bottom horizontal walls and side walls hingedly interconnected to form an outer tubular structure;
- (b) a separate internal partition for separating the articles from each other;
- (c) said partition having a height less than the distance between the top and bottom walls of the carton;
- (d) means for restricting vertical movement of the partition within the carton to maintain the partition in a predetermined position relative to one of the carton horizontal walls;
- (e) said means including at least one tab cut from and hinged to said one horizontal wall of the carton and

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at least one other tab formed on said partition, said tabs interlocking with one another to provide an interlocking connection between said one horizontal wall and said partition.

6. For use in a paperboard carton for carrying a plurality of articles arranged in side-by-side relation, a partition arrangement comprising:

- (a) a separate internal partition disposed between and separating said articles from each other;
- (b) said partition having a height less than the total height of the carton;
- (c) means for restricting vertical movement of the partition within the carton to maintain the partition in a predetermined position relative to a bottom wall of the carton;
- (d) said last mentioned means including at least one tab cut from and hinged to the bottom wall of the

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carton and at least one other tab formed on said partition, said tabs interlocking with one another to provide an interlocking connection between the carton bottom wall and the partition.

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