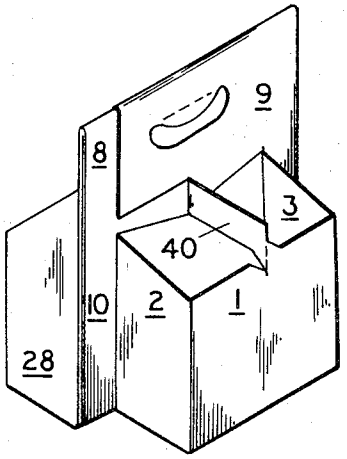
Jan. 23, 1968 L. L. SIMS 3,365,098

ARTICLE CARRIER

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FIG. 1



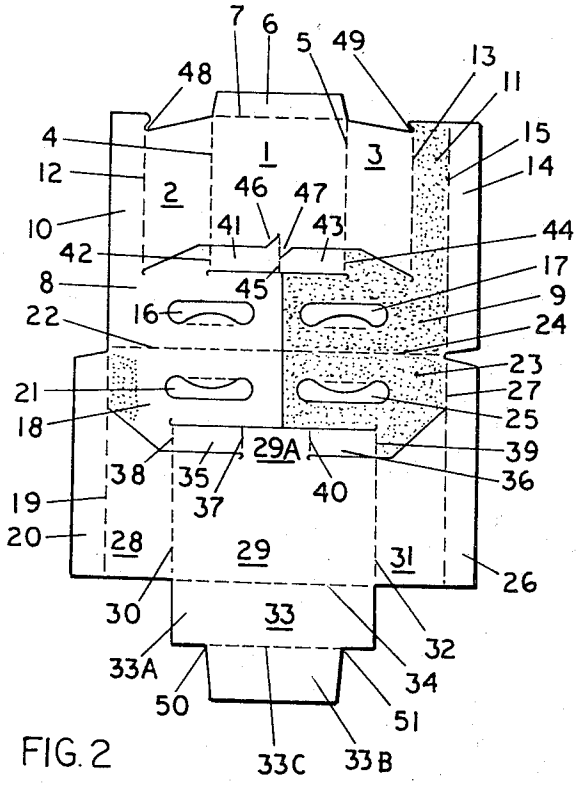


FIG. 2

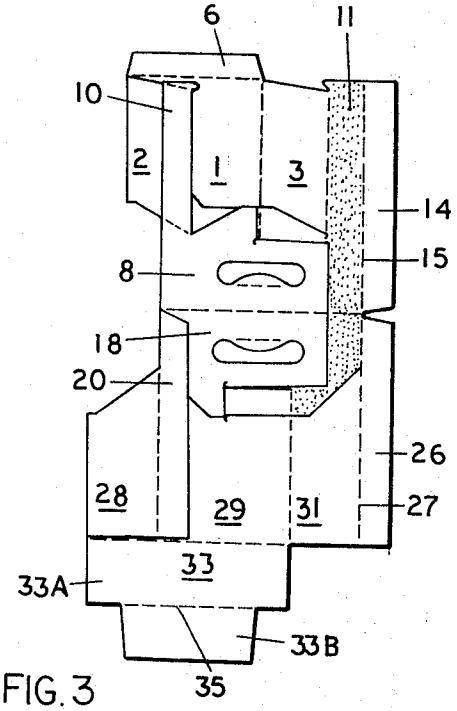


FIG. 3

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ARTICLE CARRIER

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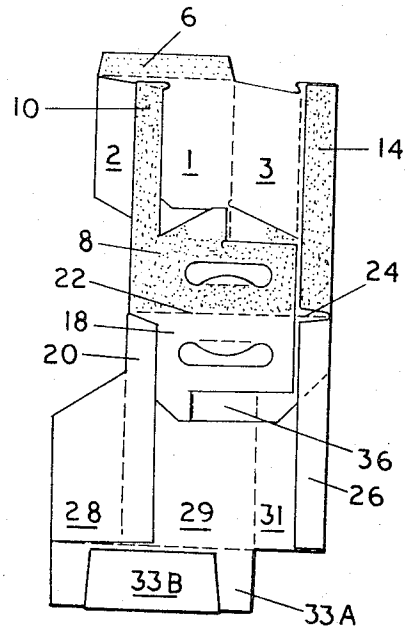


FIG. 4

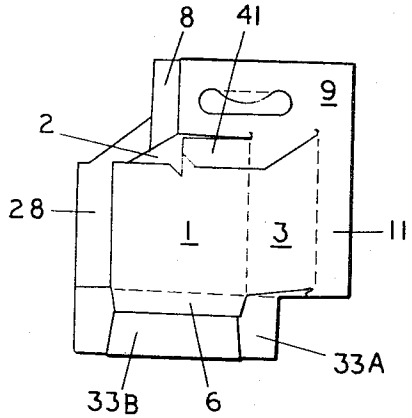


FIG. 5

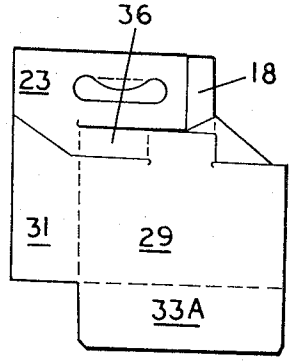


FIG. 6

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3,365,098

ARTICLE CARRIER

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Filed Dec. 6, 1965, Ser. No. 511,821
7 Claims. (Cl. 220—113)

ABSTRACT OF THE DISCLOSURE

The article carrier as disclosed herein is primarily for use in conjunction with packaging an odd number of articles such as five. Three articles receiving cells are formed in conventional fashion along one side of the carrier handle and two cells are formed on the opposite side of the handle. Thus, one side wall is shorter than the opposite side wall and downwardly projecting medially disposed panels are integrally formed with handle panels and the inner edges thereof are foldably joined to the inner edges of end wall panels. For separating the compartment defined by one side wall and end panels into two cells a pair of partition strips are foldably joined at their inner ends to different handle panels and at their outer ends to the one side wall by a fold line. The lower end of the fold line is defined as a fold line between an upwardly projecting portion formed along the upper edge of one side wall and a downwardly projecting portion formed at one end of the partition strip.

This invention relates to article carriers and more particularly to article carriers which are specially adapted for packaging five articles wherein three cells are formed on one side of the carrier handle structure and wherein two cells of the same size are formed on the opposite side of the handle.

A commonly used type of article carrier which has found wide commercial acceptance utilizes a medial handle with three article cells on each side of the handle. It is also common practice to provide cells of similar construction wherein two, four or more cells are formed on either side of the handle.

For some purposes, it is desirable to merchandise articles in quantities of five. Heretofore, article carriers for packaging five articles ordinarily have been constructed with the article receiving cells arranged in a single row.

A principal object of this invention is the provision of an improved article carrier which is particularly adapted for packaging five articles arranged with three articles receiving cells on one side of the handle and with two similar cells on the opposite side of the handle, the arrangement being symmetrical so as to afford a weight condition which is reasonably well balanced.

Another object of this invention is to provide an improved five cell carrier wherein the two cells formed on one side of the handle are separated by a particularly sturdy, double-ply partitioning strip, each strip being interrelated with a different handle panel.

Still another object of the invention is the provision of an improved junction between the side walls of the carrier on the two cell side and the two-ply partitioning structure whereby the two cells are formed.

The invention in one form as applied to an article carrier comprises a bottom wall, opposed side walls foldably joined to opposite side edges of the bottom wall, end panels foldably joined to the ends of the side walls and extending transversely inward therefrom, at least one partition extending from each side wall transversely inward, and a multi-ply handle disposed medially of the carrier and connected to the end panels and to the partitions, the handle comprising a plurality of handle panels and at least one of the partitions comprising a first partitioning strip foldably joined to one of the side walls and to one of the handle panels and a second partition strip foldably joined to the one side wall and to another handle panel, the partition strips being disposed in flat face contacting parallel relation to each other.

For a better understanding of the invention, reference may be had to the following detailed description taken in conduction with the accompanying drawings in which FIG. 1 is a perspective view of a carrier in set-up condition as viewed from the two bottle side of the carrier; FIG. 2 is a plan view of a blank from which the carrier depicted in FIG. 1 is formed; FIGS. 3, 4 and 5 represent stages through which the blank depicted in FIG. 2 is manipulated to form a completed carrier in collapsed form as depicted in FIG. 5; and in which FIG. 6 is a view similar to FIG. 5 but taken from the opposite side of the carrier and showing the carrier in collapsed condition.

In the drawings, the numeral **1** designates a side wall of the carrier while the numerals **2** and **3** designate end panels foldably joined, respectively, to the end edges of side wall **1** along fold lines **4** and **5**. Glue flap **6** is foldably joined to the bottom edge of side wall **1** along fold line **7**. Handle panels **8** and **9** are provided with downwardly extending medially disposed coplanar panels designated in the drawings by the numerals **10** and **11**, respectively. Downwardly projecting panel portion **10** is provided with an edge **12** to which the end panel **2** is foldably joined. In like fashion, downwardly extended coplanar panel **11** is provided with an edge **13** to which end panel **3** is foldably joined. A riser panel **14** is foldably joined along fold line **15** to downwardly extending panel **11**. The handle panels **8** and **9** incorporate hand gripping apertures **16** and **17** respectively.

The opposite side of the carrier is similarly constructed and comprises a handle panel **18** which is foldably joined along fold line **19** to a riser panel **20**. A hand gripping aperture **21** is formed in handle panel **18**. Handle panel **18** is foldably joined to handle panel **8** along medial fold line **22**. Handle panel **23** is foldably joined to handle panel **9** along medial fold line **24** and is provided with a hand gripping aperture **25**. Riser panel **26** is foldably joined to handle panel **23** along fold line **27**.

End panel **28** is foldably joined to riser panel **20** along fold line **19** and to side wall **29** along fold line **30**. Similarly, end panel **31** is foldably joined to the opposite end of side wall **29** along fold line **32**. End panel **31** is foldably joined to riser panel **26** along fold line **27**. Bottom panel **33** is foldably joined to the bottom edge of side wall **29** along fold line **34**. It should be observed that one side designated **33***a* of bottom panel **33** is longer than the opposite side **33B**. This, of course, is because of the fact that three bottles are packaged on one side of the handle whereas only two articles are packaged on the opposite side. The two sides of bottom panel **33** are defined by medial fold line **33C**.

For the purpose of forming three cells on the side of the handle on which side wall **29** is disposed, a pair of partition strips are provided and are designated in the drawings by the numerals **35** and **36**. Partition strip **35** is foldably joined at the one end to the high center portion **29A** of side wall **29** along fold line **37** and at the other end partitioning strip **35** is foldably joined to handle panel **18** along fold line **38**. In like fashion, partition strip **36** is foldably joined along fold line **39** to handle panel **23** at one end and along fold line **40** to the high center portion **29A** of side wall **29** at the other end.

On the other side of the carrier partition strip **41** is foldably joined along fold line **42** at one end thereof to the handle panel **8** and a similar partition strip **43** is foldably joined along one end **44** thereof to handle panel **9**.

In accordance with a feature of this invention, the in-

ner ends of partition strips 41 and 43 are foldably joined to each other along fold line 45. In order to provide a substantial junction between partition strip 41 and side wall 1, a downwardly projecting portion 46 is formed along one edge of partition strip 41 and is in effect struck from and complementary to a part of the upper edge of side wall 1. Furthermore, upwardly projecting portion 47 is formed in side wall 1 and in effect is struck from and complementary to the inner end edge of partition strip 43. Thus, the junction between partition strip 41 and side wall 1 is provided by the projections 46 and 47 to form a continuation of fold line 45 between the ends of partition strips 41 and 43.

Locking notches 48 and 49 are formed at the inner edges of panels 10 and 11.

In order to form the carrier in collapsed form as shown in FIG. 5 from the blank depicted in FIG. 2, an application of glue is made to the blank as indicated by stippling in FIG. 2. Thereafter, the parts are manipulated to occupy the positions depicted in FIG. 3. In order to fold the parts into the positions depicted in FIG. 3, the handle panel 8 and 18 are simply elevated and moved toward the right. Simultaneously, the end panels 2 and 28 swing upwardly and toward the right along the fold lines 4 and 30, respectively, while the partition strips 41 and 35 swing upwardly and toward the right along the fold lines 45, 46, 47 and 37, respectively. Simultaneously, riser panel 20 is folded over into face contacting relation with the inner surface of handle panel 18 and panel 10 overlies a part of end panel 2. Of course, the hand gripping apertures 16 and 21 fall into coincidence with the hand gripping apertures 17 and 25 respectively and the blank then appears as depicted in FIG. 3.

The succeeding operation simply comprises folding the riser panels 14 and 26 upwardly and toward the left along their respective fold lines 15 and 27 to occupy the positions depicted in FIG. 4 while the small portion 33B of the bottom 33 is folded upwardly along the medial fold line 33C to occupy the position shown in FIG. 4.

Thereafter, an application of glue is made to the blank depicted in FIG. 4 as indicated by stippling in FIG. 4. The blank is then folded by swinging the side wall 1 and associated parts upwardly and forwardly along the fold line 22, 24 so that the parts then occupy the positions depicted in FIG. 5. This operation causes the riser panel 14 to adhere to riser panel 26 and affixes the glue flap 6 to an edge of the narrow portion 33B of bottom wall 33. Simultaneously, panel 10 of handle panel 8 is adhered to riser panel 20 and the carrier is then in completed condition as shown in FIG. 5.

In order to set up the carrier from its collapsed condition as depicted in FIG. 5 to its set-up condition as depicted in FIG. 1, it is simply necessary to hold the carrier against movement toward the left and to press inwardly toward the left on the handle panels 9–23 and on the end panels 31 and 3 to cause the locking notches 48 and 49 to engage the corners 50 and 51 at the ends of fold line 33C.

The carrier as shown collapsed in FIG. 5 exposes the narrow portion 33B of the bottom wall. The carrier as viewed from the opposite side as depicted in FIG. 6 exposes the wide portion 33A of the bottom wall.

From the description above, it will be understood that the transverse partition on the two-cell side of the carrier is unusually strong because it comprises the two partition strips 41 and 43 disposed in flat face contacting relation to each other. Furthermore, these partition strips are foldably joined to different handle panels as are the conventional partition strips 35 and 36. The common fold line 45 for the outer ends of the partitioning strips 41 and 43 is unusually sturdy because of the downwardly projecting portion 46 of partition strip 41 and because of the upwardly projecting portion 47 of the side wall 1 which, as explained, provide a sturdy and secure hinged connection between side wall 1 and partition strip 41. Furthermore, the fold line 45 between the ends of the partition strips 41 and 43 is entirely adequate since partition strip 43 can be regarded as simply a reinforcing element for the strip 41. It will be understood that the downwardly extending medially disposed coplanar panels 10 and 11 afford substantial additional strength for the carrier and do so in the regions thereof which are subjected to stress, namely, at the ends of the handle due to the weight of the articles.

While a particular embodiment of the invention has been shown and described, the invention is not limited thereto and it is intended in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An article carrier comprising a bottom wall, opposed side walls foldably joined to opposite side edges of said bottom wall, end panels foldably joined to the ends of said side walls and extending transversely inward therefrom, at least one partition extending from each side wall transversely inward, and a medial multi-ply handle connected to said end panels and to said partitions, said handle comprising on at least one side thereof an outer handle panel and an inner handle panel secured in face contacting relation to the inner surface of said outer handle panel, and at least one of said partitions comprising a first partition strip foldably joined at one end thereof to one of said handle panels and at the other end thereof to one of said side walls, and a second partition strip foldably joined at one end thereof to the other handle panel and at the other end thereof to the other end of said first partition strip, said partition strips being disposed in parallel face contacting relation and the fold line between said first partition strip and said one side wall being defined at least in part by an edge of a downwardly projecting portion of said one partition strip and an upwardly projecting portion of said one side wall.

2. An article carrier comprising a bottom wall, opposed side walls foldably joined to opposite side edges of said bottom wall, one of said side walls being shorter than the other, end panels foldably joined to the ends of said side walls and extending transversely inward therefrom, a riser panel foldably joined to an end panel which is foldably joined to one end of said other side wall along and edge of said end panel remote from said other side wall, a medial multi-ply handle connected to said end panels, said handle comprising on the side thereof adjacent said one side wall an outer handle panel and an inner handle panel secured in face contacting relation to the inner surface of said outer handle panel, and a downwardly extending medially disposed coplanar panel integrally formed on at least one of said handle panels and foldably joined along an inner edge thereof to an edge of one of said end panels, said downwardly extending coplanar panel being secured in flat face contacting relation to said riser panel.

3. An article carrier comprising a bottom wall, opposed side walls foldably joined to opposite side edges of said bottom wall, end panels foldably joined to the ends of said side walls and extending transversely inward therefrom, at least one partition extending from each side wall transversely inward, and a medial multi-ply handle connected to said end panels and to said partitions, said handle comprising on at least one side thereof an outer handle panel and an inner handle panel secured in face contacting relation to the inner surface of said outer handle panel, and at least one of said partitions comprising a first partition strip foldably joined at one end thereof to one of said handle panels and at the other end thereof to one of said side walls, and a second partition strip foldably joined at one end thereof to the other handle panel and at the other end thereof to the other end of said first partition strip, said partition strips being disposed in parallel face contracting relation and the fold

line between said first partition strip and said one side wall being defined at least in part by an edge of a downwardly projecting portion of said one partition strip and said downwardly projecting portion of said one partition strip being struck from and complementary to a part of the upper portion of said one side wall.

4. An article carrier comprising a bottom wall, opposed side walls foldably joined to opposite side edges of said bottom wall, end panels foldably joined to the ends of said side walls and extending transversely inward therefrom, at least one partition extending from each side wall transversely inward, and a medial multi-ply handle connected to said end panels and to said partitions, said handle comprising on at least one side thereof an outer handle panel and an inner handle panel secured in face contacting relation to the inner surfaces of said outer handle panel, and at least one of said partitions comprising a first partition strip foldably joined at one end thereof to one of said handle panels and at the other thereof to one of said side walls, and a second partition strip foldably joined at one end thereof to the other handle panel and at the other end thereof to the other end of said first partition strip, said partition strips being disposed in parallel face contacting relation and the fold line between said first partition strip and said one side wall being defined at least in part by an edge of an upwardly projecting portion of said one side wall.

5. A carrier according to claim 4 wherein said upwardly projecting portion of said one side wall is struck from and complementary to the adjacent lower end portion of said second partition strip.

6. An article carrier comprising a bottom wall, opposed side walls foldably joined to opposite side edges of said bottom wall, end panels foldably joined to the ends of said side walls and extending transversely inward therefrom, at least one partition extending from each side wall transversely inward, and a medial multi-ply handle connected to said end panels and to said partitions, said handle comprising on at least one side thereof an outer handle panel and an inner handle panel secured in face contacting relation to the inner surface of said outer handle panel, and at least one of said partitions comprising a first partition strip foldably joined at one end thereof to one of said handle panels and at the other end thereof to one of said

side walls, and a second partition strip foldably joined at one end thereof to the other handle panel and at the other end thereof to the other end of said first partition strip, said partition strips being disposed in parallel face contacting relation and the fold line between said first partition strip and said one side wall being defined along its lower part by a vertical edge of a downwardly projecting portion of said one partition strip and along its upper part by a vertical edge of an upwardly projecting portion of said one side wall.

7. An article carrier comprising a bottom wall, opposed side walls foldably joined to opposite side edges of said bottom wall, end panels foldably joined to the ends of said side walls and extending transversely inward therefrom, at least one partition extending from each side wall transversely inward, and a medial multi-ply handle connected to said end panels and to said partitions, said handle comprising on at least one side thereof an outer handle panel and an inner handle panel secured in face contacting relation to the inner surface of said outer handle panel, and at least one of said partitions comprising a first partition strip foldably joined at one end thereof to one of said handle panels and at the other end thereof to one of said side walls, and a second partition strip foldably joined at one end thereof to the other handle panel and at the other end thereof to the other end of said first partition strip, said partition strips being disposed in parallel face contacting relation and at least one of said handle panels being provided with a downwardly extending medially disposed coplanar panel to an inner edge of which one of said end panels is foldably joined.

References Cited

UNITED STATES PATENTS

2,776,072	1/1957	Forrer	220—113
2,830,749	4/1958	Lauritzen	229—15
2,891,696	6/1959	Ouellette	220—113
2,920,791	1/1960	Ringler	220—113
3,140,797	7/1964	Arneson	229—52

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