Nov. 21, 1961 S. J. LEONE 3,009,622

DISPLAY CARTONS

Filed June 14, 1960

3 Sheets-Sheet 1

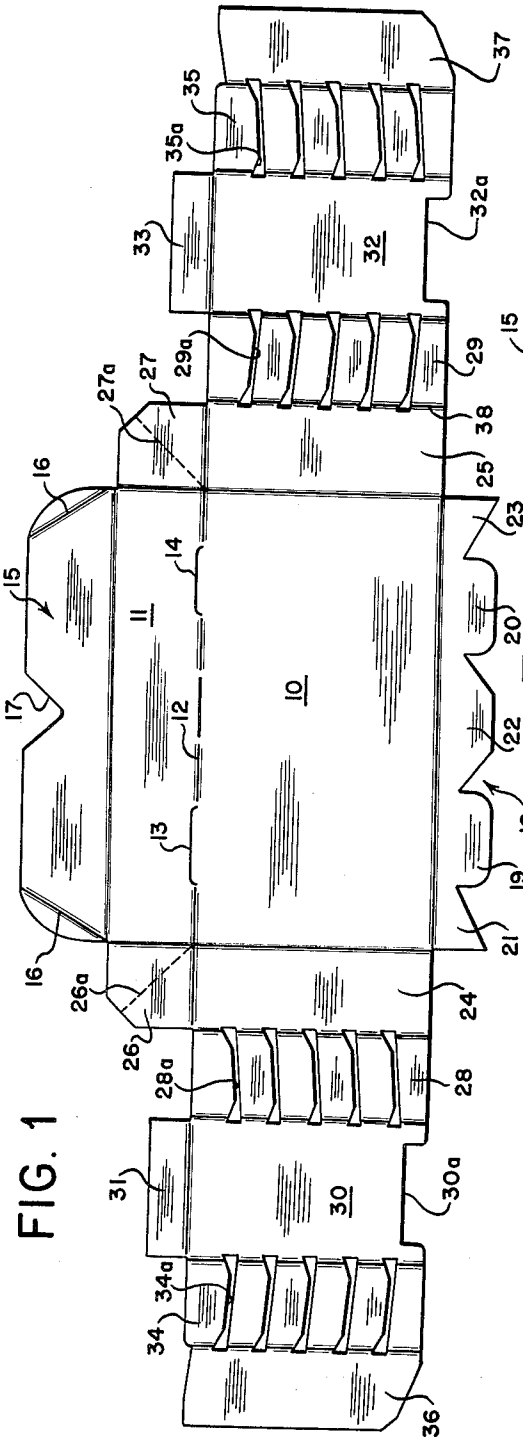


FIG. 1

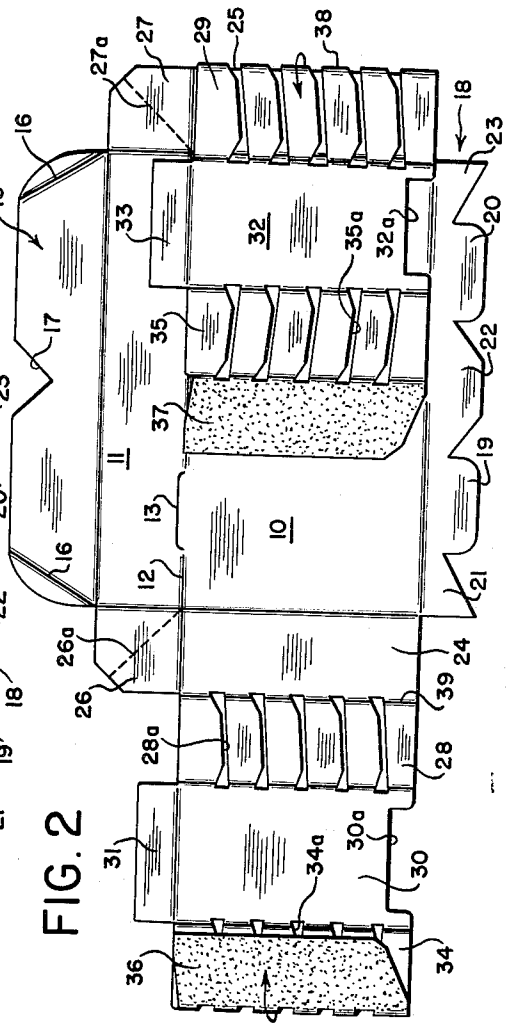


FIG. 2

INVENTOR
Salvatore J. Leone
BY
Pennie Edmonds Morton Barrows Taylor
ATTORNEYS

Nov. 21, 1961 S. J. LEONE 3,009,622

DISPLAY CARTONS

Filed June 14, 1960

3 Sheets-Sheet 2

FIG. 3

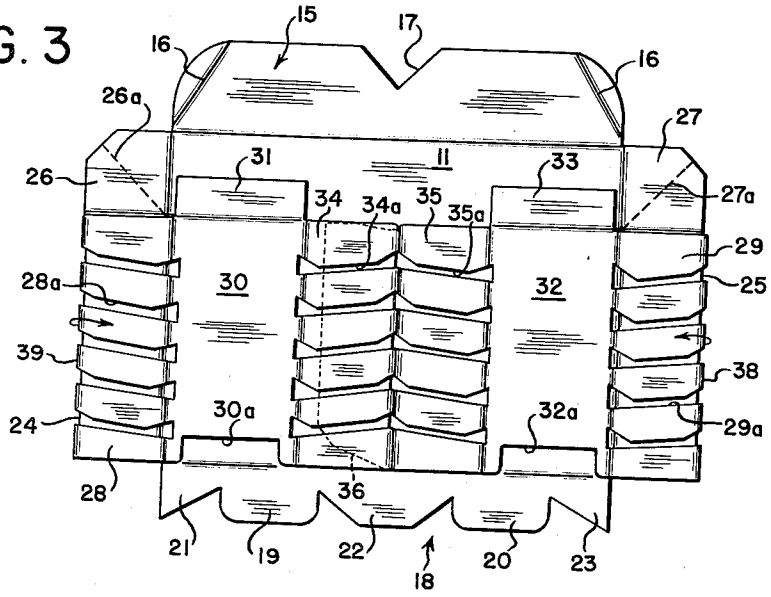
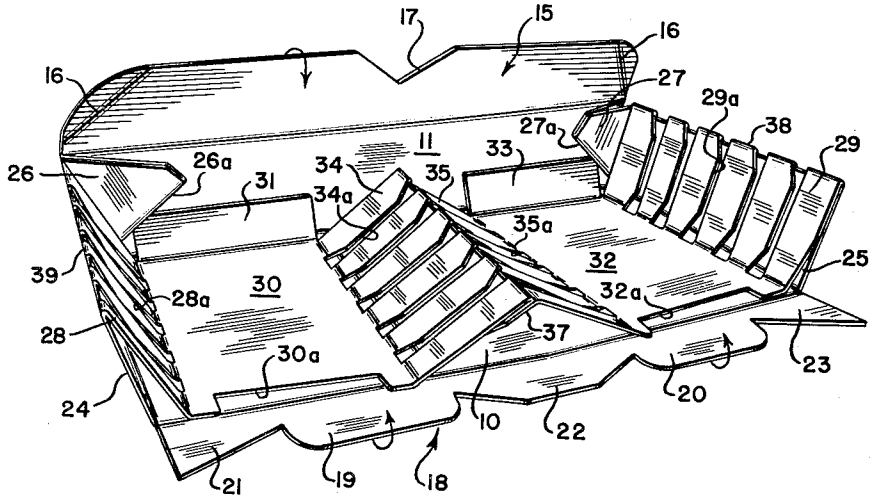


FIG. 4



INVENTOR
Salvatore J. Leone
BY
Pennie Edmonds, Morton, Barrows & Taylor
ATTORNEYS

Nov. 21, 1961 S. J. LEONE 3,009,622

DISPLAY CARTONS

Filed June 14, 1960 3 Sheets-Sheet 3

FIG. 5

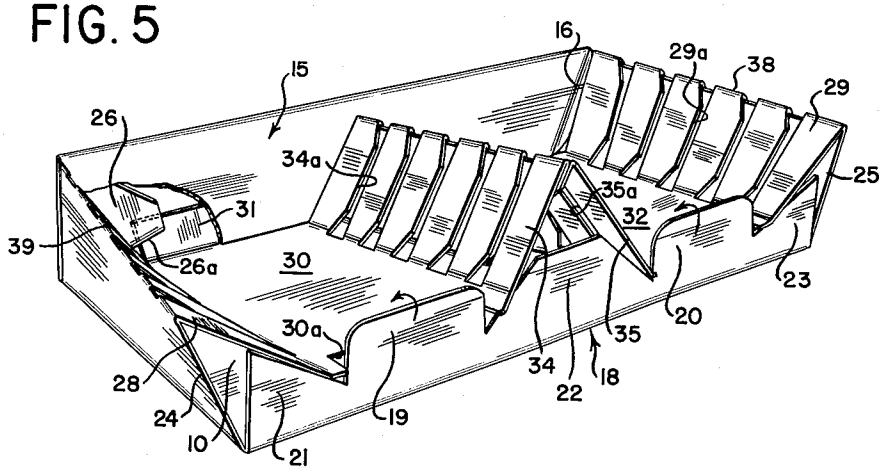


FIG. 6

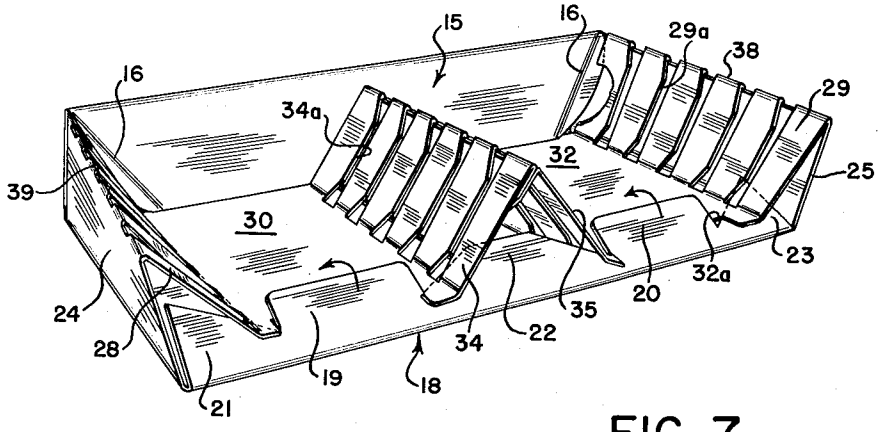
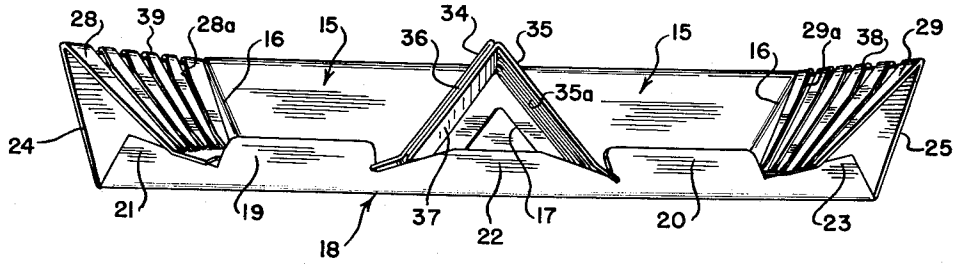


FIG. 7



INVENTOR
Salvatore J. Leone
BY
Pennie Edmonds Morton Barrows Taylor
ATTORNEYS

United States Patent Office 3,009,622 Patented Nov. 21, 1961

3,009,622

DISPLAY CARTONS

Salvatore J. Leone, Wallingford, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut

Filed June 14, 1960, Ser. No. 35,926
2 Claims. (Cl. 229—16)

This invention relates to cartons used for displaying articles for sale and ordinarily placed on counters, shelves, showcases, and other supports in retail stores. More particularly, the invention is concerned with a novel display carton made of a single blank of paperboard, which can be shipped flat in a carton containing the articles to be displayed and can be readily erected at the point of use and loaded with the articles. The new carton may be used for holding for display a number of articles arranged in a plurality of rows and, in a typical use of the carton, it holds rows of erect cards, on which the articles are mounted in transparent enclosures. As all the advantages of the carton are realized, when it is employed in the display of articles mounted on cards, a form of the carton suitable for such use will be illustrated and described in detail for purposes of explanation.

For a better understanding of the invention, reference may be made to the accompanying drawings, in which

FIG. 1 is a plan view of a blank which may be converted into one form of the new carton;

FIG. 2 is a view of the blank after the initial stage of folding in the conversion of the blank into a carton;

FIG. 3 is a view similar to FIG. 2 showing the blank glued to form the collapsed carton;

FIGS. 4, 5, and 6 are views in perspective showing different stages in the erection of the carton; and

FIG. 7 is a view in front elevation of the erected carton.

The blank shown in FIG. 1 is for conversion into a carton to be used in the display of cards, on which articles are mounted, the carton holding the cards face-to-face in two rows extending from front to rear of the carton. The blank is made of any suitable carton material and comprises a base **10** of oblong shape having a rear wall **11** attached to its rear edge along a fold line **12**. A pair of U-shaped cuts **13**, **14** are made between the base and rear wall to facilitate the raising of the wall by folding on the line **12**. A locking flap **15** is hinged to the outer edge of the rear wall and the flap has rounded corners crossed diagonally by fold lines **16**. In its outer edge, the locking flap has a V-shaped notch **17**. A flap **18** is hinged to the front edge of the base **10** and the flap is subdivided into a pair of locking tabs **19**, **20** and other tabs **21**, **22**, and **23** lying at opposite sides of and between the locking tabs **19**, **20**.

A pair of outer side walls **24**, **25** are hinged to the side edges of the base and the rear edge of the wall **24** is connected to the adjacent side edge of the rear wall **11** by a connecting panel **26**, which is crossed diagonally by a fold line **26***a*. Similarly, the rear edge of the wall **25** is connected by a panel **27** with a diagonal fold line **27***a* to the adjacent side edge of the rear wall **11**.

An inner side wall **28** is hinged to the outer edge of the outer side wall **24** and a similar inner side wall **29** is hinged to the outer edge of the outer side wall **25**. The inner side wall **28** is connected along its outer edge to a bottom wall **30** having a notch **30***a* in its front edge and a flap **31** hinged to its rear edge. A similar bottom wall **32** is hinged to the outer edge of the inner side wall **29** and the wall **32** has a notch **32***a* in its front edge and a flap **33** attached to its rear edge.

A partition wall **34** is hinged to the outer edge of the bottom wall **30** and a similar partition **35** is hinged to the outer edge of the bottom wall **32**. Glue flaps **36**, **37** are

hinged to the outer edges of the partition walls **34**, **35**, respectively.

In converting the blank into a carton in collapsed form, the blank is laid flat and folded along the hinge line **38** between the outer side wall **25** and the inner side wall **29** to cause the inner side wall to overlie the outer side wall and the bottom wall **32**, the partition wall **35**, and the glue flap **37** to overlie the base **10**. The glue flap **36** is then folded inwardly to overlie the partition wall **34** and glue is applied to the upper surface of one or both of the glue flaps **36**, **37**. The blank is next folded along the line **39** between the outer side wall **24** and the inner side wall **28**, so that the inner side wall overlies the outer side wall and the bottom wall **30** and the partition wall **34** overlie the base with the coated surface of the glue flap **36** moving into contact with the upper surface of the glue flap **37**. When the glue has set, the conversion of the blank into a collapsed carton has been completed.

When the collapsed carton is to be erected, the outer side walls **24**, **25** and the rear wall **11** are folded upwardly and, in this operation, the connecting panels **26**, **27** are folded upon themselves along their respective diagonal fold lines **26***a*, **27***a*, so that the folded panels move inward and lie in front of the raised rear wall **11**. The raising of the outer side walls **24**, **25** causes the bottom walls **30**, **32** to move toward each other and this movement causes the partition walls **34**, **35**, which are connected together by the glue flaps **36**, **37**, to move upwardly away from the base. The raising of the gear wall causes the flaps **31**, **33** attached to the respective bottom walls **30**, **32** to be moved upward to lie between the rear wall **11** and the infolded doubled panels **26**, **27**. Before the outer side walls **24**, **25** have been fully raised, the locking flap **15** attached to the top of the rear wall is folded downward in front of the rear wall to a position in front of the folded panels **26**, **27** and the flaps **31**, **33**. The presence of the notch **17** permits the locking flap to pass to the rear of the rear edges of the raised partition walls **34**, **35** and, as the locking flap **15** is swung downward to a position parallel with the erect rear wall **11**, the corners of the locking flap outside the fold lines **16** flex and pass to the rear of the rear edges of the inner side walls **28**, **29**. In its final position, the locking flap is held firmly in place with its ends and middle portion behind the rear edges of the inner side walls and of the connected partition walls, respectively. In this position of the flap, it overlies the infolded panels **26**, **27** and the flaps **31**, **33** attached to the bottom walls **30**, **32** and prevents the sections of the panels from spreading apart. This action tends to maintain the outer side walls **24**, **25** erect.

As the final operation in erecting the carton, the flap **18** attached ot the base is folded upward and inward over the base. At the same time, the outer side walls **24**, **25** are forced toward each other, so that the bottom walls approach each other and raise the partition walls **34**, **35** still higher. When the bottom walls have approached each other sufficiently, the locking tabs **19**, **20** on the flap **18** are forced into the notches **30***a*, **32***a* in the front edges of the bottom walls and the tabs then hold the bottom walls from moving apart. This prevents the outward lowering movement of the inner and outer side walls and the flattening of the partition walls by a movement toward the base. As the flap **18** is swung inwardly over the base, the tabs **21**, **23** are inserted beneath the outer edges of the bottom walls **30**, **32** and beneath the inner side walls **28**, **29** and the tab **22** is inserted beneath the partition walls **34**, **35** and beneath the inner edges of the bottom walls. On completion of these operations, the carton is erected and ready for use.

The inner side wall **28** and the opposed partition wall **34** are provided with registering openings **28***a*, **34***a* respectively, for receiving the ends of articles and, since the

carton described is to support cards on which the articles are mounted, the openings are slots wide enough to receive the cards. The inner side wall **29** and the opposed partition **35** are similarly provided with registering slots **29***a*, **35***a*, respectively. The slots are spaced the proper distance, so that the cards with the objects mounted thereon can be placed in adjacent slots, and when the carton is loaded, the objects are arranged in two rows with the front object in each row fully visible.

I claim:

1. A display carton which comprises a base, a rear wall extending upward from the rear edge of the base, outer side walls extending upward from respective side edges of the base, a pair of panels connecting respective side edges of the rear wall to the rear edges of the adjacent side walls, each panel being folded upon itself along a diagonal line and lying in front of the rear wall, inner side walls extending convergently downward from the top edges of the outer side walls, a pair of central partition walls extending convergently upward between the inner side walls and connected together at their upper edges, a bottom wall lying parallel to the base and connecting the lower edge of each partition wall and the lower edge of the adjacent inner side wall, each bottom wall having a recess in its front edge and each inner side wall and the adjacent partition wall having registering openings, locking tabs on the base extending upward through the recesses in the bottom walls, and a locking flap connected to the upper edge of the rear wall and extending downward in front of the folded panels and behind the rear edges of the partition walls.

2. The carton of claim 1, in which the base has tabs at opposite sides of and between the locking tabs and extending beneath the inner side and partition walls and the bottom walls.

References Cited in the file of this patent

UNITED STATES PATENTS

1,292,174	Walter	Jan. 21, 1919
2,457,812	Epps	Jan. 4, 1949
2,465,169	O'Connor	Mar. 22, 1949
2,710,094	Rau	June 7, 1955

FOREIGN PATENTS

701,212	Great Britain	Dec. 23, 1953