Nov. 11, 1958 R. GUYER 2,859,906

TELESCOPING CARTON

Filed March 7, 1955 2 Sheets-Sheet 1

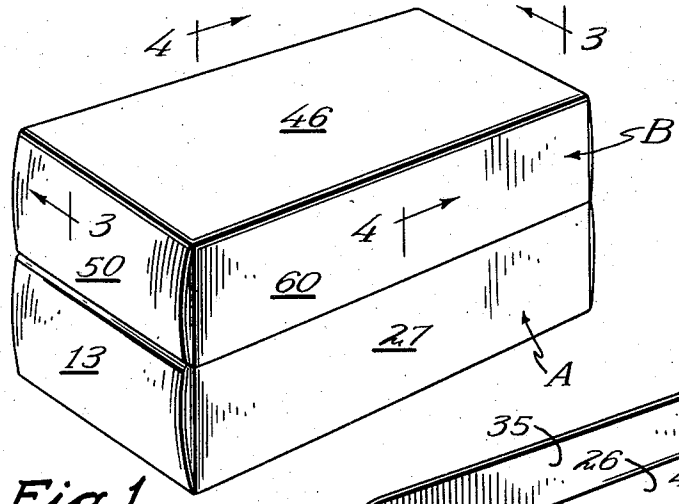


Fig. 1

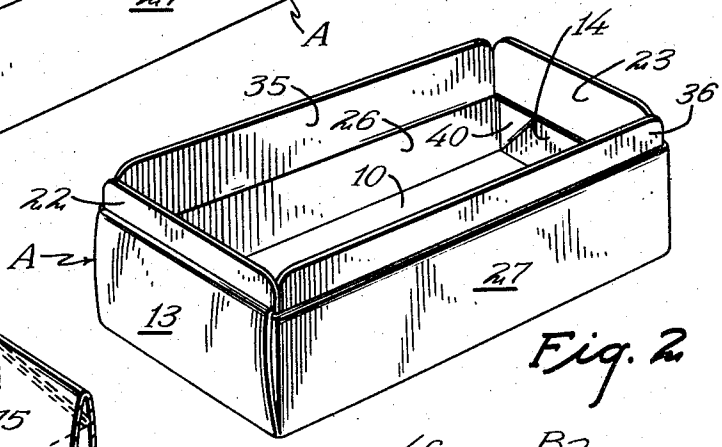


Fig. 2

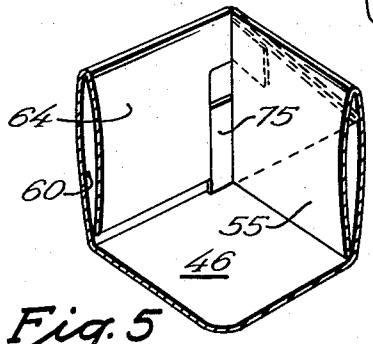


Fig. 5

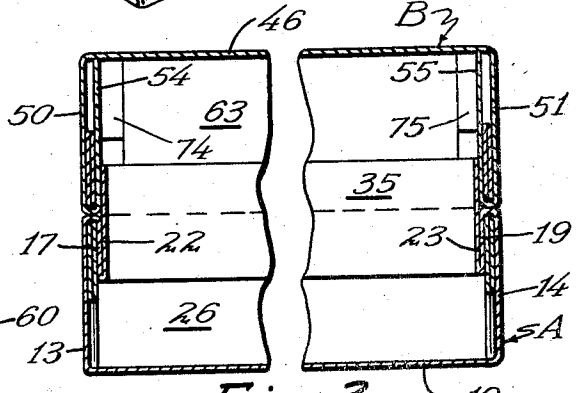


Fig. 3

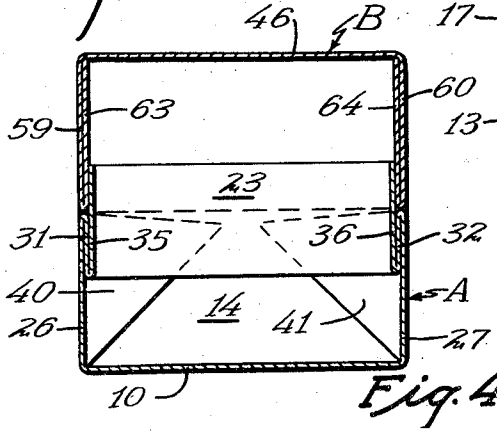


Fig. 4

INVENTOR

Reynolds Guyer

BY Robert M. Dunning

ATTORNEY

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TELESCOPING CARTON

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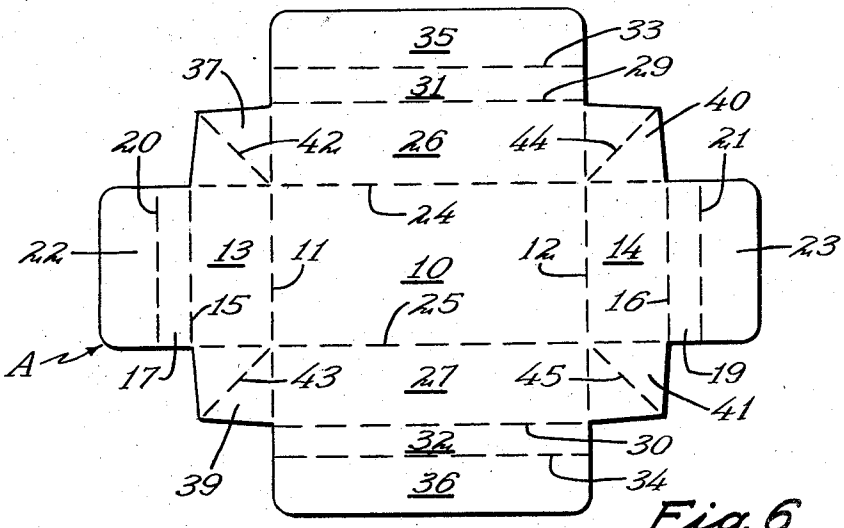


Fig. 6

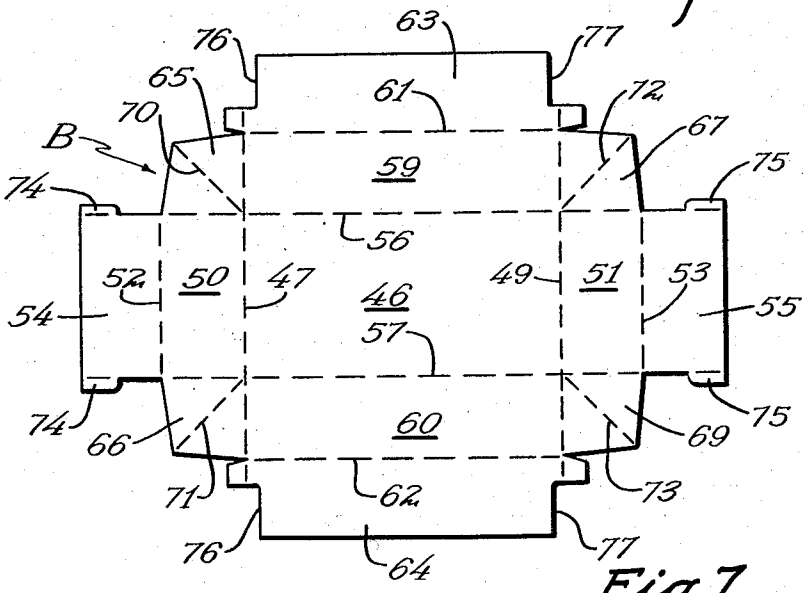


Fig. 7

INVENTOR

Reynolds Guyer

BY Robert M. Dunning

ATTORNEY

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TELESCOPING CARTON

Reynolds Guyer, White Bear Lake, Minn, assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota

Application March 7, 1955, Serial No. 492,412

4 Claims. (Cl. 229—31)

This invention relates to an improvement in telescoping carton and deals particularly with a two part carton in which the parts telescope together and parts thereof extend in edge abutting relation.

In telescoping cartons of the usual type, two tray-like bodies are formed, one of which is usually slightly larger than the other so that the side walls of one part can telescope over the side walls of the other part. This arrangement produces a carton which is possessed of good stacking strength but has the disadvantage that there is a duplication of paper board in all of the carton walls. In cases where the carton should be of the telescoping type so that the cover may be removed in the usual manner, it is not essential in all cases that the carton have high stacking strength. The present invention deals with a type of carton which may be used in cases of this sort.

A feature of the present invention resides in the provision of a carton made of two tray-shaped bodies which are of similar outside dimensions. One of the carton sections is provided with a series of upwardly directed flanges located inwardly of the remainder of the carton walls. The second portion of the carton may telescope over these flanges and lie in edge abutting relation with the first section.

A feature of the present invention lies in the provision of a telescoping carton formed of two sections in which the major portions of the sections are held in edge abutting relation and are held in this position by flanges on one section which extend inwardly of the walls of the other section.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

Figure 1 is a perspective view of the telescoping carton showing the general construction thereof.

Figure 2 is a perspective view of the bottom section of the carton shown in Figure 1.

Figure 3 is a transverse section through the carton, the position of the section being indicated by the lines 3—3 of Figure 1.

Figure 4 is a sectional view on the line 4—4 of Figure 1.

Figure 5 is a perspective view showing the interlocking corner structure of the upper section.

Figure 6 is a diagrammatic view of the blank of which the lower section is formed.

Figure 7 is a diagrammatic view of the blank from which the upper section of the carton is formed.

In the present case the carton is formed of two sections one of which is described as the upper section and the other of which is described as the lower section. The upper section is of common type and may be modified in form. The lower section embodies the features of the present invention particularly when used with an upper section of the general type disclosed.

As indicated in Figure 1 of the drawings, the carton

includes a lower section A and an upper section B. These two sections are generally tray-shaped in form and, when closed, extend in edge abutting relation.

With reference to Figure 6, the lower section includes a bottom panel **10** foldably connected along parallel fold lines **11** and **12** to end walls **13** and **14**, respectively. The end walls **13** and **14** are connected along their upper edges **15** and **16** to lining panels or flanges **17** and **19**, respectively. Lining panels or flanges **17** and **19** are connected along fold lines **20** and **21**, respectively, to flanges **22** and **23**. It is important to the invention that the panels **22** and **23** be substantially wider than the lining panels **17** and **19** to which they are hinged.

The bottom panel **10** is connected along parallel fold lines **24** and **25** to side wall panels **26** and **27**, respectively, the fold lines **24** and **25** intersecting the fold lines **11** and **12** at substantially right angles. The side walls **26** and **27** are connected along parallel fold lines **29** and **30** to lining panels or flanges **31** and **32**, respectively. The lining panels or flanges **31** and **32** are connected along fold lines **33** and **34** to flanges **35** and **36**, respectively. It is important to the invention that the flanges **35** and **36** be somewhat wider than the panels **31** and **32** to which they are hinged.

The end panel **13** is connected to the side panel **26** by a corner flap member **37** and to the side wall **27** by a similar corner flap member **39**. The end wall **14** is connected to the side wall **26** by a corner flap member **40** and to the side wall **27** by a corner flap member **41**. Diagonal folds **42**, **43**, **44** and **45** emanate outwardly from the corners of the bottom panels **10** through the various corner flaps **37**, **39**, **40** and **41**, respectively, so that these corner flaps may be diagonally folded.

The flanges **22** and **23** are reversely folded to overlie the panels **17** and **19** to which they are hinged and are adhered thereto. As a result, when the flanges **17** and **19** are folded upon the panels **13** and **14**, a rim of three thicknesses of paper board is formed along the upper edge of each end wall and due to the fact that the flanges **22** and **23** are wider than the panels **17** and **19**, the flanges project above the upper edges of the end walls as is evident in Figures 2 and 3 of the drawings.

The other walls of the carton are similarly folded. The panels **31** and **32** are folded onto the side walls **26** and **27** to which they are hinged and the flanges **35** and **36** are folded to overlie the panels **31** and **32** to which they are secured. The panels **31** and **32** are secured in surface contact both to the side walls **26** and **27** and to the flanges **35** and **36**. As the flanges **35** and **36** are wider than the panels **31** and **32** to which they are hinged, these flanges extend above the upper edge of the side walls as is clearly evident in Figures 2 and 4 of the drawings.

The carton sections A are normally shipped in a flat glued state, the gluing being as described. When it is desired to erect the cartons, the side and end walls are folded upwardly from the bottom panel **10**, the corner flap portions being diagonally folded and these diagonally folded flaps being positioned inwardly of the end walls. The panels **17** and **19**, together with the flanges **22** and **23**, which are connected thereto, are then folded inwardly over the diagonally folded corner flaps to hold the same in place. As the panels **17** and **19** are substantially the full width of the end walls, these flanges are frictionally engaged betwen the triple thickness portions of the side walls. When thus folded the lower section A appears as indicated in Figure 2 of the drawings.

With reference now to Figure 7 of the drawings, it will be noted that a typical cover structure has been shown. The cover section B includes a top panel **46** which is connected along parallel fold lines **47** and **49** to end wall panels **50** and **51**. These panels **50** and **51** are

connected along parallel fold lines **52** and **53** to liner panels **54** and **55**. The size of the top panel **46** is approximately equal to the size of the bottom panel **10**. The top panel **46** is connected along parallel fold lines **56** and **57** to side walls **59** and **60**. These side walls are hingedly connected along their bottom edges by fold lines **61** and **62** to lining panels **63** and **64**.

Corner flaps are provided at the corners between the side and end walls, the end wall **50** being connected to the side wall **59** by a corner flap **65** and to the wide wall **60** by a corner flap **66**. A corner flap **67** connects the end panel **51** to the side wall **59** and a similar corner flap **69** is provided between the end panel **51** and the side wall **60**. Diagonal fold lines **70** and **71** and **72** and **73** emanate outwardly from the corners of the top panel **46** to divide the corner flaps into two gusset portions which may be folded together.

As is indicated in Figures 7 and 5 of the drawings, the liner panels **54** and **55** are provided with laterally projecting tongues **74** and **75** designed to extend into cooperable notches **76** and **77** in opposite ends of the side wall liner panels **63** and **64**. The liner panels **54** and **55** normally fold over the diagonally folded corner flanges to enclose the same and the tongues **74** and **75** lock the top section B in tray-shaped form.

It will be seen that the two sections A and B, when folded and set up, are arranged in edge abutting relation and are held in this position by the upwardly projecting flanges on the bottom section. Thus a neat telescoping carton is provided which avoids the usual requirement that the side walls of one part telescope over the side walls of the other part.

In accordance with the patent statutes, I have described the principles of construction and operation of my telescoping carton, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A telescoping carton including two sections having side walls of substantially similar peripheries, said sections being designed to extend in edge abutting relation, one section having two opposed side walls each having a lining flange foldably connected to the upper edge thereof and secured in surface contact to the upper portion of the inner surface thereof, and telescope flanges secured to the lower edges of the lining flanges and secured in surface

contact therewith to project above the side walls, said one section having two opposed end walls, lining flanges hingedly secured to the upper edges thereof, and telescope flanges foldably connected to said lining flanges and secured in surface contact therewith, said last named lining flanges extending above the level of said end walls and corner flaps secured to said side walls and being sandwiched between said lining flanges on said end walls and said end walls, the telescope flanges being designed to extend into the other section to hold said sections in edge abutting relation.

2. The structure of claim 1 and in which said corner flaps comprise diagonally folded flaps connected to said side walls and said end walls.

3. A telescoping carton comprising two sections having side walls of substantially similar peripheries, said sections being designed to extend in edge abutting relation, one section including a rectangular bottom panel, opposed side walls and opposed end walls foldably connected thereto, lining flanges foldably connected to said side and end walls, and projecting flanges hingedly connected to said lining flanges, the flanges connected to each wall being foldably connected along lines of fold parallel to the line of fold connecting that wall to said bottom panel, said projecting flanges being secured in surface contact with the lining flanges to which they are secured, and said lining flanges of said side walls being secured in surface contact with the inner surface of said side walls, corner flaps secured to said side walls, said lining flanges of said end walls being folded to lie inwardly of said end walls, sandwiching said corner flaps between said end wall lining flanges and said end walls, said projecting flanges projecting above said side and end walls and extending into the other section when said sections are in edge abutting relation.

4. The structure of claim 3 and in which said corner flaps comprise diagonally folded flaps connected both to said side walls and said end walls.

References Cited in the file of this patent

UNITED STATES PATENTS

1,726,682	Scholes	Sept. 3, 1929
1,778,462	Nourse	Oct. 14, 1930
2,661,139	Brooks	Dec. 1, 1953

FOREIGN PATENTS

24,795	Australia	July 10, 1906