Aug. 14, 1962 T. G. MAIRS ET AL 3,049,279

EGG CASES

Filed Aug. 26, 1960 2 Sheets-Sheet 1

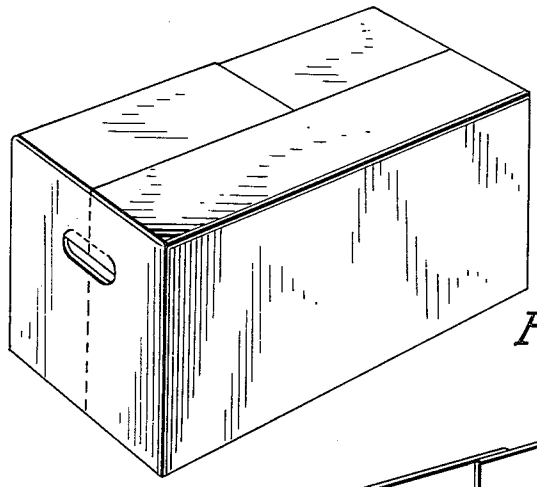

FIG. 1

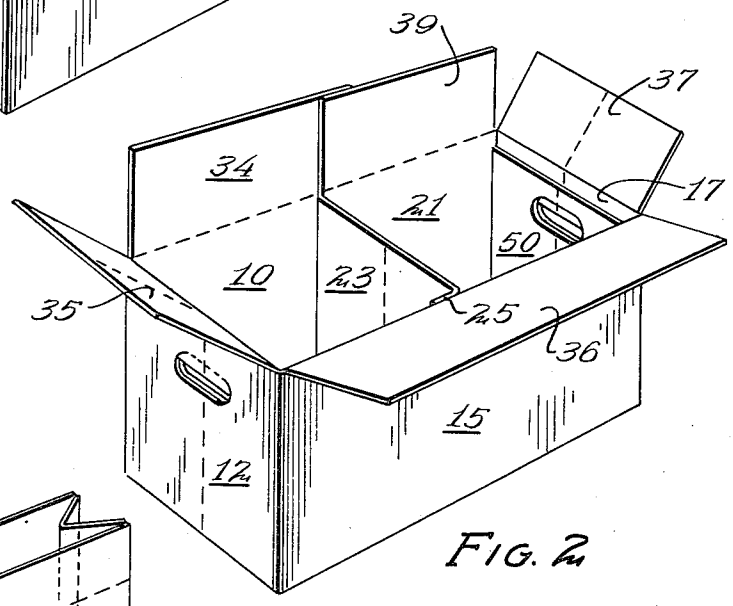

FIG. 2

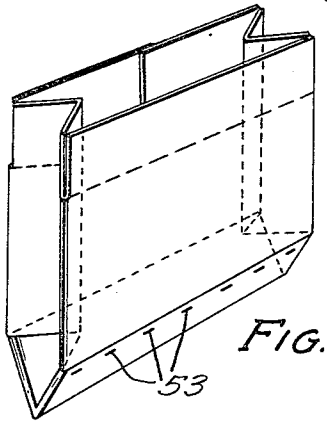

FIG. 3

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Aug. 14, 1962 T. G. MAIRS ET AL 3,049,279

EGG CASES

Filed Aug. 26, 1960 2 Sheets-Sheet 2

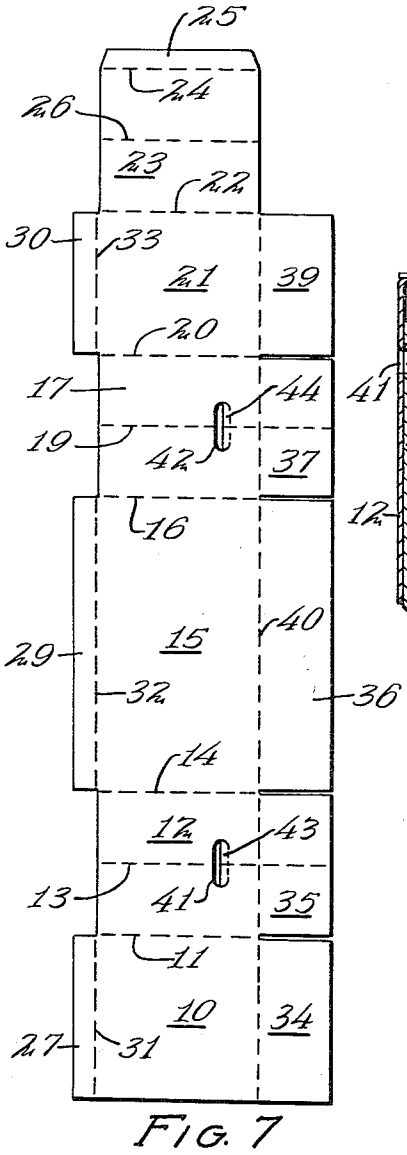

FIG. 7

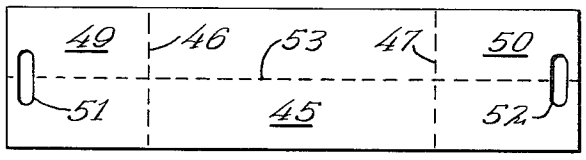

FIG. 8

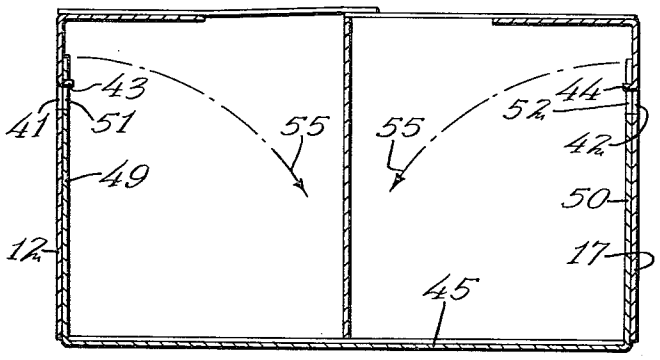

FIG. 4

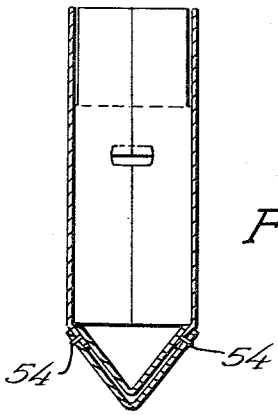

FIG. 5

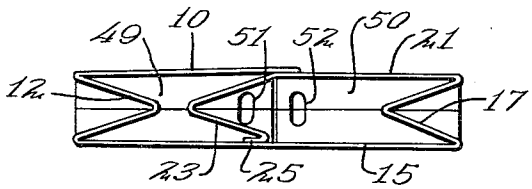

FIG. 6

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3,049,279

EGG CASES

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Filed Aug. 26, 1960, Ser. No. 52,289
5 Claims. (Cl. 229—27)

This invention relates to an improvement in egg cases and deals particularly with the type case used to contain thirty dozen eggs.

Eggs are shipped and stored in cases containing two compartments in side by side relation, each of which is designed to contain fifteen dozen eggs. One of the difficulties involved in these cases lies in the fact that considerable time and effort is often spent in erecting the case in readiness to be filled. In other words, it is normally necessary to take the flat tubular blank and set it up and to stitch or glue the bottom end of the case to serve as a bottom closure. In many cases, particularly where the volume of eggs being packed is relatively small, the proper equipment for gluing or stitching the cases is not available. It is an object of the present invention to provide a case which may be shipped and stored in a flat state and which may be opened up when desired in readiness to pack without the use of any machinery.

A further feature of the present invention resides in the provision of a case having a solid bottom which is stitched or glued in place by the manufacturer and which may thereafter be folded for delivery and for storage.

These and other objects and novel features of the present invention will be more fully and clearly 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 case in closed position.

FIGURE 2 is a perspective view of the case in readiness to receive the eggs.

FIGURE 3 is a perspective view of the case in partially folded position.

FIGURE 4 is a longitudinal section on a vertical plane through the closed case.

FIGURE 5 is a transverse sectional view of the case in partially folded position.

FIGURE 6 is a plan view of the case in partially folded condition.

FIGURE 7 is a diagrammatic view of the blank from which the body of the case is formed.

FIGURE 8 is a diagrammatic view of the blank from which the case bottom and reinforcing end walls is formed.

With reference to FIGURE 7 of the drawings, it will be noted that the blank which forms the body of the case includes a side wall panel **10**, foldably connected along the fold line **11** to an end wall **12** having a central fold line **13**. The end wall **12** is foldably connected along the fold line **14** to the side wall **15**. The side wall **15** is foldably connected along the fold line **16** to an end wall **17** which contains a central fold line **19**. The end wall **17** is foldably connected along the fold line **20** to a side wall **21**. The side wall **21** is foldably connected along the fold line **22** to a partition wall **23**. The partition wall **23** is foldably connected along the fold line **24** to an anchoring flap or flange **25**. All of the fold lines which have been described are in parallel relation.

The side wall panel **21** is of a width equal to one-half the side wall panel **15**. Accordingly the partition wall **23** is located midway between the end walls **12** and **17** in the set up condition of the case. The side wall panel **10** is of a width slightly greater than one-half the width

of the side wall **15** so that it may be secured in overlapping relation with the side wall **21**. The partition panel includes a central line of fold **26**.

Flaps or flanges **27**, **29** and **30** are foldably connected to the side wall panels **10**, **15** and **21** along fold lines **31**, **32** and **33**, these fold lines being aligned. The flaps **29** and **30** may be relatively narrow as it is necessary to extend only a small portion of the width of the case in set up condition.

Top closing flaps **34**, **35**, **36**, **37** and **39** are foldably connected to the panels **10**, **12**, **15**, **17** and **21** along a top fold line **40**. The central fold lines **13** and **19** extend through the closing flaps **35** and **37**.

Hand holes **41** and **42** are provided near the upper ends of the end walls **12** and **17**. Short handle flaps **43** and **44** are hinged to the upper edges of the end holes **41** and **42**, these flaps **43** and **44** being designed to fold inwardly as indicated in FIGURE 4 of the drawings.

The blank from which the bottom of the case is formed is illustrated in FIGURE 8 of the drawings. This blank is shown as having a central bottom panel **45** which is foldably connected along parallel fold lines **46** and **47** to inner end wall panels **49** and **50**. The end wall panels **49** and **50** are provided with hand holes **51** and **52** therein which may register with the hand holes **41** and **42** in the end wall panels **12** and **17** in the set up condition of the case. The entire blank is centrally divided with a fold line **53** which extends intermediate the sides of the blank and through the bottom panel **45** as well as the end wall panels **49** and **50**.

The manner in which the body portion of the case is set up is best illustrated in FIGURE 2 of the drawings. As is indicated in this figure, the marginal edge of the panel **10** is arranged in overlapping relation with a portion of the panel **21** and the ends of the flaps **27** and **34** are arranged in overlapping relation with the flaps **30** and **39** respectively. The edges of these panels and flaps are stitched or adhered together to form a tubular container. The flange **25** is folded in face contact with the inner surface of the panel **15** and is stitched or adhered thereto. In this way, a rectangular case having a center partition **23** is formed.

As is indicated in FIGURES 3 and 5 of the drawings, the marginal side edges of the bottom panel **45** is then stitched as indicated at **53** to the flap or flange **29** on the lower edge of the panel **15** and to the overlapped flaps or flanges **27** and **30** on the side walls **10** and **21**. With the inner end walls **49** and **50** folded up inwardly of the end walls **12** and **17** respectively, as indicated in FIGURE 4 of the drawings, the flaps **43** and **44** may be folded through the hand holes **51** and **52** of the inner end walls **49** and **50**. The container is completely set up and is ready for filling.

If it is desired to collapse the container, this may be done in the manner illustrated in FIGURES 3, 5 and 6 of the drawings. As the first step of the operation, the panels **49** and **50** are folded down to overlie the bottom panel **45** as indicated by the arrows **54**. When this is done, the bottom panel **45** together with the superimposed end wall panels **49** and **50** may be folded along the fold line **53** as indicated in FIGURES 3 and 5 of the drawings. Simultaneously, the end wall panels **12** and **17** may be folded inwardly along the fold lines **13** and **19** respectively. At the same time, the partition panel **23** may be centrally folded along the fold line **26**. While FIGURES 3, 5 and 6 show the case in but partially folded form, so that the manner of folding may be more readily recognized, the container can be folded into substantially flat form in the manner which will be readily understood.

The egg case described has certain advantages over egg cases of usual form. As has been previously men-

tioned, no particular tools or machinery are required to erect the case into open form by the customer. Furthermore, after the case has been delivered and the contents of the case removed, it is possible to recollapse the case so that it may be returned in flat form. With many types of egg cases, they are disposed of after a single use or else are returned in erected empty form which is normally uneconomical. A single truck can return many more cases in collapsed form than in erected form, as will be obvious.

In accordance with the patent statues, we have described the principles of construction and operation of our improvement in egg cases, and while we have endeavored to set forth the best embodiment thereof, we desire to have it understood that changes may be made within the scope of the following claims without departing from the spirit of our invention.

We claim:

1. A two part case for eggs and the like including a rectangular body including side and end walls, bottom flaps hinged to the lower end of said side walls, said bottom flaps being of a length less than one-half the width of said end walls, and a separate bottom panel marginally secured to said bottom flaps to extend therebetween, and end wall panels hinged to the ends of said bottom panel and swingable from a position overlying said bottom flaps to a position inwardly of said end walls of said body.

2. The structure of claim 1 and in which said end wall panels on said body and on said bottom panel, as well as said bottom panel, are centrally scored intermediate said side walls.

3. The structure of claim 1 and in which said end wall panels on said body and on said bottom panel, as well as said bottom panel, are centrally scored intermediate said side walls, top flaps hingedly connected to the upper edges of said side and end walls, and including score lines extending across the top flaps secured to said end walls.

4. The structure of claim 1 and in which said end wall panels on said body and on said bottom panel, as well as said bottom panel, are centrally scored intermediate said side walls, a partition panel extending across said body between said side walls intermediate said ends walls, and a central line of fold extending vertically across said partition wall intermediate said side walls.

5. A two part case for eggs and the like including side and end walls, bottom flaps hinged to the lower edges of said side walls only, said flaps being of a length substantially less than one-half the width of said end walls, closure flaps secured to the upper edges of said walls, score lines centrally dividing said end walls and closure flaps attached thereto between said side walls, a bottom forming unit including a bottom panel and end wall panels hingedly connected to opposite ends thereof, means connecting the marginal side edges of said bottom panel in face contact with said bottom flaps, and a central continuous line of fold extending midway between said side walls across said bottom panel and said end wall panels connected thereto.

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