Aug. 12, 1958 R. GUYER ET AL 2,847,153

DISPENSER BOX

Filed Jan. 31, 1955 3 Sheets-Sheet 1

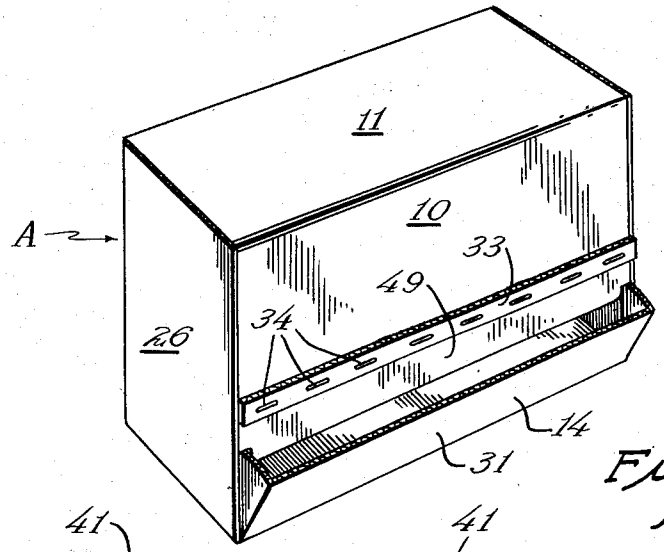


Fig. 1

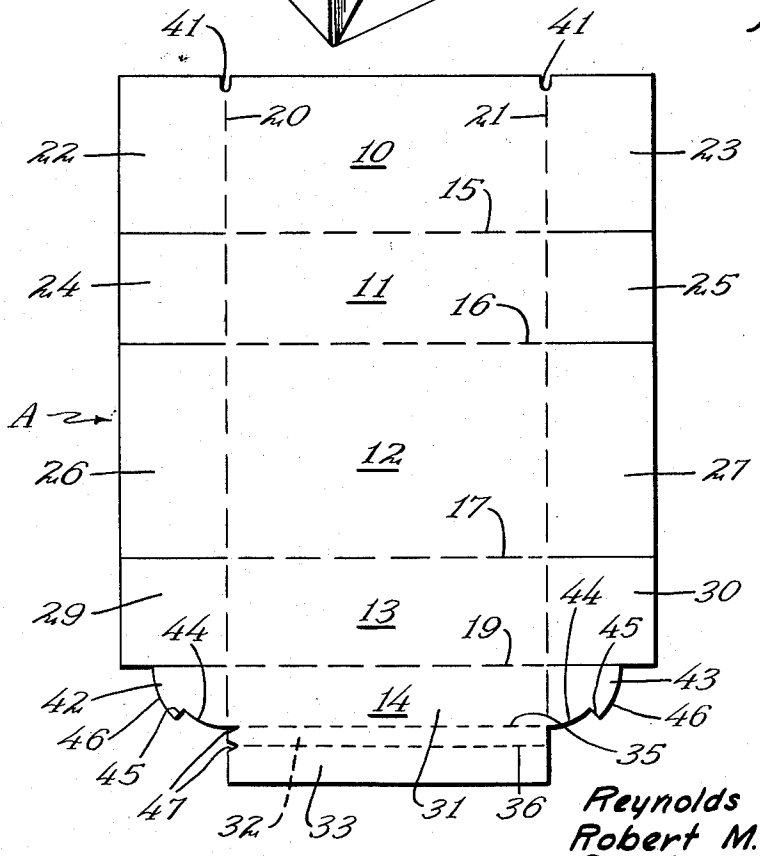


Fig. 2

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DISPENSER BOX

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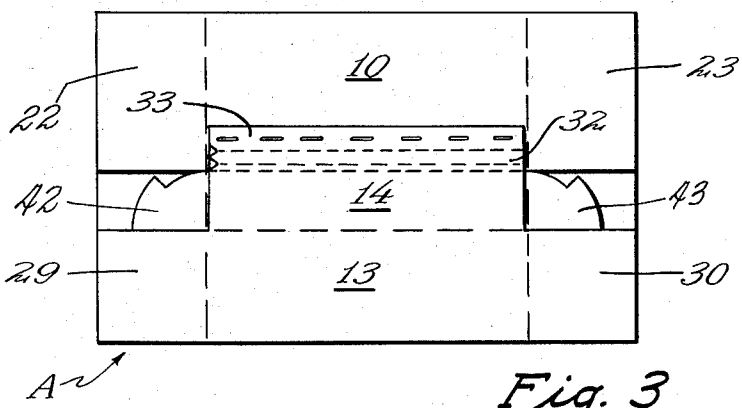


Fig. 3

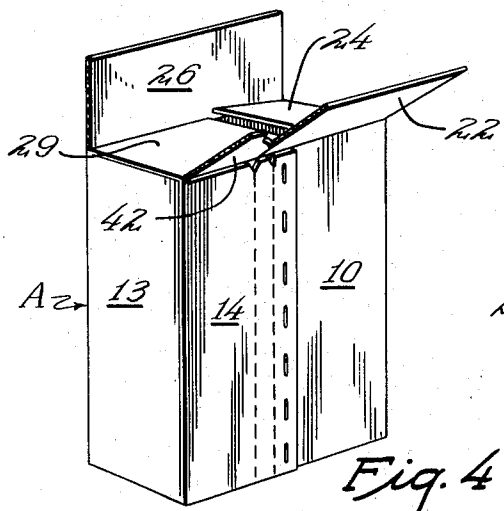


Fig. 4

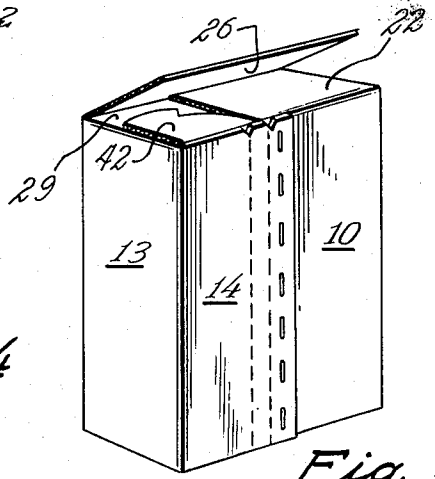


Fig. 5

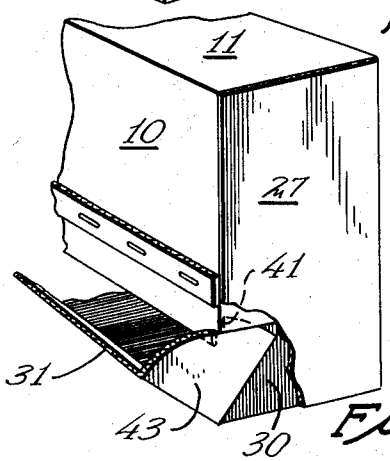


Fig. 6

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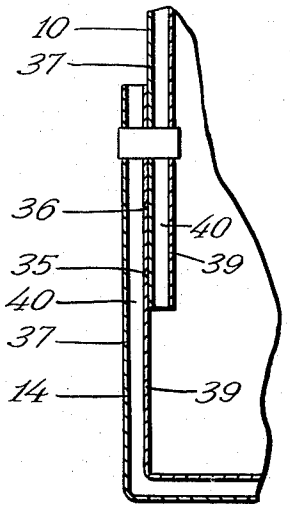


Fig. 7

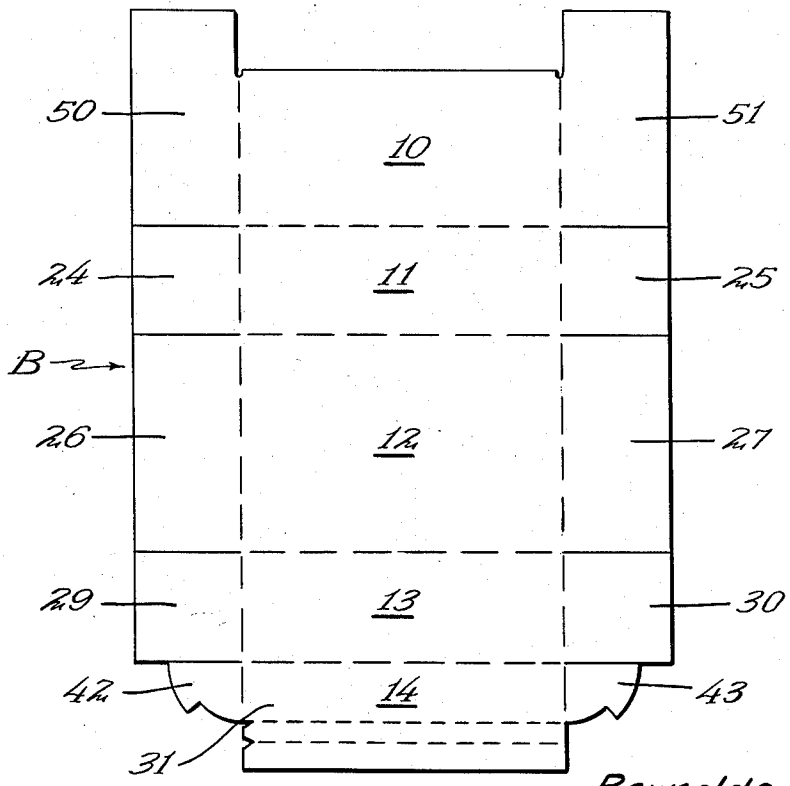


Fig. 8

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2,847,153

DISPENSER BOX

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Application January 31, 1955, Serial No. 485,170

8 Claims. (Cl. 229—17)

This invention relates to an improvement in a feeder box and deals particularly with a shipping package designed to contain a product for shipment and from which the product may be dispensed.

In the shipment of materials such as feed and grit used for the feeding of poultry, as well as for various hardware items, it is desirable to provide a shipping container which is strong enough to contain the goods during shipment and also to permit the dispensing of the goods from the filled container. It is also desirable that the cost of production of such containers be maintained at a minimum. It is a feature of the present invention that the container employed will cost little or no more than a shipping container of usual type while at the same time it may serve as a dispensing package.

A feature of the present invention resides in the provision of a dispensing container made of corrugated board and containing a tear strip or removable strip which connects the panels of the container in tubular relation. By removing this tear strip, the dispensing container may be opened into dispensing condition so that the contents may be readily removed.

A feature of the present invention lies in the provision of a container which includes a side which is made up of two panels in overlapping relation. These panels are connected in overlapping position so as to hold the walls of the container tubular. The various walls are provided with closing flaps which may be folded into container closing position. When the container is to be opened, a removable strip is separated from one of the overlapping panels usually adjoining the point of overlap. As a result the interior of the container may be removed without opening the end flaps or unsealing the ends of the container.

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 prospective view of the container in opened position.

Figure 2 is a diagrammatic view of the blank from which the container is formed.

Figure 3 is a view of the container in flat collapsed position after the container has been stitched closed.

Figure 4 shows the container in partially sealed position.

Figure 5 shows the container after it has been almost completely sealed.

Figure 6 is a prospective view of a portion of the container partly broken away to show the interior construction.

Figure 7 is a sectional view through the overlapped portion of the container to show the tear strip therein.

Figure 8 is a diagrammatic view of a slightly modified form of construction.

The container A is shown in its blank form in Figure 2 of the drawings. The container includes a front panel 10, a top panel 11, a back panel 12, a bottom panel 13

and a front panel 14. The panels 10 and 11 are connected by a folding line 15. The panels 11 and 12 are connected by a fold line 16. The panels 12 and 13 are connected by a fold line 17. The panels 13 and 14 are connected by a fold line 19. The fold lines are usually parallel.

The ends of the various panels are defined by parallel fold lines 20 and 21 which connect the wall panels to closing flaps or the like. Panel 10 is provided at opposite ends with closing flaps 22 and 23 which preferably extend the full width of the panel 10. The top wall 11 is provided at opposite ends with closing flaps 24 and 25. The rear panel 12 is provided at opposite ends with closing flaps 26 and 27. The bottom wall 13 is foldably connected at opposite ends to closing flaps 29 and 30.

The front panel 14 and the front panel 10 are designed to fold into overlapping relation. The front panel 14 is divided into a lower portion 31, an intermediate portion 32 and a top anchoring portion 33. Usually the tear strip portion 32 and the anchoring portion 33 overlap the panel 10 and staples or other connecting means such as 34 secure the anchoring portion 33 to the front panel 10.

The tear strip portion 32 is defined by parallel weakened lines 35 and 36 normally extending in spaced parallel relation across the panel 14. As is indicated in Figure 7 of the drawings the panels 10 and 14 are formed of corrugated paper board or the like and include an outer paper sheet or liner 37, an inner liner 39, and an intermediate corrugated layer 40. In the preferred arrangement, the weakened lines of separation extend through the inner liner 39 only, the corrugated layer and outer layer being unimpaired in strength. When the end of the tear strip 32 is grasped by the fingers and pulled outwardly the strip of the inner liner 39 between the weakened lines 35 and 36 cut through the corrugated layer and outer layer of the paper board thereby providing a removable strip which may be entirely detached from the container.

If the material contained within the container is free flowing, it may be desirable that the front panel 10 overlaps a portion of the lower section 31 of the front wall 14. In order that this may be done without interferring with the operation of the structure notches such as 41 may be provided along the fold lines 20 and 21 and at the juncture between the front wall panel 10 and the closing flaps 22 and 23.

The lower portion 31 of the front wall panel 14 is provided with a pair of hingedly connected flaps 42 and 43 at opposite ends thereof. The upper and outer edge of each of these flaps 42 and 43 includes an inclined or arcuate edge 44 which permits the portion 31 of the panel 14 to swing into dispensing position after the tear strip 32 has been removed. The arcuate or inclined edges 44 are terminated at a shoulder 45 which extends upwardly in closed condition of the container to limit the outward swinging of the panel portion 31. The ends of the flaps 42 and 43 are also shown cut along rounded edges 46 although the particular shape of these edges 46 is unimportant as long as the edges do not interfere with the opening of the container.

In the formation of the container A, the blank is folded along two diagonally opposite fold lines such as 15 and 17 and the upper anchoring portion 33 of the front panel 14 is stitched or otherwise secured as indicated at 34 to the front panel 10. The blanks are shipped and stored in the condition shown in Figure 3.

When the container A is to be used, the blank is folded so that the various wall panels are in rectangular relation and one end of the container is sealed closed. This is usually accomplished by folding the closing flaps 24 and 29 into a common plane, folding the flaps 22 and 42

into overlapping relation with the flaps 24 and 29, and folding the flap 26 to lie outwardly of the other flaps. The various flaps are tapped, stitched or adhered in closing position.

After the container has been filled, the other end is closed in a manner similar to the first end. The flaps 25 and 30 are folded into a common plane, the flaps 23 and 43 are folded to overlie the flaps 25 and 30 and the flap 27 is folded to overlie the other flaps and anchoring means is provided for holding the flaps closed. If adhesive or stitching is used to seal the container ends, care is taken not to stitch or adhere the flaps 42 and 43 to the remaining closing flaps.

When it is desired to open the container A, the tear strip 32 is removed preferably by grasping the end of the strip between the spaced notches 47 and exerting an outward pull on this area of the panel 14. After the tear strip 32 has been removed, the front panel portion 14 may be swung into upwardly and outwardly inclined position as shown in Figure 1 of the drawings, the shoulders 45 on the flaps 42 and 43 engaging inwardly of the panel 10 and limiting the outward swinging of the panel portion 31.

It will be seen that when the panel portion 31 is swung forwardly a trough shaped element is provided into which a part of the contents of the container may flow. If the container is used for containing a free flowing material such as feed or grit, the lower edge portion 49 of the panel 10 between the notches 41 acts as a baffle for preventing the overfilling of the trough. In the event the container is used for hardware items such as metal washers, nuts, bolts and the like, this lower edge 49 may be cut away and the panel 10 shortened sufficiently to permit the desired flow of these materials into the trough shaped dispensing tray.

In Figure 8 of the drawings is disclosed a slightly modified form of dispenser B which varies but slightly from the previously described arrangement. As the dispenser B includes top, rear, bottom and front panels identical to those previously described, similar numerals are employed thereupon for the purpose of convenience. However, in the container B the front panel 10 is connected along opposite edges to closing flaps 50 and 51 which extend the full heighth or substantially the full heighth of the container. In other words the flaps 50 and 51 are substantially similar in area to the flaps 26 and 27 secured to the rear panel 12. When the container B is folded, the flaps 42 and 43 are folded to overlie these flaps 50 and 51.

When the container B is folded, the inner flaps 24 and 29 at one end of the container and the flaps 25 and 30 at the other end of the container are folded into a common plane. The rear flaps 26 and 27 are then folded outwardly of the first folded flaps, and the flaps 50 and 51 are then folded outwardly of the flaps 26 and 27. The flaps 42 and 43 connected to the lower portion 31 of the front wall 14 are thus sandwiched between the flaps which are of full area and are accordingly at all times held in right angular relation to the portion 31 of the wall 14.

With the arrangement shown in Figure 8 it is also possible to fold the smaller flaps between the larger ones or outwardly thereof and the arrangement is advantageous only in that it prevents any danger of the flaps 42 and 43 being held from movement by edge engagement with the flaps 22 and 23. Also the end construction is slightly stronger. The arrangement shown in Figure 8 has the disadvantage of being somewhat more difficult to stitch on conventional equipment.

In accordance with the patent statutes, I have described the principles of construction and operation of my feeder box, 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 dispensing container including rectangularly arranged walls including a top wall, a rear wall, a bottom wall and a front wall, said front wall including an upper portion terminating above said bottom wall and a bottom portion in overlapping relation with said upper portion and lying outwardly thereof, closing flaps on said bottom wall, said rear wall, said top wall and the upper portion of said front wall designed to fold into overlapping relation to provide end closures, and flaps on the ends of the bottom portion of the front wall, the bottom portion of said front wall being hingeable from its overlapping relation with said upper portion about its foldable connection with said bottom wall, and said flaps on said bottom portion of said front wall including shoulder means limiting outward swinging of the lower portion of said front wall by engagement with the inner surface of the upper portion of said front wall.

2. The construction described in claim 1 and in which the end flaps of the lower portion of the front wall are sandwiched between certain of the closing flaps of the other walls.

3. The construction described in claim 1 and in which the upper portion of the front wall includes notches in its lower edge near opposite sides thereof through which said flaps of said lower portion of said front wall may extend.

4. The construction described in claim 1 and in which the lower portion of said front wall is detachably connected to the upper portion thereof.

5. The construction described in claim 1 and including means for securing the upper and lower portions of said front wall in overlapping relation, and means for separating said lower portion of said front wall below the anchored portion thereof.

6. The construction described in claim 1 and including a removable tear strip in the lower portion of said front wall dividing said lower portion into an anchoring portion and a hingeable portion, and means securing said anchoring portion in overlapping relation with the upper portion of said front wall.

7. The construction described in claim 1 and in which the closing flaps secured to the upper portion of the front wall terminate in spaced relation above the bottom wall of the container.

8. The construction described in claim 1 and in which the closing flaps on the upper portion of the front wall extend substantially the full height of the container.

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