July 21, 1964 C. S. HASSELHOFF 3,141,599

CONTAINER FOR PACKAGING MUSHROOMS

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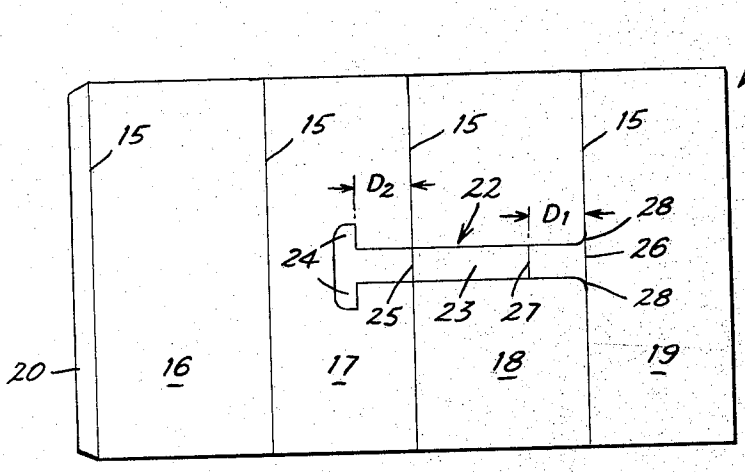


Fig. 3

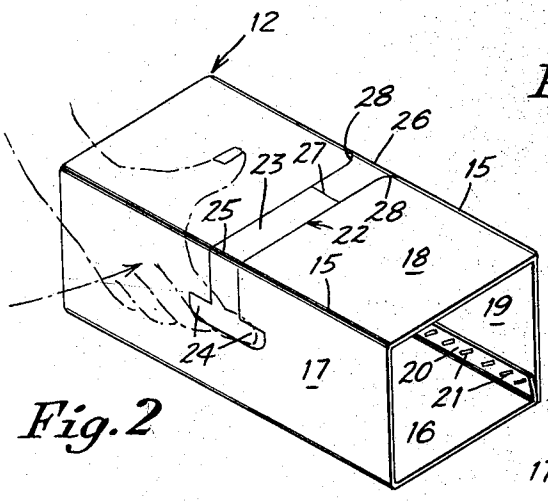
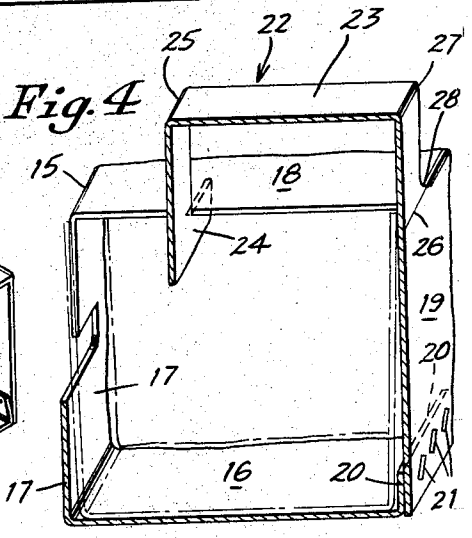


Fig. 2

Fig. 4



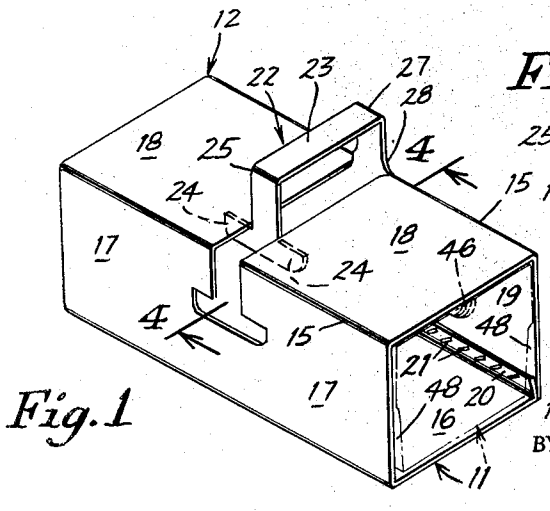
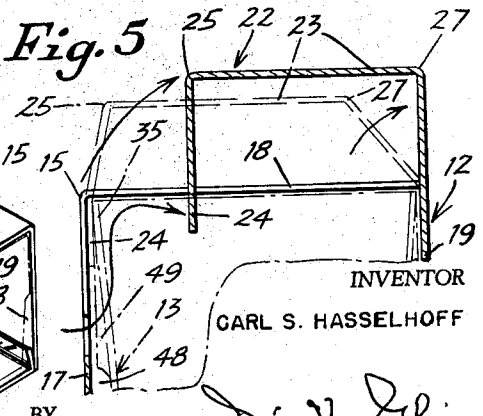


Fig. 1

Fig. 5



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Fig. 6

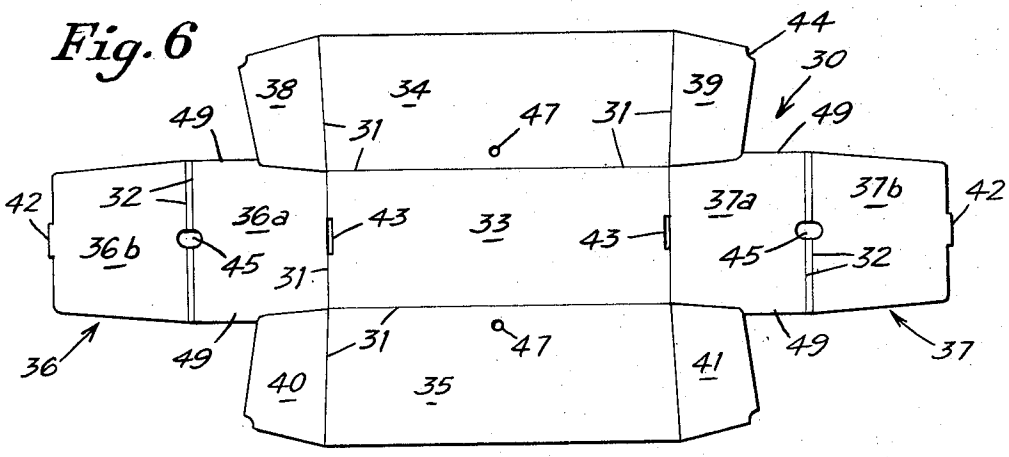


Fig. 7

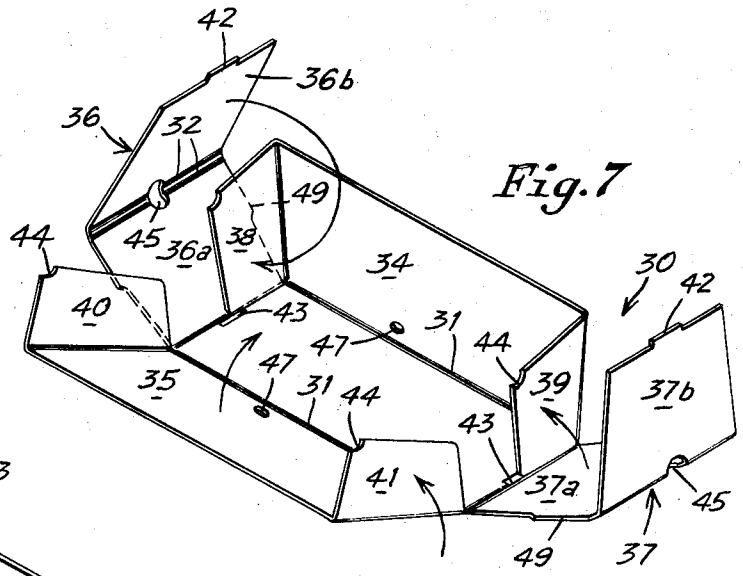


Fig. 9

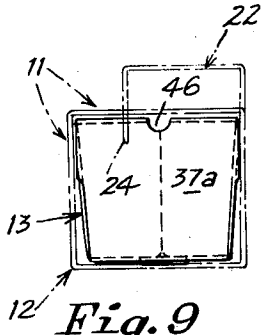
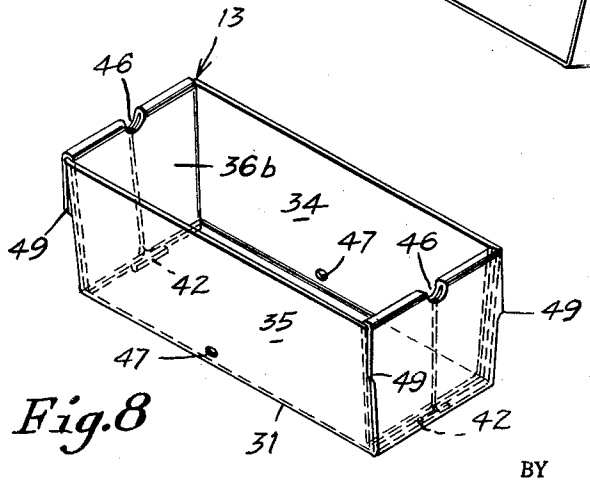


Fig. 8



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United States Patent Office 3,141,599 Patented July 21, 1964

3,141,599

CONTAINER FOR PACKAGING MUSHROOMS

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Filed Feb. 23, 1961, Ser. No. 91,030
1 Claim. (Cl. 229—52)

This invention relates to a container that is particularly adapted for packaging mushrooms and the like.

Generally, there is provided an inner receptacle made of a single die cut blank of paperboard or equivalent carton material which is preferably waxed or otherwise waterproofed on its inner surface. The receptacle blank is scored to provide fold lines for the panels defined thereby and by slits cut therein simultaneously. The bottom panel is integrally joined to the side panels and to the outside ply panels of the end walls. Said end walls also include inner plies formed by integral extensions of the outer plies and intermediate plies consisting of half-panel wings or tabs integrally connected to the ends of the side walls.

The container also comprises an outer jacket or sleeve-like cover consisting of top and bottom and side walls, defining a flat packing cover that opens up into a rectangular open-ended holder for the receptacle. The cover or sleeve has a handle formed therein by die cutting a T-shaped outline into the cover, with the base of the T coinciding with the fold line of the top panel and one side panel and with the cross bar of the T lying medially in the other side panel. The cross bar and the upper stem part of the T are easily pushed into their side panel and the stem part of the T extending across the top panel is easily lifted to cause the cross bar to slide past the upper edge of the inner receptacle and part way across under the top panel. The central portion of the stem of the T thus forms a carrying handle for the container.

It is, accordingly, an object of this invention to provide an inexpensive paperboard container for packaging mushrooms and for providing a convenient handled carrier therefor.

It is another object to provide such a container in which a waterproofed open topped inner receptacle is quickly and easily erected from a single blank without requiring stapling or cementing thereof, while the outer jacket is a flat-packing open-ended sleeve having a pull-out handle cut therein.

It is a further object of the invention to provide such a container in which the inner receptacle is of trapezoidal cross section to facilitate stacking, packing and/or shipping of erected receptacles.

It is another object to provide such a container which is simple in construction and easy to use, is economical to manufacture, yet is highly effective and efficient in use.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawings, in which:

FIGURE 1 is a perspective view of the assembled container with the handle erected;

FIGURE 2 is a perspective view of the outer container part, illustrating the beginning of the handle-erecting operation;

FIGURE 3 is a plan view of the blank from which the outer container part is formed;

FIGURE 4 is an enlarged fragmentary perspective view, in section, taken on line 4—4 of FIGURE 1;

FIGURE 5 is a fragmentary end elevational view similar to FIGURE 4, showing the handle erecting relative movements of the handle portions;

FIGURE 6 is a plan view of the blank for forming the inner container part;

FIGURE 7 is a perspective view illustrating the assembly operations for assembling the inner container part;

FIGURE 8 is a perspective view of the assembled inner container; and,

FIGURE 9 is an end elevational view of the disclosure of FIGURE 8 combined with a phantom shown outer container part.

With reference now to FIGURES 1 to 5 of the drawings, the numeral **11** generally designates the container as a whole, and numerals **12** and **13** generally designate, respectively, the outer and the inner parts of the container.

The outer container part or sleeve **12** is formed of a single die cut blank, generally indicated at **14**, of paperboard or other suitable carton material. At least the inner surface of blank **14** is desirably coated with wax or other waterproofing material in known manner.

Blank **14** is divided by scored fold lines **15** into a series of edge-joined panels **16** through **19** and a relative narrow connecting strip **20**. Strip **20** is fastened to the free edge of the side panel **19**, as by the use of staples **21**, FIGURES 2 and 4, and/or by the use of adhesive material, etc. Blank **14** thus forms a circumferentially continuous outer container part or sleeve **12**, as best seen in FIGURE 2, which sleeve, it should be noted, can, for convenient shipping, storing and handling, be collapsed into a flat condition with, for example, panels **17** and **18** lying in a common plane flat against and parallel to the panels **16** and **19** similarly oriented.

An important feature of the invention resides in the handle, generally designated **22**. Handle **22** is formed by die cutting and scoring simultaneously with cutting and scoring of the blank **14**. The elongated tongue **23** which forms the major portion of handle **22** terminates in a traverse anchor portion **24**, the laterally extending portions of which engage under the edges of the slit produced when handle **22** is erected, as will hereinafter be fully described. Handle **22** is also provided with fold lines **25** and **26** which coincide with two of the fold lines **15**, as best seen in FIGURE 3, and with an additional scored fold line **27**. Fold line **27** is so located that the dimension D_1 equals dimension D_2 so that the handle portion between fold lines **25** and **27** will be horizontal in the erected condition of handle **22**, as best seen in FIGURES 1 and 4. The base of handle **22** is filleted at **28** for increased rigidity and to minimize the danger of tearing that would otherwise result if the corners were not rounded at the juncture between handle **22** and panel **19**.

With reference now to FIGURES 6 to 9, numeral **30** generally designates the blank from which the inner container part or open-topped receptacle **13** is formed. Blank **30** is divided by single scored fold lines **31** and double fold lines **32** to define bottom panel **33**, side panels **34** and **35**, double end panels **36** and **37** and intermediate end flaps **38–41**. End flaps **36** and **37** are divided by double fold lines **32** into outer panels **36***a* and **37***a* and inner panels **38***b* and **37***b*, respectively. Inner panels **36***b* and **37***b* have on their free edges retaining tabs or tongues **42** which snap into mating slots **43** die cut in the ends of bottom panel **33** adjacent fold lines **31** at the ends thereof. However, prior to the folding of end panels **36** and **37** into final interlocking positions, end tabs **38–41** are first positioned as illustrated in FIGURE 7 in abutting positions, FIGURES 8 and 9, so that when end panels **36** and **37** are snapped into their final assembled positions of FIGURE 8, sides **34** and **35** of receptacle **13** will be firmly locked in assembled positions by tabs **38–41** being held under the fold defined by double scored lines **32**. Tabs **38–41** are notched at their corners at **44** and end panels **36** are centrally apertured at **45** to provide the finger-receiving notches **46**, FIGURES 1, 8 and 9, which

facilitate removal of receptacle **13** from the outer container part **12**.

A plurality of ventilating apertures **47** permit circulation of air into and through receptacle **13** in cooperation with finger notches **46** and spaces **48**. Spaces **48** prevent covering of apertures **47** by the side walls of the sleeve or outer container part **12**. Spaces **48** are maintained by both the trapezoidal transverse configuration of receptacle **13** and by the wedge-shaped tabs **49** on panels **36***a* and **37***a*. Tabs **49** also serve to bind against the inner walls of sleeve **12** to prevent inadvertent sliding of receptacle **13** therefrom. The trapezoidal cross section of the receptacle has two other advantages, namely, it facilitates insertion of receptacle **13** into sleeve **12** and permits stacking or nesting of a plurality of erected receptacles for immediate use, storage or shipping.

In use, receptacle **13** can be lifted from a nested stack of preassembled receptacles or can be quickly and easily erected on the job by first bending the end flaps or half panels **38–41** at right angles to side panels **34** and **35**, FIGURE 7. The side panels are then bent upwardly to bring the edges of flaps **38–41** together. End panels **36** and **37** are then bent up and folded over, along double lines **32**, the upper edges of abutted half panels. The inner end panels **36***b* and **37***b* are then bent down until their tabs **42** snap into slots **43**, locking the parts of the receptacle into their erected relative positions of FIGURE 8. Receptacle is then filled with mushrooms or the like.

The jacket is preferably factory finished to the extent of stapling and/or cementing of tab **20** to the free edge of side panel **19** and the jacket is flattened for bundling with panels **17** and **18** lying in one plane and panels **16** and **19** lying in a parallel and closely adjacent plane. This minimizes strain on the handle by keeping its elements in the same plane, and also makes for better stacking of the jackets with tab **20** lying in the same plane as panel **16**.

The trapezoidal shape of receptacle **13** facilitates its insertion into the opened jacket **12** in which it is retained by wedge-shaped tabs **49**. Tabs **49** also maintain desired centering of the receptacle in jacket **12** thus aiding air circulation into the spaces **48** and thence through apertures **47** into the contents of the receptacle. Notches **46** provide additional ventilation and also serve as finger openings to facilitate grasping the end of the receptacle for its withdrawal by the consumer.

The handle is erected simply by pressing in the cross

bar **24** of the cut out T and starting its upward movement. This progressively tears out the stem portion **23** which automatically bends about its three fold lines into the rectangular shape shown in FIGURES 1 and 4.

While the foregoing presents a preferred embodiment of the present invention, it is obvious that other modifications and/or equivalents may be employed without departing from the scope of the invention, which is defined in the appended claim.

What is claimed is:

A container for packaging mushrooms or the like, comprising an open-topped receptacle formed from a blank of sheet material divided by slits and scored fold lines into bottom, side and end wall panels, an open-ended circumferentially continuous sleeve-like jacket enclosing the sides, top and bottom of said receptacle and formed from a blank of sheet material having scored fold lines dividing the same into top, bottom and side wall panels, and a pull-out handle formed in said jacket by substantially parallel slits extending medially across said top panel and partway down one side wall panel and by abruptly angled extensions of said slits defining the cross bar of a T, the stem of which is defined by said substantially parallel slits, said stem having a pair of transverse fold lines, one of said pair of fold lines being at a certain distance from the adjacent side fold line of said top panel and the other of said pair of fold lines being an equal distance from the adjacent edge of the said cross bar, whereby said handle, when moved to operative position, will have its bight portion in parallel relation to the top of said container, said cross bar being easily pushed to the inside of said jacket and said stem being easily lifted to pull said cross bar up and over the adjacent edge of said receptacle and partway across and under said top panel, whereby said stem constitutes a carrying strap-type handle for said container, the side walls of said receptacle being sufficiently flexible to permit inward flexing of the upper central edges thereof to prevent damaging said cross bar while being pulled upwardly over said adjacent edge.

References Cited in the file of this patent

UNITED STATES PATENTS

2,317,040	Ethridge	Apr. 20, 1943
2,800,268	Mathews	July 23, 1957
2,809,775	White	Oct. 15, 1957
3,005,546	Sanford	Oct. 24, 1961