June 11, 1963 M. SCHMIDT 3,093,241

PACKAGE, IN PARTICULAR FOR HOLLOW BODIES SENSITIVE TO PRESSURE SUCH AS CHRISTMAS TREE BALLS

Filed Jan. 29, 1960

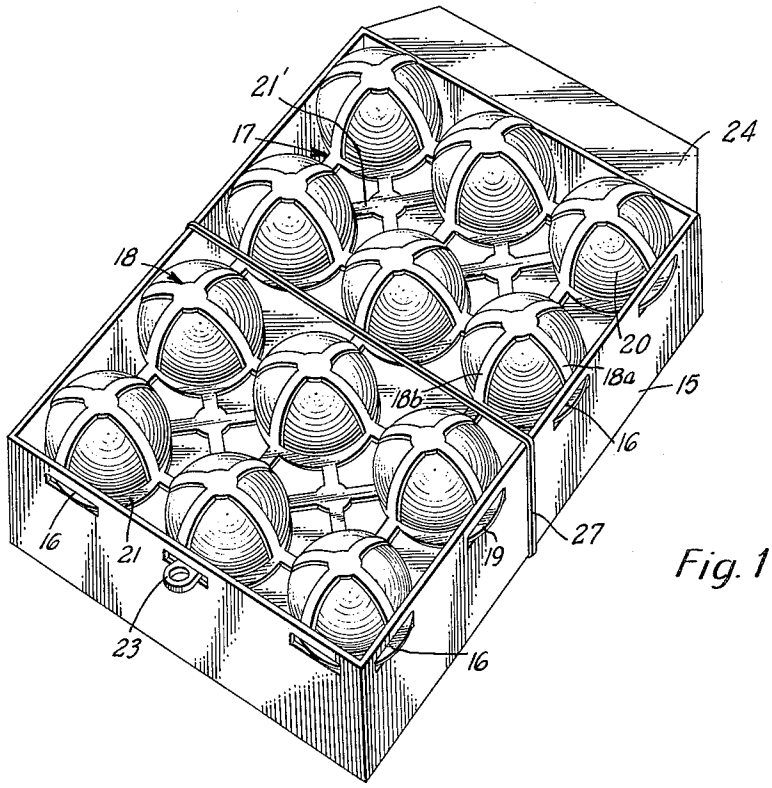


Fig. 1

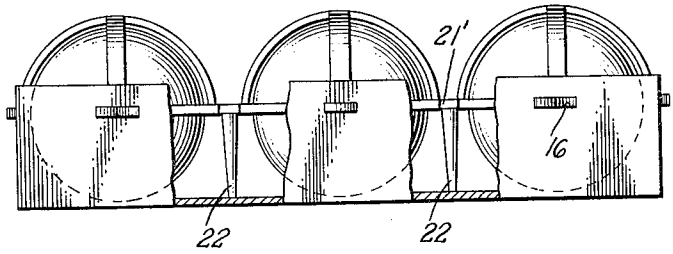


Fig. 2

INVENTOR

Max Schmidt

BY Michael S. Striker

ATTORNEY

United States Patent Office 3,093,241 Patented June 11, 1963

3,093,241

PACKAGE, IN PARTICULAR FOR HOLLOW BODIES SENSITIVE TO PRESSURE SUCH AS CHRISTMAS TREE BALLS

Max Schmidt, Brauhausstrasse 17, Ansbach, Bavaria, Germany

Filed Jan. 29, 1960, Ser. No. 5,553
Claims priority, application Germany June 27, 1959
2 Claims. (Cl. 206—45.31)

For the packing of hollow bodies sensitive to pressure such as for example, lamps, Christmas tree balls, decorations, toys, eggs and the like, so-called compartment cartons are used. These are mostly cardboard boxes with inserted compartment divisions. Such packages are comparatively expensive and in addition they have the disadvantage that the goods are not visible from outside.

Since so-called self-service shops are now very well established it is necessary for the goods to be visible to the customers as far as possible also in the packed state and therefore many articles are packed in cellophane or plastic bags. Such transparent bags alone are however not suitable for hollow bodies sensitive to pressure and the invention therefore aims at providing a package also for hollow bodies sensitive to pressure which is so constructed that the contents are also visible from outside.

According to the invention, the upper part of the package is made of a grating-like plastic frame divided into caps whilst for the lower part an open carton is used and both parts are detachably connected to one another. This connection is effected quite simply in that in the side walls of the carton, slots are cut or stamped out into which the plastic frame or its side edges are inserted. The articles to be packed therefore lie in the carton and are each surrounded at their upper half by a cap of the plastic frame.

The package according to the invention has the advantage that due to the cage-like construction the goods are readily visible from outside. A further considerable advantage resides in the fact that the package is capable of being used again. On one side edge of the package a suspension eye may be arranged by means of which the whole package with its contents can be suspended. It is also very advantageous to mount on one side edge a so-called hinged ticket or label which consists of a printed pasteboard or cardboard strip. This ticket serves on the one hand as an advertisement label and may on the other hand at the same time by suitable construction also serve as a handle.

The manufacture of the package according to the invention is effected suitably by the thermoplastic die casting process whereby waste casting mass which always occurs in a die casting shop and can no longer be used for more valuable cast articles can be utilized.

In order that when packages are placed on one another when being transported etc., any pressure acting on the plastic frames is not applied to the packed articles, there are provided on the underside of the frame several supports which are suitably cast on the frame and abut the bottom of the carton. These supports must have a height at least equal to half the diameter of the packed articles so that any pressure on the plastic frames is taken up by these supports.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings, in which:

FIG. 1 is a perspective view of a package according to the invention; and

FIG. 2 is an end view of the package according to FIG. 1 with certain parts being broken away for better illustration.

Referring to the drawing, FIGS. 1 and 2 illustrate a lower box-shaped package member such as an ordinary open carton or box indicated at **15**, the side walls of which are provided with stamped out slots **16**. An upper integral package member or grating-like plastic frame **17** is divided into caps **18** and the edge parts **19** thereof lying furthest outwards engage in the slots **16** which are substantially parallel to the bottom wall of box **15**. The frame **17** comprises an endless rib **21** located substantially in a plane and extending around and partly forming the nesting elements or caps **18**, each of which is further formed by a pair of cross ribs **18***a*, **18***b* extending transverse to each other and upwardly from the endless rib **21** and being joined to each other at the center portion of the cap. The inner surfaces of the cross ribs are arranged along a concave surface. Thereby a closed package but transparent on top results in which, for example, Christmas-tree balls **20** can be placed. Connecting ribs **21'** of the frame **17** extend between the caps **18** and are provided on the underside with spacer means or supports **22** (FIG. 2) the height of which is at least equal to half the diameter of the balls **20** so that upon pressure on the package from above the supports **22** take this pressure via the frame **17** and the balls **20** cannot break. The spacer means or supports **22** may be in the form of a plurality of plastic pins integral with and projecting downwardly from the connecting ribs **21'** of frame **17** as shown in FIG. 2.

It is also suitable to provide the plastic frames with at least one suspension means **23** which likewise passes through a slot in the side wall of the carton and with the aid of which the package can be suspended.

Furthermore a hinged label **24** may be provided on the carton which label is printed and can be suitably moved down against the wall of the carton so as not to get in the way during transport of the carton.

In order to prevent a loosening of the plastic frame from the slots of the carton if the side walls of the carton are inadvertently pressed a little way from one another, a ring **27** (FIG. 1) or the like is placed around the whole package as a precaution.

What I claim as my invention is:

1. A display package for packaging pressure-sensitive bodies such as Christmas tree balls or the like comprising, in combination, an upper package member formed by an integral plastic frame comprising a plurality of adjacent nesting elements each formed by an endless rib located substantially in a plane and a pair of cross ribs extending transverse to each other from said endless rib upwardly from said plane and being joined to each other over the center portion of the space defined by said endless rib, the inner surfaces of said cross ribs being arranged along a concave surface so that an upper portion of each body may be nested in the respective nesting element while being visible from the outside, and a plurality of connecting ribs located in said plane and connecting adjacent nesting elements to each other; a lower box-shaped package member for housing the lower portions of the bodies, said lower package member having a bottom wall and side walls, said side walls being formed at upper portions thereof distant from some bottom wall with a plurality of spaced slots substantially parallel to said bottom wall, said frame of said upper package member having edge portions projecting respectively through said slots for releasably connecting said upper package member to said lower package member; and spacer means integrally formed with and projecting downwardly from

the frame of said upper package member and abutting against the bottom wall of said lower package member.

2. An arrangement as defined in claim 1 in which said spacer means are formed by a plurality of plastic pins integrally formed with and projecting downwardly from said connecting ribs of said frame.

References Cited in the file of this patent

UNITED STATES PATENTS

716,003 Diehl ---------- Dec. 16, 1902
1,214,451 Gill ---------- Jan. 30, 1917
1,440,544 Katzinger ---------- Jan. 2, 1923
1,490,426 Morillas ---------- Apr. 15, 1924
2,530,124 Kieckhefer ---------- Nov. 14, 1950
2,578,444 Nicolle ---------- Dec. 11, 1951
2,790,589 Moore ---------- Apr. 30, 1957
2,890,122 Katon ---------- June 9, 1959
2,934,590 Thompson et al. ---------- Apr. 26, 1960