Dec. 5, 1961 H. A. ROHDIN 3,011,629

BLISTER TYPE PACKAGE

Filed May 27, 1958

Fig. 1

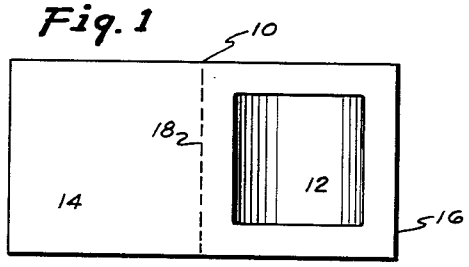


Fig. 2

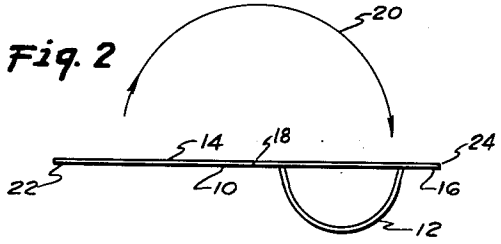


Fig. 3

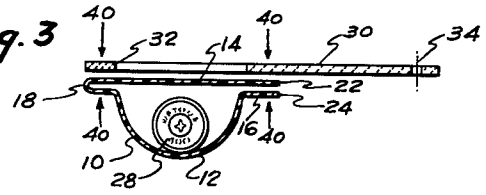


Fig. 4

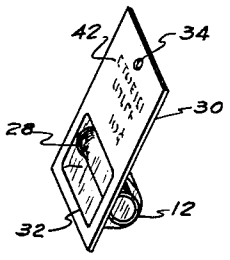


Fig. 5

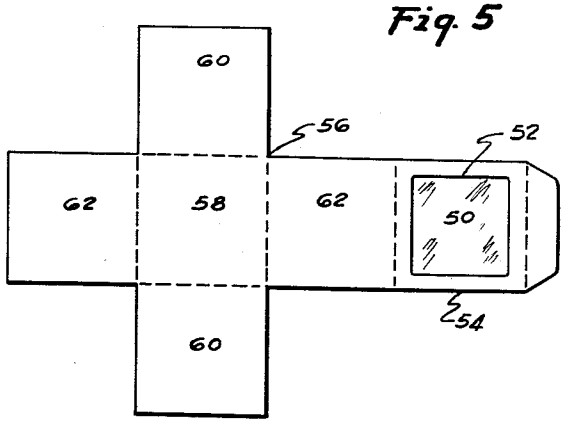
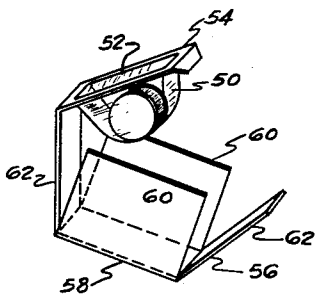


Fig. 6



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3,011,629

BLISTER TYPE PACKAGE

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1 Claim. (Cl. 206—45.31)

It is an object of this invention to provide a package of the "blister" type which is cheaper and easier to make than those now in use.

It is a further object of this invention to provide a package as aforesaid suitable for "prestige" items.

It is a further object of this invention to provide a package as aforesaid which enhances visibility of the contents while affording more complete protection to the contents.

It is a further object of this invention to provide a package as aforesaid which permits manual manipulation of the contents without affecting the protection afforded by the package.

It is a further object of this invention to provide a package as aforesaid in which the blister is hermetically enclosed and is secured to a box blank or a portion thereof.

The above and other objects of this invention will be made clear from the following detailed description taken in connection with the annexed drawing in which:

FIGURE 1 is a plan view of a blister blank;

FIGURE 2 is an end elevation of the blank of FIGURE 1;

FIGURE 3 is a cross-section of the assembled package just prior to sealing;

FIGURE 4 is a perspective view of the completed package;

FIGURE 5 is a plan view of a modified form of blank; and

FIGURE 6 is a perspective view illustrating the assembly of FIGURE 5.

Blister packaging has made spectacular progress in the packaging field. The package, conventionally, consists of a molded shell of, usually, transparent plastic heat-sealed to a sheet of paperboard. Identifying indicia are printed on the paperboard on the side to which the blister of plastic is affixed, and the board is coated with a thermoplastic material to which the blister may be heat-sealed. Compatability between the inks and the coating is difficult to achieve, and, regardless of the protection afforded by the plastic blister, the package is only as moisture and gas proof as the coated paperboard, which, within economically permissible limits, is not very much.

In addition, the blister package at this time has become associated only with low priced merchandise and without a radical change in its appearance will be forever barred from the packaging of high priced merchandise.

The present invention attacks the problem by reversing the usual practice. The blister is a completely sealed entity, the paperboard is coated on the side opposite the printing, and the coating on the board acts merely as a means of attachment to the plastic blister. The board is windowed and forms the top, instead of the bottom of the package. The package, moreover, is perfectly adapted to automation in forming, filling, sealing and assembly.

Referring now to FIGURE 1 there is shown a blank **10** having a blister **12** formed in one side, the other side **14** being plain. A flange **16** surrounds the blister **12** and a line of weakening **18** divides the blank into equal parts. In practice, these blanks will be formed in parallel consecutive rows from a continuous web of plastic material. The actual formation of the blister **12** may be done by any conventional means such as are illustrated

in Modern Packaging Encyclopaedia for 1958, particularly at page 437.

FIGURE 2 presents the blank **10** in end elevation. After the insertion of contents in blister **12**, the panel **14** is folded around the line **18** in the direction of the arrow **20** so that the edge **22** of the panel **14** substantially coincides with the edge **24** of the flange **16**. The resulting relationship is shown in FIGURE 3 including the contents **28**. A card **30** is superimposed upon the panel **14** and has a window **32** which registers with the blister **12** and exposes the contents **28**. Optionally, the card may be provided with an aperture **34** to facilitate display, as by hanging on a rack.

With the parts in the condition of FIGURE 3, heat and pressure are applied in the direction of the arrows **40**. This results in sealing the margins of the panel **14** throughout the area of the flange **16**, thereby hermetically sealing the chamber defined by the blister **12**. At the same time, the upper surface of the panel **14** is heat-sealed to the under surface of the card **30**, which surface has been appropriately coated for this purpose. The resultant package is shown in FIGURE 4, with the contents **28** displayed through the opening **32** in the card **30**. Printed matter **42** has been applied to the outer surface of the card **30**. This is the side opposite the thermally sensitive coated side, so there is no problem of compatibility between the inks and the coating. By proper selection of the plastic material and by proper design of the blister **12**, the blister may be made manually deformable to permit manipulation of the contents without disturbance of the seal.

In FIGURES 5 and 6 a blister pack **50**, in the form shown in FIGURE 3, underlies a window **52** in one panel **54** of a box blank **56**. The blank **56** is made up of a bottom **58**, side walls **60** and end walls **62**, with the panel **54** forming a top or lid. This particular box blank is one of the simplest and is purely illustrative. Any form of blank could be used and in fact, the panel **54** could be separately formed and properly flanged to act as a lid for a separately formed box.

It is also possible, and in some cases desirable, to make the panel **14** from a separate sheet of plastic which, dependent on the circumstances of the packaging operation, may be laminated to the paperboard attachment.

In the sealing of certain plastic films, one to another, notably in the case of acetates and certain of the vinyl films, there is, on cooling, a serious tendency toward warping or deformation of the films within the area of the seal. This problem was recognized and dealt with in my Patent No. 2,392,695 dated January 8, 1946. In the instant invention, the paperboard being simultaneously sealed to the lid which is also simultaneously sealed to the flange, acts as a stiffener, holding the plastic seals against distortion even though the holding pressure of the heat sealing means be relieved. Accordingly, the cycle time need be only enough to effectuate the seal and there need be no dwell provided for cooling the seal while the same is under mechanical restraint. This involves a method aspect as well as an article aspect.

It will be clear that the present invention removes any possible limitation on the ornamental character of blister packaging while at the same time providing a hermetically sealed blister.

I claim:

A package comprising: a blister formed in a sheet of plastic material, said blister having an open side entirely surrounded by a flange; a lid of plastic material overlying said open side and being substantially coextensive with and heat-sealed to said flange; and a sheet of paperboard sealed to said lid within the area of said flange, said paperboard having an aperture registering with said blister and

having printed indicia on the side opposite the side sealed to said lid and said paperboard being cut and scored to form, itself, a complete container for said blister.

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