

DEFENSIVE PUBLICATION

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T901,002

THERMOFORMED PACKAGES

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Continuation of abandoned application Ser. No. 852,178, Aug. 22, 1969. This application Jan. 13, 1971, Ser. No. 106,241

Int. Cl. B65d 85/00

U.S. Cl. 206—46 FC

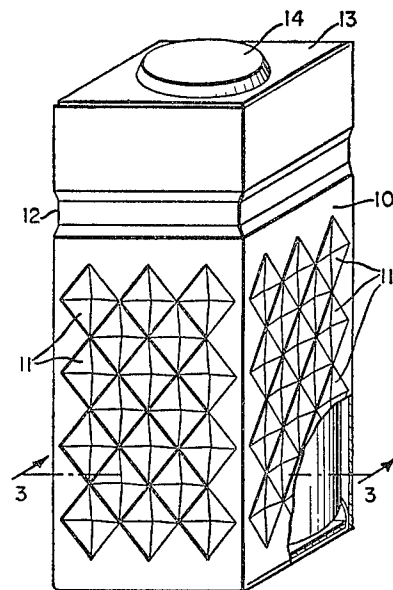
3 Sheets Drawing, 8 Pages Specification

A thermoplastic carton blank having at least one surface thermoformed, preferably the top or bottom, to conform to the contours of the article to be packaged in the carton made from the blank. The carton blank is scored, creased and then folded into a carton particularly useful in packaging articles that could be broken or marred in the absence of an outer wrap such as glass container, breakable plastics, polished metal, ceramic metals, delicate instruments and the like. The thermoformed portion of the surface of the carton assists in restraining movements of the packaged article and the thermoplastic material cushions the article.

The thermoplastic material preferably is a laminate of

- (a) a core of oriented closed cell foam having an elongation of less than about 50% and consisting essentially of styrene polymer having a tensile modulus greater than 150,000 p.s.i., and
- (b) bonded to both sides of the core is a thermoplastic film having a tensile modulus greater than 150,000, a

percent elongation at break greater than the function $t \div R$ where t is the thickness of the film and R is the radius of a creasing edge when the carton blank is



folded and is thermoformable within a temperature range of about 50° to 230° C.

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FIG. 1

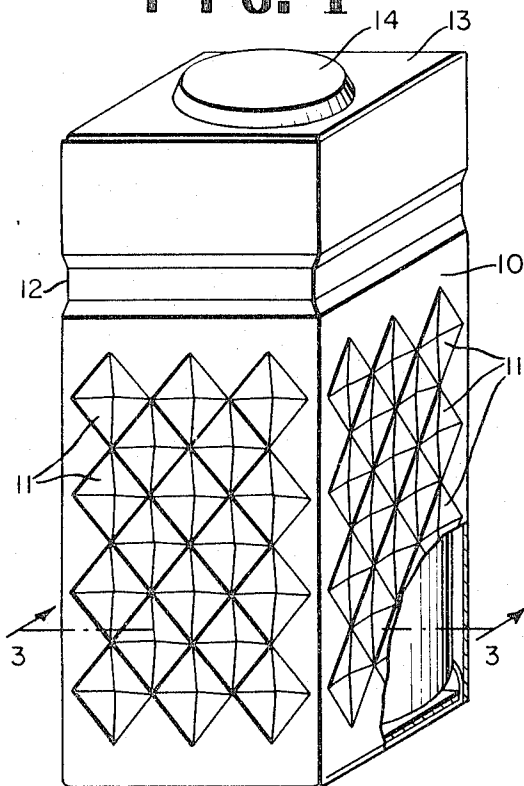


FIG. 2

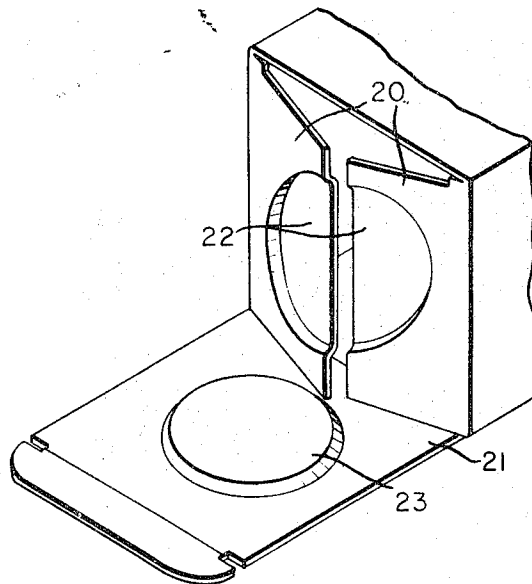


FIG. 3

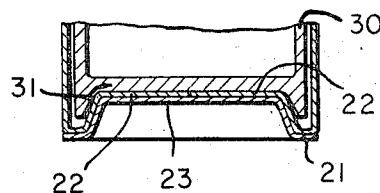


FIG. 3A

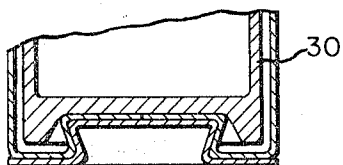
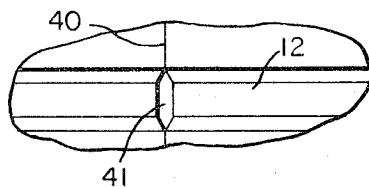


FIG. 4



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FIG. 5

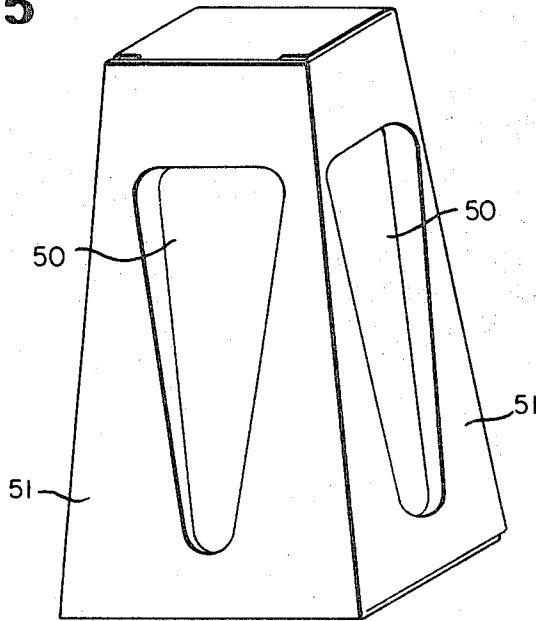
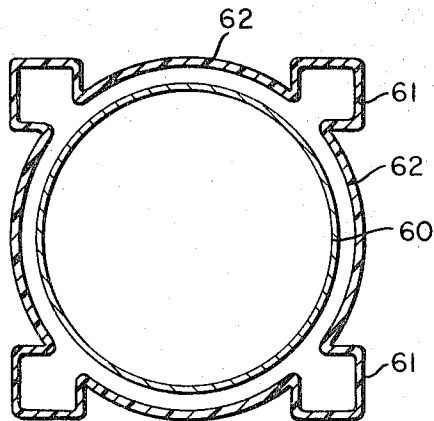


FIG. 6



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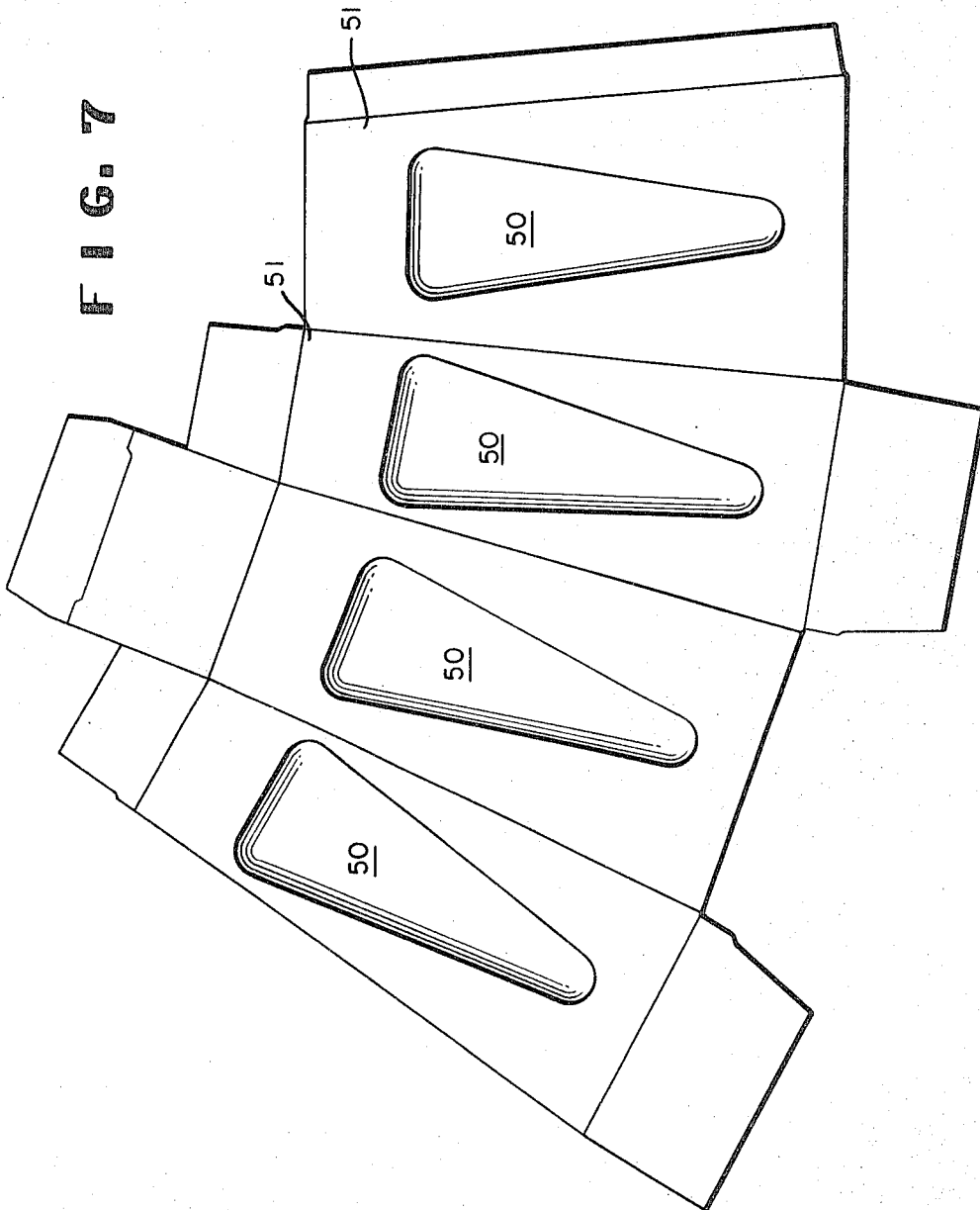
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