

- [54] **CARDLESS HEAD BOARD
MERCHANDISING PACKAGE**
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- [73] Assignee: **Gilbreth Company**, Philadelphia,
Pa. ; by said Miller
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229/DIG.12
- [51] Int. Cl. **B65d 65/04**
- [58] Field of Search 229/87 R, 87 H, DIG. 12;
206/65 S, 80 A, 78 B, 806, 497

3,424,306 1/1969 Munck..... 206/65 S

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Attorney, Agent, or Firm—Caesar, Rivise, Bernstein & Cohen

- [56] **References Cited**
UNITED STATES PATENTS
- 2,174,924 10/1939 McCleary 229/DIG. 12
- 3,087,610 4/1963 Kirkpatrick 229/DIG. 12

[57] **ABSTRACT**
 A method and apparatus for packaging articles is shown. The articles are provided within a package comprising a sheet of heat shrinkable plastic film with resistance against shrinkage below 120° F. The sheet is formed with the loop section for receiving the articles and a head section. The loop section is shrinkable upon application of heat to secure the article in the loop. The head section is maintained in a flat position and retains its smooth shape after the articles are packaged in the looped section due to the use of a heat shield during the packaging operation.

2 Claims, 3 Drawing Figures

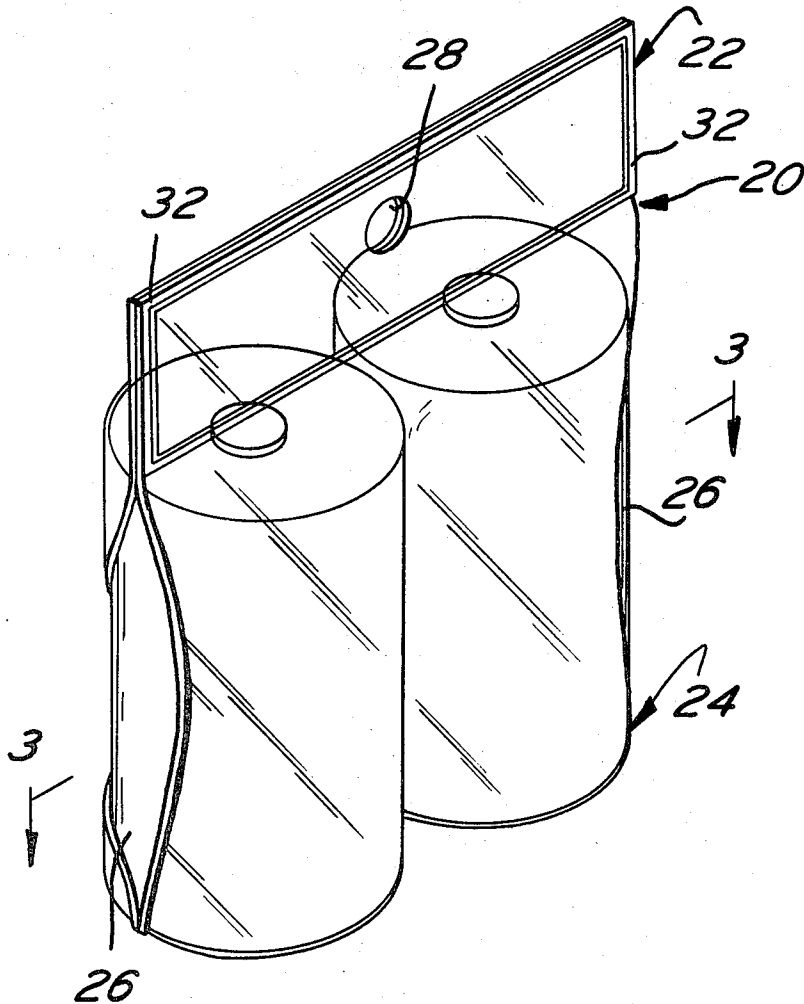


FIG. 1

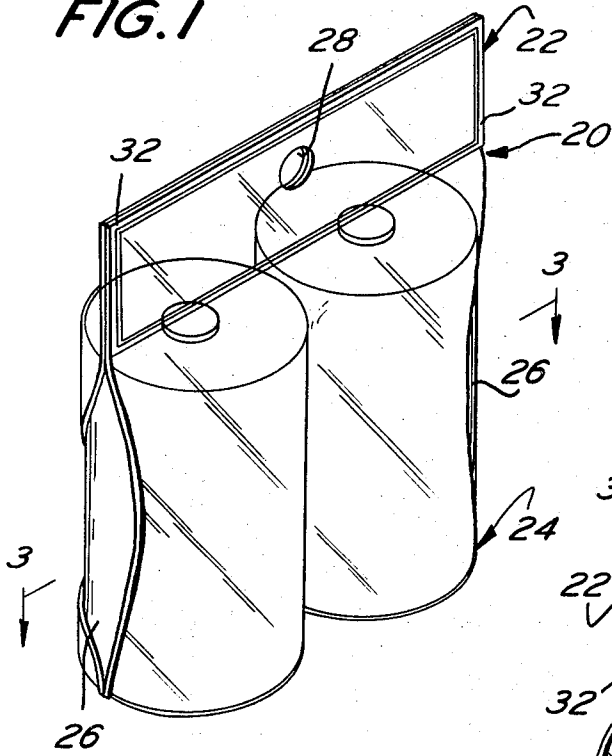


FIG. 2

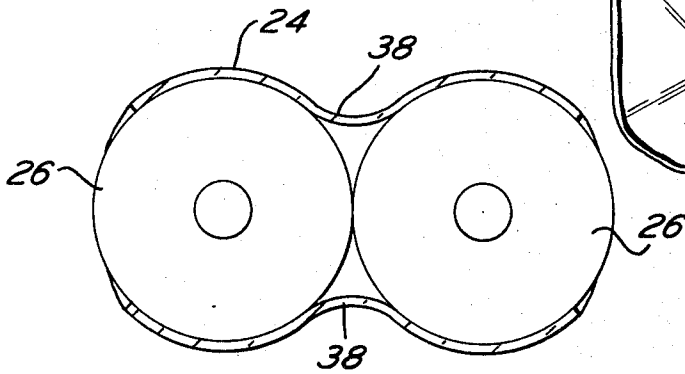
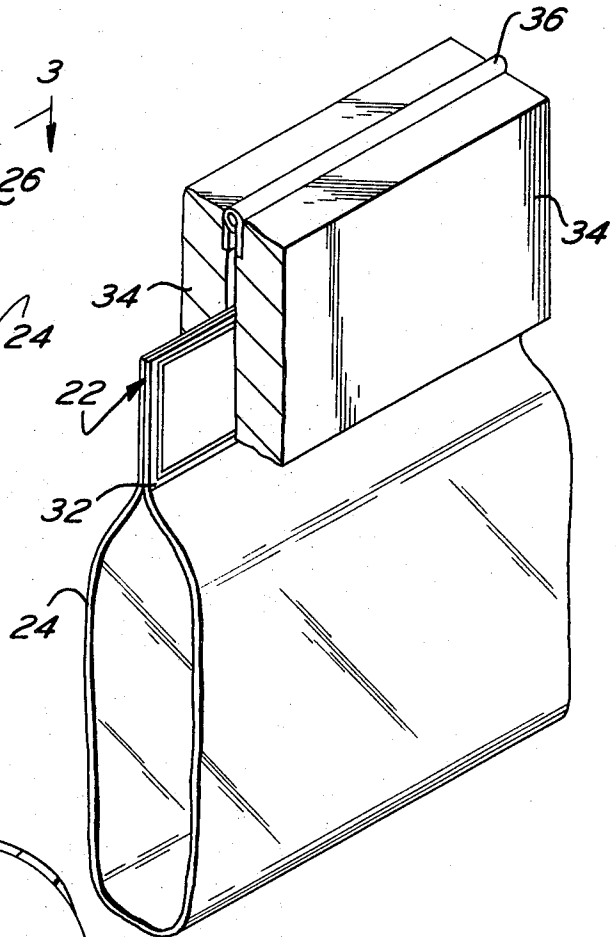


FIG. 3

CARDLESS HEAD BOARD MERCHANDISING PACKAGE

This invention relates to packaging and more particularly to a cardless head board merchandising package which displays the articles as well as packages the same for sale.

The following patents are the closest prior art relating to the instant invention known by the inventors and exemplify the known prior art:

INVENTOR	PATENT NO.	ISSUE DATE
Kirkpatrick	3,087,610	April 30, 1963
Nichols	3,097,788	July 16, 1963
Blum	3,112,826	December 3, 1963
Potter	3,217,874	November 16, 1965
Rumsey, Jr.	3,231,083	January 25, 1966
Munck	3,424,306	January 28, 1969

The type of package shown in the Munck U.S. Pat. No. 3,424,306 represents a suitable package for the sale and display of articles. That is, the package shown therein is a package which includes a loop which is transparent so that the articles can be seen through the loop and a head section is included which can be used for displaying price, trademarks, or other information related to the source of the article. The package in the Munck patent however, requires that a stiff material such as cardboard be used in the header section to not only retain the shape but also for purposes of display. Not only does the production of the Munck package require combining the cardboard with the package but also, the cardboard is subject to deterioration when the package is displayed in a highly moist atmosphere.

The header board section in the Munck patent could not be made without cardboard or other stiffening material in view of the fact that the heat shrinkable thermoplastic material used in the package causes shrinkage of the head section when a stiffening material is not used. Even where the header board section has been shielded from the heat during the shrinkage of the loop section, there will occur wrinkling of the header section after the shield has been removed if cardboard is not used when subjected to summer heat temperatures.

Accordingly, it is an object of this invention to overcome the aforementioned disadvantages of the prior art.

Another object of the invention is to provide a cardless head board merchandising package which is a simple heat shrinkable band which acts as a light weight holder and printed advertisement for articles.

Still another object of the invention is to provide a head board type merchandising package for articles which is comprised of a loop for articles, a head section with heat seals and printing made from a single film or tube comprising a single material.

Yet another object of the invention is to provide a new and improved package which enables the article packaged therein to be suitably displayed. Another object of the invention is to provide a new and improved method and apparatus for packaging articles using heat shrinkable film with resistance against shrinkage below 120° F.

Yet another object of the invention is to provide a new and improved package for displaying articles which includes a head section which can easily be hung

from article displays and facilitates handling of the package.

These and other objects of the invention are achieved by providing a package for displaying articles which comprises a sheet of heat shrinkable film with resistance against shrinkage below 120° F. The sheet is formed with a loop section for receiving the articles and a head section. The loop section is shrinkable upon application of heat to secure the articles in the loop. The head section is maintained in a flat position and retains its smooth shape after the articles are packaged in the loop section, by the use of a heat shield during the heat shrinking operation.

Other objects and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following description when considered in connection with the accompanying drawings wherein:

FIG. 1 is a perspective view of a package embodying the invention having a pair of dry cell batteries packaged therein;

FIG. 2 is a perspective view of the package during a step in the formation of the package with parts removed for purposes of clarity; and

FIG. 3 is an enlarged sectional view taken from above along the line 3—3 with the batteries shown in full.

Referring now in greater detail to the various figures of the drawings wherein like reference characters refer to like parts, a cardless head board merchandising package embodying the invention is shown generally at 20 in FIG. 1.

Package 20 basically comprises a head section 22 and a loop section 24. As seen in FIG. 1, a pair of dry cell batteries 26 are secured within the loop section 24.

As should be noted in FIG. 1, the package 20 is transparent so that the batteries 26 can easily be seen. The head section 20 is planar, rectangular and includes an opening 28 in the center thereof to facilitate hanging of the package on a rod display.

The package 20 is formed of a sheet of transparent plastic film with resistance against shrinkage at temperatures below 120° F. The sheet of film preferably comprises unplasticized polyvinyl chloride. The sheet is formed with a loop section 24 which is seen in FIG. 2 before it is heat shrunk. The head section 22 is formed by heat sealing a rectangular strip 32 when the ends of a rectangular sheet of unplasticized polyvinyl chloride are aligned and placed flat against each other which forms the periphery of the head section 22. The strip 32 may also take the form of a series of parallel strips and may or may not, as preferred, have vertical end heat seals. The head section may also be formed by a series of folds of the film to increase the rigidity thereof. The opening 28 is die punch heat sealed in the head section 22. The folded over portion of the sheet forms loop 24.

As best seen in FIG. 2, the loop section 24 provides a receptacle for the articles to be packaged. The batteries 26 are then placed into loop 24. A shield which is preferably comprised of wood or other non-heat conductable surfaces is then provided over the head section 22 as shown in FIG. 2. As seen therein, fragmentarily, the heat shield preferably comprises a pair of wood strips 34 which are hingedly secured by suitable hinging means 36 and are urged about and cover completely both sides of the head section 22 by a suitable spring in said hinge. The wood strips 34 act to convey

the package 20 into a heated area such as a heat tunnel and the loop 24 is then shrunk to tightly secure the batteries 26 therein. The heat shield comprised of the wood slabs 34 is then removed and thereby provides a package as shown in FIGS. 1 and 3.

As best seen in FIG. 3, the shrinking of the loop 24 causes a conforming of the loop to the shape of the article therein. Thus as seen in FIG. 3, a pair of indentations 38 are formed as the loop conforms to the outer shape of the batteries 26.

The head section 22 does not wrinkle or shrink in the summer's heat or in a hot storage area. The unplasticized polyvinyl chloride composition provides resistance against shrinkage, as pointed out above, up to at least 120° F. for prolonged periods of time and up to 145° F. for shorter periods of time. Moreover, resistance against shrinkage of the unplasticized polyvinyl chloride obviates the need of having cardboard or other stiff material supplementing the plastic head section of the package to maintain the flat, smooth shape of the head section.

The sheet of unplasticized polyvinyl chloride is pre-stretched to provide shrinkage of approximately 45 percent in a radial sense with only 1 to 3 percent shrinkage axially. This means, that the loop 24 will be considerably reduced in diameter but shrinks very little in a direction extending parallel to the head section. Moreover, the use of unplasticized polyvinyl chloride enables not only nonperishable articles to be used within the package but also items such as food because there is no plasticizer used in the polyvinyl chloride.

Finally, the head section 22 is also useable for displaying information such as trademarks, and other identification such as the source of goods and price by having the sheet printed on the portion that forms the inner surface of said head section prior to the sealing of the strip 32 to form the head section 22, as schematically indicated at 40 in FIG. 1. Accordingly, it can be seen that a new and improved method and apparatus for packaging articles has been provided. No cards or cardboard is required to form the head section because the unplasticized polyvinyl chloride has high tempera-

ture resistance, and the head section, even without cardboard, will provide a stiff head section after the loop portion 24 has been shrunk.

Although this invention has been described with respect to unplasticized polyvinyl chloride as being a film which will retain its dimensional stability when subjected to prolonged ambient temperatures such as summer heat or hot storage areas, it should be understood that this invention can be used with any other plastic film now known or which may become known in the art which possesses these qualities.

Without further elaboration, the foregoing will so fully illustrate our invention that others may, by applying current or future knowledge, readily adapt the same for use under various conditions of service.

What is claimed as the invention is:

- 1. A package for displaying and packaging articles, said package being suspendable from a rod, said package comprising a sheet of heat shrinkable film which will retain its dimensional stability when subjected to prolonged ambient temperatures up to 120° F, said sheet being formed with a loop section for receiving said articles and a head section, said sheet being folded upon itself whereby the lower portion comprises the loop section and the upper portions comprise the head section, with the abutting faces of said head section being heat sealed together to form a substantially planar head section, said abutting faces forming an inner surface on said head section, said head section including a printed portion, with said printed portion being on said inner surface, said head section consisting of said planar heat sealed faces, said loop section being adapted to receive and contain said articles by placing said articles in said loop section and heating said loop section above 120° F to shrink said loop section to tightly secure said articles therein, and an opening formed in said head section, said package being suspendable from a rod which is received in said opening.
- 2. The package of claim 1 wherein said film comprises polyvinyl chloride.

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