

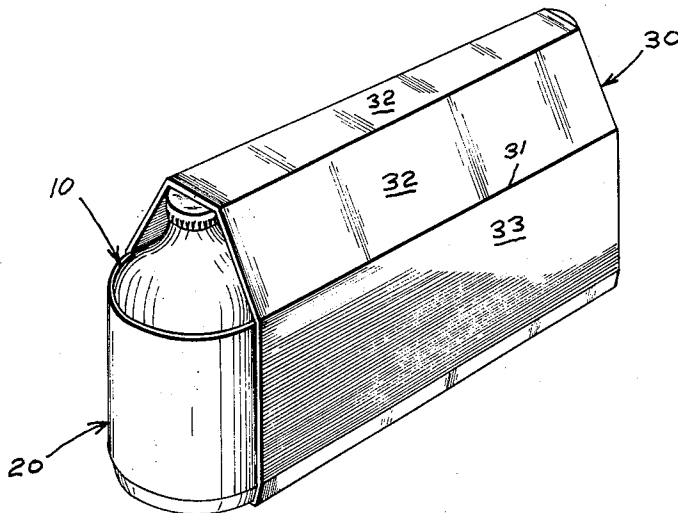
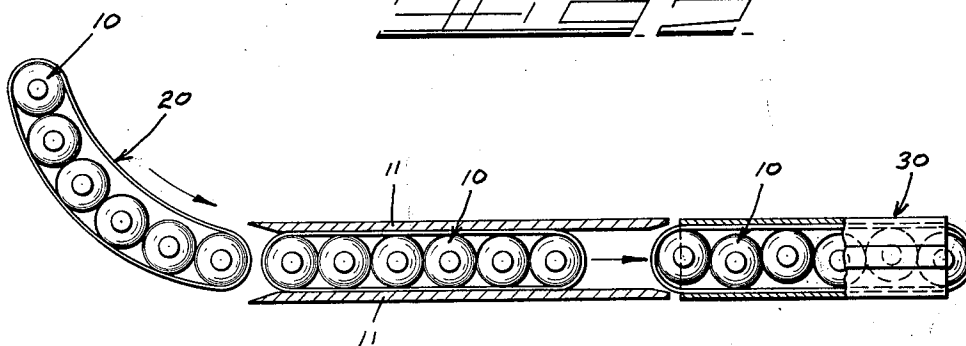
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METHOD FOR PACKAGING GENERALLY CYLINDRICAL ARTICLES

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METHOD FOR PACKAGING GENERALLY CYLINDRICAL ARTICLES

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1 Claim. (Cl. 53-27)

This invention relates generally to a package and the method of packaging generally cylindrical articles, and more particularly to a package and method of packaging glass bottles.

It is an object of this invention to provide a simple, economical package for generally cylindrical articles.

Another object of this invention is to provide a simple, expedient method for packaging of generally cylindrical articles.

The specific nature of this invention, as well as other objects and advantages thereof, will become apparent to those skilled in the art from the following detailed description, taken in conjunction with the annexed sheet of drawings on which, by way of example only, the preferred embodiment of this invention is illustrated.

In the drawings:

FIG. 1 is a perspective view of the package of my invention; and,

FIG. 2 is a schematic plan view of the steps in the assembly of the package of my invention.

The invention is directed to the packaging of generally cylindrical articles 10, such as glass bottles or the like. The article 10, as shown on the drawings, is a glass bottle. The other elements of the package of my invention are a flexible, endless band 20 and a tubular member or sleeve 30. Briefly, the method of the invention comprises placing a flexible, endless band about the articles when they are disposed in near relationship along an arcuate path, straightening the formation of articles to a straight line formation, to place the band in tension, thereby keeping the bottles in contact with each other, and placing a closely fitting tubular sleeve about the bottles to maintain them in the straight line formation.

The endless band 20 is preferably formed of a flexible, slightly resilient sheet-like material, such as kraft paper or the like. The band is formed by cutting a strip of the material, and then folding and gluing the strip into a loop. The circumferential extent of the band is important and will be described hereinafter. It is to be noted that where necessitated by the diametrical variance in the article being packaged a more resilient material, such as what is commonly referred to as extensible kraft paper, may be utilized.

The tubular member or sleeve 30 is preferably formed of paperboard or the like, such as fiberboard. The sleeve 30 is formed by making a plurality of parallel score lines 31 on a blank of material to define a series of panels, and then gluing or stapling the blank into a tubular formation. The panels 32 and 33, defined by the score lines 31, are sized so as to closely fit the contours of the article 10 being packaged. It is important that the bottom and top panels of the sleeve 30 be in close contact with the top and bottom surfaces of the articles being packaged and that the side panels 33 of the sleeve be spaced apart a distance substantially equal to the outside diameter of the article being packaged.

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In assembly, a group of three or more generally cylindrical articles, six bottles for example, are placed in near relationship or contact with each other along an arcuate path. See FIG. 2. The band 20 is then placed over the articles so as to encircle their mid-sections. The band 20 has a circumference which is greater than the shortest encircling distance about the articles when they are disposed in the aforementioned arcuate formation. The circumference of the band 20, however, is preferably slightly less than the distance about the articles when they are axially aligned in a single straight row. After the band has been placed about the articles while in the arcuate formation, the articles and band are moved between two parallel, stationary guide rails 11, to thereby place the articles in a straight line formation, and to place the band in tension. The articles are then telescoped into a preformed tubular member or sleeve 30 which, because of its panels closely fitting relationship with the articles, frictionally engages the band and maintains the articles in the aforementioned straight line formation. Also, because of the resiliency of the band, the articles tend to move out of alignment into contact with the side panels 33. The tubular member 30 is preferably made sufficiently long to extend to or across the axes of the end articles of the formation.

While it is preferable to preform the sleeve and telescope it over the banded articles, it is obvious that the sleeve blank can be placed about the banded articles, and then folded and glued into a tubular formation.

Finger holes, or other conventional carrying means, may be placed in the tubular member 30 to facilitate carrying the package of my invention.

Other generally cylindrical articles, such as cans or plastic bottles, having circular mid-sections or ends may be advantageously packaged by the method and package of my invention.

Since the endless band 20 is in tension, the articles 10 are in constant contact with each other, thereby preventing them from damaging each other. It is to be noted, of course, that cushioning material can be placed between the articles if desired.

If desired, additional means, such as an adhesive or a length of adhesive tape, may be applied to the band and tubular member to prevent relative movement between the sleeve and articles.

It will, of course, be understood that various details of construction may be modified through a wide range without departing from the principles of this invention, and it is not, therefore, the purpose to limit the patent granted hereon otherwise than necessitated by the scope of the appended claim.

I claim:

A method of packaging at least three generally cylindrical articles, which comprises, moving said articles in contiguous relationship along a continuous path having a first arcuate section and a second straight section, transversely encircling said articles with an endless band while they are disposed in said arcuate section, said band being tensioned as said articles are moved into said straight section, and moving said articles from said straight section and simultaneously telescoping a closely fitting tubular member about said articles to thereby maintain them in a straight line formation.

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