

March 15, 1960

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2,928,537

ARTICLE PACKAGING AND HANDLING DEVICE

Filed Nov. 25, 1957

FIG. 1.

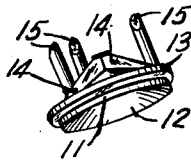


FIG. 2.

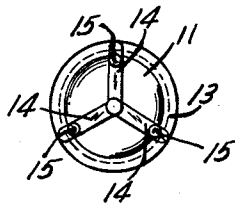
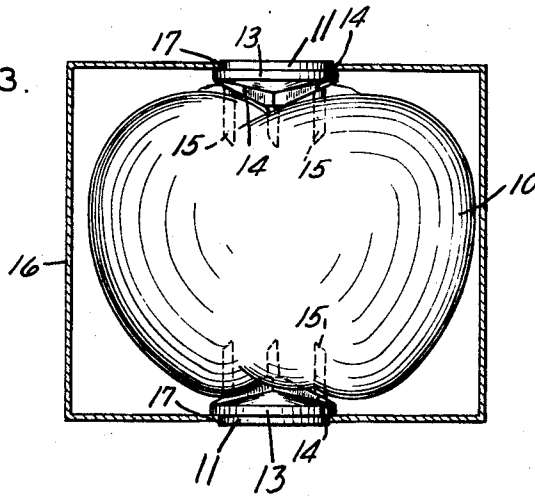


FIG. 3.



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2,928,537

ARTICLE PACKAGING AND HANDLING DEVICE

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Application November 25, 1957, Serial No. 698,624

1 Claim. (Cl. 206-46)

This invention relates generally to a class of means for packaging and handling a variety of articles which are inherently delicate and more particularly to those which have an outer surface which must be protected and maintained in an undamaged state during manufacture, transport and display.

This invention is principally applied to such confections as caramel coated apples, although it may be applied to coated confections of all kinds, and as well to bakery goods as for instance cream puffs, which must all be kept in a perfect condition before consumption.

My invention provides a simple and efficient holding means which pierces and grips articles of the class described at an early stage in their manufacture and remains in position in the article after manufacture, during transport and during final consumption.

As I apply the invention, the holding means is set in the article before the customary coating for confection purposes. In the case of caramel coated apples, the holding means is fixed in position to provide a convenient attachment by which the apples may be picked up, dipped, moved about and passed through all of the subsequent operations necessary to complete their manufacture.

One of the auxiliary objects of my invention is to provide a completely sanitary package for such an awkwardly shaped and delicate confection as a caramel coated apple, which will be uniform in size, for convenient boxing or crating, as well as sturdy and compact and which will, at the same time, render damage to the delicate confection, impossible.

A further object of the invention is to provide a convenient and economical handling device which will enable the caramel coated apple to be placed in a cooperative chamber or box in which it will not touch the sides of the box and thereby avoid spoiling the confection surface of the apple.

Other objects and uses of these means will appear from a detailed analysis of my invention as exemplified by the particular embodiment illustrated in the accompanying drawings, which show the invention applied to a caramel coated apple. In these drawings:

Figure 1 is a perspective view of one of my holding means, with its three spike members.

Figure 2 is a plan view of said holding means.

Figure 3 is a plan view of an apple to which a pair of my holding means have been applied, the surrounding box walls being shown in cross section, and the spike members of the holding means being indicated by dotted lines extending into the interior of the apple.

Referring to the drawing, the apple is shown at 10. Inserted in the top and the bottom of the apple, in the normally irregular depressions at both ends of the apple core, are two of my holding means 11. Each holding means will be seen from Figure 1 to consist of a cone whose base is provided with a concave surface 12.

The slanting surface of the cone is provided adjacent its base with an annular ridge 13. Three ribs denoted by the numeral 14 are formed integral with the cone member and are spaced at 120 degrees from each other. Surmounting each of the three ribs 14 adjacent the point

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where the rib meets the annular ridge 13 is a spike member 15. Each spike member consists of a projecting cylindrical body portion. At its outermost end each spike member is sharpened by being provided with a chamfer, whose purpose is to facilitate its entry into the body of the apple.

In operation, the holding means are inserted into the body of the apple. Two of them are inserted into each apple in the positions shown in Figure 3. After this step, the holding means 11 become the part by which the apple is handled, to avoid bruising or otherwise damaging the fruit. By holding the holding means 11 in suitably devised grippers, the apple 10 may be automatically washed, dipped, sprayed, dusted or nipped and submitted to many other appropriate steps.

After manufacture of the confection, in this case a caramel coating has been applied to the apple. Then the apple must be placed in a container either of cardboard or of transparent plastic, for display purposes. The container has dimensions such that it is larger than the apple and consequently nowhere does its walls touch the outer surface, the candied surface of the apple. The container is denoted by the numeral 16 in Figure 3.

It will be noted that the container 16 is provided with circular openings, 17, 17, oppositely disposed, in its side walls. These openings 17 are cooperative with the annular ridge 13 around the slanting surface of the cone. These openings are of such a size that they fit snugly against the underside of the ridges 13, so that the holding means 11 cannot fall out of the openings and cause the apple 10 to lodge against the walls of the container 16. Thus a most compact and sanitary package has been attained for such an irregularly shaped confection as a candied apple.

When it is desired to consume the candied apple, the sanitary container 16 is removed and the apple 10 is held by placing a thumb or finger in the concave depression at the base of the holding means 11. In this manner none of the sticky outer surface of the candied apple comes into contact with the fingers or clothing of the consumer of the apple.

The apple 10 is prevented from turning on its axis by the fact that there are three spike members projecting into the apple from each holding means 11. I do not however wish to be limited to the use of three spike members, and am only describing them as illustrative of my invention. The entire holding means is formed of one piece of plastic, molded by the customary injection process, so that it is quite cheap and may be discarded after consumption of the apple, which contributes to the sanitary nature of the packaging.

It is apparent that other modifications of structure may be made without departing from the intent and purpose of my invention; and it is to be understood that the particular embodiment described hereinabove and illustrated in the accompanying drawings is not to be considered as limiting the scope of my invention.

What I claim is:

Means for facilitating the holding of an article, in a box having openings, comprising a cone member having an annular ridge formed adjacent to the base of the cone and adapted to cooperate with an opening in the box, a concave depression formed in the base of the cone adapted to be grasped by a finger of a user's hand, three article-contacting rib members radiating from the tip of the cone, and three spike members on said rib members adapted to pierce the article.

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