

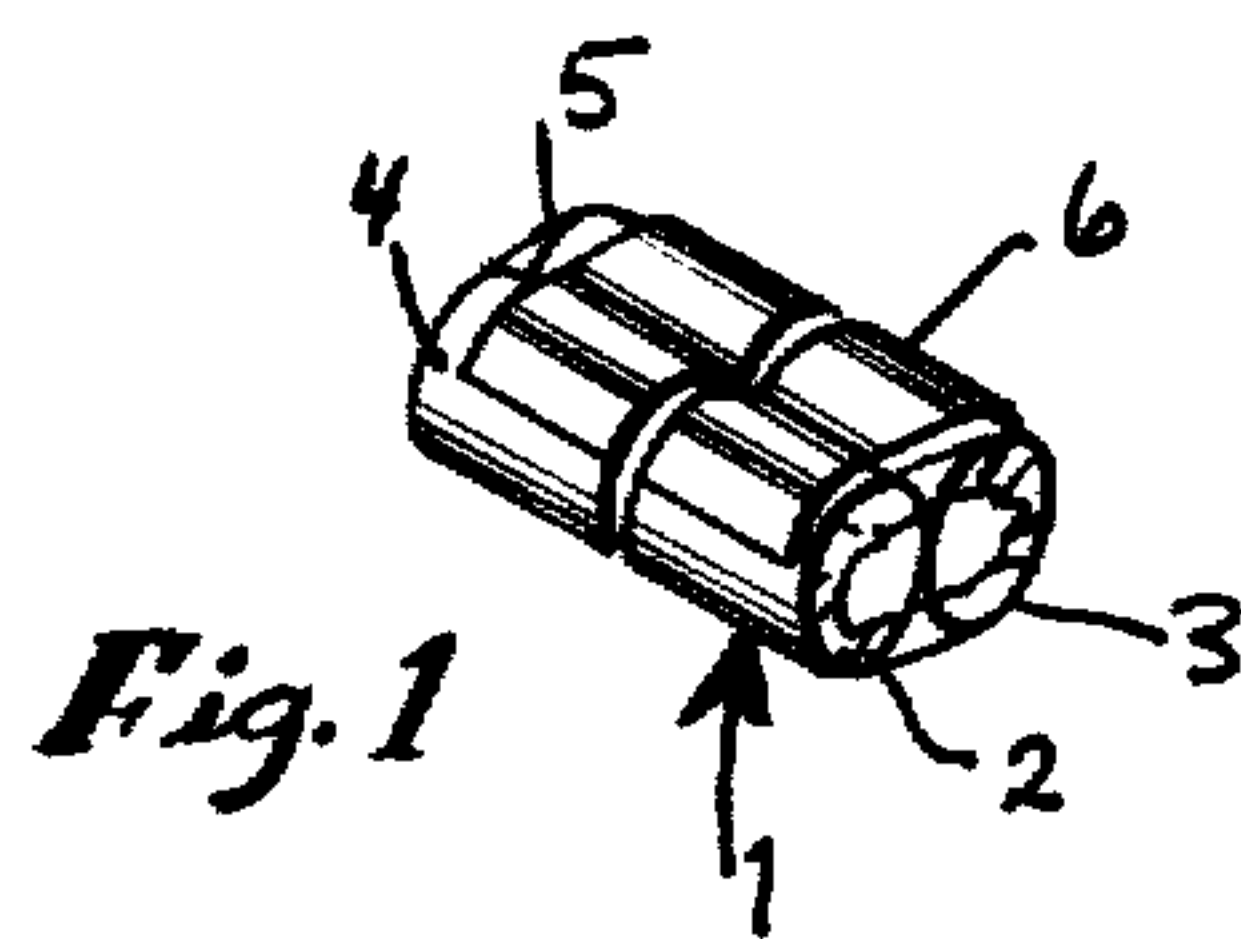
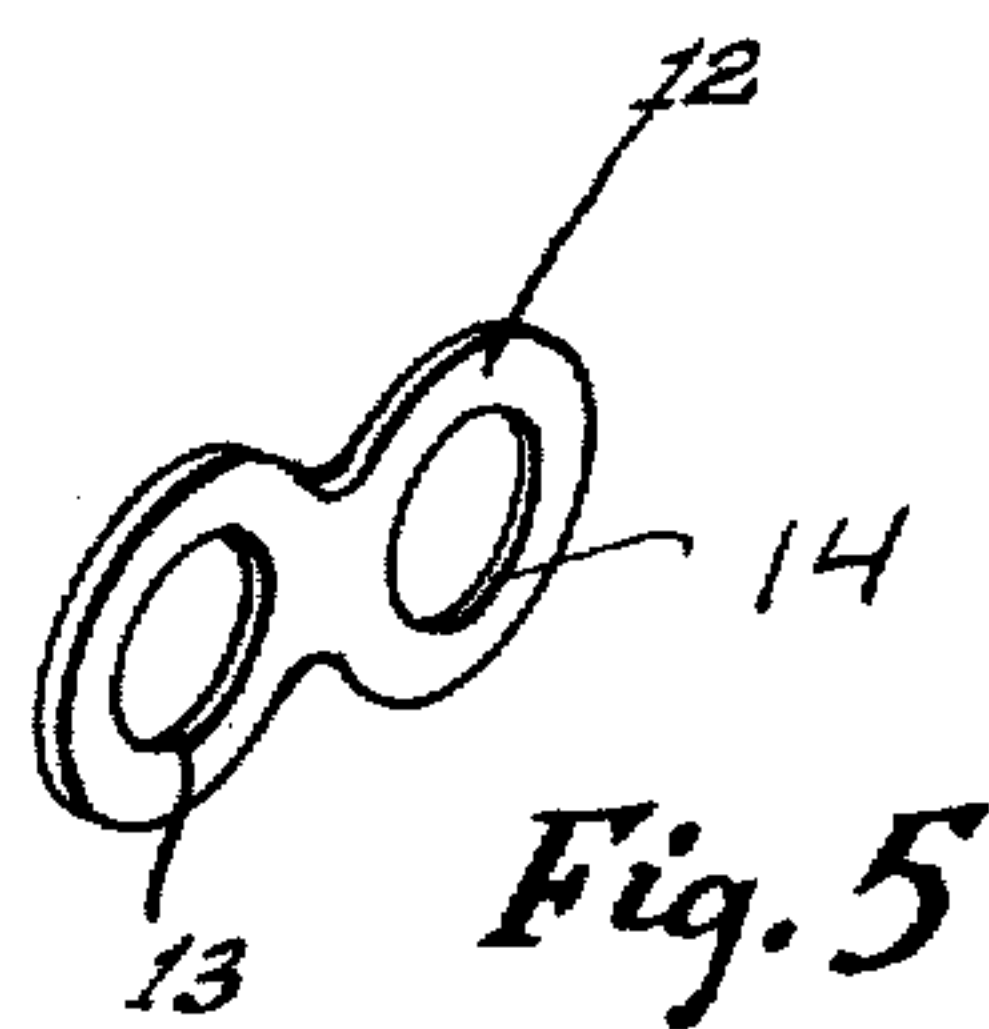
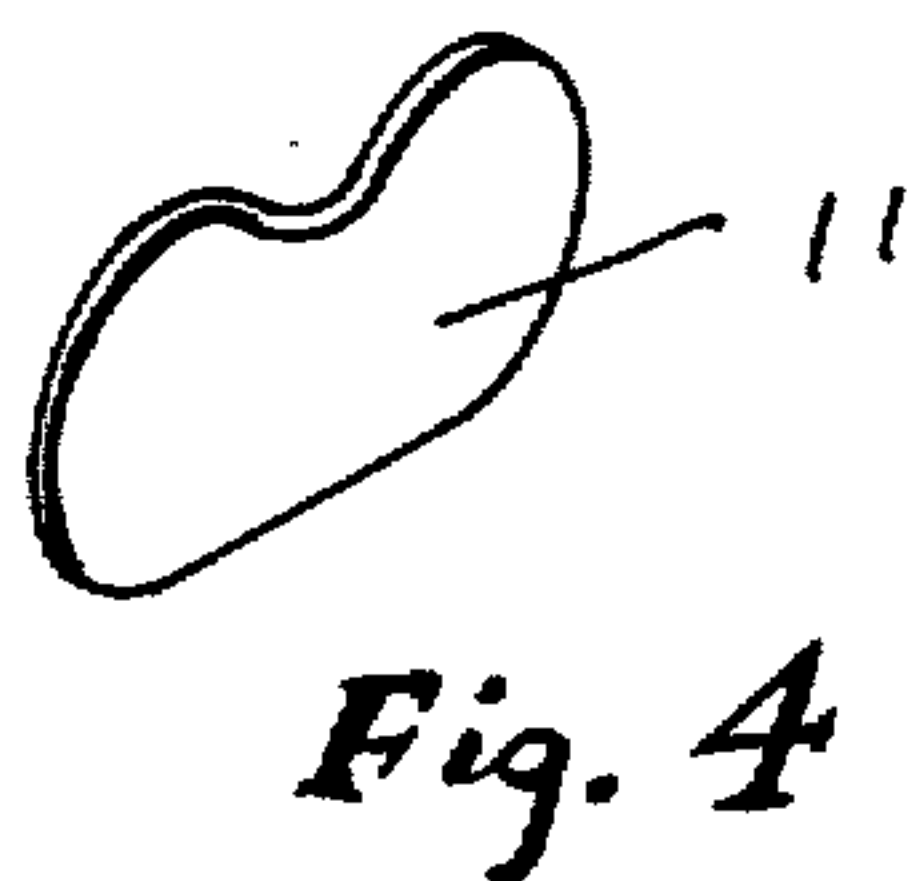
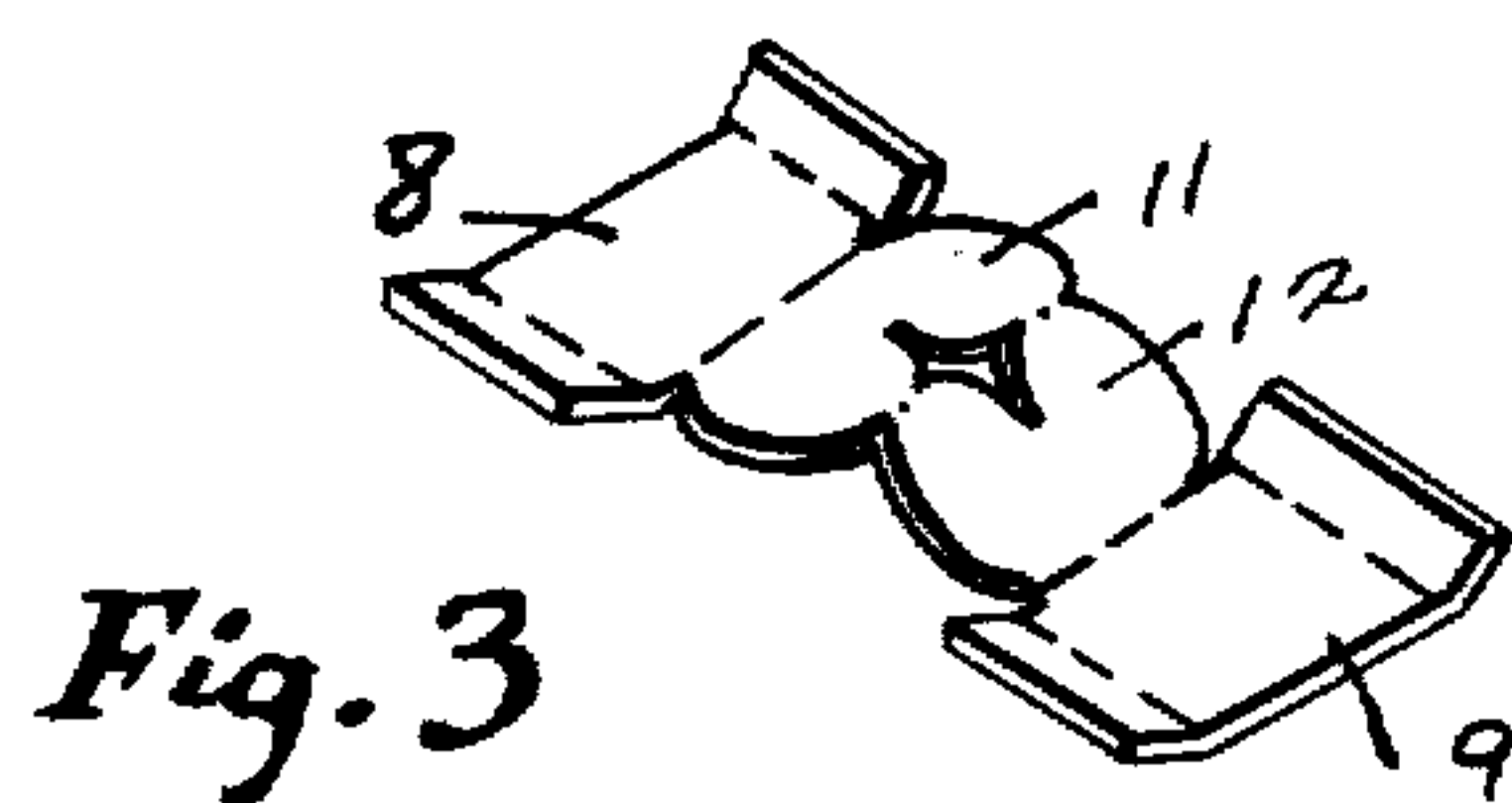
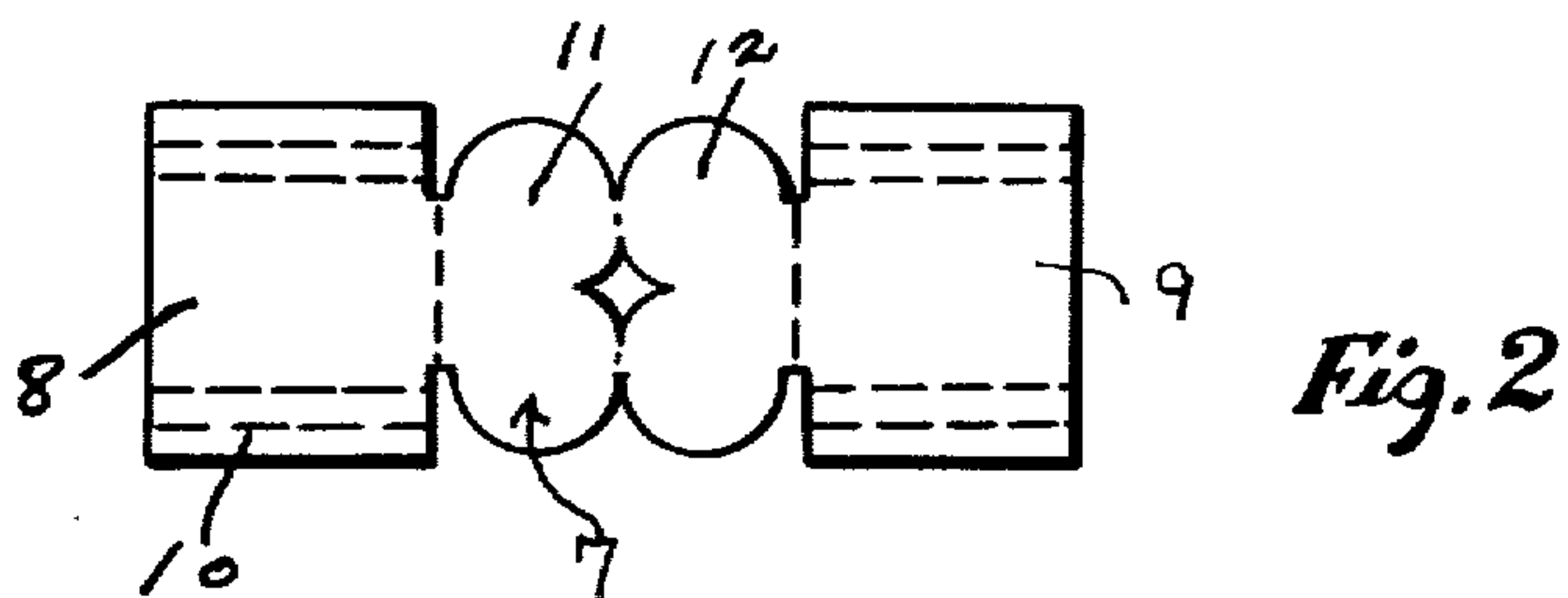
Aug. 27, 1963

J. A. BRUCE

3,101,847

PROTECTIVE CUSHION FOR PACKAGING CANS

Filed Aug. 3, 1961



INVENTOR John Adams Bruce

1

3,101,847

PROTECTIVE CUSHION FOR PACKAGING CANS

John Adams Bruce, Tampa, Fla., assignor, by mesne assignments, to Forspads Inc., a corporation

Filed Aug. 3, 1961, Ser. No. 129,031

3 Claims. (Cl. 206-65)

This invention relates to a protective cushion for packaging cans and more particularly to a device which is adapted to be inserted between two pairs of cans when the cans are packaged in groups of four.

In my prior application Serial No. 787,993, entitled "Method of Packaging," now Patent No. 2,996,190 issued August 15, 1961, there is disclosed a method of packaging a group of four cans. It is pointed out in that application that it is frequently desirable to package a plurality of cans in a single package such as, for example, frozen juices where only a single can is used but it is desirable to provide for purchasing for plurality of cans simultaneously. It is also desirable from the point of view for conserving shelf space to provide for the storage of a plurality of cans in a single package. In my prior application there is described a method of packaging wherein four cans are retained within a thermoplastic heat shrinkable sleeve which completely encircles the cans and retains a display card within the package.

According to the present invention there is provided an insert for a package such as described in the above-referred to patent, which insert provides a protective cushion for the cans to prevent damage to the cans or package in the event of an impact on the package. In addition, according to one modification of the invention the protective cushion may also provide a display card and cover for portions of the can.

It is the primary object of the present invention to provide a protective cushion for a package incorporating a plurality of cans.

It is a further object of the present invention to provide a protective cushioning device and cover for a package comprising four cans wherein two cans are placed on top of the other two cans and wherein the protective cushion is inserted between abutting end faces of the cans.

It is still another object of the present invention to provide a protective cushion for cans including a cover and display card.

Other objects and many of the attendant advantages of the present invention will be readily appreciated on consideration of the following detailed specification in connection with the accompanying drawings herewith:

FIG. 1 is a perspective view of a package according to the present invention,

FIG. 2 is a plan view of the protective insert member,

FIG. 3 is a view in perspective of the insert member showing the insert member in partially folded condition,

FIG. 4 is a perspective view of a modified form of insert member, and

FIG. 5 is a perspective view of still another embodiment of the present invention.

Referring now more specifically to the drawings, wherein like numerals indicate like parts throughout the several views, there is shown in FIG. 1 a package 1 comprising four cans, 2, 3, 4, and 5 with the cans arranged so that the end faces of cans 4 and 5 abut the end faces of cans 2 and 3. The package comprises a tube of heat shrinkable material such as, for example, a polyester film and there is shown at 6 a display card for the package. The manner of sealing the package is more clearly disclosed in my prior patent heretofore referred to.

According to the present invention there is provided an insert member which is adapted to form a protective cushion between the ends of the cans 2 and 3 and cans 4 and 5. This protective cushion may comprise a mem-

2

ber such as shown at 7 in FIG. 2. The member 7 may be diecut or stamped from a synthetic material having cushioning characteristics or from heavy cardboard material which has cushioning characteristics and will also add strength to the package. The cutout comprises substantially rectangular end portions 8 and 9 having fold lines such as shown at 10 formed therein. Disposed adjacent end rectangular end portions are sections 1 and 12 which have semi-circular outer edge portions and a diamond shaped central cutout so that the portions 11 and 12 will conform to the contours of the ends of the pairs of cans.

It is possible to apply spraying material to the portions 11 and 12 to increase the cushioning thereof and provide relatively thin cardboard for portions 8 and 9.

The insert member 7 is shown in partially folded positions in FIG. 3 and the portions 11 and 12 are brought into abutting relationship with the substantially rectangular end portions 8 and 9 adapted to fit against the sides of the cans. The edge portions of the elements 8 and 9 are bent so as to conform to the curved surfaces of the cans.

The element 7 is inserted with the abutting portions of 11 and 12 inserted between the pairs of cans and the portions 8 and 9 resting against the side faces of the cans. In this position the end faces of the cans are protected and the package and contents are cushioned and protected against damage by dropping or other shock. In addition the ends of the cans are retained in tight abutting relationship with the insert member and thus are maintained in a clean condition. The portions 8 and 9 of the insert member add further strength to the package and may be used for display or advertising purposes.

In FIG. 4 there is shown another embodiment of the present invention comprising an insert member 11 which does not have the portion extending over the side of the can such as the portions 8 and 9 of the insert member shown in FIG. 2. However, the insert member 11 is made of a cushioning material and does provide protection for the abutting end faces of the cans.

In FIG. 5 there is shown an insert member 12 having circular cutout portions 13 and 14. The ring shaped protective element fits on the rim of each of the cans and performs the same function as the element 11 of FIG. 4.

In addition to damaging the abutting ends of cans in the package, shock may dent or otherwise impair other portions of the cans. An important feature of the insert in absorbing shock and lessening or preventing said denting is that dented cans have less cubic area and thus the tightly fitting film becomes loose around the package. This may permit the contents to fall out or the package may become impaired.

Obviously many modifications and variations of the present invention are possible in light of the above teachings. What is claimed to be new and desired to be secured by Letters Patent is:

1. A package comprising a plurality of cans, at least two of said cans being disposed in side by side relation, at least two of said cans being stacked on said first two cans in end to end relation therewith, a cushioning device inserted between the contacting ends of said stacked cans, said cushioning device having a contour conforming to the end faces of the cans, said cushioning device abutting the rims of the cans and adapted to maintaining the covered end faces of the cans free from contamination, and a heat shrunk film encasing the cans and drawing the cans into contact with the cushioning device.

2. In a package according to claim 1 wherein said cushioning device is provided with substantially rectangular portions extending normally in opposite directions on one side of the cushioning device to cover the sides of the stacked cans.

3,101,847

3

3. In a package according to claim 1 wherein said cushioning device has a central cut out portion for each pair of stacked cans.

2,913,105

830,200

References Cited in the file of this patent

5

UNITED STATES PATENTS

2,038,990 Barr ----- Apr. 28, 1936

4

Brunsing ----- Nov. 17, 1959

FOREIGN PATENTS

Great Britain ----- Mar. 9, 1960

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

August 27, 1963

Patent No. 3,101,847

John Adams Bruce

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the grant, lines 2 and 11, and in the heading to the printed specification, line 4, name of assignee, for "Forspads Inc.", each occurrence, read -- Forspack Inc. --.

Signed and sealed this 31st day of March 1964.

(SEAL)

Attest:

ERNEST W. SWIDER

Attesting Officer

EDWARD J. BRENNER

Commissioner of Patents