Dec. 9, 1958 W. A. BEDFORD, JR 2,863,556

FASTENING DEVICE

Filed Nov. 26, 1954

FIG. 1.

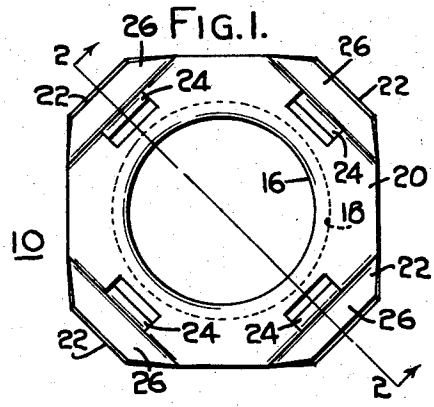


FIG. 2.

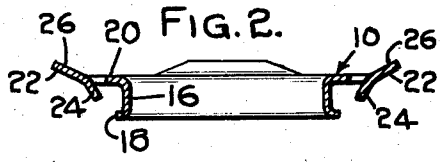


FIG. 4.

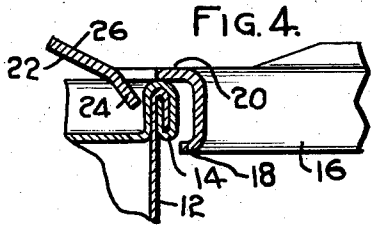


FIG. 3.

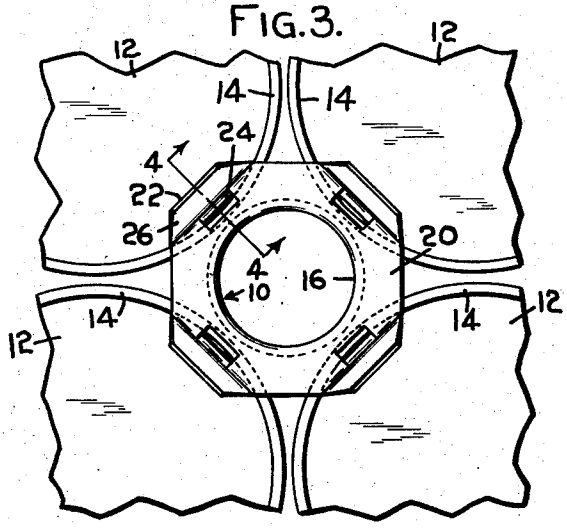


FIG. 7.

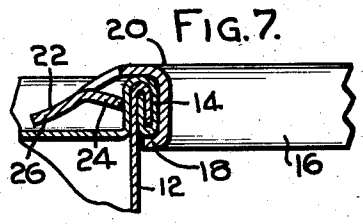


FIG. 5.

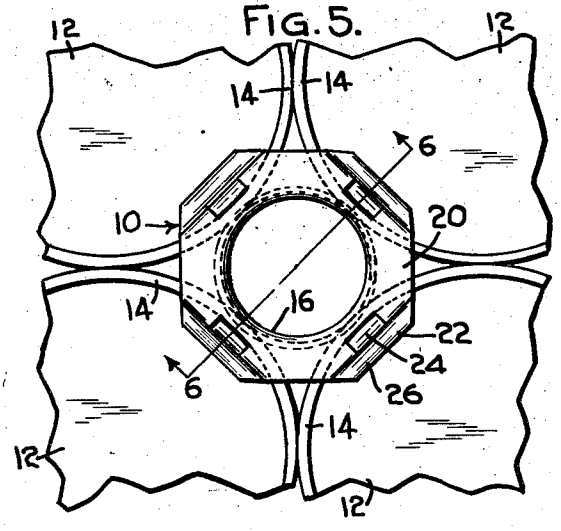
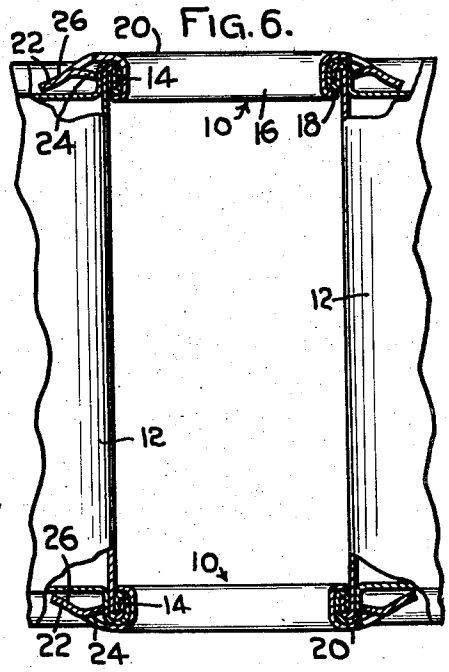


FIG. 6.



INVENTOR:
WILLIAM A. BEDFORD JR
BY Robert E. Ross
ATTORNEY.

United States Patent Office

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FASTENING DEVICE

William A. Bedford, Jr., North Scituate, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware

Application November 26, 1954, Serial No. 471,317

1 Claim. (Cl. 206—65)

This invention relates generally to fastening devices, and has particular reference to a fastening device for securing together a group of cylindrical containers of the type having a peripheral bead or rim at each end.

Certain foods and beverages marketed in cans are customarily sold in groups of three, four, or six, and for convenience in handling are frequently assembled into cardboard packages of various types. Such packages have been found to have a number of disadvantages, in that they require complicated and expensive machinery for assembly of the cans therein, they conceal the labels on the containers, and the cardboard is weakened by moisture.

This latter difficulty frequently interferes with the proper operation of the attaching machinery, prohibits the use of wet coolers for chilling the packaged containers, and requires special precautions during transportation and storage to prevent damage by dampness and moisture which would cause rupture of the containers during subsequent handling.

Various types of metal clips have been proposed for this purpose, but such clips have also been found to have disadvantages, such as being too expensive, too difficult to feed and attach by automatic machinery, or too difficult to remove by the purchaser.

The object of this invention is to provide an inexpensive fastening device for securing together a group of containers which is readily adapted to automatic feeding and attachment.

A further object of the invention is to provide a fastening device for the purpose described which is adapted to draw the cans tightly together during assembly.

A further object of the invention is to provide a fastening device for the purpose described which securely retains the cans in assembly yet is readily removable by the purchaser.

Other objects of the invention will, in part, be obvious, and will, in part, appear hereinafter.

In the drawing:

Fig. 1 is a top plan view of a fastening device embodying the features of the invention;

Fig. 2 is a view in section taken on line 2—2 of Fig. 1;

Fig. 3 is a top plan view of the fastening device of Fig. 1 assembled onto a group of cans in position for assembly;

Fig. 4 is a view in section taken on line 4—4 of Fig. 3;

Fig. 5 is a top plan view of the assembly of Fig. 3 after completion of the attachment of the fastener to the cans;

Fig. 6 is a view in section taken on line 6—6 of Fig. 5; and

Fig. 7 is an enlarged view of a portion of Fig. 6.

Referring to the drawing, there is illustrated a fastening device 10, which is adapted for attachment onto a group of cans 12 to retain the cans in assembly.

The cans 12 are of the type which have a cylindrical body with a peripheral bead 14 at each end which extends radially and longitudinally from the body.

The fastening device 10 is preferably formed of a single piece of sheet metal and comprises generally a central cylindrical body portion 16, a peripheral rim 18 disposed at one end of the body, and a peripheral flange 20 disposed at the other end.

The body 16 has a predetermined diameter such that it will fit closely within the multi-cusped space between a desired number of cans disposed uniformly about a point with adjacent cans touching, and the rim 18 extends outwardly from the lower end thereof to extend under the innermost portion of the beads of the surrounding cans.

The flange 20 has a group of portions 22 which are uniformly spaced about the periphery and extend radially to be disposed over the innermost portion of the can bead. Each portion 22 is provided with a tongue 24 which extends inwardly and downwardly, and the portion 26 of the flange to which the tongue is attached is inclined outwardly and upwardly.

The fastener is assembled onto a group of cans 12 by positioning the containers as illustrated in Fig. 3, with the beads spaced slightly apart so that the distance between the beads of opposite cans is greater than the diameter across the rim 18. The fastener is then placed on the group of containers so that the cylindrical body 16 and the rim 18 enters the space between the cans, and the flange 20 rests on the can beads with the tongues 24 extending downwardly toward the inside of the can beads.

To complete the attachment the portion 26 of the flange disposed radially of the tongues is deformed downwardly by a suitable tool (not shown) which moves the tongues 24 inwardly against the inside of the can beads and draws the cans tightly together, so that the beads bear tightly against the cylindrical body 16 and the rim 18 is seated under the beads.

A similar fastener may be assembled in like manner on the other end of the group of cans 12 simultaneously with the attachment of the fastener 10 or subsequent thereto.

Since certain obvious modifications may be made in the device without departing from the scope of the invention, it is intended that all matter contained herein be interpreted in an illustrative and not in a limiting sense.

I claim:

A fastening device and a group of cylindrical containers having peripheral beads at the ends, said device being adapted for assembly into a multi-cusped space at the end of said group of containers uniformly spaced about a point, said device comprising a body portion with a central aperture, said body having a flange for resting on the beads of said cylindrical containers, means about the aperture extending downwardly from the body seating under the can beads, said flange having a series of tongues formed thereon and arranged for engagement with said beads on the sides opposite said means, the portion of the flange to which the tongues are joined bearing obliquely upward from the flange of said body.

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