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2,679,281

METHOD AND MEANS FOR SECURING CANS TOGETHER

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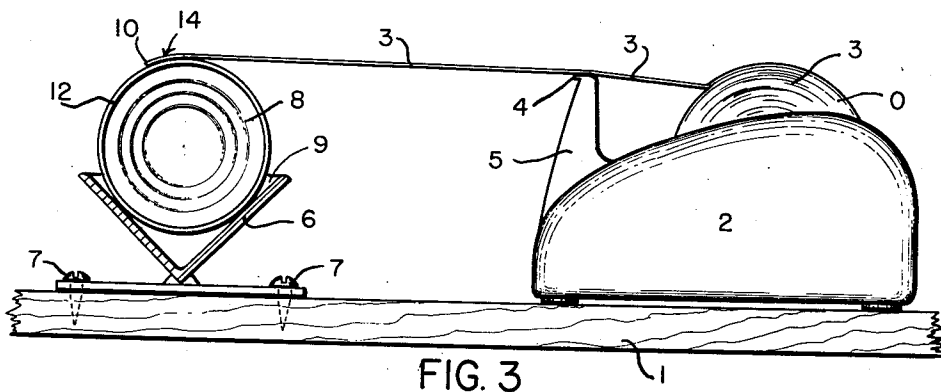


FIG. 3

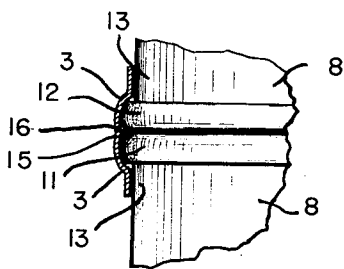


FIG. 2

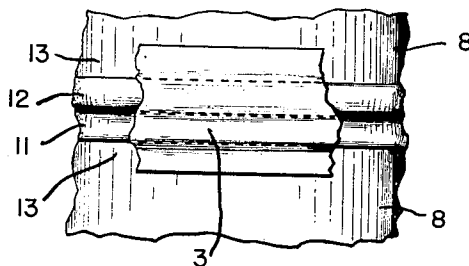


FIG. 4

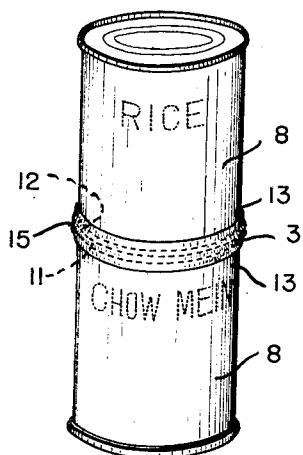


FIG. 1

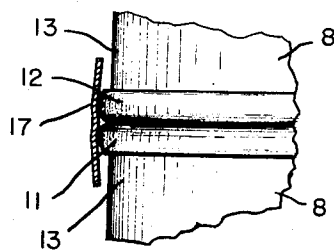


FIG. 5

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METHOD AND MEANS FOR SECURING
CANS TOGETHER

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3 Claims. (Cl. 154—42.3)

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This invention relates to a method and means for securing cans together in end to end relationship.

It has been customary for manufacturers to provide so-called "tie-in" sales, that is, you get one item free or for a small amount of money (for example, one cent) when you buy another item at the regular price. Such sales stimulate trade for the manufacturers by getting more people to try their product.

There has always been a problem present as to how to keep the items of the tie-in sales together for the convenience of the manufacturer, retailer, and purchaser. Elaborate boxes have been used to hold the tie-in items in their desired group relationship, however these boxes are quite expensive. Also, the groups have been secured to cards by means of glue and rubber bands, or rubber bands have been used to secure the items together but the resultant group is not stable and is annoying to handle. Metallic cans have been soldered together, however, this is quite expensive.

The securing of two canned goods products in a firm compact physical connection has always been a great problem for canned goods usually are heavy and cannot be glued to cards, rubber bands are not strong enough to hold the cans together securely, and soldering is difficult and expensive. Thus, there have been but few tie-in sales of canned goods products.

It is, therefore, one of my principal objects to provide a method and means for securing cans together for tie-in sales.

Another object is to provide such a method and means which is simple yet efficient, and not expensive.

Another object is to provide such a method and means which will secure even relatively heavy cans together firmly whereby the group of cans involved in a tie-in sale, usually two, may be handled by grasping either of the cans when assembled, thereby making it very convenient for packers in the manufacturing plant, retail clerks, and purchasers to handle the group and to maintain the sale goods in its desired assembled relationship at all times, rather than requiring sorting of the cans, or leaving a possibility that the tie-in sale goods might become separated either at the manufacturing plant, at the retail store, or at home. The goods is at all times ready for handling or use, and never is any searching necessary by anyone for the goods involved in the sale.

Another object is to provide a method and means for securing cans together which facili-

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tates the stacking of the goods on shelves in a retail store or at home.

A more specific object is to provide a method and means for aligning two cans in end to end relationship and securing same in said relationship firmly for transportation and storage.

These and other objects and advantages of my invention will become more apparent as the description proceeds.

In the accompanying drawing forming a part of this application for patent:

Fig. 1 is a perspective view of two cans secured together by the method and means of my invention.

Fig. 2 is an enlarged fragmental view, partly in section, illustrating the way in which cans are secured together using a slightly resilient sticky tape tightly stretched around the cans.

Fig. 3 is a side elevational view showing how the cans are handled in securing them together.

Fig. 4 is an enlarged fragmental view taken at right angles to Fig. 2.

Fig. 5 is a view similar to Fig. 2 showing what happens: when a non-resilient tape is used in securing cans together, and if the tape is not stretched tightly around the cans.

In the drawing, the reference numeral 1 indicates a table or base on which a holder 2 for a roll O of tape 3 is secured in any desired manner. The holder 2 may be of any desired conventional type wherein means, not shown but well known, is provided for rotatably carrying the roll of tape 3. It is preferred that the holder 2 include a tape cut-off blade 4 on a support 5, as shown for convenience in severing the tape when desired.

A trough 6, of V-shape in cross section, is secured to the base 1, as by screws 7 or the like, in spaced relation to the holder 2, as shown. The trough is provided to receive the cylindrical cans 8—8 whereby they are immediately aligned axially for securing together. The trough 6 has an end member or closure 9 at one end thereof to act as a stop against which one of the cans abuts when the other can is pushed against said one of the cans so that the cans may be held snugly against each other. If only one size of can is to be processed in the through 6, of course a second end member, not shown, may be provided on the opposite end of the trough whereby the trough length is fixed to be equal to the length of two cans end-to-end, for convenience in handling.

The tape 3 must be somewhat resilient or slightly stretchable in order to conform to, or to be formed over, the beads 11 and 12 as the beads protrude beyond the side walls of the cans, as

shown in Fig. 2 and form ridges over which the tape must be applied. I have found that cellophane tape serves the purpose here intended very well. There are some brands of common adhesive tape, masking tape, and the like which are also suitable for this use, however, cellophane tape seems to be easier to handle as it does not have the bulk of other tapes which are also adapted to this use.

The tape, as shown, is relatively narrow, it being preferable that one-half inch width tape be used. It is deemed apparent that a one-half inch wide tape is relatively narrow for use in taping two relatively heavy cans together in a manner which will hold same securely. However, it is the method of applying the tape which makes the narrow tape suitable for the purpose, as will become apparent.

It is deemed obvious that it is desirable from an economic standpoint to use a narrow tape for it is less expensive, however, the narrow tape would not be useable, nor would any tape of reasonable width be useable, if it were not known how to apply same for most efficient use.

Operation

It will be readily seen that when two cans are placed in the trough 6 end-to-end they will be automatically aligned axially, and one can be rotated axially sufficiently to bring the labels of the two aligned cans into their desired relationship, it being desired, of course, that the front exposure of both labels be visible together when the cans are secured together.

With the cans thus aligned and the labels also aligned, the tape 3 is grasped by the operator, not shown, with the thumb and forefinger of one hand grasping the end 10 of the tape and the thumb and finger of the other hand grasping the tape in spaced relation to the end 16 of the tape, preferably about one and one-half to two inches behind the end 16 of the tape.

The tape is then pulled from the roll O, in which it is wound and carried, by the operator to a point over the center of the cans and at the point where the rolled upper bead 11 and lower bead 12 of adjacent and abutting cans meet. The portion 14 of the tape between the operator's two hands is then stretched or pulled between the fingers of the two hands, by pulling the hands away from each other, and is maintained in stretched condition, under tension, as it is applied over the abutting beads 11 and 12. The stretched tape then readily forms itself to the contour of the beads and the adjacent side walls 13 of the cans 8, see Fig. 2, and adheres thereto in a manner which provides maximum gripping power for the tape on the cans.

The tape is then applied to the remainder of the periphery of the beads 11 and 12 and side walls 13 of the cans by the operator in the following manner:

The tape is cut off by means of the cutter 4, it being noted that by placing the trough 6 in a predetermined spaced relation from the cutter 4, the tape will be of the desired length to encircle the cans when cut off. The operator then grasps the newly cut end of the tape with the thumb and forefinger of one hand and pulls same away from the cans in a direction substantially tangential to the cans to apply tension to the tape and to stretch same slightly. As the tape is held in stretched condition, the operator rotates or rolls the two cans around axially in the trough 6 by engaging either of the cans, for they are held

together by the initially applied portion 14 of the tape. The cans 8 are rolled or rotated by the operator in a direction tending to wind the tape onto the cans, and because of the stretched condition of the tape and the tension thereon, the latter is applied and secured to the cans entirely around their abutting beads 11 and 12 and adjacent side walls 13 in the manner shown in Fig. 2, as was the portion 14 of the tape initially applied.

The tape 3 is preferably of a length, or cut, so as to overlap its ends about one-half inch and the operator secures the end of the tape firmly in place after the length of tape has been secured entirely around the beads 11 and 12 as shown.

The result is a very neat package of two cans secured together very firmly and in a manner whereby they can not be pulled apart by hand. They can be taken apart when it is desired to use same cutting the tape along the slight indentation 15 which usually appears between the beads 11 and 12 when the tape is applied. This can be readily done with a kitchen knife, or with one's thumb or finger nail for the tape is stretched tight, and there is a space 16 immediately behind the central portion of the tape, as shown, which makes the fracturing of the tape very easy. Yet, when the tape is wrapped entirely around the beads 11 and 12 and side walls 13 as shown in Fig. 2 the composite package is very sturdy and secure.

By comparison, Fig. 5 shows what happens if a non-resilient tape 17 is wrapped around two abutting cans beads 11 and 12. The tape will not conform to the beads, nor will it engage and adhere to the side walls 13 of the cans. There will be only a small contact area of the tape to the cans, and they may be readily pulled apart by hand.

The same picture as shown in Fig. 5 would be the case if resilient tape were applied to cans beads but not under tension, or in a stretched condition as required in my invention.

Cans secured in the manner of my invention are very easy to handle, pack, stack or transport in a most convenient manner.

Having thus described my invention, what I claim is:

1. The method of securing two cans together, said cans having beaded ends protruding beyond their side walls, comprising: aligning said cans in end-to-end relationship with adjacent end beads of said cans abutting each other, stretching a portion of a slightly resilient sticky tape and applying said portion of said tape over portions of the abutting beads and adjacent side walls of said cans while said tape is in a stretched condition to secure said cans together, pulling on the portion of said tape not secured to said can in a direction substantially tangential to the periphery of the cans to place same in a stretched condition, and rotating said cans on their longitudinal axes while said tape is in said stretched condition to cause said tape to be applied and adhere to the remainder of the periphery of said beads and adjacent side walls of said cans.

2. Means for securing cans together in end-to-end relationship comprising a base, a V-shaped trough secured to said base to receive said cans in said relationship and to permit the rotation of said cans together on their longitudinal axes, a holder carried on said base in spaced relation to said trough, means on said holder to receive and hold a roll of tape, and a cutter carried intermediate said trough and said means to guide and support said tape.

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3. Means for securing cans together in end-to-end relationship comprising a base, a trough secured to said base to rotatably receive said cans in end-to-end relationship, a holder carried on said base in spaced relation to said trough, means on said holder to rotatably carry a roll of tape, a cutter carried intermediate said trough and said means to guide and support said tape, and said cutter being carried in predetermined spaced relationship to said trough whereby said tape may be cut off in a desired length.

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