Dec. 1, 1959 E. O. THEN 2,914,826

CARRYING DEVICE FOR CONTAINERS

Filed Dec. 23, 1955

Fig. 1

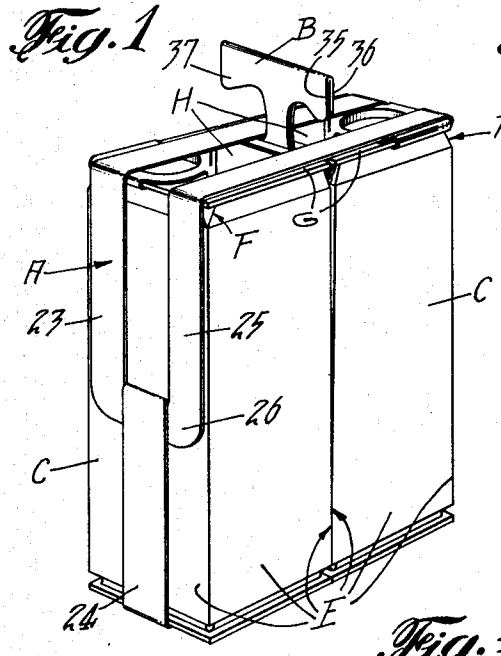
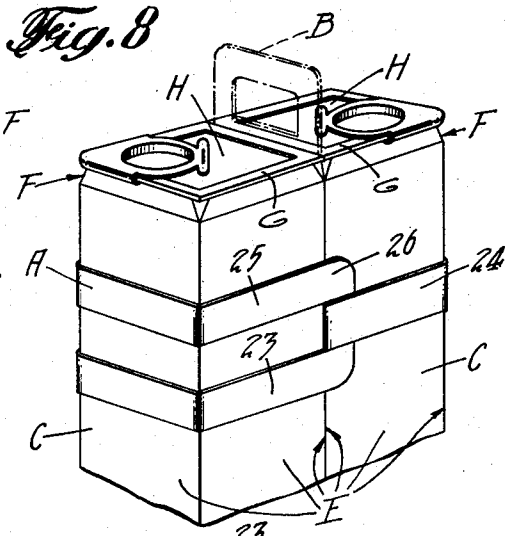


Fig. 8



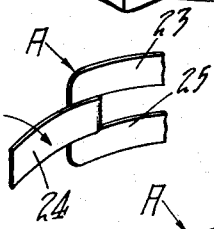


Fig. 4

Fig. 5

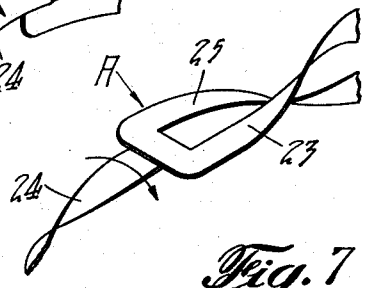


Fig. 2

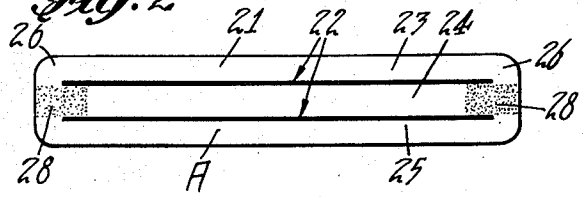


Fig. 3

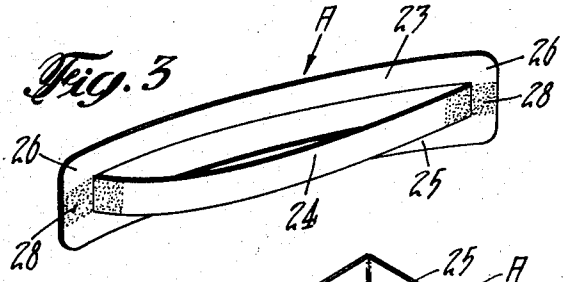


Fig. 7

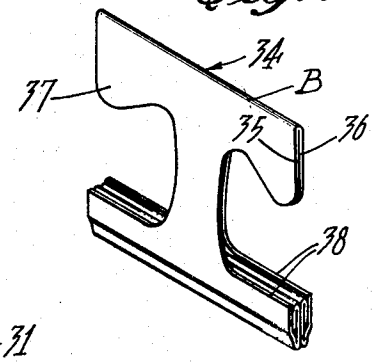
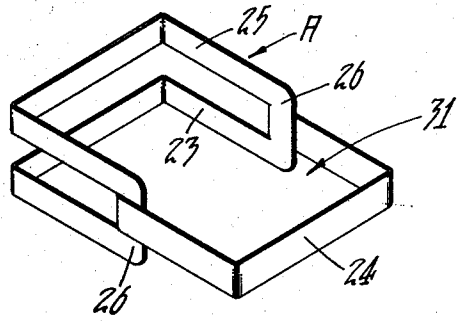


Fig. 6



INVENTOR.
EDWARD O. THEN

BY Charles H. Erne
Leland A. McCann
George W. Reiber
ATTORNEYS

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CARRYING DEVICE FOR CONTAINERS

Edward O. Then, Newark, N.J., assignor to American Can Company, New York, N.Y., a corporation of New Jersey

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2 Claims. (Cl. 24—17)

The present invention relates generally to devices for carrying a plurality of containers and the like in a juxtaposed relation as a unitary package and has particular reference to a novel continuous tie band for surrounding the containers to tie them together.

An object of the instant invention is the provision of a carrying device having a one-piece, unbroken tie band of sufficient length to completely surround the containers adapted to be tied together and yet be produced from a blank of considerably less length than the ultimate band so as to effect economy of material.

Another object is the provision of such a carrying device which is simple in construction and may be readily produced at high speed and which can be easily slipped over the containers to effectively tie them together.

Another object is the provision of such a carrying device in which the tie band may be produced from a relatively light weight fibre material and which may be used with various forms of handles for carrying the tied-together containers.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a plurality of juxtaposed containers tied-together with a carrying device embodying the instant invention;

Fig. 2 is a reduced scale plan view of a blank from which the tie band of the carrying device shown in Fig. 1, is made;

Fig. 3 is a perspective view of the blank in Fig. 2 showing portions of the blank in a displaced position as an incident in producing the tie band;

Figs. 4 and 5 are fragmentary perspective views of one end of the blank shown in Fig. 3, the views illustrating a step of twisting the blank inside out to reposition the parts;

Fig. 6 is a perspective view of the completed tie band;

Fig. 7 is a perspective view of one form of handle adapted to be utilized with the tie band; and

Fig. 8 is a fragmentary perspective view similar to Fig. 1 and illustrating the tie band used in a different manner.

As a preferred or exemplary embodiment of the instant invention the drawings illustrate a carrying device comprising a tie band A and a detached separate handle B for carrying a plurality of fibre milk containers C disposed in juxtaposed relation as a unitary package. The containers C preferably are of the character disclosed in United States Patent 2,085,979 issued July 6, 1937 to John M. Hothersall on Container.

Such a container comprises a rectangular body having flat side walls E which at their upper ends are formed with necked-in portions F and an immediately adjacent outwardly or laterally projecting peripheral end seam or ledge G surrounding and securing a flat top member H in place on the body.

In the juxtaposed relation of the containers C, two

side walls E are directly opposite each other in substantially contiguous relation as shown in Figs. 1 and 8. The ledge portions G for these side walls extend transversely of the package and are substantially coincident.

The tie band A preferably is made from fibre material such as paper or light weight cardboard but is adapted to be made from other materials such as sheet metal, plastic, cloth or the like. The band A is adapted to extend around the juxtaposed containers, either longitudinally as shown in Fig. 1 or transversely as shown in Fig. 8, to tie the containers together against separation.

Such a tie band A preferably is made from a flat blank 21 (Fig. 2) which in form is an elongated rectangle or strip, cut through longitudinally thereof by a pair of spaced and parallel slits 22 which extend for nearly the full length of the strip. The slits 22 divide the blank into three longitudinal band members 23, 24, 25 which are connected at their outer ends by transverse end members 26 which are formed integrally with the band members. The end members 26 on the upper face thereof (as viewed in Fig. 2) preferably carry a film of a suitable adhesive 28 which is aligned longitudinally with the central band member 24.

To produce the tie band A, the central band member 24 is displaced outwardly as shown in Fig. 3 to form the blank 21 into substantially a continuous or unbroken circular shape. With the blank in this position it is turned inside out by twisting in the direction of the arrows as shown in Figs. 4 and 5, to cause the end portions of the central band member 24 to overlap the adhesively coated portions of the end members 26 as shown in Fig. 6 and to thereby become permanently secured to the end members 26 by the adhesive 28. This reversal of the blank parts results in a continuous or unbroken tie band A as shown in Fig. 6 wherein the central tie member 24 extends longitudinally from the end members 26 in one direction and the two outer tie members 23, 25 extend from the end members 26 in the opposite direction. The central tie member 24 overlaps the end members 26 on the outside thereof.

The oppositely extending tie members 24, and 23, 25 thus define and enclose a loop 31 and constitute a frame which can be readily slipped over the juxtaposed containers, either in the manner shown in Fig. 1 or as in Fig. 8 to tie the containers together. It should be understood that the length of the blank 21 and the length of the slits 22 are predetermined in order to insure a fairly tight fit of the tie band A around the containers so as to hold the juxtaposed containers against displacement.

The handle B provided for carrying the tied together containers C may be of any suitable form. A preferred type of handle is shown in Fig. 7. This handle B preferably is made of fibre material but like the tie band A may be made of other suitable materials such as sheet metal, plastic, cloth and in some cases twine.

The handle B shown in Fig. 7 comprises an element or member formed from sheet material folded back on itself along a top fold line 34 to produce a pair of contiguous layers 35, 36. The upper portions of the layers 35, 36 are cut out to provide a T-shaped finger grip portion 37. The lower marginal edge portions of the handle are folded upwardly and inwardly to provide a pair of contiguous and opposed triple layer support bars 38 formed on the lower end of the T-shaped grip portion 37. The multiple layer support bars 38 constitute laterally extending projections, which when inserted in the necked-in portions F of the containers C, adjacent and beneath the coincident container ledges G, support the containers and facilitate carrying them.

When the tie band A surrounds the containers longitudinally as shown in Fig. 1, the T-shaped grip portion 37 of the handle extends up between the band members

23, 25 so as not to interfere with the tie band. When the tie band A surrounds the containers transversely as shown in Fig. 8, it is disposed below the tops of the containers and in no way interferes with the handle. With this form of band as shown in Fig. 8, handles of the form which extend the full width of the containers, as shown in dot and dash lines in Fig. 8, may be utilized.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. An endless rectangular tie band for securing together a pair of juxtaposed rectangular containers as a unitary carrying package, comprising an elongated strip of flexible sheet material for surrounding said containers to hold the same in contiguous contacting relation, said strip having a pair of spaced longitudinal parallel slits setting off a pair of spaced outer parallel tie members connected at their opposite ends by integral non-slitted transverse end portions, a central tie member defined by

said slits and formed integrally with the said end portions thereof, said outer parallel tie members being bent into substantial U-shape for extending in one direction partially around said juxtaposed containers, and said central tie member also being bent into substantial U-shape and overlapping said strip end portions for extending in the opposite direction partially around said juxtaposed containers, and means for securing said overlapping central tie member portions to said strip end portions.

2. The tie band of claim 1 wherein the overlapping portions of said central tie member are adhesively secured to said end portions to reenforce the band.

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