CARRYING HANDLE WITH LOCKING FEATURE

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Application May 9, 1955, Serial No. 596,746

2 Claims. (Cl. 206—65)

The present invention relates generally to devices for carrying a plurality of containers and the like and has particular reference to a novel handle having a self-locking feature.

In the marketing of milk in rectangular fibre containers it is often desirable to tie two containers together with a surrounding fibre band to produce a unitary package which is more conveniently carried by the housewife when making purposes. In some cases handles are provided to carry the unitary package. However it has been found that the fibre bands are often difficult to apply tightly to the containers and frequently they become wet or damp and stretch so that the band fits loosely and permits the containers to spread apart. Where the handles are separate from the bands and interposed between the containers the loose bands permit the handles to become detached and thereby causes the carrying position.

It is an object of the instant invention to overcome this difficulty by the provision of a handle which is formed with a hingeable element which when carrying pressure is applied, hinges itself into a wedging position which takes up any slack between the containers caused by a loose band and thereby causes the handle to remain in package carrying position.

Another object is the provision of such a carrying handle which may be made from fibrous material in an economical manner at high speed so as to produce a low cost but highly efficient handle.

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, disclose a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a perspective view of a pair of juxtaposed fibre milk containers banded together for carrying as a unitary package by a handle embodying the instant invention;

Figure 2 is an enlarged perspective view of the handle shown in Fig. 1; and

Figures 3 and 4 are enlarged sectional views taken substantially along a plane indicated by the lines 3—3 in Fig. 1, the two views showing portions of the handle in different positions.

As a preferred or exemplary embodiment of the instant invention the drawings illustrate a handle A (Fig. 2) for carrying a pair of fibre milk containers B disposed in juxtaposed relation and tied together by a surrounding fibre band C. The containers B preferably are of the character disclosed in United States Patent 2,085,979 issued July 6, 1937, to John M. Hothersall on Container. Such containers comprise a rectangular body D 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 end seam or ledge G which surrounds the periphery of and secures in place a flat top member or disc H.

In the juxtaposed relation of the containers B, two side walls E are directly opposite each other in substantially contiguous relation and the corresponding sections of the ledges G for these side walls extend transversely of the package with their outer edges parallel and substantially coincident.

The tie band C preferably is made from a single piece of fibre material having its end portions overlapped against one side wall E of one of the containers B as shown in Fig. 1. The overlapped end portions are secured together in any suitable manner, as by wire staples or adhesive interposed between the end portions, to hold the band in place and to thus tie the containers together.

The handle A (Fig. 2) preferably comprises a folded double thickness or layer rectangular shaped member I made of heavy stiff paper or cardboard and having an opening 12 therein for carrying purposes. The two layers of the handle preferably are secured together by a suitable interposed adhesive 13 (Fig. 3). The fold preferably is located at the top edge of the handle. The free lower terminal edge portions of the handle preferably are bent outwardly in opposite directions to provide a pair of opposed flanges 14, 15 (Fig. 2) extending substantially the full length of the handle.

The flange 14, along a hinge line 15 (Fig. 2), merges into a depending wing 16 which extends inwardly at an angle to the flange 14. The terminal edge portion of the wing 16 is bent back on itself in a double fold to provide a triple layer support bead or element 17, comprising a top layer 18, a bottom layer 19, and an intermediate layer 20 as shown best in Figs. 3 and 4. These layers preferably are secured together by a suitable adhesive 21 to hold them together and to produce rigidity in the bead 17.

The flange 15, on the opposite side of the handle, merges along a hinge line 24, directly into a triple layer toggle bead or element 25 which comprises a top layer 26, a bottom layer 27 and an intermediate layer 28 as shown in Fig. 3. These layers preferably are secured together by a suitable adhesive 29 to hold them together and to produce rigidity in the toggle bead 25. The toggle bead 25 is wider than the support bead 17, preferably from two to three times the width of the support bead 17, and extends from its hinge line 24 upwardly and inwardly under the flanges 14, 15 and overlapping and resting on the support bead 17 as shown in Figs. 2 and 3.

When the handle A is in carrying position on the containers B of the unitary package, it is disposed between the substantially coincident ledges G of the containers as shown in Fig. 3 with its rectangular shaped member 11 extending above the tops H of the containers and with its flanges 14, 15 and beads 17, 25 connected therewith disposed under the ledges G and in the space provided between the adjacent necked-in portions F of the containers as shown in Fig. 3. In this position the toggle bead 25 bearing against the wing 16 and support bead 17, forces the wing and support bead outwardly so as to conjointly fill the space between the necked-in portions of the containers B and thus lock the handle in place.

In lifting the two banded together containers B by the handle A, any tendency of the containers to spread apart by reason of looseness in the tie band C is immediately compensated for by the toggle bead 25. Under these conditions, the spread apart of the containers and their weight on the handle A causes the toggle bead 25 to fulcrum or rock on the hinge 15 and swing with its flange 15 and hinge connection 24 upwardly and outwardly as shown in Fig. 4 and to thus rock upon and slide along the top layer 18 of the support bead 17 to compensate for the lateral space between the containers. This action firmly and frictionally wedges the toggle
bead 25 in place between the containers and thus keeps the carrying handle locked in position even though the containers have spread apart to the limit of movement within the tie band C.

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. A unitary carrying package comprising a pair of juxtaposed rectangular containers having a circumferential tie band extending therearound to hold the containers in side by side relation, said containers having laterally projecting peripheral ledges at their upper ends with opposed portions of said ledges disposed in parallel contiguous relation, and an upstanding carrying handle of double thickness disposed between said containers and extending above and below said parallel ledge portions, one of said handle thicknesses terminating at its lower end in an outwardly curled support bead of multiple thickness disposed between said containers adjacent one thereof, the other of said handle thicknesses terminating at its lower end in an elongated inclined outwardly curled toggle bead of multiple thickness resting at its outer end on said support bead and substantially bridging the space between said containers beneath said parallel ledge portions thereof, the inner end of said inclined toggle bead abutting against the adjacent of said containers, whereby the weight of the containers when suspended by and from said handle, rocks said toggle bead upwardly on said support bead from inclined to substantially horizontal position to completely bridge the space between and to wedge at its opposite ends against the opposed container body walls beneath said parallel ledge portions to compensate for the resulting increase of spacing between the upper ends of the suspended containers and to lock said handle in carrying position.

2. A unitary carrying package as defined in claim 1, wherein said upstanding handle is composed of fibrous material and wherein the multiple thicknesses of said outwardly curled support and toggle beads are adhesively secured together to provide rigidity in said beads.

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