March 11, 1958 C. H. ERNE 2,826,299

CARRYING HANDLE FOR TIED TOGETHER CONTAINERS

Filed Nov. 30, 1955

Fig. 1

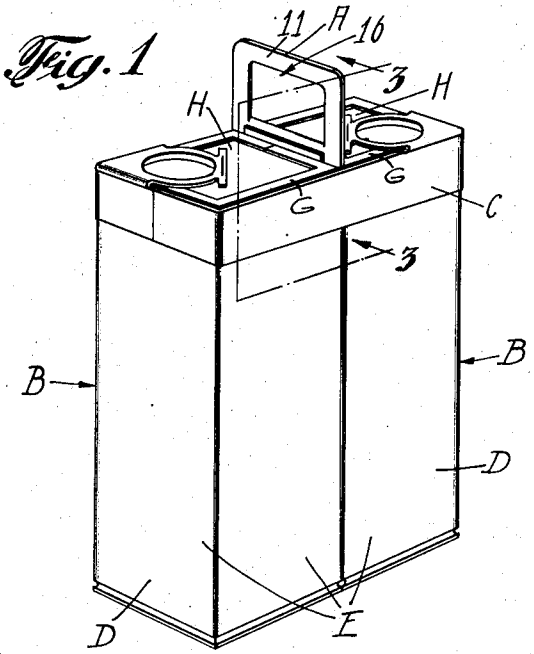


Fig. 2

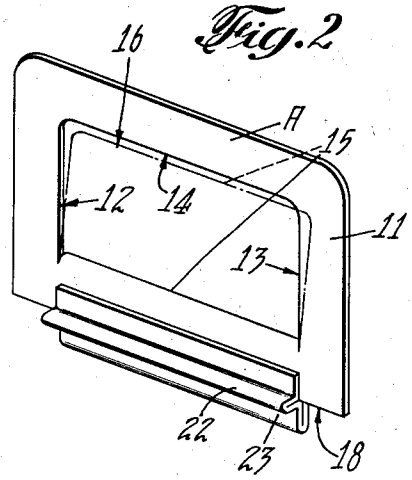


Fig. 4

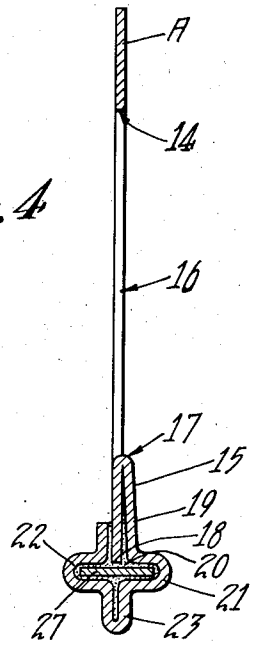
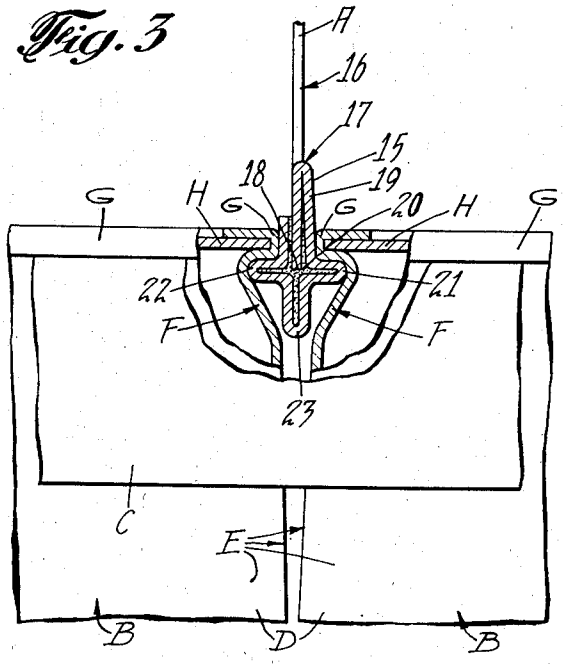


Fig. 3



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CARRYING HANDLE FOR TIED TOGETHER CONTAINERS

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3 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 and economical one-piece handle having horizontally disposed rigid support members integrally produced from a portion of the blank which is ordinarily a wasted scrap portion.

In the marketing of milk in rectangular fibre containers it is often desirable to tie two or more containers together with a surrounding fibre band, cord or wire to produce a unitary package. A handle is usually provided for the convenience of the purchaser in carrying the package. The handle usually is a separate element introduced endwise between the containers adjacent their top edges and provided with support members to support the containers. The support members frequently are made from separate pieces which complicates the construction of the handle and thus adds to the cost of production. Usually also the material of the handle blank is cut away to provide finger holds and the cut away portions are wasted.

It is an object of the instant invention to overcome this waste and complication by the provision of a novel handle which is made as a one-piece single thickness element in which the support members are formed from an integral displaced portion of the handle so as to provide a simple and economical handle without waste of blank stock. This permits the use of a smaller blank than is usually required.

Another object is the provision of such a handle wherein the support members are made rigid in order to fully support the containers.

Another object is the provision of such a handle wherein slippage of the handle out of place between the tied containers is prevented in both vertical and horizontal directions so as to insure availability of the handle to the customer.

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 pair of juxtaposed containers tied together by a paper band for carrying as a unitary package by a handle embodying the instant invention;

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

Fig. 3 is an enlarged elevational view taken substantially along a plane indicated by the lines 3—3 in Fig. 1, with parts broken away and shown in section; and

Fig. 4 is an enlarged sectional view of a modified form of handle.

As a preferred or exemplary embodiment of the instant invention the drawings illustrate a handle A (Figs. 1, 2 and 3) 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 includes the peripheral edge 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 single thickness, one-piece, rectangular shaped carrying member 11 preferably made of heavy stiff paper, cardboard, plastic board or other bendable material. The member 11, inwardly of its two side edges and its top edge, is slit or cut through along connecting lines of severance 12, 13, 14 and the material of the member, defined by these lines of severance and still connected to the member inwardly of its bottom edge, is displaced laterally as shown in dot and dash lines in Fig. 2 to provide a free flap 15 and to produce an opening 16 in the handle, the latter being utilized for carrying purposes.

For the sake of economy in material used in producing the handle A, the flap 15 displaced from the opening 16 is utilized to form the supporting elements of the handle. For this purpose the displaced flap 15, still connected to the carrying member 11 as an integral part thereof, is folded downwardly along a fold line 17 spaced inwardly of the bottom edge 18 of the member, so that the folded over flap lies flat against the carrying member and extends down below the bottom edge of the member. A suitable adhesive 20 interposed between the carrying member 11 and the folded over flap 15 permanently secures the flap in place. The secured flap 15 thereby provides a reenforcing element 19 (Fig. 3) for the longitudinal bottom edge portion of the handle.

The remaining portion of the flap 15 freely extending below the bottom edge of the carrying member 11 is further folded to provide a pair of oppositely disposed horizontal container ledge support elements or flanges 21, 22 and a depending retainer element 23. For this purpose the flap adjacent the bottom edge 18 of the member 11, is first bent upwardly and outwardly into a horizontal outwardly projecting position and is then folded under and back on itself to the bottom edge 18 of the member 11 to produce the horizontal flange 21. At the bottom edge 18 of the member 11, the flap is bent downwardly into a vertical position parallel with the carrying member and is then folded toward the left as viewed in Fig. 3 and upwardly back on itself to the bottom edge of the member to produce the depending retainer element 23. Following this, the remainder of the flap, at the bottom edge 18 of the member, is bent outwardly toward the left as viewed in Fig. 3 into a horizontal position and then folded over and back on itself to the bottom edge of the member to produce the horizontal flange 22. At the bottom edge of the member 11 the tail end of the flap 15 is bent upwardly along and against the member 11 (Fig. 2).

The free displaced portions of flap 15 thus folded under the bottom edge 18 of the carrying member 11 results in a double layer of thickness, cross-shaped reenforced

structure which is an integral part of the handle member **11** and which includes the bottom edge **18** of the member. A suitable adhesive **20** interposed between the double layers of each leg of the cross as best shown in Fig. 3 secures the layers together to strengthen and rigidify each leg of the cross. The cross-shaped structure reenforces the bottom edge of the handle, and the adjacent elements thereof and includes the two oppositely disposed horizontal flanges **21, 22** which project laterally from opposite faces of the handle member **11** and also includes the depending retainer element **23** which is located in vertical alignment with the handle member and forms a lower continuation thereof.

When the handle A is in carrying position on the two juxtaposed 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 of the containers and with the flanges or supporting elements **21, 22** disposed beneath the ledges G and substantially filling the upper space provided between the adjacent necked-in portions F of the containers as shown in Fig. 3. In this position of the handle A the depending retainer element **23** extends down into the lower space between the necked-in portions F and is located below the top edge of the tie band C to prevent transverse displacement of the handle from between the containers. The band C preferably is located adjacent the top ends of the containers for this purpose.

In lifting the package by the handle A the containers B are supported on the oppositely disposed laterally projecting horizontal flanges or support members **21, 22** which engage under the ledges G of the containers as shown in Fig. 3.

If desired, the depending retainer element **23** may be omitted, in which case the lower layers of the two flanges **21, 22** would be continuous.

As a modified form of the invention, illustrated in Fig. 4 provision is made for additionally reenforcing or stiffing the cross-shaped structure provided at the bottom edge of the handle. For this purpose a reenforcing or stiffening element **27** is interposed between the double layers of the flanges **21, 22** and is adhesively secured in place. The reenforcing element **27** preferably is a fibrous material flat strip of rectangular shape and extends the full length of the flanges **21, 22.** The strip preferably extends under and against the bottom edge **18** of the carrying member **11** to connect the flanges to hold them against spreading apart and to secure them against the carrying member as a unitary structure. This reenforcing element **27,** however, may be made of any suitable material and may be of any other shape, such as a length of heavy twine, plastic, wood or metal or may be entirely omitted.

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 device for carrying a plurality of juxtaposed rectangular fibre containers having at their top ends laterally projecting peripheral ledges with portions thereof disposed in parallel closely spaced relation, comprising a substantially flat one-piece carrying member interposable between and extending above and below said parallel ledge portions, an integral substantially rectangular intermediate portion of said member being struck out along three connecting dimensions thereof and displaced out of the plane of the member to provide a handle opening therein, said integral displaced portion being folded vertically downwardly along its remaining dimension and thence extending laterally outwardly and reversely laterally inwardly to provide a horizontal container support member of double thickness, said integral displaced portion thereafter extending downwardly and laterally over the bottom edge of the carrying member and thereafter upwardly and thence laterally outwardly and reversely laterally inwardly to provide a second horizontal container support member of double thickness displosed in horizontal alignment with and projecting oppositely from said first mentioned container support member, said displaced portion being secured at its free terminal end to an adjacent part of said carrying member, said horizontal oppositely projecting container support members extending laterally from opposite sides of said carrying member for engagement beneath said parallel juxtaposed container ledge portions for supporting the containers, and a tie band encircling said containers for holding the same together.

2. A device as defined in claim 1, wherein parts of said folded displaced portion of said carrying member engage against each other and are adhesively secured together and other parts thereof are adhesively secured to opposite faces of said carrying member to reenforce the latter.

3. A device as defined in claim 1, wherein a longitudinal reenforcing strip is disposed between the double layers of said horizontally aligned container support members to rigidify the same.

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