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E. H. MILLER

3,251,622

HANDLE STRUCTURE

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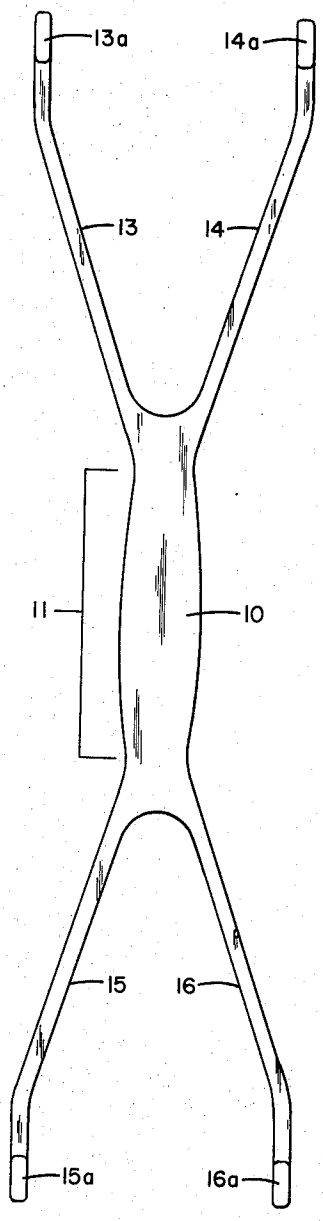


Fig. 1

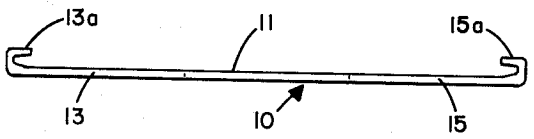


Fig. 2

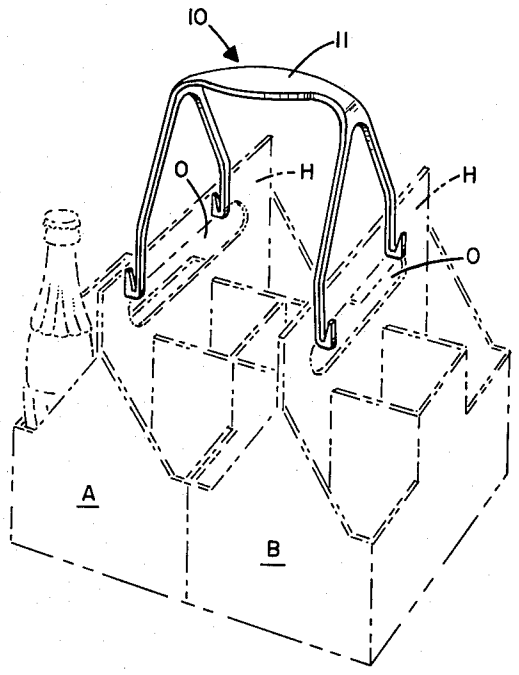


Fig. 3

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HANDLE STRUCTURE

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The present invention relates to a handle structure which may be readily attached to and detached from the handles of a pair of beverage cartons to provide a single handle by which the two cartons may be carried in side-to-side relationship.

A popular carton for carrying bottles of beverages and commonly known as a "six pack," comprises an open top cardboard box having partitions to provide two adjacent rows of three bottle receptacles, the rows being divided by a vertically and upwardly extending central handle forming web having an elongated opening therethrough to permit insertion of the fingers of a hand for carrying the carton. The present invention relates to a handle structure by which two "six pack" cartons can be carried by a single handgrip and which can be readily attached to and detached from the cartons and which is compact so that a large number may be conveniently stored for use.

A principal object of the present invention is the provision of a unitary, inexpensive handle structure or member which may be formed of material such as plastic and comprising a hand grip portion having a pair of relatively thin flexible and resilient legs projecting from opposite ends thereof, the legs each having a hook formation at the outer extremity so that when the legs are flexed downwardly from the hand grip portion with the grip portion extending generally horizontal, the hook openings face upwardly on the outer sides of the legs whereby the upper edges of the hand hold openings in the handle webs of two adjacent six pack cartons can be received in each pair of the spaced apart hooks to provide a secure coupling with the carton handles so that the cartons can be carried by the hand grip extending between the cartons. The inherent resiliency of the legs causes them to be urged outwardly so as to be retained in frictional engagement with the handle webs with the hooks in their coupled positions with the handle webs.

A further object of the invention is the provision of a handle structure as described hereinbefore in which the device may be formed of a flat resilient material, such as plastic, with the handle portion comprising a relatively wide stock while the leg portions are relatively narrow and thin so that they may be easily flexed downwardly from opposite ends of the handle, when the handle is extended generally horizontally, the legs in their downwardly flexed positions being biased outwardly by the resiliency of the material so as to maintain frictional engagement with the handle webs of two adjacent six pack cartons, thereby maintaining the hook portions in their handle engaging positions. When not in use, the flat character of the handle structures permits them to be compactly stored.

Other objects and advantages of the invention will be apparent from the following description of a preferred form thereof, reference being made to the accompanying drawings wherein

FIG.1 is a plan view in elevation of a handle structure for carrying two "six pack" beverage cartons simultaneously;

FIG. 2 is an end view of the handle structure shown in FIG. 1, and

FIG. 3 is a perspective view of the handle structure attached to two "six pack" bottle cartons.

Referring to the drawings, a carton carrying handle

structure **10** is shown which is preferably formed of relatively flat plastic material having high tensile strength and resiliency, although it could be formed of any other suitable material. The handle structure comprises a hand grip portion **11** which is flat and generally elliptical shaped in plan and of sufficient width to provide a substantial and comfortable hand grip. Two pairs of legs **13, 14,** and **15, 16** are formed integrally with the hand grip portion **11** at opposite ends thereof. The legs of each pair of legs diverge outwardly from the hand grip portion and terminate in hook formations **13*a*, 14*a*, 15*a*, 16*a*** respectively. It will be noted that the outer end portions of the legs of each pair of legs having the hook formations are turned to extend parallel to one another. As viewed in FIG. 2, the hook portions turn outwardly on the same side of a common plane and inwardly so that their open sides face the hand grip **11,** as may be clearly seen in FIG. 2. Furthermore, the hooks are preferably tapered toward their closed ends to provide a wedging effect with the handle web of a carton, as is described hereinafter. The legs **13–16** are relatively narrow and thin so that they may readily flex relative to handle portion **11** and in the preferred form, the legs tend to inherently return to the same plane as the hand grip so that the handles can be stored flat.

When it is desired to carry two "six pack" beverage cartons, which are illustrated at A and B, they are arranged in side-by-side relation with the handle webs H thereof parallel and the hand openings O thereof in alignment, the handle structure **10** is manipulated so that the hook formations of one pair of legs are inserted into the hand opening O of one carton from the inner side of the handle web, i.e. the side facing the handle web of the other six pack, and drawn upwardly so that the closed portions of the hooks engage the bottom of the upper edge of the hand opening. The opposite pair of legs are then extended downwardly along the inside of handle H of the opposite six pack so that the hook formations extend through the opening O of the hand web after which the handle is raised to bring the closed sides of the hook portions against the upper edge of the hand opening. This position then is shown in FIG. 3 and it is to be noted that each pair of legs tend to flex outwardly against the inside surfaces of the two hand grip webs H thereby frictionally retaining the hook formation in connecting engagement with the handles. The tapered insides of the hook formations wedge the edge of the handle web therein to provide an additional gripping action of the handle structure to the carton handles. It will be seen that both cartons may then be carried by the single hand grip portion **11.**

To disengage the hand grip it is only necessary to push inwardly on the one pair of legs and downwardly so that the hook portions can be freed of the hand grip members H.

By forming the handle structure **10** of flat plastic material it can be inexpensively formed and the flat arrangement permits storage of large numbers in a small space so that they can be readily distributed for use. Furthermore, the form of the hand grip portion **11** provides ample space for prominent display of the name of a beverage, for example, which together with the low cost of manufacture makes the handle structure desirable as an advertising item.

It will be understood that other forms, modifications, and adaptations of the invention could be made, all falling within the scope of the claim which follows.

I claim:

A unitary handle structure for a pair of beverage cartons comprising a normally flat elongated strip-like member formed of resilient material and having a central portion forming a hand grip, a pair of legs extending from

opposite ends of said portion and being relatively narrow with respect to said portion, said pairs of legs diverging outwardly from said hand grip portion and each leg having a hook formation at the outer extremity thereof with the open side facing in the direction opposite the outer extremity of the leg on which it is formed, said legs being flexible downwardly substantially vertically from said hand grip portion when the latter extends generally horizontally whereby said pairs of legs are yieldingly engageable with the inside surfaces of two parallel and vertically extending web-like handle sections of two adjacent cartons arranged with the handles extending in planes substantially normal to the respective ends of said handle portion, and said legs being biased to retain said open sides of said hooks thereof in openings formed through the webs of the cartons, the resiliency of said hand grip and legs causing the same to be restored to its

normally flat position upon release of said legs from the handle sections of the cartons.

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