March 26, 1946. R. B. WATSON 2,397,304

BOTTLE CARRIER

Filed May 21, 1945

FIG. 1.

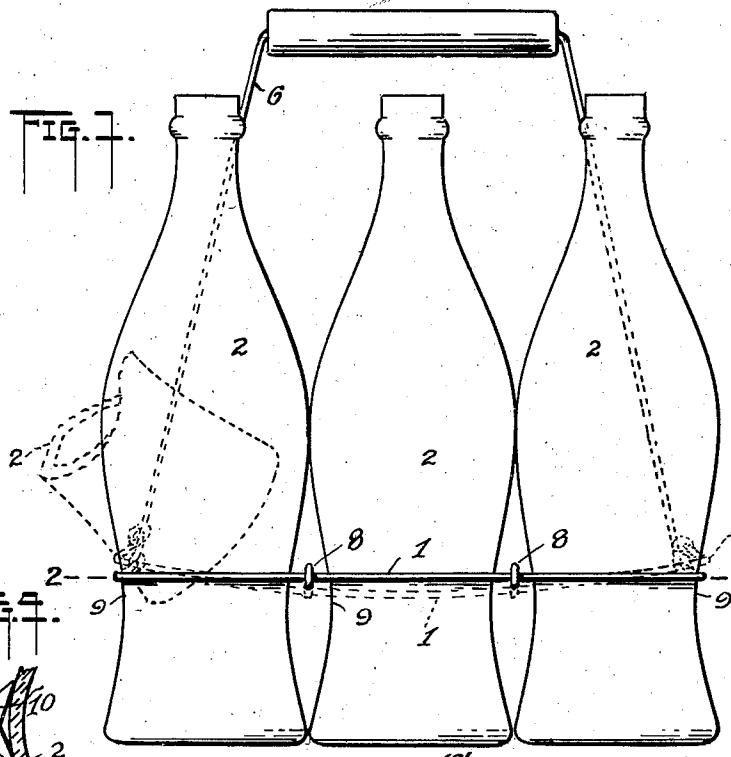


FIG. 4.

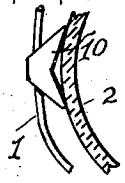


FIG. 6.

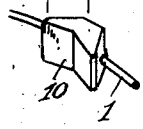


FIG. 2.

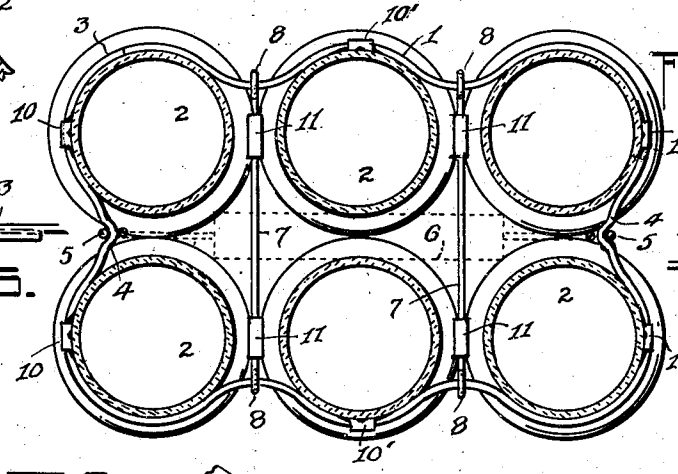


FIG. 5.

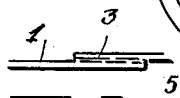
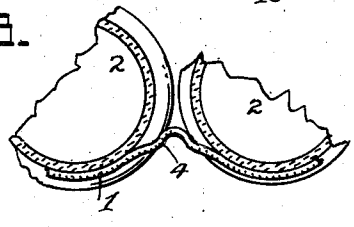


FIG. 7.



FIG. 3.



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BOTTLE CARRIER

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Application May 21, 1945, Serial No. 594,814

4 Claims. (Cl. 224—45)

This invention relates to a carrier for bottles. More particularly it relates to a carrier for transporting by hand groups of bottles used for so called "soft drinks," for example.

The object of the invention is to furnish a carrier of light weight and of low cost and one that will occupy a minimum of shipping or storage space, coupled with the aim that it shall be of a flexible type to act in gripping and thoroughly stabilizing a group of bottles being transported.

That my invention may be fully understood, the appended drawing is provided as a part hereof wherein:

Figure 1 is a side or edge elevation of the carrier in which a series of bottles is shown in assembled relation.

Figure 2 is a plan of the carrier together with bottles assembled therein, the latter being shown in section as produced on line 2—2 of Figure 1.

Figure 3 is a plan of part of the carrier showing two bottles in section, and as would be seen in viewing Figure 1 from the left.

Figure 4 is a plan of a friction member and part of the frame of the carrier.

Figure 5 is a side elevation of one manner of connecting the terminals of a member of the carrier.

Figure 6 shows in perspective the friction member illustrated in Figure 4, and

Figure 7 is a detail in perspective of a manner of attaching a suspending arrangement of the carrier, as shown in plan at the left of Figure 2.

It is customary by certain distributors of soft drinks, for example, to provide a type of carrier usually quite heavy and bulky for a group of bottles by which said bottles may be transported by a buyer from store to home or vice versa. Such carrier has usually been in the form of a bulky basket-like arrangement in which the bottles are loosely supported in such manner that when being carried the latter may rattle against each other to the annoyance of the one transporting them. Further, due to their bulk form these carriers require large storage space, this being particularly a disadvantage in shipping, as will be appreciated.

In order to provide against such as the foregoing I have furnished a light form of carrier that is preferably of a flexible nature whereby the weight of the load thereon, usually several pounds, result in a close binding together of the bottles preventing all noise commonly experienced, in addition to which the said carrier is of such form that a considerable number of them will occupy in storage and shipment the space of but one of the usual type, and combined with these advantages the carrier may be produced at a relatively low cost by comparison with said usual type.

The drawing shows a frame-like structure 1 of relatively stiff wire but that will flex somewhat under load imposed thereon by the weight of the bottles 2 of which, in this instance, six are illustrated.

In practice the wire for each carrier may be cut to a length that is found sufficient to closely encircle a group of bottles, the ends of the wire being lapped as at 3 in Figure 5, for example, and welded together. However, said ends may be otherwise secured relatively. Or, again, a continuous wire may be used and after connecting one end to the wire the latter may be severed at the place of joining, and such an operation may preferably be accomplished upon any suitable form or "jig," not shown, as the gauge for wire length, such length allowing for a slight looseness, however, so that the wire may preferably follow the curve of the bottles somewhat as suggested in Figures 2 and 3. Preferably, also, at 4 between the two of the bottles 2 at the narrow ends, as in Figure 2, the wire may be provided with a bight 4 to receive the eye-end 5 of a lifting handle arrangement 6, these bights serving merely to locate the said handle arrangement permanently in position. In this connection the idea of providing a practically flat structure in a carrier that requires but little space in storage and shipping, as above, is furthered in that the lifting handle is thus collapsible upon the structure, its connection with the latter being substantially in the plane of the same. It is observed, further, that between each two bottles 2 a tie-wire 7 is located. These have each a turned eye 8 at each end to take around the wire 1, and free to shift laterally as permitted by the said bottles. And said wires are of such length as to hold the said wire 1 in fairly close engagement about the bottles. Also, the weight of the suspended bottles tend to "snug" the wire 1 between the two end bottles as shown.

In the present instance the bottles 2 conform in outline, Figure 1, somewhat to the form of bottle readily recognized in that below their waists they are reduced in girth at the region denoted at 9. At their waists, therefore, they each provide a diameter greater than the region below encircled by the wire 1. The latter encircles the group of bottles at their smallest diameters thus providing a seat or resting place for the same at or just below their said waists.

Since the wire may be of a gauge to flex under weight of the bottles in the lifting act, it is seen that opposite ends of the carrier, or those adjacent the two end bottles will upwardly flex under a pull of the handle as denoted in dotted lines in Figure 1, and in that act said ends of the carrier approach each other with the result that the bottles are crowded together and firmly held in intimate relation, while at the same time the tie-wires 7 prevent the wire 1 from spreading at either side of the bottle group, and the said group is thus fully stabilized.

Naturally, any type of bottle may be accommodated by the carrier thus described which, however, is provided with an extension equivalent of the enlarged waist portion as herein, as a lodgment portion.

By the further arrangement now to be described a straight side bottle may be accommodated thereby making the carrier of universal application. That is to say, carried by the wire 1 at each side of the connection 4, 5 at both ends of the carrier is a button 10 of rubber or other suitable material in position to receive a bottle against it as a friction member. Likewise, a button 10' may be carried by said wire on the long stretcher thereof to frictionally engage the two middle bottles as indicated in Figure 2, the whole being assisted by friction portions 11 on the tie-wires each to lie between surface of the bottles that are within the structure. The several friction portions do not interfere with the use of the carrier for the type of bottle illustrated but are present when the straight side bottles are to be accommodated. Thus with a wire of the requisite length for a group of straight-side even smooth bottles the friction of the several buttons will serve to maintain a stable whole whatever the type or form of bottles used, it being seen that each bottle has its own friction button in abutment therewith.

Since the tie-wires are laterally shiftable and can flex laterally also, any large end bottle such as shown in the drawing any bottle may be placed in the carrier depending upon the size of the bottles to be accommodated, of course, and the predetermined length of wire 1 used.

I claim:

1. A device for the purpose named including a normally flat frame having a form to encircle a group of bottles to be lifted and which are arranged in close order, a carrying handle including two spaced portions adapted to span the frame, each extending to an opposite edge of said frame and hinged to the same in substantially the plane thereof, said frame adapted to flex between the attached handle portions by the weight of bottles to be lifted, and in flexing adapted to clamp upon the bottles and clamp the bottles to each other.

2. The invention as described according to claim 1 including tie-members extending between and attached to the other edges of the frame and lying substantially at right angles to a line joining the hinge positions of the named handle portions.

3. In combination with a series of closely grouped bottles, a substantially flat wire frame encircling the group and arranged to support the group therein, a handle portion extending from the frame at spaced position thereon, said frame adapted to flex at right angles to the plane thereof by the weight of the bottles suspended from said handle portion, and by its flexing adapted to force the bottles into close abutting positions, and a tie-wire connected at its ends to opposite portions of the frame, said tie-wire lying substantially at right angles to a line extending between the places of suspension from the handle portion.

4. In combination with a series of closely grouped bottles, a substantially flat wire frame encircling the group and suspending said group therein, a handle portion extending from opposite points on said frame, the latter adapted to flex between said points by the suspended weight of the bottles when lifting the same by said handle portion, and friction buttons mounted on the frame adapted to abut each of certain of said bottles, said frame in flexing adapted to force the buttons into intimate contact with said bottles for maintaining the later in fixed suspended position.

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