United States Patent

[11] 3,628,709

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[21] Appl. No. 865,293
[22] Filed Oct. 10, 1969
[45] Patented Dec. 21, 1971

[54] CAN OR BOTTLE CARRIERS
10 Claims, 4 Drawing Figs.

[52] U.S. Cl. ..... 224/45 AA, 150/.5, 206/65 E, 220/23.4, 220/102
[51] Int. Cl. B65d 11/14
[50] Field of Search ..... 224/45, 45 W, 45 AA, 45-47, 55; 294/32; 206/65 E; 215/12; 220/115, 116, 106, 108, 114, 102, 23.4; 150/.5

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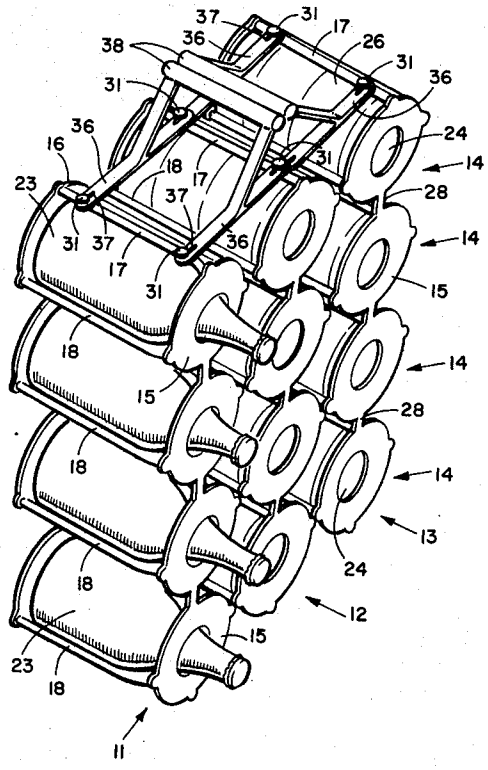
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ABSTRACT: A unit holder for a generally cylindrical object such as a beverage bottle or can comprises first and second end members peripherally interconnected by three or more angularly spaced-apart struts. For loading, two adjacent struts are pulled apart to permit the bottle or can to be introduced into the unit and such struts then resiliently return to their nondistorted positions to retain the bottle or can within the unit. Multiunit holders comprising a plurality of such unit holders are also described and such multiunit holders having linear configurations can be detachably coupled together by coupling straps to any desired size. Handles are usefully integrally formed on such coupling straps.



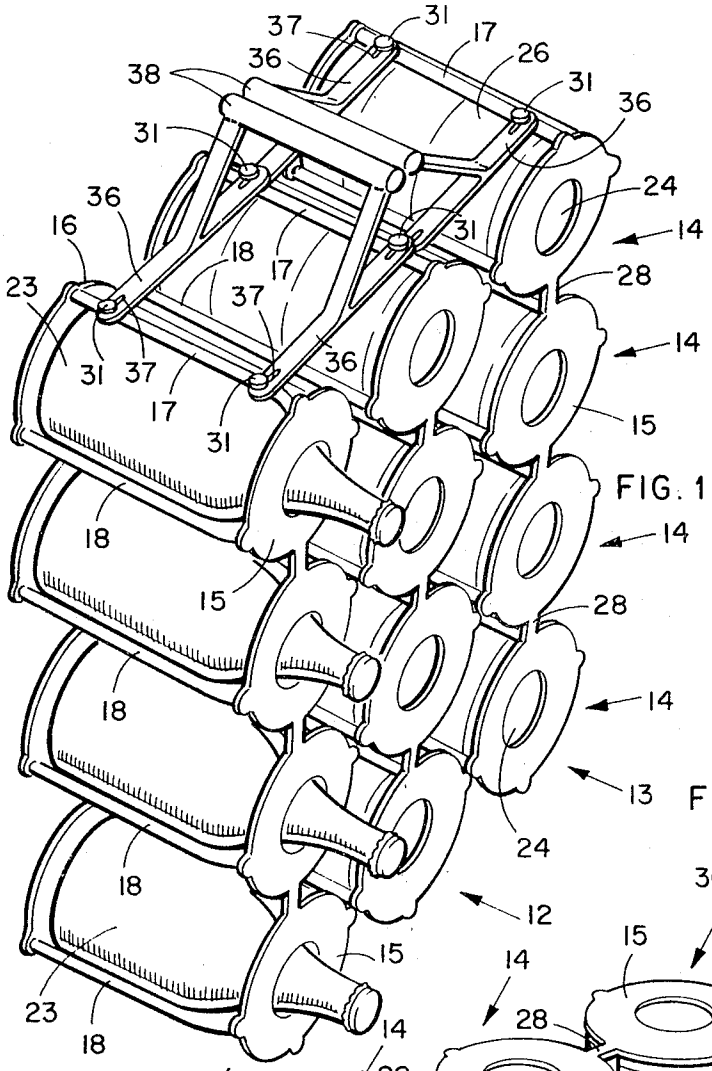


FIG. 1

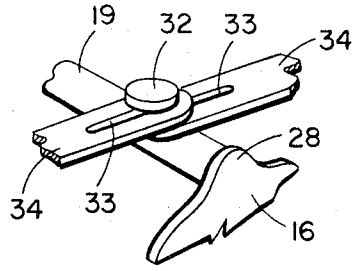


FIG. 3

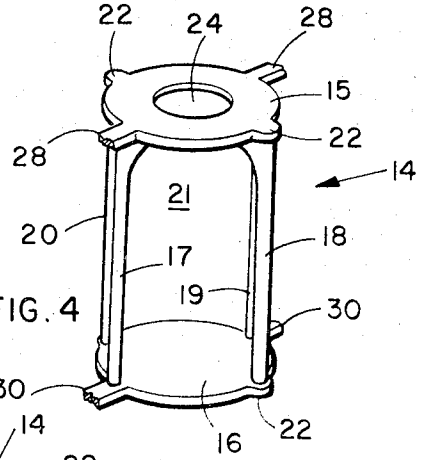


FIG. 4

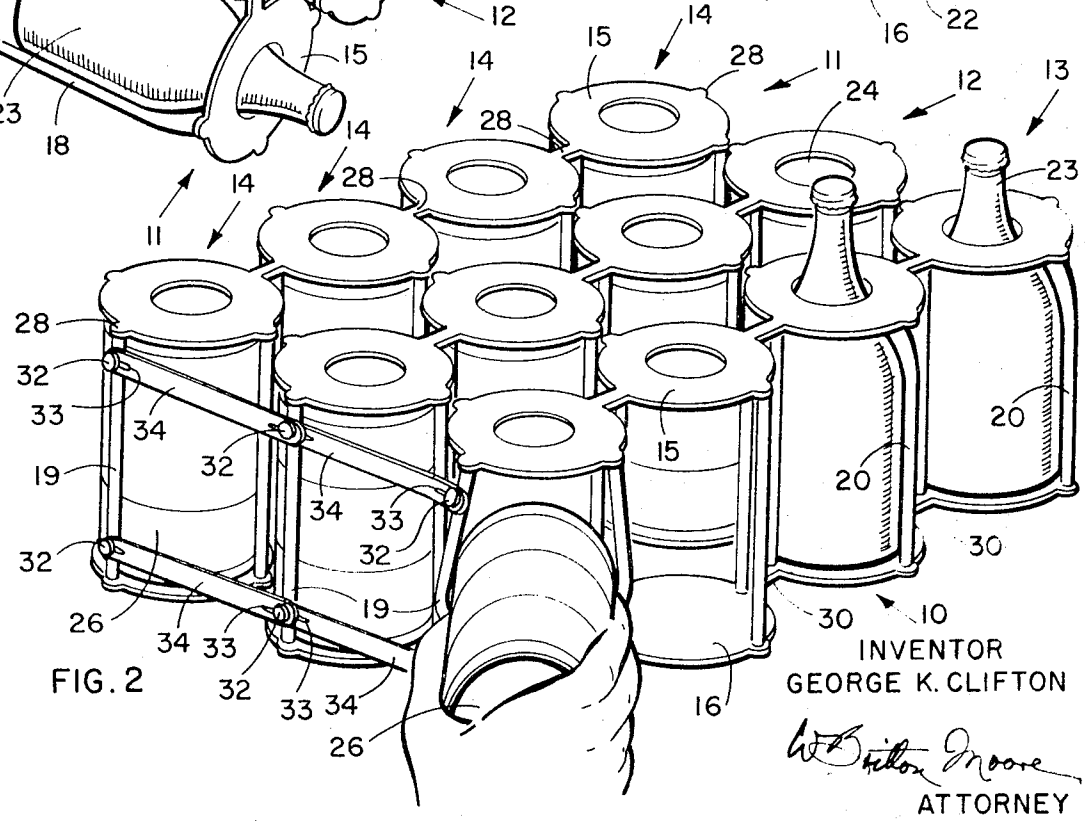


FIG. 2

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CAN OR BOTTLE CARRIERS

The present invention relates to holders and more particularly to single unit and multiunit holders especially suited for accommodating bottles and cans of beverages and the like.

Numerous proposals have already been made for providing inexpensive and effective multiunit holders for beverage containers. Such previously known holders are adequately exemplified by those presently used commercially for holding six bottles of beer or other beverages and referred to conventionally as "six-packs." Such existing holders are primarily intended to allow the individual bottles or cans contained therein to be carried as a single unit and to permit easy removal of each such bottle or can from the carrying case.

The present invention is, however, concerned with a holder which retains a bottle, can or any other generally cylindrical article therein considerably more positive than such known holders. In particular, this invention relates to holders which may be immersed in a body of water such as a stream or pond by a camper so as to keep the beverage contained therein at a desired low temperature.

It is accordingly a principal object of this invention to provide a unit holder which is adapted to retain a generally cylindrical article such as a bottle or can positively therein but from which such bottle or can can readily be removed when required.

It is another object of the present invention to provide a unit holder of the aforementioned type which holder is characterized by its simplicity of construction and its reliability in use.

Another object of this invention is to provide a holder which can be formed as a multiunit container adapted to accommodate a plurality of bottles and/or cans.

Yet another object of this invention is to provide a multiunit holder of the type described and which is constructed so that it can be detachably secured to a second such unit to allow a larger number of bottles or cans to be accommodated.

In its broadest scope, the present invention provides a unit holder for a generally cylindrical article such as a beverage container which holder comprises first and second axially spaced apart end members peripherally interconnected by at least three angularly spaced apart struts for retaining a generally cylindrical article within a cell peripherally defined by said struts, said struts being adapted resiliently to be pulled apart to permit insertion into and withdrawal from said cell of said generally cylindrical article.

The invention also embraces a multiunit holder comprising a plurality of interconnected units of the type already defined.

Other objects, features and advantages of the invention will become apparent as the description herein proceeds.

The invention will now be described merely by way of illustration with reference to the accompanying drawings in which:

FIG. 1 is a perspective view of one embodiment of a multiunit holder in accordance with the invention and showing the holder with its handle uppermost;

FIG. 2 is another perspective view of the multiunit holder of FIG. 1 showing it in a horizontal disposition and illustrating the insertion of a generally cylindrical article such as a beverage can into one of the cells of the holder;

FIG. 3 is an enlarged, fragmentary perspective view showing the manner in which two coupling straps are detachably secured to one of the rows of holders of the multiunit holder of FIGS. 1 and 2; and

FIG. 4 is an enlarged perspective view of one of the unit holders of the multiunit holders of FIGS. 1 and 2.

For convenience, the invention will now be described with particular reference to the construction of the multiunit holder generally indicated at 10 in FIGS. 1 and 2. This multiunit holder 10 is made up of three rows 11, 12 and 13, each of which comprises four unit holders generally indicated at 14. One such unit holder 14 is shown in greater detail in FIG. 4.

Referring first, therefore, to FIG. 4, it will be seen that the unit holder 14 illustrated therein comprises first and second axially spaced-apart end members 15 and 16 respectively,

which are peripherally interconnected by and integrally formed with four rectangularly spaced apart struts 17, 18, 19 and 20 to define a unit cell generally indicated at 21. In the particular unit holder 14 shown in FIG. 4, each of the struts 18 and 20 is secured to each of the end members 15 and 16 through a tongue 22 integrally formed with such end member. For the purpose of allowing the unit holder 14 to accommodate a bottle 23 as shown in FIG. 1, the first end member 15 is formed in accordance with a useful but optional feature of this invention with a generally circular central opening 24 therethrough.

The unit holders of this invention as exemplified by the unit holder 14 can be formed of any appropriate material and particularly effective results are obtainable by forming such a unit holder as a unitary structure of a resilient plastics material such as polyethylene. As will be more fully understood when the use of the multiunit holder 10 is hereinafter described, it is, however, essential that at least two adjacent ones of the struts 17, 18, 19 and 20 of each unit holder 14 can be resiliently pulled apart to permit insertion into and withdrawal from the cell 21 of a generally cylindrical article which may, for example, be a bottle such as bottle 23 or a can 26 as shown in FIG. 2.

Before describing in greater detail the use of the multiunit holder 10, the manner in which the individual unit holders 14 thereof are interconnected will first be explained. Referring to FIGS. 1 and 2, it will be seen that the first end members 15 of the individual unit holders 14 in each of the rows 11, 12 and 13 are interconnected by lugs 28 integrally formed with these first end members 15. Similar lugs 30 are provided, if desired, between adjacent ones of the second end members 16 in each of the rows 11, 12 and 13. Referring again to FIG. 4, it can now be noted that the struts 17 and 19 of each unit holder 14 are terminally secured to respective ones of the lugs 28 and 30.

In accordance with a useful but nonessential feature of this invention, the rows 11, 12 and 13 each comprising four unit holders 14 are adapted detachably to be coupled together in the manner shown. To this end, the struts 17 of the uppermost units 14 in each of the rows 11, 12 and 13 are, as shown in FIG. 1, integrally formed with upstanding studs 31 while similar downwardly projecting studs 32 are integrally formed with the struts 19 of the lowermost units 14 of each of the rows 11, 12 and 13 of FIG. 1 as best seen, however, by reference to FIG. 2.

The studs 32 are detachably received in apertures or holes 33 terminally provided in resilient coupling straps 34, being inserted into these holes 33 and removed therefrom in much the same manner as a button is inserted into and removed from a buttonhole. Four such coupling straps 34 are shown in FIG. 2 for interconnecting the lower ends (FIG. 1) of the multiunit holder 10.

The manner in which the upper ends of the individual rows 11, 12 and 13 are interconnected is shown in FIG. 1 and is essentially identical to that already described with reference to the use of the coupling straps 34, the only difference being that the coupling straps 36 with apertures 37 therethrough for receiving the studs 31 detachably therethrough are integrally formed with handles 38 as will readily be understood by reference to FIG. 1.

Having completed the description herein of the structure of the multiunit holder 10 illustrated in the accompanying drawings, the manner in which this holder is used will now be explained. It should perhaps first be explained, however, that, for the most effective performance, the unit holders 14 of the multiunit holder 10 are dimensioned so that the containers to be carried therein, irrespective of whether they are bottles or cans, have a maximum diameter greater than the chordal separation between adjacent struts 17, 18, 19 and 20 of each such unit 14 when such struts are in their released or nondeformed configurations. In order to insert a cylindrical article such as a can 26 into one of the cells 21, all that is necessary is to pull an adjacent pair of the struts 17, 18, 19 and 20

transversely apart as actually illustrated in FIG. 2. When the can 26 has been inserted into the cell 21, it is effectively retained therein since the deformed struts readily return to their normal relaxed configuration by virtue of their natural resiliency.

The insertion of a bottle 23 into a cell 21 of a unit holder 14 is essentially identical to that already described with reference to the insertion of the can 26, the only difference being that such a bottle is inserted so that its neck extends through the aforementioned opening 24 in the first end member 15 of the unit 14.

As hereinbefore indicated, the unit holder 14 as well as the interconnecting lugs 28 and 30 and the coupling straps 34 and 36 are all usefully and completely formed of a resilient plastics material. This statement should not, however, be interpreted in any restrictive manner. It will, for instance, readily be appreciated that the required resilience may be provided by forming just two struts of each unit holder 14 of a suitable resilient material and that, if desired, the first and second end members 15 and 16 of such a unit holder 14 may be formed of an essentially rigid material. In general, it will, however, frequently be advantageous to utilize a resilient material for all the structural components of the multiunit holder 10 as already indicated. By interconnecting the struts 17, 18, 19 and 20 to the respective first and second end members 15 and 16 through the radially extending tongues 22 and lugs 28 and 30, additional resiliency is provided to facilitate the required separation of adjacent struts during insertion into and withdrawal from a unit holder 14 of a bottle 23 or a can 26.

With reference to the spacings between the struts 17, 18, 19 and 20 of each unit cell 14, these openings will, as already indicated, be less than the maximum diameter of the article to be accommodated in the cell. In general, the use of four struts for each unit holder as already described is preferred but the use of a greater number of struts or of even only three such struts per unit is not precluded.

The holders of this invention are useful for carrying, storing and protecting the articles accommodated therein. Merely by way of illustration, it may be mentioned that the rows 11, 12 and 13 may be separated as required and, with beverage containers, for example, cans and/or bottles, accommodated therein, they may be placed in a refrigerator. Again the multiunit holders of this invention will be of considerable benefit to campers who can immerse such a multiunit holder after loading in a stream or pond, a rope being tied through the handle 38 to prevent loss. In this case, the struts 17, 18, 19 and 20 also serve to provide some degree of protection against physical damage to the bottles or cans contained in the holder.

Numerous other variations within the scope of the appended claims are also possible. It is, for instance, possible to utilize systems other than the hereinbefore described "stud and hole" arrangement for coupling the different rows of unit holders together.

What is claimed is:

1. A unit holder for a generally cylindrical article having a main body portion and a narrower neck portion, such as a beverage bottle, which holder comprises a unitary structure of a resilient plastics material including first and second axially spaced apart end members peripherally interconnected by at least three angularly spaced apart struts for retaining the main body portion of the generally cylindrical article within a cell peripherally defined by said struts, each said strut being integrally formed with radially extending tongues integrally formed in turn with respective ones of said first and second end members and being capable, by virtue of the inherent resilience of both said struts and said end members, to be pulled apart to permit insertion into and withdrawal from said cell of said generally cylindrical article and said first end member having a generally central opening extending therethrough and said opening having a diameter smaller than that of said cell for containing the main body portion of a bottle disposed within said cell whereby the neck portion of that bottle can extend through said opening.

2. A unit holder as claimed in claim 1 which comprises four said spaced apart struts which are disposed substantially equiangularly about said cell.

3. A multiunit holder comprising a plurality of unit holders as claimed in claim 1 interconnected by adjacent ones of said tongues extending between adjacent ones of said first and second end members respectively.

4. A multiunit holder as claimed in claim 3 in which said plurality of unit holders are interconnected in linear configuration and which multiunit holder is adapted detachably to be secured to another such multiunit holder.

5. A multiunit holder as claimed in claim 4 in which one of said struts is disposed terminally of said multiunit holder and is provided with releasable coupling means for detachably coupling said multiunit holder to a transverse coupling strap.

6. A multiunit holder as claimed in claim 5 in which said coupling means comprises at least one stud adapted detachably to be received within a restricted aperture within said transverse coupling strap.

7. A multiunit holder as claimed in claim 5 in which said transverse coupling strap is detachably coupled to said multiunit holder in the manner specified.

8. A multiunit holder as claimed in claim 7 in which said transverse coupling strap has a handle provided thereon.

9. A multiunit holder as claimed in claim 7 in which said transverse coupling strap is detachably coupled to two multiunits holders having said linear configuration.

10. A multiunit holder as claimed in claim 9 in which said transverse coupling strap has a handle provided thereon and in which said two multiunit holders are detachably coupled together at opposite ends thereof.

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