Jan. 18, 1944. K. W. BURGE ET AL 2,339,598

CARRYING DEVICE

Filed March 30, 1942

Fig. 1

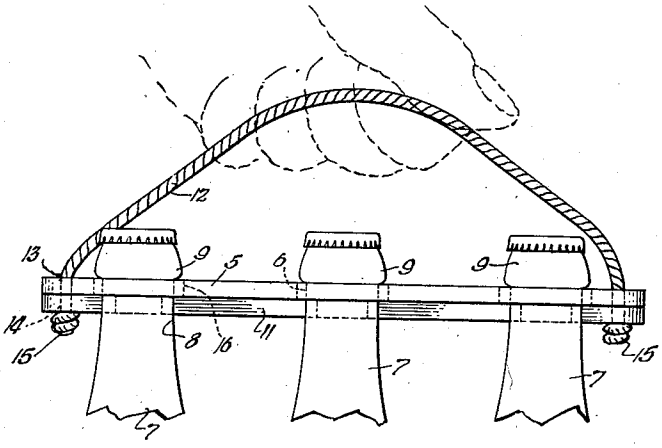


Fig. 2

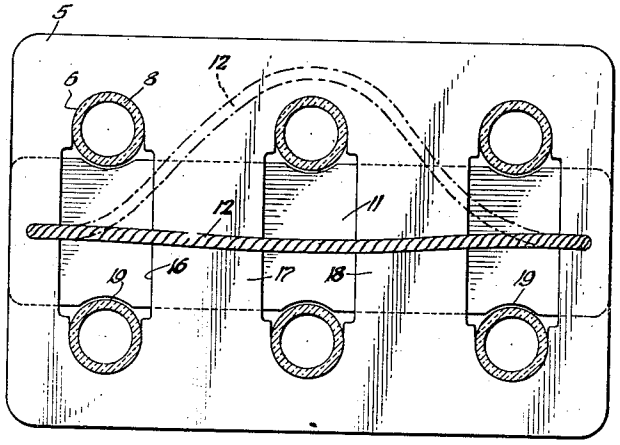


Fig. 3

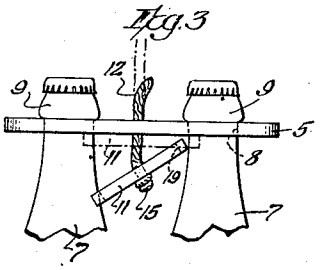
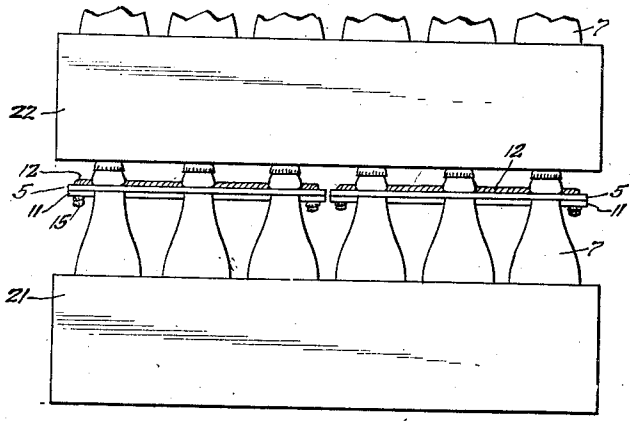


Fig. 4



Inventors.
Keith W. Burge
Clyde B. Burge
By
Alois W. Graf
Atty.

Patented Jan. 18, 1944 2,339,598

UNITED STATES PATENT OFFICE

2,339,598

CARRYING DEVICE

Keith W. Burge and Clyde B. Burge,
Gary, Ind.

Application March 30, 1942, Serial No. 436,786

15 Claims. (Cl. 294—87)

Our invention relates to carrying devices and more particularly to a device for carrying a number of beverage bottles.

Beverage companies have introduced into the merchandizing of bottled beverages, the six-bottle unit sale, particularly for home consumption. More generally this six-bottle unit has been prepared for convenient delivery to and carrying by the customer by providing a heavy paper sack having handles thereon or by paper cartons of the folded type which support the bottles and which provide a convenient carrying handle. These devices are generally made of a fairly heavy paper board stock. In general all the cartons thus far provided to facilitate the sale of a unit package of six-bottles of beverage have had a number of disadvantages.

The paper cartons which support the bottles by their bottoms are unsanitary since quite frequently these cartons of bottles are stored on the floor of the store thus coming in direct contact with dirt and in many cases absorbing oil from the oiled floor. The housewife, of course, finds this to be very objectionable particularly when she brings home the carton and sets it on the table where it leaves an unsightly mark. Then too, these cartons generally have become so soiled in use that in the past it has been possible to use a carton for only one sale whereupon it must be replaced with a new carton.

From the standpoint of the bottling company there are a number of disadvantages and objectionable features incurred in the use of the present types of bottle-carrier cartons or packages. For the most efficient operation it is preferred to run the bottling plant at its normal rated full-speed capacity, but when the six-bottle home package is to be made up for delivery it is necessary to employ several extra men in order to take care of all packing at a constant rate of speed of operation of the apparatus. Frequently the extra work involved in making these home packages necessitates a slower rate of operation. It is impossible to convert the bottling apparatus to supply only the home packages so therefore a mixed out-put is maintained as for example, 50 per cent of the out-put of the bottling machine is placed in the home cartons and the remainder is placed in the conventional bottle cases, commonly called "shells" by the trade. In placing the bottles into the cardboard cartons, it is necessary to force the bottles into position thus incurring a certain amount of wear on the sides of the bottle so that quite frequently when bottles are inserted into the cartons, they will be broken. Furthermore in present cartons it is impossible to provide any arrangement whereby the bottles may be maintained out of contact with each other so that as a result the bottles soon become roughened and thus are not only displeasing in appearance but tend to become unsanitary due to the roughened surface which will retain more readily foreign substances and dirt.

At the present time there is considerable consciousness of the need and desirability of conserving all materials. Therefore the type of paper heretofore used in all the cartons should be conserved as much as possible. Furthermore it is desirable to decrease the number of trips which must be made by each delivery truck. In the past the containers or cartons for the six-bottle packages generally have had a portion thereof extending above the tops of the bottles so that it was necessary to provide completely enclosed carrying cases for these packages. These carrying cases therefore were of increased height as compared to the conventional carrying device or "shell" when loaded with bottles. Thus the delivery truck actually had its total capacity reduced from 25 to 35 per cent. In accordance with the present invention it is possible to use the delivery truck to its maximum capacity the same as if the entire truck were loaded only with the cases or "shells" generally provided for the stores selling individual bottles.

Another problem from a merchandizing angle which heretofore has never been satisfactorily solved is the one involving a maximum display of the merchandize. Practically all other types of bottle carriers have enclosed a very substantial portion of the bottle so that only a small amount of the bottles was visible to the customer. But in accordance with the present invention practically all of the product will be visible.

In accordance with our invention a unit package bottled beverage carrying device is provided which supports two rows of bottles by engaging a substantial portion of each bottle just below the rim or head of the bottle. The bottles are carried by this device and maintained in position relative to each other so that the bottles are separated thus eliminating wear between bottles. By thus providing a carrying device supporting the bottles from the top greater visibility of the product is obtained, and obviously the entire arrangement is more sanitary since the bottoms of the bottles will not absorb any foreign matter.

It is therefore an object of our invention to provide a new and improved carrying device for bottled beverages.

Another object of our invention is to provide an improved bottled beverage carrier which will be simple and efficient in operation.

Still another object of our invention is to provide an improved bottled beverage carrier which will overcome many of the above mentioned disadvantages of the device of the prior art and which will conserve materials.

A still further object of our invention is to provide an improved bottled beverage carrying device which is susceptible of being manufactured from any one of a number of different materials and which in use will be economical from the bottling company's standpoint in saving labor, delivery costs, bottles, and carrying devices.

Still another object of our invention is to provide an improved bottled beverage carrying device which will have a maximum useful life at a minimum cost.

A still further object of our invention is to provide an improved bottled beverage carrying device which will obviate the necessity of providing special delivery cases so that the carrying capacity of a delivery truck may be utilized to a maximum efficiency.

Other and further objects of our invention will become more readily apparent by reference to the following description taken in connection with the accompanying drawing wherein Figure 1 illustrates a manner in which our invention supports beverage bottles; Figure 2 is a top view illustrating certain features of the structure of our invention; Figure 3 is explanatory of the operation of our invention; and Figure 4 illustrates certain advantages obtained in the use of our invention.

Referring to the drawing there is shown a carrying device for supporting two rows of beverage bottles. This carrying device as shown in the drawing is particularly adapted for the merchandizing of the six-bottle unit of bottled beverage for home consumption. The support device comprises a frame 5 provided with two rows of bottle supporting means 6 each arranged to engage a substantial portion of the surface of the neck of the bottle immediately below the rim or head of the bottle. From Figure 1 it will be seen that each of the bottles 7 has a neck portion 8 and a head or enlarged rim portion 9 which is engaged by the bottle supporting means 6. The frame 5 may be made of any suitable material and in the present illustration the frame 5 comprises a relatively flat rectangular sheet of material such as a plastic sheet, a thin board or plywood, or a compressed paper board. Obviously of course, other materials may be used in the manufacture of the frame and the particular configuration illustrated is not essential to the present invention. The member or frame 5 as shown in Figure 2 is provided with two rows of bottle supporting means 6 so that each row engages the outer portion of the neck of the bottle, and when the bottles are positioned as shown in Figure 2, the sides or rims 9 are supported by the supporting portion 6. In Figure 2 the bottles are shown in cross section taken at a point even with the top of the surface of the frame member 5, so as to more clearly show the structure of the carrying device.

Immediately beneath the surface of the carrying frame or member 5 there is provided a locking wedge or separation member 11, which abuts the under surface of the member 5 when the carrying device is used for carrying beverage bottles as shown in Figure 1. The entire assembly comprising the frame member 5 and the separator 11 may be supported by any suitable handle means 12 which in one form may comprise a simple rope passing through suitable openings 13 and 14, in each of the ends of the members 5 and 11, and the rope is secured in any suitable manner as for example by means of a knot 15. Obviously of course, other handle or carrying means may be provided, for example a wire handle; the only requirement being that a suitable aperture be provided in the upper frame or supporting member 5; that the handle be secured to the lower locking member of wedge 11 in pivotal relation thereto; and that a portion of the force exerted on the handle when the device is carried be transmitted to the parts thereof to move the locking device into locking position.

In order that the heads or rims 9 of each bottle 7 may be inserted through the frame 5, thereafter to be positioned adjacent the upper surface of the frame 5 with the neck adjacent thereto in contact with the supporting means 6, suitable enlargements or apertures 16 are provided for this purpose. In the arrangement shown three such apertures are provided, one for each pair of bottles, although it is to be understood that whenever the strength of the material used for the frame 5 permits a different construction, that the intermediate supporting and strengthening portions 17 and 18 may be omitted. Furthermore it will also be apparent that perhaps in certain instances the intermediate portions 17 and 18 may be provided with the apertures for the handle member instead of placing the apertures adjacent the ends of the frame 5 and the locking separation member 11. In the preferred form the locking member 11 is provided with a plurality of surfaces 19 each of which conform to a portion of the neck of the bottle 8 on the inner sides of the two rows of bottles 7. If desired, the locking member 11 may be provided with semi-circular surfaces instead of the smaller arcuate surfaces 19 shown in the drawing, and with certain modifications of the locking member, these surfaces may be positioned in the same plane as the supporting means 6.

The particular advantages of the present invention perhaps will become more readily apparent by an explanation of the utility of the device and the manner in which the device is manipulated at the bottling plants. More generally the beverage bottling plant is provided with an apparatus to which there is supplied empty beverage bottles, generally obtained from "shells" or cases returned to the plant from the stores. The apparatus receiving the used or empty bottles washes the bottles, fills them with beverage, caps them and supplies them by means of a conveyor to an accumulator table where they then are taken by an operator and placed in empty "shells" or cases. Heretofore whenever it was desired to prepare home package units generally containing 6 bottles in a carton, it was necessary to supply two or more additional operators for the operation of the bottling apparatus. This was necessary because of the labor involved in unfolding and preparing folded cartons, and in inserting the beverage bottles in those cartons, as well as the effort required to place these unit packages in separate delivery cases which differed from the conventional 24 bottle "shell." Where the carrying device or the bottle carrier of the present invention is utilized, fewer numbers of operators are required, and only one type of delivery case or "shell" preferably the type containing 24 bot-

tles is used to receive and store the capped bottles.

Whenever a "shell" containing 24 bottles of beverage has been filled, and it is desired to provide home delivery packages of six-bottles each, the operator obtains one of the devices such as 5 shown in the drawing and pushes the wedge or locking member 11 downward so that this member is substantially perpendicular or at least at an angle to the plane of the supporting member or frame 5. By placing the hands on the ends of the frame member 5, the fingers of the hands may be used to retain in position the locking member 11. With the carrying device thus supported by both hands, the entire device is slightly tilted at an angle so that the heads 9 of one row of bottles may be projected through the opening 16, whereupon the device is moved forwardly against the bottles so that the neck portions of one row of bottles is engaged by the supporting means 6. The locking member or wedge 11 is thereupon moved by the fingers directly toward the inner neck surface of this row of bottles and the entire assembly and bottles are then moved forwardly so that the heads 9 of the other row of bottles may be projected through the opening 16. Thereupon the entire assembly is released and the heads 9 of the two rows of bottles of beverage will appear as in the end view shown in Figure 3. The locking member 11 will be positioned between the two rows of bottles. The weight of the first row of bottles which were tilted forwardly to permit engagement of the second row of bottles returns them to normal position in the "shell" thus causing the bottle supporting means 6 of the second row of the frame 5 to engage the necks of the bottles 8 and to assume the position shown. Whenever the handle 12 is grasped to pick up a unit package of bottles from the "shell" or delivery case, the wedge 11 will be moved to the dotted line position shown in Figure 3 thereby securely locking each of the bottles 7 in the supporting means 6 of the frame 5. The bottles thus supported by their rims or heads 9 in the bottle supporting means 6 of the frame 5 will be locked by the wedge or separator 11 so as to be relatively fixedly supported in separated or spaced apart relation. The bottles thus are supported or separated from each other so that while the unit package is being transported from one place to another, there is no contact between the sides of the bottles; consequently there is no wear of the sides of the bottles nor is there any possibility of breakage of these bottles.

It furthermore will become apparent that in preparing home delivery package units at the bottling plant, that there is no operation involved which requires the bottles to be forced into a container nor that bottles must be forced in contact with each other. In Figure 4 there is shown the side view of a 24 bottle "shell" 21, the bottles of which have been provided with the unit home delivery package carrying device of the present invention. From this it will be seen that conventional shells are filled at the bottling plant and that subsequently as many "shells" as may be desired are then provided with the unit carrying device of the present invention. These devices are located below the heads of the bottles so that during delivery, and for storage at the plant and at the store, another "shell" 22 may be supported directly upon the top of the bottles. This form of assembly also permits the pyramiding of cases of beverage on the top of the delivery truck which heretofore could not be done whenever the truck was to be loaded with unit packages formed by cartons of the conventional type, which generally were taller than the bottles and which required special delivery cases. Thus it will be seen that less room is required for the "shells" or cases used in the delivery of the bottled beverage and consequently each truck may be loaded with a greater number of bottles and hence there is a considerable saving in the total number of delivery trips required to deliver the required amount of merchandize.

Both the retail merchant and the bottling company will find that the carrier comprising the present invention is of particular advantage to them. The merchant will find that due to the use of the present carrier, there will be fewer broken bottles, and furthermore the carrier will not permit the return of bottles with broken necks. The carrier furthermore permits a greater display of the merchandize since it does not hide nor cover any substantial portion of the bottles. While the merchant in the past has received a stock of bottles for individual sale in "shells" or carriers, and the unit packages were delivered only in their cardboard cartons; under the present arrangement all bottled goods for individual bottle sale or unit package of six-bottles each may be delivered in the same "shells." Thus the merchant's stock of six unit packages may be stored and stacked in the shells thus keeping the bottles and unit packages cleaner than was possible heretofore.

From the standpoint of conservation of materials in addition to lessening the costs of labor at the plant, and the costs of distribution, the present device has numerous advantages. The present unit package carrier may involve a higher initial cost per carrier, but a lesser cost per sale of beverage since the device is relatively permanent and need not be replaced after a single sale of beverage, but may be used for repeated sales. The present carrier furthermore will appeal to the customer since it is substantial in structure, it may be made of materials not weakened by moisture, and hence the customer will readily appreciate its substantial nature which will be in contrast to the former packages which frequently were weakened or torn so as to permit the bottles to drop and break.

While we have shown a particular embodiment of our invention, for the purpose of illustration and description, it of course is to be understood that the present invention is susceptible of other embodiments, and that modifications may be made therein without departing from the spirit and scope of our invention as set forth in the appended claims.

What we claim as new and desire to secure by Letters Patent of the United States is:

1. A device for carrying two rows of bottles comprising a member having means conforming to and adapted to engage the outer half of the neck of each bottle just below the head or rim thereof, said member having portions thereof interconnecting the means in each row and other portions interconnecting said rows, a second member positioned adjacent said first member between said rows of means, and a handle passing through said first member and being attached to said second member, said second member being positioned by said handle so that portions of the necks of each of said bottles supported by said frame will be engaged thereby and locked into position in said device.

2. A device for carrying two rows of bottles

comprising a member having two rows of means each conforming to and adapted to engage the outer half of the neck of a bottle which is just below the head thereof, said member having portions thereof interconnecting the means in each row and other portions interconnecting said rows of means, a locking member positioned beneath said first member between said rows of means, and a handle passing through said interconnecting portions of said first means and being attached to said locking member, said locking member being positioned by said handle so that portions of the necks of each of the bottles supported by said frame will be engaged thereby and locked into position in said device.

3. A device for carrying two rows of bottles by their heads or rims comprising a frame provided with two rows of bottle supporting means each conforming to substantially the outer half of the neck of a bottle just below the head or rim thereof, a locking member positioned between said rows of bottles, and a handle passing through apertures provided in said frame, said handle being connected to said locking member to permit said locking member to be tilted relative to said frame, said handle when supporting said carrier maintaining said locking member in engagement with the inner sides of the necks of the rows of bottles supported by said frame thereby to maintain said bottles relatively fixedly supported and separated from each other.

4. A device for carrying bottles by their heads or rims comprising a frame provided with a plurality of rows of bottle supporting means each conforming to substantially the outer half of the neck of a bottle below the rim thereof, a locking member positioned between rows of bottles, and a handle passing through said frame and being connected to said locking member, said handle when supporting said carrier operating to maintain said locking member in a position adjacent said frame so that portions of said locking member engage the inner sides of the necks of said rows of bottles.

5. A device for carrying a plurality of beverage bottles comprising a relatively flat supporting member provided with apertures therein each having a plurality of semi-circular portions adapted to conform to the shape of the neck of the bottle just below the head thereof, said semi-circular portions being arranged in pairs spaced apart and located opposite each other, and a cooperating member arranged to lock bottles in said semi-circular portions, a carrying handle interconnecting both members, said cooperating member when said device is being carried by said handle being positioned adjacent the necks of the bottles supported thereby and in wedging relation to the bottles in each pair of semi-circular portions.

6. A device for carrying at least a pair of bottles, comprising a flat member provided with an aperture having a portion of such width as to permit the head of a bottle to pass therethrough and having opposed spaced apart semi-circular portions each conforming to the shape of the neck of the bottle just below the head thereof to support the bottles by their heads when said device is carried, a locking member comprising a second flat member positioned between the necks of bottles carried by said first member and having portions conforming to the shape of the necks of the bottles, and a carrying handle interconnecting said members, said second member acting as a wedge to secure substantially immovably the bottles in position in said first member.

7. A device for carrying a plurality of bottles comprising an apertured member having semi-circular portions being arranged opposite each other in spaced apart relation, each semi-circular portion conforming to the neck of a bottle which is below the head thereof to support the bottle by the head thereof when said device is carried, opposed semi-circular portions being separated by other portions of such size as to permit the head of the bottle to pass through said member, a second member positioned adjacent said first member to lock the bottles in position in said semi-circular portions, and a carrying handle interconnecting said members.

8. A device for carrying a plurality of bottles comprising a flat member having apertures therein of such size as to permit the heads of bottles to be passed therethrough, said apertures each being connected to at least a semi-circular portion having a configuration complementary to the neck of the bottle immediately beneath the rim thereof, a second flat member adapted to be positioned underneath said first member and to engage the necks of the bottles when said device is being carried, and a handle attached to said second member and mounted within passageways in said first member whereby the strain on said handle when said device is being carried will position said second member to lock said bottles in the semi-circular portions of said first member.

9. A device for carrying two rows of bottles by their rims comprising a frame provided with two rows of bottle supporting means each complementary to and adapted to engage one half of the neck of a bottle just below the rim thereof, a locking member positioned to engage said frame and provided with means for engaging a portion of the neck of a bottle substantially opposite the portion engaged by said frame, and a handle attached to said latter member, said handle passing through apertures in said frame whereby a portion of the force exerted on said handle when said device is carrying bottles is transmitted to said locking member so that said locking member will maintain said bottles relatively fixedly supported within said supporting means.

10. A device for carrying two rows of bottles by their rims comprising a frame provided with two rows of apertures, a portion of the frame adjacent said apertures conforming to and being adapted to engage substantially the outer halves of the necks of bottles just below the rims thereof, adjacent portions of said apertures being such to permit the rims of the bottles to be passed through said frame, a locking member positioned beneath said frame, and a handle attached to said locking member, said handle passing through apertures in said frame so that when said handle supports said device, a portion of the force on said handle will be transmitted to said latter member to lock the necks of the bottles in the bottle supporting portions of said apertures.

11. A device for supporting two rows of bottles by their rims comprising a frame provided with a plurality of apertures of such size to permit the rims of the bottles to be passed through said frame, a portion of the frame adjacent said apertures having supporting means each conforming to and being adapted to engage substantially one half of the neck of a bottle just below the rim thereof, a locking member positioned in unlocking position beneath said frame, said locking member being provided with por-

tions for engaging a portion of the necks of the bottles substantially opposite that portion engaged by said frame, and a handle positioned above said frame and attached to said locking member, said handle passing through said frame whereby when said device is being carried, said handle will move said locking member into contact with said frame to lock the necks of the bottles in the bottle supporting portions of said apertures.

12. A device for carrying two rows of bottles by their rims comprising a flat apertured frame arranged to permit the rims of the bottles to be passed therethrough, said frame being provided with two rows of bottle supporting means each conforming to and being adapted to engage substantially one half of the neck of a bottle just below the rim thereof, a locking member adapted to be positioned between said rows of bottles, said locking member being provided with a plurality of portions each conforming to a portion of the neck of a bottle, and a handle for said device positioned above said frame and connected to said locking device, said handle when supporting said device and two rows of bottles operating to position securely said locking member in engagement with the under side of said frame and the inner sides of the necks of said rows of bottles thereby to maintain said bottles relatively fixedly supported and separated from each other.

13. A device for carrying bottles by their rims comprising a frame formed of a flat piece of material and provided with a plurality of rows of bottle supporting means each conforming to substantially one half of the neck of a bottle below the rim thereof, a single flat locking member positioned beneath said frame and between said rows of bottle supporting means, said locking member being provided with portions for engaging the necks of bottles supported by said frame, and a handle for said device being connected to said locking member, said handle operating to position said locking member adjacent the under side of said frame and in engagement with necks of bottles supported by said frame.

14. A device for carrying beverage bottles by their heads or rims comprising an apertured frame provided with two rows of beverage bottle supporting means, each supporting means conforming to substantially the outer half of the neck of a bottle below the rim thereof, an elongated locking member extending between said two rows of beverage bottles, and a handle connected to said locking member and extending above said frame, said handle when supporting said carrier operating to maintain said locking member in a position adjacent to said frame so that portions of said locking member engage the inner sides of the necks of said rows of bottles.

15. A device for carrying two rows of beverage bottles by their rims comprising an apertured frame, an elongated locking member and a handle, said apertured frame being arranged to permit the rims of the bottles to be passed therethrough, said frame having two rows of bottle supporting means conforming to and being adapted to engage substantially one half of the neck of a bottle just below the rim thereof, said elongated locking member adapted to be positioned between said rows of bottles, said locking member being tilted relative to said frame when in unlocking position, said handle for said device being connected to said locking member and extending above said frame, said handle when supporting said device and two rows of bottles operating to position said locking member in locking position in abutment with the under side of said frame and in engagement with the inner sides of the necks of said rows of bottles in the proximity of the rims thereof thereby to maintain said bottles relatively fixedly supported and separated from each other.

KEITH W. BURGE.
CLYDE B. BURGE.