

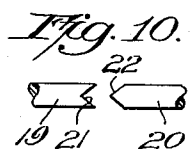
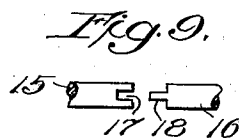
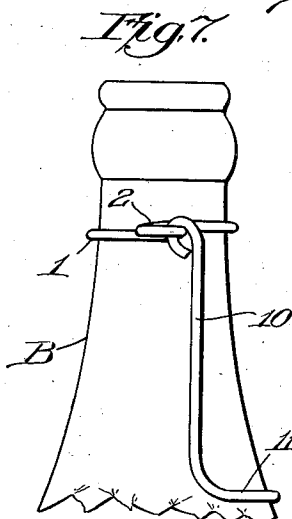
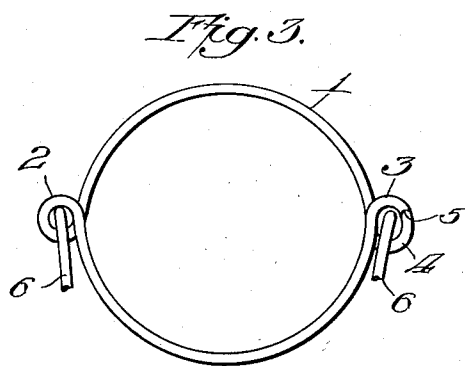
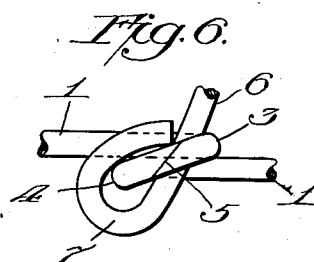
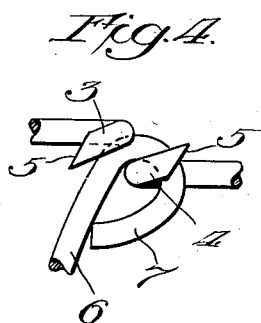
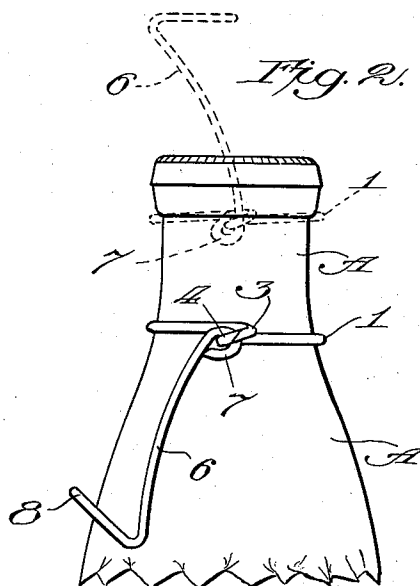
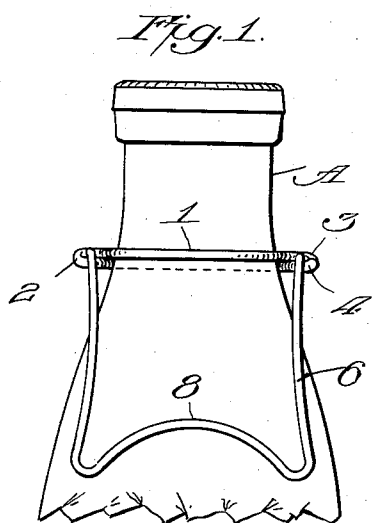
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2,160,662

CARRIER FOR BOTTLES OR OTHER OBJECTS

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CARRIER FOR BOTTLES OR OTHER
OBJECTS

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6 Claims. (Cl. 215—100)

The present invention has for its object to produce a simple, novel, efficient and inexpensive device adapted to be readily attached to the neck of a bottle or other container in order to provide the same with a bail by which it may be carried about, without causing the device to form an obstruction that will interfere with the assembling of containers in close relation to each other for storage or transportation.

A further object of the present invention is to produce a simple and novel carrier including a member for embracing an object and a bail or other handle, said member being divided to permit it to be opened or expanded in order to apply or remove it, and its ends being adapted to be automatically interlocked through a swinging movement of the handle, to prevent accidental release from the object with which it is engaged.

A further object of the present invention is to produce a carrier for a bottle or other object having a neck or other part which merges into an enlargement, including a divided ring which may be expanded at will to place the same upon an object or to remove it, but which is automatically locked against expansion when a bail or other handle is swung into or slightly past its carrying position, and the locking of which against expansion becomes more secure as the load supported by the ring increases.

The various features of novelty whereby my invention is characterized will hereinafter be pointed out with particularity in the claims; but, for a full understanding of my invention and of its objects and advantages, reference may be had to the following detailed description taken in connection with the accompanying drawing, wherein:

Figure 1 is an elevational view of the upper part of a milk bottle having one of my improved carriers arranged thereon; Fig. 2 is a view similar to Fig. 1, with the bottle turned ninety degrees from the position shown in Fig. 1, and the bail being shown in full lines in an idle position and in dotted lines in a carrying position; Fig. 3 is a top plan view of the ring member of the carrier, with only fragments of the bail being shown; Figs. 4, 5 and 6 are three views of the hinge connection appearing in Fig. 2, showing three different stages in locking the ends of the divided ring together after the ring has been applied to the bottle; Fig. 7 is an elevational view of a fragment of a long necked bottle having thereon one of my improved devices provided with a bail shaped somewhat differently from that in Figs. 1 and 2; Fig. 8 is a view partly in section and partly in elevation, showing a modified construction for interlocking the meeting ends of the divided ring, the ends being shown separated from each other; and Figs. 9 and 10 are elevational views showing, as in Fig. 8, two other modifications in the shapes of the extreme ends of the divided ring.

Referring to Figs. 1 to 6 of the drawing, 1 represents a divided ring formed from a piece of strong spring wire bent midway between the ends thereof to form an eye 2 lying in approximately the plane of the ring; the ends of the wire being bent into oppositely disposed hooks 3 and 4 which, when the ring is contracted sufficiently to permit the shank portions of the hooks to cross each other and the noses to abut, form a second eye opposite the eye 2 and also lying in the plane of the ring. Initially, the ring is of such a shape that when the noses of the hooks are disengaged from each other and the hooks are spread apart in a direction at right angles to the plane of the ring, so as not to be interlocked, the ring expands so that the hooks lie back to back, as indicated in Fig. 4. Also, the tendency of the two hooks is to position themselves in the same plane. Therefore, if the ring, with its ends spread apart as in Fig. 4, is compressed, the hook 3 will first ride over the hook 4 until its nose passes beyond the end of the nose of the hook 4, and it will then drop down behind the hook, as indicated in Fig. 6. In the arrangement shown, the noses of the hooks have flat diagonal end faces 5 which engage each other in a plane inclined to the plane of the composite eye when the hooks form an eye, as shown in Figs. 3 and 6. This prevents the hook 3 from being raised relatively to the hook 4 without first contracting the ring so that the inclined faces 5 are spread far enough apart to permit the nose on the hook 3 to clear the hook 4 when moved upwardly.

Cooperating with the ring 1 is a handle in the form of a bail 6, also formed from strong resilient wire. The member 6 has loops 7 interengaged with the two eyes on the ring, the planes of these loops being at right angles to the planes of the eyes. When the ring surrounds the neck of a bottle A or other container and has dropped down as far as it will go, the arms of the bail follow generally the downward direction of the outer surfaces of the container beside which they lie, so as not to constitute objectional protuberances on the container; whereas the cross member or yoke 8 may either follow the transverse curvature of and lie close to the container, or the middle portion thereof may be bowed outwardly, as shown in Figs. 1 and 2, far enough to stand clear

from the surface of the container and permit one's fingers to be inserted between the same and the container for the purpose of securing a good hold when the bail is to be raised.

5 When the device is to be applied to the container, the bail is permitted to hang down, as shown in full lines in Figs. 1, 2 and 4, with the ends of the ring spread apart although not far enough to permit the corresponding loop 7 to become disengaged from the hook 4. The ring is now large enough to permit it to be lowered over the upper end of the container which, in Figs. 1 and 2, is a capped milk bottle. Then, in order to lock the device on the bottle, the cross piece of the bail 6 is grasped and the bail is swung up in the clockwise direction, as viewed in Fig. 4. The corresponding arm of the bail strikes the hook 3 when the bail has swung up far enough, and causes the hook 3 to be drawn toward the right, as viewed in Fig. 4, across the top of the hook 4. The resiliency of the ring causes the hook 3 to be pressed down against the upper surfaces of the hook 4, as shown in Fig. 5. Consequently, by swinging the bail a little farther toward the right after it has reached the position shown in Fig. 5, the nose of the hook 3 clears the end of the nose of the hook 4 and the resiliency of the ring causes the hook 3 to snap down behind the hook 4, as indicated in Fig. 6. The meeting ends of the ring are now interlocked with each other and remain so even though the bail be swung back into a depending position, as shown in Figs. 1 and 2. It should also be noted that if it be attempted to swing the bail in the clockwise direction past the position shown in Fig. 6, it cannot be done as the hook 3 and the corresponding portion of the eye 2 on the other side of the ring act as stops. This results in making it necessary, whenever the bail swings down relatively to the container, that it always swing down on the same side of the container. If this were not so, it is evident that the center of the convex side of the curved cross bar 8 would strike the side of the bottle which is at the right in Fig. 2, and a large part of the bail would therefore be projecting outwardly from the bottle; thus interfering with the placing of bottles close together or in cells of a size just large enough to receive a bottle, and making it likely that the bails would quickly become bent or otherwise damaged.

It will thus be seen that normally the carrier assumes the position indicated in Fig. 1 and in full lines in Fig. 2, no part thereof lying outwardly from an imaginary cylindrical surface surrounding the container no larger in diameter than the largest portion of the container. When it is desired to carry the container, the bail is swung up and the whole carrier lifted thereby into the position shown in dotted lines in Fig. 2. It will be seen that the weight of a container of the milk bottle type or any other type having a slight enlargement around the mouth, tends to expand the ring and thus causes the engaging faces on the noses of the hooks 3 and 4 to be pressed more tightly against each other, whereby the ring is more securely locked upon the container than when the bail is hanging idle.

In order to remove the device from the container, all that need be done is to insert a nail or other slender instrument into the eye formed by the hooks 3 and 4, at the proper point, and press the hook 3 away from and up above the hook 4 until the spring tension in the ring can

act to bring about the condition illustrated in Fig. 4.

While the container A in Figs. 1 and 2 is illustrated as being a milk bottle, the invention is applicable to containers of any sizes or shapes, as long as they are provided with neck portions having enlargements. Thus, in Fig. 7, the container is a long necked bottle B. The carrier comprises a ring 1 similar to the one heretofore described, except that it is smaller in diameter in order to fit the slender neck of the bottle. The handle is also in the form of a bail but so shaped that the arms 10 hang approximately vertical at opposite sides of the bottle neck; the closed or yoke end 11 of the bail being bent laterally so as to lie in a plane approximately at right angles to the plane of the arms, and being shaped to lie close to the bottle wall from one vertical arm portion to the other. In this construction, the yoke portion of the bail does not stand away from the bottle as in Fig. 2, but it will be understood that it is optional in all forms of bails, whether they lie as closely as possible to the surfaces of the containers or have portions positioned outwardly from such surfaces to permit them to be easily grasped by the fingers.

While the shaping of the noses of the hooks 3 and 4 to produce a scarf joint when they are engaged to form an eye is a simple and satisfactory arrangement, other forms of interlocks may be employed. Thus, in Fig. 8, 12 and 13 represent the nose ends of two hooks corresponding to the hooks 3 and 4, respectively. The member 12 is provided with a socket in which the end of the member 13 is adapted to be seated. This socket may conveniently be produced by securing about the member 12 a short sleeve 14 that projects somewhat beyond the end of said member.

In Fig. 9, wire ends 15 and 16, corresponding to the members 12 and 13 of Fig. 8, are provided, respectively, with a transverse groove or kerf 17 and a tongue 18 adapted to enter the groove or kerf.

In Fig. 10, the wires 19 and 20 are provided at their respective ends with a V-shaped groove 21 and a V-shaped point 22 adapted to be seated in the groove.

While I have illustrated and described with particularity only a single preferred form of my invention, with a few modifications, I do not desire to be limited to the exact structural details thus illustrated and described; but intend to cover all forms and arrangements which come within the definitions of my invention constituting the appended claims. Thus, while the invention may find its greatest field of usefulness in connection with bottles or other containers, it is obvious that it may be employed as a carrier for any object to which it can be attached. Also, while the part that is shown in the drawing as encircling the neck of a round bottle is almost circular and is referred to as a ring, it may take any desired or needed shape and by "ring" I do not, therefore, mean only a circular element.

I claim:

1. A carrier for a bottle or other container having a neck, comprising a divided resilient ring having the meeting ends crossing each other and shaped to form an eye, said ring having a second eye opposite the aforesaid eye, the extreme end portions of the ring being shaped to overlap upon contracting the ring and then permitting it to expand, and a handle having closed loops interengaged with said eyes, the eyes lying approximately parallel in the plane of the ring, and the

parts being so proportioned that when the handle is swung in one direction to bring it at right angles to said plane while the ring is expanded, the ring is caused to contract and said extreme ends to interlock with each other.

2. A carrier comprising a divided resilient ring having the meeting ends crossing each other and shaped to form an eye, said ring having a second eye spaced apart from the aforesaid eye, the extreme end portions of the ring being shaped to overlap upon contracting the ring and then permitting it to expand, and a handle having closed loops interengaged with said eyes, the eyes lying approximately parallel in the plane of the ring, and the parts being so proportioned that when the handle is swung in one direction to bring it to about a right angle to said plane while the ring is expanded, the ring is caused to contract and said extreme ends to interlock with each other.

3. A carrier comprising a divided resilient ring having the meeting ends crossing each other and spaced to form an eye, lying approximately in the plane of the ring, the extreme end portions of the ring being hooks the noses of which overlap upon contracting the ring and then permitting it to expand, a handle having a closed loop interengaged with said eye, a hinge connection between said handle and the ring at a point diametrically opposite said eye, and the parts being so proportioned that when the handle is swung in one direction to bring it to about a right angle to said plane while the ring is expanded, the ring is caused to contract and said extreme ends to interlock with each other.

4. A carrier for a bottle or other container having a neck, comprising a divided resilient ring having at the meeting ends oppositely disposed

hooks the shanks of which cross each other and permit the hooks to form an eye lying approximately parallel to the plane of the ring when the ring is contracted from a normal state, the noses of the hooks overlapping each other in such a manner that the nose of the hook whose shank is uppermost underlies the nose of the other hook at times when the hooks cooperate to form the eye.

5. A carrier for a bottle or other container having a neck, comprising a divided resilient ring having at the meeting ends oppositely disposed hooks the shanks of which cross each other and permit the hooks to form an eye lying approximately parallel to the plane of the ring when the ring is contracted from a normal state, the noses of the hooks overlapping each other in such a manner that the nose of the hook whose shank is uppermost underlies the nose of the other hook at times when the hooks cooperate to form the eye, a handle having a closed loop engaged with one of said hooks, and a hinge connection between said handle and said ring at a point diametrically opposite the hooks.

6. A holder provided with two resilient wire sections crossing each other and formed into opposite disposed hooks outwardly from the crossing point, the hooks being so disposed that in one relative position they form an eye outwardly from the crossing point and lying approximately in the plane of the wire sections, the noses of the hooks overlapping each other and having bevelled meeting faces so disposed that the nose of the hook which is uppermost at the crossing point underlies the nose of the other hook.

TAZEWELL H. JENKINS.