Aug. 20, 1940. T. H. JENKINS 2,212,237

GANG CARRIER FOR BOTTLES

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Fig. 1.

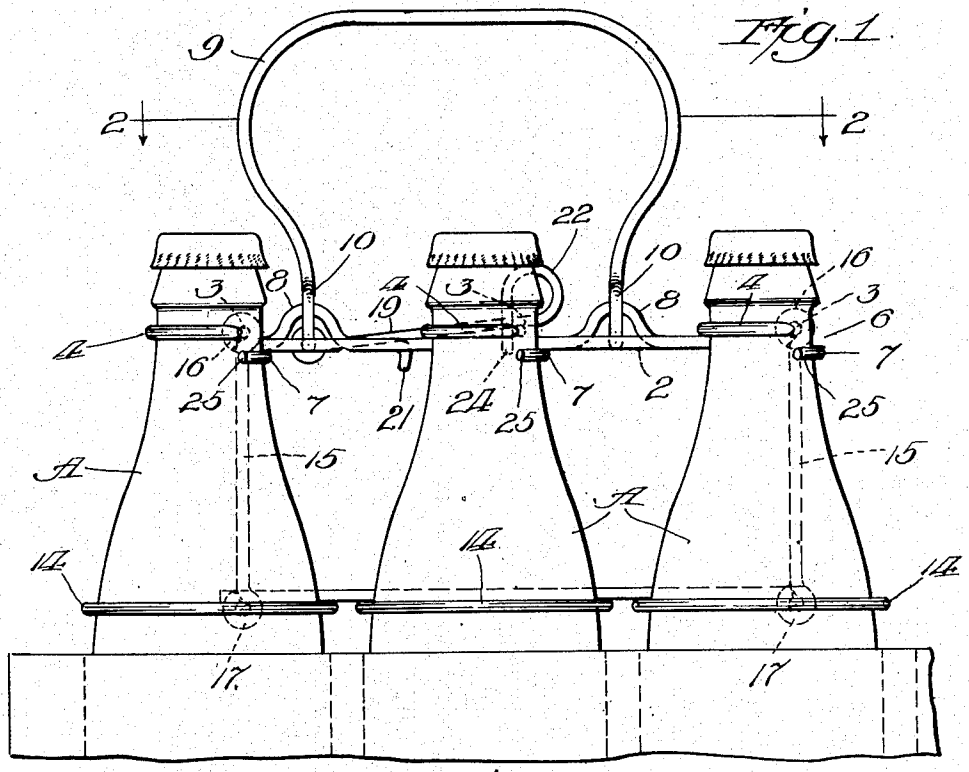
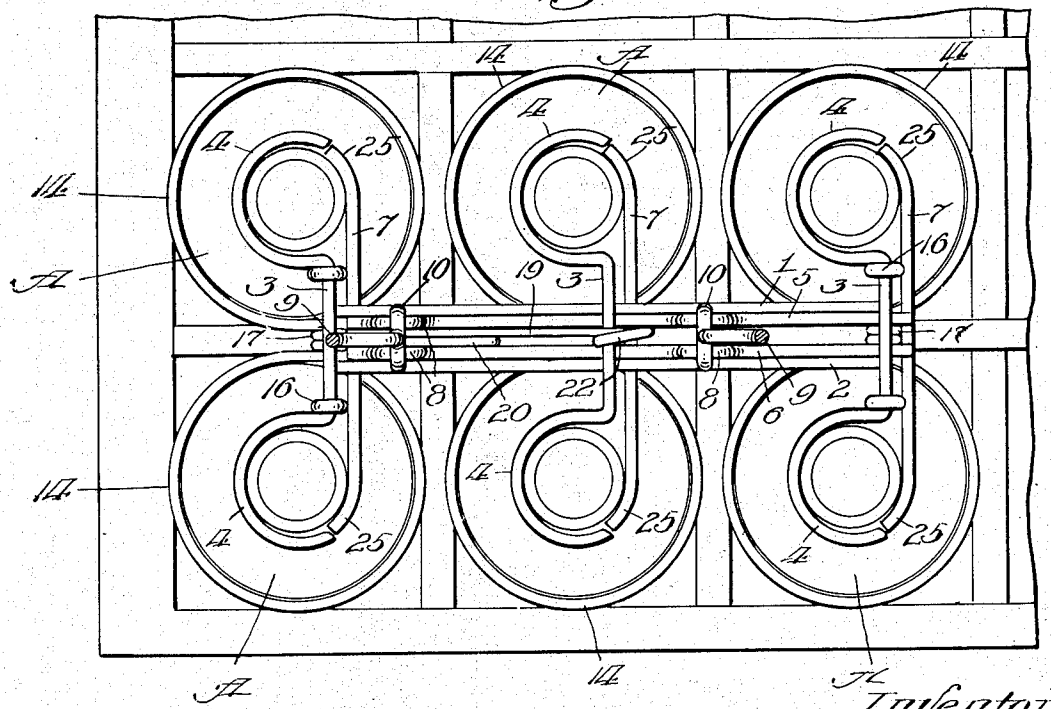


Fig. 2.



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Fig. 3.

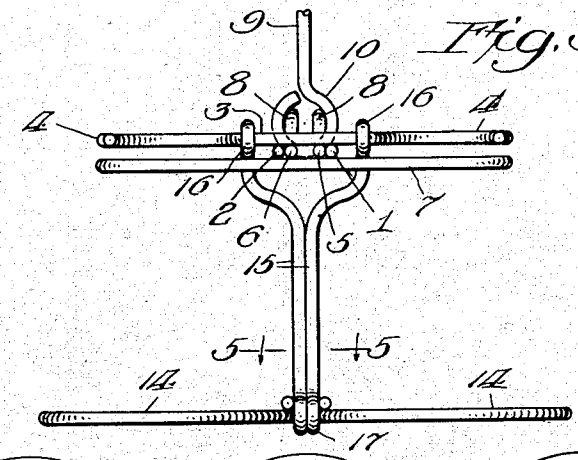


Fig. 4.

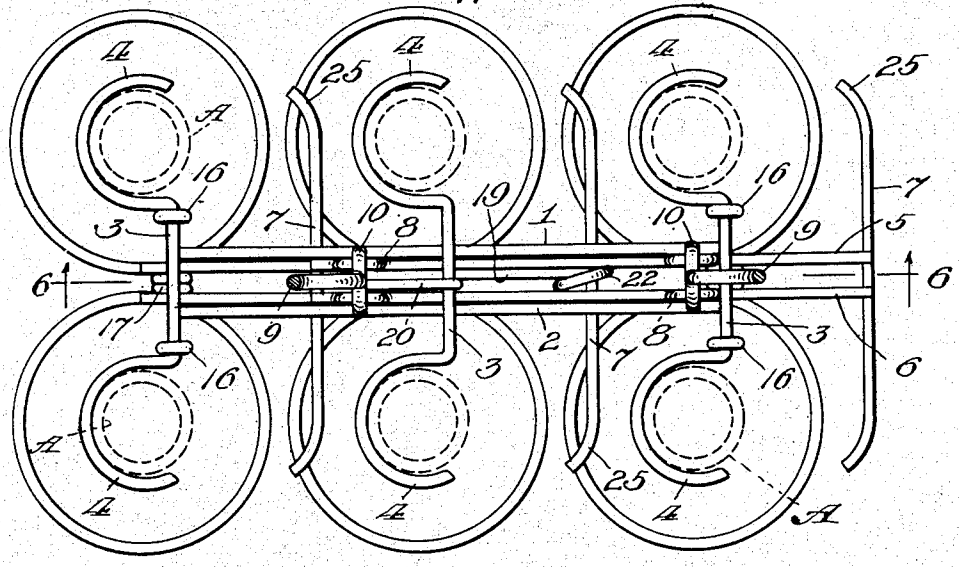


Fig. 5

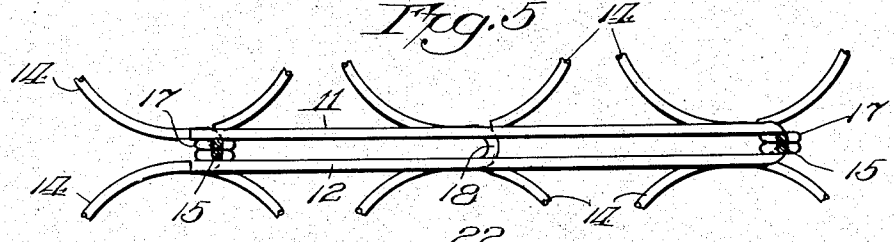
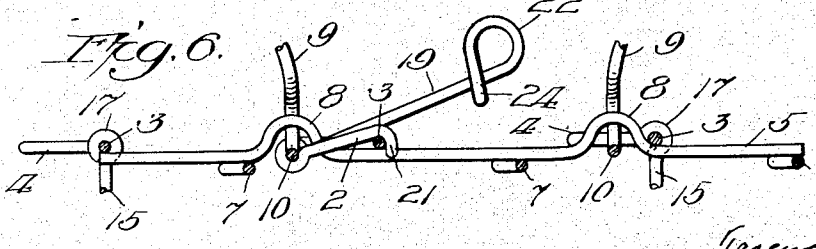


Fig. 6.



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Fig. 7.

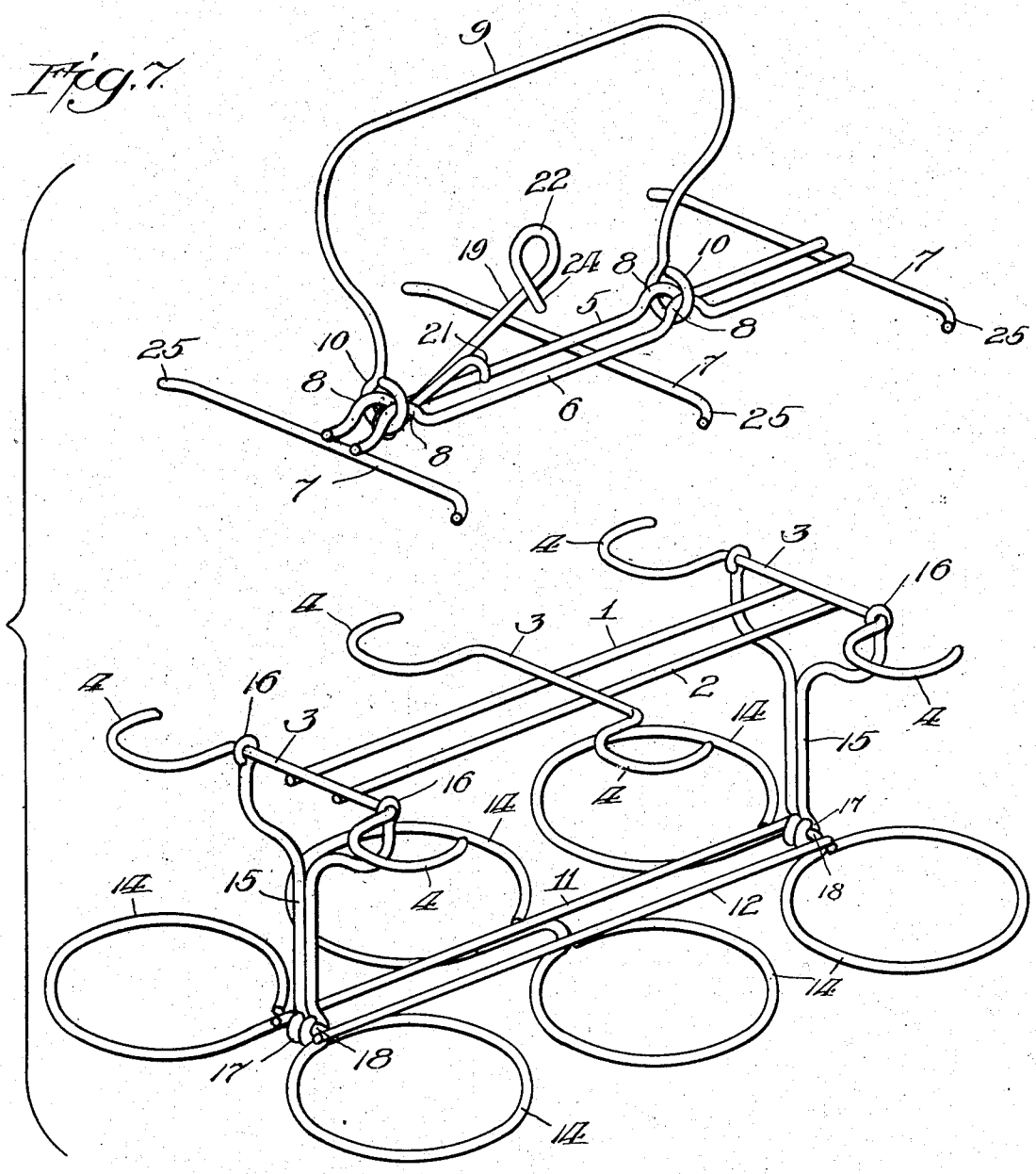
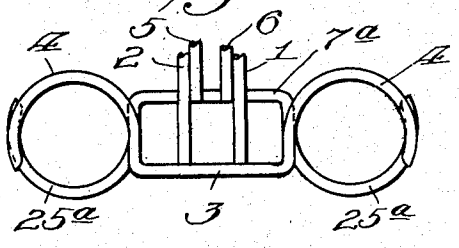


Fig. 8.



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Fig. 9.

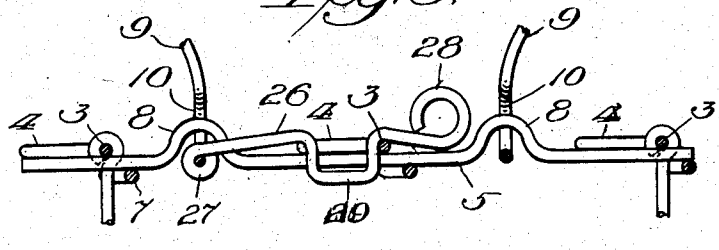


Fig. 10.

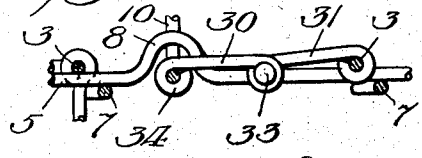


Fig. 11.

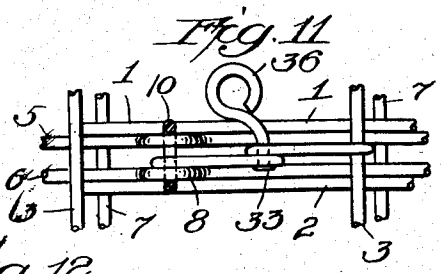
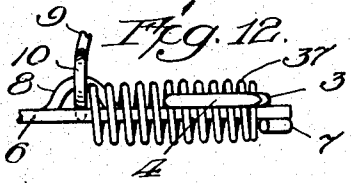


Fig. 12.



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UNITED STATES PATENT OFFICE

2,212,237

GANG CARRIER FOR BOTTLES

Tazewell H. Jenkins, Chicago, Ill.

Application November 9, 1938, Serial No. 239,609

7 Claims. (Cl. 294—87)

The object of the present invention is to produce a simple, novel and reliable device by means of which a considerable number of bottles or other articles having necks thereon may be held and carried about.

One field of use for a holder or carrier of this kind is that of bottled beverages, where the bottles are transported in cases or partitions so as to provide an individual cell for each bottle. One of the objects of the present invention is to produce a simple and novel carrier which may quickly and easily be applied to a considerable number of bottles while they still stand in their case, and which will secure empty bottles together in such relative positions that the entire group of empty bottles may be set down in a case, each in its proper cell, by simply lowering the group of bottles into the case.

In order to make a gang carrier sufficiently useful, it is necessary that it be adapted to hold a considerable number of bottles and, viewed in one of its aspects, the present invention may be said to have for its object to produce a simple and novel carrier which will hold bottles suspended by their necks in parallel rows, with a handle on the carrier between the rows so that one row of bottles balances the other.

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 drawings, wherein:

Figure 1 is a side view of a fragment of a case for bottled beverages, showing therein a few bottles to which one of my improved carriers has been connected; Fig. 2 is a section on line 2—2 of Fig. 1, being a plan view with the exception of the handle which is in section; Fig. 3 is an end view of the carrier shown in Figs. 1 and 2, no bottles being shown in the carrier; Fig. 4 is a view similar to Fig. 2, showing the carrier open as it is at the time when it is to be applied to or removed from the bottles, the cellular casing being omitted; Fig. 5 is a section on line 5—5 of Fig. 3; Fig. 6 is a section on line 6—6 of Fig. 4, the bottles being omitted; Fig. 7 is a perspective view showing the two main members of the holder separated from each other; Fig. 8 is a plan view of one end of the holder, showing a slight modification in the bottle neck embracing elements; Fig. 9 is a view similar to Fig. 6, showing a slightly different form of lock or catch; Fig. 10 is a view similar to Fig. 9, showing a smaller fragment, however, of the device, and illustrating still another form of lock between the two main members of the carrier; Fig. 11 is a top plan view of the part shown in Fig. 10; and Fig. 12 is a view similar to Fig. 10, showing a still smaller fragment and the use of a spring in lieu of a catch or lock.

In Figs. 1 to 7 of the drawings I have illustrated a form of carrier embodying my invention in one of its most highly developed forms and constructed entirely of wire. The carrier there illustrated is designed to hold six bottles in two rows each containing three bottles, but it will be understood that the rows may be lengthened or shortened.

This particular holder consists of two main parts and a third part which is useful in holding the bodies of the bottles positively away from each other. These three parts are perhaps most clearly shown in the disassembled condition illustrated in Fig. 7. It will be seen from this figure that one of the main parts comprises two parallel wires 1 and 2 having three cross wires 3 overlying the same and welded thereto. One of these cross wires is midway between the ends of the straight wires and the other two is at the ends. Each end of each of the cross wires is bent into a semi-circle to form a hook lying in a plane parallel with the plane of the wires 1 and 2; all six hooks lying at the same plane. The second main member comprises two parallel wires 5 and 6 with which are associated three cross wires 7; the spacings between these wires being the same as between the wires 3. The cross wires 7 are shown as underlying the wires 5 and 6, two of them being at the ends of the latter wires and the other at the middle; and the cross wires and longitudinal wires being welded together. The wires 5 and 6 are closer together than the wires 1 and 2, so that they may lie in the space between the two last-mentioned wires, as shown in Figs. 1 and 2; this being permitted by reason of the fact that the cross wires 3 lie above the four assembled longitudinal wires, while the cross wires 7 underlie the longitudinal wires.

Each of the wires 5 and 6 is shown as having two short upward bends 8 at considerable distances apart; these bends serving as ears for the attachment of a wire-supporting handle 9. It will be seen that the handle 9 is a U-shaped member having at the free ends of its arms eyes 10 each of which embraces both of the wires 5 and 6 at their corresponding upward bends. The handle is not applied until the two main members or sections of the carrier are assembled. After

this has been done, the engaging of the handle with the wires 5 and 6 provides means to prevent the handled member from dropping down, because the eyes 10 rest on top of the wires 1 and 2, as clearly appears in Fig. 3.

The third or auxiliary member of the carrier comprises a pair of parallel wires 11 and 12 welded to three cross members each of which comprises two connected wire rings 14 slightly larger in internal diameter than the diameters of the bodies of the bottles to be supported. This auxiliary member is supported from the two end wires 3 by means of two hangers 15, each composed of wire bent into the form of a Y, the free ends of whose arms are provided with eyes 16 surrounding the straight portion of the corresponding wire 3, and the lower end of the stem of which is in the form of a double eye 17 through which extends the wire cross piece 18 between the rings 14 at that end of the device. The hangers are sufficiently long to permit them to drop down on to the large body portions of the bottles below the necks of the latter at times when the bottle necks are held suspended from the main members of the carrier.

When the parts of the carrier are assembled, the cross wires 3 and 7 alternate with each other. Assuming that the main member carrying the cross wires 3 and supporting the underlying auxiliary member to be the stationary one, the other main member may slide back and forth in a direction of the length of the wires 1 and 2 between a position in which each of the wires 7 extends across the open sides of a pair of semicircular hooks 4, as shown in Fig. 2, which is the working position, and an open or an idle position in which the cross wires 7 stand far away from the hooks with which they are intended to cooperate, as shown in Fig. 4. When the cross wires 7 are in their idle positions, as shown in Fig. 4, the carrier as a whole may be lowered down over bottles A, as shown in Fig. 4, or be lifted therefrom; but, when the cross wires 7 are in their working positions, as shown in Fig. 2, the necks of the bottles are closely embraced by the hooks or seats 4 and the cooperating parts of the cross wires 7, as shown in Fig. 2 and, if the carrier is lifted, the bottles are likewise lifted and hang from the carrier.

It is necessary, or at least highly desirable, that means be provided for locking the two main sections of the carrier in their relative bottle-supporting positions, so that the bottles will not accidentally be released. In the arrangement shown in Figs. 1 to 7, there is a catch or dog in the form of a piece of wire 19 having one end bent around the wire of one of the eyes 10 to form a hinge connection with the latter, and then extending in the form of a short arm 20 along side the body portion of the wire 19. This short wire end has thereon a downwardly pointing hook 21. The free end of the main portion of the wire 19 is bent into an eye 22 positioned above the wire, with the extreme end projecting downwardly past the wire to produce a little pin or finger 24. When the two main members of the carrier are closed on the bottles, as in Figs. 1 and 2, the pin or finger 24 extends down behind the intermediate cross wire 3, and prevents the handled member from being moved forwardly, that is toward the open position of the carrier. When the carrier is in its open position, as indicated in Figs. 4 and 6, the little hook 21 on the short wire end 20 drops over and in front of this same cross wire 3, and prevents the carrier from being closed until the dog or latch is raised. The parts are so formed that the wire of the dog or latch is placed under stress whenever the dog or latch is in its holding or locking position, thereby causing the dog or latch to be frictionally held in its working position and not be in danger of accidentally jumping into a release position.

The cross wires 7 may take various forms. In the arrangement just described, the extreme ends thereof are curved, as indicated at 25, toward their cooperating hooks, and thus serve partially to embrace the bottle necks instead of acting simply as stops to prevent lateral displacement of the bottle necks out of the hooks.

It will be noted that the connections between the members of the carrier are such that the depending frame member may be swung up so as to lie flat against the other two members, and the handle may be swung downwardly to lie flat on top of the frame members. Therefore, the carrier may be collapsed to form a compact flat mass for packing and transportation.

Instead of having an almost straight cross wire cooperate with a large hook on a cooperating cross wire, both sets of cross wires may be provided with hooks. Thus, in Fig. 8, there is illustrated a fragment of a carrier corresponding to the righthand end of the carrier in Figs. 2 and 3, in which the arms 7a are provided with hooks 25a, similar to the hooks 4 and oppositely disposed with respect to the latter. With such a construction, each bottle neck is engaged in two different planes by two hooks, each extending half way around the same, so that a group of bottles suspended from the carrier are held fairly well in vertical positions without the use of the suspended frame which, in the first form of carrier, surrounds each bottle below the neck thereof.

In Fig. 9 there is illustrated a slightly modified locking dog or catch which comprises a wire 26 formed at one end with an eye 27 surrounding the wire of one of the handle eyes 10. The other end of the wire is bent into a ring-like finger piece 28. A section of the wire between the two ends is bent downwardly to form what may be regarded as a deep, wide, flat lug which performs the functions of both of the elements 21 and 24 of the first form of dog or latch. In other words, when the two main members of the carrier are closed on the bottle necks, which is the condition illustrated in Fig. 9, one vertical edge of the lug 29 extends down behind the middle cross wire 3 and prevents the carrier from being opened until the latch is raised. After the latch is lifted and the carrier opened, the latch may again be pressed down so as, in this instance, to lie toward the right of the middle cross wire 3 and have its rear edge in engagement with the latter. The lug being made of resilient wire, the upright wire portions thereof are yieldable so that the lug is pressed tightly against the cross wire in each of its locking positions, and cannot easily become disengaged therefrom.

In Figs. 10 and 11, there is illustrated still another form of lock for the two main members of the carrier. The lock in this instance is a toggle comprising two wires 30 and 31 fastened together at their meeting ends by a pin 33 that permits them to swing relatively to each other in a vertical plane. The remaining end of the wire 30 is formed into an eye 34 surrounding the wire of one of the eyes 10 of the carriage handle, while the remaining end of the other wire 31 is

formed into an eye surrounding the central cross wire 3. The eye 10 to which the toggle is connected in this form of lock is not the same eye to which the first and second forms of latch or dog are secured, but is the eye at the other end of the handle, so that the toggle lies beyond the handle instead of between the arms thereof as do the latches. Consequently, when the carrier is closed on the bottles, the toggle is straightened or swung slightly past center, as indicated in Figs. 10 and 11, and acts as a strut to prevent the relatively sliding carrier members from moving in a direction to release the bottles. The pin 33 is preferably extended for some distance beyond one side of the toggle and has its free end formed into a ring-like finger piece 36 which rests on the wire 1 when the toggle is straightened, and prevents the toggle from swinging too far past center.

In Fig. 12 there is illustrated another form of securing device to prevent the bottles from being accidentally released; this device being located in the same position as is the toggle in Figs. 10 and 11. The holding device in Fig. 12 is simply a coiled compression spring 37 arranged between the same eye 10 and cross wire 3 to which the toggle in Fig. 10 is connected. The spring is under such initial compression that it always holds the carrier in a closed state, until a sufficient lateral pull is exerted on the handle further to compress the spring.

It will be seen that all of the few forms of my invention illustrated are adapted to pick up the desired number of bottles from a case, by simply lowering the carrier, in an open position, over the bottle necks and then closing it. The empty bottles may likewise be returned to the case in a group, by simply setting them down in the case and then opening the carrier to release it therefrom.

With the forms of latches or dogs illustrated in Figs. 1 to 9, the opening and closing of the carrier may be brought about by pushing or pulling on the finger pieces of the latches. In the case of constructions shown in Figs. 10 and 11, the locking and unlocking of the relatively slidable members can only be accomplished along with a relative sliding movement of the carrier members. In other words, when the toggle is broken by raising the hinge joint at the middle, the slides are shifted into their unlocking positions and, when the toggle is again straightened, the slides are shifted thereby into their bottle-holding positions.

While I have illustrated and described with particularity only a single preferred form of my invention, with a few simple 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.

I claim:

1. A carrier for a plurality of bottles or other articles having necks, comprising two members slidably connected together for limited relative movements, said members being shaped to form between them in one relative position a plurality of openings each adapted to receive the neck of an article and hold the latter suspended and in a second relative position to cause the openings to be altered in a manner to release the articles, a frame at some distance below said members to engage each article and hold it against lateral movement relative to the others, and suspending wires hingedly connected to one of said members and to said frame whereby the latter may be swung up and lie flat against said members.

2. A carrier for a plurality of bottles or other articles having necks, comprising two members each composed of two parallel longitudinal wires and a plurality of cross wires welded to the longitudinal wires, the longitudinal wires of one member lying between and slidable lengthwise along the longitudinal wires of the second member and its cross wires underlying the second member, and a handle rising from the longitudinal wires of the first of said members and having elements spaced apart from each other lengthwise of the carrier and resting on and slidable along the longitudinal wires of the second member, each end of each cross wire on one member and the adjacent end of a cross wire on the other member being shaped to cooperate in embracing the neck of an article in one relative position of said members and to permit the neck to be inserted in or removed from the carrier.

3. A carrier for a plurality of bottles or other articles having necks, comprising two members each composed of two parallel longitudinal wires and a plurality of cross wires welded to the longitudinal wires, the longitudinal wires of one member lying between and slidable lengthwise along the longitudinal wires of the second member and its cross wires underlying the second member, elements on the first of said members spaced apart from each other lengthwise of the carrier and resting slidably on the longitudinal wires of the second member, each cross wire on one member having hooks at its ends, and the cross wires on the other member being shaped to cooperate with the hooks to embrace the necks of articles in one relative position of said members and to permit the necks to be inserted in or removed from the carrier.

4. A carrier for a plurality of bottles or other articles having necks, comprising two members each composed of a pair of parallel longitudinal wires and a group of cross wires welded to the longitudinal wires, one pair of longitudinal wires being spaced only a short distance apart and the wires of the second pair being spaced apart only far enough to permit the first pair to lie between them, the cross wires on said first pair lying underneath all of the longitudinal wires and the cross wires on the second pair overlying all of the longitudinal wires; and a handle extending lengthwise of the wires of the said first pair and connected thereto at its ends, each end of each cross wire of one group and the corresponding end of an adjacent wire in the other group being shaped to embrace the neck of a bottle in one relative position of said members.

5. A carrier for a plurality of bottles or other articles having necks, comprising two members each composed of a pair of parallel longitudinal wires and a group of cross wires welded to the longitudinal wires, one pair of longitudinal wires being spaced only a short distance apart and the wires of the second pair being spaced apart only far enough to permit the first pair to lie between them, the cross wires on said first pair lying underneath all of the longitudinal wires and the cross wires on the second pair overlying all of the longitudinal wires; a handle extending lengthwise of the wires of the said first pair and connected thereto at its ends, each end of each cross wire of one group and the corresponding end of an adjacent wire in the other group being shaped to embrace the neck of a bottle in one

relative position of said members, and means to lock said members in said relative position.

6. A carrier for a plurality of bottles or other articles having necks, comprising two members each composed of a pair of parallel longitudinal wires and a group of cross wires welded to the longitudinal wires, one pair of longitudinal wires being spaced only a short distance apart and the wires of the second pair being spaced apart only far enough to permit the first pair to lie between them, the cross wires on said first pair lying underneath all of the longitudinal wires and the cross wires on the second pair overlying all of the longitudinal wires; and a handle extending lengthwise of the wires of the said first pair and having eyes at its ends embracing the latter wires, each end of each cross wire of one group and the corresponding end of an adjacent wire in the other group being shaped to embrace the neck of a bottle in one relative position of said members.

7. A carrier for a plurality of bottles or other articles having necks, comprising two members each composed of a pair of parallel longitudinal wires and a group of cross wires welded to the longitudinal wires, one pair of longitudinal wires being spaced only a short distance apart and the wires of the second pair being spaced apart only far enough to permit the first pair to lie between them, the cross wires on said first pair lying underneath all of the longitudinal wires and the cross wires on the second pair overlying all of the longitudinal wires; and a handle extending lengthwise of the wires of the said first pair and having eyes at its ends embracing the latter wires, each end of each cross wire of one group and the corresponding end of an adjacent wire in the other group being shaped to embrace the neck of a bottle in one relative position of said members, and a catch interlocked at one end with one of said eyes and adapted to be engaged at its other end with one of the arms on the second pair of longitudinal wires.

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