This invention relates to bottle holders of that type in which the bottle is held for a tilting movement to discharge the contents of the bottle, and particularly to those holders wherein a bottle-supporting frame is pivotally mounted within a base so that the bottle may be tilted.

One of the objects of the present invention is to provide a supporting frame for the bottle in which the bottle may be readily inserted or removed and in which the bottle is held from any accidental release.

Another object is to provide means whereby the bottle shall be held slightly tilted at such an angle that it cannot be tilted backward or in the wrong direction and permit the bottle to drop out of the frame.

Still another object is to provide a bottle-supporting frame which is open on one side to permit the ready insertion and removal of the bottle, which is provided with means for engaging over the bottle to hold the bottle in the frame, and which is so mounted upon the supports that it is normally held in a slightly tilted position, preventing the base of the bottle from accidentally slipping out of the open side of the frame.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a side elevation of a tiltable bottle support constructed in accordance with my invention;

Figure 2 is a front elevation thereof;

Figure 3 is a plan view of the base;

Figure 4 is a fragmentary view showing one manner in which the bottle frame may be tiltably mounted upon the standard, the standard being shown in section.

Referring to this drawing, it will be seen that the base of the bottle support comprises the longitudinally extending members 10, and the cross piece 11 which is formed with sockets for the reception of the upwarly extending standards 12, these standards being held in place in any suitable manner, as by set screws 13. The upper ends of the standards are apertured. Preferably, though not necessarily, the standards are tubular.

The bottle supporting frame comprises the vertically disposed, U-shaped frame member 14 which is adapted to extend beneath the bottle and up the sides thereof. This frame is pivoted by rivets, bolts or other like pivoting means 15 upon the standards 12. The upper end of one leg of this frame is provided with an eye in which a hook or eye 16 of a wire or rod 17 engages. This wire or rod 17 is curved so as to extend over the shoulder of the bottle, as shown in Figure 2, and at its opposite end it is formed with a hook 18. The adjacent leg of the bottle support 14 is formed with an eye or loop 19 within which the hook 18 engages, and it will be noted that the leg of the member 14 is extended up beyond this eye 19 so as to provide a handle 20 whereby this leg, which is somewhat resilient, may be pulled outward against the tension of its resilience so as to permit it to be connected to the wire 17.

Attached to the legs of the supporting member 14 is a curved yoke 21 of strap iron which is riveted or otherwise attached at its ends to the legs and at its middle is connected by a screw or bolt 22 to a vertically extending frame bar of strap iron 23. This frame bar extends downward and then at right angles and extends beneath the lower end of the supporting member 14 and extends beyond this supporting member, as at 24.

Attached by rivets, bolts or other suitable means to the lower end of the support 14 is a cross bar 25 which projects out beyond the legs of the support 14 so as to constitute at its ends stops which are adapted to bear against the standards 12 and limit the oscillation of the bottle and the bottle-supporting frame in this direction, while permitting the bottle-supporting frame to be tilted in the opposite direction.

It will be noted that the yoke or semi-circular frame bar 21 is attached a short distance above the pivots 15 so that the center of gravity of the bottle is below this frame bar 21 so that the bottle will rest at all times tightly upon this bar 21 and the supporting iron 23 when the bottle is tilted forward.

It will be seen that with a construction of this character the bottle does not have to
be lifted up and then lowered down inside the cage or supporting frame, as in other bottle-supporting devices known to me but that, assuming that the holding wire 17 is released, the bottle may be lifted up a relatively short distance and then shifted bodily into the frame through the open side thereof. The frame, it will be noted supports the bottle always at a slight angle so that there is no danger of the bottle falling out of the open side of the frame.

The bottle is held by gravity against the semi-circular strap iron 21 and against the member 23 of the frame. The bottle is further held in place by the wire 17 which extends over the shoulder of the bottle. This wire is permanently connected at 18 to one leg of the supporting frame 14 and is detachably connected with the other leg of the supporting frame.

When it is desired to connect the wire and lock the detachable end of the wire to the upwardly extending leg, the leg is pulled outward, as shown in dotted lines in Figure 2, the hook 18 is put in place in the eye 19, and then the handle 20 released so that the resilience of the leg will cause it to spring back into place, which locks the wire securely so it is impossible for it to accidentally become detached, inasmuch as the spring presses the hooked end of the wire against the bottle and holds it most effectively. This wire 17 not only acts to prevent the bottle falling backward when the bottle is at rest, but also holds the bottle when the frame is tilted so as to turn the bottle upside down for emptying the entire contents of the bottle. In other constructions known to me having a cage or frame surrounding the bottle, it is necessary, in order to place the bottle in the holder, that the neck of the bottle be grasped with one hand and the bottom of the bottle with the other and the bottle lifted up. The lower hand must then be released and the bottle let down by the neck with the other hand. As a five-gallon bottle of water weighs approximately fifty-five pounds, it is a difficult job to place the bottle in the ordinary holder.

With my construction, it is an easy matter to insert the bottle, it being merely necessary to detach the detachable end of the wire 17, whereupon the entire side of the rear side of the frame is open for introducing the bottle, which can be done by using both hands. Inasmuch as the frame is supported in an inclined position and the frame extends rearward, as at 24, the bottle is prevented from falling back out of the holder while the wire 17 is being locked in place and, of course, the stop bar 25 prevents the bottle holder from being tilted in the wrong direction.

While I have illustrated the bottle-supporting frame as being pivoted by pivot pins 15 or trunnions to the supports 12, I do not wish to be limited to the particular means illustrated in Figure 2, as I may use the construction shown in Figure 4, wherein the tubular standard 12 is formed at its upper end with a notch 19 and the trunnion is formed by an angular pin 15 which is angled so as to fit snugly within the upper end of the tubular standard and at its upper end is bent outward, as at 16, to project out through the notch 12. This construction provides for a very firm support for the pin or trunnion in the upper end of the standard and provides a quick and easy manner of mounting the bottle holders on the standards. When it is desired to store this device or pack it for shipment, the standards are removed from the sockets in the cross piece 11 and the set screw is taken out and the entire assembly, including the stand, can be folded down flat. This can be secured by detachable the bolt 32, whereupon the semi-circular frame bar 21 will fold into parallel relation to the support 14.

The frame bar 23 may also be turned upon its pivotal connection to the support 14 into approximately parallel relation thereto, and thus it will be seen that the frame may be folded or disposed in one plane and a very compact package may be made.

While I have illustrated certain details of construction and arrangement of parts which I believe to be particularly valuable and effective, I do not wish to be limited to these as obviously many changes might be made without departing from the spirit of the invention as defined in the appended claims.

I claim:

1. A tiltable bottle holder of the character described comprising a base having standards, a U-shaped frame member adapted to embrace a bottle and pivoted to said standards below the upper end of the U-shaped frame member, frame bars attached to said U-shaped frame member and adapted to engage around the front of the bottle and extend downward and beneath the bottle, and a yoke flexibly connected to one of the legs of the U-shaped frame member adjacent its upper end and adapted to extend over the shoulder of the bottle and having means at its other end for detachably engaging the other leg of the U-shaped frame member, the last named leg of the U-shaped frame member being resilient, the resilient leg and yoke having one eye and the other a hook engageable with said eye, the leg of the frame extending above the eye to constitute a handle.

2. In a bottle support of the character described, standards, a bottle-supporting frame disposed between said standards, and means for pivotally connecting the bottle-supporting frame to the standards comprising angular members disposed within the hollow upper ends of the standards and having trun-
nions formed at their upper ends, the trunnions projecting laterally, the upper ends of the standards being formed with recesses to receive said trunnions and the trunnions at their ends being operatively engaged with the supporting frame.

In testimony whereof I hereunto affix my signature.

JOHN A. MANGOLD.