Feb. 3, 1942. G. P. SMITH ET AL 2,271,901

CRATE HOOK

Filed July 2, 1940

Fig. 1.

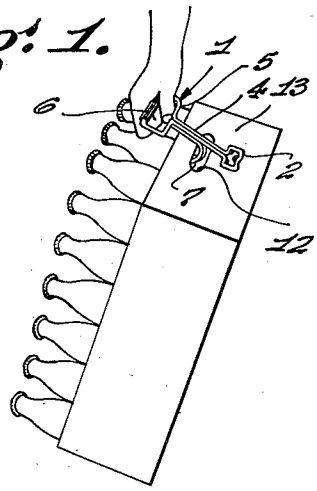


Fig. 2.

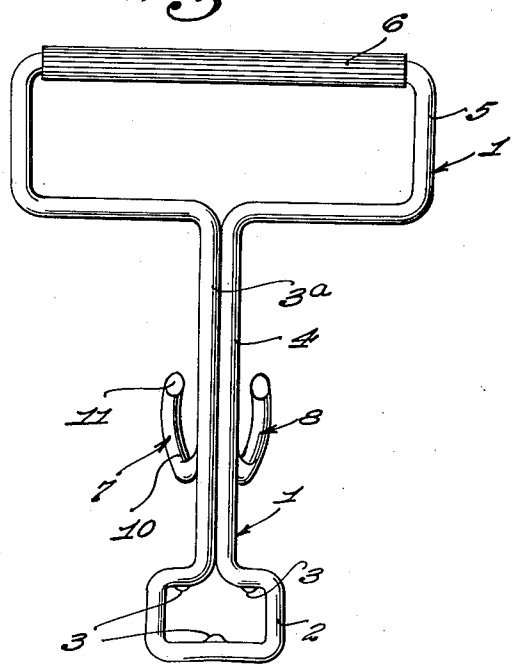


Fig. 3.

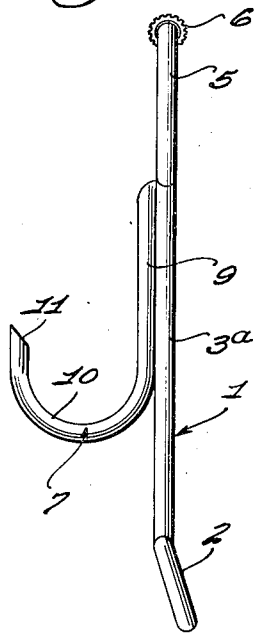
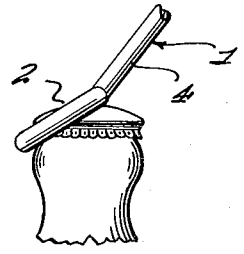


Fig. 4.



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CRATE HOOK

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5 Claims. (Cl. 294—26)

This invention relates to an improved crate hook and has as one of its objects to provide a device of this character which will be highly effective in use for handling crates containing bottles.

A further object of the invention is to provide a crate hook which, when in use, will not come in contact with any portion of the surface of bottles within the crate so that injury, which might be sustained by cuts from broken glass, will be prevented.

A further object of the invention is to provide a crate hook which is of such construction that, when in use, the crate will be held at such an angle that bottles therein will be prevented from falling therefrom.

A further object of the invention is to provide a hook of this character which will obviate the necessity of using both hands when carrying a crate of the type referred to.

And still another object of the invention is to provide a crate hook having a bottle opener at one end, which opener will be useful for removing the crown caps from beverage bottles.

Other and incidental objects of the invention not mentioned hereinbefore will become apparent during the course of the following description.

In the accompanying drawing forming a part of our application:

Figure 1 is a perspective view showing the position of our improved crate hook on a crate when said hook is being used for carrying the crate.

Figure 2 is an enlarged rear elevation of the improved crate hook.

Figure 3 is a side view of the device.

Figure 4 is a detail perspective view of the lower end of the crate hook and showing particularly the bottle opener employed in engagement with the Crown cap of a bottle.

Referring now more particularly to the accompanying drawing, wherein like numerals of reference will be seen to designate like parts throughout the various views, the numeral 1 indicates in general the body of our improved crate hook. The body 1 is preferably formed from a single strand of metal rod of sufficient strength to withstand hard usage. It should be understood, of course, that the device is, however, of light weight and convenient size so that it may be readily used by the drivers of beverage transporting vehicles.

The strand defining the body 1 is bent upon itself and has a rectangular lower end portion 2, which defines a bottle cap remover, lugs 3 being formed in the portion 2 for engagement with a Crown type cap. The body 1 is formed with intermediate portions 3^a and 4 which are disposed in parallel engaged relation, and upwardly of the portions 3^a and 4 the body is bent to substantially rectangular shape to define a handle 5. The end portions of the strand defining the body are bent toward each other in horizontal alinement, and said end portions are surrounded by a sleeve 6 which is ribbed to define a gripping member for manual engagement. The sleeve 6 is freely rotatable on the upper opposed end portions of the strand so that maximum comfort and utility may be had from the device when in use. As seen in Figure 1 of the drawing, the handle 5 is of a sufficient size to receive comfortably the fingers and thumb of the hand.

As seen in Figure 3, the bottle cap remover 2 is disposed at a slight obtuse angle with respect to the parallel portions 3 and 4. The purpose for this arrangement will be particularly brought out during the course of the following description.

Associated with the body 1 are hook elements 7 and 8, said elements being of substantially U-shape and each including a straight shank 9, which shanks of the elements are disposed in parallel relation to the intermediate portions 3 and 4. As also seen in Figure 3, the corresponding upper ends of the shanks 9 terminate at the points where the portions of the strand diverge to define the handle 5. As clearly seen in Figure 2, the elements 7 and 8 include curved or bight portions 10 which diverge with respect to each other so as to define crate engaging points which are relatively widely spaced. The corresponding free ends of the elements 7 and 8 are shaped to define tapered hooks 11 which facilitate entry of the elements through a crate hand hold.

The manner of using the invention would appear obvious but it is thought desirable to set down a brief description of the operation and point out the particular advantages for the construction employed. In use, the gripping member 6 is manually engaged and the device is engaged with a crate. To engage the device with the crate, it is only necessary to insert the free end portions of the hook elements through the hand hold 12 of a crate 13. The spaced ends of the hook elements provide two-point engagement with the upper margin of the crate which refines the hand hold 12. The bottle cap remover 2 as its inner face in engagement with the face of the crate at a point beneath the hand hold 12. Thus, it will be seen that the device provides three-point engagement with the end of the crate when the handle is grasped for lifting the crate.

Attention is particularly directed to the fact that inasmuch as the cap remover 2 is disposed at an angle to the intermediate portions 3 and 4, the crate will be disposed at an angle from the vertical. The result of this arrangement will be that bottles, within the crate, will not be permitted to slip therefrom. The angle at which the crate is disposed with respect to the vertical is also somewhat determined by the amount of curvature given the bight portions of the hook elements 7 and 8. In other words, it is desirable that the bight portions of the hook elements be of such curvature that, although the crate will be disposed at a sufficient angle to prevent bottles from slipping therefrom, free movement of the hook elements through the hand hold 12 may be effectually had. It is also desired to call attention to the fact that, as the cap remover is relatively large in size with respect to the ends of the intermediate portions 3 and 4, a relatively wide bearing surface will be accorded the lower end of the device. Also, scarring, with eventual destruction of the wood of the crate will be prevented.

As pointed out heretofore, our improved crate hook engages only the crate so that contact with bottles in the crate is not had. It is, therefore, not necessary for the user of the hook to grasp bottle necks and injury from cuts caused by broken bottles is thus avoided. It is thought that further description of the invention is unnecessary.

Having thus described the invention, what is claimed is:

1. In a crate hook, a single strand of material bent to define a body having a rectangular lower portion, parallel engaged intermediate portions and a rectangular handle, and hook elements secured to the intermediate portions.

2. In a crate hook, a one-piece body having a substantially rectangular lower end portion, parallel engaged intermediate portions, a substantially rectangular handle, hook elements having shanks secured to the intermediate portions, said hook elements having diverging curved bight portions, and a sleeve carried by the handle and being ribbed for manual engagement.

3. A crate hook comprising a single strand of material bent to define a rectangular lower end, the strand being further bent to define parallel intermediate portions and being still further bent to define a substantially rectangular handle, the upper ends of said strand being bent toward each other and terminating in opposed relation, a sleeve about the upper ends of the strand and being ribbed to define a grip for the hand, and hook elements carried by the intermediate portions.

4. In a crate hook, a body including a handle, intermediate portions and a lower end portion, said lower end portion being disposed at an angle to the intermediate portions, and hook elements carried by the body, said hook elements having curved bight portions engageable through a hand hold of a crate and the inner face of said rectangular lower end portion being engageable with the face of the crate for permitting lifting of the crate upon engagement and lifting of the handle, said lower end portion cooperating with the hook elements for disposing the crate at an angle to the vertical whereby spilling of the contents of the crate will be prevented.

5. A crate hook including a body having a handle formed with a rectangular lower end portion, and hook elements carried by the body to cooperate with the lower end portion for facilitating the lifting of a crate, said hook elements engaging through a hand hold of the crate and said lower end portion being angularly disposed with respect to the body and engaging the outer surface of the crate.

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