March 3, 1931. F. E. DYSON 1,794,451

FIRE EXTINGUISHER

Filed May 9, 1928

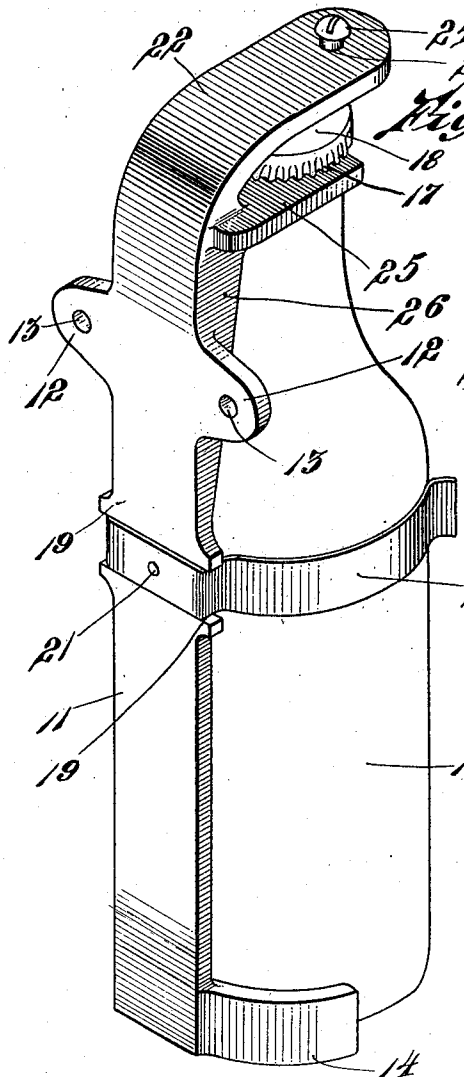


Fig. 1.

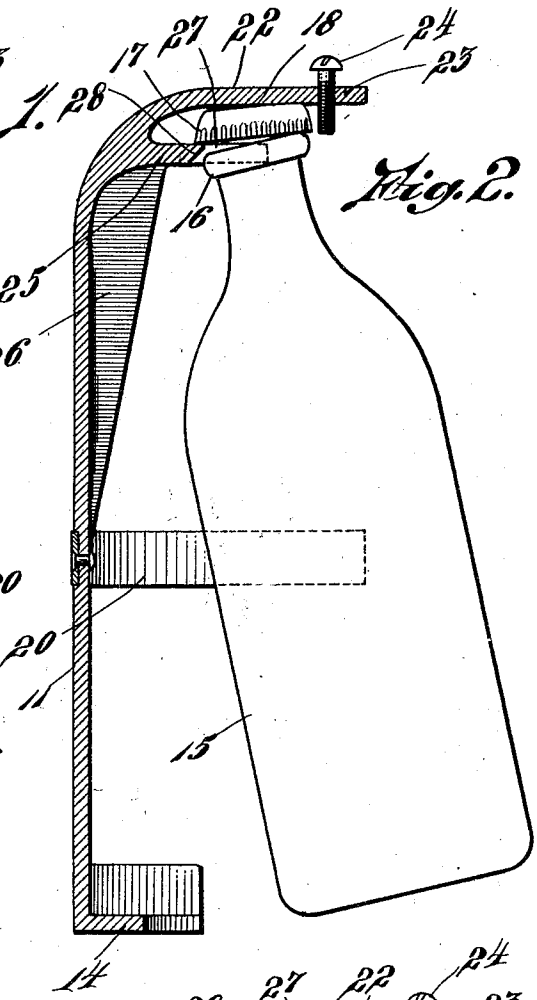


Fig. 2.

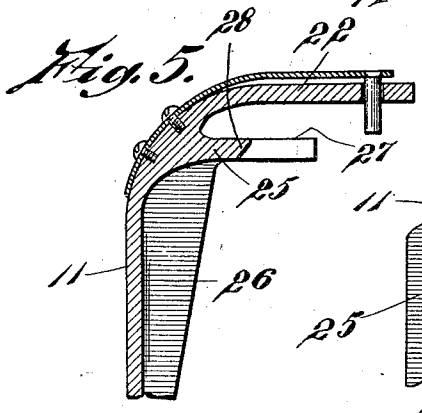


Fig. 5.

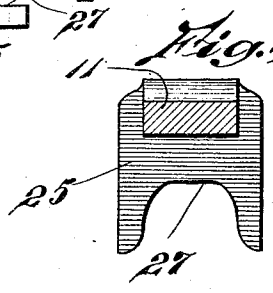


Fig. 4.

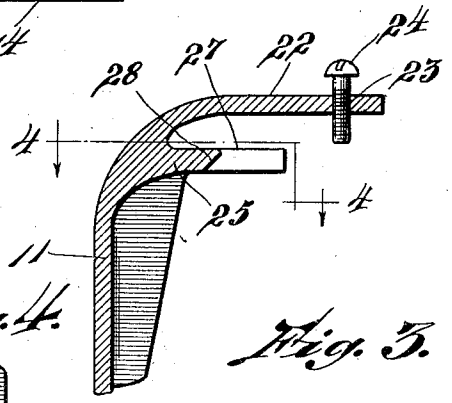


Fig. 3.

INVENTOR.
Frank E. Dyson.
BY Barlow & Barlow
ATTORNEYS.

Patented Mar. 3, 1931 1,794,451

UNITED STATES PATENT OFFICE

FRANK E. DYSON, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR, BY MESNE ASSIGNMENTS, TO AUTOMATIC EQUIPMENT COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND

FIRE EXTINGUISHER

Application filed May 9, 1928. Serial No. 276,246.

This invention relates to fire extinguishers of the type in which fire extinguishing fluids are contained in tightly sealed bottles, that are adapted to be mounted in such a manner that the seal is broken when the normal position of the bottle is changed.

An object of the invention is to provide a fire extinguisher wherein the fire extinguishing fluid is contained in a bottle sealed with a crown cap stopper.

Another object is to provide a fire extinguisher wherein the container for the fire extinguishing fluid is carried by a bracket in such a manner that the seal will be broken when the container is being removed from the bracket.

Another object is to produce an efficient, strong and durable fire extinguisher which may be economically constructed and operated.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings:—

Figure 1 is a perspective view of a fire extinguisher constructed according to my invention, showing the container in its normal position in the bracket;

Figure 2 is a vertical longitudinal section showing the container being removed from the bracket;

Figure 3 is a detail section of the upper portion of the bracket;

Figure 4 is a horizoztnal section taken along the line 4—4 of Figure 3; and

Figure 5 is a view similar to Figure 3 illustrating a modified construction.

It has been found in practice that a simple and inexpensive fire extinguisher is desirable and in order to construct such a device, I have provided means by which any common type of bottle having a crown cap seal stopper may be used for containing the fire extinguishing fluid. The construction is such that a tightly sealed bottle is mounted in a bracket in such a way that the bottle cap will be removed when the bottle is withdrawn from the bracket, and the bottle can not be withdrawn from the bracket without also causing the removal of the cap.

Referring to the drawings, the device comprises a bracket 11 in the form of an elongated body, near the upper end of which are laterally projecting ears 12 provided with openings 13 for receiving suitable fastening means (not shown) for securing the bracket in a vertical position on a wall, post or other supporting surface.

The bottom of the bracket is provided with an arcuate flange 14 constituting a base for supporting a liquid container 15.

The container 15 may be in the form of an ordinary bottle having a head 16 formed at the top of its neck for receiving the crimped edge 17 of a crown cap stopper 18.

Below the ears 12, the edges of the bracket are notched, as indicated at 19, for receiving the arms 20 of a retaining member for the bottle. The arms 20 are so positioned as to partly encircle the bottle and hold the same adjacent to the bracket, and for this purpose the arms 20 should be formed from a strip of suitable resilient material, such as spring steel, or the like, which is riveted to the back of the bracket, as indicated at 21 (Figure 1).

The upper portion of the bracket is extended to provide a horizontal arm 22 adapted to overlie the top of the bottle. Near its outer end, the arm 22 is provided with a threaded opening 23 for receiving the shank of a vertically disposed screw 24.

When a bottle is mounted in the bracket with the base of the bottle resting on the flange 14 and the arms 20 encircling the bottle the under face of the arm 22 should be spaced slightly from the top of the cap 18 and the screw 24 should be positioned slightly in front of the upper portion of the bottle.

Paralleling the arm 22, but spaced a suitable distance therebelow, is an arm 25 which may be formed integrally with the bracket, as shown, and be reinforced by side pieces 26, also integral with the body of the bracket.

The arm 25 has a notch 27 formed in the projecting edge thereof, which notch is shaped to snugly fit the top of a bottle directly beneath the crimped edge of the cap 18. Therefore, the edge of the notch is inclined

outwardly from the upper surface thereof, as indicated at 28 so as to provide a relatively broad surface for engaging the crimped edge of the cap (see Figure 2) and permit independent movement of the bottle neck relatively thereto.

In the operation of the device and assuming that the screw 24 is positioned to prevent lateral displacement of the cap 18, when it is desired to remove the container from the bracket for the purpose of scattering the contents thereof over a fire, the body of the bottle below the arms 20 is grasped and pulled outwardly in the manner shown in Figure 2. In this action the sides of the arm 25 will be wedged between the lower edge of the cap and the adjacent beaded portion of the container and thus by the cap 18 from the bead 16. When the bottom of the bottle has been swung clear of the flange 14 the cap will have been detached and the bottle can therefore be readily withdrawn downwardly from the bracket.

When it is desired to insert a capped bottle in the bracket, or when it is desired to remove a bottle from the bracket without decapping the same, the screw 24 is turned upwardly a distance sufficient to clear the top of the cap 18. This will permit a bottle to pass in or out of the bracket in a vertical position.

In some cases it is desirable to provide a quick acting member in lieu of the screw 24, such for instance as the form of device shown in Figure 5 wherein, the end of the arm 22 is perforated, as indicated at 30 for a pin 31 carried on one end of a leaf spring 32. The other end of the spring is fixed to the bracket by means of screws or the like 33. In this form of the invention the spring 32 will maintain the pin 31 in a normally depressed position and when a bottle is being inserted in the bracket the pin can be raised under the tension of the spring to permit the passage of the bottle neck. When the bottle has been properly positioned in the bracket, the pin can be released and the spring will return the same to its normal position.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

The invention claimed is:—

1. A one-piece bracket for supporting a container provided with a beaded neck carrying a crimped cap, comprising a body having a base flange for supporting the said container, a top horizontal section overlying the said cap, means carried by the body and paralleling the said top for engaging the lower edge of the said cap and removing the same from the container when the latter is swung outwardly from the said body, and means movably mounted in the said top section for preventing accidental displacement of the upper portion of the said container.

2. A bracket for supporting a container provided with a removable cap, comprising a body having a top horizontal section overlying the top of the said container, a bifurcated arm projecting from said body beneath the top thereof, said arm encircling a portion of the container beneath the said cap to engage the cap and remove the same when the container is swung outwardly, removable means, extending through the said top section for preventing accidental displacement of the top of the said container, resilient means carried by the body and partially encircling the container for holding the same adjacent to the said body, and an arcuate flange on the bottom of the said body for receiving the lower portion of the said container.

In testimony whereof I affix my signature.

FRANK E. DYSON.