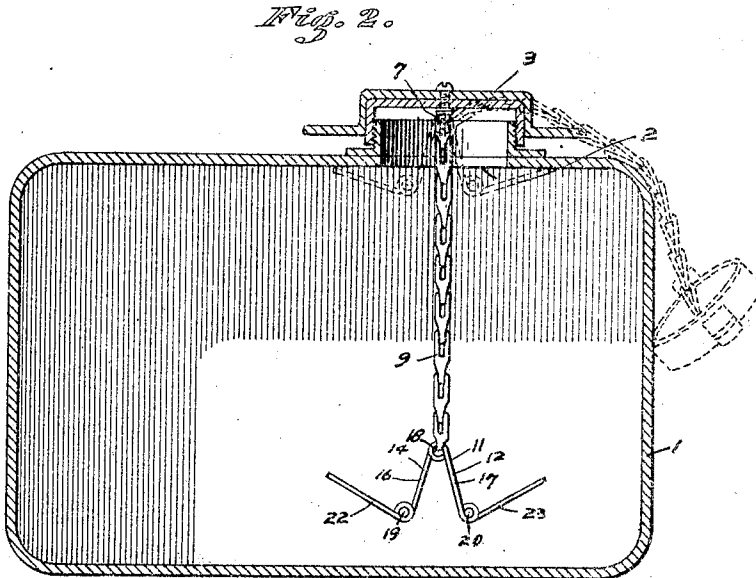
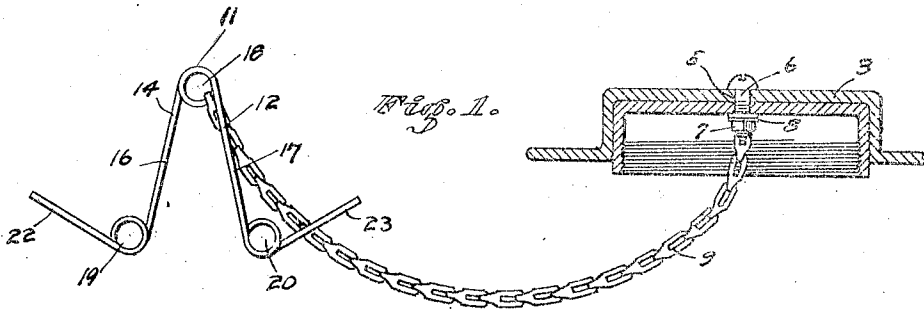


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SAFETY ANCHOR.
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1,408,082

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SAFETY ANCHOR.

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To all whom it may concern:

Be it known that I, CHARLES R. DOWLER, a citizen of the United States, and resident of Fellows, county of Kern, and State of California, have invented a new and useful Safety Anchor of which the following is a specification.

The present invention relates to improvements in anchoring devices for tank and radiator caps and its object is to provide an anchoring device for those caps which is inexpensive, can be easily inserted into the tank or radiator, is sufficiently strong to resist the ordinary pull exerted on the cap, left unscrewed, of an automobile tank by the rapid motion of the machine, and still can be easily removed from said tank by bringing a different kind of pressure to bear on the same.

I attain these objects by the mechanism illustrated in the accompanying drawing, in which Figure 1 represents a side elevation of my anchor fastened to a cap, the latter shown in section, and Figure 2 a sectional view of a tank provided with my anchoring device.

The tank 1 is assumed to be the gasoline tank of an automobile, its top having a cylindrical opening (2) on which the cap (3) is screwed. Through a perforation (4) in said cap extends the bolt (5), which securely holds, between the underside of the cap and the nut (7), a perforated member (8) fastened to one end of the chain (9). The other end of the chain (9) which hangs down from the cap when the latter is screwed to the tank, carries the anchor (11).

The latter is formed of two angles, (12) and (14), two sides of which, (16) and (17), hereinafter referred to as the arms, have been joined to form a third angle, a spring loop being formed at each of the three vertices (18) (19) and (20). The free sides (22) and (23) of the two angles (12) and (14) will be hereinafter referred to as the wings.

The anchor can be easily and quickly made out of one string of wire. The loop (18) is bent into the central part of the wire, on a horizontal axis, the arms (16) and (17) emerging from said loop downwardly, in angular relation to each other. Then the loops (19) and (20) are bent into the free ends of said wire, the wings (22) and (23) emerging from said loops upwardly, in angular relation to the arms (16) and (17) respectively.

The spread of the anchor, that is, the lateral distance between the tips of the two wings, is larger than the diameter of the hole (2). It is evident, then, that in passing the hole the spread must be reduced. It can be reduced by lateral pressure only. The same may be exerted directly by pressure of the hand on either the arms or the wings, and if thus applied, the anchor will pass the hole either way. Lateral pressure may also be applied as a component of angular pressure and as such it can be applied to the anchor only when the same passes the hole in a downward direction, for only in that case will the inclined wings bear against the circular wall of the hole and allow the anchor to slip through the hole. Going upwardly, there is no inclined plane to bear against the wall of the opening and no mere upward pull can cause the anchor to pass the hole, unless the pull is strong enough to bend the anchor completely out of shape.

Since the pull exerted on the anchor by the cap is not necessarily straight upward, but may be angular, in fact usually will be somewhat like it is indicated on the dotted lines in the drawing, care must be taken in constructing the anchor to have the distance between the tip of one wing and any point on the other arm exceed in length the diameter of the hole in the tank, since otherwise the anchor might slip through the hole.

It is understood that while I have confined this description to the gasoline tank of an automobile, my anchor may be used on any other tank using a cap and to radiators as well.

I claim:

In combination with a tank having a hole therein and a cap for closing the same, an anchor for the cap adapted to offer greater resistance to its removal than to its insertion through the hole, said anchor comprising a wire having a central loop and two arms extending downwardly from the same in angular relation to each other, each arm being bent into a loop from which a wing emerges in the plane of the arms and extending upwardly, the spread of the wings being wider than the size of the hole so that its points firmly grip the portion of the tank adjacent to the hole, and a flexible connection between the central loop and the cap.

CHARLES R. DOWLER.