The present invention relates to a device for attachment to tanks, such as the fuel tanks of automobiles, to prevent theft of the contents thereof. Ordinarily, the contents of the fuel tanks of automobiles are guarded merely by a cap which may be readily unscrewed and removed so that the fuel may be withdrawn by siphoning. The present invention has for its particular purpose the provision of means whereby the introduction of siphon tubes into the tanks will be effectually and positively prevented.

The device, according to the present invention may be applied to any tank having a filling opening at its top or at least above the maximum liquid level.

The device may be applied to the tank in the course of manufacture of the latter or it may be sold as an accessory for replacing the customary filling neck.

The invention may take various forms and two embodiments have been shown in the accompanying drawings. In these drawings:

Figure 1 is a vertical cross section through one form of the device according to my invention, the device being shown as attached to the upper wall of a tank.

Figure 2 is a cross section on the line 2—2 of Figure 1, and

Figure 3 is a vertical section through a modified form of device.

Referring now to the drawings, the numeral 10 indicates a section of a fuel tank immediately adjacent the filling opening thereof and 11 indicates a tubular member extending principally above the tank and arranged in the filling opening. This tubular member is provided with a large number of perforations 12 and has secured across its upper end a solid wall 13. Elements 11 and 13 form in effect an inverted cup whose side walls are perforate and whose end wall is imperforate. A neck 14 has a bulb-like lower portion 15 which surrounds the cup-like member and the lower converging walls of this bulb-shaped portion meet the lower portion of the cup-like member to form a tight joint therewith. Elements 15 and 11 are securely attached to each other and to the top wall 10 of the tank in the position shown, and it is immaterial what attachment means are used so long as tight joints are secured. The upper end of neck 14 is threaded so that a cap 16 may be screwed thereon.

The relation of the parts described is such that when cap 16 is removed an ordinary filling nozzle 17 may be inserted in the neck in the position indicated in dotted lines. It is obvious that with this arrangement shoulder 18 will prevent the accidental displacement of the nozzle. The combined area of apertures 12 is sufficient to permit the ready flow of said fuel therethrough without backing up in element 15.

It is obvious that without any modification of the described device or departure from the invention, the bulb-shaped portion of the neck may be positioned within the tank so that the top wall of the latter would take the relative position designated in dotted lines as 10'.

According to the modification shown in Figure 3, the cup-like member is exactly the same as shown in Figures 1 and 2, and the top 10 of the fuel tank has the same relative position thereto. In this instance, however, the cup-like member is arranged within and concentrically with a cylindrical neck 20 whose lower flanged edge 21 is secured to the wall 10 of the tank. The upper end of the tank 20 is adapted to receive a cap 22 in the usual manner.

Outside of the specific combination of parts shown, an important feature of my invention lies in the provision of the solid transverse wall 18 which prevents direct access to the interior of the tank axially of the filling neck. The absence of perforations in this wall makes it impossible to directly insert a tube of the smallest diameter and it would be quite impossible to insert such tube through the lateral perforations. I consider the provision of this imperforate wall as an important part of my invention, regardless of the specific arrangement of the filling necks, as 14 or 20, relative to the wall so long as the wall serves to prevent direct access to the tank axially of the neck. Consequently, it will be understood that my invention may assume many forms other than those illustrated without departure from the spirit thereof.
I claim:
1. The combination with a tank having a filling opening, of a neck secured to the tank substantially coaxially with the filling opening, said neck having a lower bulb-shaped portion, an inverted cup-like member within said portion, the lower converging walls of the latter being secured to the lower portion of said member, the side walls of said member within said portion being provided with perforations and the end wall thereof being imperforate.
2. The combination with a tank having a filling opening, of a neck secured to the tank substantially coaxially with the filling opening, said neck having a lower bulb-shaped portion, an inverted cup-like member within said portion, said member having substantially the same diameter as the neck, the lower converging walls of the latter being secured to the lower portion of the said member, the side walls of said member within said portion being provided with perforations and the end wall being imperforate.
3. The combination with a tank having a filling opening, of a neck secured to the tank substantially coaxially to said opening, an inverted cup-like member within said neck at the inner end of the latter, the side walls of said member being spaced from the walls of the neck and being provided with perforations, the top wall of said member being imperforate, said neck projecting considerably beyond said member and being of such diameter as to prevent access to the perforate side walls of the latter, and said neck being joined to said member by an imperforate wall extending to the lower portion of the latter.

In testimony whereof I have hereunto set my hand.

JOHN R. MIDDLETON.