N. B. IPPOLITO.

SAFETY ATTACHMENT FOR TANKS OR CANS.

APPLICATION FILED FEB. 6, 1908.

928,660. Patented July 20, 1909.

Fig. 1.

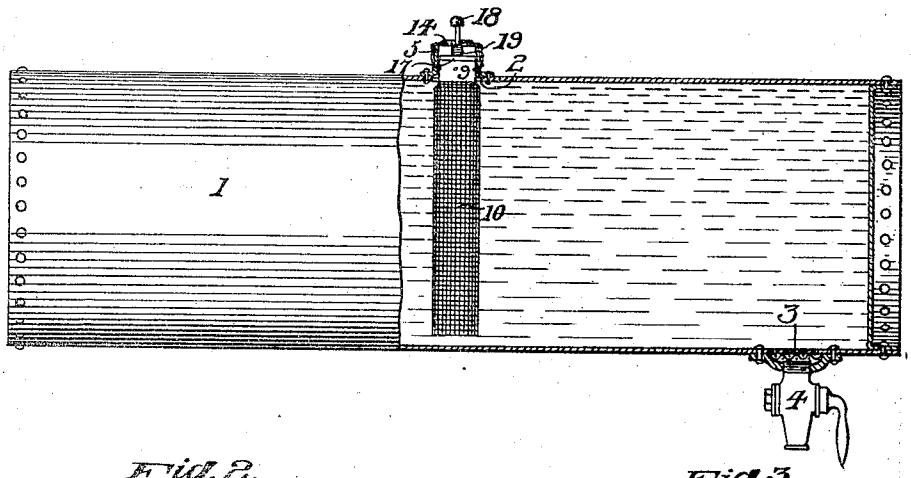


Fig. 2.

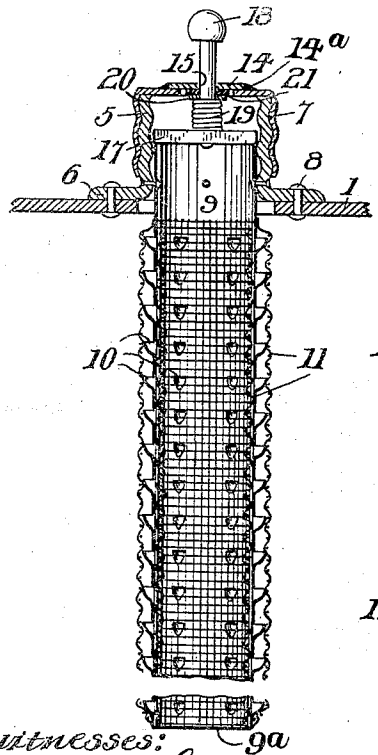


Fig. 4.

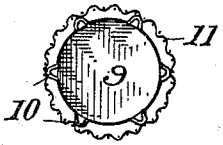


Fig. 5.

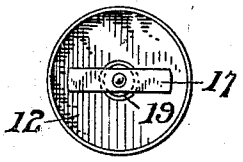
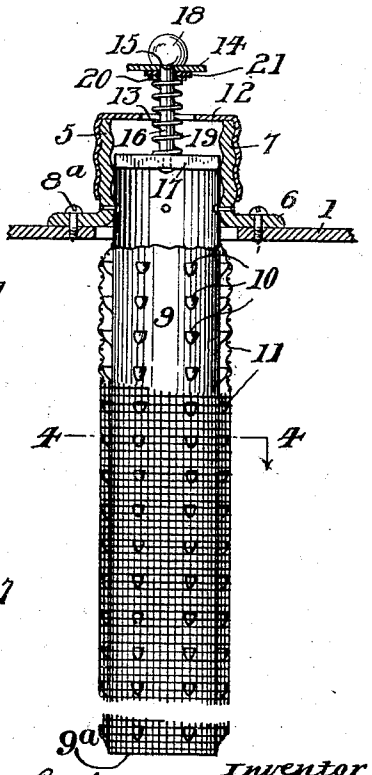


Fig. 3.



Witnesses:

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SAFETY ATTACHMENT FOR TANKS OR CANS.

No. 928,660. Specification of Letters Patent. Patented July 20, 1909.

Application filed February 6, 1908. Serial No. 414,580.

To all whom it may concern:

Be it known that I, NICKOLAS B. IPPOLITO, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Safety Attachments for Tanks or Cans, of which the following is a specification.

The object of my invention is to provide new and improved means for preventing the explosion of explosive fluids, such as gasolene, kerosene, or naphtha, while contained in tanks, cans or other vessels.

In the accompanying drawing, which illustrates an application of my invention, Figure 1 is a part elevational and a part vertical sectional view of a tank embodying my invention; Fig. 2 an enlarged vertical sectional view of the safety device showing the safety-disk closing the opening in the cap; Fig. 3 a similar view showing the safety-disk raised from the opening; Fig. 4 a cross-section taken on line 4—4 of Fig. 3; and Fig. 5 a detail plan.

Referring to the drawing, 1 designates a tank designed to contain the explosive fluid. This tank may be made of any suitable material and of any desired form. In the drawing, I have shown a tank particularly designed for an automobile storage tank formed with an inlet opening 2 and an outlet 3. The outlet is preferably formed by making a series of small openings in the tank and then placing a piece of wire-gauze over the openings. A suitable nozzle or faucet 4 in communication with the outlet is secured to the tank.

Over the inlet-opening 2, I employ a supporting-member 5, preferably of the form shown, comprising an annular flange 6 and an externally threaded portion 7. This supporting-member is secured to the tank by means of rivets 8 passed through the flange 6, or it may be secured thereto by screws 8^a, as shown by Fig. 3.

Passing down through the inlet-opening and projecting into the tank, I provide a tube or cylinder 9. This tube is formed with an open upper end and with a closed bottom 9^a and is further provided with rows of small openings 10. The upper open end of the tube or cylinder extends into the supporting-member 5 and is riveted or otherwise secured thereto.

11 designates a wire-gauze placed on the outside and inside of the tube and covering the openings 10.

The supporting-member 5 is provided with an internally threaded detachable cap-member 12 adapted to be applied to and removed therefrom. This member 12 is formed with a centrally disposed opening or passage 13 designed to permit the escape of accumulated gases generated within the tank. Under normal conditions, the said opening 13 is closed by a disk or plate 14 secured to the cap-member over said opening by means of solder 14^a or other suitable fusible material. Disk 14 is provided with an aperture 15 through which a stem 16 is passed.

Secured to the lower end of stem 16 and adapted to rest upon the upper end of the tube or cylinder 9, I employ a cross-bar 17, and to the upper end of the stem a head 18 is attached. A coiled spring 19 surrounds the stem and is held thereon between the cross-bar 17 and a metallic washer 20. In order to prevent the escape of gases along the stem and through the aperture 15 of disk 14, I provide a suitable washer 21 held in the desired position on the stem between the metallic washer 20 and the said disk.

In the position of the parts, as shown by Fig. 2, the spring is compressed and exerts a pressure against the disk 14, tending to force or to aid in forcing the disk away from the cap when the fusible material, securing the disk to the cap, melts.

In Fig. 3, the disk 14 is shown raised from the cap and held in contact with the head 18. In the event of the disk being forced from the cap owing to the accumulated gases and the action of the spring, a free passage through the cap is provided, and instead of the disk being blown away and lost, said disk is saved and the device may again be employed by simply forcing the disk down upon the cap and soldering it thereto.

The tank may be readily filled with the explosive fluid by removing the cap from the supporting member 5 and pouring the fluid down through the fixed perforated tube or cylinder from whence the fluid passes into the body of the tank. The fluid is withdrawn from the tank through the faucet. In both pouring the fluid into the vessel and removing it therefrom the construction described provides simple and efficient means for preventing heat or flame in the vicinity of the tank or vessel from causing an explosion of its contents.

What I claim is:

1. A safety device for an explosive fluid-

container comprising a supporting-member secured to the container, a tube or cylinder opened at its upper end and closed at its bottom secured to the supporting-member and provided with small openings, a wire-gauze covering the openings, a cap-member having a central opening, an apertured disk for closing the cap-opening normally secured to the cap-member by a fusible material, a stem extending through the disk and cap-member, and a spring surrounding the stem.

2. A safety device for an explosive fluid-container comprising a flanged supporting-member secured to the container, a tube open at its upper end and closed at its bottom and provided with small openings, said tube supported by the supporting-member, a wire-gauze covering the openings, a cap-member having a central opening, an apertured disk for closing the cap-opening secured to the cap-member by solder, a stem extending through the disk and cap-member, and a spring surrounding the stem and arranged to exert a pressure upon the disk to raise it from the cap-member.

3. A safety device for an explosive fluid-container comprising a tube having small openings, a wire-gauze covering the openings, a supporting-member for the tube, a cap-member having a central opening, an apertured disk for closing the cap-opening secured to the cap by solder, a stem extending through the disk and cap and having a head on its outer end and a cross-piece at its inner end, and a coiled spring surrounding the stem and held between the cross-piece and the disk adapted to exert a pressure against the disk to raise it from the cap.

4. A safety device for an explosive fluid-container comprising a tube having small openings, a wire-gauze covering the openings, a supporting-member to which the tube is attached, a cap-member having a central opening, an apertured disk for closing the cap-opening secured to the cap by solder, a stem extending through the disk and cap and having a head on its outer end and a cross-piece at its inner end, a washer on the stem, and a coiled spring surrounding the stem and held between the washer and the cross-piece arranged to exert a pressure against the disk to raise it from the cap.

In testimony whereof I affix my signature in presence of two witnesses.

NICKOLAS B. IPPOLITO.

Witnesses:

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