June 5, 1928. 1,672,185

W. L. WELLS

COVER FOR UNDERGROUND FUEL TANKS

Filed April 7, 1927 2 Sheets-Sheet 1

Fig. 1.

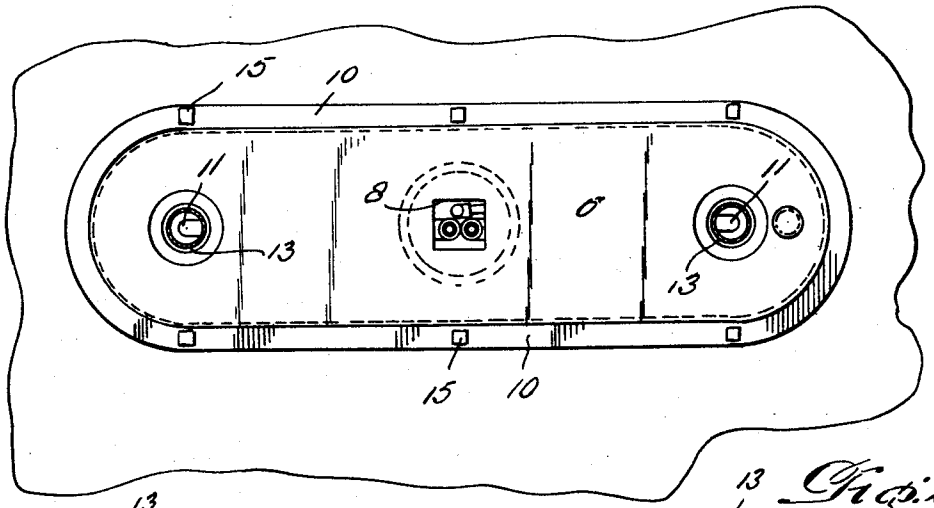
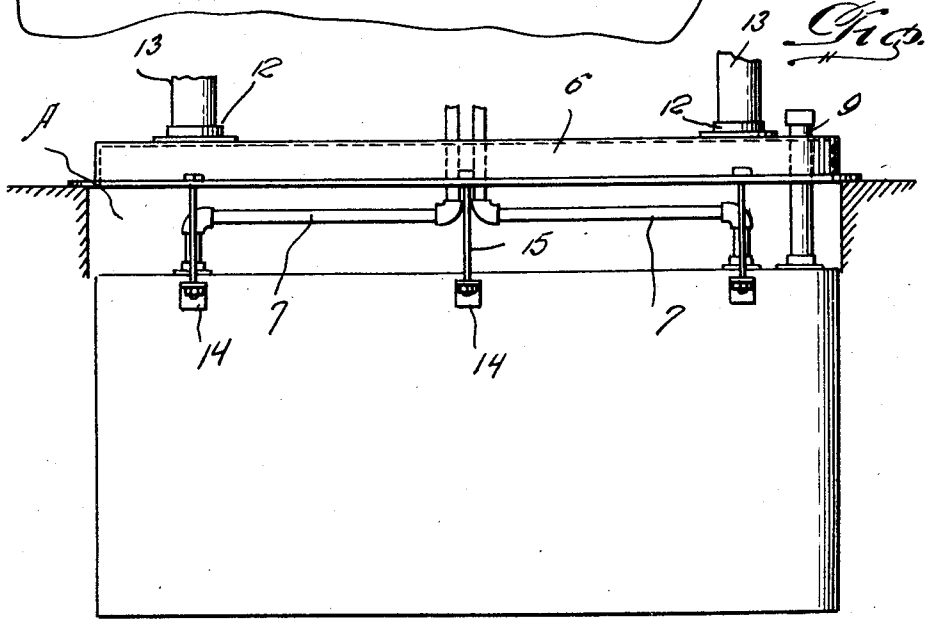


Fig. 2.



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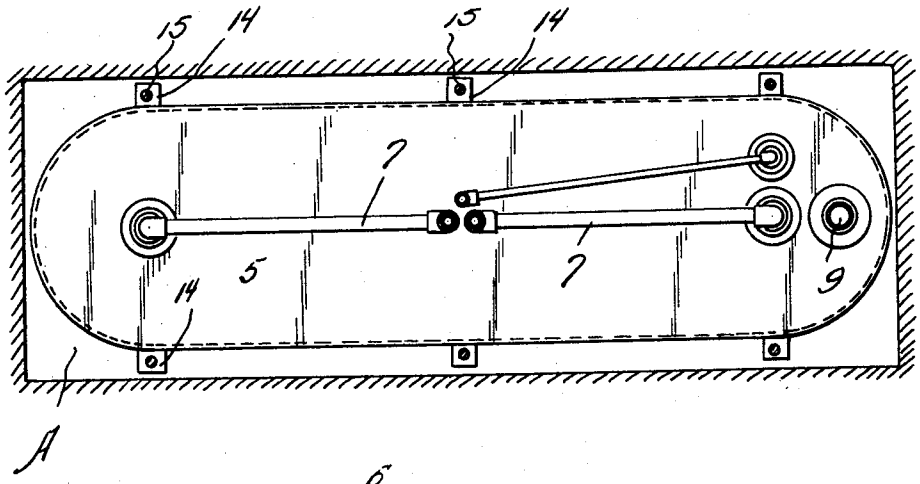
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Fig. 3.



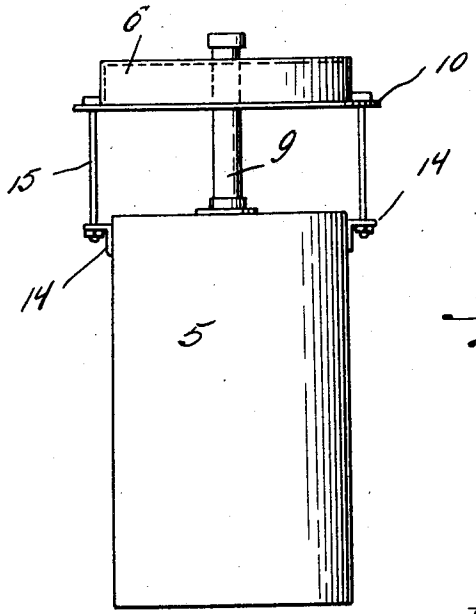


Fig. 4.

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UNITED STATES PATENT OFFICE.

WILLIAM L. WELLS, OF ENID, OKLAHOMA.

COVER FOR UNDERGROUND FUEL TANKS.

Application filed April 7, 1927. Serial No. 181,747.

This invention relates generally to underground fuel tanks usually employed in garages and automobile service stations and aims to provide a tank and a vertically spaced cover for overcoming a great many disadvantages now encountered in the use of the tanks now employed.

It is well known that the average service station has a metal tank sunk in the ground over which there is a layer of concrete, and upon which layer of concrete is still an additional layer of concrete through all of which concrete must extend the pipes and piping necessary to pump the gasoline out of the tank and subsequently into the car of the customer. Such tanks and method of installation is not satisfactory for the concrete is inclined to settle and break away from the piping which is held rigid by being so firmly embedded in the double layer of concrete above. In case the tank has to be removed, it is necessary to break up all the concrete lying above the tank and this involves considerable labor and loss of pipe fittings.

Furthermore it is frequently necessary to pull up the foot valve of a fuel tank to clean the same and to do so necessitates either the taking up of the entire tank or in any event the breaking up of enough concrete immediately over and around said foot valve to permit the raising of the same for the purpose of cleaning.

Further, whenever it is necessary to lift concrete covered tanks or in any way to disturb the concrete lying above the tank, business must necessarily be suspended for several days while the new concrete laid down is thoroughly dried. Should a leak develop in the tank that can only be located by lifting the entire tank, or at any rate, digging up so much concrete or dirt surrounding the same that the objectionable features hereinabove outlined are produced.

In tanks now generally in use, provision is made for only one foot valve and suction line and an additional pump attached thereto necessitates additional check valves and the possible consequence of both parts being inoperative because one is necessarily inoperative.

By reason of the present invention a relatively large pit is constructed in the ground while the tank is of such a capacity and size as to permit the same to be readily raised and lowered into the pit. Furthermore, a cover is provided for the tank which is secured thereto in vertically spaced relation and of such a size as to entirely overlie the upper end of the pit for covering the same, so as to prevent the accumulation of water and other foreign matter therein.

Furthermore the cover is so constructed as to permit of access to the various suction lines and foot valves within the tank and to permit of attachment of additional suctions and foot valves if the same becomes necessary.

In the accompanying drawings wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a top plan view partially in cross section disclosing my tank cover as actually disposed over a pit and within which is disposed a fuel tank.

Figure 2 is a side elevation of the tank and cover, the tank being disclosed as arranged within the pit while the said pit is closed by the present cover.

Figure 3 is a horizontal section taken directly beneath the cover and showing more clearly the disposition of the tank within the pit, and

Figure 4 is an end elevation of the tank and cover.

Now having particular reference to the drawings, A designates a pit formed within the earth, while 5 designates a tank constructed in accordance with the present invention, and 6 the cover associated with the top of the tank in spaced relation therewith and provided for the purpose of closing the ground pit. Leading into the tank 5 through the top wall thereof are conventional suction lines 7—7, the ends within the tank being equipped with the usual foot valves, not disclosed. These suction lines 7—7 are directed toward the center of the tank and extend upwardly through an opening 8 in the center of the cover 6. Furthermore, leading vertically from the top wall of the tank 5 at one end thereof is a filler pipe 9 that extends through an opening in the adjacent end of the cover 6 as clearly indicated in Figure 2.

As clearly disclosed in Figures 1, 2 and 3, the cover 6 is preferably of inverted pan shape and is formed or provided around its edge with a flange 10 of such an area as to completely extend over the top of the pit A for closing the same.

Directly above the points of entrance of

the suction lines 7—7 in to the tank 5 the cover 6 is formed with circular openings 11—11 surrounding which are internally threaded collars 12—12 for permitting of the rigid attachment of air and water stands 13—13 thereto. By reason of these openings access may be easily had to the suction lines 7—7 or to the foot valves within the tank 5 upon the ends of said suction lines. Furthermore, in the event the tank 5 is only equipped with one suction line, an additional suction line may be readily associated therewith by merely removing the proper stand 13.

The flange 10 of the cover 6 is formed at predetermined spaced lengths with openings that register with openings in angle brackets 14 secured to the sides of the tank 5 at the upper end thereof after which said cover is secured to the tank by elongated bolts 15 that act as suspension means between the tank and the cover and obviously by reason of the heavy weight of the tank the flange of the cover 6 is tightly forced into the earth surrounding the pit A so as to provide a substantially weather tight joint.

It will thus be seen that by reason of the present invention the tank 5 may be easily removed from the pit A when it is necessary to transport the same or to raise the same from the pit to mend leaks or the like. It is to be understood that I do not desire to be limited to the particular design of the tank 5 nor of the cover 6, nor of the exact structural units associated with the tank or cover, nor the method of suspending the tank from said cover, as some changes may be made without affecting the spirit and scope of the appended claim.

Having thus described the invention, what I claim is:—

In a cover for a closed fuel tank adapted for disposition within a pit formed in the ground, said covering being of inverted pan-shaped configuration, an outwardly disposed flange formed on the free edge of said pan-shaped cover, the edge portion of said flange extending beyond the sides of the pit for rest upon the surface of the ground, angle brackets secured to the sides of the tank adjacent the top thereof, suspension bolts extending through the angle brackets and through the flange at spaced intervals for securing the cover against the surface of the ground, said cover being formed with openings to accommodate the usual suction pipes which extend upwardly from the tank.

In testimony whereof I affix my signature.

WILLIAM L. WELLS.