May 18, 1943 J. E. LEARY 2,319,410

WALL UNIT FOR OIL TANK INSTALLATION

Filed Dec. 8, 1941

Fig. 1.

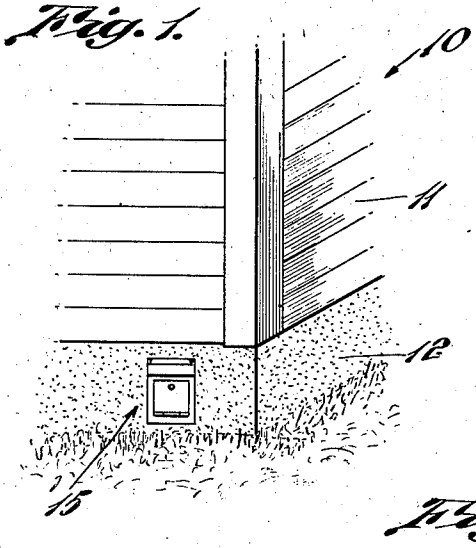


Fig. 2.

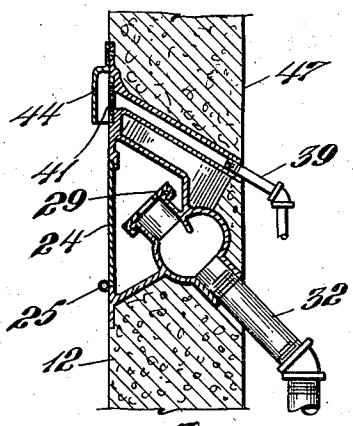


Fig. 5.

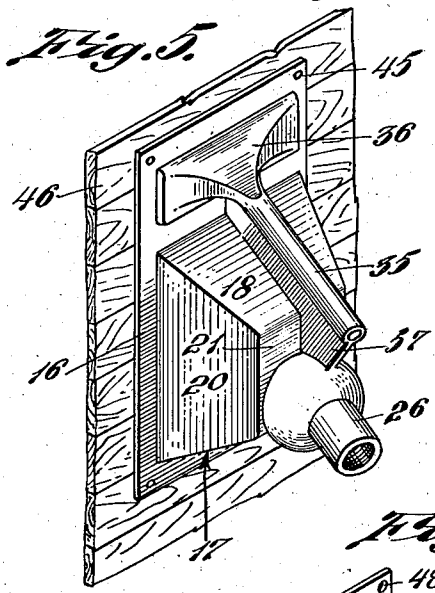


Fig. 3.

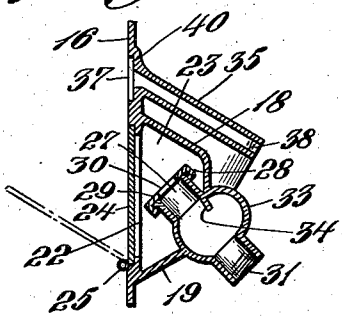


Fig. 4.

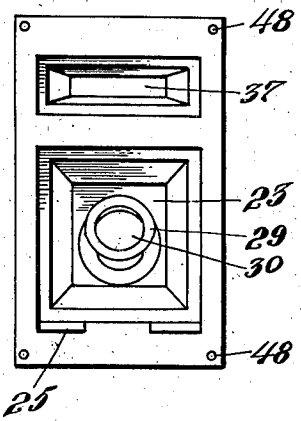
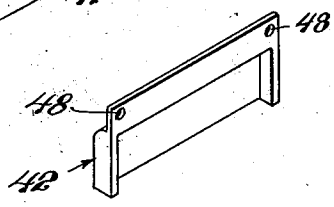


Fig. 6.



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WALL UNIT FOR OIL TANK INSTALLATION

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Application December 8, 1941, Serial No. 422,185

3 Claims. (Cl. 72—100)

This invention relates to oil tank installation within a building and more particularly to the providing of a conduit through the building wall.

Heretofore in the installation of an oil tank within a building, such for instance, as a dwelling house, it has been usual to cut away the masonry wall of the building and position through the opening so cut the conduit pipes such for instance as the inlet conduit and venting conduit and then replacing the wall by cementing or the like about such conduits. The pipes which protrude in such installation are unsightly, often become loose where they extend through the wall, they are subject to rust and frequently stain the wall and they may be easily tampered with.

One of the objects of this invention is to provide a unit which may be positioned in the cement wall at the time the cement wall is formed by being so arranged as to be attachable to the forms which are provided for pouring the concrete to form the wall.

Another object of this invention is to provide a unit which will present a flush outer surface with the surface of the wall in which it is inserted and thus eliminate unsightly pipes protruding from the wall.

Another object of this invention is to provide a door through which access may be gained to the filling conduit and whereby the filling conduit is protected at all times from being tampered with or from deterioration by the weather.

Another object of this invention is to provide a unit to which pipes within the building may be connected after the wall is completed, and at a later time the installation of the oil tank may be had and the conduit pipes installed.

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 drawing:

Figure 1 is a perspective view of a corner of a building showing my unit from the outer surface of the building as installed in position.

Figure 2 is a central sectional view through the unit and a part of the wall of the building.

Figure 3 is a sectional view through the unit alone illustrating in dotted lines the closed door as moved to partial open position.

Figure 4 is an elevational view of the unit with the door removed.

Figure 5 is a perspective view looking at the rear of the unit and showing the unit as attached to one wall of the form for the foundation of the masonry wall of the building.

Figure 6 is a fragmental perspective of the shield for one of the openings in the unit.

This invention may be a casting, consisting essentially of a face plate with a recess or compartment extending rearwardly therefrom and from which there extends a conduit for attachment to the main filling pipe to be connected to the oil tank, while there also extends rearwardly from this plate at a point spaced from this filling conduit a venting conduit which may be supported by the compartment forming a portion of the unit. I have so arranged this unit that it may be largely cast as a single piece of metal and may be attached to the forms for pouring the concrete to form the masonry or building wall, the openings provided being threaded for attachment to pipes for installation of the oil tank within the building.

With reference to the drawing in greater detail, 10 designates a building of a wooden upper structure 11 and masonry wall 12 of poured concrete which forms the cellar and extends above the ground a distance for satisfactorily spacing the wooden framework of the building from the ground. A unit which is the subject of this invention is designated generally 15 and is shown as positioned within the wall 12 so as to lie generally flush with its outer surface.

The unit consists of a metal casting comprising essentially a plate 16 located substantially in a single plane while a hollow compartment 17 extends rearwardly from this plate and is of generally a frustro-pyramidal shape having a top wall 18, a bottom wall 19 and opposite side walls 20 with a rear wall 21. The plate at the forward portion of this compartment is open as at 22 to provide access into this compartment, the hollow portion of which is designated 23. This opening may be closed by a door 24 hinged as at 25 to the lower edge of the opening 22 and movable to engage a recessed flange about the opening so that when closed this compartment provides a complete hollow enclosure.

A filling conduit 26 extends through the rear portion of this compartment to provide the filling opening 27 which may have an elastic cap 28 secured over it presenting a flexible diaphragm 29 with opening 30 therein which will tightly fit the nozzle of a filling instrument when inserted into this opening 27. Threads 31 are provided at the rear end of the conduit 26 for attachment to the filling pipe 32 which leads to the tank to be filled. An expansion chamber 33 is also provided in this conduit, which has a baffle 34 so that should any air be forced backwardly through

the filling conduit it will have room for expansion in this chamber 33 and any spray which it might carry with it would be caught by the baffle 34 prior to being forced outwardly at the location of the nozzle inserted through the filling pipe.

A second conduit 35 is flared as at 36 to open as at 37 through the face plate 16. A web 57 extends between this conduit 35 and the compartment 17 for better supporting this conduit 35. Threads are provided as at 38 at the inner end of this conduit for connection to the venting pipe 39 which also leads to the tank and is provided for the escape of air as liquid enters the tank. A recess 40 is provided in the unit about the opening 37 for the reception of a screen 41 to prevent the entry of foreign material, and a cap 42 (see Figure 6) is attached to shield the opening 37 by reason of its outwardly projecting wall 44.

Openings 45 are provided at the corner of the plate 16 which afford a means for nailing or suitably attaching this unit to the inner surface of the wall 46 of the form for pouring the concrete to provide the masonry wall 12. This unit is shown so attached in Figure 5 and it will be understood that the other wall of this form will provide a surface for the inner wall surface 47 as shown in Figure 2. The concrete is poured into position and the unit so attached will be imbedded in the wall as shown in Figure 2. After the forms are removed the screen 41 is put in place and also the cap 42 which may be secured by means of its openings 48 and the openings 45 at the upper edge of the plate being in registry. The door 24 is then placed in position and installation of the unit is complete. The connections to a tank may take place later.

For filling the tank after connecting it with this unit it is merely necessary to open the door 24 which if desired may be provided with a lock, and to insert the nozzle of the filling hose through the flexible diaphragm 29. Inasmuch as the filling opening is inwardly from the wall, dripping is not liable to occur upon the grass which may surround the dwelling in which such installation is made.

I claim:

1. A unit for oil tank installation equipment comprising a casting having a front plate with a hollow compartment extending rearwardly therefrom and opening into the front plate, a conduit leading from the compartment, said conduit being enlarged adjacent to the entrance and to provide an expansion chamber, and a baffle extending into said chamber adjacent the entrance thereof and substantially laterally of the direction of flow of liquid through said chamber.

2. A unit for an oil tank installation equipment comprising a plate, walls integrally secured to the plate at a location inwardly of the margin thereof and forming a chamber, an opening in the plate to communicate with the chamber, a conduit extending into said chamber through the rear portion thereof, a second conduit extending rearwardly from the plate and rigidly secured to the plate and chamber, the margin of said plate providing a flange for functioning as a means to secure the unit to a form for a building wall.

3. A unit for an oil tank installation equipment comprising a plate, walls integrally secured to the plate at a location inwardly of the margin thereof and forming a chamber, an opening in the plate to communicate with the chamber, a door to close said opening, a conduit extending into said chamber through the rear portion thereof, a second conduit extending rearwardly from the plate above said chamber and rigidly secured to the plate and chamber, said plate opening into said second conduit, the margin of said plate providing a flange having openings for attachment purposes and functioning as a means to secure the unit to a form for a building wall.

JAMES E. LEARY.