Nov. 11, 1952 F. E. MORRIS 2,617,215

UNDERGROUND STORAGE TANK ASSEMBLY AND LOCATOR

Filed May 12, 1950

Fig 5

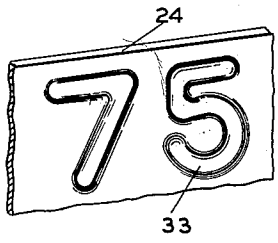


Fig 1

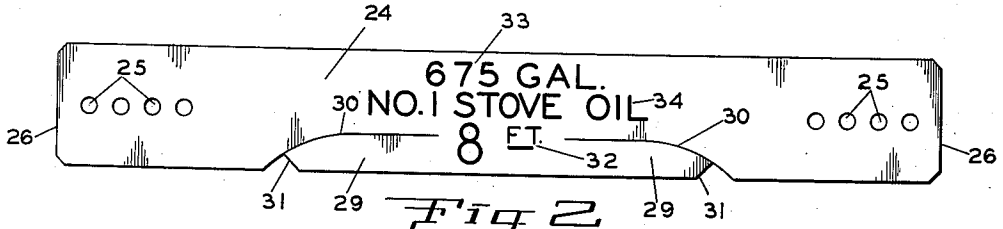


Fig 2

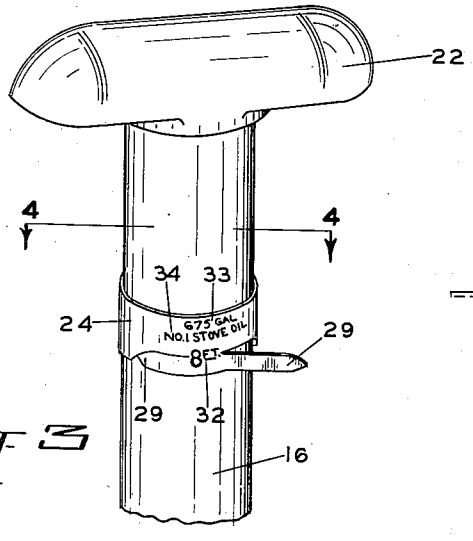


Fig 3

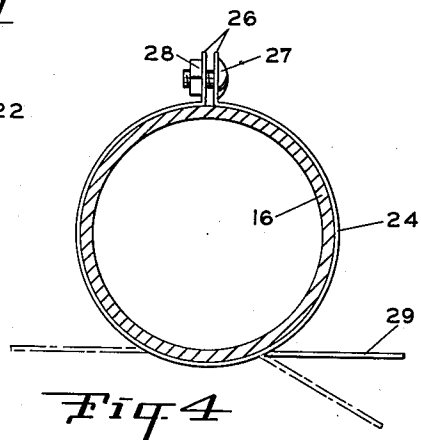


Fig 4

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UNDERGROUND STORAGE TANK ASSEMBLY AND LOCATOR

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3 Claims. (Cl. 40—2)

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The present invention relates to an improvement in underground storage tank assemblies. The invention is of particular utility in association with tanks for the storage of fuel oil for household heating, but may be utilized in connection with underground storage tanks for any purpose as will be readily apparent. The invention comprises an identification and locating band which may be removably associated with the storage tank assembly, such as by means of attaching the same to the vent pipe usually associated with underground tanks of this nature, or to some other similar member.

The principal object of the present invention is to provide means whereby the filler tube or access opening of an underground storage tank may be readily located. Most building codes require home or building owners to bury fuel storage tanks at or beyond a certain distance from the home or building, and require the transferral of fuel from the tank to the home heating appliance or equivalent by means of a pump, rather than by gravity flow. In most instances this means that the underground storage tank will be located underneath a garden bed or among shrubbery. A filler pipe usually rises from the upper surface of the tank to or near the ground level, thus providing an inconspicuous protuberance which will not mar the beauty of the garden. In some instances the upper end of the filler pipe may even be beneath the ground level, and may be protected by a sump provided with a removable cover, both for the sake of appearance and in order to eliminate a hazard to pedestrians. As a result of this practice, many occasions arise when the driver of the fuel delivery truck, either because of unfamiliarity with the terrain, especially at night, or because of burial of the upper end of the filler pipe beneath layers of snow, or because of growth of garden plants and shrubbery, causes damage to the garden or shrubbery due to the necessity of searching for the relatively inconspicuous filler pipe, and in such instances the oil company usually loses a customer. Accordingly, a principal object of the present invention is to provide means for readily locating the filler pipe under any condition, thus saving time, annoyance, damage and lost customers.

A further object of the present invention is to provide means for readily identifying the character of the tank being filled. In order to carry out this object, the band is preferably formed of deformable material upon which may be impressed legends, or which may be otherwise marked, so as to disclose pertinent data such as the size of the tank, the type and grade of oil or other liquid to be placed in the tank, and the like. Among the types of information which may thus be conveyed to the delivery truck driver is whether the tank has settled or tipped, so as to require special precaution to prevent overfilling of the tank to such a point as to occasion entrapment of fuel in the usually supplied vent pipe. If such should be the case, the importance of not filling the tank to the brim is very great; otherwise the pump could not draw fuel oil from the tank beyond a certain extent and the owner would be put to the expense of blowing out the vent pipe by means of steam or the like.

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With the foregoing objects and advantages in mind, it will be apparent that I have provided a valuable adjunct to fuel tank assemblies. The objects and advantages of the present invention will be more readily apparent from the following specification taken in connection with the accompanying drawings wherein like numerals refer to like parts throughout.

In the drawings,

Fig. 1 is a partially schematic representation of an ordinarily encountered fuel tank assembly having the locating and identifying band of the present invention associated therewith;

Fig. 2 is a plan view of the band utilized in the present invention;

Fig. 3 is a partial view in perspective on an enlarged scale of the upper end of a vent pipe having the band of the present invention associated therewith;

Fig. 4 is a horizontal section taken substantially along line 4—4 of Fig. 3 and on an enlarged scale; and

Fig. 5 is an enlarged, partial view in perspective of a portion of the band disclosed in Fig. 2.

The ordinary fuel tank assembly comprises a tank 10 which is buried in the ground, its upper surface being some distance below the ground level indicated at 11. The tank 10 is connected by fuel supply and return tubes (not shown) leading to the appliance in the home, the basement of which is indicated at 12 and the wall at 13. A filler pipe 14 rises from the upper surface of the tank to a point near the ground level 11, the pipe usually being capped by means of a screw cap 15 or equivalent. Means to vent the tank are indicated as comprising a vent pipe riser 16, connected by elbow 17 to a horizontal pipe 18, which in turn is connected by elbow 19 to a nipple 20 leading to the

interior of the tank at its upper surface. The riser 16 is usually attached to the side wall 13 of the building as by means of a clip 21 and is usually provided with a vented weather cap 22. The riser is usually arranged so as to extend above the highest level of snow which can be expected in the region, such a snowbank as is usually encountered being indicated at 23. The riser is usually closely associated with the wall 13 so as to be protected by an overhanging eave and so as to be as sightly as possible and as much out of the way as possible.

In order to provide means quickly and accurately to locate the filler cap 15, the band 24 of the present invention is usually associated with an upper portion of the riser pipe 16. The band comprises a narrow, elongated strip of deformable metal such as aluminum or copper, or a suitable plastic, of sufficient length to surround the ordinarily encountered riser 16. It is preferably provided with a series of longitudinal openings 25 at each end whereby the band, which may be manipulated to provide a pair of laterally protruding ears 26 when the majority thereof has been wrapped around a riser, may be secured to the riser pipe by means of a stove bolt 27 and cooperating nut 28 associated with appropriately opposed openings 25.

In order that the filler pipe may be located, the band is provided with a directional arrow or arrows and indicia indicating the distance to traverse in the direction of one of the arrows to locate the filler cap 15. The arrows are preferably in the form of marginal tabs indicated at 29 and formed by providing opposed slits 30 leading inwardly from one edge of the band 24 in opposite directions toward a central portion of the band. The slits 30 are preferably joined by intersecting short slits indicated at 31 which remove wedge-shaped marginal portions of the band and provide pointed ends on the arrows 29. After the band is firmly clamped to the surface of the riser tube, one or the other of the arrows may be bent outwardly and positioned to point along the line between the riser pipe and the filler pipe. Indicia, placed on the band between the inner ends of the slits 30, indicate the exact distance from the riser pipe to the filler tube, an example thereof being indicated at 32. Other indicia may be placed on the band, such as the indicia "675 gal." indicated at 33 which designates the capacity of the tank, and the indicia "No. 1 Stove Oil" indicated at 34 which designates the type and grade of fuel oil to be placed in the tank. If desired, the indicia may be in the form of code markings, either by other forms of raised indicia or by the use of various colors which may be applied to portions of the band. The preferred form, however, comprises letters and numerals which are preferably applied by an embossing device so as to provide raised, indestructible indicia as indicated in Fig. 5.

Having illustrated and described a preferred form of my invention, it should be readily apparent to those skilled in the art that the same permits of modification in arrangement and detail. All such modifications as come within the true spirit and scope of the appended claims are considered to be a part of my invention.

I claim:

1. The combination with a buried tank for reception of liquids, a filler pipe connected to said tank, and a vent pipe connected with said tank and rising to a considerable distance above the level of the upper end of said filler pipe; of a detachable indicator comprising a band which may be wrapped around a portion of said vent pipe, fastening means associated with the ends of said band to clamp the band in position on the vent pipe, a marginal, centrally located portion of said band being separated from the remainder of said band by a slit extending inwardly from an edge and longitudinally of the band to provide a narrow tab which may be bent outwardly from the surface of the vent pipe so as to point in the direction toward the filler pipe.

2. A locator and identifier for use in connection with underground storage tanks, comprising a deformable, elongated band which may be wrapped around a suitable member at some distance above the ground so as not to be buried beneath snow or otherwise obscured, and separable fastening means associated with the ends of said bands for clamping the same upon a suitable member, a marginal edge portion of said band being partially separated from the remainder of said band along a principally longitudinal line whereby to provide a narrow direction indicator extending in the longitudinal direction of the band and which may be bent outwardly from the remainder of the band so as to indicate a direction.

3. A locator and identifier for use in connection with an underground storage tank, comprising a deformable, elongated band which may be wrapped around a suitable member at some distance above the ground so as not to be buried beneath snow or otherwise obscured, separable fastening means associated with the ends of said bands for clamping the same upon a suitable member, a marginal edge portion of said band being partially separated from the remainder of said band along a principally longitudinal line whereby to provide a narrow direction indicator extending in the longitudinal direction of the band and which may be bent outwardly from the remainder of the band so as to indicate the direction from the band to the point of access to the tank, and indicia means on said band designating pertinent data with respect to the storage tank including indicia designating the distance between the band and the point of access to the tank.

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