April 30, 1957 W. F. WILSON 2,790,871

SIGNAL DEVICE FOR STORAGE TANK

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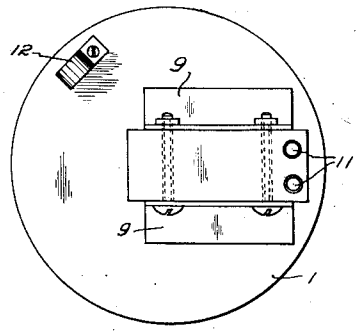


Fig. 1

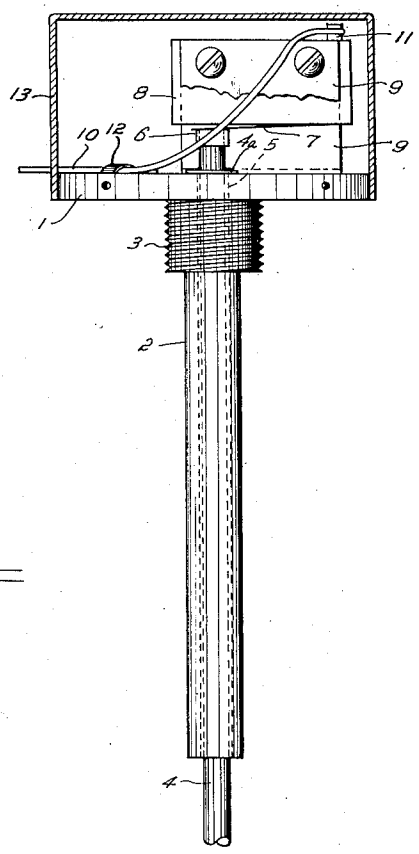


Fig. 2

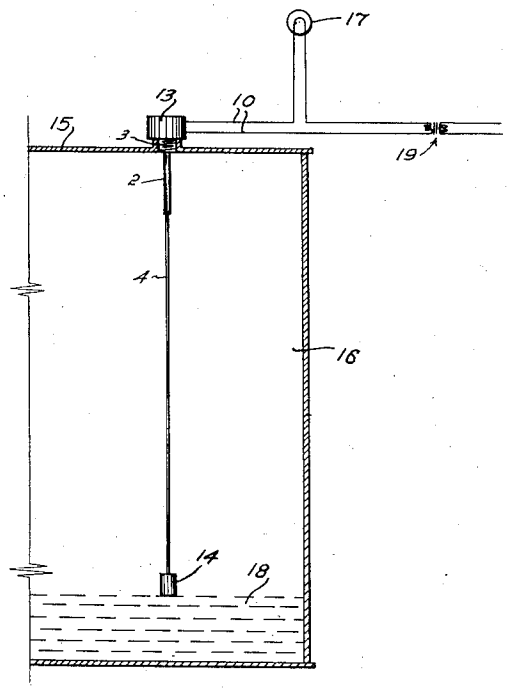


Fig. 3

INVENTOR.
William F. Wilson
BY Alex. E. MacRae
Attorney.

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SIGNAL DEVICE FOR STORAGE TANK

William F. Wilson, Sault Ste. Marie, Ontario, Canada

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1 Claim. (Cl. 200—84)

This invention relates to signal devices for storage tanks and more particularly for fuel oil storage tanks.

Many signal devices have heretofore been proposed for indicating when the fuel oil in storage tanks requires replenishing. Such devices are, however, usually subject either to the disadvantage that complication of and cost of structure and installation renders them unacceptable to the average domestic user of fuel oil, or to the disadvantage that they do not provide an adequate signal.

It is an object of this invention to provide a signal device for fuel oil storage tanks which is of such compact, self-contained and inexpensive nature that it may be readily installed with a minimum of cost, and which provides adequate signal means.

The invention will be described with reference to the accompanying drawing, in which

Figure 1 is a plan view of a device in accordance with the invention,

Figure 2 is a side elevation, and

Figure 3 is a side elevation, in partly diagrammatic form, in installed relation.

In the drawing, 1 is a base plate, preferably of circular form, having an axially disposed tube 2 depending from one side thereof. The upper portion of the tube adjoining the plate 1 is provided with an enlarged threaded section 3. Reciprocally mounted in the tube is a rod 4. The upper end of rod 4 extends through an opening 5 in plate 1 and engages a socket member 6 fixed to a contact closing and opening member 7 of a conventional micro switch 8. A stop ring or washer 4*a* is fixed to rod 4 in slightly spaced relation to its socket engaging and to limit downward travel of the rod. Switch 8 is mounted on base plate 1 by means of brackets 9. Wires

10 are connected to the terminals 11 of the switch and to a suitable source of electrical power. A wire holding clip 12 may be provided on the base plate. A cover 13 fits over the switch and is secured to the base plate, the wires 10 extending through a suitable opening in the side wall of the cover. A float 14 is fixed to the lower end of rod 4.

The device is adapted to be mounted on the top wall 15 of a fuel oil storage tank 16 by means of the threaded section 3. A signal lamp 17 is connected to the wires 10, as shown. The lamp 17 is adapted to be mounted in any suitable location where it will be conveniently visible to the user.

Operation of the device will be apparent from the foregoing description. The switch 8 is normally open but when the float 14 and rod 4 fall to a predetermined level corresponding to a near empty level of the fuel oil 18 in the tank, the switch 8 is closed to energize the lamp 17 and provide an adequate signal.

It will be obvious that the device is of extremely simple and low cost structure and may be installed with a minimum of effort and expense. Preferably, a transformer 19 is included in the electrical circuit to reduce the conventional voltage of 110 volts to 6 volts. This will be satisfactory for the purpose and will eliminate official or rigid electrical inspection.

I claim:

A signal device for a fuel oil storage tank comprising a circular base plate, a tube fixed to one side of said plate and extending perpendicularly and axially therefrom, a rod reciprocally mounted in said tube, said plate having an axial opening through which said rod extends, a stop carried by said rod on the other side of said plate to limit downward travel of said rod, a micro switch mounted on said plate and having a switch actuating member, said member having a socket receiving the adjacent end of said rod, a float fixed to the other end of said rod, said tube having an enlarged threaded section adjacent said base plate for mounting on said tank, a cylindrical cover fixed to said plate and enclosing said switch, and a signal lamp electrically connected to said switch.

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