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DOME COVER FOR TANK CARS

Filed April 15, 1930

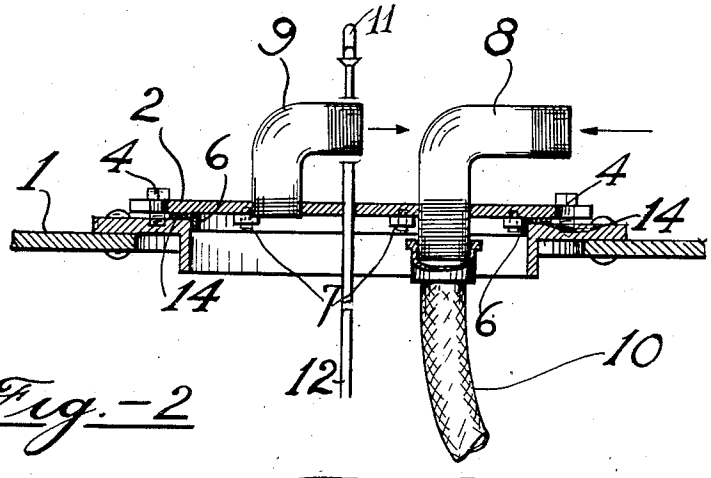


Fig.-2

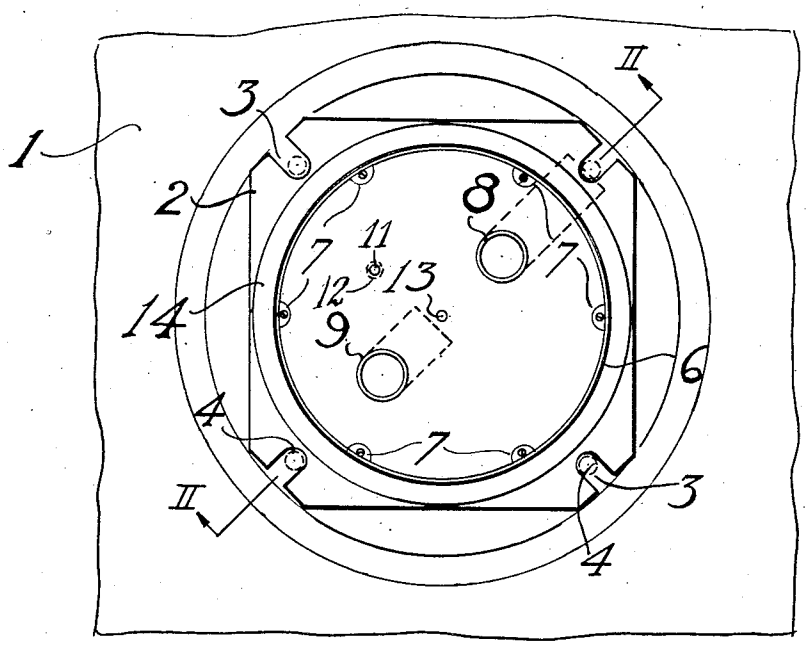


Fig.-1

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DOME COVER FOR TANK CARS

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This invention relates to improvements in the construction of temporary covers for the domes of containers such as tank cars. Such covers are particularly adapted for use in loading and unloading volatile liquid in tank cars while preventing loss of the liquid or its vapors. The invention will be fully understood from the following description taken in connection with the accompanying drawing, in which latter:

Fig. 1 is a bottom plan view of the temporary dome cover; and

Fig. 2 is a transverse sectional view taken along the line II—II of Fig. 1 and showing the cover in position upon the dome of a tank car.

It is an object of this invention to provide a temporary dome cover for tank cars which shall be light in weight and which can be readily attached to a dome. It is a further object to provide a temporary dome cover adapted to prevent splashing of the volatile liquid poured into the car. Still another object is to provide a dome cover equipped to signal the arrival of the liquid to a predetermined level within the car.

In the drawing, reference numeral 1 designates the dome of a tank car, the opening of the dome being closed by a temporary dome cover. The dome cover comprises a cover plate 2 formed of aluminum, aluminum alloy, or any other suitable material light in weight. In the preferred embodiment the cover plate is substantially square in outline and its corners are provided with recesses 3 of sufficient size to receive bolts 4. The bolts 4 are adapted to secure the cover plate to the dome. A centering flange 6 depends from the cover plate in the form of a ring carrying laterally extending ears, or lugs, 7. The centering ring is secured to the cover plate by means of cap screws which pass through the lugs 7 into the cover plate. In the preferred embodiment the centering flange is made of steel.

Pipe connections 8 and 9 constitute inlet and outlet connections through the cover plate. Inlet pipe connection 8 is provided with a long thread to screw into the cover plate and depend from the under surface of the cover plate for a suitable distance so that a linen hose 10 can be secured thereto. The opposite end of the pipe connection 8 is adapted to be connected to a source of liquid which is to be conducted into the tank car. The outlet pipe connection 9 preferably terminates flush with the under surface of the cover plate. The outlet connection is adapted to be connected to a gas line (not shown) which conducts gas discharged therethrough to a suitable place of disposal. The pipe connections are secured by screw threads or the like to the cover plate in fluid tight relation with respect thereto.

A whistle 11 is connected with the cover plate through a bushing formed of brass, or other suitable material. The whistle communicates with a tube 12 formed of brass or other suitable material, which tube depends from the under surface of the cover plate into the dome of the tank car. The whistle is actuated by the escaping gas when loading the tank car until the body of liquid in the tank car reaches the lower end of the tube 12. The whistle, therefore, acts as a signal in gaging the level of liquid within the car. Any alarm device actuated by a current of gas can be substituted for the whistle. A pipe tap 13 is provided in the cover plate which is adapted to be used for admitting a gage rod to determine the level of liquid within the tank car. A suitable gasket 14 is provided upon the under surface of the cover plate exteriorly of the centering flange.

The dome cover described is relatively light in weight and can be readily handled by an operative upon the top of the tank car. The device is simple in construction and relatively inexpensive to make.

Various changes may be made within the scope of the appended claim in which it is desired to claim all novelty inherent in the invention as broadly as the prior art permits.

I claim:

A portable temporary dome cover for tank cars, comprising a cover plate formed of aluminum alloy, a centering flange depending from the cover to form a ring, inlet and outlet pipes secured to and opening through the cover plate, a portion of the inlet pipe

depending from the plate, a hose connected to the depending portion, a pipe tap through the cover plate to admit a gage rod, a tube depending from the plate, and an alarm device associated with the tube above the plate adapted to be actuated by gas escaping through the tube and silenced when liquid rises within the tube whereby the desired level of liquid within the car is indicated.

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