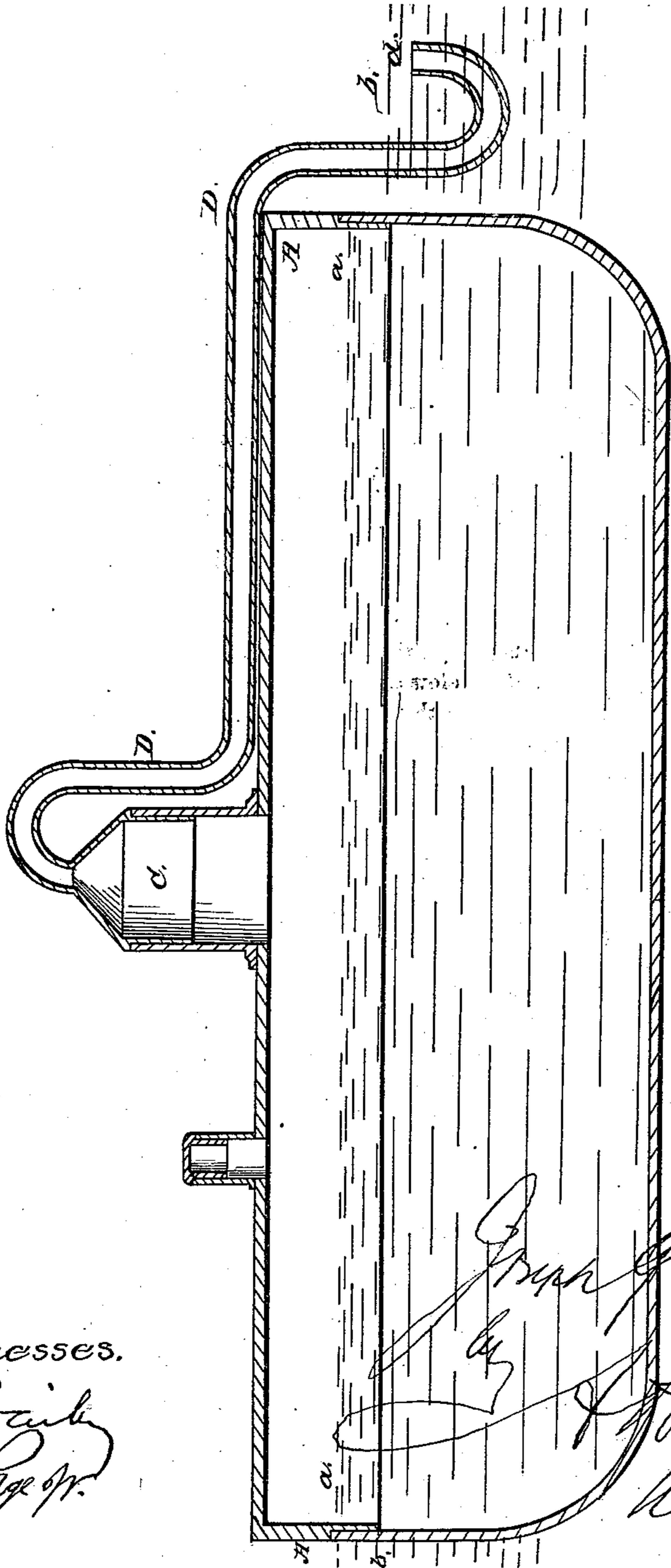


J. G. Moody,
Tank for Liquids.
No 61,753. *Patented Feb. 5, 1867.*



Witnesses.
W. D. Bailey
Charles Page Jr.

Inventor

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by *J. H. H. H.*
his atty.

United States Patent Office.

JOSEPH G. MOODY, OF NEW YORK, N. Y.

Letters Patent No. 61,753, dated February 5, 1867.

IMPROVEMENT IN VESSELS AND TANKS FOR HOLDING HYDROCARBON AND OTHER LIQUIDS.

The Schedule referred to in these Letters Patent and making part of the same.

TO WHOM IT MAY CONCERN:

Be it known that I, JOSEPH G. MOODY, of New York, in the county and State of New York, have invented certain new and useful Improvements in Tanks or Vessels for Holding Hydrocarbon and other gaseous and inflammable Liquids; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, which represents a longitudinal vertical section of an oil-boat with my improvements applied.

The object of my invention is to provide for the safe discharge of the inflammable and explosive gases generated within tanks or receptacles containing hydrocarbon liquids. In ordinary tanks or vessels of this description the gases are discharged into the surrounding air, and they are therefore very liable to become ignited and to explode, causing the destruction of the tanks, and oftentimes the killing or disabling of persons standing near. My invention consists, essentially, in conducting the gases from the tank as soon as they are generated, and discharging them into water or other unflammable liquid medium, so as to keep them from all direct contact with the air, thus rendering the operation of discharging them safe and easy.

The boat, or floating oil receptacle, A, shown in the drawing, is an ordinary tank, containing no other liquid than the oil, the level of which is indicated at *a a*. B is the supply tube, which, when not in use, is hermetically closed. From the dome C which rises from the centre of the tank, and in which the gases generated by the liquid accumulate, there extends a discharge tube, D, whose other end, *d*, is carried over the side of the boat and bent so as to be plunged in the water below the water-line *b b*, as shown in the drawing. The orifice *d* of the tube is turned upwards; but it is obvious that it may be bent in any direction so long as it is covered by the water; and so the tube D, instead of being carried over the stern of the boat, may extend over the sides or any other part of the boat. When the tube is thus placed below the water-line *b b*, there is a constant equilibrium maintained between the gases and the water, and, in proportion as the pressure of the accumulated gases exceeds that of the water, the former are discharged from the orifice *d*, and enter the water, with which they become incorporated. It will thus be seen that, although the mouth of the tube D is always left open, yet, as there is an unflammable liquid medium interposed between it and the air, there is no possibility of fire or other igniting agent reaching the interior of the tank through the tube; and there can be no great accumulation of gases within the tank, as they are discharged through the tube almost as fast as they are generated. Although I have shown my invention used in connection with a floating tank, it will, of course, be understood that it can be applied with equal facility to any other kind of tank, whether surrounded by water or not. The only essential is, that the mouth, or the open end, of the tube D should be covered by or immersed in water, as above explained, and this may be accomplished by plunging it into a tank or small reservoir of water, or other suitable means may be employed.

Having described my invention and the manner in which the same is or may be carried into effect, what I claim, and desire to secure by Letters Patent, is—

1. The method of discharging the gases generated within the tank, or other receptacle containing the hydrocarbon liquid, into an unflammable liquid medium, substantially as shown and set forth.
2. The combination, with a floating tank, or other receptacle for hydrocarbon liquids, of a gas-discharge tube, attached to the dome, or upper part of said tank, and having its mouth, or open end, immersed in and surrounded by water, substantially as and for the purposes described.

In testimony whereof I have signed my name to this specification before two subscribing witnesses.

JOSEPH G. MOODY,

Witnesses:

E. RICHMOND,

CHARLES NETTLETON.