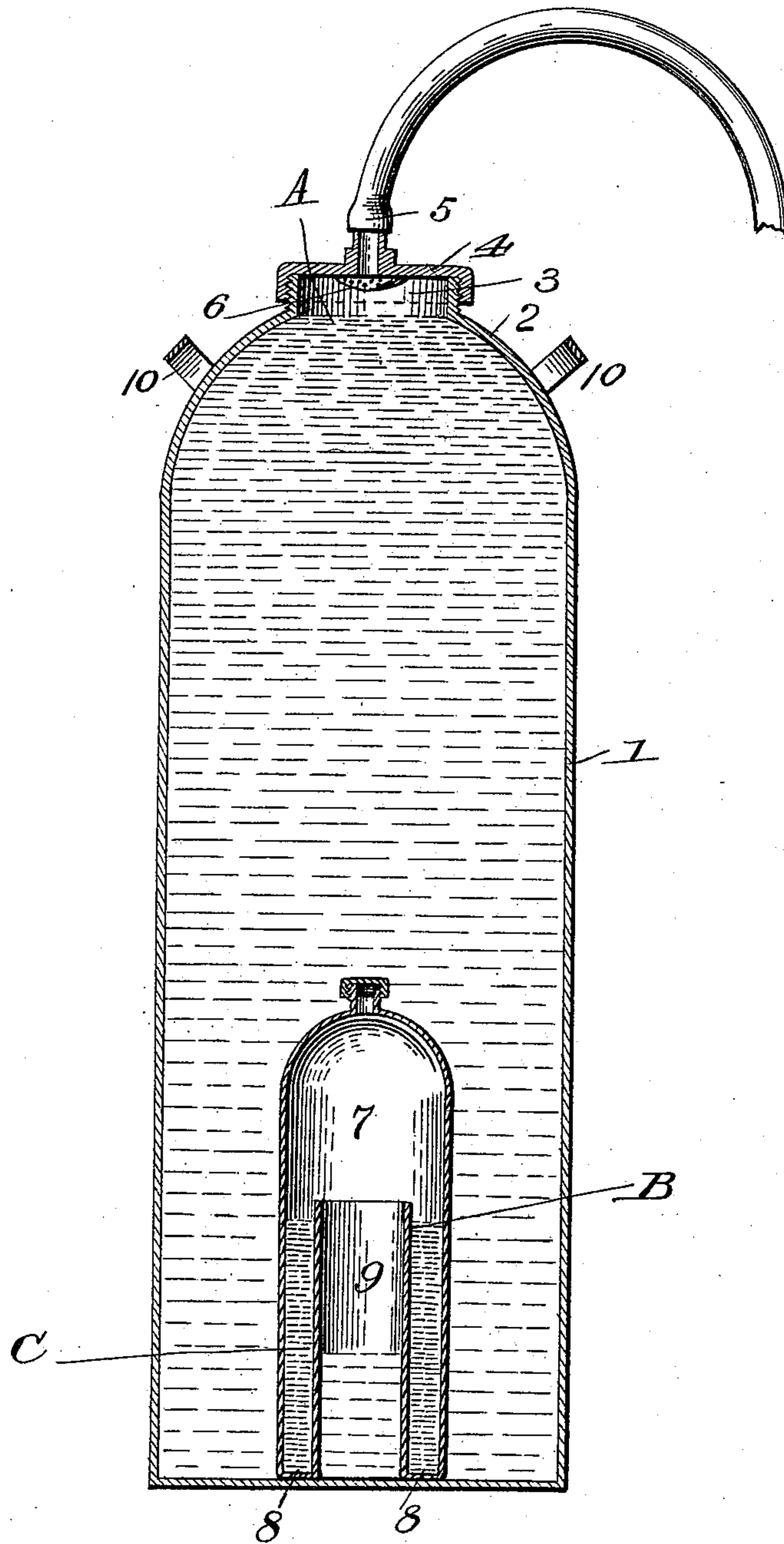


(No Model.)

L. S. FLATAU.
CHEMICAL FIRE EXTINGUISHER.

No. 552,427.

Patented Dec. 31, 1895.



WITNESSES:
F. L. Curand.
J. L. Coombs

INVENTOR:
Louis S. Flatau,
By Saml. Dyer & Co.
Attorneys

UNITED STATES PATENT OFFICE.

LOUIS S. FLATAU, OF DALLAS, TEXAS, ASSIGNOR OF ONE-HALF TO
WILLIAM M. ROBINSON, OF SAME PLACE.

CHEMICAL FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 552,427, dated December 31, 1895.

Application filed December 15, 1894. Serial No. 531,877. (No model.)

To all whom it may concern:

Be it known that I, LOUIS S. FLATAU, a citizen of the United States, and a resident of Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Chemical Fire-Extinguishers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification.

My invention relates to chemical fire-extinguishers, and its object is to provide an improved acid-receptacle which will obviate the objections to the ordinary acid-bottles now in use.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawing the figure represents a longitudinal sectional view of a fire-extinguisher constructed in accordance with my invention.

In the said drawing the reference-numeral 1 designates an ordinary cylinder such as is commonly employed in hand fire-extinguishers for containing the water and chemicals.

The numeral 2 designates the top of the cylinder provided with a cylindrical screw-threaded boss 3, with which engages a correspondingly-threaded cap 4, having a pipe 5 communicating with the interior of the cylinder. This pipe is adapted to receive a hose and at its inner end is provided with a wire-gauze strainer 6.

The reference-numeral 7 designates the acid-bottle, which may be made of any suitable material, preferably of metal, which will not be affected by the acid. This bottle consists of a cylinder closed at the top and provided with a filling-orifice closed by a stopper of lead or rubber. The lower end of this cylinder is formed with an inwardly-extending annular flange 8, with which is connected an interior short cylinder or tube 9 concentric with the outer cylinder.

In charging the extinguisher water and marble-dust or other suitable material are placed therein as usual. The bottle is then partly

filled with acid and the filling-orifice then closed by the stopper. The bottle is then placed in the cylinder 1 and the sulphuric acid contained in the bottle being much heavier than water will cause the bottle to gently sink to the bottom, where it will remain in an upright position, the air in the bottle being compressed as it sinks, forming a water-seal and preventing the entrance of water into the bottle. The bottle should be of such a length as to strike the interior of the cylinder 1 when the latter is tipped or subjected to rough usage, and thereby prevented from falling over and breaking the water-seal.

When the apparatus is to be used it is turned upside down, when the bottle will commence to fall to the opposite end of cylinder 1. This will break the water-seal and cause the acid and water to commingle and carbonic-acid gas to be generated, and the water thus impregnated with the gas to be forced through the hose, as is well understood.

The numeral 10 designates handles at top and bottom of the apparatus for facilitating the turning of the latter upside down.

In the drawing the letter A indicates the water-level in cylinder 1, B the acid-level in the bottle, and C the level of the water in the bottle which forms the seal.

Having thus fully described my invention, what I claim is—

In a chemical fire extinguisher, the combination with the liquid cylinder, of the acid bottle consisting of a cylinder, the annular flange at the lower end thereof and the short concentric cylinder secured to said flange, the construction being such that when the acid bottle is immersed in the liquid in the cylinder, a water seal to retain the air therein will be formed which is broken when the bottle is inverted, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

LOUIS S. FLATAU.

Witnesses:

E. B. GIVANS,
J. R. CARD.