

No. 675,103.

Patented May 28, 1901.

C. NUHRING.
PORTABLE FIRE EXTINGUISHER.

(Application filed Mar. 8, 1901.)

(No Model.)

Fig. 1.

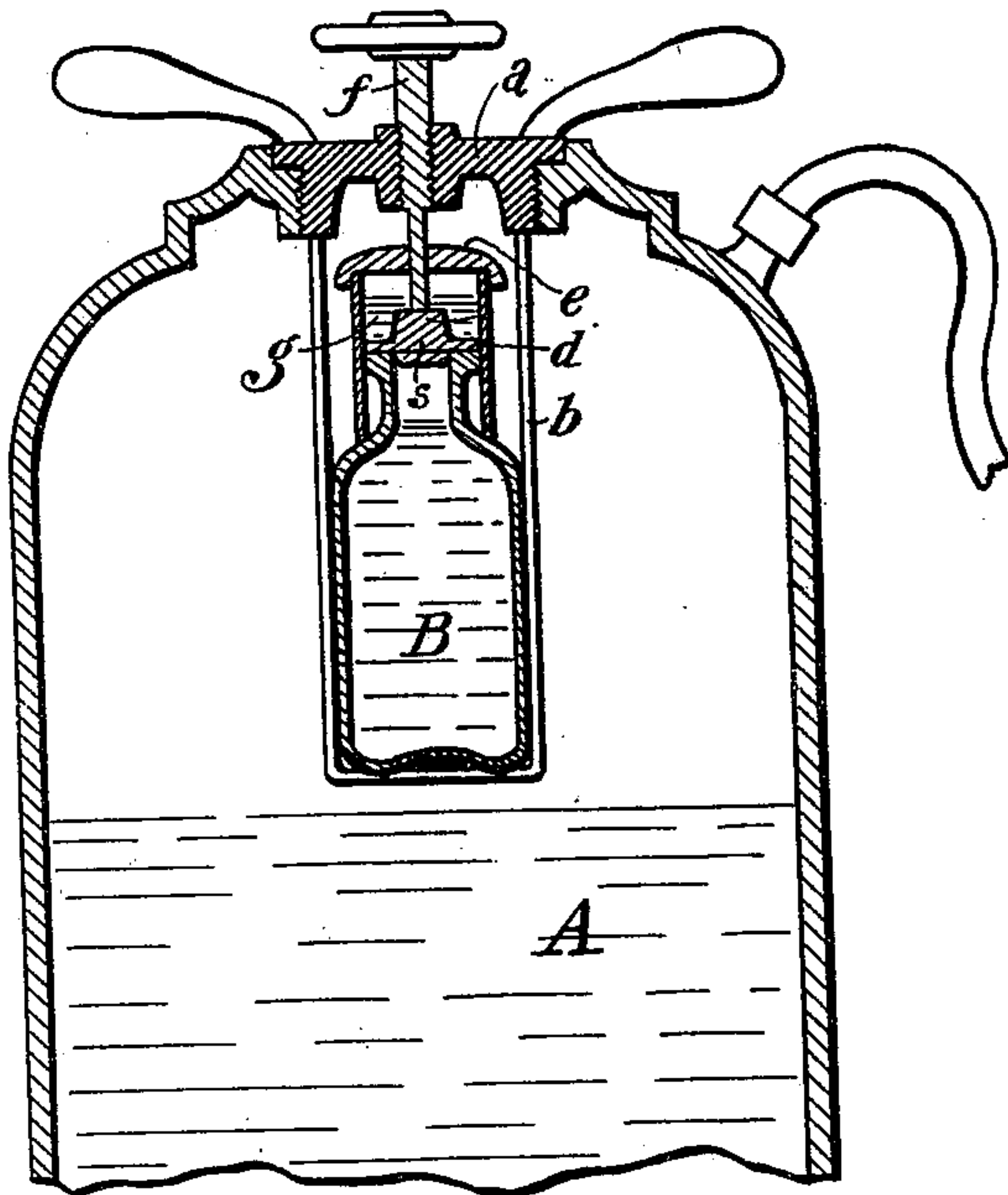
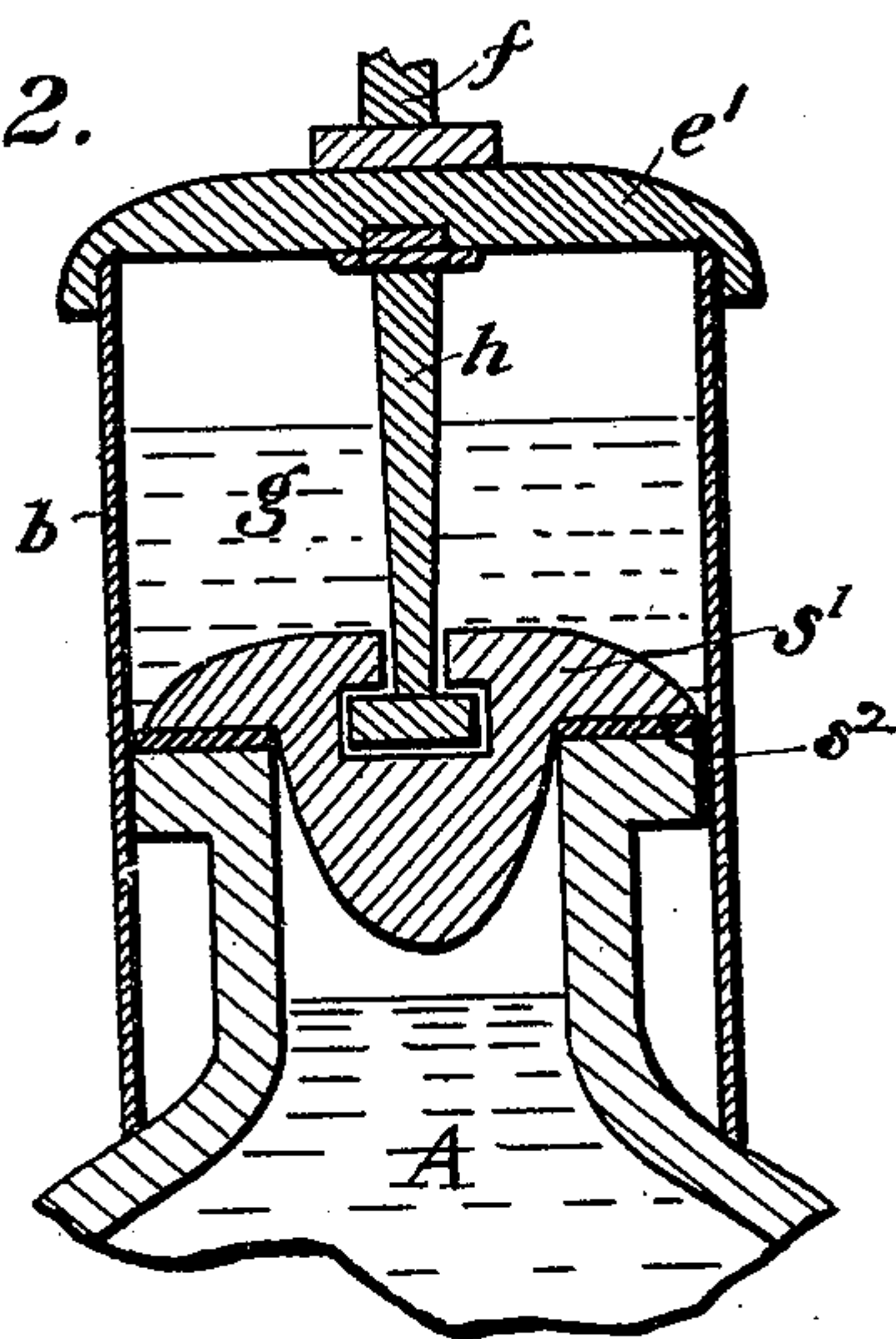


Fig. 2.



Witnesses.

Walter A. Knight
Kate E. Bodine.

Inventor.

Charles Nuhring
by L. M. Hosea atty

UNITED STATES PATENT OFFICE.

CHARLES NUHRING, OF CINCINNATI, OHIO.

PORTABLE FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 675,103, dated May 28, 1901.

Application filed March 8, 1901. Serial No. 50,350. (No model.)

To all whom it may concern:

Be it known that I, CHARLES NUHRING, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Portable Fire-Extinguishers, of which the following is a specification.

My invention relates to fire-extinguishers of the class of portable apparatus embodying, in combination, a portable tank containing an alkaline solution in which is suspended a bottle containing an acid which may be upon occasion mingled with the solution to generate carbonic-acid gas as a means of pressure to expel the liquid and also to charge the same with the gas, thus enhancing its fire-extinguishing properties. One practical difficulty experienced with such constructions is the liability of the acid to "creep" through the stopper-fastenings and by degrees lose its acid qualities, and thus render the apparatus useless when the occasion for its use arises. My invention seeks to obviate this and similar difficulties by providing a seal for the acid-bottle which will effectually prevent evaporation or "creeping" of the acid and retain the same for any length of time in operative condition, to which end it consists in the provision of a seal of oil or other suitable viscid liquid as a seal over the mouth of the acid-bottle and the construction and arrangement of apparatus for holding the same in place.

Apparatus for the carrying out of my invention is illustrated in the accompanying drawings, in which—

Figure 1 is an axial section of a portable "Babcock" tank, to which my improvement is shown applied; and Fig. 2, a somewhat-enlarged view showing a slightly-modified construction.

Referring now to the drawings, A designates a portable tank designed to be filled or nearly filled with an alkaline solution, α a screw-cap cover for the same, and B a bottle of acid held suspended therein. Usually the acid-bottle is temporarily held in a frame b by the aid of a screw-stem f , inserted through the cap α , which stem also carries a stopper for the bottle.

In carrying out my invention I attach to (projecting above) the neck of the bottle a casing d , open at the top and secured by cement or in any other convenient manner to the neck of the bottle B, for which casing I provide a metallic (lead preferred) cap e .

In the construction shown in Fig. 1 the stem f is projected downward through the cap e and carries at its lower end a stopper s (usually of lead) for the bottle. It thus holds the bottle closed and holds the bottle in place in the usual manner; but above the stopper s , within the casing d and beneath the cap e , is a chamber and receptacle where a small quantity of oil g is contained, covering and forming an air-tight seal over the stopper s , which protects the acid against evaporation or change.

In operating the tank the stem f is receded and the bottle released in the usual manner.

In the modification shown in Fig. 2 the stem f reaches only to the top of the cap e' ; but between the cap e' and the stopper s' is inserted a "prop" or "strut" h , which is connected to and bears against the stopper s' . The latter may be of glass and provided with a gasket or packing s^2 , of any suitable material. An incidental advantage of this latter construction is that when the bottle is overturned the strut h falls sidewise and assists in releasing the stopper.

I claim as my invention and desire to secure by Letters Patent of the United States—

1. In portable fire apparatus of the character indicated, the combination, with the tank, of an acid-bottle, a casing surrounding and extending above the neck of the same, and adapted to contain oil or other sealing fluid over the stopper, a cover for said casing, and means accessible from without the tank for holding the said acid-bottle stopper normally in place, substantially as set forth.

2. In fire apparatus of the character indicated, the combination of an acid-bottle suspended beneath the cover of the tank, a casing surrounding and extending above the neck of the bottle, a perforated cap for the casing, a screw-stem extending through the tank-cover and casing-cap, and a stopper carried on or connected with the screw-stem, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES NUHRING.

Witnesses:

WALTER A. KNIGHT,
L. M. HOSEA.