

No. 690,556.

Patented Jan. 7, 1902.

J. H. BRITTON.
FIRE EXTINGUISHER.

(Application filed Jan. 16, 1900.)

(No Model.)

Fig. 1.

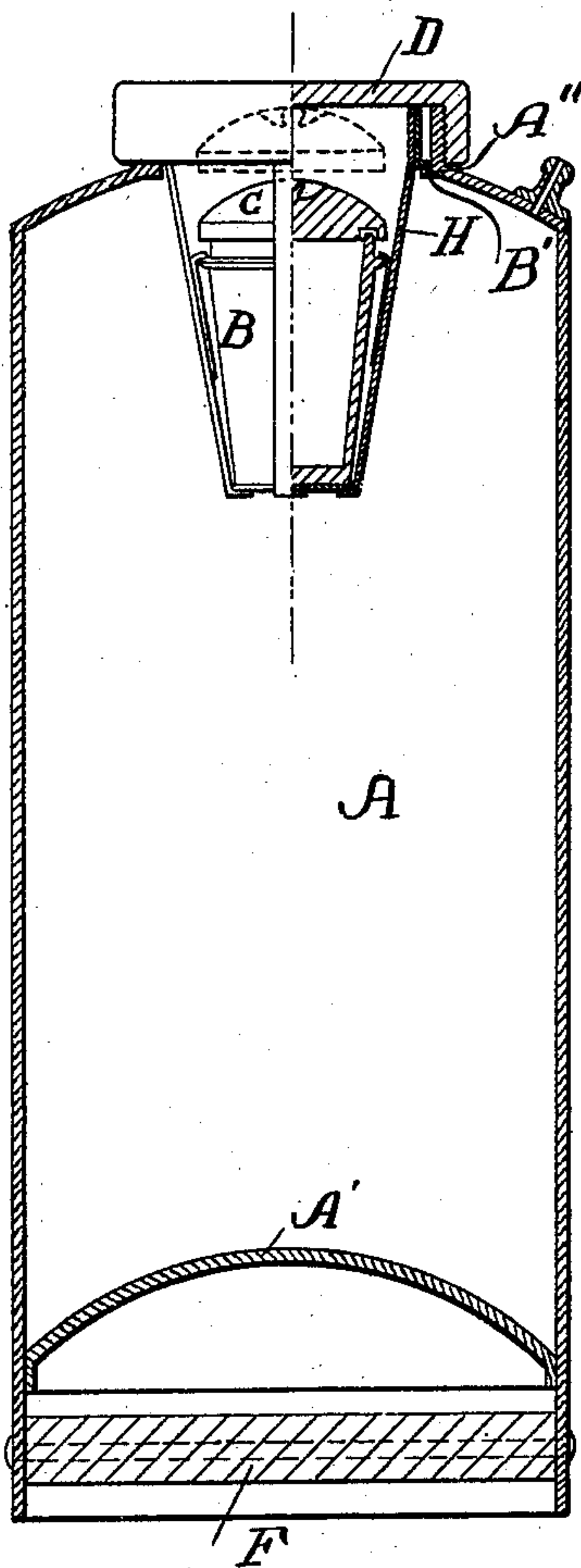
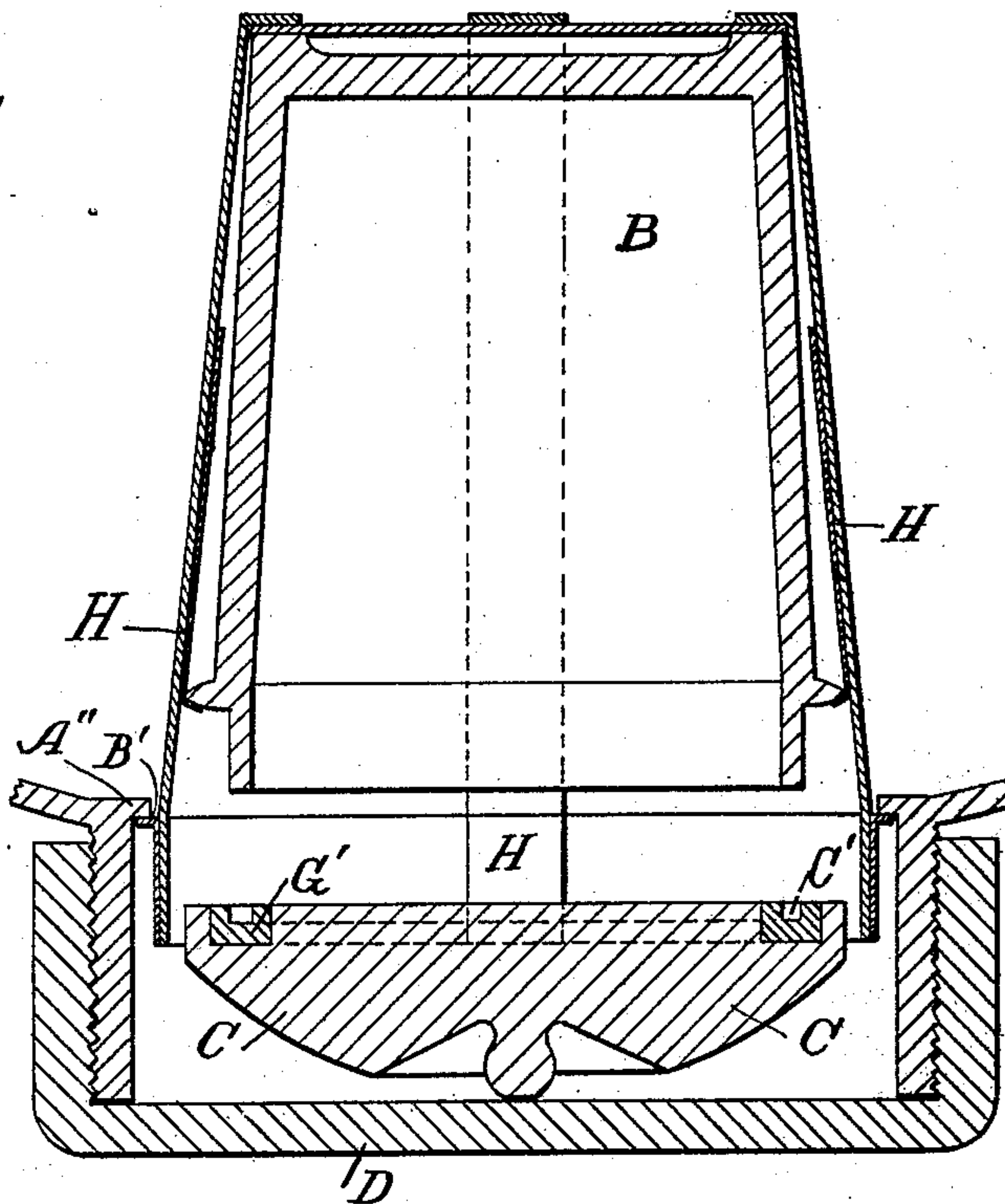


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN H. BRITTON, OF LOS ANGELES, CALIFORNIA.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 690,556, dated January 7, 1902.

Application filed January 16, 1900. Serial No. 1,677. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. BRITTON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles, State of California, have invented new and useful Improvements in Fire-Extinguishers, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

10 This invention relates to certain new and useful improvements in fire-extinguishers of the effervescent-chemical type.

The object of my improvement is to provide a fire-extinguisher in which the mixture of the chemicals is prevented by being hermetically sealed until the extinguisher is to be used, when they are readily united by simply inverting the extinguisher without breaking any glass. I accomplish this object by means of the device shown in the accompanying drawings, in which—

Figure 1 is a central vertical section of my extinguisher, one half of the charging vessel B being shown in section and the other half in elevation. Fig. 2 is a central vertical section of the charging vessel inverted, the lid C having fallen off—the position it assumes when the extinguisher is inverted, as it is while being used.

30 In the drawings, A designates a cylindrical tank or other suitable receptacle for an alkali solution, provided with a raised bottom A' and a cap D, fitting tightly on the mouth. A charging vessel B at the mouth of the tank, containing the acid element, is supported in the frame H, which in turn is supported in the mouth of the tank by lugs B', projecting out from the frame and resting on the shoulders A'' in the neck of the tank. 40 The top of the charging vessel is closed by the lid C. This has an annular groove C', adapted to register with the top of the acid-tank or charging vessel and in which plastic amalgam G' is placed. The amalgam will 45 adhere to the metallic covering of the lid, but will not unite with the glass top of the charging vessel. The lid C is made of sufficient weight to keep it well pressed down on the amalgam lying between it and the top of the charging vessel and forming a hermetical seal between the two. When it is desired to

use the extinguisher, the handle F is gripped and the extinguisher is inverted and used in the usual well-known manner. Upon inverting the extinguisher the lid C will drop down 55 into the position shown in Fig. 2, the amalgam going down with the lid, for which it has an affinity, and parting from the glass of the charging vessel, for which it has no affinity, dumping the acid contents into the alkali- 60 tank.

The difficulty heretofore experienced in fire-extinguishers has been to prevent the absorption of the alkali fluid by the acid in the charging vessel, which would neutralize 65 it and render it ineffective. Various devices have been employed to prevent this, with but poor success except when the acid is stored in a receptacle hermetically sealed, and the only practical way in which this has heretofore been done is by placing the acid in a glass jar and providing means to break the jar when it is desired to use the extinguisher. This plan is objectionable, as the broken glass will work into the rubber discharge- 75 pipe and clog and injure the same, besides which when the charging vessel is broken it is often difficult to replace it, disabling the extinguisher from further use. (It will be observed that I have used for holding the 80 acid an ordinary jelly-jar, found in any grocery or crockery store in case it should become broken, which is not liable to occur.) By the interposition of amalgam—for instance, tin amalgam—between the glass top 85 of the charging-chamber and the lid, which may be of tin or copper, I provide a hermetical seal between them, and any admixture of the acid with the alkali is absolutely prevented, and at the same time the acid may 90 be dumped into the alkali without breaking anything by inverting the extinguisher, as the amalgam readily parts from the glass.

Having described my invention, what I claim is— 95

1. In a fire-extinguisher, the combination of a closed alkali-containing tank; an acid-containing vessel in an upright position in the mouth thereof; a lid for said acid vessel adapted to cover the mouth thereof, and having on its under face an annular groove for the reception of plastic amalgam; plastic 100

amalgam in said groove, substantially as shown and described.

2. In a fire-extinguisher, the combination of plastic amalgam interposed between the charging vessel and the lid thereof; the charging vessel for holding acid, and the lid; the lid being provided with means to hold the amalgam between itself and the top edges of the charging vessel.

3. In a fire-extinguisher, plastic amalgam between the top of the charging-chamber and the lid thereof.

4. In a fire-extinguisher adapted to discharge the acid in the charging-chamber into the tank containing the alkali when the extinguisher is inverted, the combination of plastic amalgam interposed between the top of the charging-chamber and the lid there-

on, the charging-chamber and the lid, substantially as shown and described.

5. A portable fire-extinguisher, comprising an alkali-containing tank; a charging vessel located therein for holding the acid and having a lid adapted to fall off when the extinguisher is inverted; and plastic amalgam interposed between the lid and the top of the charging-chamber for hermetically sealing the same.

In witness that I claim the foregoing I have hereunto subscribed my name, this 8th day of January, 1900, at Los Angeles, California.

J. H. BRITTON.

Witnesses:

HENRY T. HAZARD,
M. C. WILKINSON.