

A. H. ANGELL.  
Fire-Extinguishers.

No. 154,539.

Patented Sept. 1, 1874.

Fig 1.

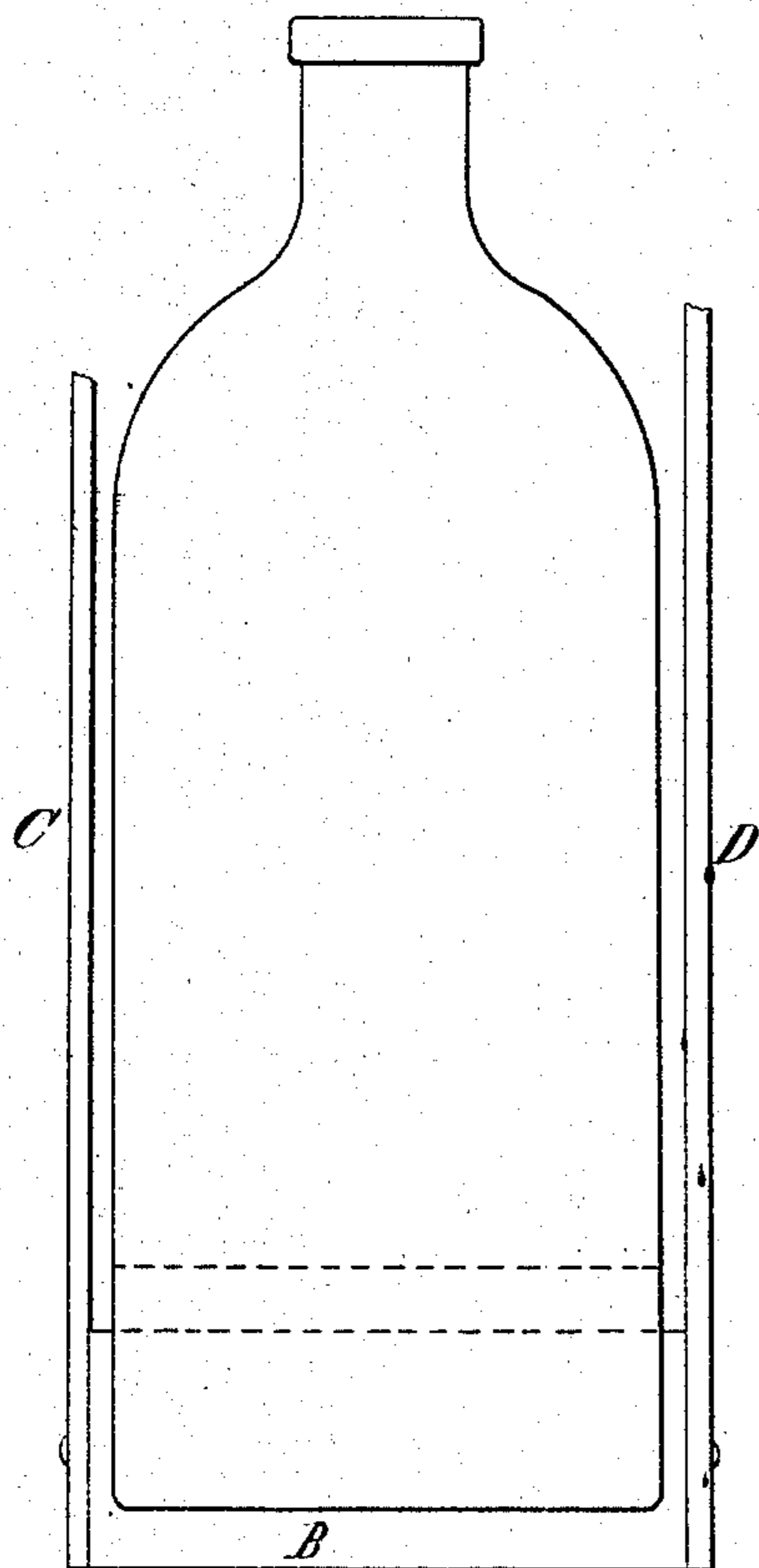
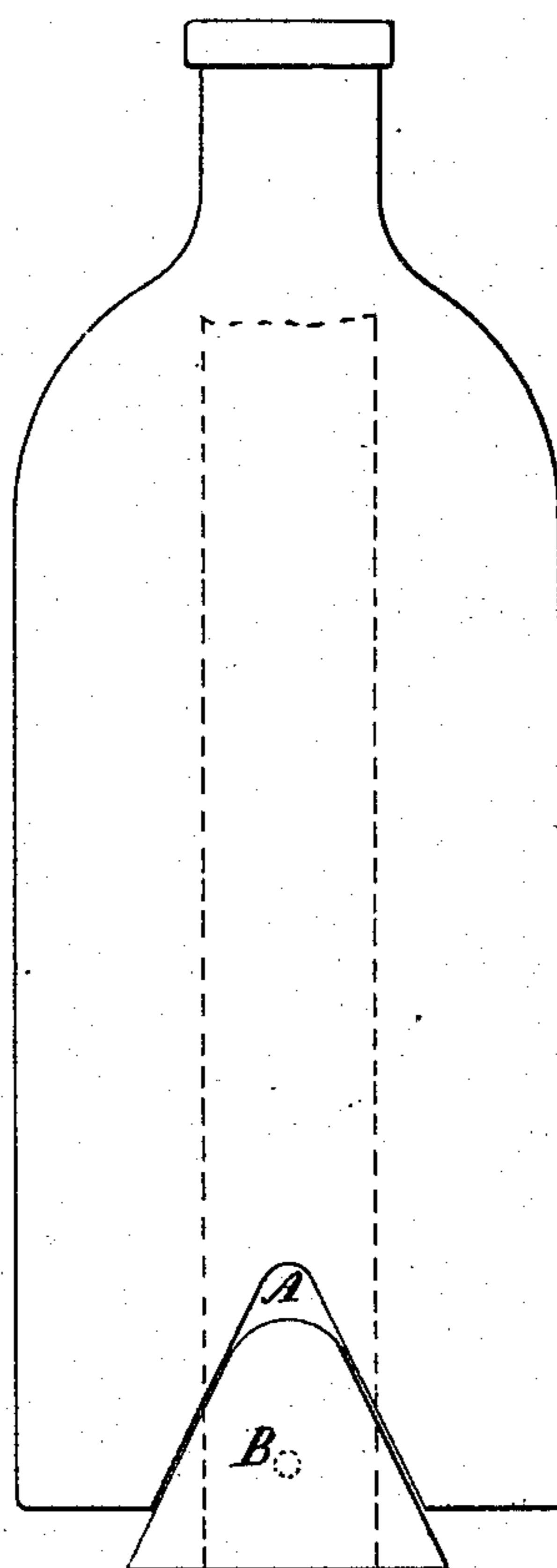


Fig 2.



Witnesses

B. J. Clark  
J. S. Mackenzie

Inventor

Abner H. Angell  
By J. P. Hetch  
his atty.

# UNITED STATES PATENT OFFICE.

ABNER H. ANGELL, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND  
FRANK W. FARWELL, OF SAME PLACE.

## IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. **154,539**, dated September 1, 1874; application filed  
July 10, 1874.

*To all whom it may concern:*

Be it known that I, ABNER H. ANGELL, of the city of New York, county and State of New York, have invented a new and useful Improvement in Acid-Bottles for Fire-Extinguishers, reference being had to the accompanying drawings forming part of this specification.

Figure 1 is an elevation of the bottle, showing a side view of the wedge employed in the base of the bottle for breaking it. Fig. 2 is also an elevation, showing an end view of the said wedge, and the recess in the base of the bottle into which the wedge is fitted.

My invention relates to a bottle designed to be employed for holding the acid to be used in a fire-extinguisher, in which carbonic-acid gas is generated by the action of an acid upon a carbonate, and in which the acid is liberated for action upon the carbonate by breaking the bottle containing it; and consists in a bottle having a tapering recess made in its base, into which is fitted a corresponding-shaped plug or wedge, whereby, by forcing the bottle upon the plug, the walls of the base are spread asunder and the bottle broken.

Fig. 2 represents a glass bottle of ordinary general construction. In the base of this bottle is formed a tapering recess, A, extending, preferably, entirely across the bottle. This is done in the manufacture, by pressing the glass while hot into the desired shape, or by a properly-formed mold. Fig. 1 shows a view of the bottle and wedge turned a quarter round from the position seen in Fig. 2. B is the frustum of a wedge, made, preferably, of metal. The inclination of its sides should

correspond to that of the sides of the recess. The base is wider than the base of the recess A, and there is some space between the top of the frustum and the upper surface or angle of the recess. This bottle being set down upon this wedge-shaped plug, the latter fitting into the recess, it is evident that, by the pressure upon the top of the bottle, the wedge will be driven into the recess, thereby spreading the walls of the recess asunder and breaking the bottle.

The wedge may, for convenience of holding the bottle in place upon it when in the extinguisher, have standards or arms C D secured to its ends, the bottle being placed between them. These standards extend upward and are secured to the apparatus usually employed to apply the pressure to the top of the bottle, which is ordinarily a screw-rod extending through the top of the extinguisher.

I do not limit myself to the precise form of the recess and plug here shown and described. It is only essential that they shall be so formed, relatively, that, pressing the bottle down upon the plug, the latter will act as a wedge to spread asunder the base of the bottle, and thereby break it.

What I claim is—

The combination of a bottle having a tapering recess in its base with a tapering plug placed in the said recess, substantially as and for the purpose specified.

Witness my hand this 7th day of July, 1874.  
ABNER H. ANGELL.

Witnesses:

B. S. CLARK,  
I. S. MACKENZIE.