C. BLAKE,

Improvement in Fire-Extinguishers.

No. 114,256. Patented May 2, 1871.

Fig. 1.

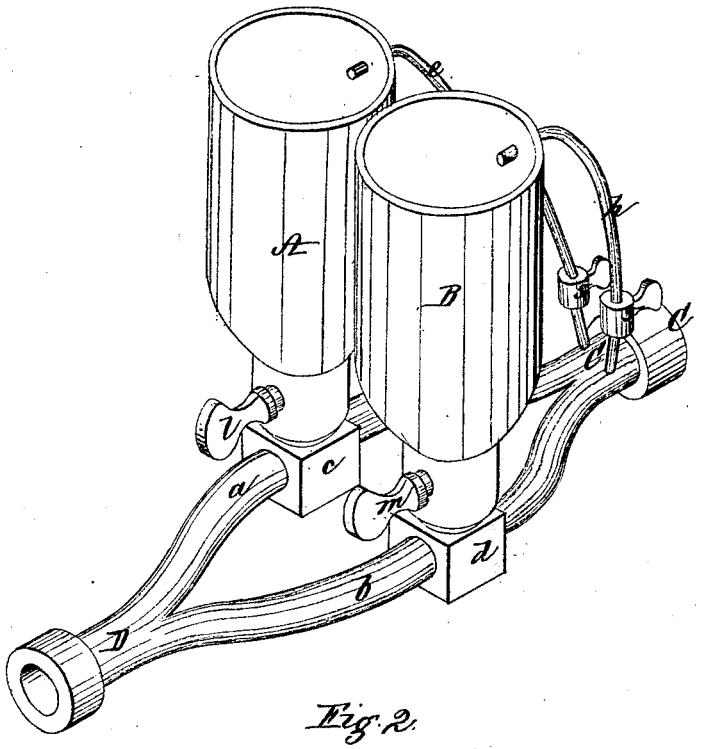


Fig. 2.

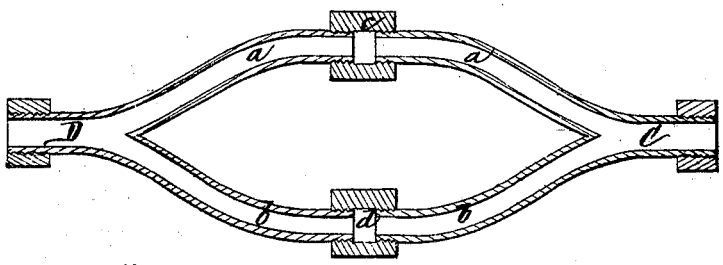
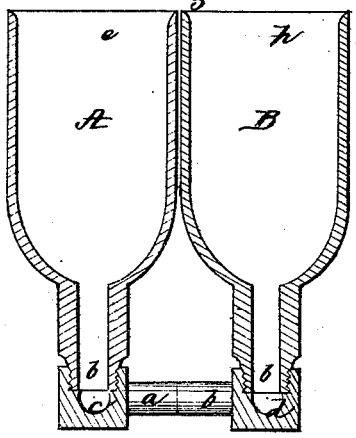


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHRISTOPHER BLAKE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. **114,256,** dated May 2, 1871.

To all whom it may concern:

Be it known that I, CHRISTOPHER BLAKE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Apparatus for Extinguishing Fires, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a perspective view of my improved apparatus for extinguishing fires. Fig. 2 is a horizontal longitudinal section through the same. Fig. 3 is a transverse section on the line *x x* of Fig. 2.

The object of my invention is to produce a stationary or portable apparatus in which the agent employed for extinguishing the fire is water charged with carbonic-acid gas; and my invention consists in a pair of receptacles for containing the gas-producing ingredients in solution apart from each other until required for use, when they pass into independent branches of the supply-pipe, the branches uniting in a common pipe to which the hose or service-pipe is attached, by which arrangement the ingredients in solution are mixed and the water charged with carbonic-acid gas, each receptacle being fed with water by a small pipe connected with the supply-pipe, whereby the receptacle is kept filled with water, the gas-producing ingredient being renewed as often as may be found necessary.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A B are two receptacles, of uniform size and shape, the bottoms of which communicate, respectively, with separate and independent branches *a b*, proceeding or issuing from a common pipe, C, which may be connected by a hose to the tank or service-pipe in a house or to a hydrant in the street. The two branches *a b*, after passing into chambers *c d* underneath the receptacles A B, converge together and unite in a common pipe, D, to which is attached a hose, from which the contents of the branches *a b* are discharged and directed upon the fire.

e h are two small feed-pipes leading from the common pipe C, near the tops of the receptacles A B, each feed-pipe being provided with a stop-cock, 5, by which the flow of water to the receptacles, when full, may be discontinued. The passages 6 in the bottoms of the receptacles A B, communicating with their branches *a b*, are controlled by stop-cocks *l m*.

The above-described apparatus being placed near the locality where it is desired for use, and the hose on the end of the pipe C being connected with the tank, hydrant, or service-pipe, and the water let on, the stop-cocks 5 5 of the feed-pipes *e h* are opened, so as to allow the receptacles A B to be supplied with water, when one of the gas-producing ingredients, such as bicarbonate of soda or lime, in the desired quantity, is placed within the receptacle A, and the other gas-producing ingredient, such as tartaric acid, is placed in proper quantity within the other receptacle, B. The two cocks *l m* are now opened, and the ingredients in solution contained in each of the receptacles A B are allowed to enter their branch pipes *a b*, and are carried into the common pipe D, where, becoming mixed, carbonic-acid gas is generated, and the water charged therewith, the consequence of which is to eject the charged water with additional force upon the locality where the fire is burning, and, as carbonic-acid gas is a non-supporter or extinguisher of combustion, the fire is speedily put out or smothered.

When the apparatus is in use, and the contents of the receptacles are passing into their branch pipes *a b*, the feed-pipes are constantly renewing the supply of water in the receptacles, and simultaneously therewith a new supply of the chemical ingredients is also added thereto, by which means a continuous stream is kept up until the fire is extinguished.

The above-described apparatus may be stationary and be kept constantly ready for use in time of need; or it may be placed on wheels, to facilitate its transportation, and be instantly charged when it arrives in the neighborhood of the place where the fire is burning.

Claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The receptacles A B, for holding apart in solution the gas-producing ingredients, in combination with the pipes C D and branch pipes *a b*, provided with stop-cocks, the whole constructed, arranged, and operating substantially in the manner and for the purpose set forth.

2. In combination with the above, the feed-pipes *e k*, with their stop-cocks 5 5, operating substantially in the manner and for the purpose set forth.

Witness my hand this 2d day of March, A. D. 1871.

CHRISTOPHER BLAKE.

Witnesses:
N. W. STEARNS,
W. J. CAMBRIDGE.