

No. 649,281.

Patented May 8, 1900.

G. H. DOWNING.
FIRE EXTINGUISHER.

(Application filed Apr. 24, 1899.)

(No Model.)

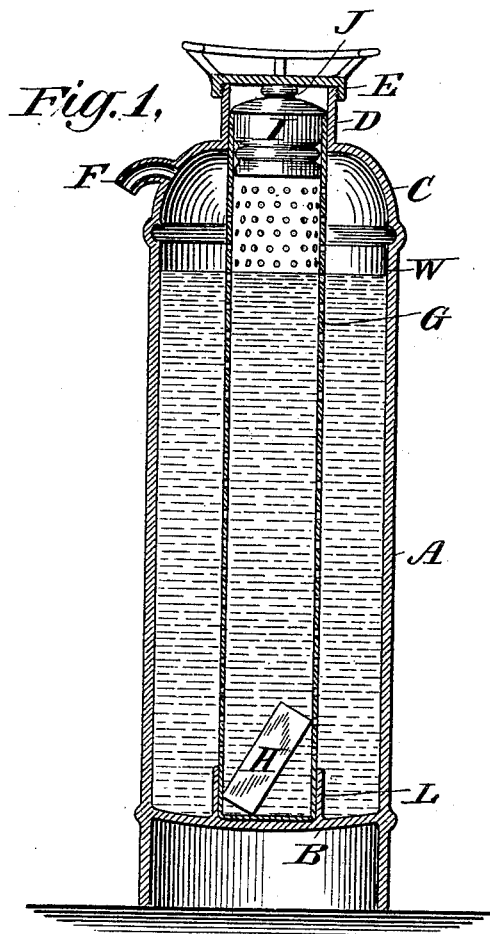
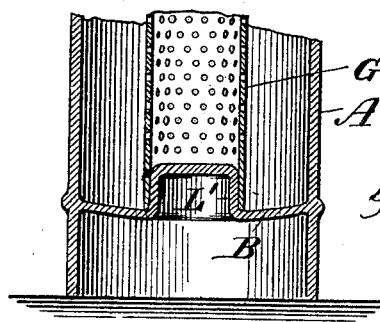


Fig. 2,



WITNESSES:

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FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 649,281, dated May 8, 1900.

Application filed April 24, 1899. Serial No. 714,171. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY DOWNING, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented and made certain Improvements in Fire-Extinguishers; and I do hereby declare that the following is a full, clear, and exact description and specification of the invention, reference being had to the accompanying drawings, forming a part of the same.

My invention relates to that class of fire-extinguishers called "hand-machines" and which are charged with an alkaline-carbonate fluid and an acid, the acid being contained in a closed receptacle, usually made of glass, while the alkaline carbonate is contained within the barrel of the apparatus, so that when in use for extinguishing a fire the acid and alkaline-carbonate fluid are mixed to discharge carbonated water by breaking the vessel containing the acid and allowing it to act upon the alkaline carbonate. Many devices have been made and used to facilitate the above operation; but in nearly all apparatus heretofore devised practical difficulties have rendered the apparatus inefficient and soon destroyed or rendered useless. My invention is designed to remedy such defects and to provide an apparatus at once efficient and not liable to derangement; and to this end my invention consists in certain elements and combinations of parts fully set forth in this specification and claimed at the end thereof.

In order that persons skilled in the art to which my invention appertains may understand, construct, and use my invention, I will proceed to describe it, referring to the drawings herewith, in which—

Figure 1 is a vertical central section of my apparatus. Fig. 2 is the same of the lower part of my apparatus, showing a modification of and an alternate method of construction.

A is the barrel of the apparatus.

B is the bottom head.

C is the dome-shaped upper head, provided with the mouthpiece D, which mouthpiece D at its upper part is threaded to receive and be closed by a screw-cap E in a well-known manner.

F is a discharge-nozzle, open at all times, and to this nozzle F a rubber pipe and tip

may be secured to direct the fluid, when being discharged, upon the fire.

Within the barrel and centrally thereof is a socket or cup L, secured to the bottom head B. Fig. 2 shows an alternate construction. In this cup or socket a pipe G rests to center it within the machine and to prevent any side movement. Pipe G extends thence upward into the mouth or neck D a short distance, and upon the top of the pipe G rests an acid-bottle I. This acid-bottle also extends downward within said pipe G, resting on the top of the pipe by a flange or bead near the top of acid-bottle I.

J is a rubber stopper in the neck of acid-bottle I, and when all is in position ready for operation the rubber stopper is held firmly in the bottle by the under side of cap E, which is screwed down firmly upon it.

The extension of the pipe G into the neck of the apparatus D is for the purpose of securing the pipe G and the bottle I from any movement in any direction. The neck D secures it from side movement, and the pressure of the cap E when screwed firmly upon its rubber stopper J holds the whole internal structure from end movement. The weight H rests in the bottom of pipe G when the apparatus is in upright position, as shown in the drawings; but when the apparatus is to be used for extinguishing a fire, the carbonated water being in the barrel of the apparatus to about the height W, the machine is turned upside down and the weight H falls upon the glass acid-bottle I, containing sulfuric acid, and breaks the bottle, discharging its contents into the carbonated water, and produces a heavy pressure of carbonic acid and water, which is thrown upon the fire by the operator through nozzle F in a well-known manner.

The apparatus is recharged, of course, for another operation.

Having now fully described my invention and the manner in which I have embodied it, what I claim as new and as my invention, and desire to secure by Letters Patent, is—

In a hand fire-extinguisher; the combination consisting of the barrel A constructed substantially as specified with retaining projection within the barrel at its base B; neck D at its upper end closable by screw-cap E pipe

G, constructed to rest and resting upon base B, and secured from side motion by retaining projections and extending upward into and restrained from side motion by neck D;
5 bottle I constructed and arranged to rest and resting within and on top of pipe G, and provided with a yielding stopper J; screw-cap E, arranged to when closed down, press upon stopper J, and to secure both the bottle I, and pipe G, from end movement; weight H located within the pipe G, all constructed, arranged and combined to operate substantially as and for the purposes specified.

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Witnesses:

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