

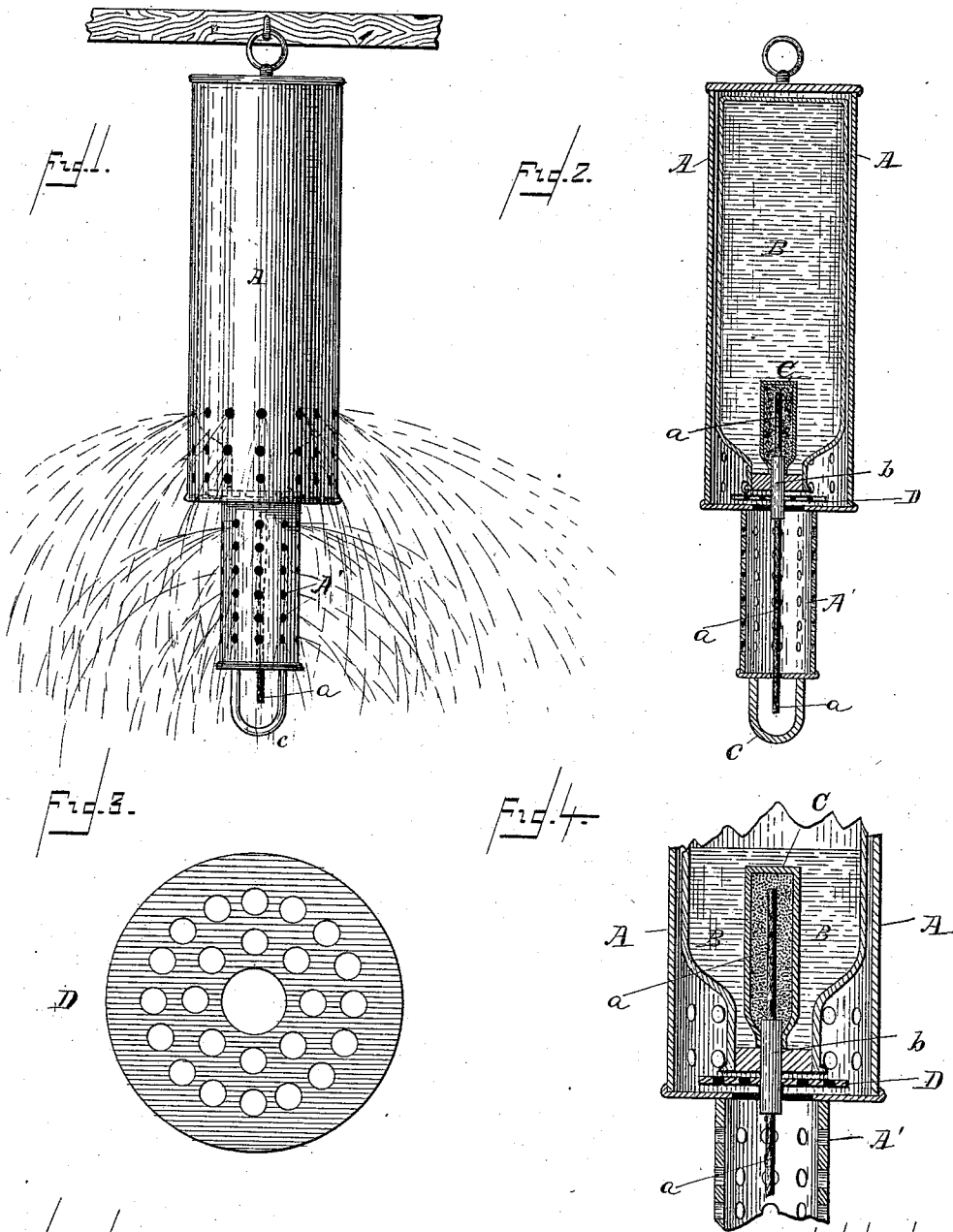
(No Model.)

E. W. BEACH.

AUTOMATIC CHEMICAL FIRE EXTINGUISHER.

No. 373,919.

Patented Nov. 29, 1887.



WITNESSES.

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ELIAS W. BEACH, OF BUFFALO, NEW YORK.

AUTOMATIC CHEMICAL FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 373,919, dated November 29, 1887.

Application filed March 12, 1887. Serial No. 230,575. (No model.)

To all whom it may concern:

Be it known that I, ELIAS W. BEACH, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Automatic Chemical Fire-Extinguishers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention consists in inclosing in a peculiarly-constructed metal case the bottle or flask containing a fire-extinguishing liquid and having in connection therewith a fuse and proper explosive compound, the whole device being hung up neck downward.

It further consists in a small glass tube inclosing the fuse as it enters the bottle; and the invention as constructed and applied will be understood by reference to the following specification and claims.

In the drawings, Figure 1 is an elevation of the whole device hung up in position ready for use, showing the spraying of the chemical after the bottle is broken; Fig. 2, a vertical cross-section of the whole device; Fig. 3, a plan of the perforated plate removed; Fig. 4, a detail, enlarged, in cross section, of the principal parts.

A represents a metal cylinder or case, preferably of tin, oblong in shape and having a perforated extension pipe or nozzle, A', of smaller circumference, fastened to or forming a part of the cylinder A and opening into the case in the center, as shown in Figs. 2 and 4. The lower circumference of this case A is also perforated a short distance to extend the spray.

Inside the case A is a flask or bottle, B, of glass, filled with fire-extinguishing chemicals. C is a small bottle, partly inside of and extending into the larger bottle, B, in which is the explosive material, having a fuse, a, extending therein and down through the openings of both bottles, and case A, and nozzle

A', and out through the lower end of said nozzle, as shown, and where a metal guard, c, partly covers it to protect it from damage.

In the mouth of the bottle C and around the fuse is set a short glass tube, b, reaching into the nozzle A', and is there packed with cement, usually packed in the bottle-neck around the fuse without other protection. This tube is important, as it is for the purpose of keeping the wet chemicals from the fuse and dampening it, which has heretofore been the objection to these extinguishers. My device keeps the fuse dry.

D is a flat perforated disk setting over the opening into the case A, between it and the mouth of the bottle C, and having a small central opening through which the tube b protrudes. This is important to keep out of the perforated nozzle A' the pieces of broken glass, &c., after the explosion; otherwise the holes in the nozzle would become quickly clogged and prevent the spraying of the chemical liquid. This construction gives a small fire extinguisher or engine that will act automatically as soon as a blaze reaches the end of the fuse and frees the chemicals, which, by means of the perforated nozzle, &c., and downward-hanging position, spread over a very large surface, as is indicated in Fig. 1.

This extinguisher can be used by hand, as a grenade, by being taken from the hook and allowing the fuse to ignite, or by a smart blow on the case breaking the bottle inside, when it at once becomes operative. It is intended, however, to hang them up in places where there is most liability of danger by fire and let them act of themselves.

I do not claim the flask or vessel B, the bottle C, inclosing the explosive material, or the fuse, as such are old.

I claim—

1. In combination with a flask or bottle, B, containing fire-extinguishing chemicals, the bottle C, and a projecting fuse, a, the metal case A, inclosing said bottle B and provided with a perforated extension or nozzle, A', through which extends the fuse a, all substantially as and for the purpose set forth.

2. The combination of a flask, B, contain-

ing fire-extinguishing chemicals, the bottle C
and its fuse *a*, and the perforated case A, hav-
ing the nozzle A' and the metal perforated
disk D, all arranged and operating substan-
5 tially as and for the purpose specified.

3. In combination with the flask *a*, bottle
B, containing chemicals, bottle C, and the pro-
jecting fuse *a*, the metal case A, nozzle A', and

the fuse-guard *c*, as and for the purpose speci-
fied.

In testimony whereof I affix my signature in
presence of two witnesses.

ELIAS W. BEACH.

Witnesses:

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