A. S. DODD & I. C. ANDREWS.

FIRE EXTINGUISHER.

No. 184,068. Patented Nov. 7, 1876.

Fig. 1

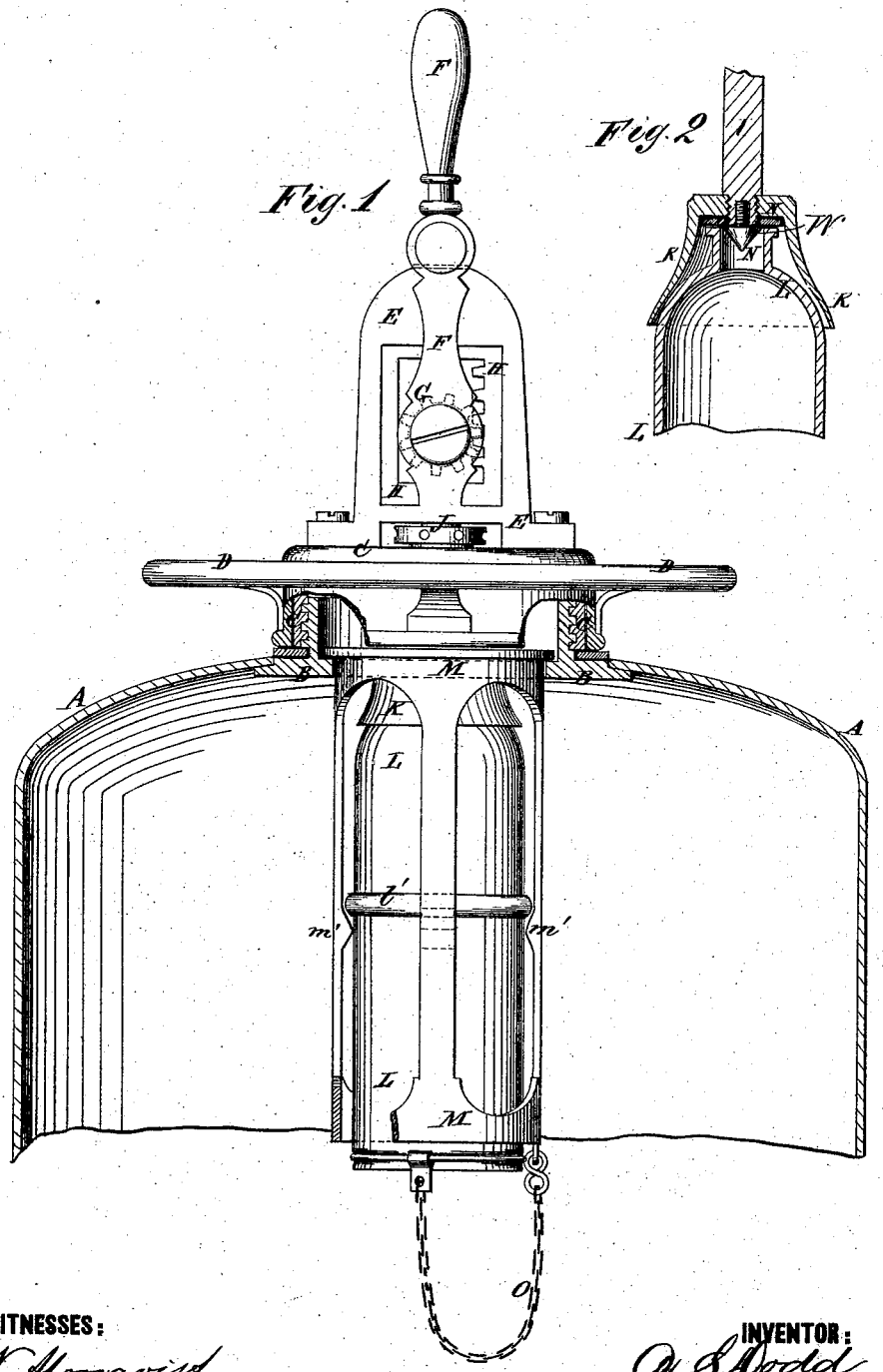

Fig. 2

WITNESSES:

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UNITED STATES PATENT OFFICE.

AMZI S. DODD AND ISAAC C. ANDREWS, OF NEW YORK, N. Y., ASSIGNORS TO HOME FIRE EXTINGUISHER COMPANY, OF SAME PLACE.

IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. **184,068**, dated November 7, 1876; application filed April 18, 1876.

To all whom it may concern:

Be it known that we, AMZI S. DODD and ISAAC C. ANDREWS, of the city, county, and State of New York, have invented a new and Improved Fire-Extinguisher, of which the following is a specification:

Figure 1 is a detail vertical section of the upper part of a fire-extinguisher. Fig. 2 is a detail section, showing the manner of closing the bottle.

The object of this invention is to improve the construction of the mechanism by which the gas-generating ingredients are brought together in a fire-extinguisher.

The invention consists in the ribs or projections formed upon the inner sides of the bars of the cage, or equivalent spring attached to said cage, to receive the ring-rib formed upon the outer surface of the bottle, and support said bottle; and in the combination of a stopper with the stem and the bell, or equivalent device for closing the bottle, in such a way that it may drop away from said stopper when forced down through the cage, as hereinafter fully described.

Similar letters of reference indicate corresponding parts.

A represents a can or cylinder of a fire-extinguisher, in the top of which is formed a hole, into which is inserted, from the inside of the said can, a male screw, B. The screw B has an outwardly-projecting flange formed around its inner end, which rests against, and is soldered, or otherwise closely secured, to the top of the can A, against which it rests. C is a female screw which screws upon the screw B. This construction allows a packing to be placed at the upper end of the male screw B, and at the lower end of the female screw C. Both of these packings may be used, but the upper one will generally be sufficient.

To the outer side of the female screw C is attached, or upon it is formed, a ring-handle, D, or a lever-handle, for convenience in turning the said screw on and off. To the top of the screw C is attached a yoke or bracket, E, to which is pivoted a lever, F. To the pivot of the lever F is attached a small gear-wheel, G, the teeth of which mesh into teeth of a rack, H, that slides up and down in ways in said yoke E, and to which is attached, or upon it is formed, a stem, I. The stem I passes down through a stuffing-box, J, inserted in a hole in the top of the screw C, and to its lower end is attached a bell, K, or equivalent device, which rests upon the top of the bottle L placed in the cage or rack M. The cage M is made with an open bottom, and with a flange or shoulder around its upper end, which rests upon a flange, shoulder, or other projections formed upon the inner surface of the male screw B.

Upon the inner sides of the bars of the cage M are formed transverse ribs, or double-inclined projections m', upon which rests a ring-rib, or depression, l', formed upon the outer surface of the bottle L, as shown in Fig. 1, to support the said bottle.

The same thing may be accomplished, in substantially the same way, by attaching a spring to the cage, M, to receive the rib or a depression of the bottle L.

To the bottom of the cavity of the bell K, or to the lower end of the stem I within said cavity, is attached a stopper, N, made of metal or other suitable material, which rests upon, or in the mouth of the bottle L, and closes it tightly.

With this construction, as the lever F is operated to force down the stem I and bell K, the said bell forces the bottle L downward, causing the bars of the rack M to spring outward, and allowing the bottle L to drop through the open bottom of the said rack to the bottom of the can A. The bottle L is connected with the cages M by a chain, O, so that it may be drawn out of the can A by removing the said cage M, and may be recharged or replaced with a bottle already charged.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The ribs or projections m' formed upon the inner sides of the spring-bars of the cage M, or equivalent spring attached to said cage, to receive the ring-rib or depression l' formed

upon the outer surface of the bottle L, and support said bottle, substantially as herein shown and described.

2. The combination of a stopper, N, with the stem I and the bell K device for closing the bottle L in such a way that it may drop away from said stopper when forced down through the cage M, substantially as herein shown and described.

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