(No Model.)

J. McGWIN.

FIRE EXTINGUISHER.

No. 304,439. Patented Sept. 2, 1884.

Fig. 1.

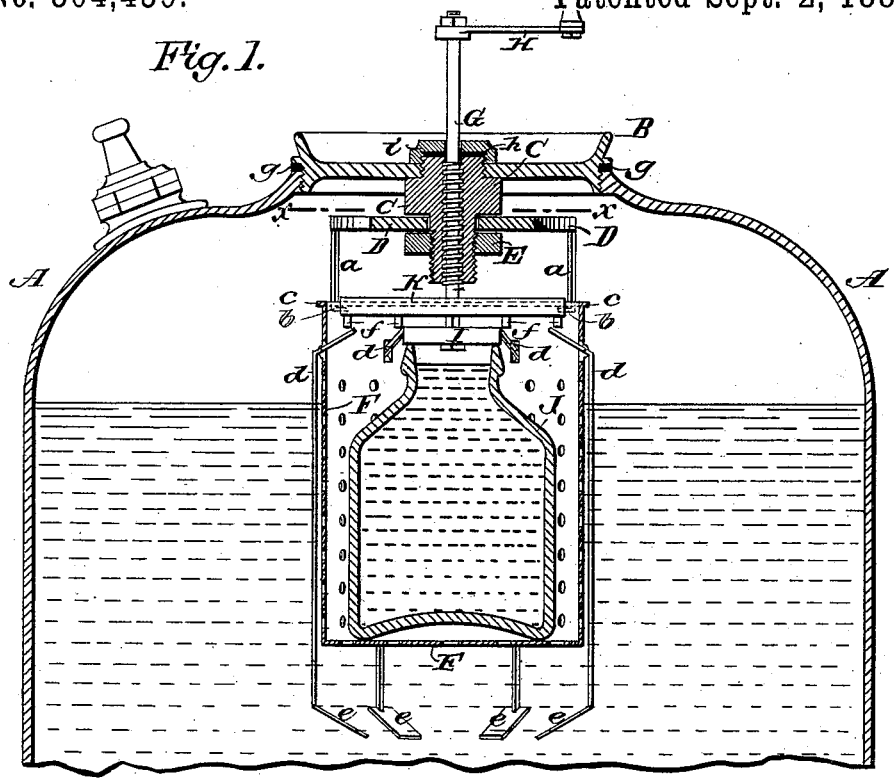
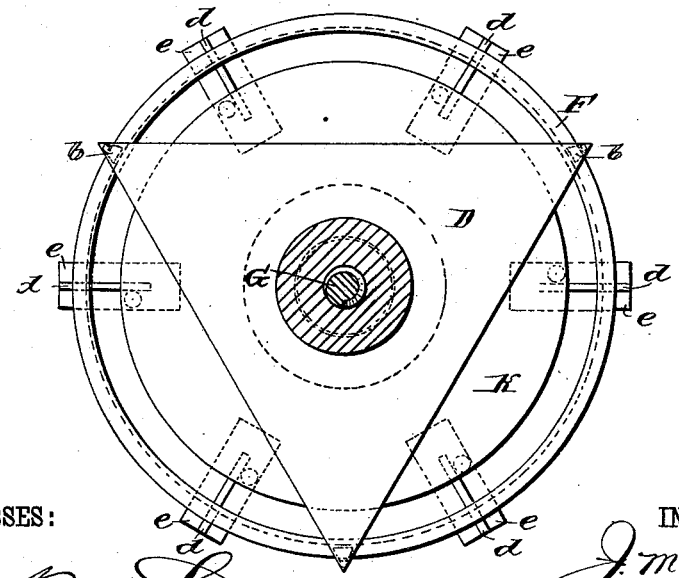


Fig. 2.



WITNESSES:

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JAMES McGWIN, OF FULTON, MISSOURI.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 304,439, dated September 2, 1884.

Application filed May 6, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES McGWIN, of Fulton, in the county of Callaway and State of Missouri, have invented a new and Improved Fire-Extinguisher, of which the following is a full, clear, and exact description.

The object of my invention is to provide a simple and safe portable fire-extinguisher, which may be brought into action quickly, and will do its full duty at once.

My improvement consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a vertical transverse section of a portion of a fire-extinguisher containing my improvement. Fig. 2 is an enlarged horizontal section taken on the line *x x* in Fig. 1.

The reservoir A, of the usual form and construction, is provided with a screw-cap, B, into the center of which is screwed an internally-threaded sleeve, C. A triangular plate, D, is screwed onto the lower end of the sleeve C, and is secured thereon by the jam-nut E. Rods *a*, having hooked ends *b*, extend downward from the angles of the plate D, and support a perforated cylinder, F, by engaging a flange, *c*, formed on the outside of the said cylinder. In mortises in the sides of the cylinder F, near the top, are pivoted bent levers *d*, whose shorter arms extend into the perforated cylinder F, and whose longer arms extend downward outside of the cylinder F, and are provided with wings *e* at their lower extremities, below the bottom of the perforated cylinder F. A screw, G, fitted to the threaded sleeve C, has upon its upper end a crank, H, by which it may be turned, and upon its lower end a disk, I, which rests upon the mouth of a bottle, J, placed in the perforated cylinder F. Above the disk I, on the screw G, is secured a disk, K, provided on its under surface with studs *f*, corresponding in number with the bent levers *d*. The screw-cap B is rendered gas and water tight by a packing-ring, *g*, and the screw G is packed by a rubber washer, *h*, which is compressed by a nut, *i*, on the screw.

The reservoir A is nearly filled with the carbonate solution, and the bottle J is filled with sulphuric acid.

When it is desired to prepare the extinguisher for use, the screw G is turned so as to force the disk I down upon the bottle J and break it. The continued revolution of the screw G carries down the disk K, bringing the studs *f* into engagement with the short arms of the levers *d*, after which the said levers and the perforated cylinder F revolve with the screw, the perforated cylinder F turning in the hooks *b* of the rods *a*. The continued downward movement of the disk K causes the longer arms of the levers *d* to diverge as they revolve, and thus quickly and intimately mix the acid and the carbonate solution. After use, the screw G is retracted, and the cap B and parts attached thereto are removed from the reservoir A. The pieces of the broken bottle are removed from the cylinder F and a new bottle of acid is placed in the said cylinder, the reservoir A is cleaned and refilled with a carbonate solution, the cap B and parts attached to it are replaced, and the extinguisher is again ready for use.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fire-extinguisher, the revoluble perforated bottle-holding cylinder F, suspended within a vessel, A, and a shaft for revolving said cylinder, said shaft being also arranged to liberate the acid, substantially as set forth, whereby when the acid is liberated it will be mixed with the contents of vessel A, substantially as set forth.

2. The combination, with the perforated cylinder F, for containing the acid-bottle, of the bent levers *d*, provided with wings *e*, the disk K, having studs *f*, for engaging the said levers, and the screw G, as herein described.

3. A chemical fire-extinguisher consisting, essentially, of vessel A, sleeve C, screw-rod G, disks I K, secured thereon, plate D, attached to sleeve C and having hooked arms *a*, and perforated acid-bottle cylinder F, flanged at its upper end and held to revolve on said hooked arms, all combined and constructed substantially as set forth, whereby when the acid bottle is placed in cylinder F and the screw-rod revolved the bottle will be broken, and the cylinder caused to rotate on the hooked arms to mix the acid with the contents of vessel A.

JAMES McGWIN.

Witnesses:
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