(No Model.)

C. T. HOLLOWAY.

FIRE EXTINGUISHER.

No. 263,043. Patented Aug. 22, 1882.

Fig. 1.

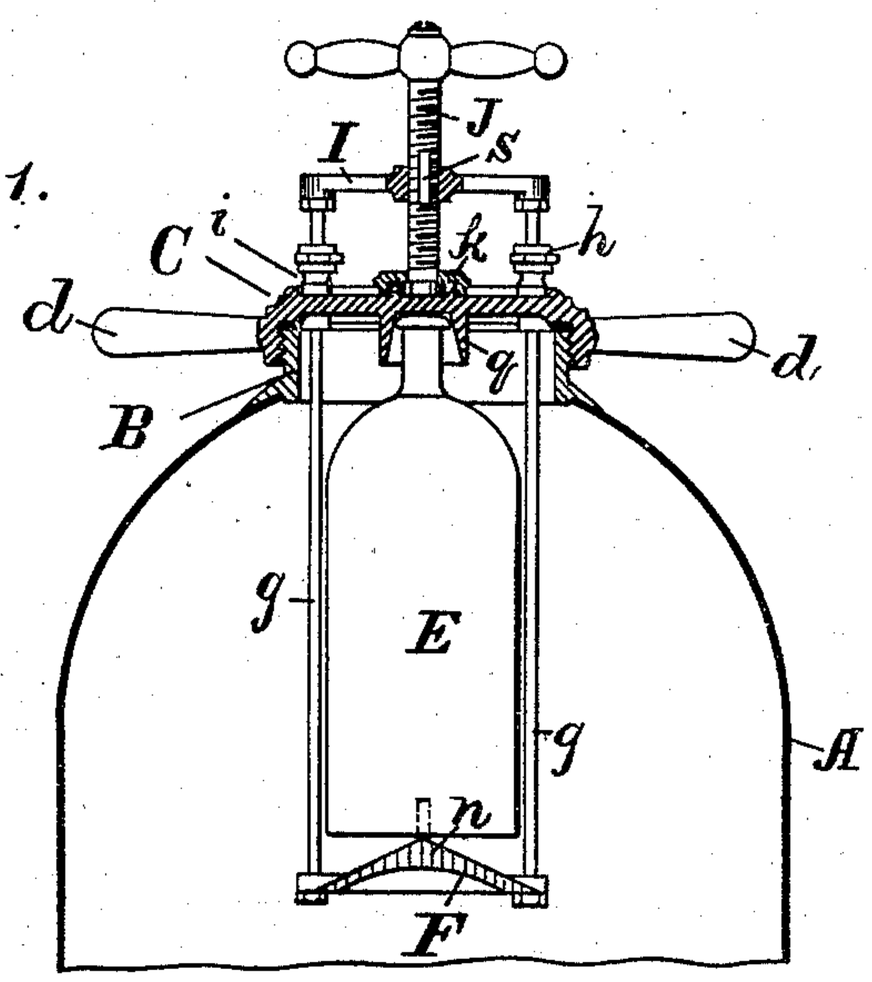


Fig. 3.

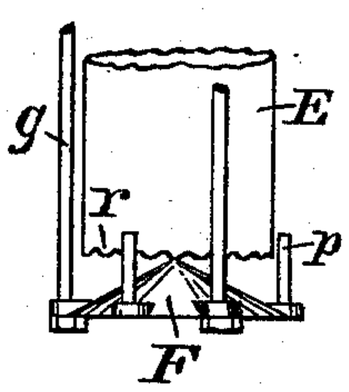


Fig. 2.

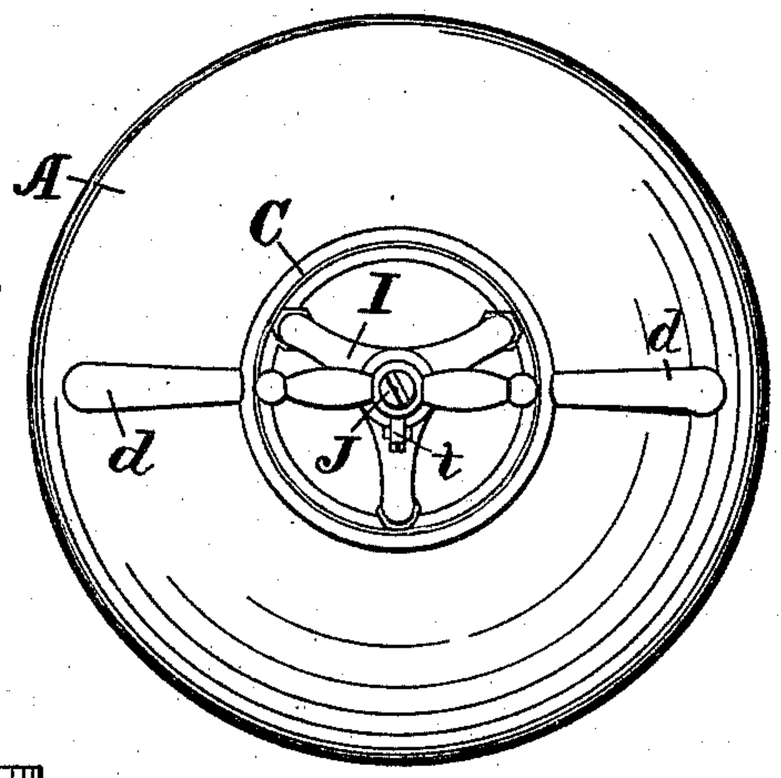


Fig. 4.

Fig. 5.

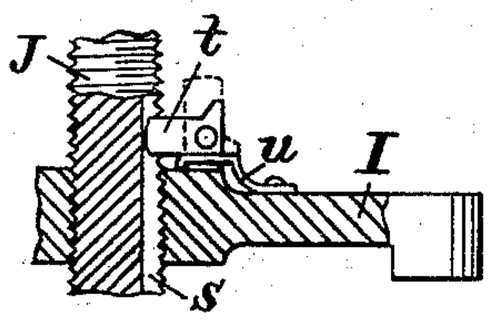
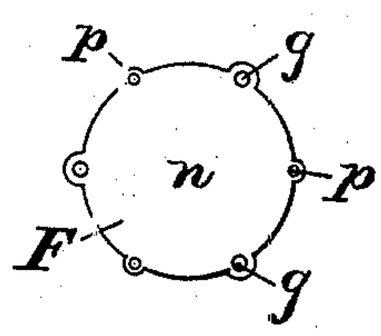


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES T. HOLLOWAY, OF BALTIMORE, MARYLAND.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 263,043, dated August 22, 1882.

Application filed June 9, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES T. HOLLOWAY, a citizen of the United States of America, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Fire-Extinguishers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to certain improvements in that class of fire-extinguishers which are known as "bottle-breakers," the object of such being to fracture a glass receptacle containing the acid.

The apparatus will first be described and the invention then distinctly claimed.

In the drawings hereto annexed Figure 1 is a vertical section of an extinguisher, showing the bottle-holder in position. Fig. 2 is a top view of the extinguisher. Fig. 3 is a side view of part of the bottle and cone-seat. Fig. 4 is a view of bottom of the bottle. Fig. 5 is a sectional view of a part embracing the locking device to prevent the screw from turning. Fig. 6 is a top view of the cone-seat.

The letter A designates the vessel, B the screw-threaded collar constituting its mouth, and C the cap which closes the mouth. The handles *d* serve to turn the cap.

The acid-receptacle E consists of a glass bottle, the mouth of which should be closed by a stopper, preferably rubber. This bottle is supported by a hanging seat, F, whose rods *g* slide vertically through the cap, passing through stuffing-boxes *h*, which have a screw-connection with bosses *i* on the cap. Three rods are employed, and at their upper ends connect with a triangle-shaped cross-head, I, above the cap. A vertical screw, J, passes through the center of the cross-head, and said screw has a collar or head at its lower end which sits in a socket formed on the top of the cap. The outside of the raised socket-rim is threaded, and a screw-nut, *k*, is attached thereto. This nut loosely encircles the screw J and holds the lower end of the latter in the aforesaid socket. The hanging bottle-seat may by this arrangement be either raised or lowered. All the parts to effect this result are above the detachable cap C, and, being outside of the vessel, are not subject to the action of the acid or gases which are confined in the vessel.

The hanging seat F is circular, and rises to a point, *n*, in the center, being thus somewhat cone-shaped. Around and projecting from the edge are bosses, which are tapped to receive the ends of the three slide-rods, *g*, and also to receive the upward-projecting pins *p*. The bottom of the bottle sits upon the point of the cone-shaped seat, and the pins *p* prevent the bottle from sliding off laterally. This construction of the hanging seat insures that when the bottle has been broken the acid, dropping or flowing down on the cone-point, will thereby be spread or scattered radially, and a prompt and thorough commingling of the acid with the alkaline solution will be effected.

The under side of the cap C is provided with a bell-shaped socket, *q*, up into which the mouth of the bottle is placed, as shown in Fig. 1. This socket serves to hold the top of the bottle.

It is desirable that the bottle shall break at the bottom in order that all the acid contained therein will flow out; and in this particular extinguisher it is especially desirable that the bottle shall be broken at the point indicated in order that the cone-pointed seat may work as intended in spreading the acid. To this end I provide a bottle with corrugations *r* or V-shaped grooves across its bottom. This is for the purpose of weakening the bottle in its bottom, so that when the cone-point of the seat presses hard against the grooved bottom the latter will be certain to fracture.

In order to prevent the premature breaking of the bottle, which will sometimes happen, the screw J has a groove, *s*, cut crosswise of its threads, and upon the cross-head I a dog, *t*, is pivoted. This dog may be tilted away from the screw when it is desired to turn it, or the dog may be tilted so as to engage with the groove, in which position the dog serves as a lock to prevent the screw from turning, and it should be thus employed to prevent the premature breaking of the bottle. A spring, *u*, is employed to hold the dog in either of the aforesaid positions which it may occupy.

As here shown the devices and parts are so arranged and combined as to afford certain desired advantages, namely: The cork end of the bottle is uppermost. The same apparatus may use different-sized bottles. The bottle is cer-

tain to be broken at the bottom. The acid flowing from the broken bottle is spread or scattered radially. All the operating or movable parts are outside of the vessel, and the liability of the bottle to be broken before it is desired to generate the gases is guarded against.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a fire-extinguisher, the herein-described bottle-breaking apparatus, consisting of a screw-cap, C, to close the mouth of the vessel, and provided on its under side with a rigidly-attached bell-shaped socket, *q*, a vertically-movable seat, F, below the cap, rods *g* sliding through the cap, one end being attached to the said seat and the other end to a cross-head, I, above the cap, and a screw, J, passed through the said cross-head and having its lower end upon the top of the cap, all as shown and described.

2. In a fire-extinguisher of the bottle breaking class, a hanging seat, F, circular in its horizontal plane, having a central cone-shaped point, *n*, and provided around its edge with upward-projecting pins *p*, as set forth.

3. In a fire-extinguisher, the combination of an acid-bottle, having corrugations or V-shaped grooves across its bottom, and a cone-point adapted to be moved vertically to press against the said bottom, as set forth.

4. In a fire-extinguisher of the bottle-breaking class, the combination, with the bottle-breaking device and the screw which operates the same, of a device, substantially as described, to lock the screw and prevent the premature breaking of the bottle, as set forth.

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

CHARLES T. HOLLOWAY.

Witnesses:
JNO. T. MADDOX,
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