No. 649,160. Patented May 8, 1900.

J. W. CLARKE.

FIRE EXTINGUISHER.

(Application filed July 3, 1897.)

(No Model.)

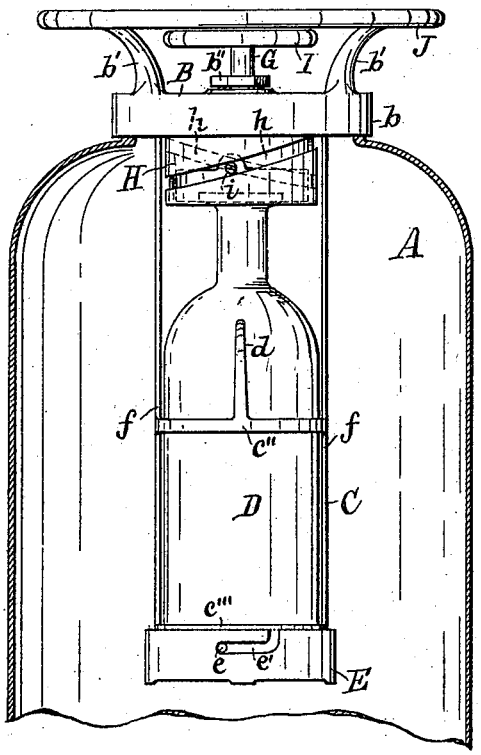

Fig. 1.

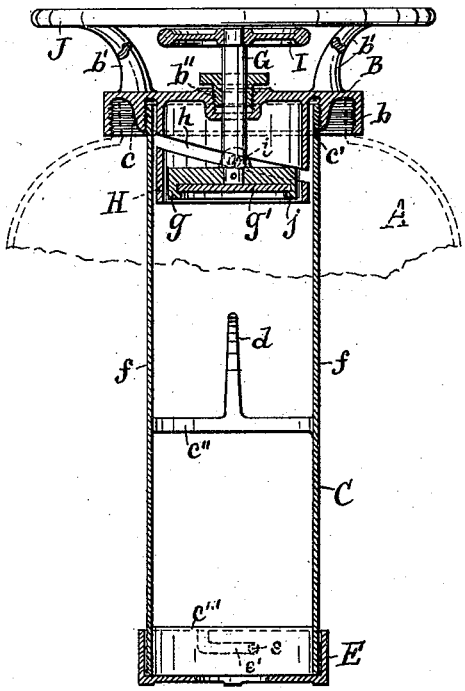

Fig. 2.

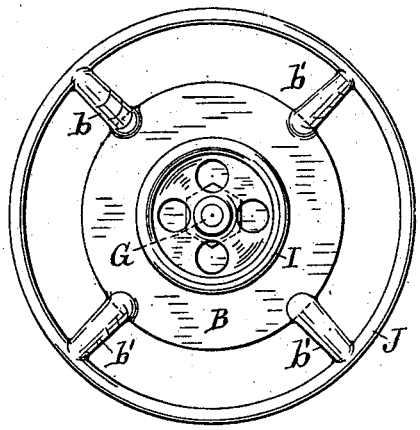

Fig. 3.

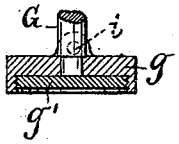

Fig. 4.

Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES WHEATON CLARKE, OF NEW YORK, N. Y.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 649,160, dated May 8, 1900.

Application filed July 3, 1897. Serial No. 643,360. (No model.)

To all whom it may concern:

Be it known that I, JAMES WHEATON CLARKE, of New York, in the county of New York, in the State of New York, have invented new and useful Improvements in Fire-Extinguishers, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to fire-extinguishers, particularly to the cap or head thereof; and the object is to provide simple and effective means for regulating the stopple or cover for the acid-bottle, so that the stopple will accommodate itself to any of the various makes of bottles of the desired size—for instance, the eight-ounce bottles vary in length about three-sixteenths of an inch and by my improved devices all or any of these different lengths are accommodated.

To this end my invention consists in the combination with the screw-cap and the concentric guard thereon and above the same, the cage depending from the cap for holding the acid-bottle, the stopple for the mouth of the bottle, a stem extending upward from the stopple through the cap, said stopple being provided with pins projecting radially from diametrically-opposite sides, and a hood depending from the cap and encircling the stopple, said hood being provided with a pair of spiral slots for the pins; and my invention consists in certain other combinations of parts hereinafter described, and specifically set forth in the claim.

In the drawings hereto annexed and forming a part of this specification, Figure 1 is a side elevation of my improved fire-extinguishing apparatus, the upper portion of the shell or tank only being shown in section. Fig. 2 is a sectional view of the cap and cage with the bottle removed. Fig. 3 is a top plan view of the cap with the guard, and Fig. 4 is a sectional view of the stopper provided with a lead disk to bear upon the top of the bottle.

Referring specifically to the drawings, A indicates the tank or shell which holds the soda and water and which may be of the usual sizes and shapes.

B is the cap with the internally-threaded flange *b* for securing it upon the top of the shell and a smaller concentric flange *c* for engagement with the cage C of the acid-bottle D. The cage is preferably formed of three rings, one below the other, connected together by a pair of vertical bars *f f* on diametrically-opposite sides of the rings, the rings and bars being integral. The upper ring *c'* is provided with screw-thread to engage the thread on the flange *c*. The central ring *c''* is provided with spurs *d d*, which are bent inward over the shoulder of the bottle to hold it from falling toward the stopple when the latter is withdrawn and the extinguisher is inverted. The lower ring *c'''* of the cage is provided with a pair of pins *e e*, which engage with a pair of angular recesses *e' e'* in the flange of the support E, which retains the bottle D in the cage. By rotating the support E in one direction it may be withdrawn from the cage and the bottle removed.

The stopple for the bottle comprises a disk of metal *g*, containing a rubber or lead bearing *g'* on its lower side for engagement with the mouth of the bottle and a pair of pins *i* for engagement with the spiral slots *h h* in the barrel or hood H, encircling the stopple. The bearing *g'* may be held to the disk *g* either by an inwardly-extending flange *j*, as shown in Fig. 2, or by screw-threads, as shown in Fig. 4, which construction is desirable when the bearing is formed of metal.

Extending upwardly from the center of the stopple *g* is a stem G, which passes through a stuffing-box in the cap *b''*. The upper end of the said stem is provided with a handle or wheel I, by which the stem is turned with the stopple to apply it to or remove it from the bottle. The spiral slots *h h* are so inclined that the pins *i i* will remain in any position when the stopple is forced upon the mouth of the bottle D.

The guard J is mounted above the cap and extends beyond the same, and consists of a ring mounted on four arms *b'*, projecting from the upper side of and integral with the cap. The guard J serves to prevent the operation of the stopple *g* should the extinguisher be accidentally overturned until the operation is desired. This construction makes the extinguisher better adapted for railroad use. All parts of the inside of the cap, including the bottle-cage, are preferably covered with tin to prevent corrosion by coming in contact with the solution of soda.

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

In a chemical fire-extinguisher, the combination with the shell, the screw-cap for the same, and the concentric guard above the cap, and rigidly secured to the same, of the cage depending from the cap for holding the acid-bottle, the stopple for the mouth of the bottle, a stem extending upward from the stopple through the cap, said stopple being provided with pins projecting radially from diametrically-opposite sides, and a hood depending from the cap and encircling the stopple, said hood being provided with a pair of spiral slots for the pins, as set forth.

In testimony whereof I have hereunto signed my name.

JAS. WHEATON CLARKE. [L. S.]

Witnesses:

L. C. HUBBARD,

S. W. CLARKE.