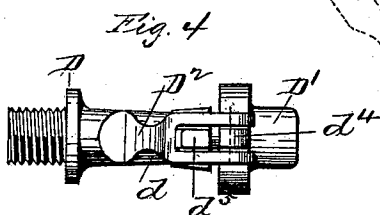
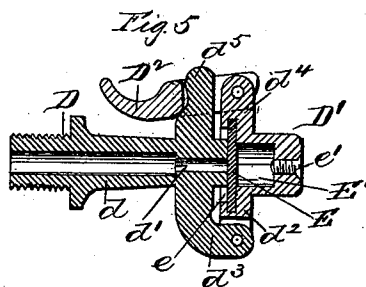
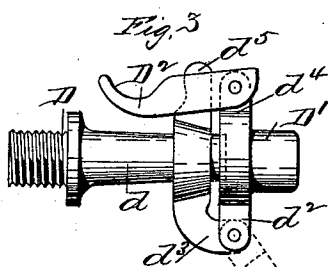
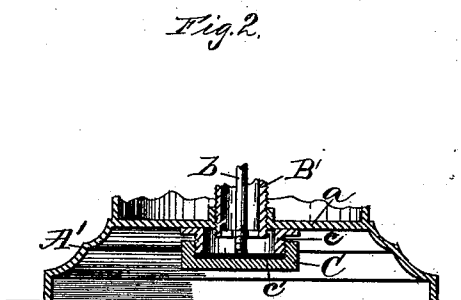
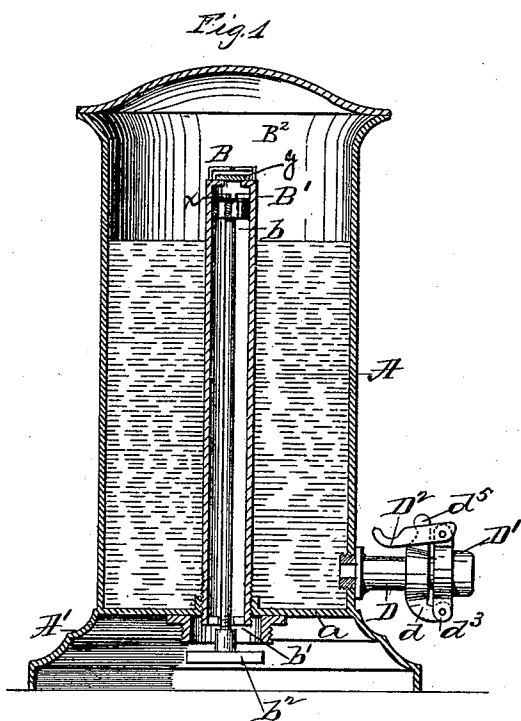


(No Model.)

G. H. DOWNING.
FIRE EXTINGUISHER.

No. 465,922.

Patented Dec. 29, 1891.



Witnesses

Jas. E. Warner
 James M. Hicks

Inventor

Inventor
G. H. Downing
By his Attorney
W. L. Ransom

UNITED STATES PATENT OFFICE.

GEORGE H. DOWNING, OF NEW YORK, N. Y.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 465,922, dated December 29, 1891.

Application filed March 11, 1891. Serial No. 384,526. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY DOWNING, of the city, county, and State of New York, have invented a certain new and useful Improvement in Fire-Extinguishers, of which the following is a specification.

This invention relates to that class of fire-extinguishers in which a liquid is ejected from a container; and it consists in the construction and novel arrangement of parts, as hereinafter specified.

In the accompanying drawings, Figure 1 is a vertical section of a container embodying my improvement. Fig. 2 is a section of the lower portion of the container with a closure in place. Fig. 3 is a side view of a nozzle employed. Fig. 4 is a top view thereof, and Fig. 5 is a longitudinal vertical section thereof.

Referring by letter to the drawings, A designates a container for liquid, here shown as cylindrical in form, closed at its top and bottom and provided with a hollow or flanged base A', which is open at the bottom.

B is a tube having an opening at both its ends and extending through an opening in the bottom *a* of the container to a point near the top of the container. As shown in Fig. 1, the level of the liquid in the container is below the top of the pipe B, so that the space B² between the liquid-level and the top of the container serves as chamber for compressed air or other gas.

B' is a piston having a valve *x* and movable within the tube B and provided with a stem *b*, which projects through an opening in a guide piece or spider *b'*, secured in the lower portion of the tube B. The lower end of the stem *b* is screw-threaded, so that a handle *b*² may be movably engaged with it. The tube B is provided with a check-valve *y*. It is obvious that by operating the valve-piston B' air may be compressed in the chamber B². After a sufficient amount of air shall have been forced into the container the handle *b*² is removed, and the lower portion of the tube B is then closed air-tight. As a means therefore, I provided a cap or closure C, which has an internally-screw-threaded flange engaging with a tubular boss *c*, secured to the under side of the bottom *a* and surrounding the lower end of the tube B. A flexible pad or disk *c'*—such as rubber—may be placed in

the closure C, as shown, to insure a tight joint. When in position, the cap C serves to support the stem *b*.

D designates a nozzle or outlet consisting of a tubular portion *d*, externally screw-threaded at its inner end to engage in a tapped hole in the wall of the container A. The opening through the nozzle is reduced in diameter at the outer end, as shown at *d'*.

D' shows a cap or cut-off having a lug or lugs *d*² pivotally connected to a downwardly and outwardly extending arm *d*³ on the tubular portion *d*, and the cap is also provided with an upwardly-extending lug *d*⁴, to which a latch D² is pivotally connected. This latch D² is shown in the form of a bifurcate lever adapted to engage over a lug *d*⁵, extending upwardly from the tubular portion *d*. The rear edge of the lug *d*⁵, with which the catch D² engages, is preferably curved longitudinally, outwardly, and inwardly, as shown, so that the catch cannot be accidentally disengaged. The cap D' is provided with a chamber *e*, within which is seated a flexible disk E, preferably rubber, adapted to impinge against the outer end of the nozzle and close the opening thereof. A chamber E' is formed in the cap D' forward of the disk E, and this chamber E' has an outward opening through the cap D', which is normally closed by means of a screw *e'*. By removing the screw *e'* air is admitted to the chamber E', and after replacing the screw the air within the chamber forms a cushion for the flexible disk E and serves to support it against the pressure of gas within the container.

In case of fire and it is desired to discharge the liquid it is only necessary to raise the catch D² above the plane of the lug *d*⁵, when the cap will fall into the position indicated in dotted line, Fig. 3.

Having described my invention, what I claim is—

1. The combination of a container having a hollow base, a tube extending through the bottom of the container and opening into the hollow base and into the container near its top, a valved piston, a stem attached thereto, a handle removably secured to the lower end thereof and which, when the piston is in its elevated position, is contained within the hollow base, and a cap for closing the tube and

for supporting the piston-stem when the handle is removed.

2. A nozzle or outlet having in combination a tubular portion, a cap pivotally connected thereto, a flexible disk in the cap and the said cap having an air-chamber forward of the disk, and means for securing the cap in place, substantially as specified.

3. In a fire-extinguisher, the combination, with a container, of a nozzle or outlet consisting of a tubular portion, a cap pivotally connected to a downwardly and outwardly ex-

tending arm on the tubular portion, the said cap having a chamber providing a space for air, a flexible disk in said cap between the air-space and outlet of the tubular portion, a latch pivotally connected to the cap, and a lug on the tubular portion, having a curved or cam edge to engage with the latch, substantially as specified.

G. H. DOWNING.

Witnesses:

JAS. S. WARNE,
JAMES M. HICKS.