

W. A. PAINTER.
CHEMICAL FIRE EXTINGUISHER.
APPLICATION FILED MAY 16, 1911.

1,061,320.

Patented May 13, 1913.

FIG. 1.

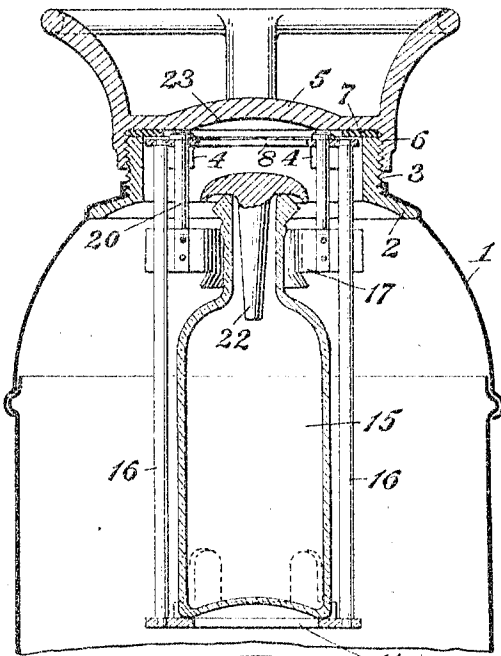


FIG. 2.

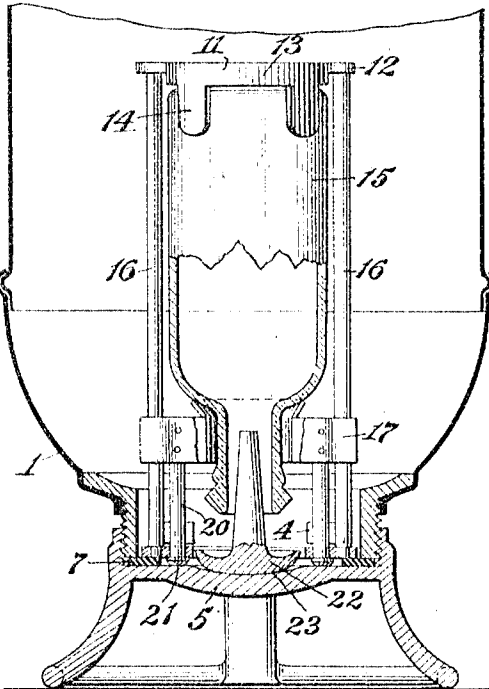


FIG. 3.

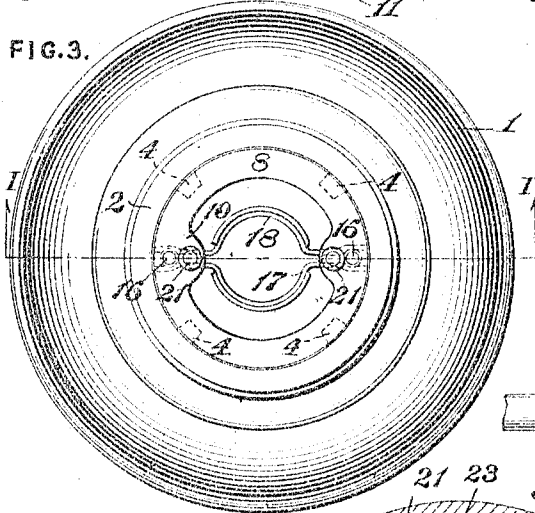


FIG. 5.

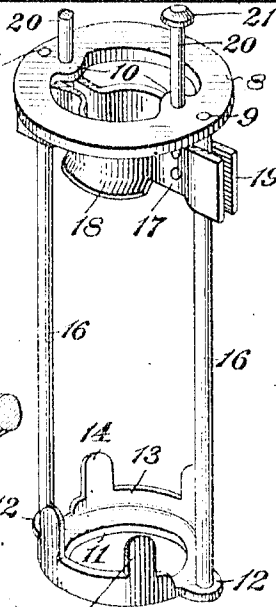
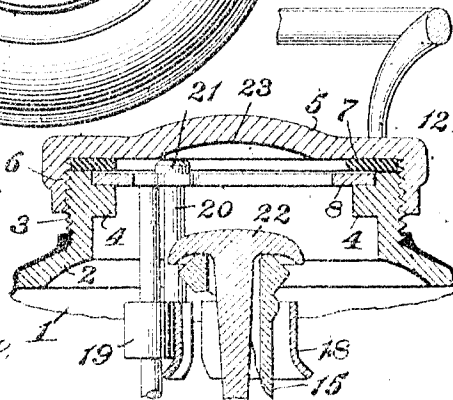


FIG. 4.



WITNESSES

D. C. Gaither
Lois Wineman

INVENTOR

William A. Painter
by N. G. Doolittle
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM A. PAINTER, OF PITTSBURGH, PENNSYLVANIA, ASSIGNOR TO PITTSBURGH LAMP, BRASS & GLASS COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

CHEMICAL FIRE-EXTINGUISHER.

1,061,320.

Specification of Letters Patent.

Patented May 13, 1913.

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To all whom it may concern:

Be it known that I, WILLIAM A. PAINTER, of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Chemical Fire-Extinguishers, of which the following is a specification.

An object of my invention is to provide a new and improved chemical fire extinguisher of simple and efficient construction, particularly designed to meet the requirements to which apparatus of this class are subjected.

A further object of my invention is to provide a new and improved separable cage or bottle holder adapted to permit the insertion and removal of the acid containing bottle or receptacle through a side of the cage.

In the accompanying drawing, which illustrates an application of my invention, Figure 1 is a central vertical sectional view of a fire extinguisher embodying my invention, the section being taken on line I—I of Fig. 3; Fig. 2, a vertical sectional view similar to Fig. 1 showing the extinguisher inverted; Fig. 3, a plan with the cap omitted; Fig. 4, an enlarged vertical sectional view of the upper portion of the extinguisher; and Fig. 5, a perspective view of the cage or bottle holder.

Referring to the drawing, 1 designates a casing or tank of the portable fire extinguisher, preferably made of metal. The tank is provided with a metallic neck 2 secured to the upper portion of the tank in any suitable manner; said neck, as illustrated, being formed with externally disposed threads 3 and inwardly projecting lugs 4.

5 designates the usual screw cap or cover adapted to be placed on the neck 2 and have its threaded portions 6 in engagement with the threads of the metallic neck.

7 designates a gasket interposed between the cap and the upper end of the neck.

Characteristic and important features of the present invention comprise the bottle holder or cage *per se* and the combination and arrangement of parts constituting my improved fire extinguisher.

The cage or bottle holder, as illustrated

and as preferred, comprises an upper ring member 8 having rod receiving openings 9 and inwardly projecting apertured lugs 10; a bottom member 11 having outwardly projecting apertured lugs 12, the openings thereof being arranged in line with the openings 9 of the top member. The bottom member is also provided with an upwardly extending flange 13 and with a plurality of upwardly projecting lugs 14. The bottom member constitutes a seat for the acid containing bottle 15.

16 designates side rods or members having their ends entered in the respective openings 9 and 12; these rods are secured to the top and bottom members and rigidly connect said members.

Coöperating with the parts just described, I provide a cage closure or bottle retaining device 17 comprising, in the form illustrated, a central yoke portion 18 preferably made of two parts with the outer ends 19 of said parts embracing the side rods of the cage. The device 17 is provided with two upwardly projecting rods 20, said rods 20 are entered in and adapted for vertical movement in the apertured lugs 10 of the top member. Rods 20 are provided with heads 21 of slightly greater diameter than the openings of lugs 10 and support the closure device in the desired operative position when the parts are assembled.

22 designates a gravity stopper for the bottle 15, and, as shown by Fig. 1, is designed to rest upon the upper end of the neck of said bottle 15 when the apparatus is in an upright position; when the apparatus is inverted as shown by Fig. 2, the stopper falls against a seat 23 of the cap 5.

To remove the acid containing bottle 15 for the purpose of replacing the same or refilling the bottle, the cap 5 is removed from the extinguisher, thus permitting the separable cage together with the bottle to be lifted free of the apparatus and placed in a vertical position. The construction of the cage is such that it will stand alone and can be maintained in an upright position during the act of removing or inserting a bottle. While in this position, the bottle 15 may be readily removed from the cage by raising the bottle retaining or closure

device 17 vertically upon the side rods into the position as indicated by Fig. 5, and the bottle may then be removed.

What I claim is:

- 5 1. A fire extinguisher cage comprising a top member provided with an apertured portion, a bottom member, a side member connecting the top and bottom members, and a vertically movable closure device coöperating with the side member and having an upright member entered in the apertured portion of the top member.
- 10 2. A fire extinguisher cage comprising a top member provided with an apertured portion, a bottom member, a side member connecting the top and bottom members, and a vertically movable cage closure device comprising a yoke portion having an end thereof in engagement with the side member and provided with an upright member entered in the apertured portion of the top member.
- 15 3. A fire extinguisher cage comprising a top member provided with apertured lugs, a bottom member, side members connecting the top and bottom members, and a vertically movable closure device having upright members entered in the apertured lugs of the top member.
- 20 4. In a fire extinguisher, the combination with a casing, of an externally threaded neck therefor, said neck provided with supporting means, a cap secured to the neck, a separable removable bottle holder or cage supported by the neck and comprising a top member, a bottom member, a side member connecting the top and bottom members, and a vertically movable cage closure device having means coacting with the cap and the side member.
- 25 5. In a fire extinguisher, a neck therefor having supporting means, a cap for the neck, of an independent movable bottle holder supported by the neck independently of the cap and comprising a top member seated upon the supporting means of the neck, a bottom member, a side member connecting the top and bottom members, and a vertically movable cage closure device having means for limiting its vertical movement and coöperating with the side member.
- 30 6. A separable removable fire extinguisher cage having an annular top mem-

ber, an annular bottom member, a side member connecting the top and bottom members, and a vertically movable cage closure device coöperating with the side member for retaining the bottle within the cage, said closure device provided with a stop member.

7. In a fire extinguisher, a neck therefor having supporting means, a cap for the neck, of a removable bottle holder supported by the neck independently of the cap and comprising a top member, a bottom member, a side member connecting the top and bottom members, and a vertically movable closure device coöperating with the side member for retaining a bottle within the cage, said closure device having a stop member adapted to coact with the cap.

8. In a fire extinguisher, a neck therefor having supporting means, a cap for the neck, of a separable removable bottle holder supported by the neck independently of the cap and comprising an upper ring member having rod receiving openings, a bottom ring member having rod receiving openings in line with the openings of the top member, rods entered in the openings of the top and bottom members and connecting said members, and a vertically movable bottle retaining member comprising a yoke portion having the ends thereof in engagement with the rods.

9. A fire extinguisher bottle holder comprising an upper member having rod receiving openings and apertured lugs, a bottom member having rod receiving openings in line with the openings of the top member and formed with a flange having a vertically extending projection, rods entered in the openings of the top and bottom members and connecting said members, and a vertically movable bottle retaining member comprising a yoke portion having the ends thereof in engagement with the rods, said retaining member having vertically extending members entered in the apertured lugs of the top member.

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

WILLIAM A. PAINTER,

Witnesses:

W. G. DOOLITTLE,
F. E. GATHER.