C. H. REBSCH.

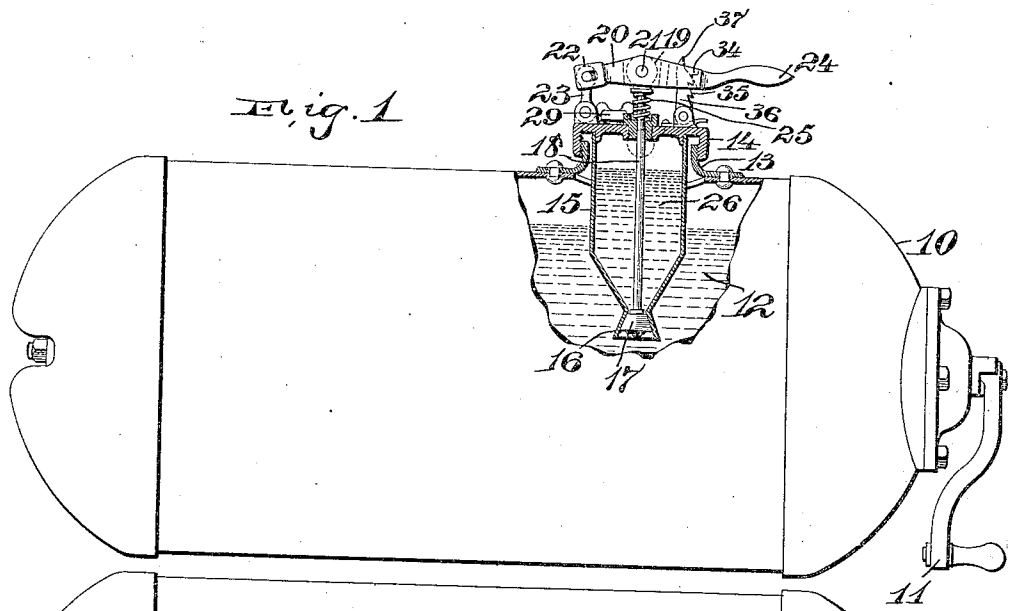
FIRE EXTINGUISHER.

APPLICATION FILED OCT. 8, 1910.

1,049,147.

Patented Dec. 31, 1912.

Fig. 1



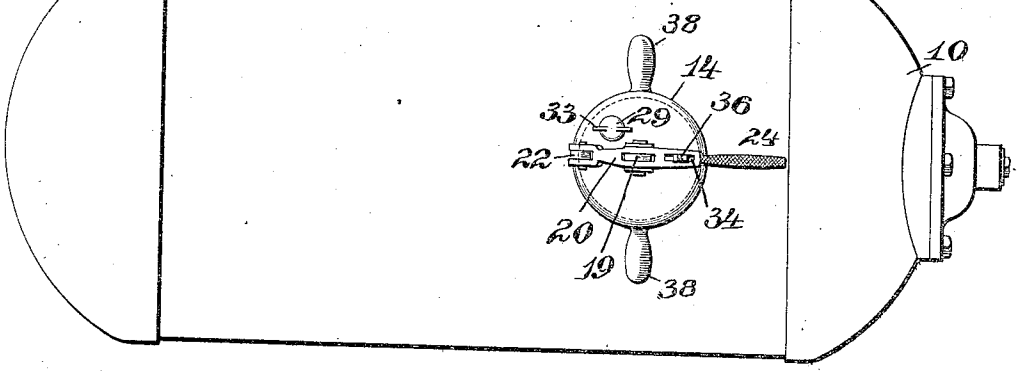


Fig. 2

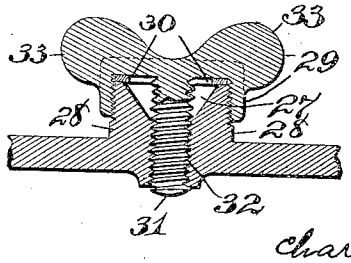


Fig. 3

WITNESSES:

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FIRE-EXTINGUISHER.

1,049,147. Specification of Letters Patent. **Patented Dec. 31, 1912.**

Application filed October 8, 1910. Serial No. 585,913.

To all whom it may concern:

Be it known that I, CHARLES H. REBSCH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Fire-Extinguishers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to a fire-extinguisher, and provides an easily-operated and reliable holder for material, to be emptied into the main casing or body of the extinguisher, at the same time insuring the isolation or confinement of the material until the closure of the holder is manipulated.

The device further embraces a holder of this kind with means for filling the holder without removing the holder from the extinguisher.

Another object of the invention is to have a closure on the holder which normally closes outward, or away from the pressure that might be in the tank, so that the closure would be forced shut, in case of a leak, which would permit pressure to be generated, said pressure forcing the closure shut.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a fire-extinguisher broken away and showing the holder in section. Fig. 2 is a top view of Fig. 1. Fig. 3 is a section of a filling opening and its cover.

The holder is adapted for any kind of fire-extinguisher in which a fluid is placed, and which generates pressure on the introduction into the fluid of a chemical which causes, on its contact with the fluid, such pressure. The holder is illustrated as applied to what is known as a chemical tank 10, which can be provided with an agitator operated by the handle 11, as usual. The tank is adapted to contain a fluid 12. A rim 13 around an opening in the tank, preferably above the water line, is covered by a cap 14, which I prefer to screw in place, although it can be fastened in other ways. Secured to the cap and depending therefrom is the holder 15, with a flaring or diverging opening 16 at its bottom end, the opening forming a valve seat. The valve 17 is adapted to open and close the opening 16, being mounted on a stem 18, which passes through the holder 15, and the cap 14 having a head 19 therein. A lever 20 is pivotally attached, intermediate of its ends, to the stem 18, as at 21, and swings on one end 22 on the end of a link 23, which is attached to the cap 14. The lever thus extends diametrically across the cap and terminates in a handle 24. A spring 25 abuts on the cap and also on the head 19, and normally tends to pull the stem 18 upward and close the valve 17. When so closed the holder is filled with any of the materials 26 used in extinguishers of this kind, usually sulfuric acid. The filling is done through the funnel-shaped opening 27 shown in Fig. 3 which is placed through a lug 28 on the cap 14. A cover 29 fits around the lug and bears on a washer or gasket 30, to form a tight fit, and a stud 31, which is screw-threaded is screwed into the screw-threaded portion 32 in the opening 27. Finger pieces 33 permit the easy opening and closing of the cover 29 without the use of tools. The pressure of the fluid 12 acts to force the valve 17 shut and assists the spring 25 in doing so. If a slight leakage of material from the holder into the liquid generates a slight pressure, this pressure will force the valve 17 tighter, and automatically stop the leak. The opening 16 is placed preferably below the level of the liquid 12.

When the device is placed on the tank by screwing the cap 14 on, the valve 17 is forced shut, if it has not already been shut by the spring 25, since the confining of the air by said screwing-on of the cap will act on the valve 17. When the extinguisher is to be used, the handle 24 is depressed, a tooth 34 on the lever 20 engages one of several teeth 35 on a finger 36 and the lever, and consequently the stem 18, is forced down and the valve 17 is opened. The amount of opening can thus be regulated. If the valve is to be shut the finger piece 37 is pushed back and the tooth 34 released, so that the spring 25 can force the stem 18 up and thus shut the valve 17.

The holder and cap form a single device which is put in place and withdrawn easily and quickly. The filling means 27 permits the filling of the holder after everything else is in place, and, in case of corrosive fluids for the holder, is advantageous, since

but one handling of the corrosive material is necessary, that is, the pouring of it into the holder. Suitable handles 38 can be properly disposed on the cap 14 to provide means for its easy attachment and detachment to and from the tank or extinguisher.

Having thus described my invention, what I claim is:—

1. A fire-extinguisher comprising a casing, a cap removably arranged in the top of the casing, a holder depending from the cap and having an open bottom forming a valve-seat, a valve on the seat and moving outwardly to open, a stem on the valve projecting through the cap, a spring bearing on the cap and the stem to force the valve shut, a lever pivoted between its ends on the top of the stem, a handle on one end of the lever, a link connecting the end of the lever opposite the handle to the cap so that the lever can swing, a toothed finger swinging on the cap, and a tooth on the lever adapted to be engaged by the finger to hold the lever at different positions.

2. A fire-extinguisher comprising a casing, a cap removably arranged in the top of the casing, a holder depending from the cap and having an open bottom forming a valve-seat, a valve on the seat and moving outwardly to open, a stem on the valve projecting through the cap, a spring bearing on the cap and the stem to force the valve shut, a lever pivoted between its ends on the top of the stem, a handle on one end of the lever, a link connecting the end of the lever opposite the handle to the cap so that the lever can swing, the lever being slotted adjacent to the handle, a toothed finger pivoted to the cap with its free end in the slot, and a tooth in one wall of the slot and adapted to engage the teeth on the finger to hold the lever in different positions against the action of the spring.

In testimony, that I claim the foregoing, I have hereunto set my hand this 10th day of September, 1910.

CHARLES H. REBSCH.

Witnesses:

E. A. PELL,

M. A. JOHNSON.