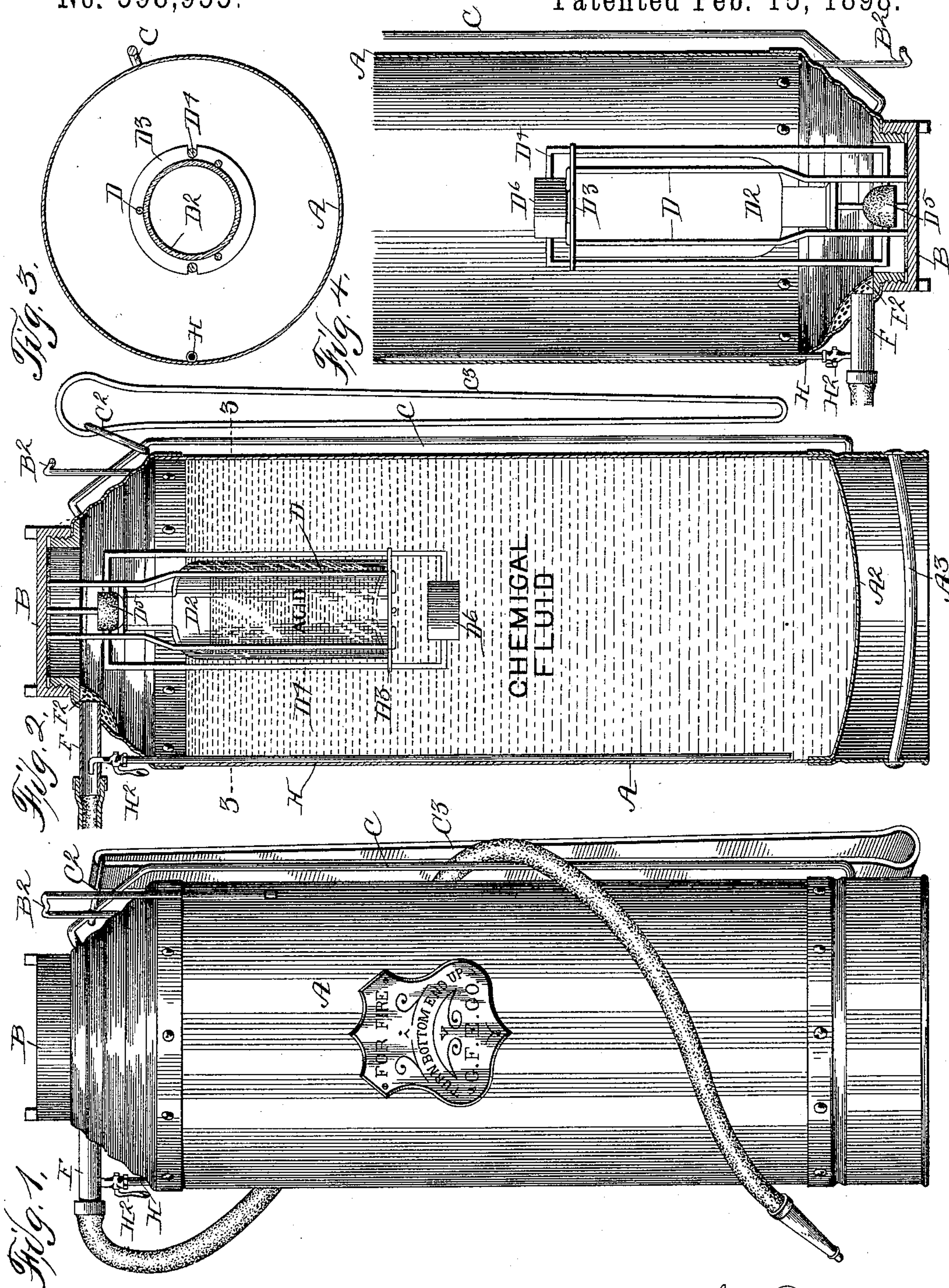


(No Model.)

C. S. PAGE.
CHEMICAL FIRE EXTINGUISHER.

No. 598,955.

Patented Feb. 15, 1898.



Witnesses:
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UNITED STATES PATENT OFFICE.

CALVIN S. PAGE, OF DES MOINES, IOWA.

CHEMICAL FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 598,955, dated February 15, 1898.

Application filed January 13, 1896. Serial No. 575,408. (No model.)

To all whom it may concern:

Be it known that I, CALVIN S. PAGE, a citizen of the United States of America, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Improvement in Chemical Fire-Extinguishers, of which the following is a specification.

My invention relates to that class of portable fire-extinguishers in which an acid and an alkali solution contained therein are commingled automatically upon inverting the device, thus producing a gas that will forcibly expel the contents of the tank and aid in extinguishing a fire.

My object is to provide a simple, strong, and durable device whereby the acid is positively and securely contained and cannot escape from its receptacle until the entire device is reversed end for end, and, further, to provide a device for releasing the acid when inverted that may be used indefinitely and that is not easily broken or rendered inoperative.

My object is, further, to provide strong, durable, and convenient means for carrying the device suspended from the operator's shoulders and inverting same without removing it from the shoulders.

My invention consists in certain details of construction, arrangement, and combination of parts, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows the complete device in side elevation. Fig. 2 shows a vertical sectional view of the same. Fig. 3 shows a horizontal section on the line 3 3 of Fig. 2. Fig. 4 shows a longitudinal section of the upper end portion of the device in an inverted position.

Referring to the accompanying drawings, the reference-letter A is used to indicate the containing-tank, which is cylindrical in form and has a bottom A² fixed therein at some distance from its lower edge, thus providing space for a handle A³, so that the handle will not interfere with standing the cylinder in an upright position. The top of the cylinder is, preferably, somewhat contracted and a screw-cap B placed thereon.

B² indicates a wire handle secured to the upper end portion of the cylinder.

C indicates a wire guide having its one end fixed to the upper end portion of the cylinder

and its other end to the cylinder near its bottom. A metal ring C² is slidingly mounted thereon, and a strap C³ is attached to the ring and is designed to be passed around the operator's shoulders in such a manner that the ring will slide in a plane parallel with the longitudinal axis of the tank, so the tank can be readily inverted without removing the strap from the shoulder and the operation of the extinguisher greatly facilitated by means of the guide C, that extends from one end portion of the tank to the other. It is obvious that by this arrangement of devices the cylinder may be easily carried on the operator's back to the point where it is to be used and then inverted as required to place it in action and thus held without being removed from the operator's back.

To the undersurface of the screw-cap is fixed a wire cage D, designed to admit and securely hold a bottle D². At the bottom of the cage is a sheet-metal disk D³, having two notches in diametrically opposite sides thereof.

D⁴ indicates a wire frame having two straight side pieces to connect with a rubber stopper D⁵ at its top (which is held in position against lateral movement by the cage D) and passed through the said notches in the disk D³ and having a weight D⁶ on their lower ends. This device, it is obvious, will hold the stopper firmly in place until the entire cylinder is reversed, when the stopper is forced from the bottle by the weight to the position shown in Fig. 4.

F indicates a pipe leading from the upper end portion of the cylinder. A screen F² protects its inner end.

H indicates a tube leading from a point near the bottom of the tank upwardly on the interior thereof, then through the top, and into the pipe F. A valve H² in the tube controls the discharge therethrough. It is obvious that when the tank is inverted the gas that is generated in the tank may be injected into the discharge-pipe at any time by a manipulation of the valve H². However, the device will discharge its stream in the usual way whether the said valve is opened or not.

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

1. The combination in a chemical fire-ex-

tinguisher in which the chemicals are combined by inverting the tank, of a suitable wire cage secured to the top of the tank and having substantially the outlines of the bottle, with a longer neck portion, a bottom piece in the cage having notches in the sides, a wire frame having parallel side pieces passed through said notches, a stopper in the top of said frame, directly above the neck of the bottle, and a weight secured to the bottom of the frame substantially as and for the purposes stated.

2. In a chemical fire-extinguisher in which the chemicals are combined by inverting the tank, a guide fixed to the upper and lower ends of the tank to extend parallel with the longitudinal axis of the tank, a ring slidingly connected with the guide and a strap attached to the ring, substantially as and for the purposes stated.

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