I. P. TICE.

Automatic Fire-Extinguishers.

No. 143,794. Patented Oct. 21, 1873.

Fig. 1.

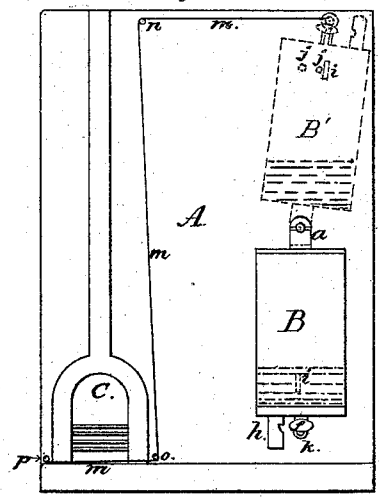


Fig. 2.

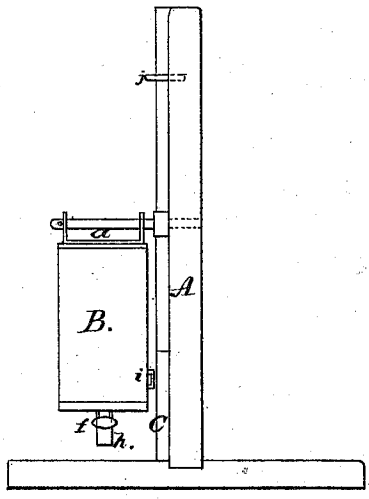


Fig. 3.

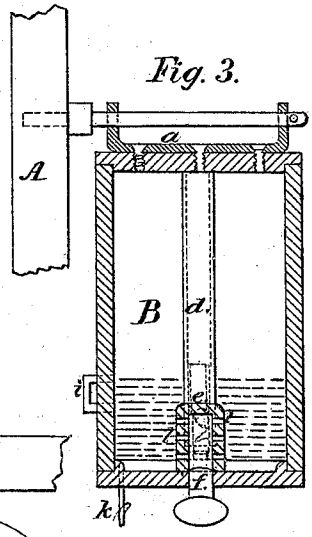


Fig. 4.

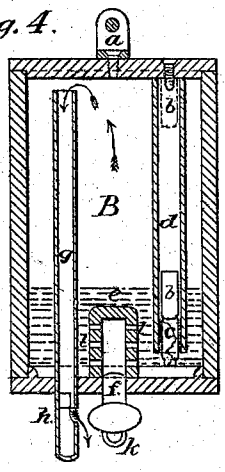
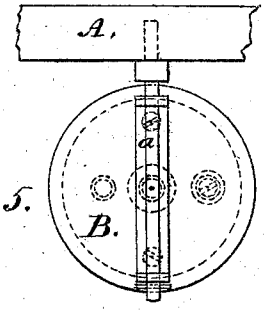


Fig. 5.



Inventor:

Isaac P. Tice

Witnesses;

Jno. J. Bordman

J. B. Bardman

UNITED STATES PATENT OFFICE.

ISAAC P. TICE, OF NEW YORK, N. Y.

IMPROVEMENT IN AUTOMATIC FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. **143,794**, dated October 21, 1873; application filed January 28, 1873.

To all whom it may concern:

Be it known that I, ISAAC P. TICE, of the city, county, and State of New York, have invented certain Improvements in Automatic Fire-Extinguishers, of which the following is a specification:

The object of this invention is to provide a means for extinguishing fires by delivering upon them, automatically, a gas which is not a supporter of combustion. A larger area is protected by the means herein provided than has heretofore been found practicable.

The time elapsing between the commencement of a fire and its discovery is often so long that a conflagration ensues, and experience has fully demonstrated that fires can be quenched without difficulty if proper means are used at the beginning.

B and B′, Figure 1, represent a reservoir in which gas may be produced, standing upon or suspended by the bracket-pin *a*, fastened to the wall A. To the reservoir is fastened the stop *i*, and to the wall the stops *j j*. *m m m* represent a cord or fusible wire, attached to the reservoir above *j*, passing over the pins *n* and *o*, and fastened to the pin *p*. This cord or wire holds the reservoir in nearly an upright position against the stop *j*. *h* is the discharging-pipe and alarm-whistle of the reservoir. A grate or fire-place is shown at C, before which the cord or wire passes to the pin *p*.

Fig. 2 gives a clearer view of the bracket-pin *a*, stops *j* and *i*.

Fig. 3 is an elevation, showing the pipe *d* and chamber *e*.

Fig. 4 is a sectional view through all the pipes and chambers of the reservoir B. *g* is the discharging-pipe; *e*, a perforated chamber; *d*, a guide-tube; *b*, a weight, and *c* a small acid-bottle held in the pipe *d*.

Fig. 5 is a view of the bottom of B, also showing by dotted lines the opening through the top of B.

The following is the method of charging the reservoir B: Place the reservoir B, Fig. 1, upon the bracket-pin *a*, in the position of B′, Fig. 1; remove the stopper *f*, and insert a package of carbonate of lime or other proper chemicals into the chamber *e;* replace the stopper *f;* insert the bottle *c* into the tube *d;* pour into the main reservoir a proper quantity of water or compound fluid; replace the cover and turn the screw holding the weight *b* in the tube *d;* the apparatus will then be ready for use.

Should a fire occur anywhere along the line *m m m* it would be burned off or melted; the reservoir B′ in Fig. 1 would swing on the bracket-pin *a* to the position B; the weight would descend upon the bottle *c*, which would be broken; water would soften the envelope of chemicals in chamber *e;* the chemicals would then unite, forming gas, which would be discharged through the alarm and escape-pipe *g*.

I claim—

The combination of a gas-generating apparatus, in which the gas-producing materials are caused to mingle by the reversal of the apparatus, with a combustible line communicating with all parts of the space to be protected, so that the burning of the line will permit the automatic reversal of the apparatus, and the consequent liberation of a fire-extinguishing gas, as shown and described.

ISAAC P. TICE.

Witnesses:
JNO. J. BORDMAN,
J. B. BADEAU.