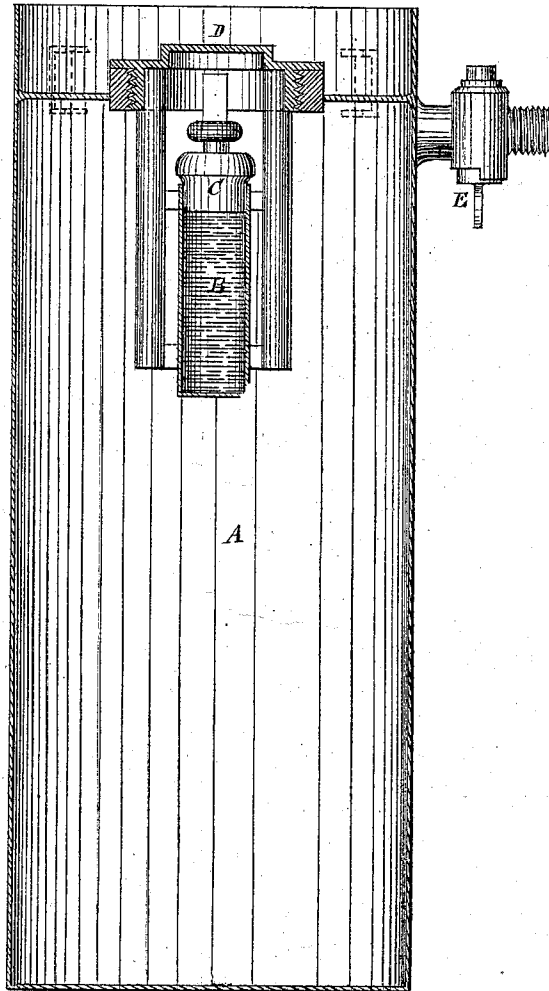


J. B. VAN DYNE.

Improvement in Fire Extinguishers.

No. 125,634.

Patented April 9, 1872.



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UNITED STATES PATENT OFFICE.

JACOB B. VAN DYNE, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. 125,634, dated April 9, 1872.

Specification of an Improved Fire-Extinguisher, invented by JACOB B. VAN DYNE, of Louisville, in the county of Jefferson and State of Kentucky.

The invention will first be fully described and then clearly pointed out in the claim.

The drawing is a vertical and sectional elevation of the extinguisher, exhibiting the relation of all the parts.

A represents the reservoir, in which is placed four ounces of bicarbonate of soda to each gallon of water. B is the acid-chamber, formed of glass, preferably, and in which is placed a fluid ounce of vitriol to each gallon of water in the reservoir. C is a weighted plug, preferably made of lead, and fitted nicely to the aperture in top of chamber B. D is a screw-cap to which the acid-chamber B is attached, and from which it is pendent in the reservoir. E is the cock and pipe connection between the reservoir and nozzle or tube, through which the gas is injected upon the fire.

The mode of operation is as follows: The mixture of the bicarbonate of soda and vitriol can never take place in my machine until the latter is completely inverted, when the chemical combination is formed and the gas emitted from the pipe.

I am aware that other fire-extinguishers are in public use wherein a hand-valve of the acid-chamber is raised by a stem, which is extended to the top, and operated by manipulating its handle on the outside. My device, on the other hand, operates automatically and by simple inversion. The rods to these old valves are packed tightly in the cap to prevent the gas from blowing out around them and losing the

expansible force which is necessary to throw out the stream. Hence they can only be unseated by muscular power applied by a pull upon the outside of valve-stem. If this packing once becomes disordered they cease to work properly or satisfactorily. Both these difficulties are overcome by my devices, since I dispense altogether with the valve-stem and its packing, and rely entirely upon the gravity of my leaden plug. Again, the old valve-stemmed extinguishers, when primed and set away ready for emergencies, are liable to be put under pressure through the withdrawal of stem by children or servants. This unpleasant consequence is also prevented by my device, since they would never attempt to turn the reservoir upside down.

I am also aware of a patent which has a sieve near top to receive a dry ingredient; but, in the jostle of running or handling, the ingredients are liable to become mixed too soon and to burst the vessel. Mine being provided with the independent glass vessel, and that fitted with a weighted plug, the ingredients can never mix except by a complete inversion.

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

A fire-extinguisher provided with the vitriol vessel B, having weighted stopper C, as and for the purpose described.

JACOB B. VAN DYNE.

Witnesses:

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