

F. LATTA.
Fire-Extinguishers..

No. 154,495.

Patented Aug. 25, 1874.

Fig 1

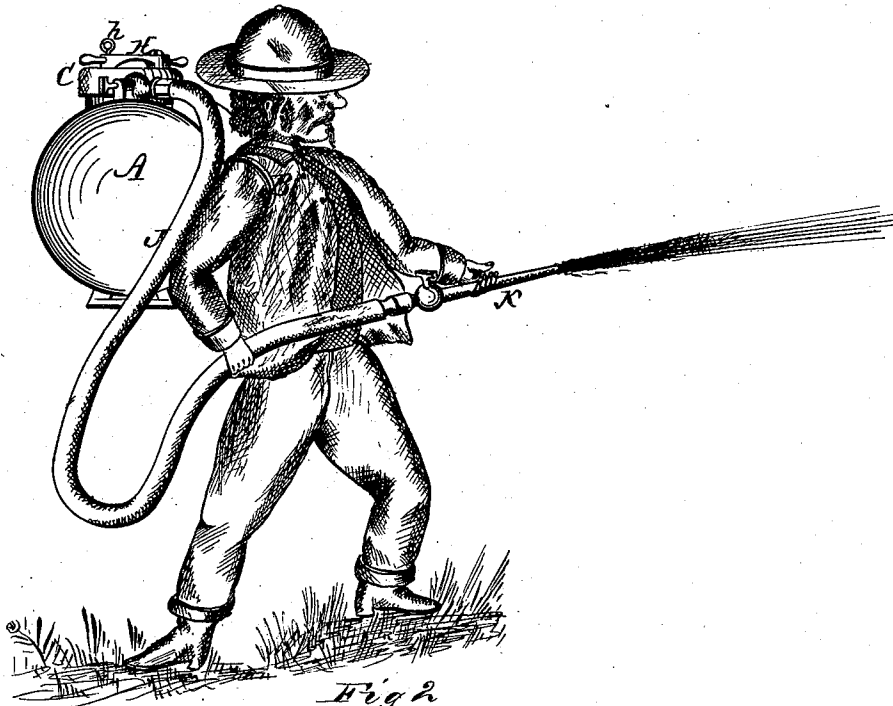
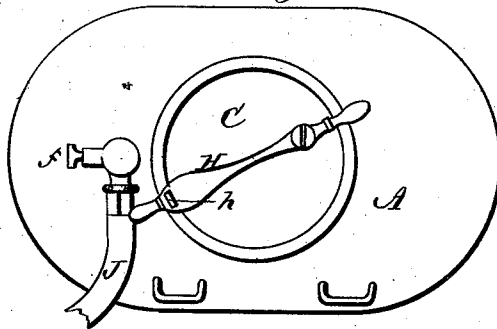


Fig 2



WITNESSES
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Fig 3

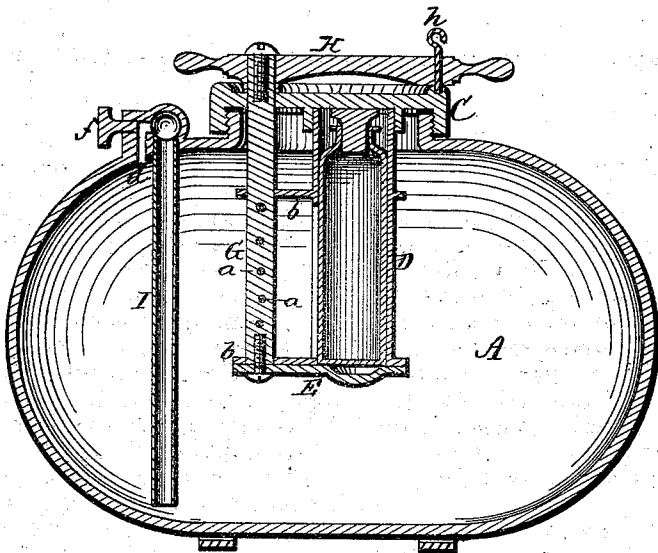


Fig 4

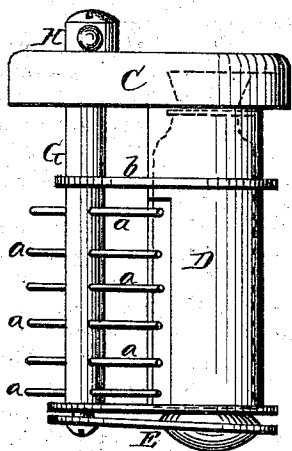
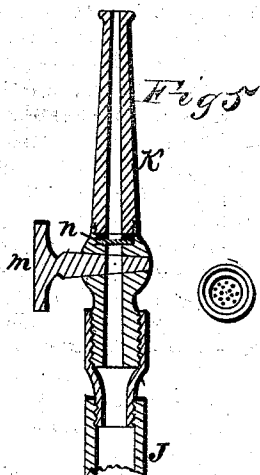


Fig 5



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UNITED STATES PATENT OFFICE

FINLEY LATTA, OF CINCINNATI, OHIO.

IMPROVEMENT IN FIRE-EXTINGUISHERS.

Specification forming part of Letters Patent No. **154,495**, dated August 25, 1874; application filed July 20, 1874.

To all whom it may concern:

Be it known that I, FINLEY LATTA, of Cincinnati, in the county of Hamilton and in the State of Ohio, have invented certain new and useful Improvements in Fire-Extinguishers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a fire-extinguisher, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view, representing the fire-extinguisher in position for use. Fig. 2 is a plan view of the extinguisher. Fig. 3 is a longitudinal section of the same. Fig. 4 is a side view of the cap with the devices connected therewith, and Fig. 5 is a longitudinal section of the nozzle.

A represents the tank of my fire-extinguisher, provided with straps B B to be placed over the shoulders of the operator, and carried, in a horizontal position, well up on the back, which renders it far easier to carry than if it were in a vertical position, and extending low down on the back. In the center of the top of the tank A is a circular aperture of suitable dimensions, provided with a cap, C, with packing between to make a water and gas tight joint. From the inner or under side of the cap C projects a shell or frame, D, for the reception of a bottle, which is inserted from the lower end thereof, and is held by means of a pivoted slide, E, upon which it rests. Along the side of the shell or frame D is a vertical rod or shaft, G, passing through the cap C, and having its bearings in suitable flanges *b b*, attached to the frame D. Through the shaft G passes a series of rods or arms, *a a*. On the upper end of the shaft G, on top of the cap C, is secured an arm or lever, H, which may be held in one stationary position by means of a pin, *h*. When the lever is in this position, the arms or rods *a a* stand away

from the bottle; but when the pin *h* is removed, the lever H may be turned in either direction, thereby turning the shaft, and bringing the arms *a* in contact with the bottle and breaking the same. I represents the discharge-tube, extending from near the bottom of the tank up through the top thereof, and to its upper end is attached the discharge-hose J. Through the top of the tank is a passage, *d*, leading into the upper end of the discharge-pipe I, and said passage is provided with a stop-cock, *f*.

In the operation of this machine two bottles may be used, held in frames, one on each side of the shaft G, one bottle containing the acid and the other the supercarbonate of soda, to be broken at the same time; or the acid may be mixed with the water in the tank, and only one bottle, containing the soda, broken. The object of the passage *d* in the upper part of the tank is to discharge a portion of the gas into the discharge-pipe, in order to give the first water that is discharged from the tank a sufficient amount of carbonic-acid gas to make it effectual in extinguishing fires from the commencement. In a large chemical-engine there is at least one-fourth of the contents that does no more good than that much salt-water. By the use of the stop-cock *f* the operator can give the proper amount of gas at the beginning; and, after about one-fourth of the contents of the tank is discharged, there is sufficient amount of gas mixed with the water, when the stop-cock *f* will, of course, be closed. The same object may be attained by means of a small hole in the discharge-pipe inside of the vessel, and letting the same be open all the time. If properly regulated this would answer the same purpose; but I prefer to use the passage with stop-cock, as above described, as otherwise there may be a too heavy draw on the pressure.

To the outer end of the hose-pipe J is attached the nozzle K with stop-cock *m*. In this nozzle, outside of the stop-cock, is a strainer, *n*, as shown in Fig. 5.

The holes in the strainers of machines of this kind are liable to become stopped up by the salt collecting about it. By placing the strainer in the connection of the nozzle outside the stop-cock, it can be taken out and

cleaned even when the pressure is on in the tank.

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

1. A rotating shaft, G, provided with arms or rods *a* within a fire-extinguisher, for crushing one or more bottles in the same, substantially as herein set forth.

2. The combination of the tank A, cap C,

one or more frames, D, rod G with arms *a*, lever H, and pin *h*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of June, 1874.

FINLEY LATTA.

Witnesses:

E. GILLIGAN,

GEO. W. PILKARD.