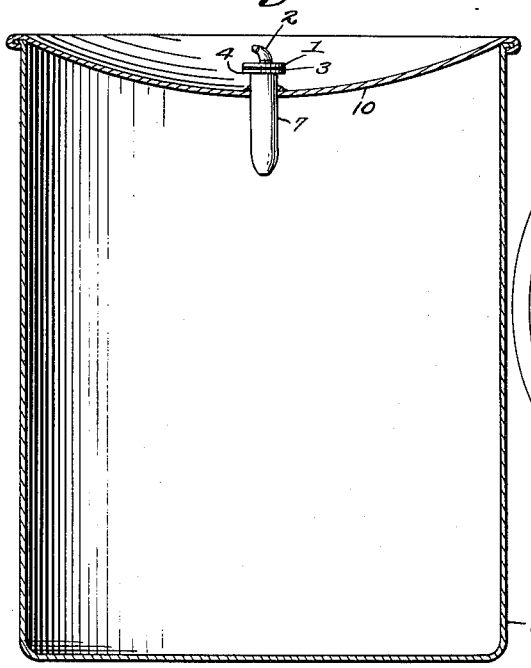
July 10, 1951 C. R. MORTON 2,560,468

FIRE EXTINGUISHER

Filed June 1, 1950

Fig. 1.



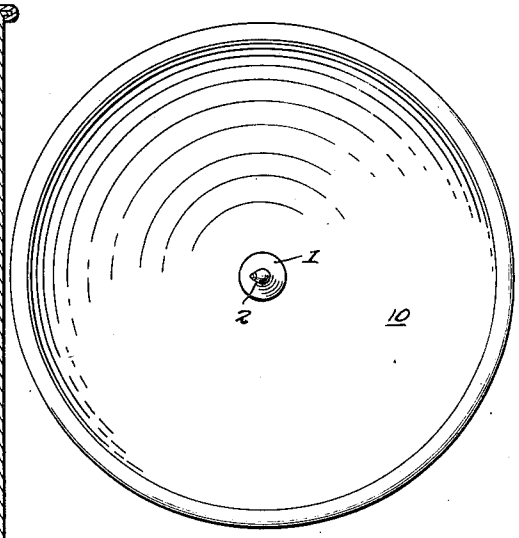


Fig. 2.

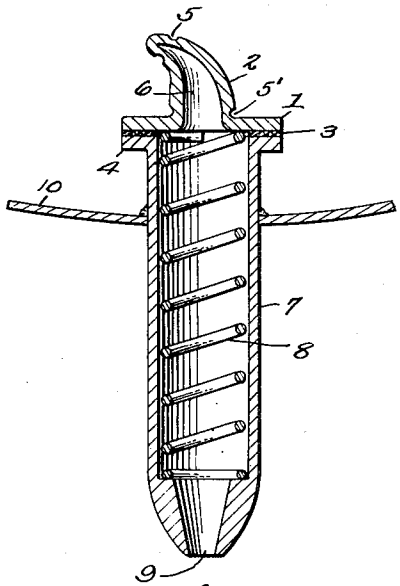


Fig. 3.

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FIRE EXTINGUISHER

Charles R. Morton, Summit, N. J.

Application June 1, 1950, Serial No. 165,487

2 Claims. (Cl. 169—26)

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This invention relates to improvements in fire extinguishers, and more particularly to the provision of novel means to automatically place a fire extinguisher in operation when a predetermined temperature is reached.

There is a type of fire extinguisher comprising a container with carbon tetrachloride under pressure similar to the common type of carbonated water used at soda fountains. Such a fire extinguisher is effective only when there is some one present at the fire to operate the extinguisher. That is, someone must open the container to allow the escape of the carbon tetrachloride. This is objectionable in that fires often occur when there is no one present.

It is, therefore, an object of this invention to provide means for automatically opening a container of carbon tetrachloride under pressure when a predetermined temperature is reached whether anyone is present or not.

A further object is to provide a device for opening a container when a predetermined temperature is reached, which device is simple in structure and positive in operation.

These and other objects are attained by the novel construction and arrangement of parts hereinafter described and illustrated by the accompanying drawings, forming a part hereof, and in which:

Fig. 1 is a sectional view of a container having mounted therein a closure device embodying the invention.

Fig. 2 is a plan view of the container and closure device.

Fig. 3 is a sectional view of the closure device.

Referring to the drawings, in Fig. 3, the closure device is shown to comprise a flat cap 1 having a central aperture which communicates with the hollow interior 6 of a nipple 2 integral with the cap 1. The wall of the nipple is weaked at 5 and 5' so that it can be easily broken from the cap 1.

The cap 1 is secured by fusible metal 3 to flange 4 on a tube 7 having its lower portion tapered and provided with an aperture 9. The fusible metal 3 is selected to fuse at a predetermined temperature.

Positioned in the tube 7 is a compression spring 8 bearing against the cap 1 to force the cap from the flange 4 when the metal 3 fuses.

The tube 7 is sealed to the cover 10 of the container 11, the cover 10 being concave so that the side wall of the container 11 has its upper edge extending above the uppermost portion of the nipple 2. This is for the purpose of facilitating stacking and packing of the containers with the closures mounted therein.

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In operation, the container 11, which may be made of metal such as tin or any other suitable substance, is filled with aerated or carbonated carbon tetrachloride so that when an opening is made in the container the carbon tetrachloride will escape rapidly under pressure and have a considerable range to take care of fires several feet away.

When a person is present at the fire, the nipple 2 can be easily broken off with the hands or by other means, and the person is at liberty to manipulate the extinguisher as he desires. In order to take care of fires when no one is present, the container is mounted upside down from the position shown in Fig. 1 so that the cap will be directly above the possible source of fire, which may be a gas range, stove, or other device capable of causing a flame.

When a predetermined temperature is reached the fusible metal will melt, allowing the spring 8 to force the cap from the flange 4 and allow the escape of the carbon tetrachloride to extinguish the fire.

From the above description it will be seen that there has been provided a simple closure which is positive in operation to provide an opening in a container of fire extinguishing fluid when a predetermined temperature is reached.

The above description is to be considered as illustrative and not limitative of the invention, of which modifications can be made without departing from the spirit and scope of the appended claims.

The invention having been described, what is claimed is:

1. In a fire extinguisher comprising a container of fire extinguishing fluid such as carbon tetrachloride under pressure, said container having a cover with an aperture, a tube passing through the aperture in the cover and sealed to the cover, said tube having a flange at one end outside of the container and an aperture at its other end inside the container, a cap mounted on the flange and having an opening communicating with the tube, a nipple integral with the cap and having a hollow portion covering said opening, fusible means securing the cap to the flange, and a compression spring in the tube bearing against the cap to force the cap from the flange when the metal fuses.

2. In a fire extinguisher comprising a container of fire extinguishing fluid such as carbon tetra-

chloride under pressure, said container having a cover with an aperture, a tube passing through the aperture in the cover and sealed to the cover, said tube having a flange at one end outside of the container and an aperture at the other end inside the container, a cap mounted on the flange and having an opening communicating with the tube, a nipple integral with the cap and having a hollow portion covering said opening, said nipple having a portion of its wall weakened so that it can be easily broken off of the cap, fusible means securing the cap to the flange, and

means in the tube to force the cap from the flange when the metal fuses.

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