(No Model.)

O. A. STEMPEL.

FIRE EXTINGUISHER.

No. 515,846. Patented Mar. 6, 1894.

Fig. 1.

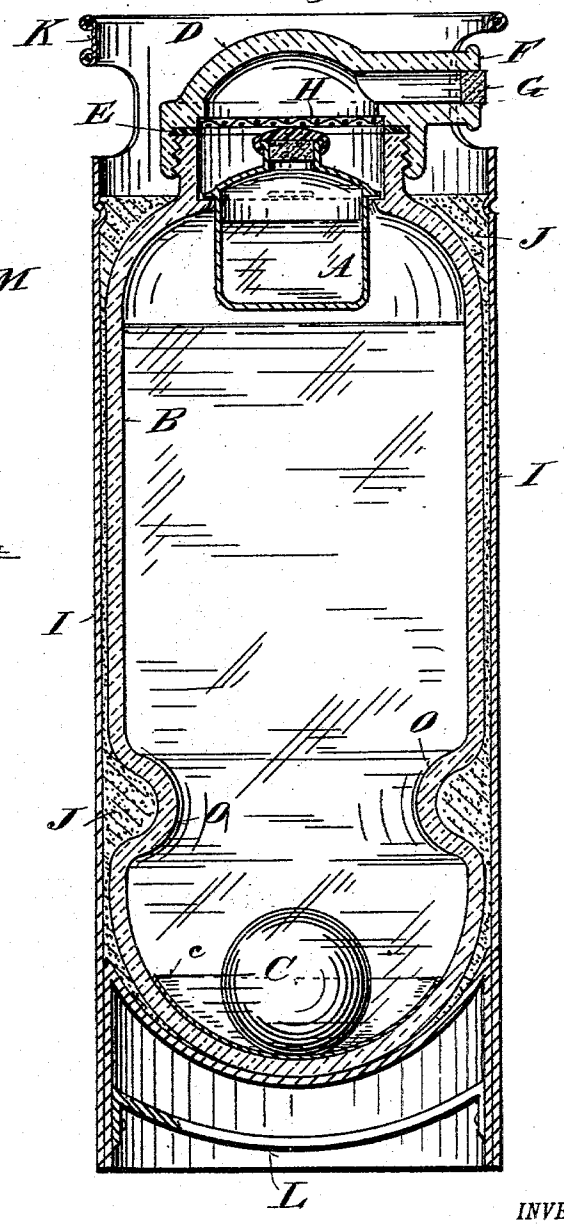
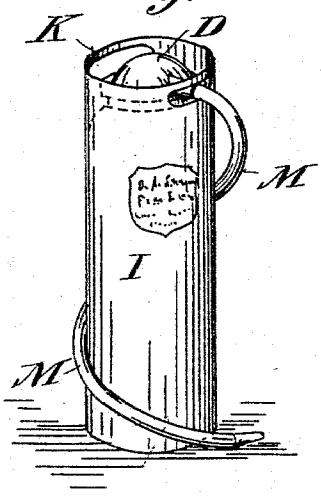


Fig. 2.



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OMAR A. STEMPEL, OF ST. LOUIS, MISSOURI.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 515,846, dated March 6, 1894.

Application filed August 30, 1893. Serial No. 484,396. (No model.)

To all whom it may concern:

Be it known that I, OMAR A. STEMPEL, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Fire-Extinguishers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in fire extinguishers.

The object of my invention is to provide a simple, durable and effective fire extinguisher of the effervescing chemical type, that will require no attention to keep it in order, and will maintain its potential condition indefinitely.

To this end my improvements have reference chiefly to separate receptacles for the acid and alkaline substances forming the charging chemical elements, and to a loose weight adapted to break one of the receptacles and mix the elements; have reference to means to avoid accidental breakage; and to a non-corrodible alkali receptacle or lining, an outer casing and interposed solid packing. Reference being made to the accompanying drawings, in which—

Figure 1 represents a vertical sectional view of my device; and Fig. 2 a perspective view with a hand hose attached.

The letter A designates an acid-containing receptacle of thin glass, or other frangible material, hermetically sealed, and supported near the top of a deep, alkali-containing, glass or other non-corrodible vessel, B, at the bottom of which is a loose weight or ball, C. Lugs on the shoulder of said receptacle engage with an inward flange or ledge at the neck of the vessel B as shown and support the acid receptacle. A hemispherical cap, D, is screwed on the top of the alkali vessel and down upon a packing ring, E. An outlet nozzle, F, is provided, in the top preferably, and is lightly closed by a stopper, G, or otherwise. A screen, H, fits against a shoulder in the cap and protects the outlet from clogging in the operation of the device. This screen is shown as holding down the acid receptacle, but it may be otherwise located to guard the outlet, according to the position of the latter. Both the cap and the bottom of the alkali vessel are preferably hemispherical.

An inclosing casing, I, affords additional security from fracture of the vessel, B, and a solidified packing J which can be introduced in a fluid state, such as plaster of paris, makes the device solid against internal and external strains. The neck of the vessel projects from the packing to receive the top D. Other packing means may be used, but I lay broad claim to this sub-combination of my invention.

An upper handle, K, or the side hole for the nozzle F serves ordinarily to carry or support the device; a lower handle, L, is used to reverse the extinguisher, thus causing the loose weight to break the acid receptacle, mix its contents with the alkaline solution, and create instantly a high pressure gas, which forces the liquid out of the nozzle to a considerable distance, till the contents are exhausted. The stopper, G, is shot out at the first discharge, and the stream readily directed upon the flames. If desired, a short length of hose, M, and nozzle may be attached to the outlet, as shown in Fig. 2.

In order to avoid accidental fracture of the acid receptacle when the extinguisher is laid horizontal for instance, a retaining ridge, O, for the weight is provided at the side of the vessel, B. This does not prevent its action when the extinguisher is reversed, but adds to the safety in ordinary handling. I also provide a safety pad *c*, at the bottom of the vessel B, made of asbestus or other suitable material, which acts as a cushion for the weight, especially when the latter is dropped into the said vessel.

I do not confine myself to the exact construction herein shown and described.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a portable fire extinguisher, the combination with a cylindrical casing I, having a downwardly concave bottom and a lower handle L, of a cylindrical vessel B, snugly fitting said casing having an inward ridge O, and an inward flange at the neck, an interposed packing J up to the neck of said vessel, introduced in a fluid state and solidified, a cap D for said vessel having a discharge nozzle F, a sealed frangible receptacle A, having shoulder lugs to support it on said neck flange, a screen H, above said receptacle and holding the latter in place when said cap is on, and a loosely rolling weight C, in the bot-

tom of said vessel B, substantially as shown and described.

2. A fire extinguisher, consisting of a casing having a hemispherical bottom and a lateral top aperture, and adapted to be supported by hand either end up, an alkali-containing vessel having a corresponding bottom and an inward flange at the neck, a solidified packing between the casing and the vessel up to the neck of the latter, a cap having a lateral nozzle adapted to discharge through said casing aperture, an outwardly flanged acid receptacle supported from the shoulders by said neck flange, and means to mix its contents with the alkali in said vessel on reversing said extinguisher.

In testimony whereof I affix my signature in presence of two witnesses.

OMAR A. STEMPEL.

Witnesses:

EDWARD H. FISHER,

WILLIAM KENNEDY.