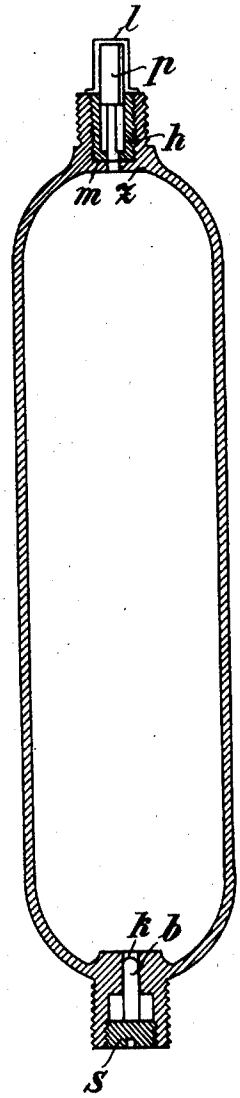
Aug. 6, 1929. G. SCHWORETZKY 1,723,530

HIGH PRESSURE CARTRIDGE FOR FIRE EXTINGUISHING APPARATUS AND THE LIKE

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UNITED STATES PATENT OFFICE.

GUSTAV SCHWORETZKY, OF ESSLINGEN, GERMANY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE FIRM JFFA GES. M. B. H., OF BERLIN, GERMANY.

HIGH-PRESSURE CARTRIDGE FOR FIRE-EXTINGUISHING APPARATUS AND THE LIKE.

Application filed June 10, 1926, Serial No. 115,072, and in Germany August 27, 1924.

My invention relates to a high-pressure cartridge for fire extinguishing apparatus and the like.

According to one part of my invention the sealing of the slightly tapered charge opening of the cartridge is effected by driving into the opening a bolt or pin of the same material as the part of the cartridge in which the opening is provided. In this manner an absolutely safe seal is obtained without soldering and which is able to withstand even the greatest temperature fluctuations, because the coefficient of expansion of the part of the cartridge containing the conical opening is the same as that of the bolt closing it. As a further precaution the bolt is preferably locked in position by a screw-threaded plug.

A further improvement relates to the striking mechanism of the cartridge.

An embodiment of my invention is illustrated in the drawings affixed hereto. The single figure of the drawing shows the improved cartridge in longitudinal section.

Referring to the drawing k is the slightly tapered charge opening in the bottom of the cartridge and b the bolt or pin driven into said opening, both parts consisting of the same material. The bolt is locked in its position by the screw plug s.

At the top of the cartridge is arranged the opening or striking mechanism for the cartridge. At the bottom of a central tubular hub is provided a small bore in the die z. Into the tapped bore of this hub is screwed a sleeve h the lower end of which is provided with a soldered diaphragm m of metal foil. The striking pin p is enlarged at its upper end to guidingly engage the sleeve h so that the pin rests above the bore or opening in the die z. The part of pin p extending out of the cartridge is shaped in such a manner as to permit the gas to escape when the seal is pierced, as for instance by making that part triangular, or by grooving it, or giving it any other shape suitable for this purpose. The striking pin or plunger p is held in its raised position by a metal bow or strip l secured to the upper or exposed end of the plunger, as by solder, the legs of the bow being soldered to the cartridge. This metal bow is compressed when the striking plunger or pin is driven in to discharge the cartridge. This arrangement of the striking mechanism enables a diaphragm of hard, tough and dense material to be used.

The cartridge is arranged in suitable manner in a fire extinguisher with driver, as for instance by bringing the end of the cartridge with the pin p in the range of the driver, which drives the pin p through the membrane. It is understood however that the pin p can be operated in any other suitable manner.

It will be understood that I do not limit myself to the exact details shown and described but that modifications may be made without departing from the spirit and ambit of my invention.

I claim as my invention:

1. A high-pressure cartridge for fire-extinguishers having a discharge port and a diaphragm sealing said port, a tubular extension on said cartridge, and a striking plunger guidingly housed in said extension but projecting outwardly beyond said extension.

2. A high-pressure cartridge for fire-extinguishers having a discharge port and a diaphragm sealing said port, a tubular extension on said cartridge, and a striking plunger housed in said extension but projecting outwardly therefrom, said striking plunger having an enlargement guidingly engaging said extension.

3. A high-pressure cartridge for fire-extinguishers having a discharge port and a diaphragm sealing said port, a striking plunger carried by said cartridge, and a collapsible bow secured to said cartridge and to the exposed end of said plunger and holding said plunger in elevated position.

In testimony whereof I affix my signature.

GUSTAV SCHWORETZKY.