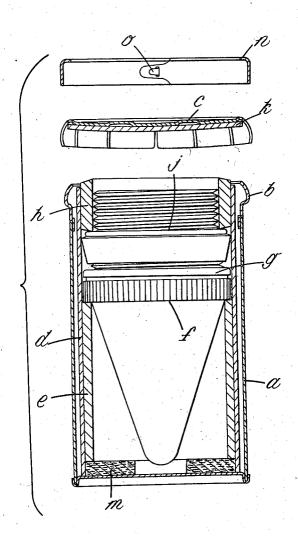
S. C. ABBOTT

CONTAINER FOR PROJECTILE FUSES
Filed Aug. 4, 1940



Inventor: Stanley Charles Abbott

Altorney

UNITED STATES PATENT OFFICE

2,308,481

CONTAINER FOR PROJECTILE FUSES

Stanley Charles Abbott, Acton, London, England

Application August 4, 1940, Serial No. 351,399 In Great Britain October 3, 1939

> 4 Claims. (Cl. 206-3)

It is known to pack the fuse for a projectile in a sealed container separately from the projectile itself by screwing the base of the fuse into a female thread formed in the lid of the container so that, when said lid is positioned on the container, the fuse may be supported, apex downwards, the container being afterwards sealed. The object of the present invention is to provide a simple form of container into which the fuse may be placed readily and which may be closed 10 and sealed in such a manner that, when required, the fuse may be removed without any unscrewing.

To these ends and in accordance with this which is formed to receive a closure such as is described and claimed in the specifications of Letters Patent Nos. 23,843 of 1912 and 105,547, is provided with a liner of cardboard or the like, the cylindrical wall of which is stepped inte- 20 riorly and intermediately of its length to receive a shoulder on the fuse, whilst an annular distance piece, also of cardboard or the like, is provided to fit into that part of the liner which is of greater diameter and to abut at one of its 25 ends against a second shoulder on the fuse and at its other end against a packing disc of suitable material, such as indiarubber, located in the closure above mentioned and arranged to be pressed thereby against the mouth of the con- 30 tainer.

The bottom or closed end of the container may be lined with a disc of cardboard or the like, or a ring of indiarubber may be disposed thereon, whilst the periphery of the closure may be sur- 35 rounded by a so-called sealing-ring, i. e. a split ring of flat U-section the ends of which may be united by a tongue and slot or other convenient form of junction.

The cylindrical portion of the lining may be 40 formed as two separate tubes of such relative diameters, externally and internally and of such relative lengths that the shorter one will fit into the longer one and, when both said tubes are properly located in the container, present the 45 step on which the first shoulder on the fuse may rest, whilst the upper end of the longer tube will be level with the top or mouth of the container.

It is to be understood that the diameters and 50 lengths of the container, of the cylindrical portion of the lining and of the annular distance piece correspond with the diameters and lengths of the appropriate parts of the fuse so that when

distance piece and closure are properly located, the fuse is held immovably in the container, and the latter, moreover, is hermetically sealed so as to protect the fuse against the detrimental effects of atmospheric conditions, whilst the nature of the closure is such as to enable the container to be opened with great facility to give access to the fuse, when required.

The accompanying drawing shows one form of the invention in central sectional elevation showing the parts in the positions they occupy prior to the application of the closing device. As shown a is a cylindrical metal container, closed at the bottom and the mouth of which invention a cylindrical container, the mouth of 15 is provided with a rim b to receive a closure csuch as is described and claimed in the Specifications of Letters Patent Nos. 23,843 of 1912 and 105,547. The container a is provided with a liner of cardboard or the like, preferably waxed, constituted by a tube d within which is fitted a shorter tube e so that the liner as a whole is stepped interiorly and intermediately of its length to receive a shoulder f on a fuse g, whilst an annular distance piece h, also of cardboard or the like, is provided to fit into the tube d, the distance piece h being intended to abut at its lower end against a second shoulder j on the fuse g and at its upper end against a packing disc k of suitable material, such as indiarubber. located in the closure c and arranged to be pressed thereby against the mouth of the cylindrical container a.

The bottom or closed end of the cylindrical container a may be lined with a flat ring of felt, m. as shown, or with a disc of cardboard or the like and in some cases, especially if it be made of resilient material such as indiarubber, it may be of such diameter as to extend right across the cylindrical container a and underlie the lower ends of the tubes d and e. The distance piece h, when the closure c is applied, is pressed by the packing disc k against the shoulder j of the fuse g the other shoulder f of which is pressed against the top of the tube e and it is to be observed that before the closure c is applied the upper edge of the distance piece h projects slightly above the level of the top edge of the container a. The upper edge of the tube d should lie at the same level as the top edge of the container a if the packing m is arranged as shown in the drawing but it may project above said level, and the extent to which the distance piece h projects may be increased, if the packing m at the bottom of the container is of resilient material and exa fuse is placed in the container and the annular 55 tends under the lower edge of the tube e.

n is a so-called sealing-ring of known type consisting of a split ring initially of L-section and the ends of which are united by a tongue and slot connection at o, which is applied in that shape, after the closure c has been caused to 5 engage the rim b, and, thereafter its lower edge is forced inwards by known means under the rim b so that ultimately the sealing ring n is of flat U-section.

gral with one another. Instead of a packing munder the lower edge of the tube e, a ring may be disposed on its upper edge, e. g. by fitting the ring on to the fuse g, but the arrangement illustrated is preferable.

I claim:

1. An improved container for a projectile fuse comprising a cylindrical container having a closed bottom and an open mouth formed with an external bead, a cap having marginal gripping-fin- 20 gers gripping said bead and a central resilient portion formed with a bulge, said cap being releasable from said container by pressing said bulge inwards, a cylindrical liner extending substantially the full height of the container formed in- 23 teriorly with two different diameters, the larger at the upper end and the smaller at the bottom end, whereby the inner wall of said liner is stepped intermediately of its length, a spacer

sleeve fitting into the upper end of said liner which is of larger diameter, and a packing located in said cap, the step on the liner receiving a shoulder on the fuse, one end of said sleeve resting on a second shoulder on said fuse and the packing located in said cap being pressed against the other end of said sleeve and against the mouth of the container by said cap.

2. An improved container as claimed in claim 1, In some cases the tubes d and e may be inte- 10 wherein said liner is constituted by two telescoping tubes, the inner one of which is shorter than the outer one and is closely and tightly fitted in

the outer tube.

 An improved container as claimed in claim 1, wherein said liner is constituted by inner and outer telescoping tubes, said inner tube being shorter than said outer tube and terminating short of the bottom of said outer tube, and wherein a packing is provided at the bottom of said container and within the lower end of said outer tube below said inner tube.

4. An improved container as claimed in claim 1, wherein said liner is constituted by inner and outer telescoping tubes, said inner tube being shorter than said outer tube, and wherein a packing is provided between the bottom of said container and the adjacent bottom ends of said inner and outer tubes.

STANLEY CHARLES ABBOTT.