March 17, 1925. 1,530,336

E. J. T. WENNERSTRÖM

RELEASING ARRANGEMENT AT PRIMER SAFETY DEVICE IN FUSE FOR PROJECTILES

Filed Dec. 10, 1923

Fig. 1.

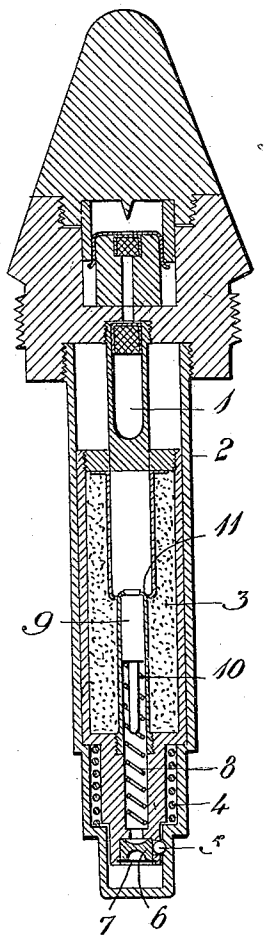


Fig. 2.

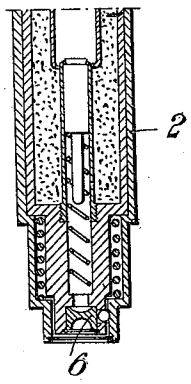
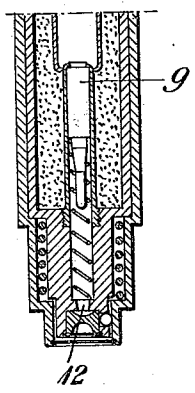


Fig. 3.



Inventor

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per Howell & Howell Attorney.

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UNITED STATES PATENT OFFICE.

ERNST JOHAN TORSTEN WENNERSTRÖM, OF BOFORS, SWEDEN, ASSIGNOR TO AKTIEBOLAGET BOFORS, OF BOFORS, SWEDEN, A LIMITED COMPANY OF SWEDEN.

RELEASING ARRANGEMENT AT PRIMER SAFETY DEVICE IN FUSE FOR PROJECTILES.

Application filed December 10, 1923. Serial No. 679,663.

To all whom it may concern:

Be it known that I, ERNST JOHAN TORSTEN WENNERSTRÖM, subject of the King of Sweden, residing at Bofors, Sweden, have invented certain new and useful Improvements in Releasing Arrangements at Primer Safety Devices in Fuses for Projectiles, of which the following is a specification.

The present invention has for its object a primer safety device in fuses for projectiles and more especially the invention refers to a releasing arrangement at the said primer safety device.

The invention is illustrated in the accompanying drawing where Fig. 1 is a central longitudinal section of a constructional form of a fuse arranged in conformity with the invention; Figs. 2 and 3 represent central longitudinal sections of a lower (rear) part of such fuses of modified construction.

In Fig. 1 of the drawing 1 is a primer, 2 the rear part of the fuse, 3 the detonator, 4 the detonator spring, 5 a ball by means of which the detonator is locked to the fuse body, 6 another locking member, 7 a locking disk, 8 a spring, 9 a plunger, 10 a guiding sleeve, surrounding the plunger and part of the spring, and 11 a flange at the fore end of the said sleeve.

The detonator 3 is kept in safety position in the rear part of the fuse by means of the ball 5 which by the locking member 6 is prevented from any inward movement. The locking member 6 is fixed in the detonator shell by means of the disk 7 or in any other suitable manner. In the rear part of the detonator shell a central channel is arranged which is continued in the detonator by the guiding sleeve 10, fixed at the rear part of the detonator shell by means of screw threads. This channel and sleeve enclose the spring 8 and the plunger 9, as shown in the drawing.

The spring 8 rests at its rear end against a flange in the detonator shell and at its fore end against the plunger 9, the fore end of which in its order rests against the flange 11 of the guiding sleeve 10.

At the firing of the gun the spring 8 is compressed by the plunger 9 which strikes against and releases the member 6 which in its turn pushes away the disk 7. The ball 5 is then pressed inwards releasing the detonator which now is pushed forwards by its spring 4, so that it encloses the primer; the safety device is thus released.

In Fig. 2 the fuse body at the rear end is provided with an opening closed by a disk inserted therein and removed by the released locking member 6, thereby permitting the said member and the ball to drop out through the opening.

In the fuse illustrated in Fig. 3 the plunger 9 and the opening 12 at the end of the channel in the detonator shell are of a conical or contracted shape, whereby the plunger 9 after having thrown out the locking member from the fuse will be retained in the detonator shell.

Having now particularly described the nature of my invention and the manner of its operation, what I claim is:

1. In a primer safety device for the fuses of projectiles, a locking member for the safety device, and a movable member free to move under the force of inertia on the firing of the gun, and adapted to impart a thrust to the said locking member to release the same and the safety device.

2. A safety device according to claim 1, comprising a removable disc to permit discharge of the locking member on the firing of the gun.

3. A safety device according to claim 1, comprising means for retaining the said movable member in fixed position after the release of the safety device.

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

ERNST JOHAN TORSTEN WENNERSTRÖM.

Witnesses:

Q. CARLEN,

N. THÜRING.