

PATENT SPECIFICATION



Convention Date (Belgium): Nov. 20, 1923.

225,227

Application Date (in United Kingdom): Nov. 20, 1924. No. 27,818/24.

Complete Accepted: Sept. 24, 1925.

COMPLETE SPECIFICATION.

Improvements in or relating to Grenades.

We, JULES DUTRIEUX, of 17, Avenue des Trois-Couleurs, Woluwe-Saint-Pierre, Belgium, of Belgian nationality, CHARLES VANDERHAEGHEN, of 77, Grande rue au Bois, Schaerbeek, Belgium, of Belgian nationality, and JOSEPH FRANCOIS VANDERHAEGHEN, of 20, Avenue Michel-Ange, Brussels, Belgium, of Belgian nationality, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to time grenades provided with a safety device. In hand grenades as hitherto suggested an axially disposed spring striker was directly released by two levers which were adapted to be automatically swung out one after the other after the grenade had been thrown.

The object of the present invention is to provide a time grenade which may either be thrown by hand or fired from a rifle fitted with socket or cup or any other suitable fire arm and with this end in view the invention consists in the provision of a cylindrical hollow body in which is axially disposed a casing containing a firing device, the firing pin of which, controlled by a suitable spring, is normally maintained stationary by a catch member, the said catch being locked by a primary lever which is pivoted about a shaft mounted in the body of the grenade and forms a cover for closing the passage communicating with the interior of the casing, the free end of the said primary lever bearing against a secondary lever pivoted about a second shaft, at a point situated near the said shaft.

One form of construction of the grenade according to the invention is [Price 1/-]

illustrated, by way of example, in the accompanying drawing in which:—

Figure 1 is a longitudinal section.

Figure 2 is a transverse section taken along the line 2—2 in Fig. 1.

The cast steel body 1 is provided with a filling plug 2 and a base plug 3 fitted with an extracting stud 3¹ to enable an unfired grenade to be withdrawn from the socket.

The firing mechanism is composed of a firing pin 14, fitted with a spring 15 and held by a cocking cam 11 which turns on a hollow pivot 12.

The release mechanism comprises a primary lever 5 pivoting upon a spindle 6, a secondary lever 7 pivoting upon a spindle 8 and a safety device with a ring 10, in the shape of a safety pin, one of the branches 10¹ of which passes through the pivot 12 while the other arm 10¹¹ passes over the secondary lever 7 and hooks under the free end of the arm 10¹.

The firing arrangement comprises a primer upon the anvil 16, a time fuse and a detonator, the whole enclosed in an inner case 13.

The grenade is rendered fluid tight by a plastic joint 4 and a washer 9 made for example of leather.

The grenade is used and operates in the same manner as existing hand grenades.

The special feature of the mechanism consists in the locking of the firing pin and the release in two phases by the intervention successively of two levers such as 5 and 7, the mechanical advantage of which considerably reduces the manual effort and the friction inside the auxiliary barrel. On the other hand the external secondary lever 7 must have opened through an angle of about 80° before the internal primary lever 5 can

Price 1/-

become disengaged, when it causes the spring to be released quickly; the percussion takes place freely whatever be the speed of opening of the external lever.

In order to render the grenade harmless it will be sufficient to unscrew the base plug and take out the whole of the firing member which is stored separately; the release mechanism can be extended, examined and replaced without danger.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A time grenade suitable either for throwing by hand or for firing from a rifle or any other suitable firearm charac-

terised by the provision of a cylindrical hollow body in which is axially disposed a casing containing a firing device, the firing pin of which, controlled by a suitable spring, is normally maintained stationary by a catch member, the said catch being locked by a primary lever which is pivoted about a shaft mounted in the body of the grenade and forms a cover for closing the passage communicating with the interior of the casing, the free end of the said primary lever bearing against a secondary lever pivoted about a second shaft, at a point situated near the said shaft.

2. A time grenade substantially as described and as illustrated in the accompanying drawings.

Dated this 19th day of November, 1924.

MARKS & CLERK.

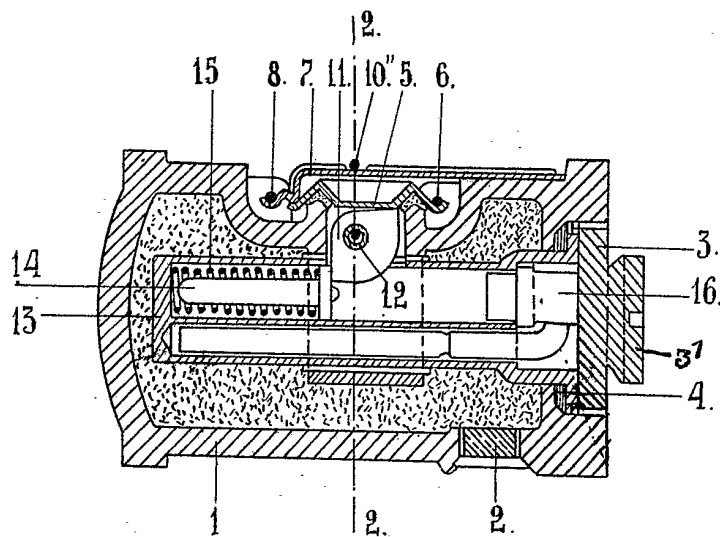
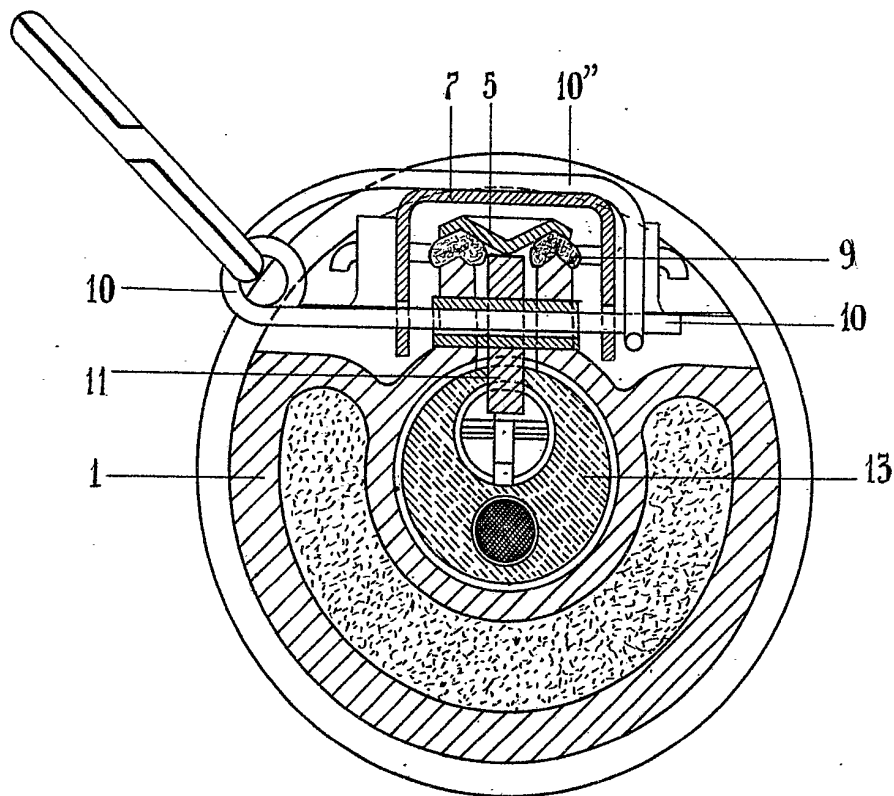


FIG. 1.

FIG. 2.



[This Drawing is a reproduction of the Original on a reduced scale]