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B. PANTOFLIČEK

FUSE FOR PROJECTILES

Filed Sept. 3, 1924

Fig.1

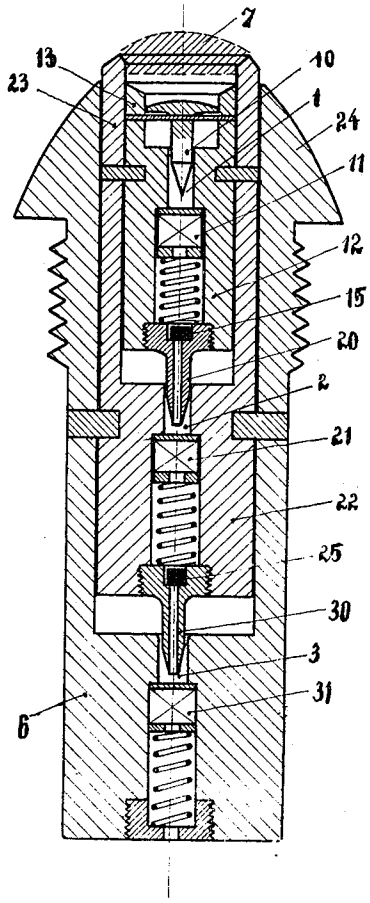
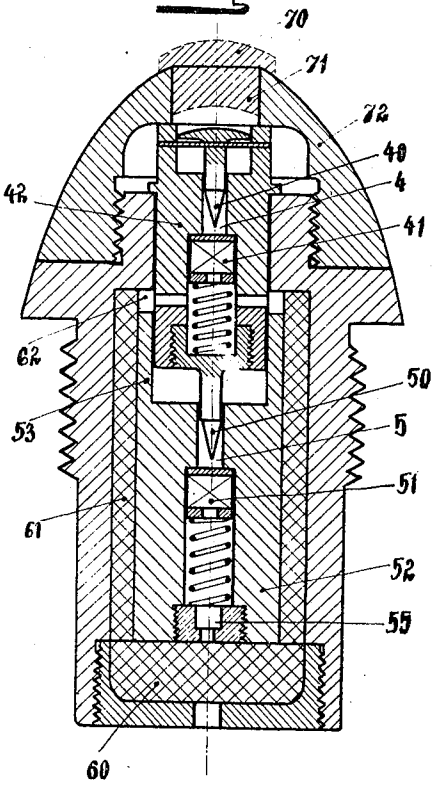


Fig.2



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FUSE FOR PROJECTILES.

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My invention relates to fuses for projectiles which while simple in construction and reliable and efficient in operation may be adjusted in a simple manner to best suit the nature of the target.

With these objects in view my improved fuse consists in a plurality of individual fuses each comprising two elements, viz: a striker and a detonating pellet; such elements being arranged in series in such a manner that the body of one individual fuse serves as one of the elements say the striker, of the next following individual fuse.

In the annexed drawing two forms of my improved fuse are shown by way of example. Fig. 1 is a longitudinal section of a fuse consisting of three individual fuses and Fig. 2 is a similar view of a fuse consisting of two individual fuses.

As shown in Fig. 1 the improved fuse consists of three individual fuses 1, 2, 3. The first individual fuse 1 comprises the striker 10 and the detonating pellet 11, the second individual fuse 2 comprises the striker 20 and the pellet 21 and the third individual fuse 3 comprises the striker 30 and the pellet 31. The three individual fuses are arranged in series in the fuse cap 6. The pellet 11 is mounted in the body 12 of the individual fuse 1 and to this body 12 the striker 20 of the second individual fuse 2 is secured. The pellet 21 of the second individual fuse 2 is carried by a body 22 on which the striker of the next individual fuse is provided, that is to say the striker 30 of the third individual fuse 3. The pellet 31 of the latter is mounted in the fuse cap 6. The fuse body 12 is adapted to slide lengthwise in the body 22 which in turn is adapted to slide lengthwise in the cap 6. The bodies 12 and 22 are provided with guide sleeves 13 and 23 respectively which extend up to the head 24 of the fuse.

The individual fuses 1, 2, 3 may act either on a bursting charge common to all of them, or each of them may act separately on a plurality of individual bursting charges. Furthermore the individual fuses may act directly on the bursting charge or the bursting charges or they may act thereon, indirectly through the mediums of retarding means. In the embodiment shown by way of example on Fig. 1 the individual fuse 3 acts directly in the bursting charge. Between the second individual fuse 2 and the bursting charge a retarding means 25 is interposed and similarly between the individual fuses 1 and 2 a retarding means 15 is interposed. Therefore in the embodiment shown by way of example in Fig. 1 the individual fuse 3 operates directly, that is to say without retardation, on the bursting charge while the individual fuse 2 operates with one retardation and the fuse 3 operates with two retardations on the bursting charge. Thus the present fuse can be adjusted to suit the nature of the target by simply throwing out of operation one or two of the individual fuses.

In Fig. 1 the strikers 20, 30 of the individual fuses 2 and 3 respectively are tubular to permit the flame to freely pass from the individual fuses to the bursting charge.

The throwing out of action of the individual fuses may be effected in a variety of ways, as shown in Fig. 1 the individual fuses 1 and 2 are rendered inoperative by means of a plate 7 which may be secured at the open end of the sleeve 23 of the body 22, and bars direct access to the fuse element 10 as well as to the body 12 and the element 20 of the several individual fuses. If only the individual fuse 1 is to be rendered inoperative it is necessary to secure a suitably shaped plate in the upper end of the sleeve 13 which plate bars direct access to only the striker 10.

In the embodiment of my invention shown in Fig. 2 two individual fuses 4 and 5 are provided. The individual fuse 4 comprises the striker 40 and the detonating pellet 41 and the individual fuse 5 comprises the striker 50 and the pellet 51. The pellet 41 and the striker 50 are mounted on the body 42 of the individual fuse 4 and the pellet 51 is mounted on the body 52 of the individual fuse 5. The body 52 is provided with a guide sleeve 53 enclosing one end of the body 42. Thus also in the embodiment of my invention shown in Fig. 2 the body 42 slides lengthwise in the body 52. The individual fuse 4 communicates with the bursting charge by the ports 62 and the annular passage 61 filled with gun powder. Between the pellet 51 of the individual fuse 5 and the bursting charge 60 a retarding means 55 is provided.

In the fuse shown in Fig. 2 the individual fuses may be likewise rendered inoperative individually. The individual fuse 4 is rendered inoperative by a plate 70 which may be inserted into the opening 71 of the

fuse head 72; the individual fuse 5 is then actuated by the deformation of the cap of the fuse.

As shown in the drawing the individual fuses act in common on a single bursting charge, but of course each of the individual fuses may act individually on a separate bursting charge associated therewith and the individual fuses may communicate with their bursting charges either directly or through the mediums of retarding means.

The retarding means preferably consist of finely subdivided and firmly compressed gun powder or other slow burning compositions.

The fuses shown in the drawing are to be understood to be examples only and the construction and arrangement of the fuses as an entirety and of the individual fuses may be varied without departing from the spirit of my invention. More particularly two or more series of individual fuses may be provided and the individual fuses may be actuated individually or the various series may be actuated individually or all of the series may be actuated in common.

What I claim is:

1. A fuse for projectiles, comprising a fuse cap and a plurality of individual fuses within said cap, each of which individual fuses comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse.

2. A fuse for projectiles, comprising a fuse cap and a plurality of individual fuses within said cap, each of which individual fuses comprises a striker, a pellet and a body the body of one individual fuse carrying the striker of the next following individual fuse.

3. A fuse for projectiles, comprising a fuse cap and a plurality of individual fuses within said cap, each of which individual fuses comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse in combination with bursting charges associated to and adapted to be acted upon by the individual fuses.

4. A fuse for projectiles, comprising a fuse cap and a plurality of individual fuses within said cap, each of which individual fuses comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse in combination with a bursting charge associated to and adapted to be acted upon by all the individual fuses.

5. A fuse for projectiles, comprising a fuse cap and a plurality of individual fuses within said cap, each of which individual fuses comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse in combination with bursting charges associated to and adapted to be acted upon by the individual fuses and means for retarding such action interposed between the individual fuses and the bursting charges associated thereto.

6. A fuse for projectiles consisting of a plurality of individual fuses each of which comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse in combination with means for selectively rendering certain of said individual fuses inoperative.

7. A fuse for projectiles consisting of a plurality of individual fuses each of which comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse in combination with means for selectively rendering certain of said individual fuses inoperative such means comprising an opening at one end of the fuse and a plate adapted to be inserted into such opening and to cover elements of the individual fuses.

8. A fuse for projectiles, comprising a fuse cap and a plurality of individual fuses within said cap, each of which individual fuses comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse the body of one fuse being adapted to slide lengthwise in the body of the next following individual fuse.

9. A fuse for projectiles consisting of a plurality of individual fuses each of which comprises two elements mounted in a body the body of one individual fuse carrying one of such elements of the next following individual fuse in combination with guide sleeves at one of the ends of each body, the guide sleeve of one body being guided in the next following outer body the said guide sleeves extending substantially to the outer end of the fuse cap.

In testimony whereof I affix my signature.

ING. BOHDAN PANTOFLIČEK.