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PERCUSSION CAP SAFETY DEVICE FOR
PERCUSSION FUSES
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Fig. 2

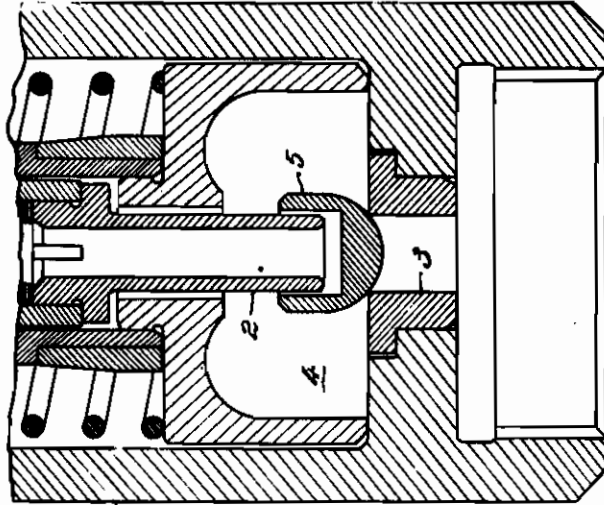
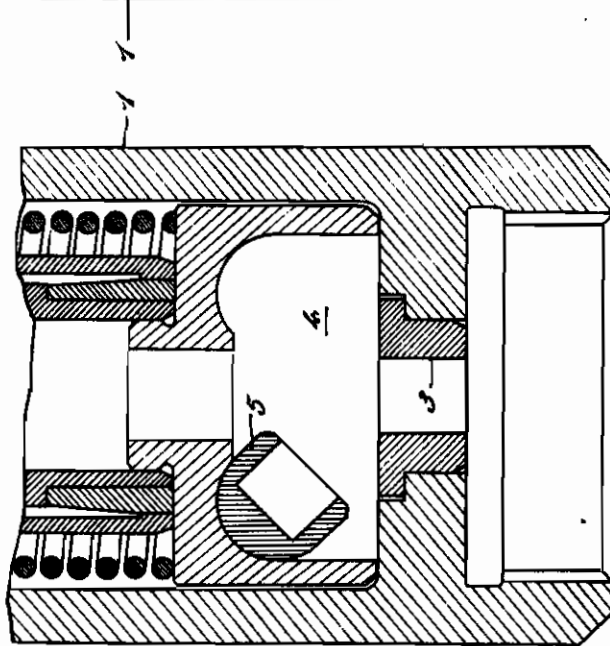


Fig. 1



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ALIEN PROPERTY CUSTODIAN

PERCUSSION CAP SAFETY DEVICE FOR PERCUSSION FUSES

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The present invention relates to a percussion cap safety device for percussion fuses.

According to the invention the safety device suggested is such that a section of the fire conduit is constituted by elements of which one is fixed, and the other mobile. Between these elements there is inserted a grain having such an outside shape that it may act as a valve, and being provided on one side with a blind cavity. In position of rest the outside part of the grain lies against the edge of the fixed part of the fire conduit and closes the same; the internal blind cavity, equally in position of rest embraces the end of the mobile conduit.

The device according to the invention is furthermore characterised by a free internal cavity having such form and dimensions as to permit the accommodation of the valve-shaped grain in a free position outside the fire conduit.

The device is schematically illustrated in the accompanying Fig. 1 showing a partial section of a fuse to which the same device has been applied.

As shown in said figure a part of the fuse body in whose cylindrical, axial cavity there is lodged a mobile element of the fire conduit 2, kept on the spot in resting position, by means of any system whatever for making the fuse "live" not shown in the drawing.

Within the fuse body there is inserted another fixed element of the fire conduit 3 acting as valve seat. Between these elements there is interposed, in correspondence with a free chamber 4 a grain 5 whose outside shape is capable of acting as a valve, comprising inside, a blind cavity. The

outside part of said grain lies, in resting position, on the edge of the fire conduit 3 and blocks the same while the internal blind cavity encloses the lower end of the mobile element 2 of the fire passage.

Said chamber 4 has such convenient form and dimensions as to permit the accommodation in a not obligatory position of the valve shaped grain, when this grain is disengaged from the fire conduit.

The device functions as follows:—

When the shot is fired (see Fig. 2) the mobile section of the fire conduit is disengaged from the safety system and successively, the action of the gases of the direct fire charge having ceased, the conduit remains free, owing to retardation or another force, to advance, allowing in its turn the valve shaped grain 5 to be displaced, which owing to gravity or another force is lodged in the chamber 4 already mentioned, disengaging itself from the fire conduit.

In the case of an unlooked for, spontaneous deflagration of the cap, the action of the same cap is developed on the valve shaped grain, obliging the same to strongly adhere against the respective seat, thus improving the closure of the fire conduit. In this manner the propagation of the priming of the cap is avoided.

The present invention has been illustrated and described in a preferred form of realisation but it is understood that constructive changes may be practically introduced without surpassing the limits of protection of the present industrial patent.

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