Oct. 8, 1940. H. G. TOWNER 2,216,862

FUSE

Filed April 6, 1938

Fig. 1.

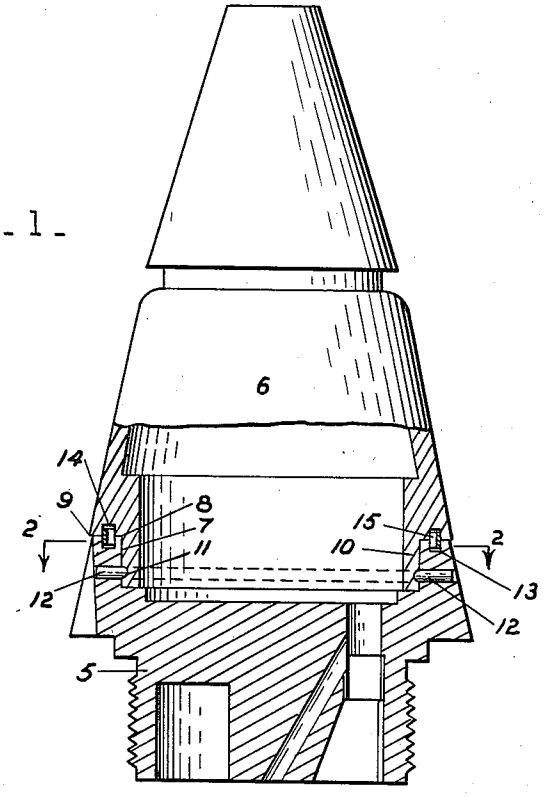


Fig. 2.

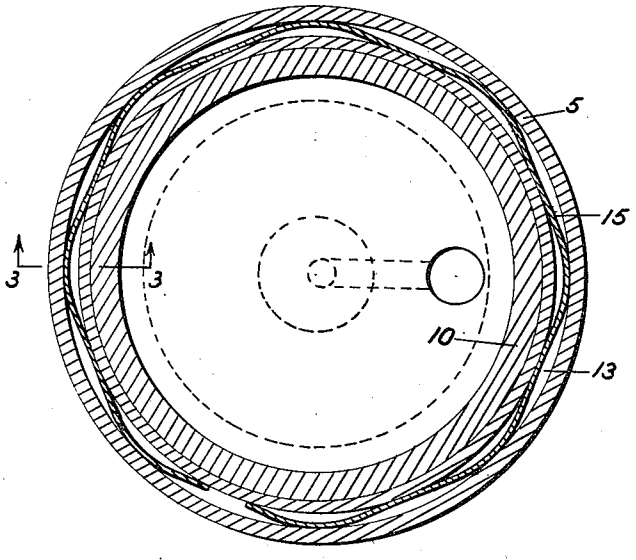
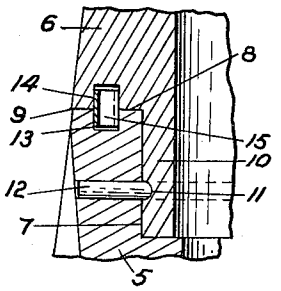


Fig. 3.



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2,216,862

FUSE

Harold G. Towner, New Haven, Conn.

Application April 6, 1938, Serial No. 200,331

1 Claim. (Cl. 102—36)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to me of any royalty thereon.

This invention relates in general to a fuse and more particularly it has reference to means for holding the relatively rotatable base and cap of a time fuse in position of adjustment.

The purpose of the invention is to provide a structure in which a simple and effective ring between a base and setting cap will permit relative movement of these members to set the timing mechanism of the fuse and will prevent their derangement under the influence of centrifugal force during flight.

To these and other ends, the invention consists in the construction, arrangement and combination of elements described hereinafter and pointed out in the claim forming a part of this specification.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a longitudinal sectional view of a fuse casing whose units are held in adjusted position by the improved ring;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is an enlarged sectional view on the line 3—3 of Fig. 2.

Referring to the drawing by characters of reference there is shown a fuse casing comprising a base 5 and a rotatable setting cup 6. The upper portion of the base is formed with a recess 7 and its front edge provides an annular seat 8 perpendicular to the longitudinal axis of the base. The cap is provided with a shoulder 9 for resting on the seat and it includes a reduced tubular extension 10 inserted in the recess adjacent the enclosing wall thereof.

The lower portion of the extension 10 is provided externally with a circumferential groove 11 adapted to receive the inner ends of pins 12—12 carried by the base. This arrangement maintains the assembly of the base and cap while permitting their free rotation.

The adjacent portions including the annular seat 8 of the base and the shoulder 9 of the cap are provided with registering annular grooves, respectively 13 and 14. A sinuous resilient split band 15 of substantially greater axial dimension than the axial dimension of a single groove is disposed in the grooves so that it alternately engages the inner and outer side walls of both grooves.

This frictional engagement with the relatively rotatable parts provides sufficient resistance to rotation to insure retention of the parts in adjusted position during flight.

I claim:

In a fuse casing, a pair of relatively rotatable connected members having adjacent annular engaging surfaces perpendicular to the axis of rotation, said surfaces provided with mutually registering annular grooves, and a sinuous resilient split band of substantially greater axial dimension than the axial dimension of a single groove disposed in the grooves and alternately and frictionally engaging the opposite inner and outer side walls of both grooves, said band being substantially coextensive in length with said grooves.

HAROLD G. TOWNER.