

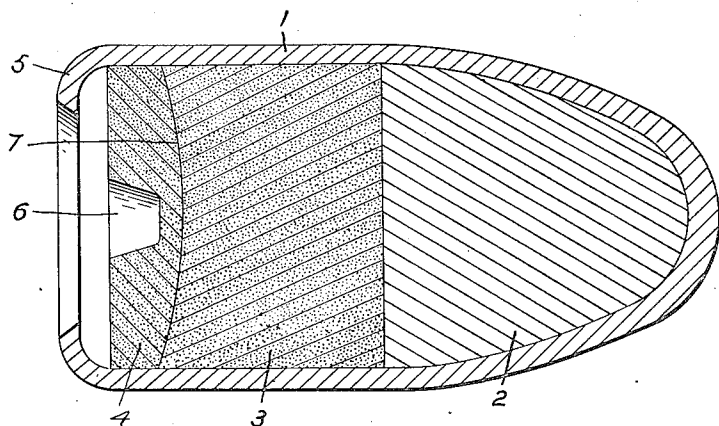
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2,319,248

BULLET

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BULLET

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1 Claim. (Cl. 102—87)

(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 to a tracer bullet and in particular to a bullet adapted for short ranges, for example 300 yards.

In short range projectiles the known types of tracers are inadequate because of tardy ignition. According to the invention, this defect is remedied by increasing the exposed area of the igniter composition, and shortening the path through the igniting composition. Likewise, the ballistic properties are maintained by proper distribution of the contents.

It is therefore an object of the invention to provide a tracer projectile which shall be ignitable in short range firing and which shall maintain proper ballistics.

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:

The single figure is a view in axial section of a projectile.

Referring to the drawing by characters of reference, there is shown a projectile comprising a jacket 1 which may be of gilding metal. The jacket has an ogival portion extending to about the midway point of the jacket and this portion is filled with a slug 2 which may consist of lead or a lead alloy or other heavy metal. The main tracer composition 3 is packed in on the slug 2 and the igniter composition 4 is packed on the tracer 3. The burning components 3 and 4 may also be precompressed and loaded into the jacket in pellet form. Likewise, the slug 2 may either be poured in or inserted complete.

The jacket is bent in at its rear edge as shown at 5 to facilitate insertion into a cartridge case and to assist in retaining the tracer charges and protecting them to some extent.

The igniting charge 4 is shown as spaced from the inturned edge 5. This enables the propellant gases to reach a greater surface of the tracer igniter and thereby hasten ignition as well as

rendering ignition more certain. The area of ignition is further increased by provision of a depression 6 in the igniting charge. Much of the initial blast of the propellant charge will be concentrated in the depression 6 and due to the reduced thickness of the igniting charge 4 the burning of tracer 3 is quickly initiated and the burning thereof commences at or near the axis. Thus, the depression 6 is effective both to produce a quick initiation of the tracer and, by an increase of surface, a quick and certain burning of the initiator charge as a whole.

As the igniter 4 continues to burn, the tracer 3 is ignited progressively at increasing distances from the axis, thus presenting a curved burning surface which focuses the flame axially to produce a narrow intense trace. The sloping sides of the depression 6 contribute to this progressive ignition of the tracer as does the initial curved boundary 7 between initiator and tracer, at low velocities.

The bullet of the invention is easily loaded, the flanged end being turned over subsequent thereto.

The inturned flange 5 of the jacket provides for easy insertion into the cartridge case and the flange is spaced from the igniting charge 4 to allow access to the entire surface of the same. In high velocity weapons the flange would be forced down on the igniting charge and hinder the total ignition and rapid burning of the same. However, in the intended use of the bullet in low velocity pistols and sub-machine guns the flange is not distorted so as to hamper ignition of the igniting composition.

I claim:

A tracer projectile comprising a jacket with an ogival portion extending approximately half the length of said jacket, a cylindrical portion forming the balance of said jacket, inturned ends on the rear of said jacket forming a flange, a heavy metal slug within said jacket filling the ogival portion substantially, a tracer charge behind said slug, an igniting charge behind said tracer, the boundary between said tracer and said igniting charge being concave rearwardly and a depression in said igniting charge facing rearwardly, said igniting charge being spaced from said flange.

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