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R. R. STUDLER

2,322,751

PROJECTILE

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Fig - 1

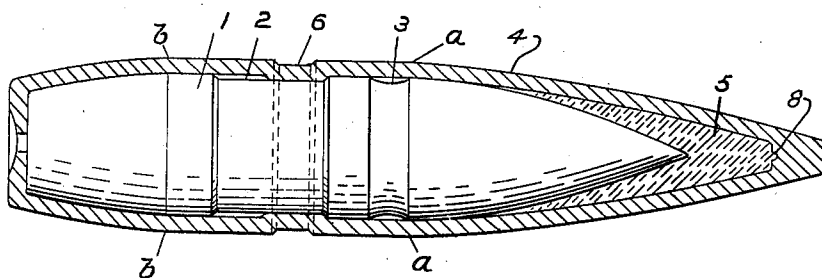
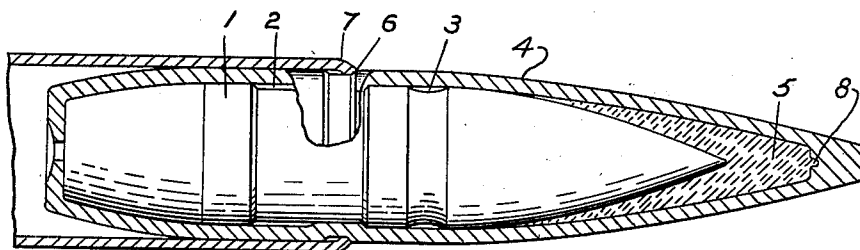


Fig - 2



Inventor
Rene R. Studler

By W. N. Roach
Attorney

UNITED STATES PATENT OFFICE

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PROJECTILE

René B. Studler, United States Army, Washington, D. C., assignor to United States of America as represented by the Secretary of War

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3 Claims. (Cl. 102—47)

(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.

The subject of this invention is a projectile and the invention relates more particularly to a jacketed bullet.

The main objects of the invention are the provision of a projectile which will offer less forcing resistance than the projectiles now in use; which will permit crimping in the neck of the cartridge case without cutting the jacket; and which may be so seated in the cartridge case as to prevent short round stoppages when fired in an automatic gun.

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

A preferred form of the invention is shown by way of illustration in the accompanying drawing, wherein:

Fig. 1 is a longitudinal section of a projectile constructed in accordance with the invention;

Fig. 2 is a similar view showing the projectile seated in a cartridge case, a fragment of which is shown.

Referring to the drawing by characters of reference:

The projectile is formed of a generally cylindrical core 1 having converging ends and provided with an annular groove 2 formed in that portion of the core of greatest diameter; and may also be provided with an annular groove 3 of less area than the groove 2, situated at that portion of the projectile where the lands start to engrave the projectile at the base of the forward converging end of the core.

A jacket 4 of suitable material; as, for instance, gilding metal; surrounds the core and, in the case of armor piercing projectiles, a point of filler 5 is inserted in the point of the jacket.

An annular groove 6 is rolled or otherwise formed in the jacket to press material of the jacket into the groove 2 and preferably though not necessarily engaging the forward shoulder of such groove, the underside of the said groove 6 being preferably narrower than the annular groove 2.

The projectile is so proportioned that the lands of the rifling in the gun barrel will engrave the

jacket within the area between *a* and *b* and, since the annular grooves in the core occupy a major portion of this area, the forcing resistance will be greatly reduced.

The neck 7 of the cartridge case may be readily crimped against the projectile by bending the material of the neck into the groove 6 and thereby providing a positive stop at the mouth of the case to prevent the projectile being forced into the case thus producing a short round and causing a short round stoppage.

The small depression 8, shown on the inner side of the jacket tip is a natural result of the die pressing operation by which the jacket is shaped.

I claim:

1. A projectile embodying a generally cylindrical core having converging end portions and formed to provide a wide circumferential groove within the cylindrical portion and extending over a substantial part thereof, a jacket enclosing the core and being deformed into said groove to form a narrow circumferential groove in the jacket with its under portion of less width than the core groove and adapted to receive the neck of a cartridge case.

2. A projectile embodying a generally cylindrical core having converging end portions and formed to provide a plurality of circumferential grooves one of which grooves is at the base of one of the converging ends and the other of said grooves lies within the cylindrical portion and extends over a substantial part thereof, a jacket enclosing the core and being deformed into the second mentioned groove to form a narrow circumferential groove in the jacket with its under portion of less width than the groove into which it is deformed and adapted to receive the neck of a cartridge case.

3. A projectile embodying a generally cylindrical core having converging end portions and formed to provide a wide circumferential groove within the cylindrical portion and extending over a substantial part thereof, a jacket enclosing the core and being deformed into said groove to form a narrow circumferential groove in the jacket with its under portion of less width than the core groove and engaging the forward shoulder of the latter groove and adapted to receive the neck of a cartridge case.

RENÉ R. STUDLER.