G. A. MUENZENMAIER.

JACKETED BULLET.

APPLICATION FILED JULY 31, 1916.

1,243,857.

Patented Oct. 23, 1917.

Fig. 1.

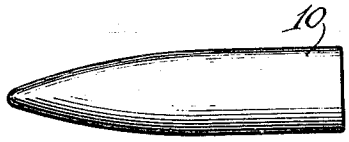


Fig. 2.

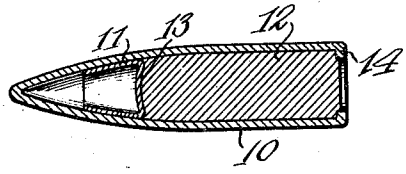
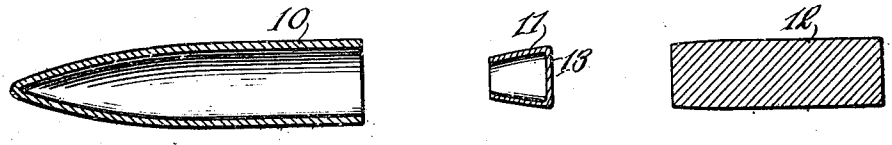


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE A. MUENZENMAIER, OF LEBANON, OHIO, ASSIGNOR TO THE PETERS CARTRIDGE COMPANY, OF CINCINNATI, OHIO, A CORPORATION OF OHIO.

JACKETED BULLET.

1,243,857. Specification of Letters Patent. **Patented Oct. 23, 1917.**

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To all whom it may concern:

Be it known that I, GEORGE A. MUENZENMAIER, a citizen of the United States, residing at Lebanon, in the county of Warren and State of Ohio, have invented certain new and useful Improvements in Jacketed Bullets, of which the following is a specification.

This invention relates to metal jacketed bullets, and has for its principal object the provision of a bullet of this character which shall be of improved construction and operation.

The invention is exemplified in the combination and arrangements of parts shown in the accompanying drawing and described in the following specification and in the steps of the process described therein. The invention is more particularly pointed out in the appended claims.

In the drawing—

Figure 1 is an elevational view of a bullet of the kind to which the present invention is applied.

Fig. 2 is a longitudinal sectional view of such a bullet, and

Fig. 3 is a longitudinal sectional view showing the parts of the bullet separated and arranged in the order in which they are assembled.

In the construction of metal jacketed bullets for high power rifles it is desirable that a bullet shall be comparatively long in order to give as long a bearing as possible in the barrel of the rifle to produce accurate results in firing. It has been found that if a bullet is made of sufficient length for accuracy and the jacket entirely filled with lead the bursting strain of the gas pressure in the rifle becomes excessive. A bullet of the same dimensions but of less weight requires less gas pressure for the same range of fire and hence it is desirable to reduce the weight of the bullet. This result is accomplished in the present invention by leaving the forward portion of the jacket hollow and filling only the rear portion with lead, as indicated in Fig. 2 of the drawing. The hollow portion is located at the forward end of the bullet in order to bring the center of gravity of the bullet near the base thereof as this arrangement produces a steadier flight than any other distribution of weight. In manufacturing a bullet of this character an integral hollow jacket like that shown at 10 in Fig. 3 is constructed in the usual manner. It is usual to form this jacket of cupro nickel, but the particular material used for the jacket constitutes no part of the present invention. A cup-shaped abutment 11 tapered to fit within the pointed end of the jacket and made of thin sheet metal is inserted into the jacket with the closed end positioned outwardly, as shown in Fig. 2. After the cup-shaped abutment is in place the lead filling 12 is placed in the jacket and forced firmly against the abutment. The pressure on the lead will cause the closed end 13 of the abutment 11 to bulge slightly toward the point of the bullet, as shown in Fig. 2. The abutment cup 11 may be made of copper, aluminum, or any other suitable material. When the filling metal 12 is in place the rear portion of the jacket 10 is turned over, as shown at 14 in Fig. 2, to form an inwardly projecting ledge to hold the parts of the bullet in place. The bullet is then connected with the shell in the usual manner and is ready to use.

I claim:

1. A bullet comprising a jacket having a hollow space therein, said hollow space extending to the inner wall of the jacket, filling material within the bullet, and a sheet metal abutment separating the hollow portion of the bullet from the space occupied by the filling material.

2. A bullet comprising an outer jacket, a cup-shaped abutment positioned within said jacket and having its open end extended toward the front of the bullet, and filling material located within said jacket in the rear of said abutment.

3. In combination, a jacketed bullet having an open space in the point thereof extending to the interior wall of the jacket, and having filling material within said jacket and an abutment located between said material and said open space, said abutment having a hollow interior communicating at its forward end with said open space.

4. In combination, a bullet comprising a metal jacket having an open space at the forward end thereof, filling material within said jacket at the rear of said open space, and an abutment member between said open space and said filling material, said abutment member having a hollow interior and a rear abutment wall integral with said member.

5. In combination, a bullet comprising an outer metal jacket having its forward end pointed, a cup-shaped abutment member arranged within said jacket with the open end thereof directed forwardly and the bottom portion forming a wall to separate the interior of said bullet into two compartments, and filling material arranged in the rear of said abutment member.

6. In combination, a bullet comprising a jacket having one end thereof closed, the walls of said jacket tapering toward said closed end, and a cup-shaped abutment member tapered toward its open end and arranged within said jacket and shaped to fit against the inner surface of the tapered portion of said jacket.

7. In combination, a bullet comprising a jacket having its walls arranged to taper toward one end thereof, and an abutment member having a rear wall and a peripheral rim secured thereto and tapered toward the forward end of said jacket, said abutment member being arranged within said jacket and held in position therein by the tapered portion of said walls.

8. In combination, a bullet comprising an integral metal jacket having a closed pointed end, a cup-shaped abutment arranged within said jacket and spaced from the pointed end thereof, filling material arranged within said jacket against said abutment and on the side thereof opposite said pointed end, and means for holding said material in place within said jacket.

In testimony whereof I have signed my name to this specification, on this 27th day of July, A. D. 1916.

GEORGE A. MUENZENMAIER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."