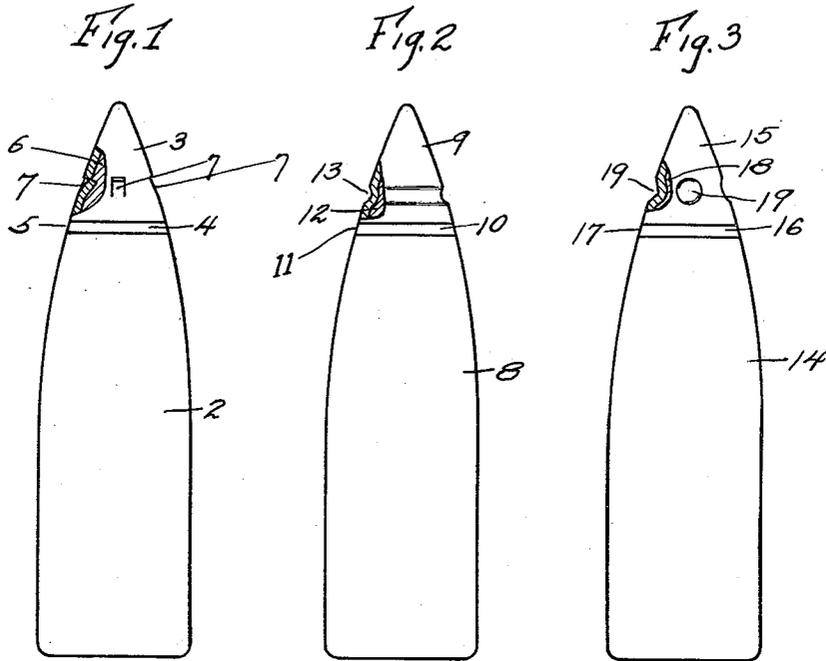


T. C. JOHNSON.
MUSHROOM BULLET.
APPLICATION FILED SEPT. 15, 1913.

1,077,607.

Patented Nov. 4, 1913.



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS C. JOHNSON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

MUSHROOM-BULLET.

1,077,607.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS C. JOHNSON, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Mushroom-Bullets; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1, a view in side elevation of a mushroom bullet constructed in accordance with my invention, with a portion of the tip of the jacket broken away to expose a portion of the core which is shown in section. Fig. 2, a view, corresponding to Fig. 1, of one of the modified forms which my invention may assume. Fig. 3, a view, corresponding to Fig. 1, of another of the modified forms which my invention may assume.

My invention relates to an improvement in that class of mushroom bullets in which a soft-metal core is inclosed in a relatively hard sheet-metal jacket-body and jacket-tip, the edges of which are separated from each other by a circumferential accommodation space into which a portion of the soft-metal core is exuded to complete the superficial contour of the bullet, the object being to provide a superior bullet of the character described.

With this end in view my invention consists in a bullet having certain details of construction as will be hereinafter described and pointed out in the claim.

In carrying out my invention as shown in Fig. 1, the relatively hard jacket-body, 2, and jacket-tip, 3, have their edges separated from each other by a circumferential accommodation space, 4, into which a band, 5, is exuded from the soft-metal core, 6, upon which the said parts 2 and 3 are concurrently swaged. For the retention of the jacket-tip, 3, upon the point of the core, 6, I produce in the said tip, a plurality of symmetrically arranged anchoring indenta-

tions, 7, struck inward from the exterior surface of the tip, and either not cutting through the metal thereof or cutting it so slightly as not to permit the metal of the core to flow outward into the indentations which remain as shallow depressions in the exterior surface of the tip of the finished bullet.

In the modified construction shown by Fig. 2, the jacket-body, 8, and the jacket-tip, 9, are separated by an accommodation space, 10, into which a band, 11, of the metal of the core, 12, is exuded. In this construction the jacket-tip, 9, is retained upon the point of the core by the formation in it of a shallow circumferential groove, 13, which does not break the metal of the tip but which takes into the core, 12, so as to hold the tip in place thereupon.

In the modification shown by Fig. 3, the jacket-body, 14, is separated from the jacket-tip, 15, by a circumferential accommodation space, 16, occupied by a band, 17, exuded from the core, 18, when the bullet is swaged, the jacket-tip being held in place by a plurality of circular anchoring indentations, 19, which do not break the metal of the jacket-tip, but which upset the same and take into the core so as to lock the tip thereupon.

I claim:

A mushroom bullet having a soft metal core, a jacket-body, and a jacket-tip, the said body and tip being formed independently of each other and swaged upon the core and separated by an accommodation space occupied by a band of metal exuded from the core and the tip being externally indented to take into the core for its retention upon the point thereof without permitting the metal of the core to flow into the external indentations in the tip.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

THOMAS C. JOHNSON.

Witnesses:

FRANK A. PAUL,
HARRY L. CROCKETT.