

No. 854,923.

PATENTED MAY 28, 1907.

H. L. BROAD.

BULLET.

APPLICATION FILED APR. 1, 1907.

Fig. 1.

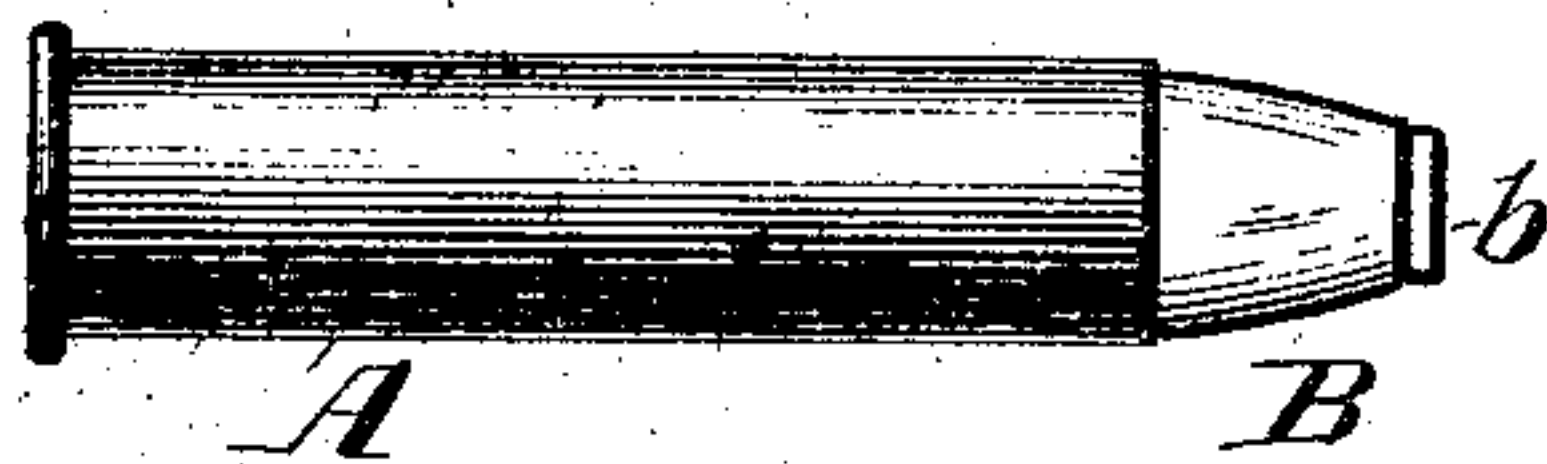


Fig. 2.

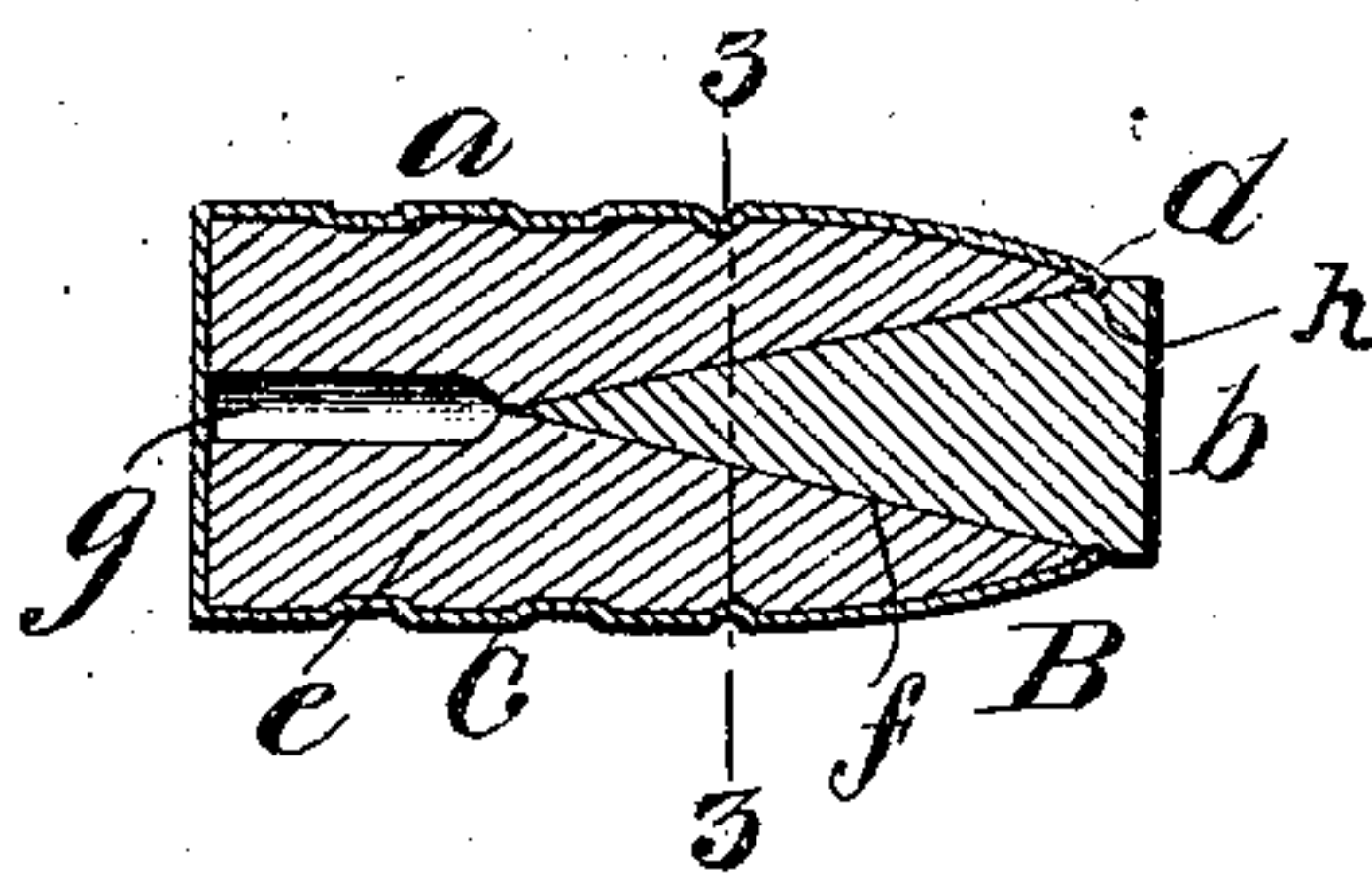


Fig. 3.

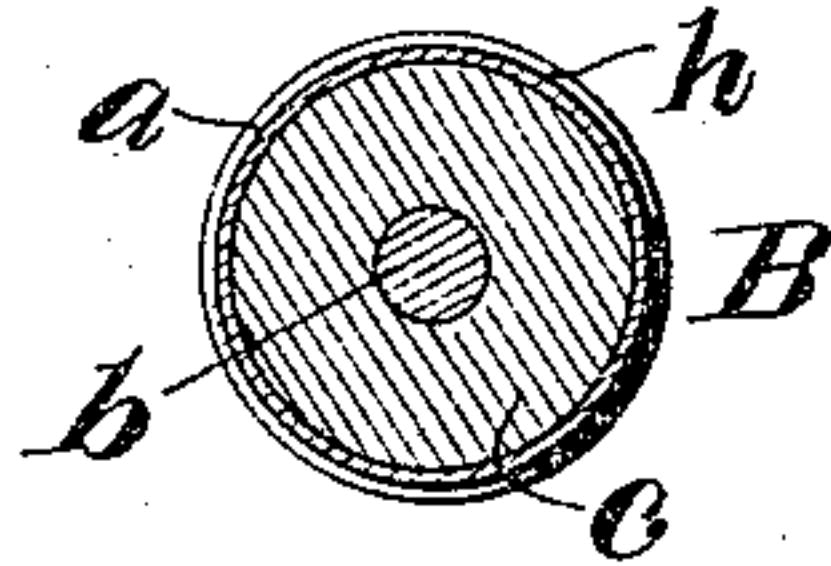
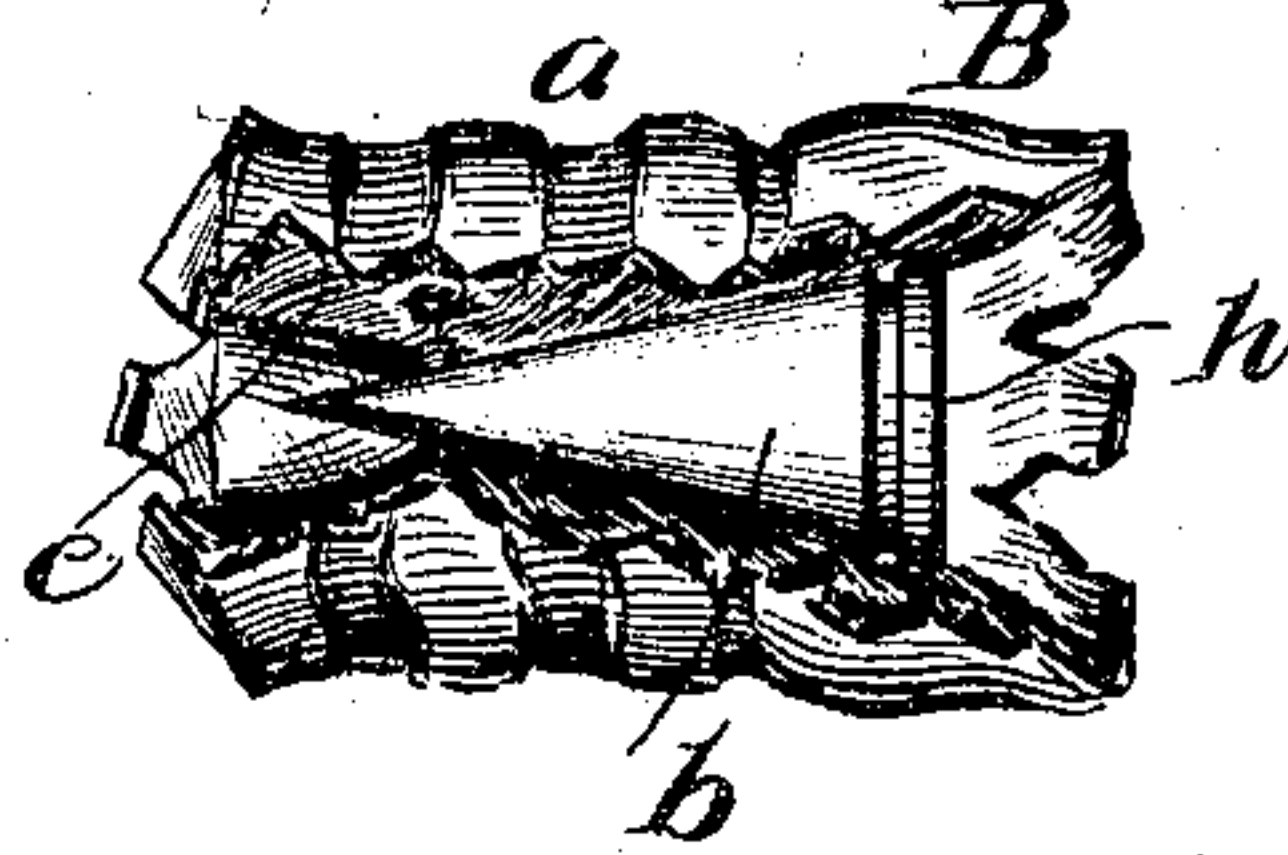


Fig. 4.



Fig. 5.



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UNITED STATES PATENT OFFICE.

HARRY L. BROAD, OF ALPENA, MICHIGAN, ASSIGNOR OF ONE-SIXTH TO GEORGE F. McRAE, ONE-SIXTH TO JOHN F. EALES, AND ONE-SIXTH TO ALLEN M. EALES, ALL OF ALPENA, MICHIGAN.

BULLET.

No. 854,923.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed April 1, 1907. Serial No. 365,781.

To all whom it may concern:

Be it known that I, HARRY L. BROAD, a citizen of the United States, residing at Alpena, in the county of Alpena and State of Michigan, have invented new and useful Improvements in Bullets, of which the following is a specification.

My invention pertains to projectiles, and more particularly to projectiles or bullets for use in the cartridges of rifles and other firearms of high velocity; and it has for its object to provide a projectile or bullet embodying such a construction that when fired at high velocity it is not liable to be deflected from its course by twigs, brush or the like, and yet it is adapted on striking a substantial object to expand and thereby tear a hole much larger than its original diameter.

Other objects and advantages of the invention will be appreciated from the following description and claims when the same are read in connection with the accompanying drawings, forming part of this specification, in which:

Figure 1 is a view of a rifle cartridge provided with a bullet constructed in accordance with my invention. Fig. 2 is an enlarged longitudinal central section of the bullet, removed. Fig. 3 is a transverse section taken in the plane indicated by the line 3—3 of Fig. 2. Fig. 4 is a perspective view of the steel expander of the bullet as the same appears when removed from the comparatively soft body of the bullet. Fig. 5 is a view of the bullet showing the manner in which the same is expanded when it strikes a hard object.

Similar letters of reference designate corresponding parts in all of the views of the drawings.

In Fig. 1 A is the shell of a cartridge, which may be of any construction compatible with my invention, and in Figs. 1 to 5 B is the bullet constituting the present and preferred embodiment of my invention.

At this point I desire it understood that the term bullet as hereinafter employed is intended to comprehend projectiles such as employed in fire-arms as well as projectiles of larger caliber, and this notwithstanding the fact that my novel bullet is more particularly designed to be fired from sporting rifles—i. e., rifles employed in hunting game, of high velocity.

As best shown in Figs. 2 to 4, my novel bullet B comprises a body *a* and an expander *b*, the body being of comparatively soft material as is essential to the purpose of my invention. The body *a* is preferably formed with a jacket *c* of copper or equivalent material having an inturned flange *d* at its forward end, and a filling *e*, of lead or other suitable metal arranged in the jacket and having a rearwardly tapered socket *f* in its forward portion and also having a chamber *g* slightly in rear of the said tapered socket. Preferably the chamber *g* is formed in the rear end of the filling *e*, and the rear end of the said chamber is closed by the end wall of the jacket *c*, as clearly shown in Fig. 2. The expander *b* is in the form of a tapered body, preferably of steel, and is provided adjacent to its forward blunt end with a circumferential groove *h*. The said expander *b* is disposed in the tapered socket *f* of filling *e*, and the flange *d* of the jacket *c* is turned into the said groove *h* of the expander, whereby it will be apparent that normally the expander will be securely held in the body *a* of the bullet.

By virtue of the construction described in the foregoing, it will be noted that my novel bullet when fired from a rifle of high velocity is not liable to be deflected from its course by twigs, brush or similar objects that it encounters. It will be understood, however, that when the bullet strikes a hard object, the blunt forward end of the expander *b* will strike first, with the result that the expander operating after the manner of a wedge will spread the forward portion of the body *a* outward, and by cooperating with the air chamber *g* will cause the rear portion of said body *a* to spread outward. From this it follows that as the bullet passes through the object encountered it will tear a hole much larger than the original diameter of the bullet.

The forward portion of the body *a* is expanded in the manner stated by the expander *b* cooperating with the copper jacket *c*, while the base or rear portion of the bullet is spread and the rear portion of the copper jacket is split by the expander cooperating with the chamber *g* in the rear portion of the filling *e*.

It will be gathered from the foregoing that notwithstanding the practical advantages possessed by my novel bullet the same is

simple and compact in construction and may be easily and cheaply produced.

The construction herein shown and described constitutes the best means known to me for carrying out my invention, and is preferred for such reason. I desire it understood, however, that in practice such changes or modifications may be made as do not involve departure from the scope of my invention as defined in the claims appended. For instance the bullet B may have a square forward end, as shown, or a round forward end, and when desired a V-shaped notch may be formed across the forward end with a view of assisting in the spreading of the bullet when the same brings up against an object.

Having described my invention, what I claim and desire to secure by Letters-Patent, is:

1. A bullet comprising a jacket having an inturned flange; a filling arranged in the jacket, and a comparatively hard, tapered

expander arranged in the filling with its blunt end foremost and having a circumferential groove adjacent to said end receiving the inturned flange of the jacket. 25

2. A bullet comprising a jacket having an inturned flange at its forward end, a filling arranged in the jacket and having a rearwardly tapered socket in its forward portion and an air chamber in rear of said socket, and a comparatively hard, tapered expander arranged in the tapered socket of the filling with its blunt end foremost and having a circumferential groove adjacent to said end receiving the inturned flange at the forward end of the jacket. 30 35

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HARRY L. BROAD.

Witnesses:

E. H. TOLAND,
MICHL O'BRIEN.