No. 609,003. Patented Aug. 16, 1898.

P. BORELLI.

PROJECTILE.

(Application filed Sept. 4, 1897.)

(No Model.)

Fig. 1.

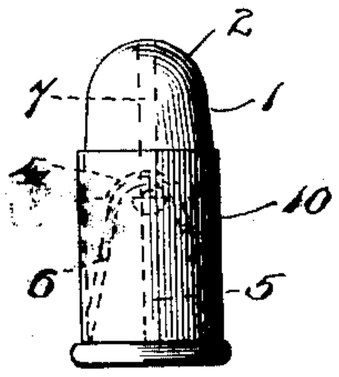


Fig. 2.

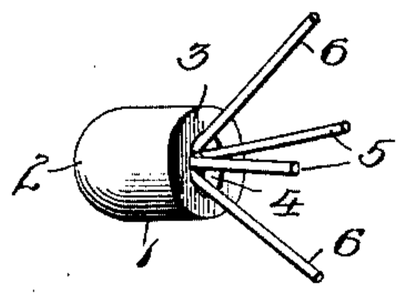
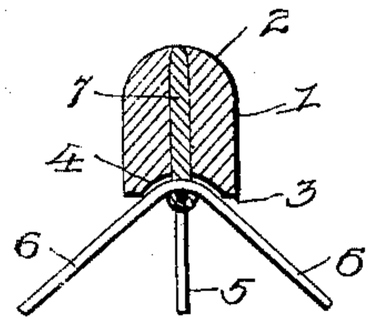


Fig. 3.



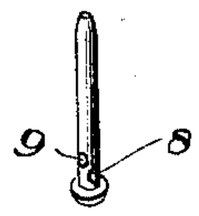


Fig. 4.

Witnesses
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By his Attorneys,

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UNITED STATES PATENT OFFICE.

PETER BORELLI, OF WAPINITIA, OREGON.

PROJECTILE.

SPECIFICATION forming part of Letters Patent No. 609,003, dated August 16, 1898.

Application filed September 4, 1897. Serial No. 650,598. (No model.)

To all whom it may concern:

Be it known that I, PETER BORELLI, of Wapinitia, in the county of Wasco and State of Oregon, have invented certain new and useful Improvements in Bullets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in projectiles.

The object of the present invention is to improve the construction of bullets and other projectiles and facilitate accurate flight of the same and to render them more deadly in their effect.

A further object of the invention is to provide a bullet which will be adapted to break or fly apart when a predetermined resistance has been presented by its penetration into a body.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is an elevation of a projectile constructed in accordance with this invention, the barbs or fliers being compressed within a shell. Fig. 2 is a detail perspective view of the bullet. Fig. 3 is a central longitudinal sectional view of the same. Fig. 4 is a detail view of the securing-pin.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

1 designates a bullet having a point 2 and a butt 3 and provided at the latter with a concavity 4, forming a socket or seat. The concavity provides a tapering socket or seat which presents inclined walls, for a purpose hereinafter described. The bullet is provided with resilient barbs or fliers 5 and 6, secured to the butt 3 in the concave socket 4 by a pin 7, disposed longitudinally of the bullet and extending inward from the socket. The securing-pin is provided at its rear end with transverse apertures 8 and 9, arranged at right angles to each other and receiving strips of steel wire or other resilient material of which the fliers or barbs are constructed. The strips of metal are centrally secured in the concave socket, which causes the barbs or fliers to diverge rearwardly, and its inclined walls support the said barbs or fliers in such position, as clearly illustrated in Fig. 3 of the accompanying drawings.

In the course of manufacture the securing-pin is inserted into the bullet, and the strips of metal, which form the fliers, are passed through the apertures 8 and 9. The pin will then be forced farther into the bullet, carrying the central portions of the strips into the socket and causing the walls thereof to compress the fliers in the manner illustrated. It will be apparent that when the bullet is inserted into the ends of a shell 10 the barbs or fliers, which are directly attached to the butt of a bullet, are compressed and extend within the shell, as shown in dotted lines in Fig. 1 of the drawings. As soon as the bullet is projected the fliers will expand to the position indicated in Figs. 2 and 3 of the drawings and will serve to prevent the bullet from swerving out of its direct line of flight, and when the bullet has pierced a body the barbs or fliers will operate to enlarge the wound and prevent the retraction of the projectile. It will also be seen that the piercing of the bullet by the securing-pin will slightly weaken the same, and when a resistance is presented to the further progress of the bullet the tendency will be to force the securing-pin farther into the projectile and break the same and cause it to fly to pieces.

The invention has the following advantages: The resilient fliers or barbs by being directly attached to the butt of the bullet are adapted to be depressed within a shell, and the device is adapted to be employed in firearms using the ordinary form of cartridge. The said barbs or fliers also secure great accuracy in the flight of a projectile, which is rendered more effective and deadly by them.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

1. The combination with a projectile provided with a butt-socket, of a securing-pin passed axially through the projectile, and barbs secured to the pin within the butt-socket, substantially as described.

2. The combination with a projectile provided with a butt-socket and having an axially-disposed securing-pin, of resilient strips secured medially to the extremity of the securing-pin within the butt-socket and having their extremities retained in divergent relation to the edges of the butt-socket, substantially as described.

3. The combination of a projectile provided at its butt with a series of resilient barbs or fliers constructed of metal and secured directly to the projectile, said barbs or fliers being adapted to be compressed, and the shell receiving and compressing the resilient barbs or fliers and concealing the same, the barbs or fliers being capable of expanding when the projectile leaves the shell, substantially as described.

4. The combination of a projectile provided at its butt with a tapering socket forming inclined walls, and resilient arms or fliers secured within the socket and bearing against the inclined walls thereof, whereby they are supported in a divergent position, substantially as described.

5. A device of the class described comprising a shell, a bullet or projectile fitting within the shell and forming an ordinary cartridge, and expansible barbs or fliers connected with the bullet or projectile and compressed and concealed within the shell, said barbs or fliers being capable of positively expanding when the projectile or bullet leaves the shell, substantially as described.

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

PETER BORELLI.

Witnesses:
J. L. STORY,
C. A. SCHUTZ.