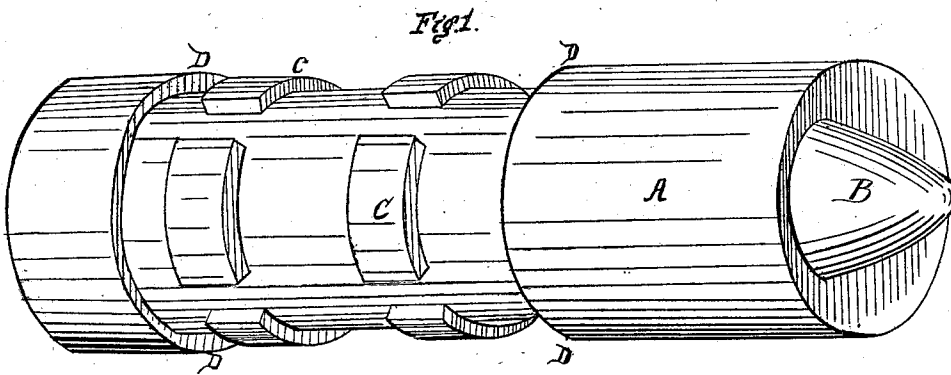
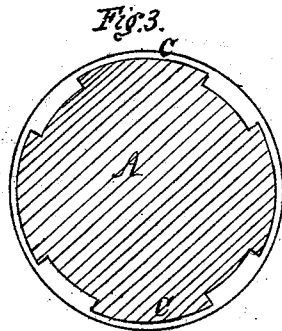
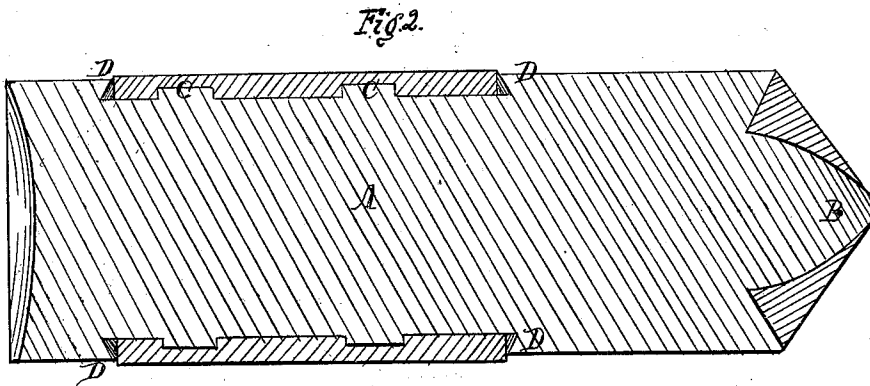


B. C. CONVERSE.
Projectile.

No. 43,835.

Patented Aug. 16, 1864.



Witnesses

Charles Smith.
James H. Bradley

Inventor.

UNITED STATES PATENT OFFICE.

B. C. CONVERSE, OF CINCINNATI, OHIO.

IMPROVEMENT IN PROJECTILES FOR RIFLED ORDNANCE.

Specification forming part of Letters Patent No. **43,835**, dated August 16, 1864; antedated August 5, 1864.

To all whom it may concern:

Be it known that I, Captain B. C. CONVERSE, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Projectile; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a projectile embodying my invention. Fig. 2 is a section of the same. Fig. 3 is a transverse section of the same, the section being taken in the line *x x* of Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in a projectile having a central projecting point wholly or in part circumscribed by a beveled cutting-edge, said beveled cutting-edge and point bearing such relation to each other as that the projectile, when fired against an iron plate, shall first indent or bend the same, and thus allow the cutting-edge to more easily penetrate it, the indenting or bending of the plate serving by heating and separating the fibers of the iron to so weaken it as to cause it to offer less resistance to the cutting-edge of the projectile which follows than if the cutting-edge were allowed to strike against the plate without any previous indentation. The annular cavity which surrounds the base of the cone is filled with any soft substance non-resisting to the impact of the projectile, as will be hereinafter fully explained.

To enable others skilled in the art to which my invention appertains to understand and make the same, I will proceed to describe its construction and operation.

In the accompanying drawings, A represents a bolt or projectile which is of cylindrical form, and may be made of wrought-iron and case-hardened; or it may be made wholly of steel, or of these two metals combined, in which latter case the body of the projectile should be of iron and the point and cutting-edge of steel. Projecting from the front end of the projectile is an axial point, B, of conoidal or other suitable form. This point, at its base, is of considerable less diameter than

the projectile proper, and is circumscribed wholly or in part by a circular cutting-edge formed on the front end of the projectile by cutting under the edge, forming between the base of the projecting point and circular cutting-edge an annular cavity, which, to prevent its retarding the passage of the projectile through the air, may be filled with any soft substance, such as wax, tallow, or any other lubricating substance non-resisting to the impact of the projectile. The rear or butt end of the projectile may be of concave form, as shown in Fig. 2 of the drawings; or it may be straight and at right angles to the axis of the projectile.

In all the figures of the drawings, C C represent segments of bands or rings, and D D undercut shoulders, formed on the projectile, and between which, around and over the segments, a casing of lead or other soft metal is cast, of the proper diameter to fit snugly the bore of the gun from which the projectile is to be fired. The rings being cut into segments serve to give a better hold to the soft metal, and thereby preclude the possibility of its working loose or turning independently of the projectile when fired from a piece of rifled ordnance.

If preferred, any other suitable packing may be substituted for the soft-metal packing herein described.

The first effect of a projectile of the above-described construction when fired from a cannon or piece of ordnance against an iron-plated ship, is to indent or bend the plate, and thus, by heating and separating the fibers of the iron, to so weaken it as to cause it to offer less resistance to the cutting-edge which follows the point and penetrates the iron than when the cutting-edge is allowed to strike the iron without any previous indentation.

In penetrating plates at low angles, so oblique as almost to approach a parallel, this projectile can be used with marked effect, as its peculiar construction renders it capable of stripping off the plate upon the slightest impact.

It is evident that the above-described invention is as applicable to a shell as a projectile, and I propose to apply it to either.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with a circular cutting-edge and central projecting cone, constructed and combined as specified, filling the annular cavity which surrounds the base of said cone with any soft substance non-resisting to the impact

of the projectile, as and for the purpose specified.

The above specification of my improved projectile signed this 21st day of March, 1863.

B. C. CONVERSE.

Witnesses:

JAMES H. GRIDLEY,

R. H. MAYHEW.