

De L. KENNEDY.  
PROJECTILE.

No. 189,043.

Patented April 3, 1877.

FIG. I.

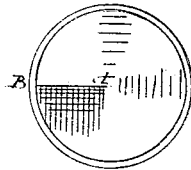


FIG. II.

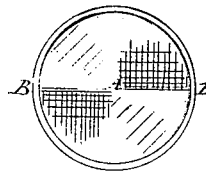


FIG. III.

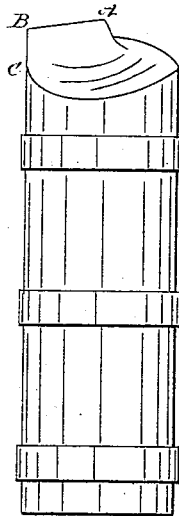
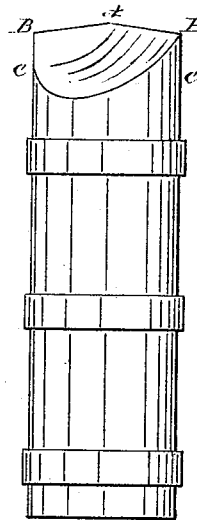


FIG. IV.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

DE LANCY KENNEDY, OF NEW YORK, N. Y.

## IMPROVEMENT IN PROJECTILES.

Specification forming part of Letters Patent No. 189,043, dated April 3, 1877; application filed March 15, 1877.

*To all whom it may concern:*

Be it known that I, DE LANCY KENNEDY, of the city, county, and State of New York, have invented an Improved Projectile, of which the following is a specification:

The object of this invention is to provide a projectile that will more easily penetrate the armor-plates of a war-vessel, and which I propose to accomplish by so shaping its end as to effect a continuous shearing-cut, similar to that performed by the blades of a pair of shears, and thus, with comparative ease and certainty, to puncture the armor of a ship or the turret of a monitor at which it may be fired; and it consists in giving to the ends of such missiles a chisel-point, with a spirally-inclined contour around its periphery, by which such continuous shearing-cut is performed as it penetrates the plate.

Referring to the annexed drawing, Figure 1 represents a face view of projectile having a chisel-edge radiating from its center to its periphery, with a spiral incline all around. Fig. 2 represents a modification, the chisel-edge extending all across the face, with spiral inclines from the point of one to the base of the other, or half round the periphery. Fig. 3 is a side view of Fig. 1, and Fig. 4 a side view of Fig. 2.

The cutting-edge of the point or forward end of a projectile, made in accordance with this invention radiates from the center A to the periphery at B, and thence spirally all around on a gradual and uniform incline to the point C, perpendicular to the point B.

It may be desirable to have two radial chisel-edges on the face, as represented in Figs.

2 and 4, with inclines extending from the point B of the one to the perpendicular base C of the other, or one-half round the periphery. This will balance the missile, and prevent any tendency to deviate from its course.

The radial cutting-edges A to B may be square across or diagonal to the axis of the projectile, inclining rearwardly. In the latter case, on striking the target, the penetration will commence at the center, extending radially to the periphery, and around the latter on an incline, performing, as it were, a shearing operation in penetrating.

Thus, it will be seen that the two opposite sides of the periphery are cutting simultaneously; consequently the projectile is balanced on its axis, and the cut or penetration being gradual, the resistance is comparatively easily overcome.

The shearing-face of a projectile constructed on this plan may be of the full diameter of such missile, or less than that of its body portion, as will effect the greatest penetration with a given charge of powder.

What I claim as new, and desire to secure by Letters Patent, is—

A projectile constructed with a cutting-edge, extending radially from the axis at A to the periphery at B, and thence spirally around, or partly around, the periphery to the point C, substantially as shown and described.

DE LANCY KENNEDY.

Witnesses:

OLE H. HOLBERG,  
D. S. RIDDLE.