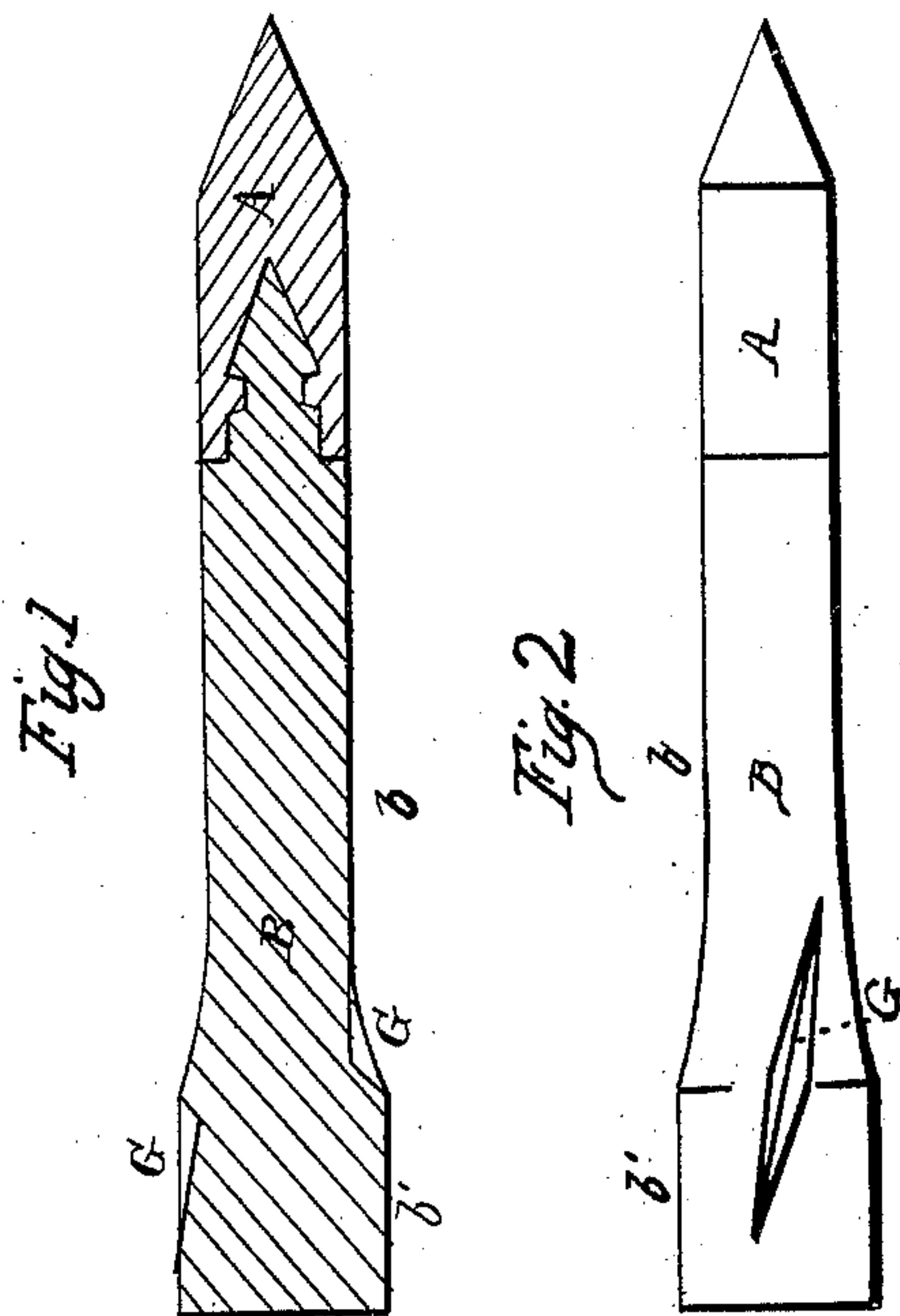


D. M. MEFFORD.

Projectile.

No. 34,285.

Patented Jan. 28, 1862



Witnesses.

Octavus Knight
John L. E. Clark

Inventor:

D. M. Mefford.
By
Attorney

UNITED STATES PATENT OFFICE.

DAVID M. MEFFORD, OF CINCINNATI, OHIO.

IMPROVEMENT IN PROJECTILES FOR FIRE-ARMS.

Specification forming part of Letters Patent No. **34,285**, dated January 28, 1862.

To all whom it may concern:

Be it known that I, DAVID M. MEFFORD, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Projectiles; and I hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an axial section of my improved projectile. Fig. 2 is a side elevation of the same.

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

The subject of my invention is a projectile designed chiefly for small-arms, and consisting of a metallic head, and a shaft of wood or other light material, so formed and combined that the center of gravity shall be forward of the center of the figure, and the center of the figure forward of the maximum plane of resistance.

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

A is a metallic head, of conical or other substantially equivalent form, pointed in front, and expanding backward, but not to a size sufficient to fit the bore of the piece with which the projectile is to be used.

B is a shaft of wood or other light material, formed with a front portion, *b*, fitting and

secured to the head in any suitable manner, and a cylindrical rear portion, *b'*, which is intended to fit the bore of the piece. In Fig. 1 the shaft is represented as turned with a conical projection in front, grooved latitudinally, so as to receive and tightly hold a leaden head, A, which is run up in it. I do not, however, restrict myself to any specific manner of attaching the shaft to the head. The front portion, *b*, of the shaft has for some distance a diameter equal to that of the rear of the head A, then expands to the cylindrical rear portion, *b'*, which is intended to fit the bore.

I am aware that projectiles have before been constructed with metallic heads and shafts of wood or other material in various forms.

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

A projectile having a metallic head of smaller diameter than the bore of the piece with which it is intended to be used, and a shaft of wood or other light material the greatest diameter of which fits the bore, or nearly so, when the parts are so formed and combined that the greatest diameter of the shot is in the rear of the center of the figure, and the center of the figure is in the rear of the center of gravity, substantially as herein shown and explained.

DAVID M. MEFFORD.

Witnesses:

OCTAVIUS KNIGHT,
GEO. B. WAY.