

No. 896,687.

PATENTED AUG. 18, 1908.

D. BUCCI.

PROJECTILE FOR THROWING SHOT LINES.

APPLICATION FILED JAN. 22, 1907.

2 SHEETS—SHEET 1.

Fig. 1

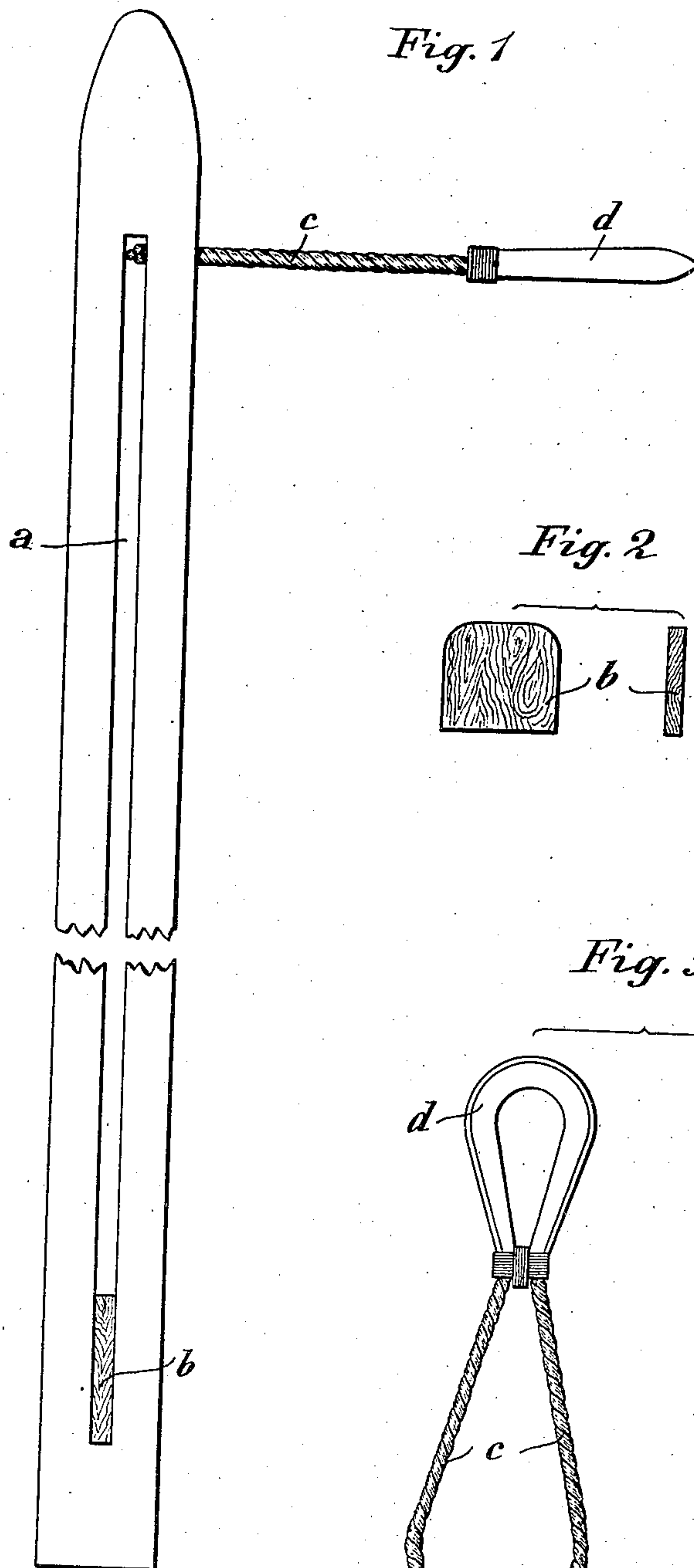


Fig. 2

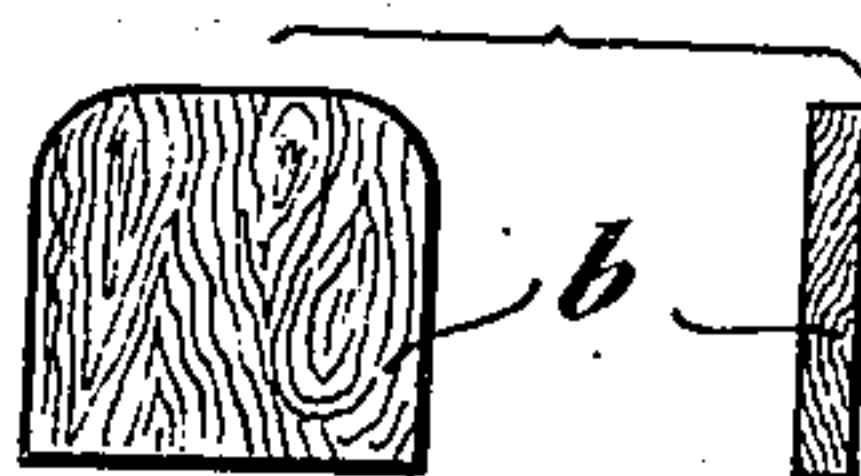
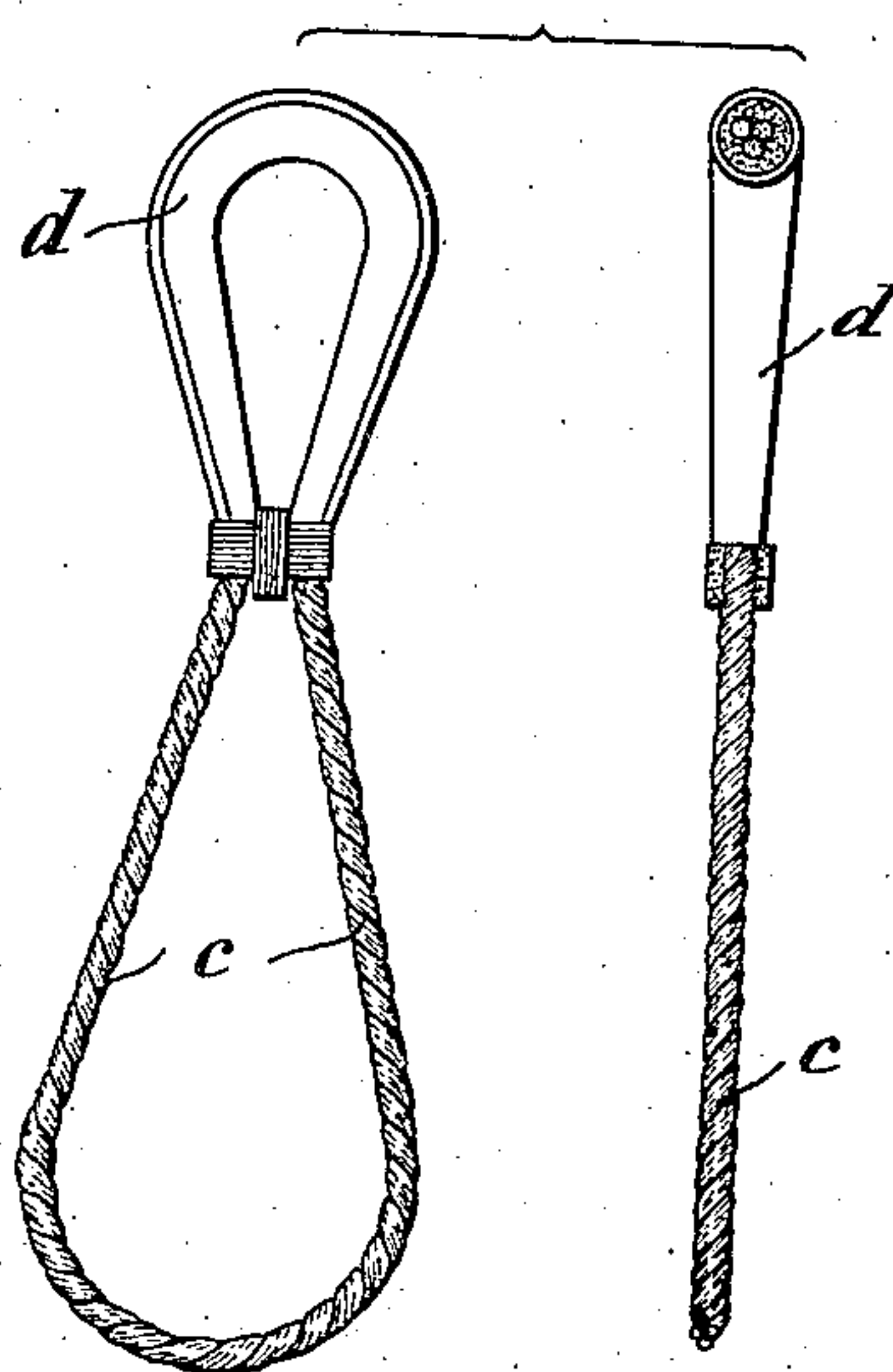


Fig. 3



WITNESSES:

*W. H. Berrigan.*  
*F. H. Logan*

INVENTOR,  
DANTE BUCCI,  
by *Wm. H. Deane & Schomberg*  
Attorneys.

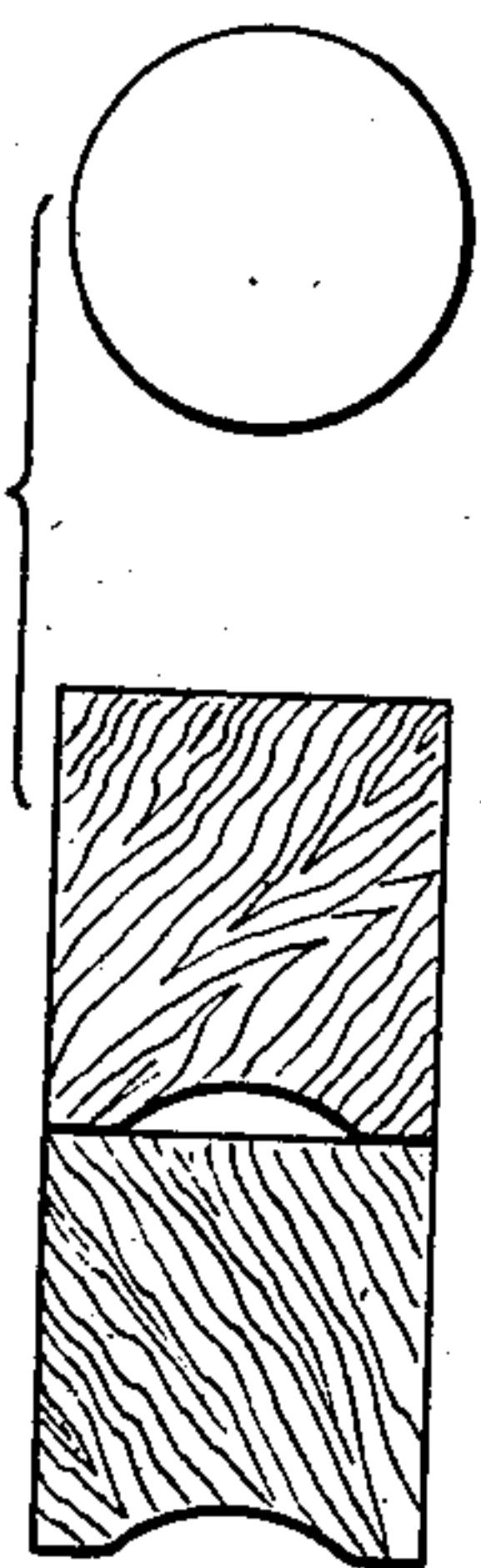
No. 896,687.

PATENTED AUG. 18, 1908.

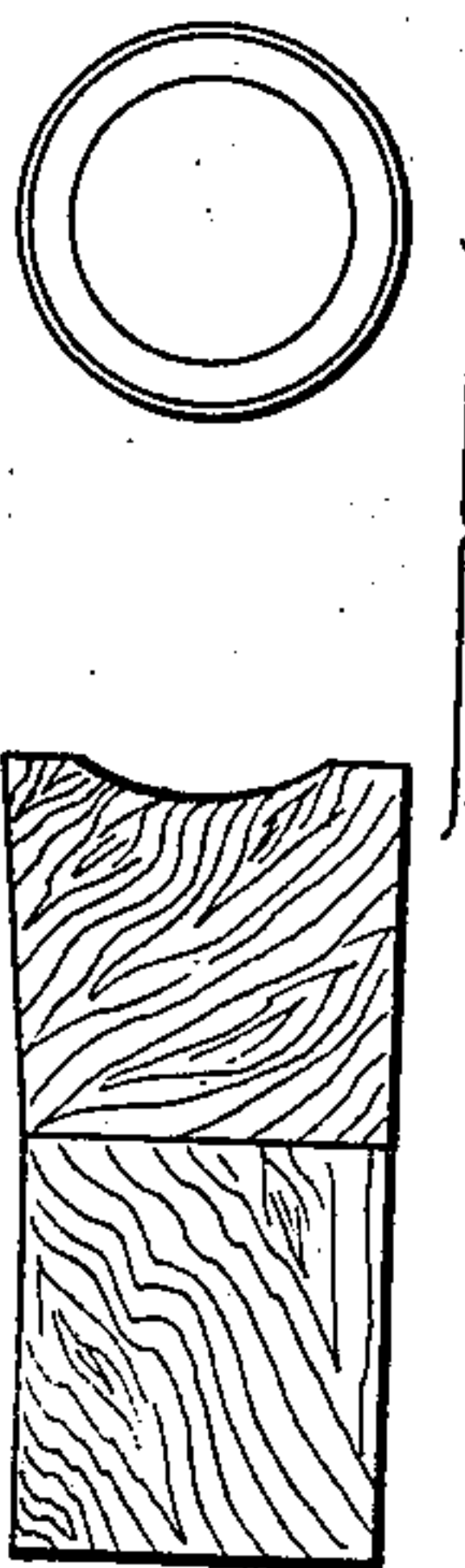
D. BUCCI.  
PROJECTILE FOR THROWING SHOT LINES.  
APPLICATION FILED JAN. 22, 1907.

2 SHEETS—SHEET 2.

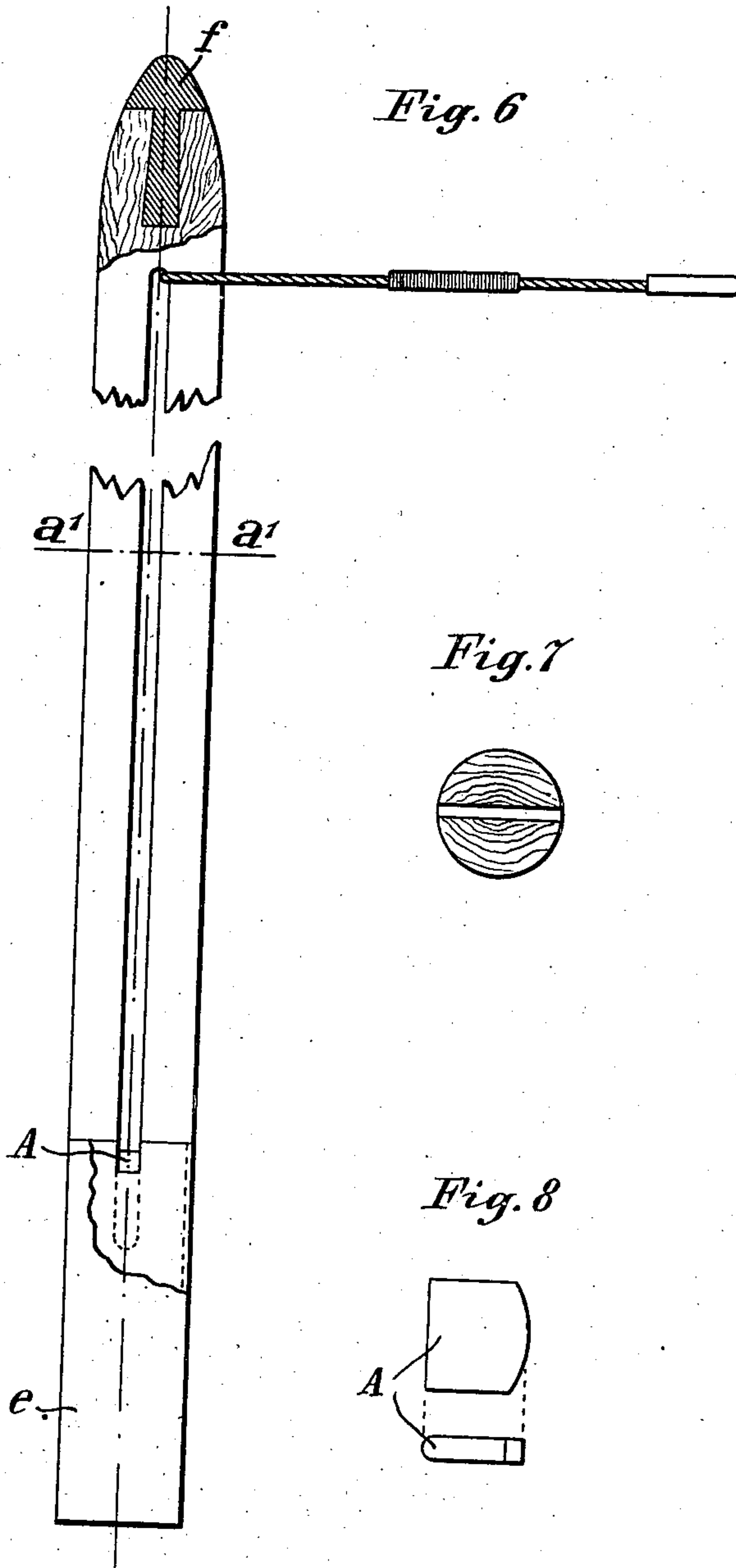
*Fig. 4*



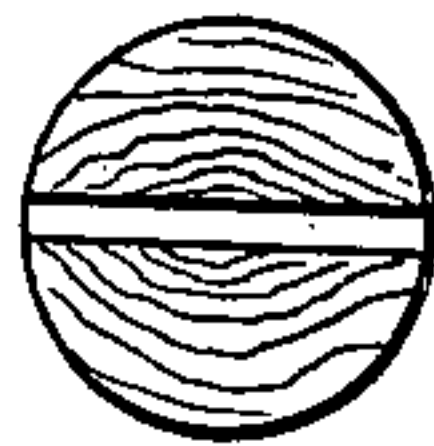
*Fig. 5*



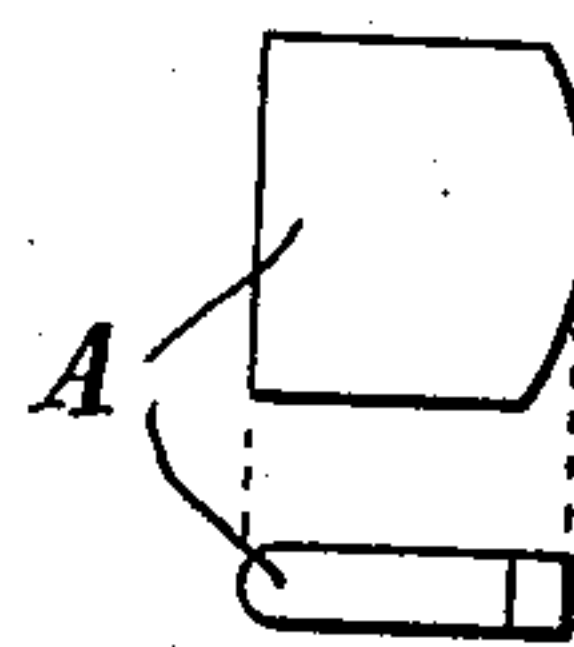
*Fig. 6*



*Fig. 7*



*Fig. 8*



WITNESSES,  
*H. H. Berrigan.*  
*F. H. Logan.*

INVENTOR.  
DANTE BUCCI,  
by  
*W. H. Deane & Schenck*  
Attorneys.



# UNITED STATES PATENT OFFICE.

DANTE BUCCI, OF ROME, ITALY.

## PROJECTILE FOR THROWING SHOT-LINES.

No. 896,687.

Specification of Letters Patent.

Patented Aug. 18, 1908.

Application filed January 22, 1907. Serial No. 353,419.

*To all whom it may concern:*

Be it known that I, DANTE BUCCI, a subject of the King of Italy, residing at Rome, Italy, have invented certain new and useful Improvements in Projectiles for Throwing Shot-Lines, of which the following is a specification.

The projectiles now used for throwing shot-lines to vessels have the inconvenience of only being adapted for use with certain guns, besides not affording a sufficient accuracy of aim. Furthermore, the line frequently breaks, owing to the reversal movement of the projectile, and in every case a loss of speed, a diminution of length of range of shot, and a variable and not controllable lateral deflection is thereby produced.

The object of the present invention is, therefore, to provide a construction of shot securing the greatest possible trajectory of flight and accuracy of aim, and preventing, on the other hand, breaking of shot-line.

In the annexed drawings: Figure 1 is a lateral view of the improved line-shot; Fig. 2 shows, in side and in edge views, a wooden block to be fitted in the lower end of a slot of the line-shot; Figs. 3, 4, and 5 are details of said form; Fig. 6 is a lateral view, and Fig. 7 a section of a modification of the new projectile; Fig. 8 is a detail view of the cushioning piece used in said modified form.

My improved line-shot or projectile, which will preferably be, when in the form illustrated by Fig. 1, of cast steel for unrifled or smooth-bore guns, and of ordinary gun metal for rifled guns so as to absolutely avoid damaging the grooves or rifles, is of an elongated cylindrical form with a shell point the radius of which will be proportional to the dimensions of the shot and the latter of such dimensions that the center of gravity is at the point necessary for the stability of the shot on its flight. The said shot has a longitudinal slot *a*, Fig. 1, at the rear end of which a block *b*, Fig. 2, of rectangular section, and of soft wood, is placed. The slot *a* is to allow the loop *c* of a wire rope (shown in detail in Fig. 3) to slide lengthwise in it. To the lower or outer lead or loop *d* of the said loop *c*, the shot-line is secured by (say) a double sailor's knot.

The loops *c*, *d* may comprise three or four twisted flexible steel wire strands of a total circumference of about 2 centimeters according to the resistance necessary to overcome the inertia. To obtain greater elasticity the

lower or outer lead or loop *d*, will be suitably coated with tow covered with leather, and it will further be advantageous to wrap a wet cloth around the point of connection between the loop and line, to prevent the combustion gases of the charge from damaging the line.

When using with a muzzle loader, two cork stoppers, Fig. 4, with recessed front ends will preferably be inserted between the shot, or projectile, and powder charge, while, when using breech-loaders, stoppers of well-seasoned fir wood, which may be of the shape shown in Fig. 5, will advantageously be inserted from the breech of the gun. The shot-line is usually untarred hemp cord about 5-7 mm. thick. I, however, use, even for very long trajectories and in cases where the gun is not to be put under an excessive stress, a silk line—as the latter is more easily thrown.

There is no necessity of using special guns for projecting the above described line-shots, all usual forms of guns being adapted thereto, provided the dimensions of the shot or projectile correspond to the bore of the gun. My new shot or projectile is quite cheap to make, and an additional advantage over line-shots heretofore in use, I call attention to the fact that my new projectile may be used again and again after very slight repairs, so that every ship may be equipped with line-shots. It is obvious that my new projectile may also be used for communications from one ship to the other, preliminary to coal loading and to towing and for short distances, in which cases I preferably use wood projectiles, (for instance, of seasoned oak or beech) as shown in Fig. 6, where *e* indicates a brass ferrule and *f* a lead point, so that if the projectile instead of falling into the water beyond the ship to which it is launched, falls on board the ship, no damage will be caused thereby.

Fig. 7 is a section on line *a'—a'* of Fig. 6, and Fig. 8 shows the cushioning piece *A* ready to be inserted (as shown in Fig. 6) in the rear end of slot of wood shots according to this modification.

It will be seen that, by this construction wood shots may be safely used for throwing life-lines in cases where the distance is too small for metal shots and too great for ordinary sand bags.

What I claim is:—

1. A projectile for the launching of shot-lines, consisting of an elongated cylindrical body provided with a slot entirely through

and extending lengthwise of said body, and having an inserted wooden block fitted in said slot at its rear end and constituting a resistance device, in combination with a  
5 shot-line holder comprising a loop of metallic material slidably fitted through the slot aforesaid and having a loop outside of said projectile covered with a yielding cushion.  
2. A projectile for launching shot-lines,  
10 consisting of an elongated cylindrical body provided with a slot entirely through and extending lengthwise of said body and hav-

ing an inserted wooden block having a curved end fitted in said slot at its rear end, and constituting a resistance device, in combination with a shot-line holder comprising a metallic loop slidably fitted through the slot aforesaid. 15

In testimony whereof I have affixed my signature in presence of two witnesses.—

DANTE BUCCI.

Witnesses:

A. ROGG,  
DUËLIS NARDOVI.