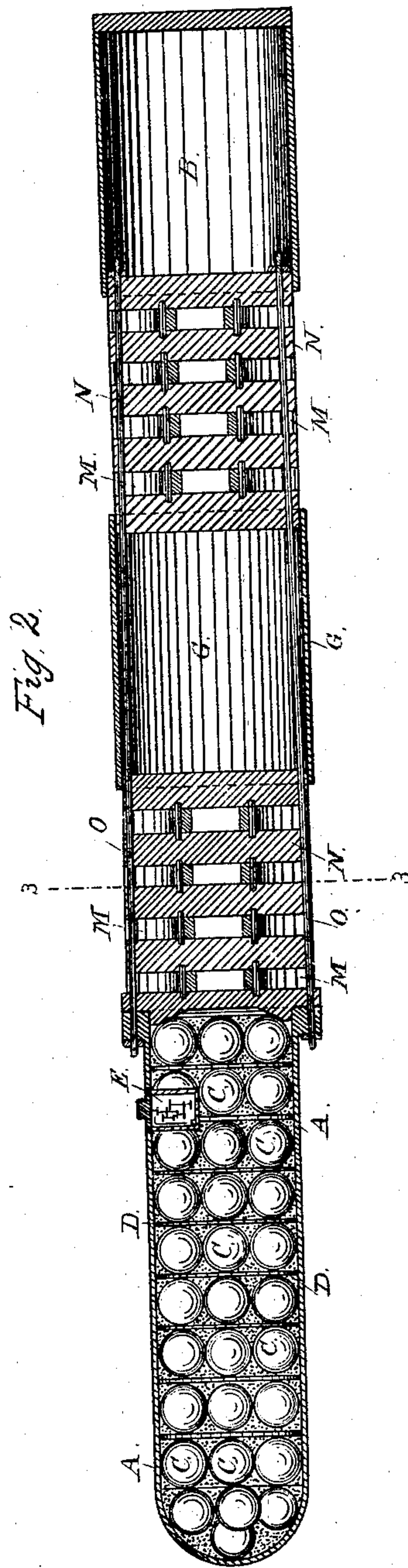
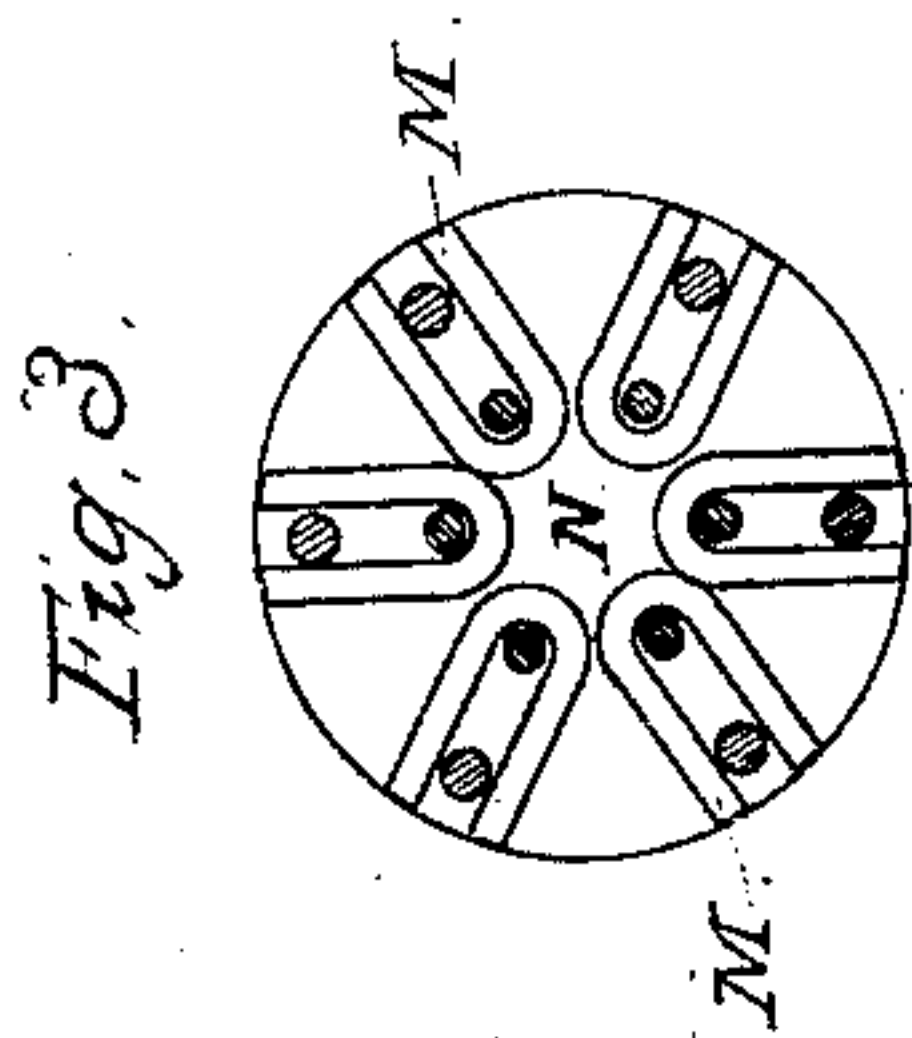
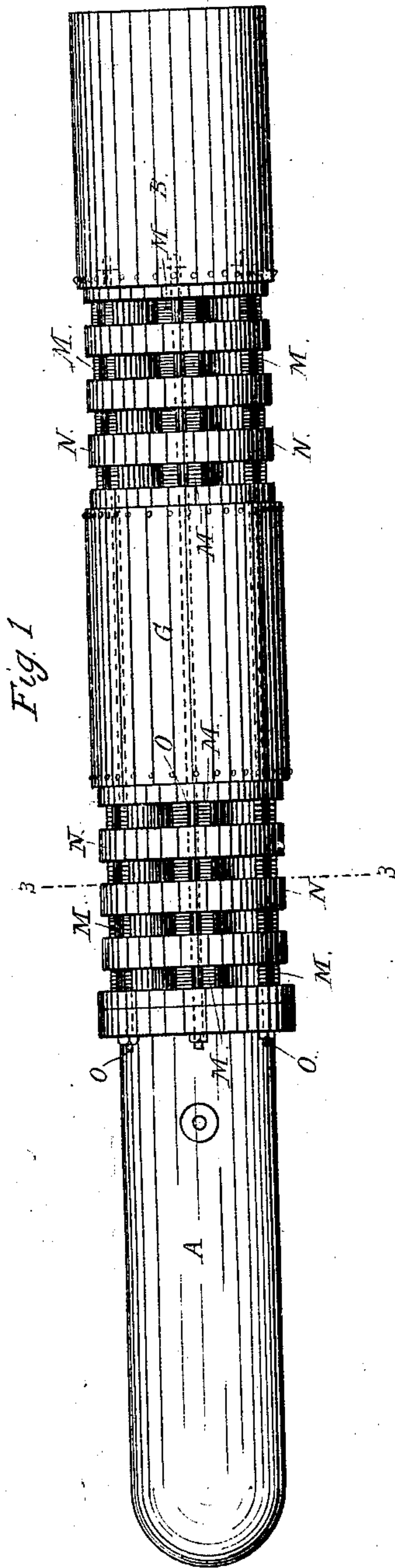


M. COLONEY.  
Projectile-Torpedo.

No. 222,669.

Patented Dec. 16, 1879.



Attest:  
Geo. T. Smallwood Jr.  
Walter Allen

Inventor:  
Myron Coloney  
By Knight Bros. attys



# UNITED STATES PATENT OFFICE.

MYRON COLONEY, OF ST. LOUIS, MISSOURI, ASSIGNOR OF SEVEN-EIGHTHS  
OF HIS RIGHT TO JAMES HENRY MCLEAN, OF SAME PLACE.

## IMPROVEMENT IN PROJECTILE-TORPEDOES.

Specification forming part of Letters Patent No. **222,669**, dated December 16, 1879; application filed  
September 19, 1878.

*To all whom it may concern:*

Be it known that I, MYRON COLONEY, of the city and county of St. Louis, and State of Missouri, have invented a new and Improved Projectile-Torpedo, of which the following is a specification.

The subject of my invention is a torpedo adapted to be fired from a gun.

The said projectile-torpedo is constructed with an explosive-chamber in front, provided with a time firing apparatus, one or more flotation-chambers at back, and one or more zones of horseshoe-magnets arranged in circumferential tiers, with their poles presented outward, so as to draw and attach the torpedo to any iron body which it may approach.

To hold the magnets firmly in position, wooden disks are interposed between the tiers of magnets, the whole being firmly bolted together, so as to form a nearly solid cylindrical body.

The explosive agent I prefer to employ is nitro-glycerine applied in partially-filled rubber balls arranged in tiers, between which are interposed diaphragms of soft rubber to prevent premature explosion by concussion in firing from the gun.

In order that my invention may be more fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the projectile-torpedo. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section on the line 3 3 of Figs. 1 and 2.

A is the head of the torpedo, constituting the explosive shell. B is the base, constituting an air-chamber for flotation. C C C are the rubber balls, partially filled with nitro-glycerine and arranged in tiers within the shell A. D D are disks of soft rubber interposed between the balls C C to prevent concussion.

E represents a time-fuse, preferably run by clock-work, and employed to produce the explosion at any desired period. Gunpowder is filled into the interstices between the balls C C, to communicate fire throughout the exploding charge.

M M M represent horseshoe-magnets arranged, as shown, in radial position in circumferential tiers around the waist of the projectile, and fixed in position by means of interposed wooden disks N and longitudinal

bolts O. I thus form the magnetic zone into a nearly solid cylindrical body, and the magnets being arranged with their poles presented outward in every direction, they are adapted to draw the projectile into close contact with any iron body which it may approach, and so hold it until the charge is fired and the work is done.

I prefer to arrange the magnets in two zones, as shown, with a second air-chamber, G, interposed between them.

A projectile twelve feet long and twenty inches in diameter may be made to weigh, when charged, about one thousand pounds, and as it will have a water-displacement of fully one thousand three hundred and sixty pounds, about one-fourth of its length will be out of water when it comes to rest, and the projectile is thus adapted to cling beneath the bilge of an iron vessel with the explosive shell well underneath.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A projectile-torpedo constructed with an explosive-chamber, one or more flotation-chambers, and one or more zones of magnets to adapt the torpedo to attach itself to an iron body, substantially as set forth.

2. A torpedo provided with one or more zones of magnets, M, arranged radially in circumferential tiers, with their poles presented outward, substantially as and for the purpose set forth.

3. The circumferential tiers of radial magnets M, interposed disks N, and bolts O, combined substantially as and for the purposes herein set forth.

4. A shell or torpedo charged with an explosive compound contained in balls of elastic material arranged in tiers separated by disks of elastic material, as herein shown and described.

5. A shell or torpedo constructed with an explosive-chamber, one or more flotation-chambers, one or more zones of magnets, and a time firing apparatus, substantially as and for the purpose set forth.

6. An explosive projectile provided with magnets to adapt it to attach itself to an iron body, substantially as set forth.

Witnesses: MYRON COLONEY.  
GEORGE D. LAMBERT,  
FRANK L. NICHOLS.