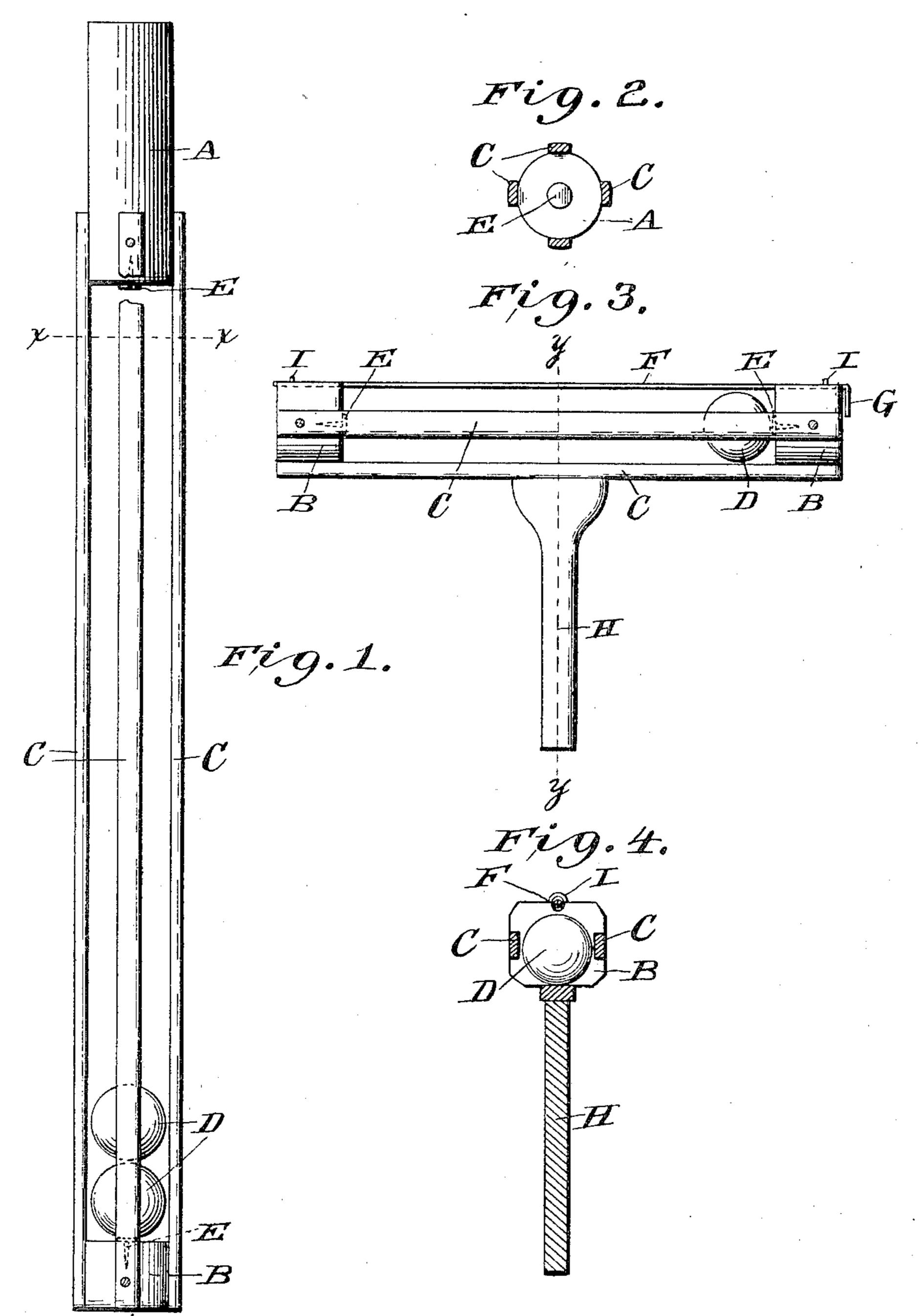
## G. BACCI.

## TORPEDO HOLDER AND EXPLODER.

(Application filed Sept. 24, 1900.)

(No Model.)



Witnesses Jas H. Blackwood albert B. Blackwood Sustavo Bacci Enventor By Hopkins

## UNITED STATES PATENT OFFICE.

GUSTAVO BACCI, OF NEW YORK, N. Y., ASSIGNOR TO FREDERICK CRANE, OF BLOOMFIELD, NEW JERSEY.

## TORPEDO HOLDER AND EXPLODER.

SPECIFICATION forming part of Letters Patent No. 674,052, dated May 14, 1901.

Application filed September 24, 1900. Serial No. 30,941. (No model.)

To all whom it may concern:

Be it known that I, Gustavo Bacci, a subject of the King of Italy, residing at 186 Spring street, in the city, county, and State of New York, have invented new and useful Improvements in Torpedo Holders and Exploders, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same.

My invention relates to improvements in torpedo holders and exploders; and it consists of a receptacle or cradle in which a torpedo is adapted to be confined and caused to con-15 tact with a hard surface; and the object of my improvement is to provide a compact and efficient holder and exploder for torpedoes which will obviate the necessity of throwing the same upon the ground or other hard sur-20 face and allow the torpedo to be exploded while being carried in the hand safely and conveniently.

While my invention is adaptable to any variety or manner of torpedo, it is especially de-25 signed to accommodate and render more efficient that species of torpedo known as the "repeating" torpedo, which is usually globular in form and capable of successive detonations upon different parts of its surface.

30 I attain this object in the device illustrated in the accompanying drawings, in which-

Figure 1 is an elevational view of my invention; Fig. 2, a section of same on line x x of Fig. 1; Fig. 3, a side elevation of a modifica-35 tion, and Fig. 4 a section on line y y of Fig. 3.

Similar reference characters refer to similar

parts throughout the several views.

Referring to the drawings, A and B are blocks, which are connected at their four sides 40 by strips or rods C. The block A is made longer than B to serve as a handle by which to grasp the holder. The blocks A and B may be of any desired shape; but I prefer to | make them cylindrical in form. The rods C 45 are attached to the blocks A and B by screws, glued, or otherwise securely united thereto, and form a cage or track in which the globular torpedoes are adapted to be placed and allowed to be rolled or thrown from one end 50 thereof to the other. One or more torpedoes may be used. The strips C may be made of | such thinness that they may be sprung apart to allow of the extraction or insertion of a torpedo into the cage, or one of said strips may be removably attached to the blocks and re- 55 moved when desired.

In Fig. 1 two torpedoes D D are shown in the cage. This is a very efficient arrangement, as the explosion of the torpedo striking the blocks A and B is each time supple- 60 mented by the explosion caused by the two

torpedoes striking together.

I provide a hard surface, preferably metal, on the inner surfaces of the blocks A and B, which metallic surface may be applied in any 65 suitable manner. The preferred method, however, is to drive an ordinary tack into the inner surfaces of each of the blocks A and B, the head of which tack constitutes the hard metallic contacting surface desired. Such 70 tacks are shown in the drawings as E E.

In the modification shown in Figs. 3 and 4 I have substituted for one of the strips C a wire F, which I attach to the blocks B B by staples II and allow the wire F to slide in the 75 staples and be withdrawn longitudinally to allow of the insertion or extraction of a torpedo. I may further provide a bent portion G of the wire F to facilitate the withdrawal of the same. The strips C may be substituted 80 altogether by wires similar to F, three of which will, however, have to be rigidly secured. The fourth may, however, be slidably mounted, as above stated. In this modification I also locate the handle H midway of the 85 cage or receptacle and at right angles thereto, attaching the same to one of the strips C. This arrangement I find is very efficient and convenient.

It is obvious that various changes in the 90 construction and details of my device may be made without departing from the spirit of my invention.

Having now described the several parts of my invention, what I claim as my invention, 95 and desire to secure by Letters Patent, is-

1. In combination with an explosive torpedo, a cradle therefor consisting of thin longitudinal guide-strips connecting end pieces having hard inner contact-surfaces, substan- 100 tially as described.

2. In combination with an explosive tor-

pedo, a cradle therefor consisting of springwires disposed longitudinally and connecting end pieces having hard inner contact-sur-

faces, substantially as described.

5 3. In combination with an explosive torpedo, a cradle therefor consisting of guidestrips and end pieces, metallic contact-surfaces provided upon said end pieces equidistant from said guide-strips, substantially as to described.

4. In combination with an explosive torpedo, a cradle therefor, oppositely-disposed end pieces in said cradle, guide-strips connecting said end pieces, and a nail or tack driven into the inner surfaces of said end

pieces equidistant from said guide-strips, substantially as described.

5. In combination with an explosive tor-

pedo, a cradle therefor having end pieces, guide-strips connecting said end pieces, and 20 one of said guide-strips removably secured to said end pieces, substantially as and for the purpose set forth.

6. In combination with an explosive torpedo, a cradle therefor, oppositely-disposed 25 stop means therein and means for allowing the insertion and withdrawal of said torpedo,

substantially as described.

In testimony whereof I have signed my name to this specification in the presence of 30 two subscribing witnesses.

GUSTAVO BACCI.

Witnesses:
D. W. MEEK,
JAMES MCKAY.