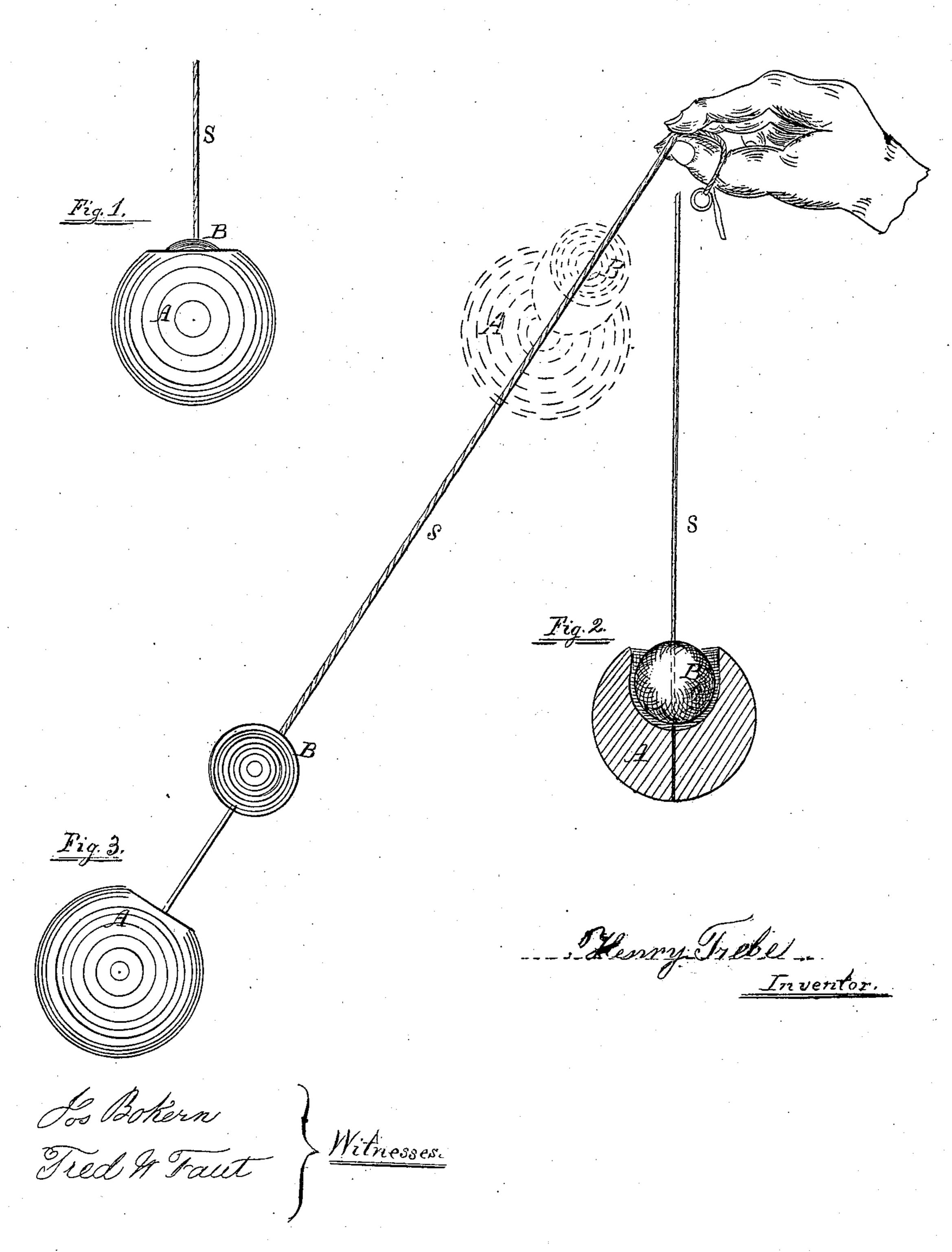
H. Trebe,
Toy Ball.
No. 93,249. Fatent

Faterited Aug. 3.1869.



Anited States Patent Office.

HENRY TREBE, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO HIM-SELF AND FREDERICK KLARE.

Letters Patent No. 93,249, dated August 3, 1869.

TOY-BALL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HENRY TREBE, of the city of Indianapolis, in the county of Marion, and State of Indiana, have invented a new and useful Improvement in Toys for children, which I denominate a "Musical Toy-Ball;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction of a "return-ball," of much less diameter than those in use heretofore, and of a spherical, or concavoconvex receiving cup for the same, and of stringing both the cup and ball to one end of a small India-rubber string, while a small ring is placed at the other end of said string, by which it is to be held between the thumb and finger when in use.

When the string is thus held, and the cup and ball thrown off, the contraction of the string afterwards brings them back to the hand, the ball settling within the concavity of the cup just before reaching the hand, with a smart explosive or aspirate noise.

Considerable skill may be acquired in the use of this toy, so as to vary the musical noise thus made, by varying the vibrations of the string from a short to a long stroke, and vice versa.

This toy, therefore, furnishes all the amusement that can be in any "return-ball," while in addition it possesses an element for the play of juvenile ingenuity, in the production of very plain musical sounds.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construc-

tion and operation.

I desire that the drawings herewith sent, shall constitute a part of this specific description, by reminding the reader that like letters on the various figures always refer to like parts.

Figure 1 is a side elevation of the spherical cup A, barely showing a small segment of ball B, as the ball rests within said cup when the string is relaxed.

Figure 2 is the same as fig. 1, with the exception of having enough of the cup A cut away to show the ball B, as it rests within A, when quiescent.

Figure 3 is a view of the cup and ball when in use, by the alternate-expansion and contraction of the rubber string S.

These cups and balls may be made of any kind of light resonant wood, or other vibrating material.

The cup A may be made of any size to suit the fancy, about two inches being the maximum size in

its outside diameter. It must be made perfectly round or spherical, after which a concave recess is bored or turned out, to a sufficient depth to almost hide the solid ball B, when the latter is drawn in by the contraction of the rubber string S.

This concavity is shown in fig. 2, with its long axis parallel to the grain of the wood. The short diameter of this recess is just a shade more than the diameter of ball B, and about two-thirds that of A.

The ball B is turned solid, and in size so that it will just enter the cup-like cavity in A, without any

friction against its sides.

When the cup and ball are thus prepared, a small hole is punctured through each one, for the string S, exactly in the centre of each. The string is first drawn through B, and then down through the bottom of A, and securely held by a small pin of wood thrust in the holes by the side of S.

A small metal ring, or anything equivalent, may be

tied to the upper end of S, as shown in fig. 3.

Now, upon taking hold of S, as represented, by the fingers, in fig. 3, the cup and ball are thrown off from the hand, as shown in this same figure. When the cup and ball are at the greatest distance from the hand, they are each the greatest distance from each other, as seen by the stretching of the rubber cord intervening.

As they are both returning to the hand, the cup gradually gets nearer the ball, its speed being accelerated by the contracting cord between them, until the cup reaches the ball just below the hand, as shown by the dotted figures in fig. 3, and the ball passes within A just as they reach the hand.

As B is entering the mouth of the cup A, it always touches the edge of the cup enough to cause a vibration and musical sound, partly from the elasticity of the wood, and partly from a sudden displacement of the air contained within the cavity it is entering.

Having thus described my invention, and the mode of operation,

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

The combination of a "return-ball," B, with spherical concavo-convex cup A, when the two are strung upon the end of an elastic string, S, as shown and dcscribed, and for the purposes set forth. HENRY TREBE.

Witnesses: Jos. Bokern, FRED. W. FAUT.