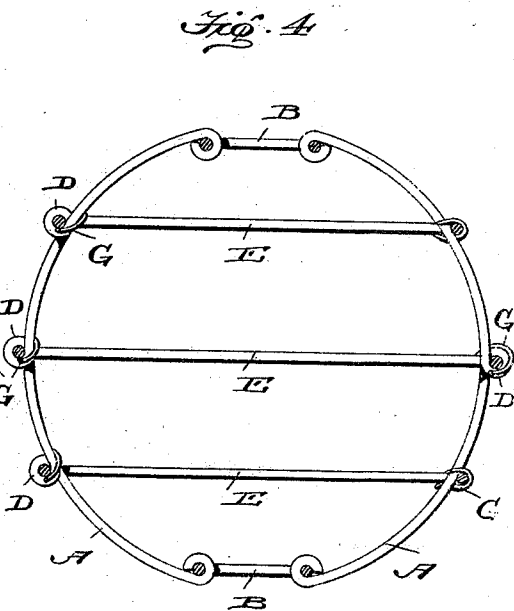
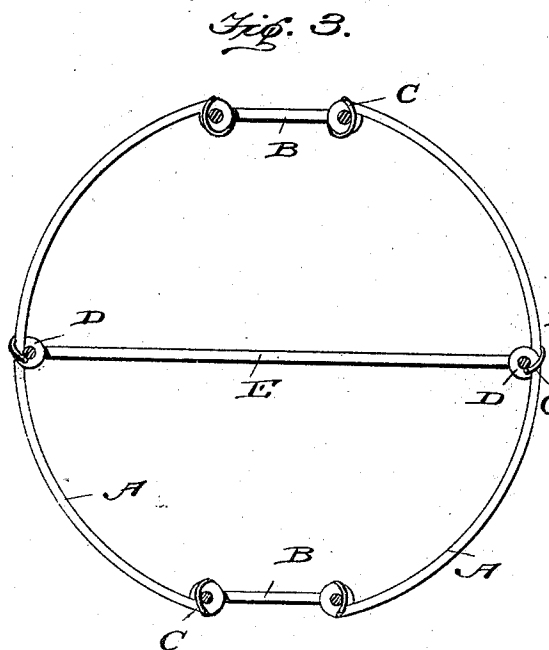
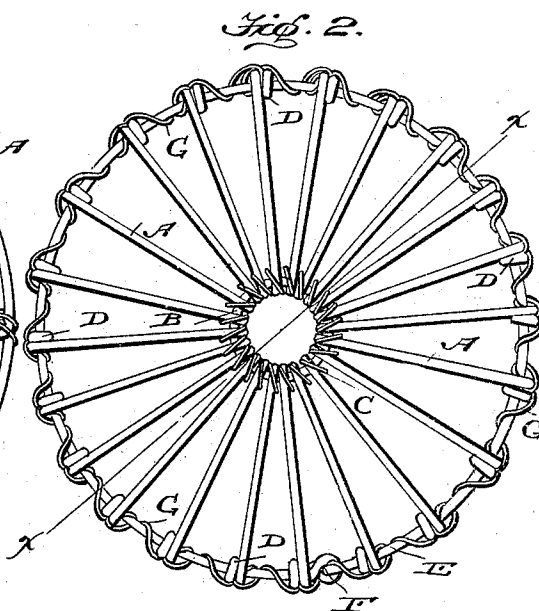
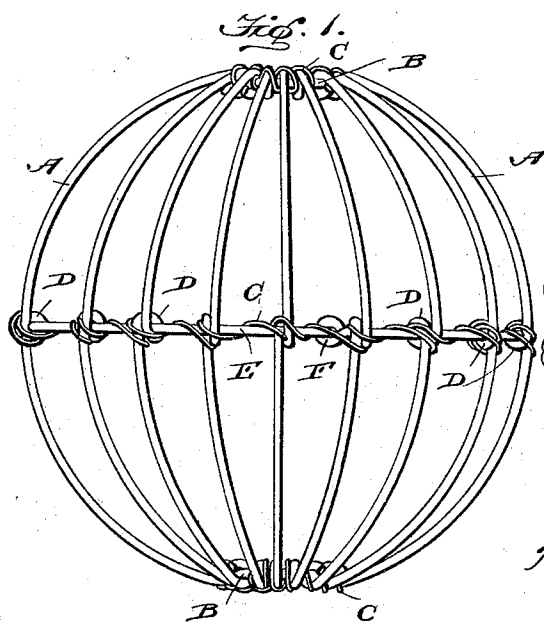


(No Model.)

J. B. DICKEY.
BALL.

No. 513,560.

Patented Jan. 30, 1894.



Witnesses:

Wm. D. Dashiell
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UNITED STATES PATENT OFFICE.

JOHN B. DICKEY, OF NEWTON, KANSAS.

BALL.

SPECIFICATION forming part of Letters Patent No. 513,560, dated January 30, 1894.

Application filed March 21, 1893. Serial No. 467,003. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. DICKEY, a citizen of the United States, residing at Newton, in the county of Harvey and State of Kansas, have invented certain new and useful Improvements in Balls; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in metallic balls and the object of the invention is to provide a light, strong and durable ball adapted for use as a trap-ball, or for playing such games as foot-ball, shinney, polo, golf, &c.

With these ends in view my improved ball consists of a series of small wires, rods or bars which are bent to approximate the form of a half circle and have their ends bent around suitable rings.

My invention further consists in the peculiar construction and arrangement of parts as will be hereinafter more fully pointed out and claimed.

In the accompanying drawings—Figure 1 is a perspective view of a ball constructed in accordance with my invention. Fig. 2 is a top plan view thereof. Fig. 3 is a vertical sectional view on the line $x-x$ of Fig. 2. Fig. 4 is a similar view of a slightly modified construction.

Like letters of reference denote corresponding parts in the several figures of the drawings, referring to which—

A designates the wires or thin metallic rods composing the body of the ball and said wires are bowed or curved to approximate the form of a half circle. The wires or rods A have their ends bent upon themselves to extend around rings B arranged at diametrically opposite points. The ends of the wires, A, are bent close against the rings B so as to be held firmly in position and the rings are of such diameter that the wires, A, lie close together and are prevented from moving laterally or around the ring. To further prevent movement of the wires A with relation to the said rings I employ a fastening wire C which is coiled around each ring and the adjacent ends of the wires A thus operating to bind said wires and rings tightly together. The wires A are bent upon

themselves, at intermediate points of their length to form aligned eyes D, designed to receive a strengthening wire or rod, E. The ends of the wire or rod E are united by means of interlocking eyes or loops F, and said wire is prevented from moving longitudinally through the eyes, D, by means of an auxiliary fastening wire G.

In Fig. 4 of the drawings, I have illustrated a slight modification of my invention. In this construction the wires A forming the body of the ball are so bent as to form the eyes D on the outside thereof and the strengthening wire or rod, E, therefore bears against the outer surface of the ball instead of against the inner surface thereof as in the preferred construction shown in the other figures of the drawings. In this modified construction I also form a series of eyes in some of the wires, A, instead of a single eye as in the preferred construction and thus provide a series of strengthening rods E.

From the foregoing description and drawings it will be seen that I have provided a very light, strong and durable ball for the purpose specified. The ball can be made of any desired size from that of the ordinary "return ball" attached to one end of an elastic cord to that of a foot ball; and it will be elastic and not easily pressed out of shape. The elasticity of the wires or rods A will cause the ball to rebound readily from any hard surface against which it may be thrown and will keep the same in its proper shape and form.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a ball composed of two rings, B, arranged at diametrically opposite points, and a series of wires or small metallic rods which are bent into approximately semi-circular form and have their ends bent to form aligned eyes or loops through which the rings B extend, substantially as described.

2. As an article of manufacture, a ball composed of two rings, B, arranged at diametrically opposite points, a series of wires or small rods having their ends bent to form eyes or loops through which the rings, B, extend and fastening wires, C, which are coiled

around each ring and the adjacent ends of the wires forming the body of the ball, substantially as described.

3. As an article of manufacture, a ball consisting of two rings, B, arranged at diametrically opposite points, a series of wires or small rods bent upon themselves at intermediate points of their length to form a series of aligned eyes D and having their ends bent
10 to form eyes through which the rings B extend and a strengthening wire extending through the eyes D, substantially as described.

4. As an article of manufacture, a ball consisting of a series of wires or rods bent into the desired form and provided at an inter-

mediate point of their length with a series of aligned eyes D, and having their ends suitably connected, a strengthening wire extending through the eyes D and having its ends
20 suitably connected and a fastening wire coiled around the wires forming the body of the ball and the strengthening wire which extends through the eyes D, therein, substantially as described.

25 In testimony whereof I affix my signature in presence of two witnesses.

JOHN B. DICKEY.

Witnesses:

JAMES H. ANDERSON,
SAMUEL LAWTON.