

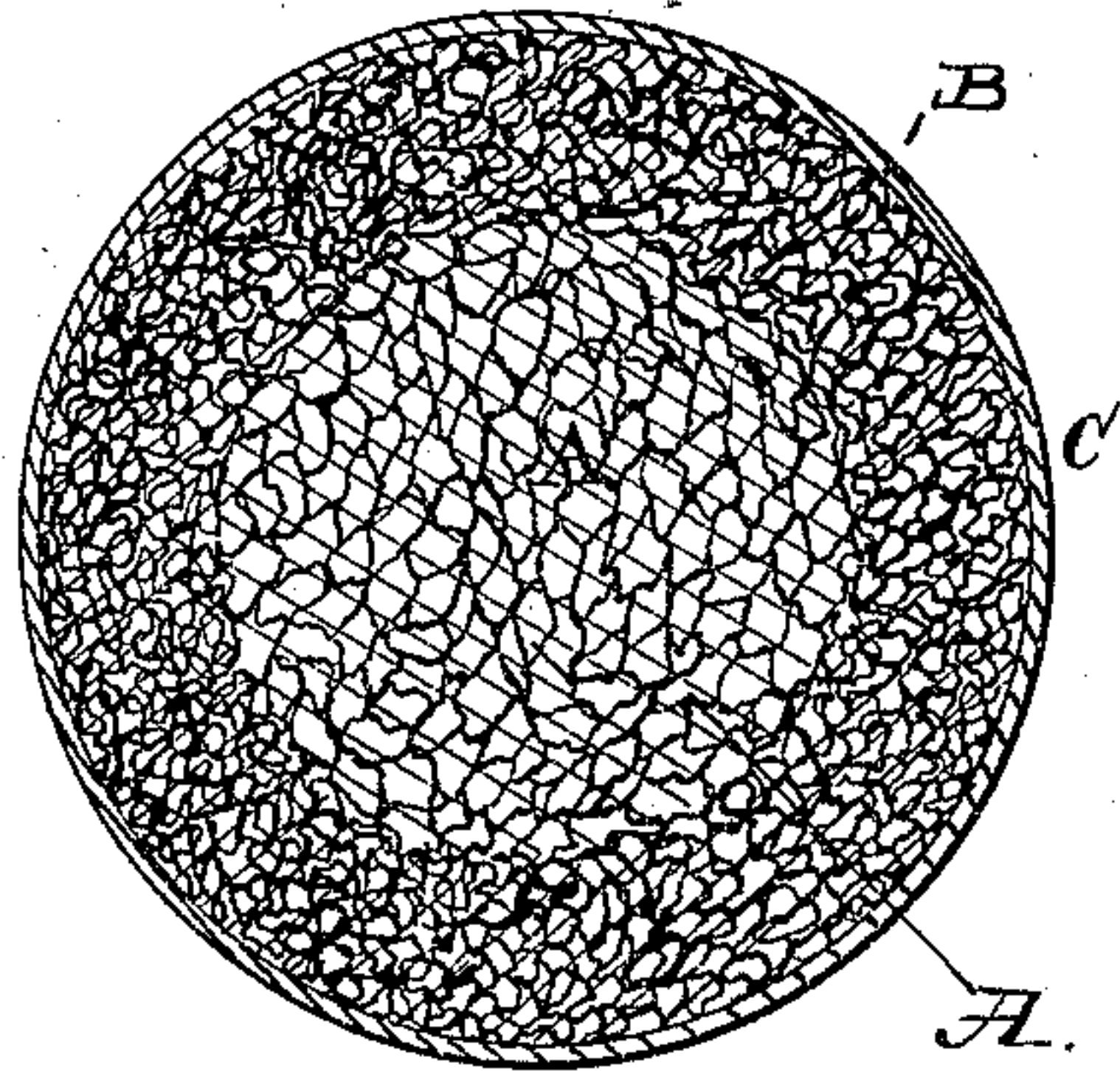
*H. A. Alden,*

*Rubber Ball,*

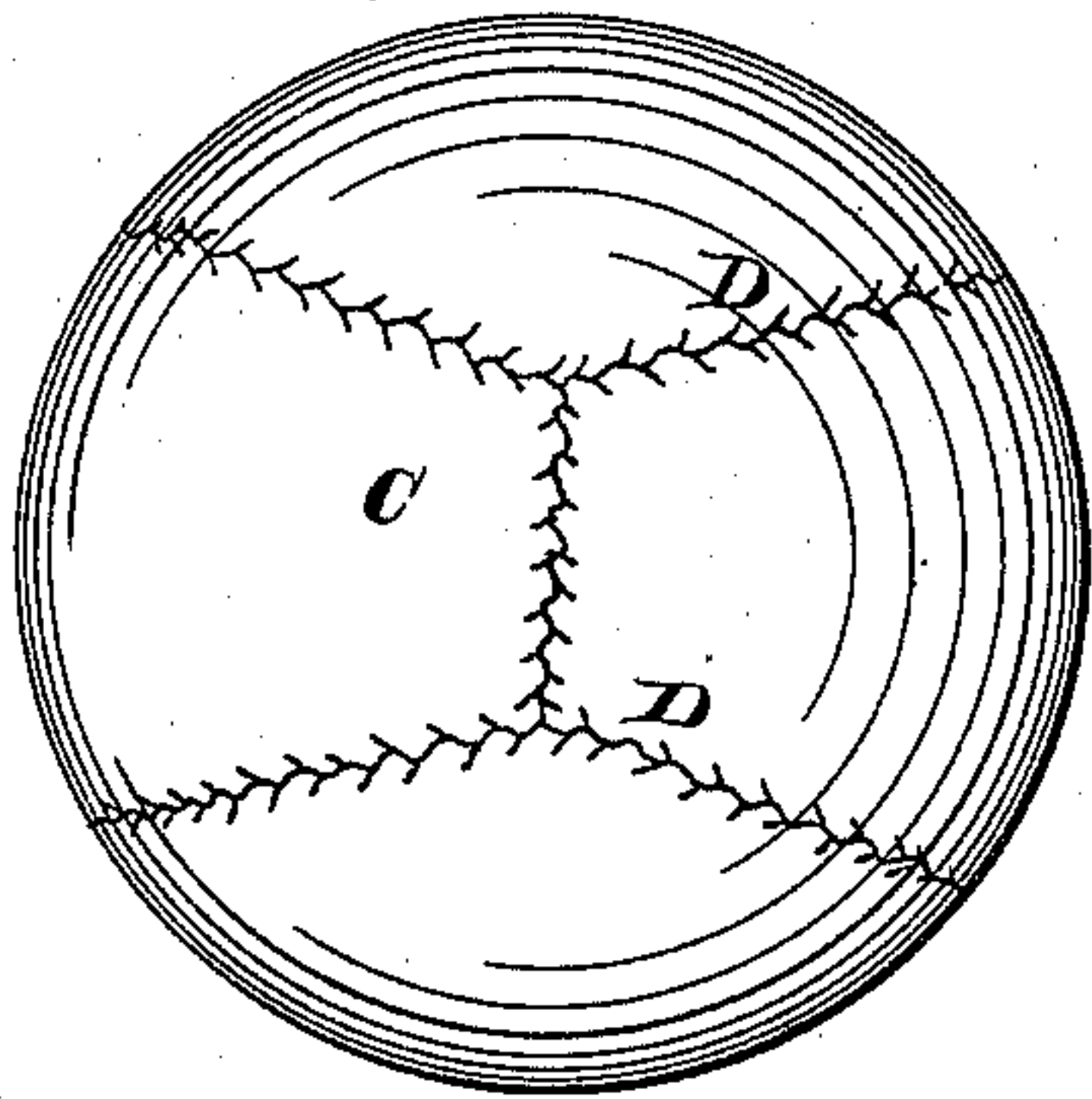
*No 79,719,*

*Patented July 7, 1868.*

*Fig. 1.*



*Fig. 2.*



*Inventor*  
*H. A. Alden*  
*by his atty.*  
*A. H. Smith*

*Witnesses.*

*W. B. Birdsey*  
*W. H. McKee*

# United States Patent Office.

HENRY A. ALDEN, OF MATTEAWAN, NEW YORK, ASSIGNOR TO THE NEW YORK RUBBER COMPANY, OF NEW YORK CITY.

*Letters Patent No. 79,719, dated July 7, 1868.*

## IMPROVEMENT IN INDIA-RUBBER BASE-BALLS.

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

### TO WHOM IT MAY CONCERN:

Be it known that I, HENRY A. ALDEN, of Matteawan, in the county of Dutchess, and State of New York, have invented certain new and useful Improvements in Vulcanized India-Rubber Balls; and I hereby declare the following to be a full, clear, and exact description of the same.

In Letters Patent, No. 72,355, heretofore granted me, I have described and claimed a base-ball or other like ball made of a compound of rubber, sulphur, cork, and lead, or suitable equivalents of the latter two combined in the proportions therein specified.

My present invention is an improvement upon that invention, and consists in forming the core of the ball of cork, cemented together, and preferably having wound around it wire or cord, and then surrounding the core thus formed with a suitable thickness of the compound above referred to, the ball being covered with leather or other suitable covering, or with a coating of rubber formed in the vulcanizing-mould, so as to have produced upon it a representation or imitation of the stitches of the ordinary leather covering.

The ball then produced has all the advantages, over ordinary base-balls, which are specified in the Letters Patent above referred to, and it possesses the additional and very important advantage of great durability, for its construction is such as to enable it to withstand hard usage, and to preserve its shape and original properties, notwithstanding the treatment to which such balls are continually subjected.

As above indicated, the centre or core of the ball is made of cork. I prefer to form this cork centre of cork, ground or divided up into tolerably small pieces, say of sizes from that of a kernel of corn to that of a chestnut, or larger, which are cemented or united together, by means of rubber cement, in the form of a ball, about two inches in diameter. The cork centre may, however, be made of pure cork, if desired, although I consider the foregoing method preferable.

To this cork centre, the compound of which the main part of the ball is composed may now be applied; but I prefer, in order to impart to the ball the necessary solidity and strength, to first wind wire or cord tightly around the core, and, after the centre is thus bound with the wire, it is surrounded or enveloped by the compound described in the Letters Patent above named until it is brought to the standard or required size. The ball is then vulcanized, and may afterwards be covered with the ordinary leather covering, stitched in the usual manner.

Instead, however, of applying a separate covering, I prefer to cover the ball with an outer coating of rubber, colored to resemble the ordinary leather covering, and in the vulcanizing-mould. I form an imitation of the stitches by which the leather is held together, so that when the ball is vulcanized, this coating will be vulcanized with the rest of the ball, and when the ball is taken out, the stitching will appear raised upon the coating, the object of this being not only to present a perfect imitation of the ordinary ball, but also to prevent the slipping of the ball when in use.

It will be of course understood that the ball can be made of any size to adapt it for the special use for which it is intended, whether as a base-ball, cricket-ball, &c. Instead of employing cork, any other light material suitable for the purpose can be employed.

In order to more fully illustrate my invention, I have added the annexed sheet of drawings, in which—

Figure 1 represents a central section, and

Figure 2 an exterior view of my improved ball.

A represents the cork centre, composed of one piece of cork, or, as shown in the drawing, of several pieces, cemented together. This centre should preferably be wrapped with twine or wire, and is then surrounded by the compound described in the Letters Patent above named, and marked B in the drawing. Upon the exterior is a coating of rubber, marked C, which is vulcanized with the rest of the ball, and has formed upon it the imitation stitching D. As above stated, an ordinary leather covering may be substituted for this coating.



Having now described my invention, and the manner in which the same is or may be carried into effect what I claim, and desire to secure by Letters Patent, is—

1. A base-ball or other like ball having a centre or core consisting of one piece, or of several pieces of cork, cemented together, said core being surrounded with the compound substantially such as is described in Letters Patent of the United States, No. 72,355, and the whole being united and vulcanized as set forth, the said ball being either provided or not with a cover of suitable material.

2. In a base-ball formed of a vulcanized compound such as herein specified, the use of a wire-bound or twine or cord-wrapped cork core, substantially as and for the purposes set forth.

3. The combination, with a cork and rubber compound base-ball, of a rubber covering or coating, united and vulcanized with the body of the ball, substantially as herein set forth.

In testimony whereof, I have signed my name to this specification before two subscribing witnesses.

HENRY A. ALDEN.

Witnesses:

R. A. PIPER,

M. HILLYER.