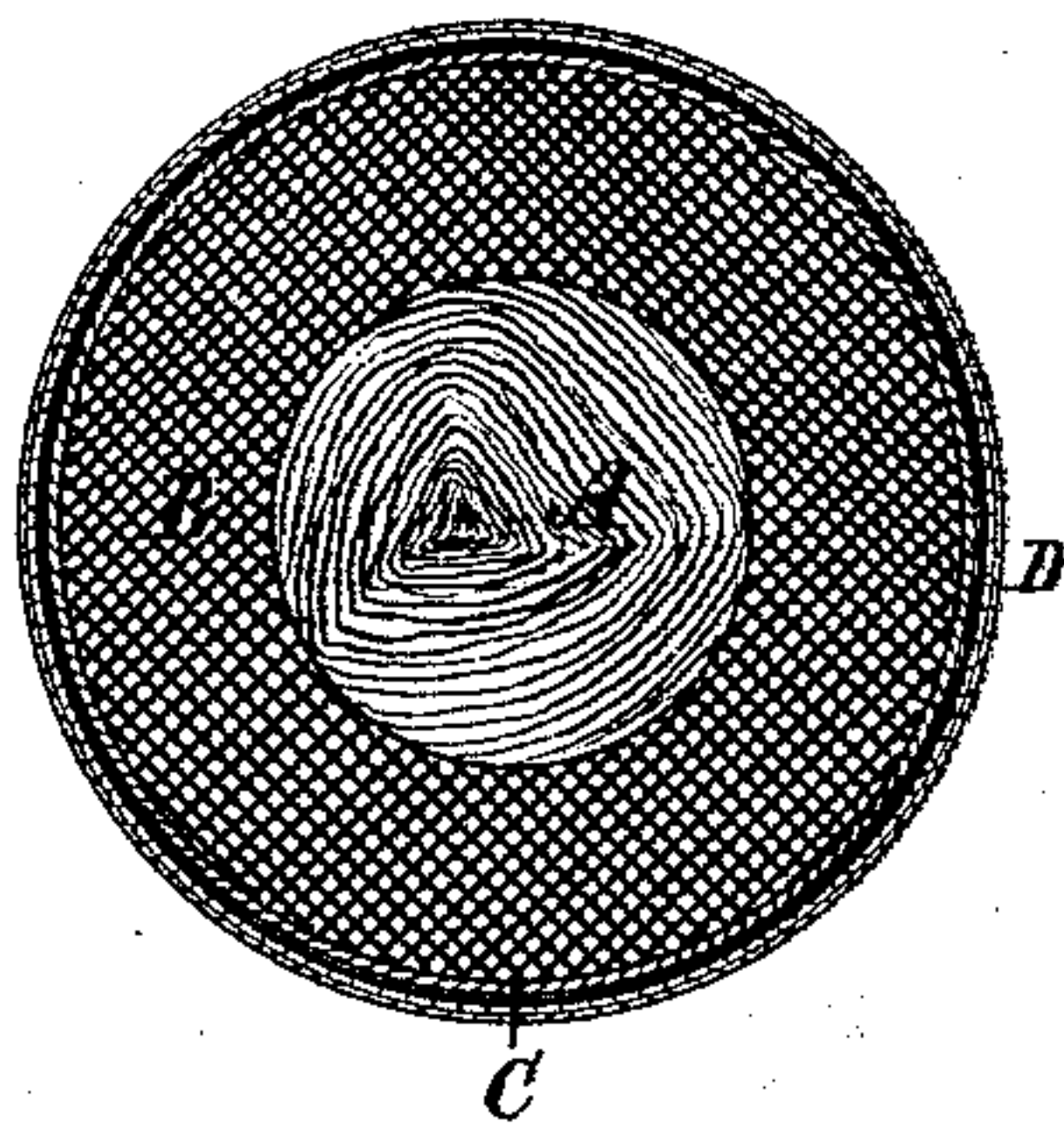


J. GIBLIN.
Base-Balls.

No. 165,994.

Patented July 27, 1875.



Witnesses
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J. R. Snow

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UNITED STATES PATENT OFFICE.

JOHN GIBLIN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN BASE-BALLS.

Specification forming part of Letters Patent No. **165,994**, dated July 27, 1875; application filed June 25, 1875.

To all whom it may concern:

Be it known that I, JOHN GIBLIN, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in the Manufacture of Base or Cricket Balls; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, which denotes a transverse section of a ball of my improved kind.

In the manufacture of what are termed "base" or "cricket" balls certain requisites have to be attained to insure their use by players—that is, each ball must be of the standard diameter, elasticity, and weight.

To attain such, a spherical core or heart of proper size and material has been wound with an elastic substance, such as cotton or woolen yarn, until of suitable diameter, and next covered with leather, or a composition of vulcanizable india-rubber and ground or broken cork has been made into a sphere, and covered with a layer of rubber, and the whole subjected to the vulcanizing processes.

The first kind of ball, not having a water-proof covering, soon becomes destroyed by use. Generally speaking, one game suffices with the best players for its condemnation.

When made of rubber and cork it is liable not only to fail in elasticity, but becomes too heavy for use.

In making my improved ball, I compose the core or heart A of palm-leaf tightly wound or folded in a spherical form. Around such core I wind a thick stratum, B, of woolen yarn, and about this latter a thin stratum, C, of cotton twine or thread, which, on its outside, I cover with a thin layer of liquid vulcanizable india-rubber. Over and around the whole I place a cover, D, composed of two or more thick sheets of vulcanizable india-rubber, with their edges in contact. These I generally form in gores, like the quarters of the rind of an orange, cut in planes at right angles. This having been done the whole is to be put into a spherical metallic mold of the proper diameter, and composed of two hollow hemispheres. The mold is to be closed and pressed together tightly upon the mass within it, so as to mold it to a perfect sphere and to the proper diameter, after which such mold with its contents is to be heated, so as to vulcanize the rubber cover, and close it tightly and thoroughly in all its joints.

The object of the cotton layer C is to prevent the woolen yarn from being crisped or burned during the heating process, which it is liable to be without such a protection, and, furthermore, the cotton thread or twine serves to better hold to the india-rubber than the woolen yarn will. In some cases the stratum of cotton thread or twine covering the body may be dispensed with; but it is far better to have it, as it aids in rendering the cover tougher or more like leather, and capable of enduring the blows of the bat to better advantage.

From the above it will be seen that my improved ball has, combined with the woolen body and its heart, an elastic and water-proof covering one also very tough and enduring.

The common ball, as described, having a leather cover upon a body of yarn wound on a heart or center sphere, becomes unfit for service in case of getting wet, as water soaked into it will render it too heavy, and besides is deleterious in various other respects.

My improved ball is not only impervious to water, but can be made to possess the requisite standard of elasticity, weight, and diameter. It will outlast very many of the leather-covered balls, and, having no seams or sewing as they have, is not so liable to injure the hands of a player.

I claim—

1. As a new article of manufacture, a water-proof base or cricket ball, composed essentially of a heart, A, of palm-leaf or other suitable material, a mass, B, of woolen yarn wound thereon to the requisite thickness, and an external water-proof cover, D, of two or more pieces of india-rubber compressed thereon and into close contact at their edges, and into shape and size by a mold, and vulcanized, all substantially as set forth.

2. In combination with the ball-body, having its outer layer composed of woolen yarn, and its external cover of vulcanized rubber, applied, as described, the protective or interposed covering C of cotton or cotton yarn, all arranged as specified.

JOHN GIBLIN.

Witnesses:

R. H. EDDY,
J. R. SNOW.