

B. F. SHIBE.
BASE BALL.
APPLICATION FILED OCT. 21, 1910.

999,526.

Patented Aug. 1, 1911.

FIG. 1.

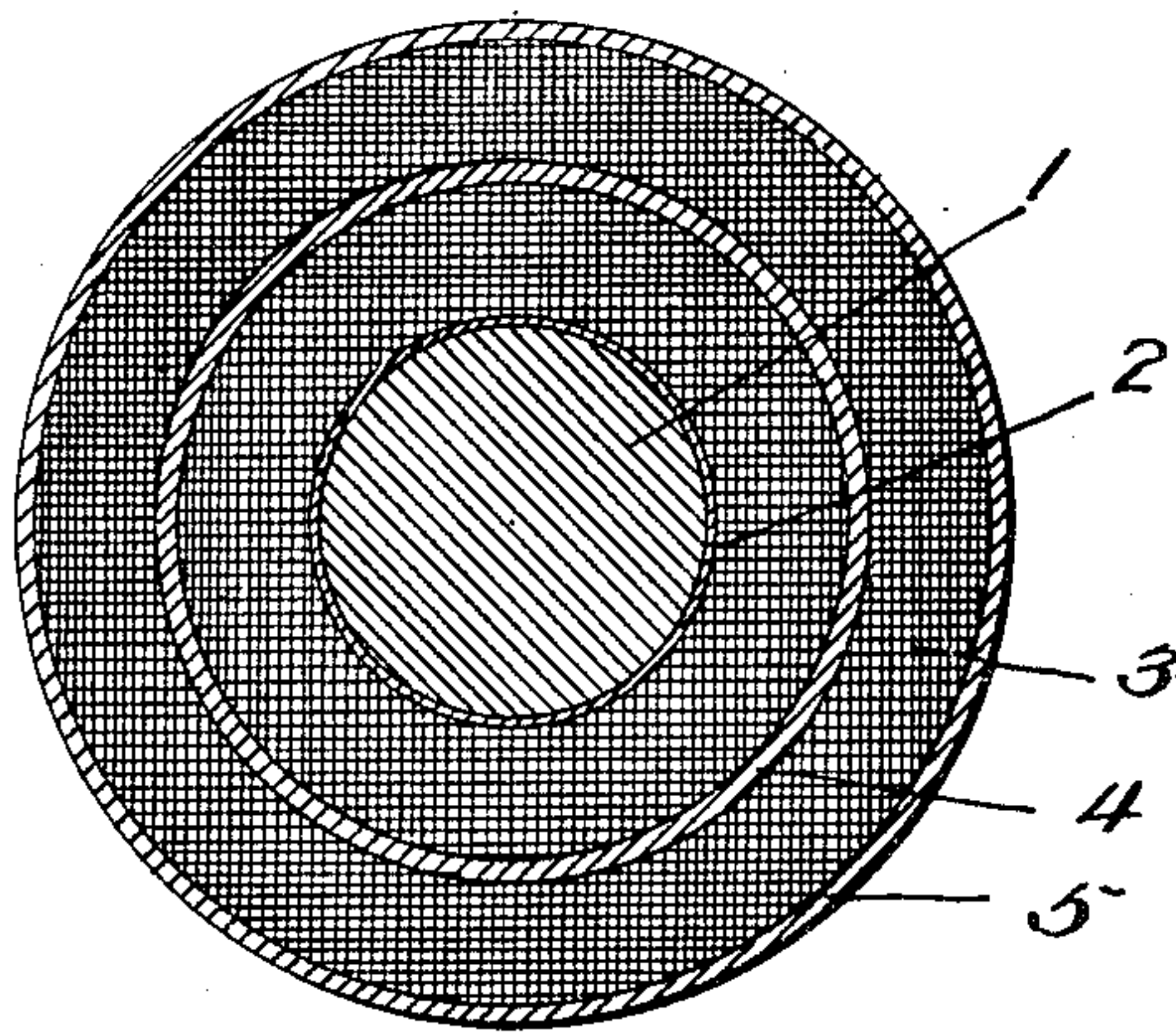
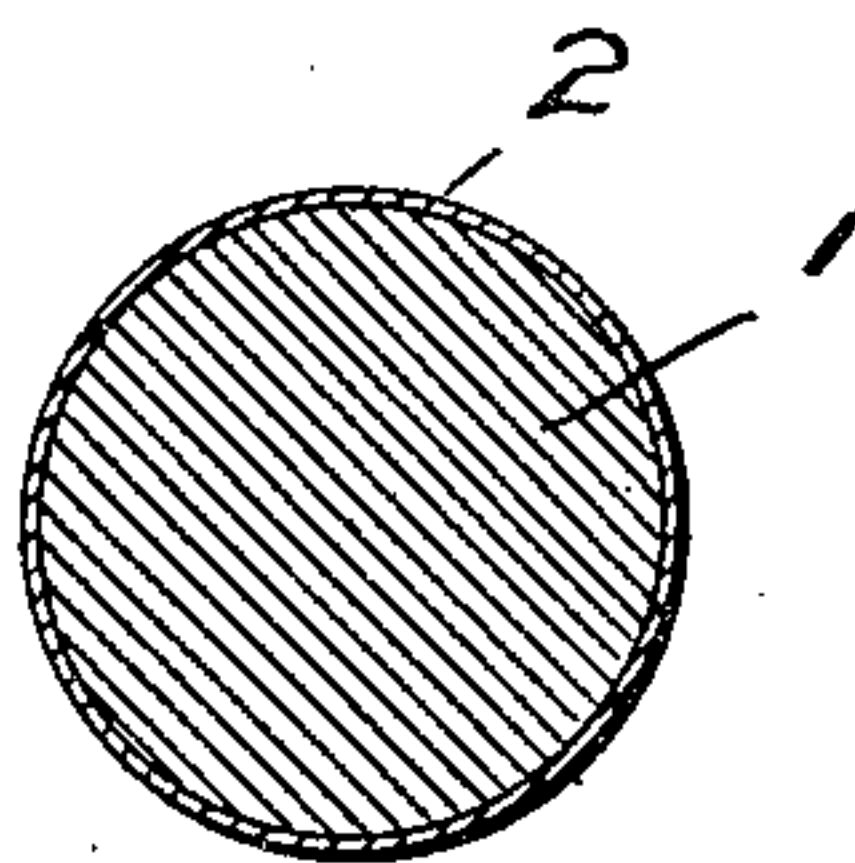


FIG. 2.



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UNITED STATES PATENT OFFICE.

BENJAMIN F. SHIBE, OF BALA, PENNSYLVANIA.

BASE-BALL.

999,526.

Specification of Letters Patent.

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Application filed October 21, 1910. Serial No. 588,364.

To all whom it may concern:

Be it known that I, BENJAMIN F. SHIBE, a citizen of the United States, residing at Bala, in the county of Montgomery and State of Pennsylvania, have invented a new and useful Improvement in Base-Balls, of which the following is a specification.

My invention relates to playing balls, and pertains more particularly to base balls constructed of yarn or other filaments tightly wound upon a central spherical core.

As base balls have heretofore been constructed, the filamentous windings have been built on a central core or foundation of a resilient, yielding substance such as rubber or similar material, upon the theory that the resiliency or reboundancy of the structure was derived from the action of the resilient quality of the central core. I have found that the use of a resilient and yielding core is not essential to produce the resiliency of a base ball of said character, if in fact it does not impair or reduce that quality in the use to which it is subjected by reason of its yielding or absorption of the force of a blow and its tardiness in rebounding from the blow of a bat until after the ball has been driven away from contact therewith when the effect of the reaction is lost. Furthermore, I have found that by reason of the yielding nature of a central core, the compactness of the structure of a ball is liable to be disturbed by the force of a severe blow from a bat, and causing the central core to crack and the whole structure of a ball to burst through to the cover, this being particularly the case with a solid pure rubber center. I have further found that by the use of a rigid, unyielding and inflexible central core upon which the layers of filamentous windings are constructed, that the reaction of the resilient qualities of the windings from a blow is more prompt and of greater effect because of the resistance of the rigid core to the force of the blow upon the outside, and that the ball responds or rebounds with greater resiliency from the bat than if the core were more resilient and less resistant. It will also be understood that by reason of the rigid nature of the core that the windings may be made more compact to produce the required degree of resiliency for such structure, and that they will not be so likely to become displaced as when built upon a yielding center.

It is therefore the object of my invention to produce a base ball having a rigid, unyielding and inflexible core upon which layers of yarn may be wound under tension, and a further object thereof is to provide a rigid core of seasoned hard wood having a coating of adhesive cement of gelatin and glycerin or rubber, or any suitable substance, adapted to prevent the adjacent filamentous windings from becoming displaced therefrom, and for other purposes to be hereinafter more fully set forth.

To these ends, my invention includes the combinations and arrangement of component parts to be hereinafter described and more particularly pointed out in the claims.

In the accompanying drawings, in which like reference characters indicate similar parts, Figure 1 is a cross sectional view of a base ball embodying my invention, and Figure 2 is a sectional view of the central core of the same.

Referring to said drawings, 1 designates a central spherical core of rigid, unyielding and non-resilient material, such as seasoned hard wood, or similar material, said core, if desired, having a coating of adhesive cement 2, such as a composition of gelatin and glycerin or of rubber, which has been allowed to dry and harden before the core is wound with the further materials comprising a ball, the said coating being adapted to destroy the slippery surface of the wood imparted in its making and thus facilitate the adhesion of the layers of thread 3, hereinafter described. Upon said central sphere is tightly wound layers of resilient thread 3, preferably of woolen yarn, which may be held in their spherical contour by a layer of adhesive plastic composition 4 adjacent to the outer layers, and the whole structure is incased in an outer cover 4, preferably of horse hide stitched thereon.

From the foregoing description, it will be apparent that the rigid nature of the central core will permit a greater tension and more compact structure of the filamentous windings, with resultant increased strength and durability of the ball, and it will be appreciated that a greater degree of resiliency may be obtained in use from the filamentous windings because of the resistance of the rigid core, and a more prompt response to the force of a blow, and that such core will withstand the force of blows with a bat in

use without cracking and communicating such break through the surrounding structure.

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

1. A base ball comprising a rigid inflexible central core, layers of thread wound thereon, and an outer cover incasing same, substantially as described.

2. A base ball comprising a rigid inflexible central core having a coating of adhesive cement thereon, layers of thread wound thereon, and an outer cover incasing same, substantially as described.

3. A base ball comprising a rigid inflexible central core, layers of resilient thread wound thereon, and an outer cover incasing same, substantially as described.

4. A base ball comprising a spherical cen-

ter of wood, layers of thread wound thereon and an outer cover incasing same, substantially as described.

5. A base ball comprising a spherical center of wood, having a coating of adhesive cement, layers of thread wound thereon, and an outer cover incasing same, substantially as described.

6. A base ball comprising a rigid, inflexible spherical core, a resilient superstructure of filamentous windings on said core, and an outer cover of flexible material incasing same, substantially as described.

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

BENJAMIN F. SHIBE.

Witnesses:

THOS. S. SHIBE,
ELSIE J. MOHR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."