

No. 726,471.

PATENTED APR. 28, 1903.

F. W. SMITH, JR.
GOLF BALL.

APPLICATION FILED MAR. 7, 1903.

NO MODEL.

Fig. 1.

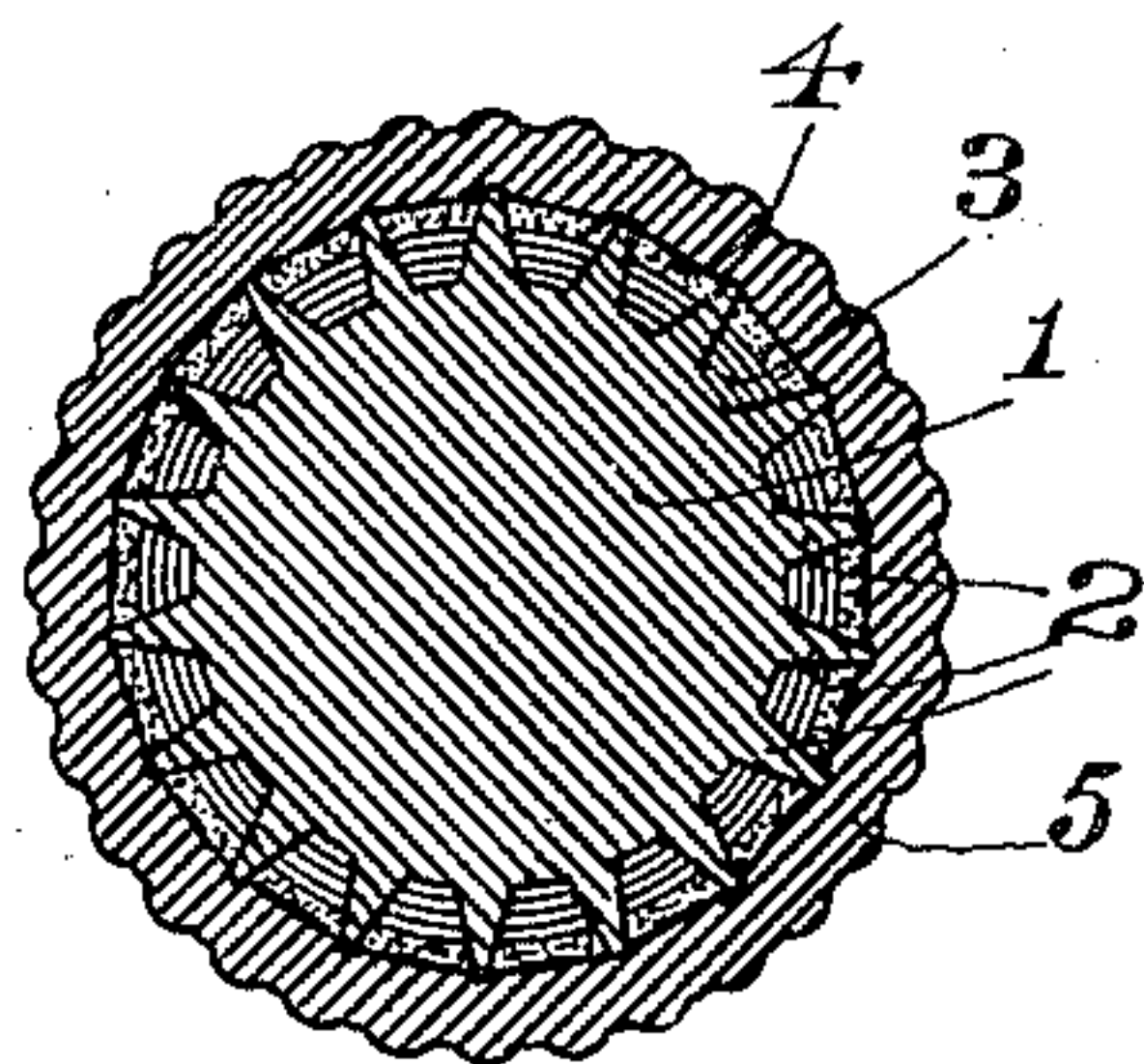


Fig. 2.

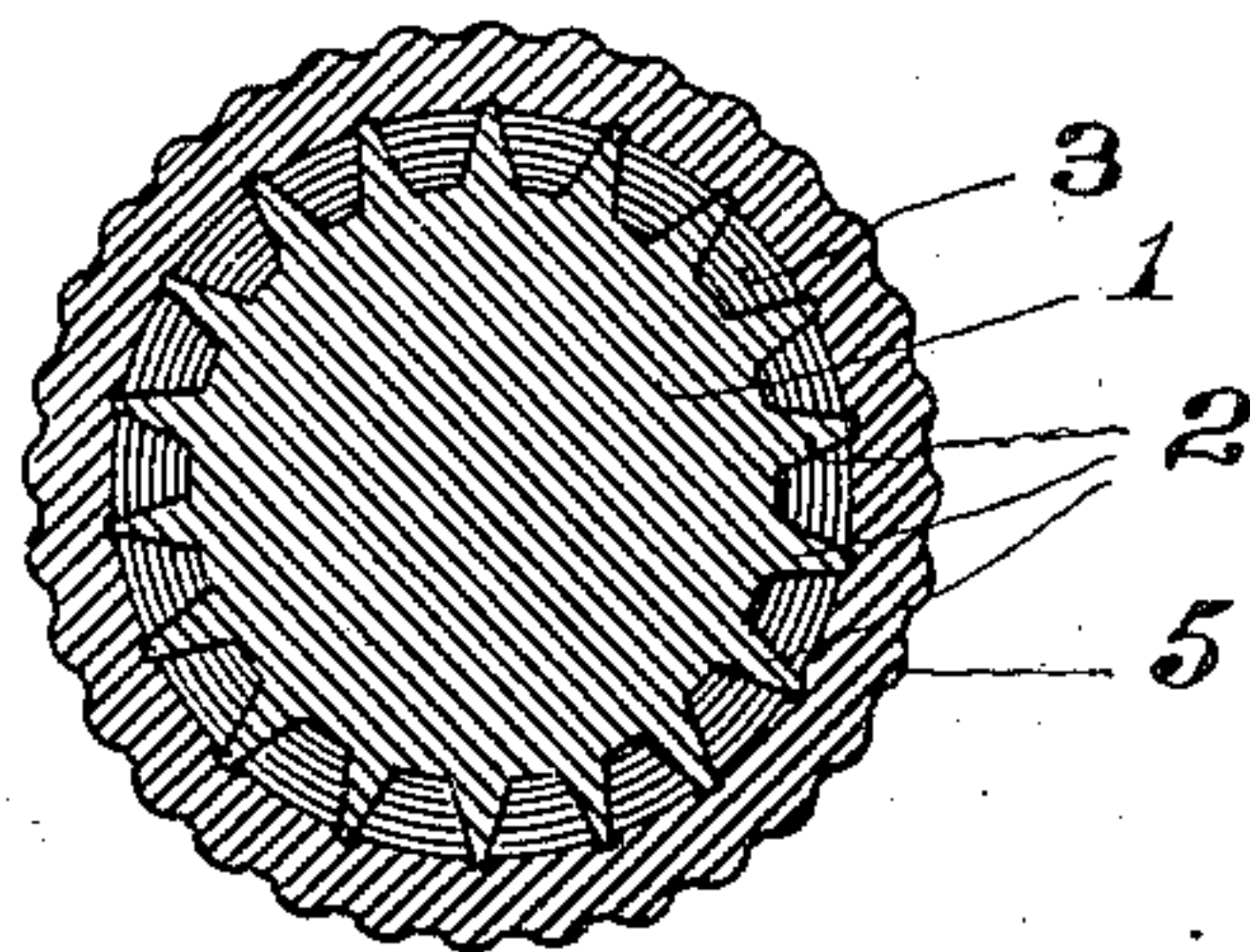
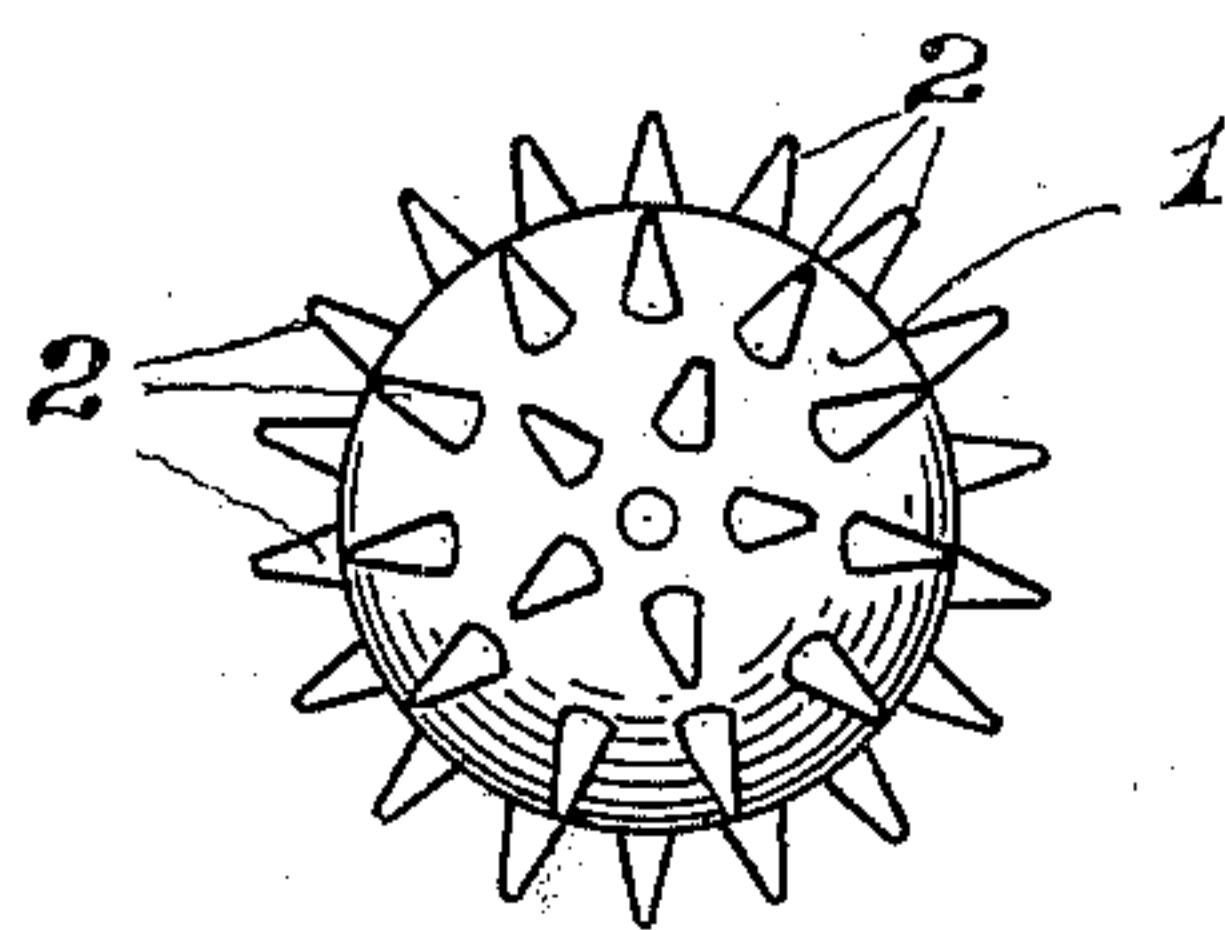


Fig. 3.



WITNESSES:

H. F. Lamb.
M. T. Longden

INVENTOR

F. W. Smith Jr.

BY

[Signature]
ATTORNEY.

UNITED STATES PATENT OFFICE.

FRIEND W. SMITH, JR., OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO
HOLDREGE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF
NEW JERSEY.

GOLF-BALL.

SPECIFICATION forming part of Letters Patent No. 726,471, dated April 28, 1903.

Application filed March 7, 1903. Serial No. 146,701. (No model.)

To all whom it may concern:

Be it known that I, FRIEND W. SMITH, Jr., a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Golf-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 has reference to golf-balls, but more particularly relates to golf-balls that are made partly of rubber and partly of gutta-percha.

The object of my improvement is to produce a ball which shall possess superior qualifications and will not be liable to split or to become misshapen.

With these ends in view my invention consists in certain details of construction and combination of parts, such as will be hereinafter fully set forth and then specifically be designated by the claims.

In the accompanying drawings, Figure 1 represents a sectional elevation of a golf-ball constructed in accordance with my improvement; Fig. 2, a similar view showing a modification, and Fig. 3 a detail elevation of the elastic inner body.

Similar numbers of reference denote like parts in the several figures of the drawings.

In Letters Patent No. 720,852, issued to me February 17, 1903, I showed and described a golf-ball having a molded rubber inner body provided with protuberances, which body was wound with a suitable fibrous material. This body must be made from superior rubber and must be vulcanized, so that it will afford a firm backing to the gutta-percha cover; but my present improvement contemplates the use of an inner body of rubber or other suitable resilient material which may be either soft or comparatively hard, as the case may be, such body being provided with protuberances throughout its circumferential area and wound with india-rubber thread under tension and between the protuberances, so that it will be clear that however soft the molded rubber body may be the out-

side surface is provided with a resilient and comparatively solid envelop, which latter I preferably cover with a winding of worsted or suitable fibrous material for which gutta-percha has an affinity. The gutta-percha cover is molded under pressure directly to and upon this body wound with india-rubber threads and fibrous material, as described, and there will be a firm union between the gutta-percha and the fibrous material, and at the same time the full benefits of the elastic center and the comparatively hard resilient envelop will be retained, and a ball made in this manner will not crack or split or become misshapen by reason of continued use.

Referring to the drawings, 1 represents the elastic inner body, having protuberances 2 extending from its circumferential area. 3 represents the india-rubber thread wound upon the body 1 between said protuberances.

4 represents the worsted or other fibrous material wound upon the rubber thread, and 5 represents the gutta-percha cover molded directly to and upon the winding of fibrous material.

The resilient protuberances 2 greatly increase the elasticity of the ball as a whole; but the winding of the india-rubber thread between these protuberances not only stiffens the outside of the body 1, but still further increases such elasticity.

At Fig. 2 I have shown a ball similar to that shown at Fig. 1, except that in the construction illustrated at Fig. 2 the outside fibrous material is omitted, and while I do not wish to be limited to the outside winding of fibrous material, still I prefer to employ the latter, since it insures an exceedingly tight cover and materially decreases the likelihood of the splitting or cracking of such cover. Also the protuberances serve to effectually hold the winding of india-rubber thread and, moreover, greatly facilitate such winding, and in the event that the outside cover becomes gashed and cut such cover may be readily removed without disturbing any of the india-rubber winding, and the ball can then be remade in the usual manner.

The fibrous material may be applied in any suitable form other than thread, although I

prefer to use the thread, since it can be manipulated with great facility.

While I prefer to use an outside covering of gutta-percha, it will of course be obvious
5 that I can employ any suitable material or composition for this purpose—as, for instance, balata, or a composition of balata, gutta-percha, and rubber—and I therefore do not wish to be limited in this respect.

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

1. A golf-ball having an inner elastic body provided with circumferential protuberances,
15 india-rubber thread wound at a tension around said body and between said protuberances, and an outside cover molded under

pressure to the body thus wound, substantially as set forth.

2. A golf-ball comprising an elastic inner 20 body having protuberances projecting from its circumferential area, india-rubber thread wound at a tension around said body and between said protuberances, suitable fibrous material applied to the india-rubber thread, 25 and an outside cover molded thereto under pressure, substantially as set forth.

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

FRIEND W. SMITH, JR.

Witnesses:

M. T. LONGDEN,
HENRY SETZER.