

No. 731,406.

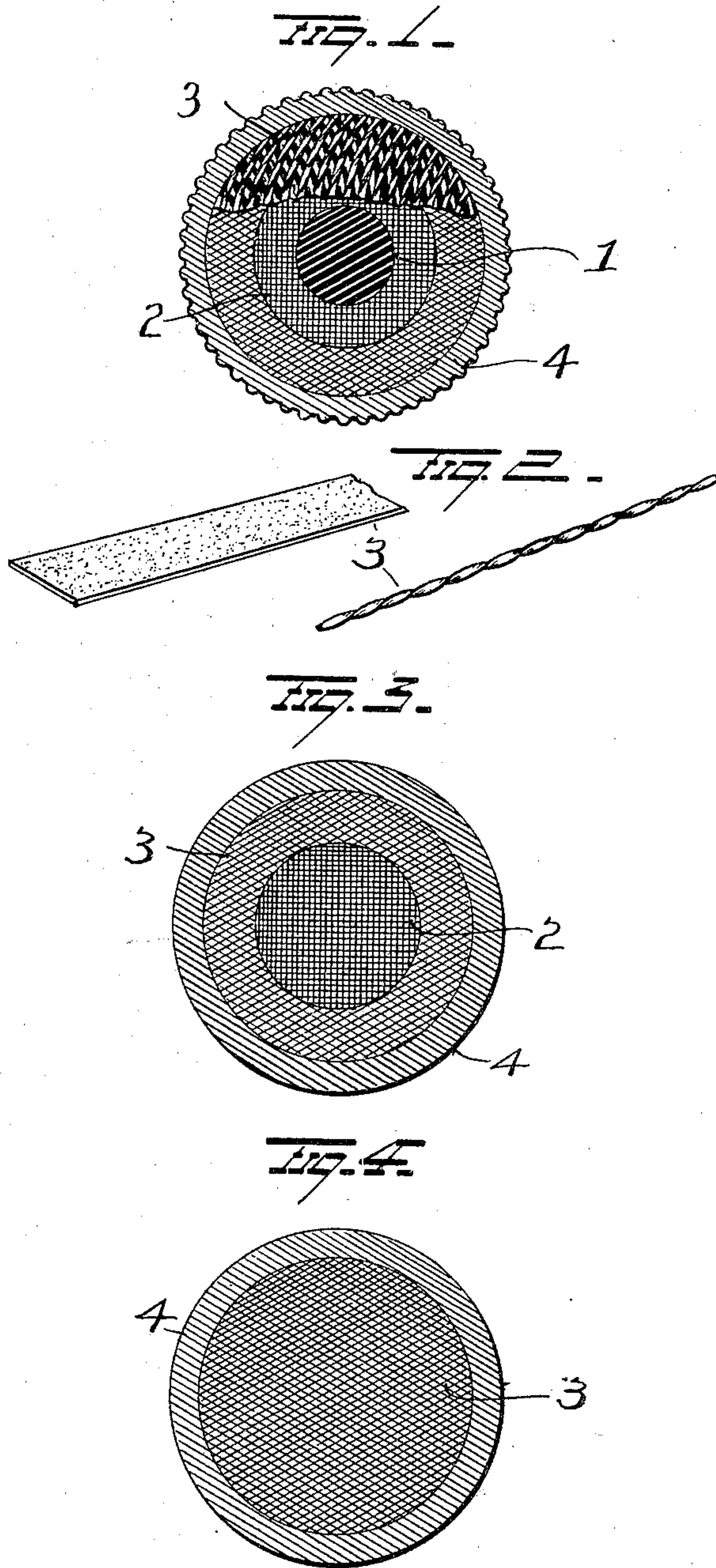
PATENTED JUNE 16, 1903.

K. V. PAINTER.

BALL.

APPLICATION FILED MAR. 31, 1903.

NO MODEL.



WITNESSES
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KENYON V. PAINTER, OF CLEVELAND, OHIO.

BALL.

SPECIFICATION forming part of Letters Patent No. 731,406, dated June 16, 1903.

Application filed March 31, 1903. Serial No. 150,436. (No model.)

To all whom it may concern:

Be it known that I, KENYON V. PAINTER, a resident of Cleveland, in the county of Cuyahoga and State of Ohio, 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 an improvement in balls, and more particularly to golf-balls and the like, the object of the invention being to employ in the construction of balls twisted rubber strips of any width from that of a thread to a broad tape twisted under tension to impart to the ball great elasticity, due to the vast number of minute air cells or chambers formed thereby and the high tension of the twisted rubber. By twisting the strips or tape their elasticity and hardness is increased to the maximum degree, innumerable air-cells are formed, in which the air contained is highly compressed, and the rubber becomes elastically the hardest that can be produced, with the result that a ball of greater elasticity and driving power than anything of this character heretofore known is produced.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in section, illustrating one form of my invention. Fig. 2 is a detail view of a rubber strip before and after twisting the same, and Figs. 3 and 4 are views of modifications.

1 represents a core, of gutta-percha, celluloid, metal, clay, paper, or other material, which may be either solid or hollow, inclosed in a covering 2, of elastic material, such as soft rubber, either crude gum or refined rubber or porous rubber, or other material other than rubber or compositions of rubber may be employed. Around this covering 2 a tape or strip or tapes or strips 3, of rubber, twisted laterally and drawn longitudinally under high tension, is or are wound or simply assembled without winding and the strips twist-

ed singly and wound single or assembled without winding or twisted singly and wound in multiple or assembled in multiple without winding or may be twisted in multiple and wound or assembled without winding. This twisted rubber tape or strip gives to the ball not only the elasticity of its high tension both longitudinally and laterally of the strips or tape, caused by the twisting of the strips while under tension, but also compresses the elastic covering 2 and provides innumerable minute air cells or compartments, in which the air is confined and compressed to the maximum degree, thus imparting to the ball great driving power. Around this winding or twisted rubber strips 3, assembled without winding, is a cover or shell, of gutta-percha or other suitable material, such as celluloid, paper, or composition.

In Fig. 3 I illustrate a modification, in which I dispense with the core and wind or assemble without winding the twisted strip or tape on the center of soft rubber 2, and in Fig. 4 I illustrate the ball without any specific core, but wind or assemble without winding the twisted tape or strips upon themselves and inclose the ball so formed in an outer shell or cover.

It will thus be seen that the essential element of my present ball is the use of strips or tape twisted and held under tension, and I may vary the other parts of the ball at will without departing from my invention—as, for instance, I might wind or assemble without winding the twisted rubber on a solid core or incorporate a compression-covering between the twisted rubber and the outer shell, or I might assemble the twisted rubber strips without winding around a solid core and hold the assembled rubber strips in place and under compression by the outside covering of the ball, and hence I do not wish to be limited to the precise construction set forth.

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

1. A ball composed in part of twisted rubber strip or tape.

2. A ball composed in part of a rubber strip twisted until tension is produced.

3. A ball, composed in part of a rubber strip or tape, twisted laterally and drawn longitudinally under high tension.

4. A ball, composed of a rubber strip or tape wound under high tension and twisted, and an outer shell or cover inclosing the same.

5. A ball composed of a rubber strip or tape twisted under high tension until it has twisted itself into a closely-assembled mass, and an outer shell or covering inclosing the same.

6. A ball, comprising a center of elastic material, a twisted rubber strip or tape wound under high tension thereon to compress the elastic material, and an outer shell or cover.

7. A ball comprising a center of elastic material a twisted rubber strip or tape, twisted under high tension until it has twisted itself into a closely-assembled mass, gathered around the elastic center, and an outer shell or covering.

8. A ball comprising a central core, a twisted rubber strip or tape wound thereon under high tension, and an outer shell or cover.

9. A ball comprising a central core, a twisted rubber strip or tape, twisted until it has twisted itself into a closely-assembled mass, gathered around the central core, and an outer shell or covering.

10. A ball comprising a central core, elastic material around the same, a twisted rubber strip or tape wound thereon under high tension to compress the elastic material, and an outer shell or cover inclosing the twisted tape or strip.

11. A ball comprising a central core, elastic material around the same, a twisted rubber strip or tape, twisted until it has twisted itself into a closely-assembled mass gathered

around the elastic material which incloses the central core, and an outer shell or cover inclosing the twisted tape or strip.

12. A ball comprising a central core of gutta-percha, soft rubber around the same, a twisted tape or strip of rubber wound under high tension around the soft rubber to compress the same, and a gutta-percha cover or shell inclosing the twisted strip or tape.

13. A ball comprising a central core of gutta-percha, soft rubber around the same, a twisted tape or strip of rubber, twisted until it has twisted itself into a closely-assembled mass gathered around the soft rubber which incloses the central core of gutta-percha, and a gutta-percha cover or shell inclosing the twisted strip or tape.

14. As a new article of manufacture, a ball consisting of an inner core, an outer covering and interposed windings of a strip or strips of rubber twisted laterally and drawn under high tension.

15. As a new article of manufacture a ball consisting of an inner core, an outer covering and an interposed mass of rubber strip or tape or strips or tapes twisted laterally while drawn under tension until it is twisted into an assembled mass.

16. A ball comprising a central core twisted rubber strips assembled around said central core, and an outside shell or covering holding the assembled strips under high compression.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

KENYON V. PAINTER.

Witnesses:

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