M. M. DESSAU.

GOLF BALL.

APPLICATION FILED AUG. 7, 1909.

951,756.

Patented Mar. 8, 1910.

Fig. 1.

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b c

Fig. 2. a a a Fig.

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Fig. 4. Pig. 5.

Fig. 6.

Fig. 7.

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ITED STATES PATENT OFFICE.

MORLAND MICHOLL DESSAU, OF LONDON, ENGLAND.

GOLF-BALL.

951,756.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed August 7, 1909. Serial No. 511,764.

To all whom it may concern:

Be it known that I, Morland Micholl Dessau, a citizen of the United States of America, residing in the city of London, 5 England, have invented Improvements in Golf-Balls, of which the following is a specification.

This invention relates to balls suitable for use in playing golf and other games in 10 which a resilient ball is required, and it has for its object to produce a ball of the kind referred to (hereinafter referred to as a golf ball) that shall have greater resiliency and which shall fly and put better that the

15 golf balls heretofore made.

In golf balls as now commonly made, there is to be found a wrapping of tightly wound elastic material such as narrow india rubber tape or cord forming what is called a start, core or filling and the present improvement consists in the provision of means whereby the portion of the tape or cord at the extreme center of the ball can be placed under tension, by twisting, quite independ-25 ently of the tension of the remainder of the winding. An elastic or resilient device adapted to act as a tension device in the manner described can be constructed in various forms. Conveniently it may comprise 30 pins or holders connected together by the elastic tape or cord to be stressed, which is effected by turning the pins or holders relatively to each other, and then holding the pins or holders and stressed tape or cord 35 together by connecting the inner end of a length of elastic tape to the combined pins and spring means and suitably winding the said tape thereon.

In the accompanying drawings, Figure 40 1 shows two pins or holders before commencing to stress the material connecting them. Figs. 2 and 3 are views at right angles to each other showing the position of the parts after stressing the material. Figs. 4 and 5 45 are similar views to Figs. 2 and 3 with some of the winding material wound in place to hold the tension device in its active condition. Fig. 6 shows the tension device wound all over with elastic tape to form a 50 start. Fig. 7 shows a complete golf ball

with part of its cover removed.

The tension device, in this example, comprises two pins a, a^1 made of rigid material, for example wood or vulcanite, and prefer-55 ably each of double taper shape, and of say about nine sixteenths of an inch in length,

and a loop b of elastic material, for example india rubber, that encircles the pins around the central portions thereof. This loop b is stressed by turning the pins relatively to 60 each other in planes containing their axes so as to twist the intervening lengths of the elastic loop material upon themselves, say for about eight to twelve or other convenient number of times, the pins being arranged to 65 finally assume positions inclined to each other as shown in Figs. 2 and 3. The pins and twisted loop are then held in the positions indicated by winding under tension a length of narrow elastic tape c around the 70 intersecting central portions of the pins and in the angular spaces between them, the winding of the tape being continually shifted from one pair of angular spaces to another, in a manner that will be readily un- 75 derstood, so as to gradually fill the angular spaces and form a practically spherical body in which the spring or tension device is embedded. The inner end of the winding tape c is effectually secured or anchored to the 80 tension device for which purpose it may conveniently be in one piece with the loop of spring material b (Fig. 1). The winding on of the elastic tape c may be continued to such an extent as to form a start or core (Fig. 6) 85 of the required size which can be provided at any convenient time afterward with the additional winding of elastic tape d (Fig. 7) wound on under tension in the ordinary way, to form the required golf ball; or suf- 90 ficient elastic tape c may be wound on in the one operation to form the required golf ball without forming a separate start or core. The outer end of the elastic tape is, in each case, secured in place in an ordinary or suit- 95 able manner.

The formation of the tension device, and also it may be the winding on of the first few turns of elastic tape, may conveniently be effected by hand. The winding on of the 100 remainder of the elastic tape is effected preferably in a winding machine in the known manner. The outer cover of the ball is or may be of the ordinary kind and be applied in the usual way.

The elastic tape used in the construction of a golf ball as hereinbefore described may be made of india rubber as usual. It may however with advantage be made of india rubber blended with a suitable proportion, 110 say fifteen to twenty five per cent., of material of the kind known in commerce as

"murac" produced according to the invention described in the specification of former Letters Patent granted to me No. 886,482, dated 5th May 1908.

What I claim is:—

1. In a golf ball containing an elastic wrapping winding, an elastic tension device located at the center of the ball and comprising rigid members and a stressed spring connecting said rigid members and tending to move them relatively to each other, and elastic wrapping material connected at its inner end to said tension device and wound thereon so as to prevent relative movement of said rigid members.

2. In a golf ball, an elastic winding having a twisted looped inner end and pins arranged in said loop and whereby the same is held in a twisted condition, the adjacent portion of the elastic winding being wrapped around the twisted loop and pins and holding the pins with the loop in the twisted con-

dition.

3. A golf ball comprising a pair of pins,

twisted elastic material connecting said pins 25 and tending to turn them relatively to each other in planes containing their axes, and a wrapping extending from said twisted portion and wound tightly around both pins.

4. In a golf ball, a start comprising rigid 30 elements, twisted elastic material connecting the elements together and a wrapping of elastic material having one end connected to the rigid elements and tightly wound around

said elements as set forth.

5. In a golf ball, a start comprising a pair of tapered pins and an elastic wrapping having one end formed with a loop twisted and encircling the pins and the adjacent portion of the wrapping wound around and between 40 the pins to hold them in place to keep the loop in a twisted condition.

Signed at London, England, this 27th day

of July 1909.

MORLAND MICHOLL DESSAU.

Witnesses:

F. L. Rands, R. J. Williams.