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PRACTICE GOLF BALL

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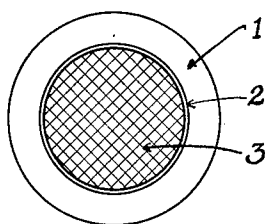


FIGURE 1

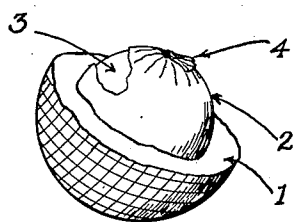


FIGURE 2

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UNITED STATES PATENT OFFICE

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PRACTICE GOLF BALL

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Application December 14, 1931, Serial No. 580,901

5 Claims. (Cl. 273—62)

This invention relates to a golf ball for practice purposes, by the use of which all of the effects of a stroke of a club will be similar to those produced on a regulation golf ball with the exception of resilience or rebound, thereby permitting its use in restricted areas. This deadening effect is attained by the combination of (1) an outer shell whose elastic properties are such that after distortion it will pull back or recoil into spherical shape including a deformed center core, and (2) said center core which is deformed by a stroke or blow of a golf club but is sufficiently plastic so that it will be molded or brought back to spherical shape by recoil energy of the outer shell in its recovery to spherical shape.

Heretofore golf balls for use indoors and in restricted areas have consisted in light weight knit or woven thread spheroids with substantially no resilience, or of hollow rubber balls either open or hermetically sealed. None of these practice balls has been of the weight or reaction to impact comparable to that given by a regulation golf ball of the familiar type (that is one composed of a resilient solid or liquid core wound with elastic rubber strips or threads under tension and an outer guttapercha or moulded rubber covering), and hence have not afforded the kind of trial strokes or blows from the golf clubs which would be indicative or simulative of the same blows or strokes on a ball as used in the regular play of the game of golf.

This invention will best be understood by reference to the accompanying drawing, in which:

Figure 1 is a median section of my golf ball;

Figure 2 is perspective view with parts broken away to more clearly indicate the structure. The outer cover, 1, is a hollow rubber sphere. The deformable semi-solid core is indicated as the spherical mass 3, enclosed within the outer shell, 1. In the preferred embodiment of my invention, a putty-like semi-solid, 3, is enclosed within a confining partitionial membrane, 2, with means indicated at 4 for closure, before encasing in the outer cover 1.

In its preferred form my golf ball consists of a mass of plastic deformable semi-solid material consisting of a mixture of about sixteen parts by weight of whiting to about three parts by weight of glycerine. The exact amounts required to give the desired puttylike mass vary considerably with the particular brand or batch of powder and glycerine, and therefore cannot be specified with great accuracy. About one ounce of this mixture in the form of putty is enclosed

within a small sack made of more or less impervious fabric or thin rubber, and the opening closed by tying with thread or other suitable means. Around this spherical mass is moulded by well known methods a rubber composition cover, soft vulcanized in the usual way. This rubber covering is preferably about one-fourth inch in thickness, altho this thickness, as well as the size and weight of the deformable core may be varied within wide limits to give the desired effect in the finished ball. If the core is made larger and the rubber casing made correspondingly thinner, the ball is more "dead", that is it will have less resilience and less rebounding capacity.

The mixture used for the core may also vary widely within the limits which give a deformable semi-solid mass, that is a material which, if not enclosed, is substantially permanently deformed by the application of external forces. Within the ball as described above, this deformable semi-solid mass, after being deformed, for example, by a golf club blow, is of such consistency that it will be pulled back into spherical shape by the recovery or recoil to spherical shape of the temporarily distorted outer shell or covering. Any inert powder such as whiting, clay, silica, magnesium carbonate, and the like may be used, either alone or preferably mixed to a putty with a liquid such as glycerine, which will "wet" the selected powder and not seriously affect the rubber outer shell and also will withstand the rubber vulcanizing operation.

The use of a rubber or fabric sack for enclosing the semi-solid mass during the operations attending the formation of the outer shell of rubber or rubber-like composition, is preferred but not an essential component of the article. Other means such as congealing by low temperatures, wrapping, dipping, painting, or surface drying may also be used to hold the core in shape while fabricating the outer shell.

The semi-solid plastic material may also be injected by the use of pressure into hollow rubber spheres and subsequently sealed at the opening used for the injection, to produce an article falling within the scope of my invention.

The outer shell may be composed of rubber, guttapercha, or any rubber-like composition which has the mechanical properties suitable for the exterior of a golf ball, and the elastic properties which permit relatively slow (but not instantaneous) recovery of the shell and the semi-solid core to a spherical shape, after being distorted by an external force. It is believed

that the outer shell, after the distortion of both the core and the shell by the blow from a golf club exerts sufficient force to slowly pull the deformable center mass back to spherical shape, there being a small but measurable time for this recovery of shape to take place.

I claim:

1. A practice golf ball comprising a plastic semi-solid central mass surrounded by a spherical non-tensioned elastic shell.

2. A practice golf ball comprising a hollow non-tensioned rubber sphere with a deformable plastic semi-solid center core.

3. A practice golf ball comprising a hollow non-tensioned rubber spherical shell containing a semi-solid mixture of an inert powdered solid and a liquid.

4. A practice golf ball comprising a soft vulcanized hollow non-tensioned rubber shell enclosing a semi-solid deformable mixture of whitening and glycerine.

5. A practice golf ball characterized by having small rebound comprising an unstressed outer rubber-like shell and a plastically deformable core.

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15	90
20	95
25	100
30	105
35	110
40	115
45	120
50	125
55	130
60	135
65	140
70	145
75	150