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M. B. REACH

GOLF CLUB

Filed Feb. 7, 1924

Fig.1.

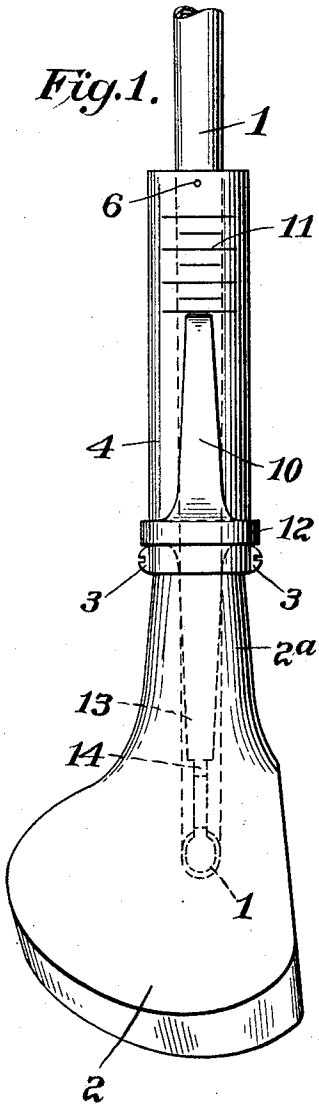


Fig.3.

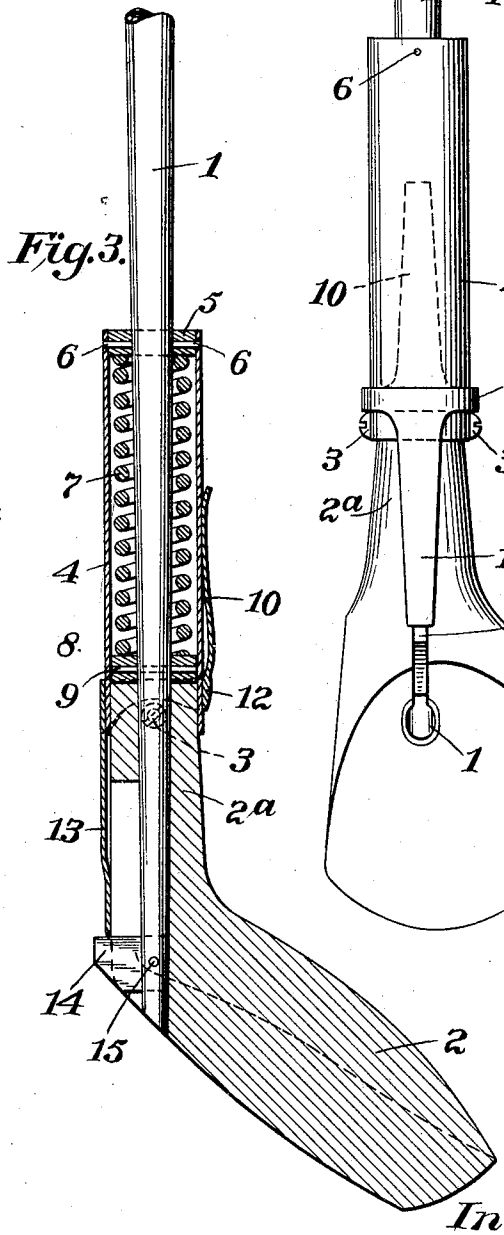


Fig.2.

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UNITED STATES PATENT OFFICE.

MILTON B. REACH, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO A. G. SPALDING & BROS., OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

GOLF CLUB.

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To all whom it may concern:

Be it known that I, MILTON B. REACH, a citizen of the United States, and resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in or Relating to Golf Clubs, of which the following is a specification.

The invention is designed for the purpose of enabling the user to practice strokes with his golf club intelligently, it involving means for indicating whether or not the club is being handled in a manner to get the best results from the amount of power expended by the player.

By practising with this improved club there will be an indication made which will inform the user whether or not he has made a good stroke, so that by persisting in the making such strokes as will give a good indication he will not only develop the proper muscles, but the making of such strokes will become a fixed habit.

In driving a golf ball the degree of effort or power exerted may be sufficient for a long drive, but unless the body, arm and wrist movements are so coordinated as will give the so called "snap" to the head of the club on striking the ball, a loss in efficiency will result.

My improvement in one aspect involves combining with a club simulating the characteristics of a golf club, a device for indicating to what degree of efficiency the club has been used in making the stroke. If the indication is low then the user may know that he has not coordinated the necessary movements, or employed the proper muscles to get the maximum result from the power exerted, and he can check the fault.

In the drawings

Figure 1 is a front view of the head and part of the stem of a golf club with my improvement attached.

Fig. 2 is a rear view and

Fig. 3 is a sectional view taken longitudinally of the head and adjacent parts.

In these drawings 1 indicates the stem or shaft of the club which in the example illustrated is of metal and of tubular form. The head of the club 2 is preferably of the form, weight and disposition to simulate the standard club head.

It is slidably mounted on the shaft for which purpose it has affixed thereto by screws 3 a metallic sleeve 4, having in its upper end a collar 5 secured thereto by pins 6. The collar has sliding engagement with the shaft. Within this sleeve a spring 7 is located, bearing at its upper end upon the collar 5 and at its lower end upon a collar 8 pinned to the shaft at 9. This spring is of the compression type and it normally holds the head of the club up in normal position relative to the shaft, this position being determined by the upper end of the shank 2^a of the head bearing up against the under side of the collar 8.

If the stroke of the club is made so as to effect the desired "snap" to the head at the time that the head would strike the ball, i. e. substantially at mid stroke, the head will move down in relation to the shaft under restraint of the spring 7, the strength of which is predetermined to allow a certain movement of the head when the stroke is properly made. For indicating the degree of movement of the head relative to the shaft and therefore the degree of efficiency of the stroke an indicator finger 10 is arranged to work over a graduated scale 11 on the sleeve 4. This finger is carried by a band or collar 12 slidably mounted on the sleeve and having an extension 13 lying alongside of the shank of the head and reaching down to be engaged by a projection or abutment 14 seated in the lower part of the hollow shaft where it is fixed by a pin 15. This projection extends through a slot in the shank of the head and through a slot in the hollow shaft, which latter slot extends from a point at the upper edge of the projection down through the lower edge of said shaft.

In operation when the stroke is such as to give a "snap" to the head, it will move down along the shaft and draw down the scale carrying sleeve with it.

The pointer will be prevented from moving down with the sleeve, despite the frictional contact of its band 12 therewith because the extension 13 of the band will contact with the projection. There will thus occur a relative movement between the scale bearing sleeve and the pointer, the effect being that the pointer will assume a position higher up along the scale, than it did originally before the stroke was made, and this relative position of the pointer and scale will be maintained when the spring raises

the sleeve with the head into normal position relative to the shaft. This will be due to the fact that the frictional contact between the band 12 and the sleeve is strong enough to hold the band and pointer in the position the said parts have relatively assumed as a result of the "snap" action imparted to the head of the club, so that it will be found, when the spring has returned the parts to normal position, that the pointer or index finger is indicating a higher scale mark than it did when in normal position, and this scale mark will indicate the degree of snap that has been imparted to the head of the club in performing the stroke just made, and the user therefore can judge as to the degree of efficiency of his stroke which of course will be high, low or intermediate according to the pointer and scale.

After one stroke has been performed the index finger if it has moved from its original pointer may be set back again by simply pushing it down to its lowest position, the frictional contact with the sleeve being sufficient to hold the index finger in any position along the sleeve, until a force sufficient to overcome this frictional resistance is applied. The best results of course will be obtained by using the head and shaft of standard characteristics, or substantially so, though it will be understood that the form of these parts may be varied.

It will be understood that practice strokes may be performed to get the indications mentioned above without the use of a ball.

I claim:

1. In combination in a golf club, a shaft, a head slidably mounted thereon and having a scale bearing portion, an index, means between the shaft and index to restrain the latter from downward movement with the head and scale, said index engaging and moving upwardly with the head and scale on their return to normal position, and means for returning the head and scale to said normal position.

2. In combination in a golf club, a shaft, a head slidably mounted thereon and having a scale bearing portion, an index, means between the shaft and index to restrain the latter from downward movement with the head and scale, said index by frictional engagement moving upwardly with the head and scale on their return to normal position, and means for returning the head and scale to said normal position.

3. In combination in a golf club, a shaft, a head slidably mounted thereon and having a scale bearing portion, an index, an abutment on the shaft against which the index bears to restrain the same from downward movement with the head and scale, said index engaging and moving upwardly with the head and scale on their return to normal position, and means for returning the head and scale to said normal position.

4. In combination in a golf club, a shaft, a head slidably mounted thereon and having a scale bearing portion, an index, means between the shaft and index to restrain the latter from downward movement with the head and scale, said index engaging and moving upwardly with the head and scale on their return to normal position, and means for returning the head and scale to said normal position, said head being free to return as soon as it reaches its downward limit.

5. In combination in a golf club, a shaft, a head slidably mounted thereon and having a scale bearing portion, an index, means between the shaft and index to restrain the latter from downward movement with the head and scale, said index engaging and moving upwardly with the head and scale on their return to normal position, and means for returning the head and scale to said normal position, and a compression spring for giving the head its return movement, substantially as described.

6. In combination in a golf club, a shaft, a head slidably mounted thereon and having a scale bearing portion, an index, means between the shaft and index to restrain the latter from downward movement with the head and scale, said index engaging and moving upwardly with the head and scale on their return to normal position, and means for returning the head and scale to said normal position, said index encircling a part of the head in frictional engagement therewith, and having a tail portion extending downwardly and engaging said restraining means.

7. In combination in a golf club or the like, a hollow shaft, a head slidable thereon, a spring for controlling the slidable head, a scale and index finger and an abutment fixed in the hollow shaft and projecting through the head for controlling the index finger, substantially as described.

In testimony whereof, I affix my signature.

MILTON B. REACH.