Aug. 14, 1923. 1,465,056

E. R. PHELAN

GOLF CLUB

Filed March 29, 1921

Fig. 5.

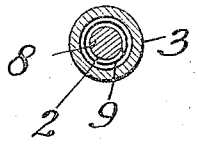


Fig. 1.

Fig. 6.

Fig. 2.

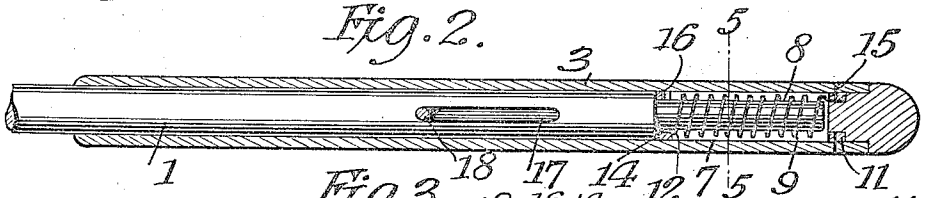


Fig. 3.

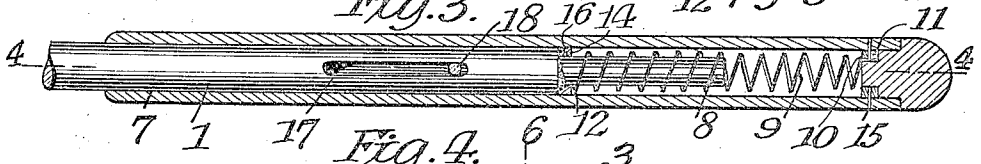


Fig. 4.

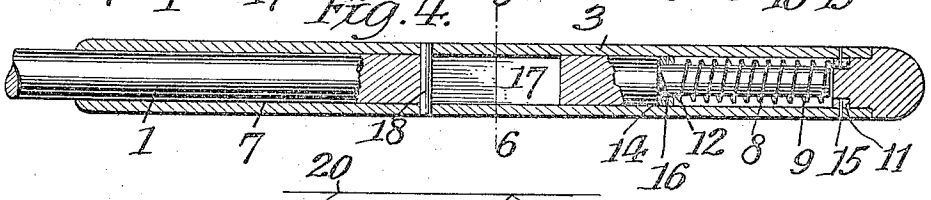
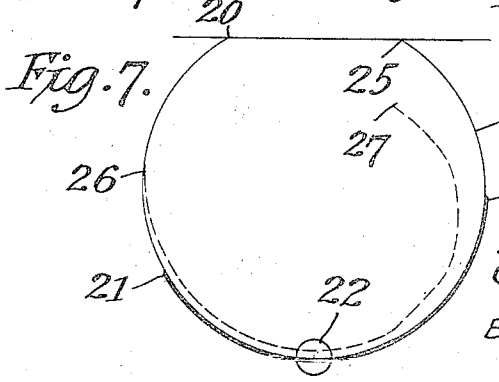


Fig. 7.



Inventor,
Eugene R. Phelan
By Wm. Rees Littell
his Attorney.

Patented Aug. 14, 1923. 1,465,056

UNITED STATES PATENT OFFICE.

EUGENE RAPHEL PHELAN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO FREDERICK S. DICKINSON, OF NEW YORK, N. Y.

GOLF CLUB.

Application filed March 29, 1921. Serial No. 456,511.

To all whom it may concern:

Be it known that I, EUGENE R. PHELAN, a citizen of the United States, and resident of New York, in county and State of New York, have invented certain new and useful Improvements in Golf Clubs, of which the following is a specification.

This invention relates to golf clubs, and it has for its object to provide an improved club which will "follow through" in the act of swinging and driving the ball.

With the ordinary type of golf clubs as now generally used the average player does not "follow" the stroke through but exerts a retarding or "pulling up" action before the head of the club comes in contact with the ball, thus causing "topping" or "slicing" of the ball and a consequent loss in accuracy and distance of drive. With the ordinary club there is also not attained the "snap" and speed, at the instant of contact with the ball, which is necessary to cause the maximum distance of drive.

My invention is designed to overcome the foregoing disadvantages and other defective conditions of play which are encountered in the use of the ordinary rigid-rod golf clubs, and to produce an improved construction whereby the maximum results in accuracy, speed and distance will be afforded.

In the drawings—

Figure 1 is a perspective view of my improved "follow through" golf club.

Fig. 2 is a detail longitudinal sectional view of the club with the operative parts in normal position.

Fig. 3 is a view corresponding to Fig. 2, with the operative parts in the "released" position which is assumed during the swing.

Fig. 4 is a detail longitudinal sectional view on the line 4—4, Fig. 3.

Fig. 5 is a detail cross-section on the line 5—5, Fig. 2.

Fig. 6 is a detail cross-section on line 6—6, Fig. 4.

Fig. 7 is a diagrammatic view illustrating the course of the club head in its swing with relation to the ball.

Corresponding parts in all the figures are denoted by the same reference characters.

The improved golf club embodying my invention comprises a sectional body, one section constituting the body-rod, 1, carrying the head, 2, and another section constituting the handle portion or grip, 3, said sections being mounted or secured together in extensible relation and the movement of the rod section with relation to the handle section being tensionally controlled.

The details of structure, to produce the composite club as above set forth, may be varied according to desired conditions, and I have herein illustrated one preferred construction in which the rear end portion of the body-rod section 1 is slidably mounted within a corresponding bore, 7, of a tubular handle section 3 and is provided with a terminal end of reduced diameter, as at 8, around which is carried a coiled spring 9, accommodated within the bore or internal space of the tubular handle section and having one end secured, as at 10, to a collar or block, 11, within the tubular handle and in fixed connection therewith, and the other end secured, as at 12, to a collar or block, 14, mounted upon and secured to the body-rod section 1 at the shoulder formed by its reduced end 8.

Under the conditions of the relative construction just described, the body-rod 1 will have a slidable movement within, and braced and guided by, the tubular handle section 3 and controlled by the tension of the coiled spring 9, the outward movemnt being against the tension of the spring and an inward movement being caused by the return action of the spring. The construction, in its arrangement and connection of parts, enables convenient assemblage and connection of the structural elements of the improved sectional club and economy in manufacture, the anchoring block 11 being secured to the handle section by pins, as at 15, inserted laterally, and the fastening collar or block 14 being secured to the inserted body-rod section by similar lateral pins, 16.

Means are provided to retain the tensionally-controlled body-rod or shaft 1 against a turning or twisting action within the tubular handle section, or to limit its extensible action therein, and in one preferred construction thereof, as herein illustrated, the rod is provided in its portion within the handle section with a transverse slot, 17, of desired longitudinal extent and of a width adapted to a fixed cross-pin, 18, which passes transversely through the tubular handle section and through said slot. In this construc-

tion the slot and governing pin extend on a plane which is transverse to the head 2 of the golf club, so that the stroke of the head is in the direction of the transverse plane of the slot and not at right-angles thereto. It will be understood, however, that any other suitable or adapted structural means may be employed to govern or retain the proper positional relation of the body rod in its tensionally-controlled extensible action in the swinging movement.

In the practical employment of my improved extensible golf club the tension of the controlling spring is preferably adapted or adjusted to the stroke or conditions of play of the individual golfer, and perfect operative action in the extensible and tensional movement of the club is thus attained.

The operative action of the extensible club is also especially adapted to and effective in "brassie" shots, in which there is particularly a tendency towards "slicing" of the ball.

The operation and advantages of my invention and improvements will be readily understood by those familiar with the game of golf.

In the swing and stroke with the improved "follow through" golf club, a correct swing with the head in a perfect arc is attained, the extensible release of the tensionally-controlled body-rod or shaft occurring about midway between the shoulder of the player and the ball and gaining about 75% more speed or force at the head and causing the latter to "follow through" after the ball has been hit and driven, thus precluding the action with the ordinary rigid-rod club which retards or "pulls up" from the ball during the stroke and causes "slicing" or "topping" and loss of force and distance. The improved extensible club also produces the required "snap" in meeting the ball and goes "through" with greater speed and force, causing a greatly enhanced distance of drive, as well as accuracy in direction and placing. And the extensible movement of the body-rod brings the club head "through" quicker than the movement of the hands of the player.

In Fig. 7 I have illustrated diagrammatically the course of the club head of the extensible club in its "follow through" action during the swing and stroke. The full line illustrates the course followed in a true segment, the start of the swing being at the point 20, and at the point 21 the head begins to gain speed before meeting the ball, 22, and "follows through" with speed, after driving the ball, to the point 23, when the tension of the controlling spring becomes active to return the body-rod and brings it to normal position at the point 24, in which status it continues to the finish point 25 of the swing. The heavier portion of the full course line in the diagram, from the point 21 to the point 23, indicates the start and terminus of the period of increased speed and force attained by the club head, in which the head gains speed before meeting the ball and travels and gains speed until it begins to return to the normal position which is reached near the left shoulder of the player or the finish of the swing. The dotted line in the diagram indicates the erroneous course of the head in the usual stroke with the ordinary rigid-rod golf clubs, in which the head begins to "pull up" and retard at the point 26, loses speed or force and "slices" or "tops" the ball and does not "follow through" but continues in a shortened segment to the finish point 27.

In play with the ordinary rigid-rod golf club, the tendency of the golfer is to get both hands "through" before the head, which causes "slicing" of the ball; or to get the right hand through first, which causes "hooking"; or to pull one or both hands up towards the body, which causes "topping" or a "miss". But, in the operation of the improved "follow through" club, the club head gots "through" perfectly true and even and both hands of the player go through together, following the head of the club, which latter meets the ball accurately just below the center and sends it up to a true "carry" in its line or course to the hole, a "pulling up" or "topping" or "slicing" action being effectively precluded.

I do not desire to be understood as limiting myself to the detail features of construction as herein shown and described, as it is manifest that variations and modifications therein may be resorted to, in the adaptation of my invention to varying conditions of use, without departing from the spirit and scope of the invention and improvements. I therefore reserve the right to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent:

1. A golf club having a handle or grip portion, a rod or shaft carrying the club head and slidably mounted on the handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, and tensional means governing the sliding and longitudinally extensional movement of the shaft.

2. A golf club having a tubular handle or grip portion, and a rod or shaft carrying the club head and extensibly mounted within the tubular handle member in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke.

3. A golf club having a tubular handle or grip portion, a rod or shaft carrying the club head and extensibly mounted within the

tubular handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke; and tensional means governing the longitudinally extensional play of the shaft.

4. A golf club having a rod or shaft carrying the club head, a handle or grip portion, connection means between the shaft and handle member whereby the shaft has with relation to the handle member an extensional play in the longitudinal plane of the shaft during the stroke, and spring means carried by the handle member and governing the longitudinally extensional play of the shaft.

5. A golf club having a handle or grip portion, a rod or shaft carrying the club head and slidably mounted on the handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, and spring means carried by the handle member and governing the sliding and longitudinally extensional movement of the shaft.

6. A golf club having a tubular handle or grip portion, a rod or shaft carrying the club head and extensibly mounted within the tubular handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, and spring means carried within the handle member and operatively connecting the shaft thereto to govern the longitudinally extensional play of the shaft.

7. A golf club having a sectional body the sections of which are connected in extensible relation permitting an extensional play in the longitudinal plane of the shaft during the stroke and one of which sections carries the club head, and means for preventing a lateral and turning or twisting action between the sections in their longitudinally extensional movement.

8. A golf club having a sectional body the sections of which are connected in tensionally-controlled extensible relation permitting a tensionally-controlled extensional play in the longitudinal plane of the shaft during the stroke and one of which sections carries the club head, and means for preventing a lateral and turning or twisting action between the sections in their longitudinally extensional movement.

9. A golf club having a sectional body the sections of which are connected in extensible relation permitting an extensional play in the longitudinal plane of the shaft during the stroke and one of which sections carries the club head, and means for limiting the longitudinally extensional play between the sections.

10. A golf club having a handle or grip portion, a rod or shaft carrying the club head and slidably mounted on the handle member in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, and means for preventing a lateral and turning or twisting action of the shaft in its slidable and longitudinally extensional movement.

11. A golf club having a handle or grip portion, a rod or shaft carrying the club head and slidably mounted on the handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, and means for limiting the slidable and longitudinally extensional movement of the shaft.

12. A golf club having a handle or grip portion, a rod or shaft carrying the club head and slidably mounted on the handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, tensional means governing the sliding and longitudinally extensible movement of the shaft, and means for preventing a lateral and turning or twisting action of the shaft in its slidable and longitudinally extensional movement.

13. A golf club having a handle or grip portion, a rod or shaft carrying the club head and slidably mounted on the handle member, in a connection affording an extensional play in the longitudinal plane of the shaft during the stroke, tensional means governing the sliding and longitudinally extensible movement of the shaft, and means for limiting the slidable and longitudinally extensional movement of the shaft.

In testimony whereof I have signed the foregoing specifications.

EUGENE RAPHEL PHELAN.