L. GOODRICH.

GOLF CLUB.

APPLICATION FILED SEPT. 28, 1914. RENEWED OCT. 27, 1917.

1,258,212. **Patented Mar. 5, 1918.**

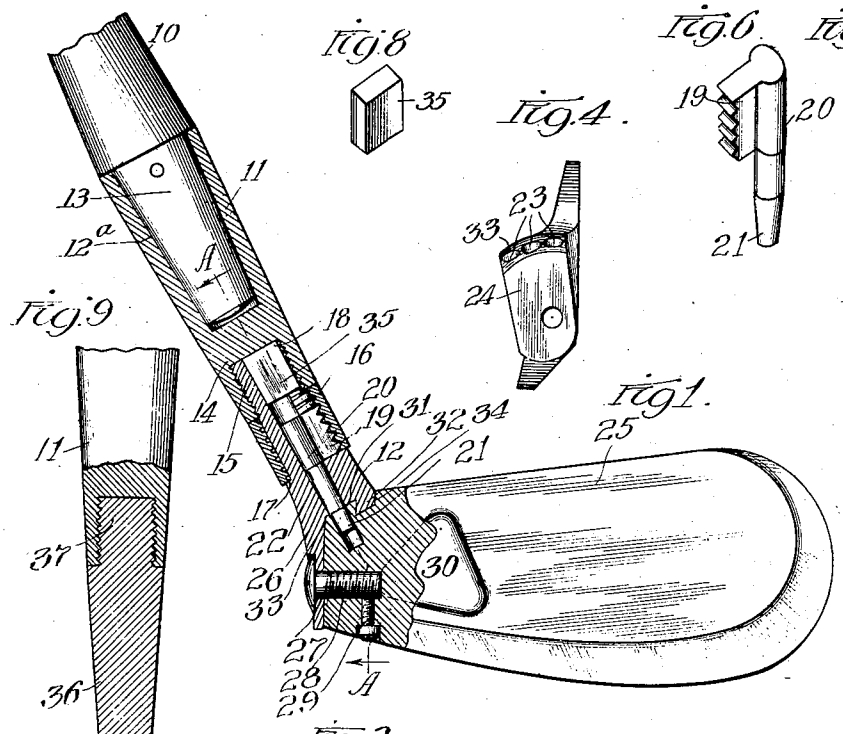


Fig. 1.

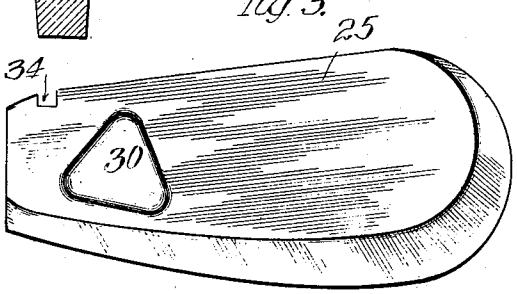


Fig. 3.

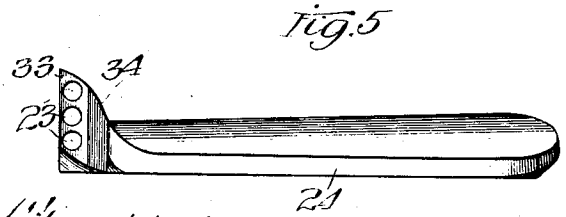


Fig. 5.

Fig. 4.

Fig. 6.

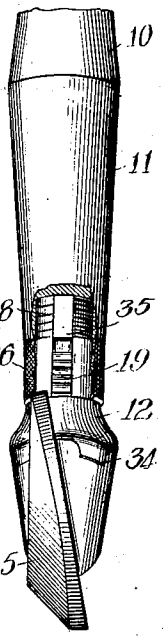


Fig. 2.

Fig. 9.

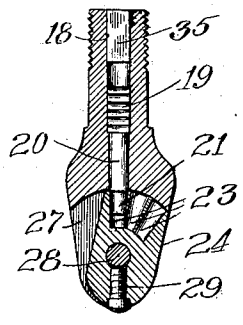


Fig. 7.

Fig. 8.

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UNITED STATES PATENT OFFICE.

LATIMER GOODRICH, OF CHICAGO, ILLINOIS.

GOLF-CLUB.

1,258,212. Specification of Letters Patent. Patented Mar. 5, 1918.

Application filed September 28, 1914, Serial No. 863,819. Renewed October 27, 1917. Serial No. 198,899.

To all whom it may concern:

Be it known that I, LATIMER GOODRICH, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Golf-Clubs, of which the following is a full, clear, and exact specification.

My invention is concerned with adjustable golf clubs of the type shown in the patent to Curry, No. 1,083,434, issued January 4, 1914, and is designed to improve the club shown in the aforesaid patent in certain respects which make it much stronger and more durable, so that it will stand the violent blows incidental to its use without weakening or loosening its parts.

With this object in view, I have invented a new form of locking mechanism, and changed the design of the interlocking channels, as will be hereinafter specified.

To illustrate my invention, I annex hereto a sheet of drawings, in which the same reference characters are used to designate identical parts in all the figures, of which,—

Figure 1 is a rear elevation of a club embodying my invention, with a portion of the shank and blade in central longitudinal section;

Fig. 2 is a side elevation of the same, with a portion of the shank and the controlling collar broken away;

Figs. 3, 4 and 5 are a rear elevation, an end elevation, and a top plan view, respectively, of the blade detached;

Fig. 6 is a perspective view of the locking pin;

Fig. 7 is a longitudinal section upon the line A—A of Fig. 1;

Fig. 8 is a perspective view of a strengthening block which I may employ; and

Fig. 9 is a detail showing the tip that may be substituted for the blade when it is desired to carry the shaft as a walking stick.

In carrying out my invention, the customary wooden shaft 10 is employed, and is fitted in the customary manner in the upper end of the upper portion of the shank member, which is preferably made of two parts 11 and 12. The part 11 has the customary recess 12 to receive the reduced end 13 of the shaft in the customary manner, and it has a recess 14 in its lower end which is interiorly threaded with a left-hand screw, so that when the threaded upper end 15 of the lower portion 12 of the shank is screwed in place, any blow given to the blade connected to the lower portion 12 of the shank will tend to tighten the two portions, rather than to loosen them. The upper end 15 of the portion 12 abuts squarely against the bottom of the recess 14 so as to prevent the locking collar 16 from being cramped between the shoulder 17 formed on the lower portion 12 of the shank and the bottom of the upper portion 11 when the parts are screwed together. The upper portion of the lower part 12 of the shank has a slot 18 cut therein, so that the threaded lug 19 projecting from the upper end of the locking pin 20 may slide in said slot 18 and have its threads coöperate with the internal threads of the collar 16, the outer surface of which is preferably milled so that it can be readily turned. The body of the locking pin 20, with its tapered lower end 21, extends through the cylindrical opening 22 formed in the lower portion of the lower part 12 of the shank, the aperture 22 being concentric with the axis of the shank. As in the structure of the above-mentioned Curry patent, the tapered lower end 21 of the locking pin 20 coöperates with the desired one of the corresponding plurality of recesses 23 formed in the thickened end 24 of the blade 25. By turning the collar 16, it will be readily seen that the threads on the inner surface thereof coöperating with the threads on the projection 19 will raise and lower the locking pin into and out of locking engagement with the recesses 23, and it will be further noted that when the pin is thrust down into locking engagement, it is held there positively, and does not depend on any spring action, and is not liable to be thrown out of engagement by the impact of the blade on the ball in making the stroke, or upon the ground in case the stroke is dubbed.

The lower end of the lower portion 12 of the shank is provided with an extension 26 which has a bearing aperture 27 therein, through which passes the body of the heavy screw 28 which forms the bearing between the shank and the blade. The body of the screw 28 is of course threaded into the rear end of the blade, and the set screw 29 serves to hold the screw 28 from any possible turning. In order to properly balance the blade against the enlarged end 24, I form in the rear thereof a triangular recess 30. The lower end of the lower portion 12 of the shank has formed therein a segmental chan-

nel 31, which is bounded by the segmental flange 32 on its upper side, and the blade has the coöperating segmental flange 33, in which are located the recesses 23, which flange extend into the channel 31, and the blade is also provided with the channel 34 coöperating with the flange 32 of the shank. It will be noted that the sides of these two flanges and channels are at right angles to the bearing screw 28, instead of being parallel to the axis of the shaft 10, as in the above-mentioned Curry patent. This is an important feature of my invention, inasmuch as the angles of the sides of the channels in the Curry club are such as not to oppose the tendency of the blows to draw the channels and flanges apart from each other, assuming that the blade tends to swing about an axis at right angles to the axis of the screw 28 and through its head. With the sides of the flanges and channels set as in my invention, there is an interlocking action that tends to prevent such a separation, and thus strengthens the club and results in its being decidedly more durable in the severe usage to which it is subjected.

As a means of strengthening the upper portion of the lower part 12 of the shank, I may place the rectangular block 35, of steel or some other hard metal, in the groove 18 above the top of the locking pin 20. This fits snugly in the channel and holds the threads expanded and in engagement with the threads in the upper part 11 of the shank, and also prevents the locking pin 20 from being raised farther than is necessary to unlock the parts.

If it is desired to carry the club and use it as a walking stick, the shaft 10 may be turned, when the upper portion 11 will be unscrewed from the lower portion 12, and a tip 36 provided with a threaded upper portion 37 may be screwed into the lower end of the portion 12 of the shank, and thus transform the shaft into a walking stick.

While I have shown and described my invention as embodied in the form which I at present consider best adapted to carry out its purposes, it will be understood that it is capable of modifications, and that I do not desire to be limited in the interpretation of the following claims except as may be necessitated by the state of the art.

What I claim as new, and desire to secure by Letters Patent of the United States, is:

1. In an adjustable golf club, the combination with a shank having a bearing aperture set at an obtuse angle to the axis of the shaft, and having a segmental channel therein concentric with the bearing aperture, said channel having its sides at right angles to the axis of the bearing, of a blade having a bearing in said aperture and a segmental flange having its sides also at right angles to the axis of the bearing, said flange coöperating with the channel in the shank to make a snug fit, and means interposed between the shank and the blade to lock the same in different relative positions, for the purpose described.

2. In an adjustable golf club, the combination with a shank having a bearing aperture set at an obtuse angle to the axis of the shaft and having a segmental channel therein and an adjacent flange thereon concentric with the bearing aperture, said channel and flange having their sides at right angles to the axis of the bearing, of a blade having a bearing in said aperture and a segmental flange and adjacent channel having their sides also at right angles to the axis of the bearing, said channel and flange on one member coöperating with the flange and channel on the other member to make a snug fit, and means interposed between the shank and blade to lock the same in different relative positions, for the purpose described.

3. In an adjustable golf club, the combination with a shank, of a blade having a bearing in said shank and recesses to determine the angle of the blade, a locking member movable along the axis of the shank and coöperating with said recesses, a collar embracing the shank, and connections between the collar and locking member to move the member by the rotation of the collar into and out of engagement with the recesses.

4. In an adjustable golf club, the combination with a shank, of a blade having a bearing in said shank and recesses to determine the angle of the blade, a locking member movable along the axis of the shank and coöperating with said recesses, a collar embracing the shank, and connections between the collar and locking member to move the member by the rotation of the collar into and out of engagement with the recesses, said connections consisting of threads on the locking member engaging with internal threads on the collar.

5. In an adjustable golf club, the combination with a shank having a central channel, and a slot connecting a portion of said channel with the exterior of the shank, of a blade having a bearing in said shank and recesses to determine the angle of the blade, a locking member sliding in said central channel and having a threaded projection extending through the slot and having its lower end coöperating with said recesses, and an internally threaded collar embracing the shank and engaging the threads of the projection, substantially as and for the purpose described.

6. In an adjustable golf club, the combination with a shank, of a blade having a thickened end having a bearing therein by which it is rotatably mounted in the shank, and a recess in the back of the blade to balance the thickened end, and locking means

to secure the blade at different angles to the shank.

7. In a golf club, the combination with a shaft, of a two-part shank secured on the lower end, one of said parts being threaded onto the other, a blade secured to the lower part, and a tip having a threaded upper end adapted to be screwed into said upper part when the lower part is removed.

8. In a golf club, the combination with a shaft, of a two-part shank, the upper part being secured on the shaft and having a threaded lower end, and a blade secured to the lower part, which lower part has a threaded upper end, the threads for a right-handed club being left-handed, and vice versa for a left-handed club.

9. In a golf club, the combination with a shaft, of a two-part shank, the upper part being secured on the shaft and having a threaded lower end, a blade secured to the lower part, which lower part has a threaded upper end, the threads for a right-handed club being left-handed, and vice versa for a left-handed club, a locking collar interposed loosely between the two parts of the shank, and adjustable locking means between the lower part and the blade controlled by said collar.

10. In a golf club, the combination with a shaft, of a two-part shank, the upper part being secured on the shaft and having a threaded lower end, a blade secured to the lower part, which lower part has a threaded upper end, the threads for a right-handed club being left-handed, and vice versa for a left-handed club, a locking pawl interposed loosely between the two parts of the shank, and adjustable locking means between the lower part and the blade controlled by said collar, said means consisting of a plurality of segmentally arranged apertures in the inner end of the blade, and a sliding locking pin coöperating with the aperture located in the shank and moved when the collar is rotated.

11. In an adjustable golf club, the combination with a blade having a plurality of segmentally arranged locking apertures therein; of a lower shank member to which the blade is pivoted having a threaded upper end, a shoulder below said thread, a cylindrical channel extending therethrough, and a slot in the side thereof above the shoulder; an upper shank member internally threaded and screwed onto the top of the lower member; an internally threaded collar interposed between the bottom of the upper member and the shoulder on the lower member; and a locking pin sliding in the channel, having a threaded projection extending through the slot and engaging the threads on the pawl, and a tapered lower end coöperating with the locking recesses.

In witness whereof, I have hereunto set my hand and affixed my seal, this 25th day of September, A. D. 1914.

LATIMER GOODRICH. [L. S.]

Witnesses:
JOHN HOWARD MCELROY,
MILDRED ELSNER.