W. D. KILGOUR.

GOLF CLUB.

APPLICATION FILED JAN. 30, 1908.

947,822. Patented Feb. 1, 1910.

Fig. 1.

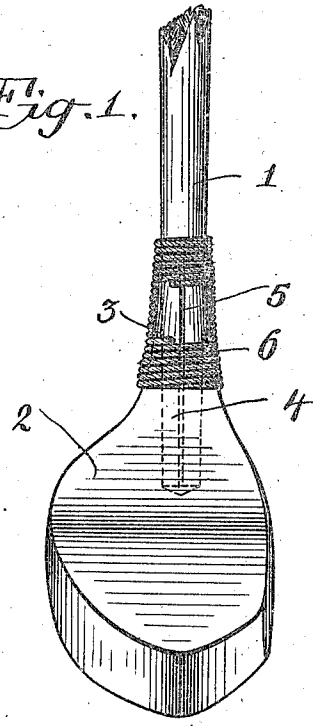



Fig. 2.

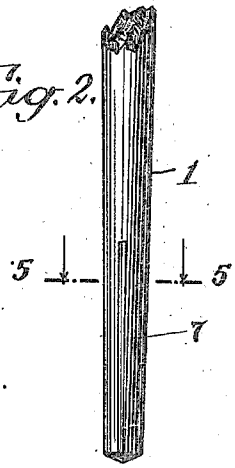



Fig. 5




Fig. 3.

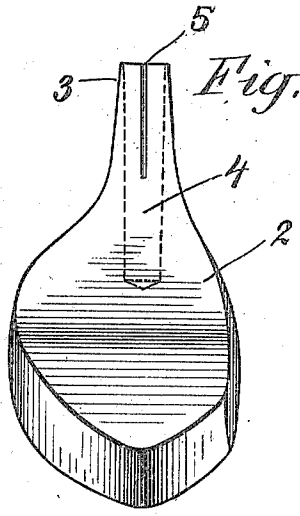
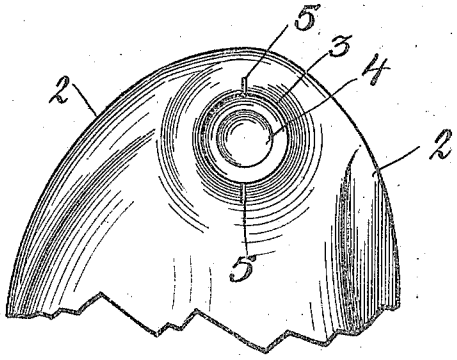



Fig. 4.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM D. KILGOUR, OF NEW YORK, N. Y., ASSIGNOR TO HARRY C. LEE AND GARDINER F. UNDERHILL, JR., COMPOSING THE FIRM OF LEE & UNDERHILL, OF NEW YORK, N. Y.

## GOLF-CLUB.

947,822. Specification of Letters Patent. Patented Feb. 1, 1910.

Application filed January 30, 1908. Serial No. 413,335.

*To all whom it may concern:*

Be it known that I, WILLIAM D. KILGOUR, a subject of the King of Great Britain, and a resident of the borough of the Bronx, in the city, county, and State of New York, have invented a certain new and useful Improvement in Golf-Clubs, of which the following is a specification.

My invention relates to golf clubs and more particularly to the joint or union between the head of the club and the shaft.

It has for its object to render the repairing of a club more easy and less expensive, to insure that a repaired club shall have the same balance or hang and the same lie possessed by the original club, to make the union or connection between the shaft and head of the club more perfect and durable, to prevent loss in the manufacture of golf clubs and generally to improve golf clubs.

It consists of the novel devices herein shown and described.

Heretofore it has been usual in securing the shaft and head of a golf club together to insert the lower slightly tapering end of the shaft into a cylindrical socket formed in the neck of the head, glue being applied to the parts before they are put together and a cord afterward wound around the two in the usual manner. In clubs thus made it is practically impossible to remove the shaft from the socket. This can only be done by boiling the head which destroys its usefulness. Accordingly when the shaft of such a club breaks it is usual to bore a new socket in the old head. This is not only difficult and expensive but in practice it is impossible to bore the socket so that it will correspond exactly with the original socket. For this reason it is practically impossible to repair a golf club and secure the same balance or hang of the club and the same lie of the head of the club upon the ground when in position for a stroke as in the original club. By means of my improvement these defects are entirely overcome.

In the drawing accompanying the specification and forming part hereof, I have shown my improvement in its preferred form and as applied to a driver.

Referring to such drawing, Figure 1 is a view of the head and a part of the shaft of a golf club containing my improvement, the socket and lower end of the shaft being represented by dotted lines and the binding cord being shown as partially broken away for the purpose of clearness. Fig. 2 is a view of the lower end of the shaft and Fig. 3 a view of the head of such a club. Fig. 4 is a plan or top view of the head. Fig. 5 is a section through the shaft taken on lines 5—5 of Fig. 2.

In the joint or connection between the lower end of the shaft and the head in my improved golf club I provide an opening through which steam or any other suitable element may be forced or introduced into the joint in order to soften the glue or other cementing material. This permits the ready separation of the shaft and head from each other without injury to either. The opening may be made in any suitable way. It may be made in the shaft alone or in the head alone or partly in one and partly in the other.

Referring to the specific embodiment of my invention shown in the drawing, 1 is the lower end of the shaft of a driver. It is preferably made slightly tapering, as shown in Fig. 2, the upper part of the shaft not being shown.

2 is the head of the driver and 3 the neck of the head.

In the neck and projecting down into the body of the head 2 is the socket 4, preferably made cylindrical throughout the greater part of its length.

In order to make an opening into the joint between the head and the shaft when they are secured together, into which steam or any other equivalent element for softening the glue can be introduced, I provide a groove 7 in the lower end of the shaft 1 and a slit 5 in the socket formed in the neck 3 and the head 2.

In the form shown in the drawing there are two grooves 7 on opposite sides of shaft 1 and two slits 5 on opposite sides of the socket. One or any suitable number of grooves or slits may be employed and may be arranged as desired and may be of any suitable length. I prefer to use two grooves and two slits and to slit the socket only part way down, as shown in Fig. 3, and to make the grooves 7 of substantially the same length as the depth of the socket, although, of course, these details may be varied as desired. In practice and preferably the lower end of the shaft 1 is slipped into the socket so that each groove 7 is in line with its cor-

responding slit 5. The slit or slits in the walls of the socket enable them to distend slightly, so as to permit a snugger or tighter fit between the shaft and the head than otherwise would be possible. Glue or any suitable cementing material is applied in the usual manner to the parts before they are put together. After the insertion of the shaft in the socket the two are bound together by a suitable cord 6, as shown in Fig. 1, the cord in that figure being partly broken away to show the parts underneath. In place of the cord any suitable binding material can be used, as for example, some binding waterproof cement or substance, applied to the exterior of the joint between the shaft and the head.

By means of my improvement, a snug fit can be maintained between the shaft and the walls forming the socket throughout the entire length of the latter. There is no play between the lower end of the shaft 1 and the lower part of the socket and no such strain is brought upon the shaft and the walls of the upper part of the socket, as in clubs heretofore made.

My improved golf club is much more durable than clubs made in the ordinary way and the club head itself is much firmer and more satisfactory in use.

Should the shaft be broken or should it be desired for any reason to remove the shaft from the socket, the cord is unwound and steam or other equivalent means for softening the glue or other cementing material is forced or introduced through the opening in the joint between the head and the shaft. In the form shown in the drawing the steam would be forced into the joint through the openings formed by the grooves and slits. This will soften the glue and permit the ready removal of the shaft from the head without injury to either. The slitted character of the head also assists in its removal. The same shaft or a new shaft can then be inserted into the head. As the socket is exactly the same as before, the same balance and hang of the club and the same lie of the head upon the ground are readily obtained in the repaired club that were present in the club as originally made. These are features regarded as of great importance by many players. This ready means of repair also saves considerable time and expense. The slitted character of the head also effectively guards against splitting of the walls of the socket during the insertion of the shaft.

My improved club is much more durable, more satisfactory in use and can be easily, cheaply and accurately repaired with a certainty that the repaired club will have the same properties possessed by the club before repair.

The opening at the joint need not have the form of a groove or slit, but may have any desired form that will enable steam or its equivalent to be introduced into the joint for the purposes described. While I have shown my improved opening as on both shaft and head, the opening may be confined to one of these parts if desired.

What I claim as new and desire to secure Letters Patent, is:—

1. In a golf club the combination of a shaft and a wooden head, one of these parts containing a groove to form an opening in the joint between the shaft and the head.

2. In a golf club the combination of a shaft, a wooden head, and engaging parts between the two containing a groove in one part and a slit in the other part adapted to leave an opening in the joint between the shaft and the head.

3. The combination in a golf club of a shaft and a head, the shaft being provided at its lower end with a groove adapted to form an opening into the joint between the shaft and the head, when the shaft and head are secured together.

4. In a golf club the combination of a shaft provided with a groove in its lower end and a wooden head having a socket provided with a slit at its upper end, the socket being adapted to receive the lower end of the shaft of the club.

5. A golf club having a head, provided with a cylindrical socket slitted at its end on opposite sides and having a shaft provided at its lower end with a groove corresponding to each slit in the socket, and means for securing the shaft and head together.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WILLIAM D. KILGOUR.

Witnesses:

EDWIN SEGER,

JOHN O. GEMPLER.