C. A. ROLFE.

GOLF CLUB.

APPLICATION FILED NOV. 22, 1915.

1,182,209.

Patented May 9, 1916.

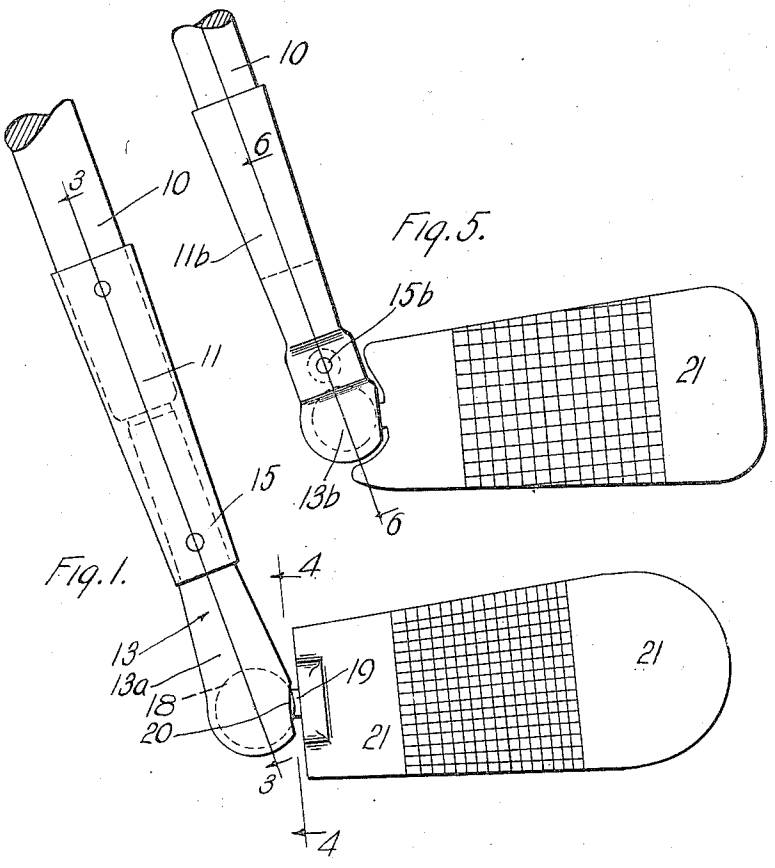


Fig. 1.

Fig. 5.

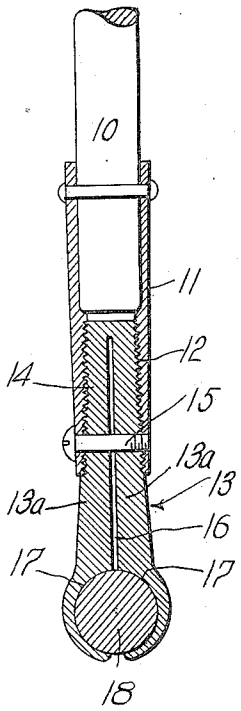


Fig. 3.

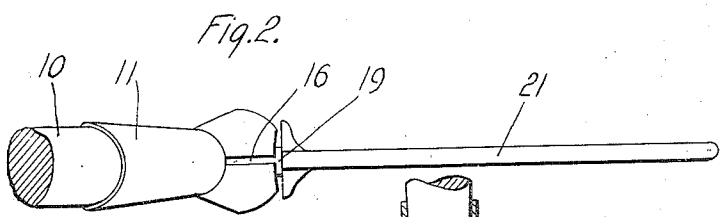


Fig. 2.

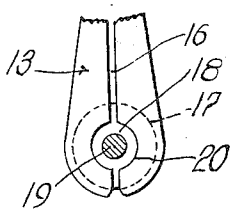


Fig. 4.

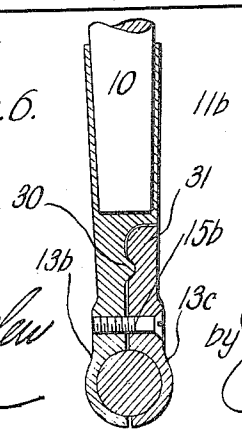


Fig. 6.

Witnesses

Elwood H. Barkelew

Ada F. Brown

Inventor

Charles A. Rolfe

by James T. Barkelew

his Attorney.

UNITED STATES PATENT OFFICE.

CHARLES A. ROLFE, OF REDLANDS, CALIFORNIA.

GOLF-CLUB.

1,182,209. Specification of Letters Patent. Patented May 9, 1916.

Application filed November 22, 1915. Serial No. 62,895.

To all whom it may concern:

Be it known that I, CHARLES A. ROLFE, a citizen of the United States, residing at Redlands, in the county of San Bernardino, State of California, have invented new and useful Improvements in Golf-Clubs, of which the following is a specification.

This invention relates to an adjustable golf club; and the invention consists particularly in certain improvements, over that type of club which I have shown in my application Serial No. 855,374, filed Aug. 6th, 1914, as are hereinafter pointed out.

It is a particular object of this invention to provide a golf club which is not only easily and quickly adjustable but which can be adjusted accurately into any desired position. And it is one of the particular objects of this invention to provide a club adjustable to any position and in which the "hook" or "slice" position may be entirely obviated.

The manner in which I accomplish these objects will be best understood from the following detailed specification, wherein I explain specific forms of my present invention, reference being had to the accompanying drawings, in which, for the purpose of this specification, I illustrate specific forms of devices, and in which—

Figure 1 is a side elevation of a golf club embodying my invention, Fig. 2 is a plan thereof, Fig. 3 is a section taken as indicated by line 3—3 on Fig. 1, Fig. 4 is a section taken as indicated by line 4—4 on Fig. 1, Fig. 5 is a side elevation of another form of club, and Fig. 6 is a section taken as indicated by line 6—6 on Fig. 5.

In the drawings the numeral 10 designates what may be an ordinary golf club shaft preferably carrying at its lower end a ferrule 11, which ferrule has an upwardly extending tapered opening 12 in its lower part, being preferably screw threaded. A socket member 13 is provided with an upper tapered shank 14 adapted to fit in the tapered opening 12, being also preferably screw threaded so as to screw up into this tapered opening to the position shown in the drawings. A screw 15, or other suitable holding means, may be used to prevent the member 13 from unscrewing from position. The member 13 is longitudinally slit, as shown at 16 and has in its lower part a ball socket 17 in which a ball 18 is adapted to be frictionally held. When the tapered upper shank 14 of the cover 13 is screwed home in the opening 12 the two parts of the member 13 are brought toward each other so that the two halves of the ball socket are compressed about the ball 18 to frictionally hold the ball in the socket. The ball has a neck 19 projecting through an opening 20 in the member 13, and this neck 19 carries the blade 21 of the golf club. The opening 20 is of sufficient size and suitable configuration to allow the blade 21 to be adjusted to any desired position. The friction upon the ball 18 is sufficient to hold the blade 21 in any desired position, and yet is small enough that the blade may be easily adjusted by hand if desired. (I will state that this golf club is designed particularly for my game of lawn golf in which very light balls are used; so that no very great force is exerted upon the blade and the ball 18 need not be held so very tightly.) The center of the universal joint formed by the ball and socket is at the intersection of the axes of the shaft and blade so that, no matter how the blade is adjusted, the axis always passes through the center of the shaft in proper alinement.

In the form just described it will be noted that compression of the socket around the ball is effected by the action of the tapered screw threaded shank 14 in the tapered screw threaded opening 12, that the pressure on the ball may be adjusted by screwing or unscrewing the shank in the tapered opening; and that the resiliency or elasticity of the parts 13^a will compensate for wear on the ball and socket. In the form now to be described I provide a means for readily adjusting the pressure on the ball; that is, for adjusting the stiffness or ease with which the ball, and the blade, may be adjusted in position. One side 13^b of the socket is permanent and integral with the ferrule 11^b; while the other side 13^c is formed in a separate piece held in position by a screw 15^b. A projection 30 registering with a depression 31 serves to register the two parts together. Pressure on the ball is easily adjusted in this form; and, moreover, the device is simple and inexpensive, and may be struck up of sheet or other metal without the necessity of any machine work. Other than in the particulars noted the form of Figs. 5 and 6 is the same as the form

shown in the other figures; and the operation, use and adjustment of the blade are identical.

I am aware that it has heretofore been proposed to mount blades or heads of golf clubs upon a pivot or stud at the lower end of the shaft. Now the axis of a blade does not usually stand at right angles to the axis of the shaft; and consequently, where the blade is mounted upon an axis, that axis is usually at an obtuse angle to the shaft. When such a blade is turned to get different lifting or driving angles on its front face it is found that the blade is thereby turned to such position as to obtain a "hook" or "slice," as the case may be, upon the ball. It is one of the objects of my invention to eradicate this difficulty. It will be seen that with the universal connection of the blade to the shaft, the blade may be adjusted in any desired position with reference to the shaft. That is, the blade may be adjusted up and down to vary the vertical angle of its axis with the shaft, and may be adjusted about its own axis to vary the rising or lifting angle of its forward face, and may also be adjusted in a horizontal direction around the center of the ball 18 so as to properly adjust the blade in the proper direct line down the shaft (as seen when one holds the club and glances down the shaft over the blade). By this simple method of adjustment I enable the golfer to adjust his club to suit any stroke, and, at the same time, to eradicate entirely any "hook" or "slice" position of the blade. This is the result of making the blade freely adjustable in all directions about a single pivotal point; so that adjustment in one direction, say about the axis of the blade, does not necessarily affect any other adjustment, say about the axis of the shaft.

Having described a preferred form of my invention, I claim:

1. A golf club, embodying a shaft with a ferrule at its lower end having an upwardly extending tapered opening, a longitudinally slit resilient member having an upper tapered shank adapted to fit in the tapered opening and having a ball socket disposed in its lower part on opposite sides of the longitudinal slit, so that forcing the tapered shank up into the tapered opening will resiliently compress the ball socket, a ball in said socket, and a blade mounted on the ball.

2. A golf club, embodying a shaft with a ferrule at its lower end having an upwardly extending tapered screw threaded opening, a longitudinally slit resilient member having an upper tapered screw threaded shank adapted to fit in the tapered opening and having a ball socket disposed in its lower part on opposite sides of the longitudinal slit, so that forcing the tapered shank up into the tapered opening will resiliently compress the ball socket, a ball in said socket, and a blade mounted on the ball, the ball and socket being centered on the axes of the blade and shaft.

3. A golf club, embodying a shaft, a universal joint at the lower end of the shaft embodying two members one mounted upon the shaft, a blade carried by the other member, said members being a ball and a resiliently compressible socket holding the ball in frictional restraint.

4. A golf club, embodying a shaft, a universal joint at the lower end of the shaft embodying a socket mounted upon the shaft and a ball held in said socket, the socket embodying two members resiliently compressible upon the ball so as to hold the ball in frictional restraint, and a blade mounted upon the ball.

5. A golf club, embodying a shaft with a ferrule at its lower end, the lower end of said ferrule carrying one half of a ball socket, another ball socket half adapted to register with the first mentioned half, means for adjustably holding the two halves together, and a blade having a ball at one end fitting in said socket.

In witness that I claim the foregoing I have hereunto subscribed my name this 16th day of November, 1915.

CHARLES A. ROLFE.

Witnesses:
JAMES T. BARKELEW,
E. B. ARMSTRONG.