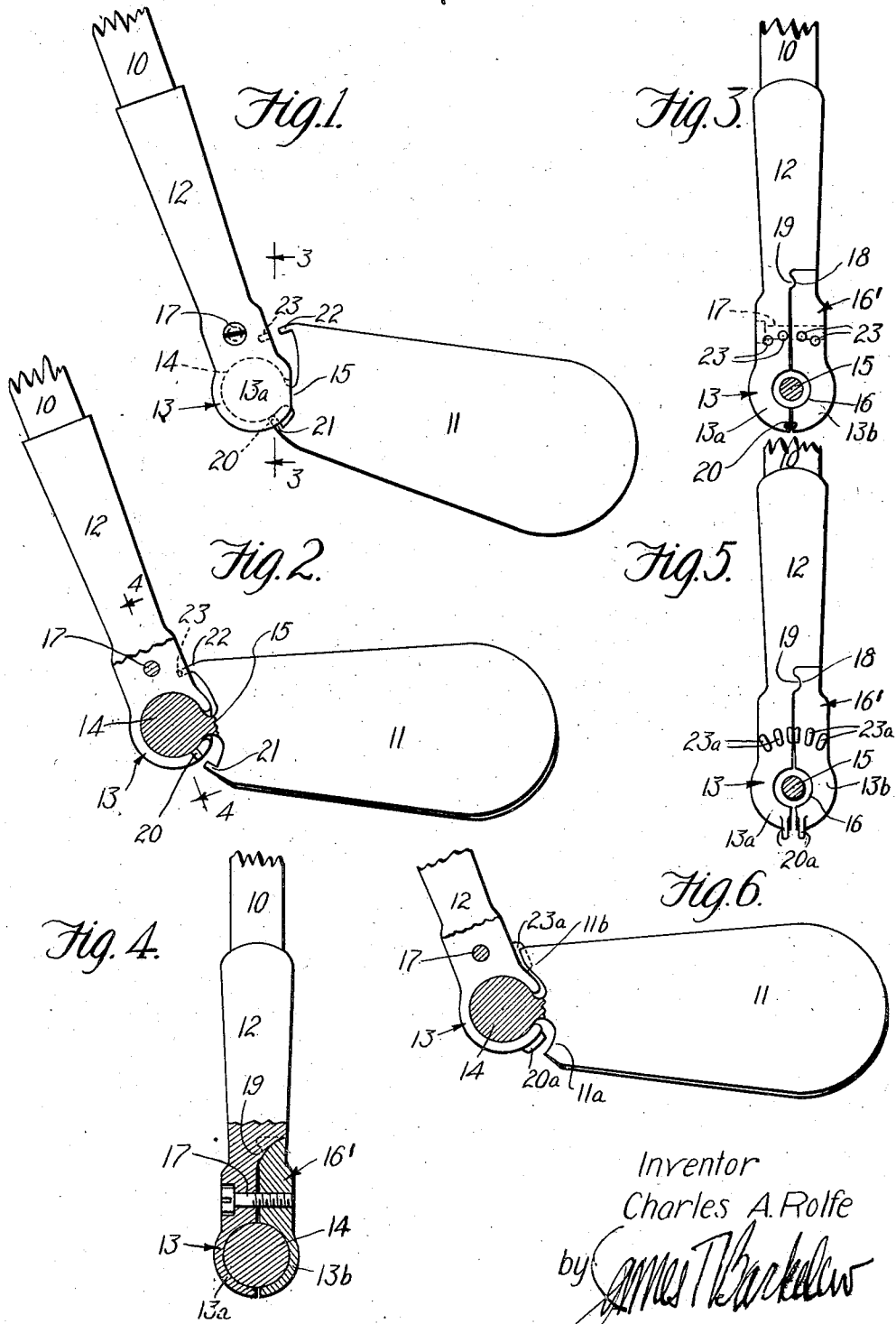


C. A. ROLFE.
GOLF CLUB.
APPLICATION FILED OCT. 4, 1917.

1,313,504.

Patented Aug. 19, 1919.



Inventor
Charles A. Rolfe
by *James T. [Signature]*
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UNITED STATES PATENT OFFICE.

CHARLES A. ROLFE, OF REDLANDS, CALIFORNIA.

GOLF-CLUB.

1,313,504.

Specification of Letters Patent.

Patented Aug. 19, 1919.

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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 certain new and useful Improvements in Golf-Clubs, of which the following is a specification.

This invention relates to golf clubs; and particularly to adjustable golf clubs of that general character which is set forth in my Patent No. 1,182,209, issued on May 9, 1916, for golf club.

In such a golf club I employ a universal joint between the shaft and blade; said universal joint being preferably in the form of a ball and socket joint, allowing the blade to be universally adjusted with reference to the shaft. The angle between the axis of the blade and the axis of the shaft may be adjusted, and the tilt of the blade may also be adjusted. In such a club I now provide, as hereinafter described, means for setting the blade in any position to which it is adjusted; and the novel features of this blade setting means, and its combination with such a club herein described, are the features of this invention. I explain preferred forms of the golf club embodying my invention, in the following specification; and for this purpose I have reference to the accompanying drawings in which—

Figure 1 is a side elevation of the lower part of the golf club embodying my invention; Fig. 2 is a similar view, showing parts in vertical section; Fig. 3 is a view taken as indicated by line 3—3 on Fig. 1; Fig. 4 is a sectional view taken as indicated by line 4—4 on Fig. 2; Fig. 5 is a view similar to that of Fig. 3, showing a slight modification; and Fig. 6 is a view similar to Fig. 2, showing the modification.

In the drawings the numeral 10 designates the shaft of the club, and the numeral 11 the blade of the club. In my preferred construction I mount upon the lower end of shaft 10 a shaft member or shank 12 which has in its lower end a socket 13 adapted to receive and hold a ball 14. This socket and ball form the universal joint. The ball 14 carries the blade 11; having for this purpose a neck 15 forming a direct attachment to the ball and the blade, and this neck projecting out of the socket through an opening 16 large enough to allow the desired latitude of adjustment of the blade 11.

The socket 13 is preferably formed in two

parts, one part 13^a being formed directly in the lower end of shank 12, and the other part 13^b being formed in the lower part of a clamp member 16' which is held to member 12 by the screw 17. The upper end of member 16 has a recess or notch 18 which notch fits over a projection 19 on the member 12. Interengagement of notch and projection holds the member 16 from turning out of proper position. The screw 17 may be adjusted to clamp the ball 14 sufficiently to hold the blade 11 against displacement from any position in which it is placed; and yet the blade may be forcibly adjusted to any desired position without loosening the screw. It may be adjusted up and down between the positions shown in Figs. 1 and 2, and also may be adjusted tiltably about its longitudinal axis. The screw 17 which I now hereinafter describe holds the blade positively in any position in which it may be placed. When the blade is in its lower position, shown in Fig. 1, then it is usually only desired to have one position of the blade as regards tilt; with the blade in a vertical plane. On the lower side of the socket 13 I provide a single aperture; a hole as shown at 20 in Figs. 1, 2 and 3. The lower edge of the blade 11 is provided with a projection 21 adapted to engage in this hole 20 when the blade is thrown downwardly. The upper edge of the blade has a projection 22, which projection is adapted to engage in any one of the holes 23, when the blade is thrown to its upper position, as shown in Fig. 2; and in a position of the blade intermediate the positions shown in Figs. 1 and 2, neither of the projections 21 or 22 engage in the corresponding holes. Thus, in an intermediate position, the blade may be tiltably adjusted to any desired tilt, and then the blade may be moved up or down to engage the projection 21 or 22 in the corresponding hole. When the blade is in its upper position, it is desirable to provide means for holding it at various tilts; and for this purpose I provide a plurality of the holes 23; and I also provide these holes on opposite sides of the center of the shank 12 so the blade 11 may be tilted either in one direction or the other for a right-handed or left-handed play.

It will be obvious that the setting engagement of the blade may be accomplished by other means. I do not limit myself to the particular provision of projections 21 and 22 entering apertures. (These aper-

tures may, of course, be made in any desired form; they may be slots, grooves, channels, etc.) For instance, as shown in Figs. 5 and 6, the member 12—13 may be provided with lugs or other projections 20^a and 23^a between which the end edges 11^a and 11^b of blade 11 may enter, the blade being without the projections 21 and 22 as before described. The lugs 20^a and 23^a may be formed in any suitable manner; they may be cast or otherwise formed integrally with the member. Such variations, and others that may appear to those skilled in the art, may be made without exceeding the scope of my invention as set forth in the following claims.

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

1. A golf club embodying a shaft, a universal joint at the lower end of the shaft embodying two members one mounted upon the shaft, and the other carrying a blade, and interengaging blade setting means on the blade member and on the shaft member adapted to be thrown into and out of interengagement by movement of the blade member vertically about the joint pivot, the blade having a normal position in which said means are out of interengagement.
2. A golf club, embodying a shaft and a blade, a universal joint between the shaft and blade so that the blade may be adjustably moved with reference to the shaft, and interengaging blade setting means on the blade and shaft adapted to be thrown into and out of interengagement by movement of the blade vertically about the joint pivot, the blade having a normal position in which said means are out of interengagement.
3. A golf club, embodying a shaft and a blade, a universal joint between the shaft and blade so that the blade may be adjustably moved with reference to the shaft, and interengaging blade setting means on the blade and shaft both above and below the joint and adapted to be thrown into operative engagement when the blade is moved

either up or down, being out of engagement when the blade is in intermediate position.

4. A golf club, embodying a shaft and a blade, a universal joint between the shaft and blade so that the blade may be adjustably moved with reference to the shaft, projections on the blade one above and one below the joint, and depressions on the shaft above and below the joint adapted to be engaged by the blade projections when the blade is moved up or down.

5. A golf club, embodying a shaft and a blade, a universal joint between the shaft and blade, said joint being frictional so as to normally hold the blade in any adjusted position and so that the blade may be adjustably moved with reference to the shaft, and interengaging blade setting means on the blade and shaft adapted to be thrown into and out of interengagement by movement of the blade vertically about the joint pivot, the blade having a normal position in which said means are out of interengagement.

6. A golf club, embodying a shaft, a universal joint at the lower end of the shaft embodying a ball member and socket member one mounted on the shaft, and a blade carried by the other, means for compressing the socket member on the ball to frictionally hold the blade in any adjusted position and at the same time to allow the forcible adjustment of the blade in any direction, and interengaging blade setting means on the blade and on the member mounted on the shaft, said means adapted to be moved into interengagement by the up or down movement of the blade and adapted to be out of engagement when the blade is in intermediate position.

In witness that I claim the foregoing I have hereunto subscribed my name this 28th day of September 1917.

CHARLES A. ROLFE.

Witnesses:

JOHN W. GILL,
B. D. STARKWEATHER.