June 2, 1925. 1,540,559

J. J. MURPHY

GOLF CLUB

Filed Oct. 20, 1924

Fig.2.

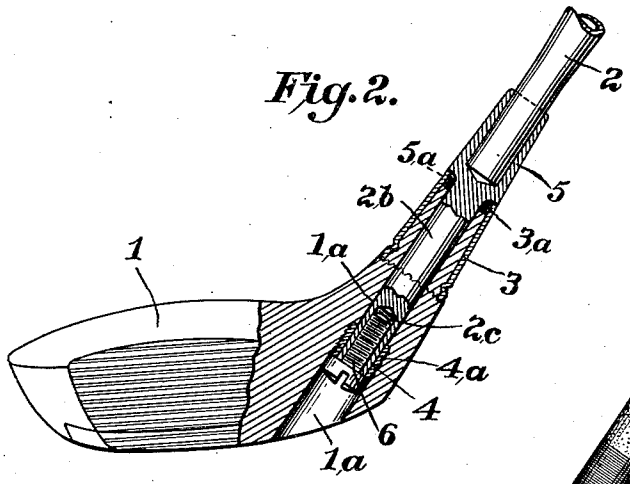


Fig.1.

Fig.4.

Fig.3.

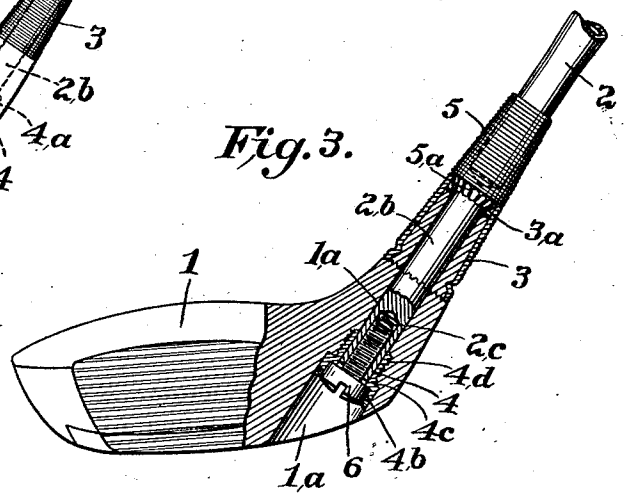
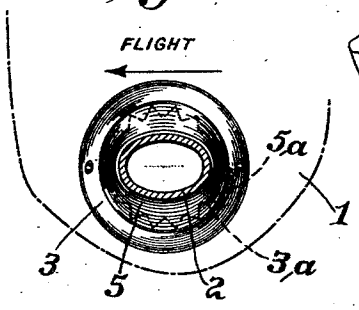


Fig.5.



Inventor:

John J. Murphy,

by Spear Middleton Donaldson & Hall

Attys.

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UNITED STATES PATENT OFFICE.

JOHN J. MURPHY, OF NORWICH, CONNECTICUT.

GOLF CLUB.

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To all whom it may concern:

Be it known that I, JOHN J. MURPHY, a citizen of the United States, and resident of Norwich, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Golf Clubs, of which the following is a specification.

My present invention relates to improvements in golf clubs and aims to provide a construction in which the handle or shaft will be easily attachable and detachable, but when attached will be held firmly in position. This is of material advantage from the standpoint of the professional by reason of the fact that an assortment of heads of various styles and weights can be carried sufficient to satisfy local demands, with a minimum assortment of shafts, which latter constitute the most expensive parts of the clubs. This enables the customer to pick out the type of head desired and have it fitted with a shaft of the desired feel and flexibility, resulting in the possibility of supplying the varied wants of customers with a material reduction in quantity and cost of stock carried on hand.

Another advantage is the ability to make quick repair in case of breakage of the shaft.

I have also aimed to provide a club in which varying degrees of flexibility may be secured by one and the same handle or shaft.

The invention is shown herein as embodied in a wooden club of the driver or brassie type, though it will be understood that I do not limit myself to a club of this specific character.

In order that the invention may be better understood, I have appended hereto explanatory drawings, in which:—

Figure 1 is a perspective view of a driver embodying the invention.

Fig. 2 is a longitudinal section.

Figs. 3 to 5 are detail views.

Referring by reference characters to this drawing, the numeral 1 designates the club head and 2 the handle or shaft, the latter being of the metal or tubular steel type, which is increasing in popularity.

The neck of the club is reinforced by an exterior sleeve or ferrule 3, and is provided with a longitudinal axial bore 1^a which extends through to the bottom face of the club, being lined on the inside adjacent its lower end with a sleeve or ferrule 4 which is countersunk in the bore or passage. The ferrule is provided with exterior teeth or serrations 4^a so that it may be driven into the opening and will be retained by the teeth against accidental displacement before insertion of the handle.

The handle or shaft 2 is made of oval or elliptical shape in cross section, except at the hand grip portion 2^a and at the lower end 2^b where it is made cylindrical to fit the bore 1^a and interior of sleeve 4, and said lower end is provided with a tubular bore 2^c which is internally screw threaded to fit the threads of the holding screw.

For convenience of manufacture, the body of the shaft and the portion 2^b are made separate and united in a suitable manner as by brazing or welding, the joint part 5 having preferably the appearance of a tapered ferrule which, like the ferrule 3, has its exterior surface formed to simulate the customary club winding, though this is not material.

The inner edge of the ferrule 3 is provided with teeth or serrations 3^a, and the lower edge of the part 5, or corresponding portion of the shaft, is provided with coacting teeth or projections 5^a adapted to interlock with the serrations 3^a.

The customer having selected the desired club head and handle, it only remains to insert the lower end of the shaft in the bore and insert and tighten the holding screw 6, whereby the club head will be rigidly locked to the shaft and any rotary movement thereon prevented by the interlocking serrations.

If a maximum stiffness of handle is desired, the shaft is placed in the socket with the longest diameter of its ellipse parallel to the line of flight of the ball (see Fig. 5), which also reduces wind resistance; while if maximum flexibility is desired, the shaft is applied with the longest diameter of its ellipse at right angles to the line of flight (see Fig. 4). Varying degrees of flexibility or resiliency between these extremes can be secured by regulating or limiting the amount of turn given to the shaft.

In the modified form shown in Fig. 3, the outer end of the ferrule 4 is enlarged to receive the head of the holding screw 6, which bears against an internal shoulder 4^b, there being a corresponding external shoulder 4^c which assists in preventing the ferrule being drawn into the wood. In this form the exterior of the reduced portion is provided with screw threads 4^d of the wood screw

type, and the enlarged outer end of the ferrule with kerfs so that it may be screwed into position by the use of a screw driver.

Having thus described my invention, what I claim is:—

1. A golf club comprising a head having its neck provided with a bore or recess provided with a non-circular portion, a shaft having a lower end fitting said recess and having a part of corresponding non-circular shape, and means for releasably locking said shaft in said bore.

2. A golf club comprising a head having its neck provided with a tubular bore or recess, a shaft having a cylindrical lower end fitting said bore, said shaft and said neck having annularly arranged interlocking projections, and means for releasably locking said shaft in said bore.

3. A golf club comprising a head having its neck provided with a tubular bore or recess, a shaft having a body of elliptic shape in cross section and a cylindrical lower end fitting said bore, said shaft and said neck having annularly arranged interlocking projections, and means for releasably locking said shaft in said bore.

4. A wooden golf club comprising a head having its neck provided with a tubular bore or recess, and a metal ferrule surrounding said neck and provided at its outer end with an annular series of serrations, and a shaft having its body of elliptic shape in cross section and provided with a cylindrical lower end fitting said bore of the neck and with an annular enlargement provided with serrations interlocking with the serrations of the neck ferrule, and means for holding the shaft end in the said bore.

In testimony whereof I affix my signature.

JOHN J. MURPHY.