No. 776,368. PATENTED NOV. 29, 1904.

R. L. & E. M. URQUHART.

ADJUSTABLE HEAD FOR GOLF CLUBS.

APPLICATION FILED OCT. 12, 1903.

NO MODEL.

Fig. 1.

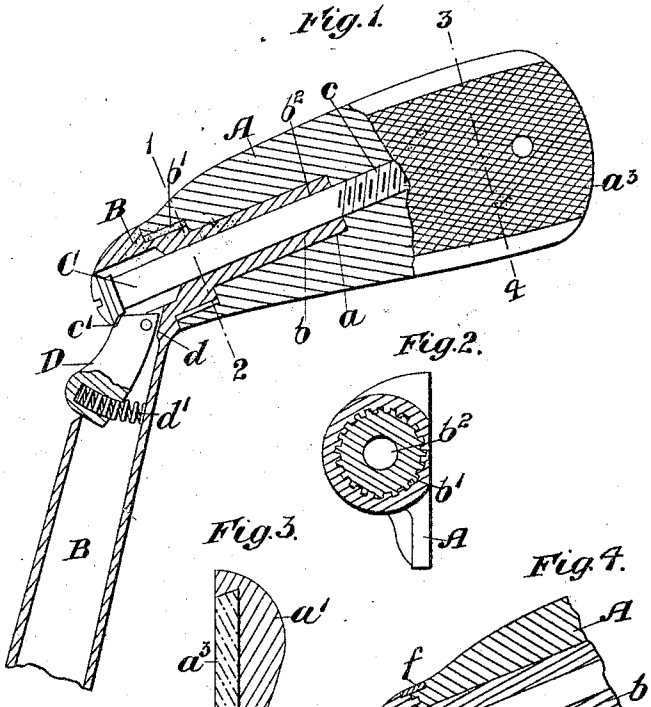


Fig. 2.

Fig. 3.

Fig. 4.

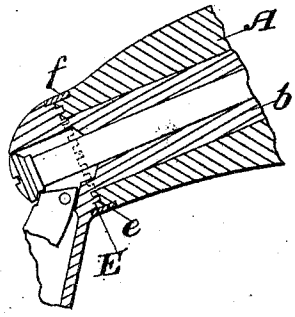


Fig. 5.

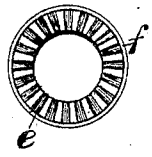
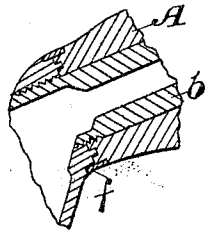


Fig. 6.



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UNITED STATES PATENT OFFICE.

ROBERT LISH URQUHART AND EDITH MARY URQUHART, OF DUNBAR, SCOTLAND.

ADJUSTABLE HEAD FOR GOLF-CLUBS.

SPECIFICATION forming part of Letters Patent No. 776,368, dated November 29, 1904.

Application filed October 12, 1903. Serial No. 176,761. (No model.)

To all whom it may concern:

Be it known that we, ROBERT LISH URQUHART, gentleman, and EDITH MARY URQUHART, gentlewoman, subjects of the King of the United Kingdom of Great Britain and Ireland, and residents of West Barns House, Dunbar, in the county of Haddington, Scotland, have invented an Adjustable Head for Golf-Clubs, of which the following is a specification.

This invention relates to an adjustable head for golf-clubs, and is a modification of our prior British patents, No. 8,176, of April 30, 1892, No. 9,419, of May 11, 1893, and No. 20,642, of November 1, 1895; and it consists in fixing the head of the club adjustably on or to the shaft.

According to our invention the player can alter the angle of the club-head relatively with the shaft, so as to obtain with one club all the different striking forces of a number of clubs.

The invention is applicable to clubs of all kinds—such as drivers, putters, cleiks, irons, mashies, niblicks, and the like—and whether the head be of any material such as wood, iron, steel, celluloid, and the like; but our invention is specially applicable to iron or steel heads.

Figure 1 is a side view of the club-head shown partly in section and partly in elevation. Fig. 2 is a section on line 1 2 of Fig. 1 looking to the right hand. Fig. 3 is a section on line 3 4 of Fig. 1 looking to the right hand. Figs. 4, 5, and 6 are modifications hereinafter referred to.

In the carrying out of our invention the metal head A or striking-face of the club is constructed separate from the end of the metal socket B, in which the wood shaft (not shown) is fixed. The end of the said socket into which the shaft is fixed is constructed with a strong sleeve or tubular axle *b* at an angle therefrom. The said sleeve or tubular axle is received into a corresponding hole *a* in the metal head A. The maintaining of the head at the required angle is obtained by forming a toothed portion *b'* at the back end of the sleeve or tubular axle, which toothed portion fits into an internally-toothed portion or socket-piece formed within an enlarged mouth of the hole in the head, as shown in Fig. 2. The axle is formed with a hole b^2 through it, the hole extending right through the end of the shaft-socket B, so that a bolt C can be passed therethrough, a screwed end *c* of the bolt entering a screwed hole formed within the club-head near the end thereof. The end of the metal socket which holds the shaft is provided with a spring catch or trigger D, which is pivoted in the socket B by the pin *d*, the said catch being provided with a spring *d'*, which retains the catch in its normal position, which is that as shown in Fig. 1—that is to say, the catch engages behind the head *c'* of the bolt C and locks the club at the required angle. When it is desired to alter the angle of the club-head A, the catch D is pressed down with the thumb, which disengages the catch from the bolt-head *c'* and allows the club-head to be moved out of mesh with the end of the toothed portion *b'*. The head A is then set to the required angle and the teeth pushed into mesh again, movement of the bolt-head *c'* being prevented by the catch D when the thumb-pressure on the said catch is released.

In accordance with our said invention the club-head has four bearing-surfaces in order to hold it rigidly in position—that is to say, the gear-teeth arrangement *b'*, the sleeve or tubular axle *b*, the bolt C and screw *c*, and the spring-catch D, all as shown in Fig. 1.

The club-head A may be made of practically the same shape as any ordinary iron club; but in order to provide room for the pin passing through it the back of the club-head is made with a hump or thickened portion *a'*, Fig. 3. This also gives weight to the club-head where weight is required for driving the ball and also for properly balancing the club.

We prefer that the striking-face of the club-head be covered with a material for giving resiliency when the ball is struck—that is to say, that the face of the club may be formed with a dovetail a^2, Fig. 3, and a piece of ram's-horn, such as a^3, inserted therein to correspond with the dovetail a^2—or the face of the club may be covered with fine steel gauze or netting with a leather or rubber backing,

the said gauze and leather backing being secured in any suitable manner, or in lieu of the said gauze and leather backing we may use gutta-percha and leather or any other suitable springy material.

In lieu of the teeth *b'* being cut or formed transversely on the axle *b*, as shown in Figs. 1 and 2, they may be cut or formed at right angles thereto, as shown in the modification Figs. 4 and 5—that is to say, the teeth are formed on the face of the socket and on the end of the club in such a manner that when the club-head is locked to the socket the said teeth engage each other or, in other words, are geared together, the arrangement of teeth referred to being shown more particularly in Fig. 5.

In constructing a club-head as shown in Figs. 4 and 5 the teeth *e* are preferably covered by a covering-ring *f* for the purpose of keeping them clean. The teeth may be of any desired form—for example, **V**-shaped.

In lieu of the axle *b*, Fig. 1, being formed in one with the socket B, the said axle may be screwed into the socket, as shown in the modification Fig. 6, or the said axle may be brazed into the end of the said socket B.

In lieu of the internally-toothed portion or socket-piece being formed within the mouth of the hole in the head, we may form a loose internally-toothed portion and braze the same within the mouth of the hole in the head, or we may pin the said toothed portion within the said head.

We claim—

1. In a golf-club, an adjustable head comprising a recessed socket member having teeth, a blade member formed with teeth adapted to mesh with the teeth of said socket member, a sleeve rigidly connected to the socket member and extending into the blade member, a screw-bolt passing through the sleeve and screwed into the blade member, a spring-pressed pivotal trigger adapted to engage the head of said screw-bolt and hold the members into operative relation, substantially as and for the purpose set forth.

2. In a golf-club, the combination with a blade member having a socket and teeth, of a head member comprising a tubular portion slidably seated in the socket of the blade member and having teeth engaging the teeth on the blade member, a pin or bolt slidably seated in the tubular portion of the head member and secured to the blade member, and means for locking said pin or bolt against movement in said head member.

3. In a golf-club, the combination with a blade member having a socket and locking-teeth, of a head member comprising a tubular portion forming a socket at one end and having teeth engaging the teeth on the blade member, a pin or bolt secured to the blade member slidably seated in the tubular portion of the head member, and having a head adapted to play in the socket of said head member, and means for holding the head of said pin from said socket to hold the teeth of both members in engagement and to hold the said members against relative axial movement.

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