

No. 648,256.

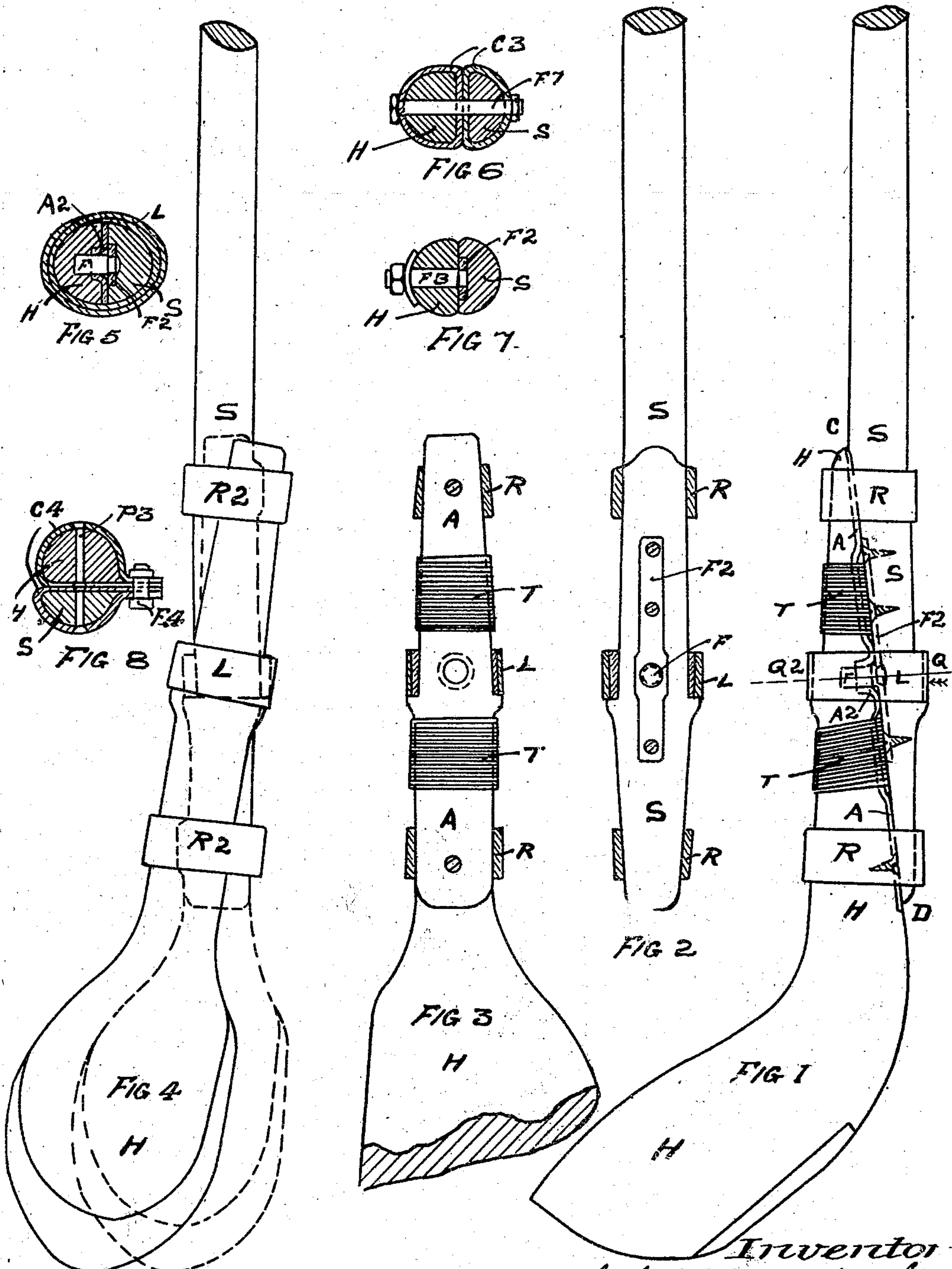
Patented Apr. 24, 1900.

J. W. HARTLEY.
GOLF CLUB.

(Application filed Nov. 11, 1899.)

(No Model)

3 Sheets—Sheet 1.



Witnesses:

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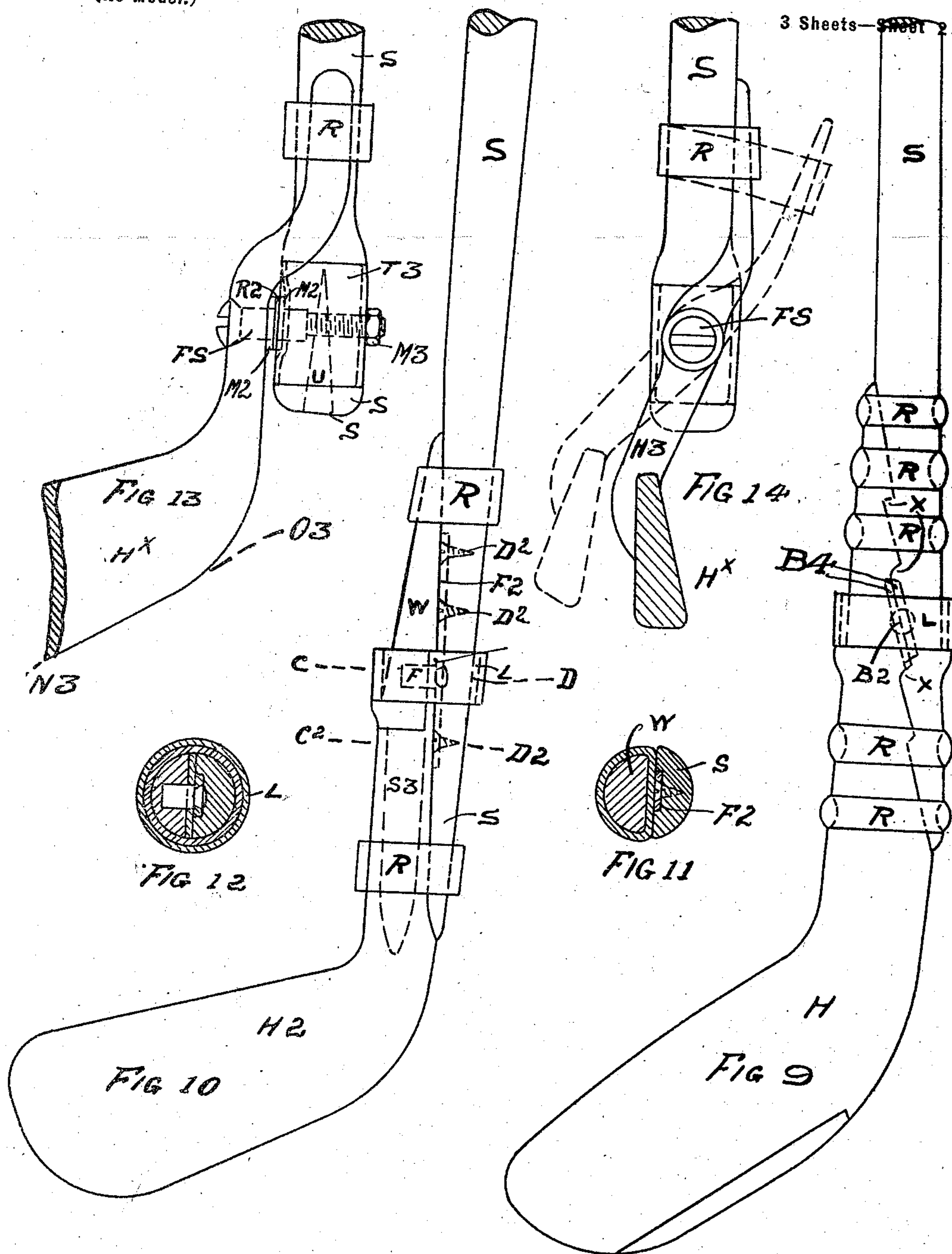
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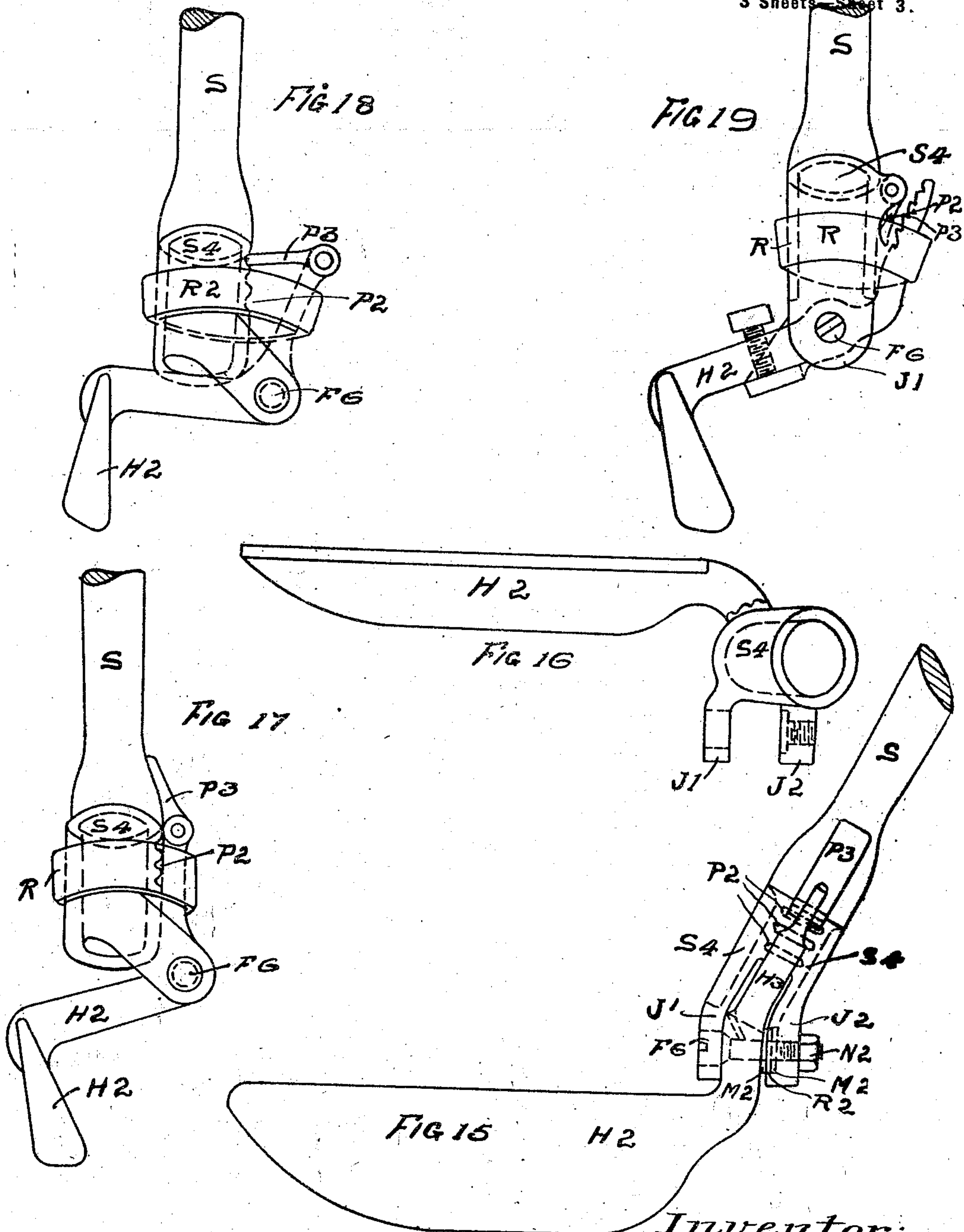
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3 Sheets—Sheet 3.



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UNITED STATES PATENT OFFICE.

JOHN WILLIAM HARTLEY, OF STONE, ENGLAND.

GOLF-CLUB.

SPECIFICATION forming part of Letters Patent No. 648,256, dated April 24, 1900.

Application filed November 11, 1899. Serial No. 736,681. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM HARTLEY, engineer, a subject of the Queen of Great Britain, residing at Newcastle road, Stone, in the county of Stafford, England, have invented new and useful Improvements in Golf-Clubs, of which the following is a clear and exact description.

My invention relates to golf-clubs; and the object thereof is to provide a club which will prevent the shock being transmitted to the hands of a player using the same when the ball used in playing the game is unfairly struck or an unyielding obstacle is unwittingly hit when an endeavor is made to strike the ball. By the invention injury to the club is also prevented when an obstacle is unintentionally struck, and the golf ground or course is saved from injury when the club comes into contact therewith instead of the ball.

To this end the invention includes a golf-club having the head and handle portions secured to each other in a manner to permit relative movement of the two parts with means for yieldingly holding the parts together and in position.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a club constructed according to the invention. Fig. 2 is a detail view of the end of the handle portion of the club. Fig. 3 is a view of the head portion of the club. Fig. 4 is a view similar to Fig. 1 of a modified form of club. Fig. 5 is a cross-sectional view on the line $Q^2 Q^2$, Fig. 1. Figs. 6, 7, and 8 show cross-sectional views of clubs constructed according to the invention with modified forms of pivotal connections. Figs. 9 and 10 show elevations of modified forms of the invention. Figs. 11 and 12 are cross-sectional views illustrating modified forms of pivotal connections. Figs. 13 and 14 show two elevations of another modification of the invention. Figs. 15 and 16 show detail views in elevation and plan of another modification. Figs. 17, 18, and 19 are detail views of further modifications.

According to the invention the head and handle portions of the club instead of being lashed firmly together or made in one piece, as is the usual method, are pivotally connected to each other and a yielding band

fitted around the shank portion of the head and the handle either above or below the pivotal point or both above and below the pivotal point. This band or the bands hold the parts together firmly enough to give the best effect when the ball is fairly struck, and yet they permit the parts to move relatively to each other when an unyielding obstacle is unwittingly struck, so as to relieve the shock to the club and decrease the force of the blow. The bands also to an extent give a cushioning effect.

In the form of the invention shown in Figs. 1, 2, 3, and 5 the end of the handle S is beveled and flattened along one side to form a tapering end, and to this flat beveled part a plate F^2 is secured, being preferably countersunk therein. This plate carries a stud F , which forms the pivot on which the parts turn. The shank of the head H is tapered and flattened along one side to correspond to the beveled portion of the handle. To this portion a thin metal plate A is secured by lashings T . In alignment with the stud F the body of the plate A is turned inwardly to provide a bearing to receive the stud. Around the shank and handle at the pivotal point a leather band L is fitted, which acts to hold the parts securely together at this point. Above and below the pivotal point elastic or yielding bands R are fitted around the shank and handle.

In the form illustrated in Fig. 4 the plate A and lashings are dispensed with and the pivot connecting the parts finds a bearing directly in the body of the shank of the head. In Fig. 6 the pivot F is shown as extending through both the shank of the head and the handle, both of these parts being surrounded by metal ferrules c^1 .

In Fig. 7 the stud F^3 , which extends from a plate countersunk in the handle S , passes entirely through the shank of the head and is surmounted by a nut which when screwed up finds a bearing on a segmental metal plate which rests against the shank of the head H .

In Fig. 8 the handle and shank are surrounded by metal ferrules c^4 , held to the parts by bolts P^3 , these ferrules having extensions to one side of the periphery of the parts through which the pivot F^4 extends.

In Fig. 9 the abutting faces of the handle

and shank of the head are correspondingly serrated or stepped, as at *x*. At the pivotal point each of the parts is fitted with a plate B^1 , having openings through the same which provide a bearing for the ball B^2 , which in this instance forms the pivot. A leather band L surrounds the club at the pivotal point, and a series of yielding bands R are arranged above and below the pivotal point.

In Figs. 10, 11, and 12 a form of the invention is shown in which a metal head H^1 , having an integral shank extension through which a socket extends, is used. A wood continuation *w* of this shank is fitted and held in this socket. The pivotal connection is formed by a stud F , projecting from a plate F^2 , countersunk in and secured to the handle by screws D^2 , the stud finding a bearing in the shank of the head. The arrangement of the bands L and R is similar to that shown in Fig. 1.

As shown in Figs. 13 and 14, the head H^x may be pivotally connected to the end of the handle and a single yielding band R employed, which is arranged above the pivotal connection. In this form of the invention the shank and handle end are not correspondingly formed or shaped. The end of the handle is preferably fitted with a ferrule T^2 , through which the pivot-bolt F^6 extends, washer $M^2 R^2$ being interposed between the handle and the shank and a nut M^2 being screwed upon the end of the bolt. A wedge S may be driven into the end of the handle to expand the same in the ferrule.

In the form of the invention shown in Figs. 15, 16, 17, and 18 a cap S^1 is fitted upon the end of the handle, from which lugs $J^1 J^2$ extend, between which the shank of the head is pivoted. The side of the cap adjacent to the shank may be toothed, as at P^3 , to receive the end of a pawl P^4 , the opposite end

of which is pivotally secured to the end of the shank. The elastic bands surround the shank and cap at a point between the pawl and the pivotal connection. By means of the pawl the relative adjustment of the head and handle may be secured. The pivotal bolt F^6 has a nut N^2 on its end. Washers $M^2 R^2$ are also used.

Fig. 19 shows a modification of the form last described, the cap S^1 having the lugs $J^1 J^2$ extending longitudinally from the end thereof. The pawl P^2 is in this case carried directly by the cap and the end of the shank is toothed.

I claim—

1. A golf-club having the head pivoted to the handle thereof, and yielding means for holding the parts against relative displacement.

2. A golf-club having the head thereof pivoted thereto, and a flexible band for holding the parts in position.

3. A golf-club having the head provided with an extension, the stem, a pivot extending through the head extension and the stem for holding the parts together, and a flexible band encircling said extension and stem to yieldingly hold the parts against relative displacement.

4. In a golf-club, a stepped or serrated radial jointing-surface X between the shank of the golf-head and the handle and yielding or elastic lashings R and band L , substantially as described.

In testimony whereof I have hereunto set my hand, this 1st day of November, 1899, in the presence of two attesting witnesses.

JOHN WILLIAM HARTLEY.

Witnesses:

E. W. DAVIES-REES,
JOHN H. COPESTAKE.