D. H. CODDINGTON.

RACKET.

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1,186,283. Patented June 6, 1916.

Fig:1.

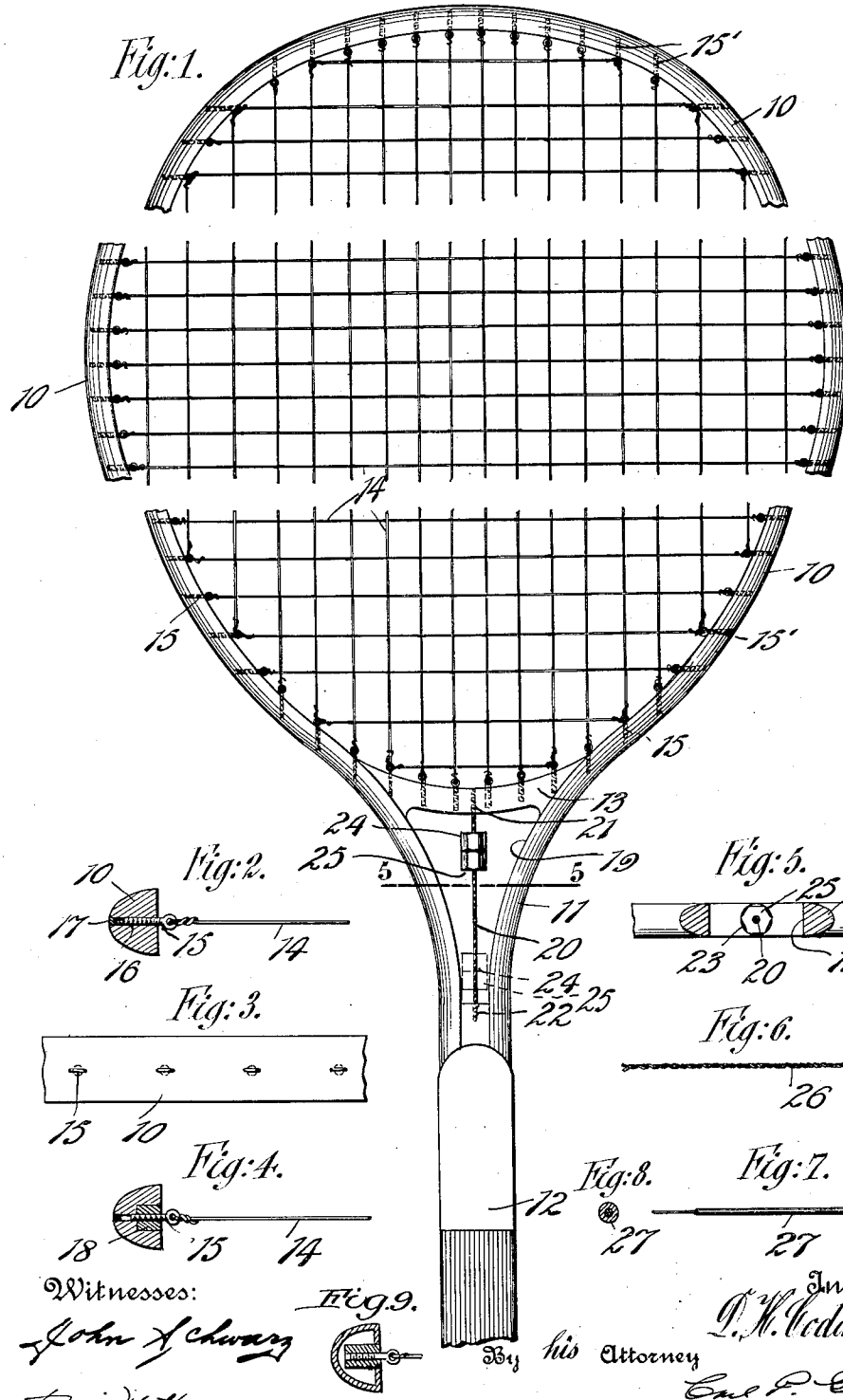


Fig:2.

Fig:3.

Fig:4.

Fig:5.

Fig:6.

Fig:8.

Fig:7.

Fig:9.

Witnesses:

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RACKET.

1,186,283. Specification of Letters Patent. Patented June 6, 1916.

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To all whom it may concern:

Be it known that I, DAVE H. CODDINGTON, a citizen of the United States, and a resident of the borough of Manhattan, in the city, county, and State of New York, have invented certain new and useful Improvements in Rackets, of which the following is a specification.

The present invention relates to improvements in rackets and particularly a racket adapted to playing the game of tennis. Heretofore rackets generally have been constructed of a wooden frame and gut strings. Because of the continuous strain of the strings on the frame and the force with which these strings were struck while playing tennis, the frame very often became warped and there was a tendency of the strings to stretch and become broken, so that frequent restringing of the racket was necessary, and the racket only retained its perfect playing qualities for a comparatively short period. The strings in the rackets as heretofore constructed were formed from a continuous piece which was interwoven between the frame, so that if the same became broken in one place, the entire racket would have to be restrung. It has been found that professional tennis players and players of great proficiency desire a very fine gage of string, which was necessarily weaker than the heavier strings used in ordinary play. Because of the great force with which these were used in playing, the strings were often broken, resulting in great expense due to restringing, and also the player in changing rackets would find that the new rackets were not always well suited to his tastes. For these reasons, the use of the fine gaged strings has been practically prohibitory to the usual players.

It is an object of the present invention, therefore, to provide an improved metallic racket, which will be light in weight, of great strength, and in which the strings, which are formed of fine steel piano wire, will be individually mounted within the frame, so that in the event of the breaking or loosening of a single string, the same may be regulated and removed without the necessity for changing the other strings.

A further object is to provide means by which the weight and balance of such racket may be controlled as desired to suit the particular fancy of the player, and a further object is to provide such a racket which will not be easily affected by the weather conditions, and will, therefore, not require the constant care and attention as is the case with the wooden rackets.

With these and other objects in view, my invention is shown in the accompanying drawings, and will be hereinafter more fully described with reference thereto and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view with parts broken away and partly in section, of my improved racket; Fig. 2 is a sectional view of a portion of the frame thereof; Fig. 3 is an interior side view of a portion of the frame; Fig. 4 is a sectional view of a portion of the frame of a slightly modified form of construction; Fig. 5 is a sectional view through the hollow throat taken on the line 5—5 of Fig. 1; Fig. 6 is a side view of a modified form of string; Fig. 7 is a side view of a modified form of covered string or wire; Fig. 8 is a sectional view thereof; Fig. 9 is a sectional view of a further modified form of metal rim.

Similar reference characters indicate corresponding parts throughout the several figures of the drawings.

Referring to the drawings, and more particularly to Fig. 1 thereof, my invention comprises a frame 10 preferably formed of rolled aluminum, and which may be of either semi-circular or rectangular cross-section. The frame is in the shape of the usual well known form of racket, and is contracted at the throat 11, where it is secured to the handle portion 12. A bridge 13 is provided across the throat, the curve of which is preferably continuously formed with the curve of the frame. The strings 14 are formed of fine piano wire, and are individually mounted in the frame, being provided at each end with screws 15 and 15′, the screw 15 having right-hand screw threads, and the screw 15′ having left-hand screw threads, and which screw into correspondingly threaded holes 16 in the frame. These screws, as can be seen, may be threaded simultaneously into the oppositely disposed holes 16 of the frame by turning the string forwardly at both ends. In this way the tension of the strings may be regulated very accurately without necessitating the disturbing of any of the other strings. The holes 16 are preferably formed by drilling from the outside of the frame, the end of

the same being then plugged, as at 17, and the outer surface of the frame suitably finished to give to the same a smooth and attractive appearance. A desirable arrangement is to have twelve perpendicular holes at each end and twenty-one horizontal holes along the sides. At the outer portions of the frame, the ends of several strings meet at the same point, and these are preferably fastened to the same screw. As these outer strings are merely used for filling in, and do not come into actual play to any extent, it is not as essential to have these as well adjusted as the central strings, which strike the ball.

If desired, the frame may be constructed of wood, in which case a narrow strip of steel 18 is inlaid about the interior surface of the same, the holes for receiving the screws being drilled through both the steel and the wood.

In order to regulate the weight of the racket, the throat is made hollow, as at 19, and a threaded rod 20 is removably secured longitudinally therein, being provided at each end with right and left screws 21 and 22, which are threaded into the bridge and handle portion. A detachable weight-regulating member, which preferably comprises a pair of nuts 24 and 25, is mounted on the said rod, and by moving the same upwardly, the weight of the racket will be toward the head, while if the same is moved downwardly, the weight will be toward the handle. In this way, the balance of the racket may be accurately regulated. These detachable members may be changed as desired, to increase or diminish the weight of the racket. The rackets may, therefore, all be manufactured of a uniform stock weight, say twelve ounces, which is usually the lighter weight racket, and by merely changing the weights, the player may have any weight desired, depending entirely upon his choice, the same players, as is well known, desiring for different conditions and times various weights of rackets. The two nuts 24 and 25, which constitute the weight-regulating member, are held securely in position by the locking action of one against the other.

In order to prevent the ball from glancing off the strings, the same may be formed of twisted wire, as indicated at 26 in Fig. 6, which will give a suitably roughened surface to the net, or, if desired, the wires may be covered, as shown in Figs. 7 and 8, by a tubular covering of rubber, fabric or other suitable material 27.

The metal frame of the racket may, if desired, be made of hollow construction as shown in Fig. 9, to decrease the weight.

My improved racket will prove especially desirable to players desiring a very light racket having great strength, and by reason of the substituting and balancing of the weights, the same may be perfectly adapted to individual needs.

I have illustrated a preferred and satisfactory form of my invention, but it is obvious that changes may be made therein, and that the invention may be embodied in rackets other than tennis rackets, all within the spirit and scope thereof, as defined in the appended claims.

I claim:—

1. An improved metal racket of relatively minimum playing weight, comprising a metal rim, having a hollow throat, removably secured weighted means within said hollow throat adapted to vary the weight and balance of the racket, a handle, and strings mounted within said rim to form a net.

2. An improved metal racket, comprising a metal rim, having a hollow throat, a perpendicularly disposed rod within said throat, a removably secured weighted means within said throat, adapted to vary the weight and balance of the racket and to change the balance thereof by adjustment on said rod, a handle, and strings mounted within said rim to form a net.

3. An improved racket of relatively minimum playing weight, comprising a rim having a hollow throat, removably secured weighted means within said hollow throat adapted to vary the weight and balance of the racket, a handle, and strings mounted within said rim to form a net.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

DAVE H. CODDINGTON.

Witnesses:
D. Lewis Mattern,
John Schwarz.