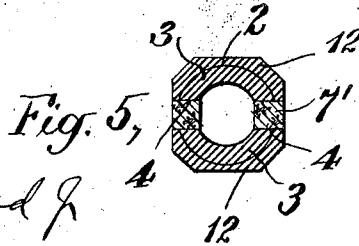
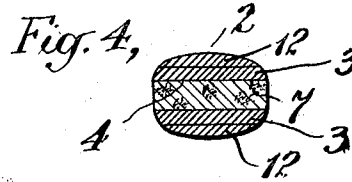
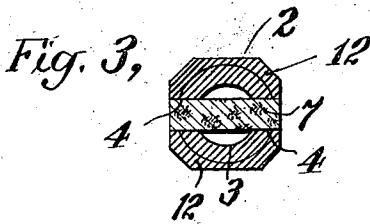
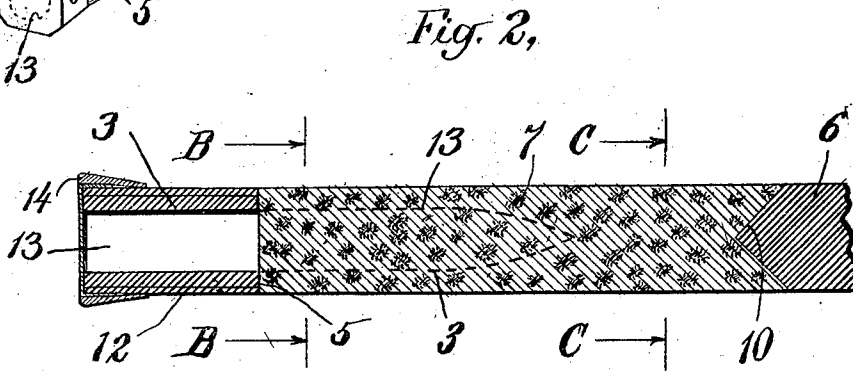
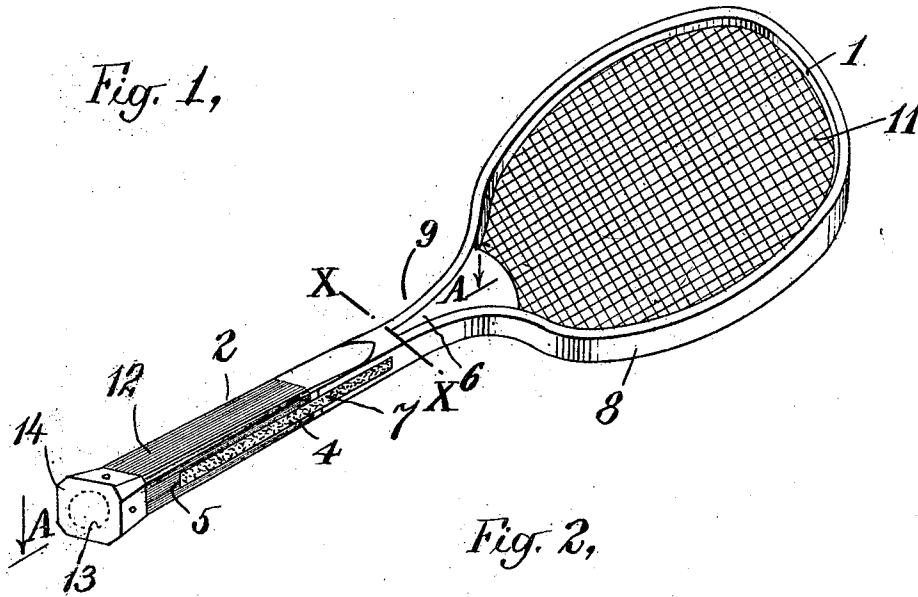


J. J. CURLEY.
RACKET.
APPLICATION FILED AUG. 22, 1912.

1,046,562.

Patented Dec. 10, 1912.



WITNESSES

Samuel H. Ward Jr.
John O. Gumpel

Joseph J. Curley
INVENTOR

BY
Kenyon & Kenyon
his ATTORNEYS

UNITED STATES PATENT OFFICE.

JOSEPH J. CURLEY, OF NEW YORK, N. Y.

RACKET.

1,046,562.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed August 22, 1912. Serial No. 716,448.

To all whom it may concern:

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

My invention relates to improvements in rackets, and the main object of the invention is to provide a well balanced, light racket of ample strength, with a handle having the proper degree of rigidity and firmness.

Most rackets are made by bending a piece of ash, or other suitable wood, into a loop of proper form for receiving the strings, the looped piece of wood at the bottom of the frame so formed being drawn together and spaced apart by and secured to a suitable yoke piece forming a part of the lower end of the frame. The loose ends of the looped piece extend down from the yoke and form a part of the handle of the racket, the handle being usually built up on these pieces by securing strips of cane or other suitable material to the flat surfaces thereof for the purpose of forming a gripping surface and giving strength to the handle.

In order that the rackets should have the desired finish and be as free as possible from warping, and of sufficient strength; hard, heavy wood is employed in the construction of the racket which makes the racket heavier than desired by most tennis players, and due to the shape and construction of rackets the handle is usually heavier than it should be, to give the proper balance to the racket. The handle is usually so heavy that it throws out the desired "balance" of the racket which is one of, if not the, most desirable feature of rackets. Likewise these hard wood handles are usually so rigid that any shock upon the strings or frame of the racket results in breaking the strings or in breaking the neck of the racket just below the base of the frame, which is usually the weakest point in the racket. In order to obviate some of these difficulties it has been proposed to slot out the handle for a short length along the gripping surface in order to remove a part of the heavy wood and thus lighten the racket and to some extent effect a better "balance". The difficulty found in simply slotting the handle of the racket and leaving the slot open is that the slot can not be extended a sufficient length along the handle to reduce the weight to the

desired point because of the fact that the slot if extended well up through the handle near the neck of the racket, would so weaken the handle as to render it liable to be readily broken. Another difficulty which would be experienced if it were attempted to extend the slot along the handle for further lightening it would be that the handle as a whole would have too much spring, and again, the slotted handle would be so compressible as to yield to an undesired extent when the handle is tightly gripped by the player, which might throw out the calculation of the player in striking the ball, whereas if the slot be only limited to the short length to which it is practicable to extend it if left open, no spring is provided at or near the neck of the racket, where some slight spring in the handle is desirable.

By means of my invention the weight of the racket may be reduced to the desired extent, that the racket may be readily "balanced", and the proper degree of spring given to the handle, and a better gripping surface provided, all without unduly weakening the handle or rendering it too compressible.

In carrying out my invention I slot the handle along its length and place cork or other suitable material within the slot, as will be more fully set forth and explained in the following description taken in connection with the accompanying drawings forming a part of this specification, and in which—

Figure 1 is a perspective view of a tennis racket embodying one form of my invention; Fig. 2 is a section through the handle, taken on line A—A of Fig. 1; Fig. 3 is a transverse section of the handle, taken on the line B—B of Fig. 2; Fig. 4 is a similar section taken on the line C—C of Fig. 2; and Fig. 5 is a section similar to Fig. 3, but illustrating a modified form of handle.

Referring to the drawings, the racket consists of a frame portion 1, formed by looping a suitable piece of wood 8, as for instance ash, the free ends 3 of which are drawn together to form the neck of the racket 9, and properly spaced apart by and secured to a suitable yoke piece 6 forming the base of the frame for receiving the strings 11. The free ends of the looped piece 8 extend down from the yoke 6 to form a part of the handle 2, these pieces being suitably held together by any usual

method, and on the flat surfaces of these pieces are secured suitably formed pieces of cane or other suitable material 12, for giving a better gripping surface. The handle 5 is then bored out longitudinally, as shown at 13 (Fig. 2), well up through the gripping portion of the handle, and a suitable butt or cap piece 14 is then secured at the butt of the handle.

10 In the preferred form of my invention the handle is slotted out from a point 5 near the butt thereof upward to the desired point for giving the proper reduction in weight and desired balance to the handle, and in 15 most rackets it will be found that these objects are obtained by extending the slot approximately to the neck of the racket. The farther upward the slot is extended with safety toward the base of the frame, the better 20 will be the resulting spring in the handle. In order to prevent undue compression of the handle when the same is gripped by the player, and to enable the slot to be extended well up toward the throat of the racket so as to get the desired weight, bal- 25 ance and spring, without unduly weakening the racket, and to give a good gripping surface to the handle, I fit cork 7, or others suitable light material, within the slot. This cork is so light that it adds practically no 30 weight to the slot and handle and yet it serves the purpose of preventing any appreciable compression of the handle and reduces the excessive spring of the handle, 35 which would otherwise result when the handle is slotted well up toward the throat, and strengthens the handle.

In the preferred form of my invention, as is shown in Fig. 5, instead of completely 40 filling the slot with cork, I fit strips of cork 7' along the edges of the slot exposing the cork substantially flush with the surface of the handle. This construction takes less cork, renders the handle slightly lighter, and 45 retains the other advantages heretofore set forth. This cork surface extending along the gripping portion of the handle results in a better gripping surface.

In the preferred form of the invention 50 the upper end of the slot is V shaped, as shown at 10 in Fig. 2, that is, the end of the slot flares upwardly and outwardly from an apex, so as to provide shoulders to which the cork may be held in position, and besides 55 this it gives greater strength to the neck of the racket than would result if the slot were finished off straight across.

While I have described my invention in

detail in connection with certain well known construction of rackets, it will be obvious to 60 those skilled in the art that my invention is not limited to any specific construction of racket to which the invention may be applied, and I do not wish to be understood as 65 limiting the invention other than as indicated in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A racket having a handle with a slot 70 extending longitudinally thereof from the butt of the handle substantially throughout the gripping portion of the handle so as to lighten and balance the racket, and cork fitting in said slot and exposed along the edges 75 thereof to prevent compression of the handle in gripping the same, and to provide a better gripping surface.

2. A racket having a handle with a slot 80 extending longitudinally thereof substantially to the throat of the racket to lighten and readily balance the racket, and cork fitting in said slot to strengthen the handle and prevent undue spring and compression 85 therein.

3. A racket having a bored out handle with a slot extending longitudinally thereof and transversely therethrough from the butt 90 substantially throughout the gripping portion of the handle to lighten the same, and strips of cork fitting the edges of the slot and exposed thereat to stiffen the handle and provide a good gripping surface.

4. A racket having a bored out handle 95 with a slot extending longitudinally thereof and substantially throughout the length of the handle to the throat of the racket and transversely through the handle, and cork strips fitting along the edges of the slot to stiffen the handle. 100

5. A racket having a handle with a slot 100 extending longitudinally thereof from the butt substantially to the throat of the racket and transversely therethrough, the upper end of said slot being V shaped, and cork 105 fitting in said slot to stiffen the handle, and engaging the sloping surfaces of the upper end of the slot so as to be held in position.

In testimony whereof, I have signed my name to this specification, in the presence of 110 two subscribing witnesses.

JOSEPH J. CURLEY.

Witnesses:

FRANCIS J. CURLEY,
EDWIN SEGER.