(No Model.)

I. J. TURNER.

TENNIS RACQUET.

No. 323,608. Patented Aug. 4, 1885.

Fig. 1.

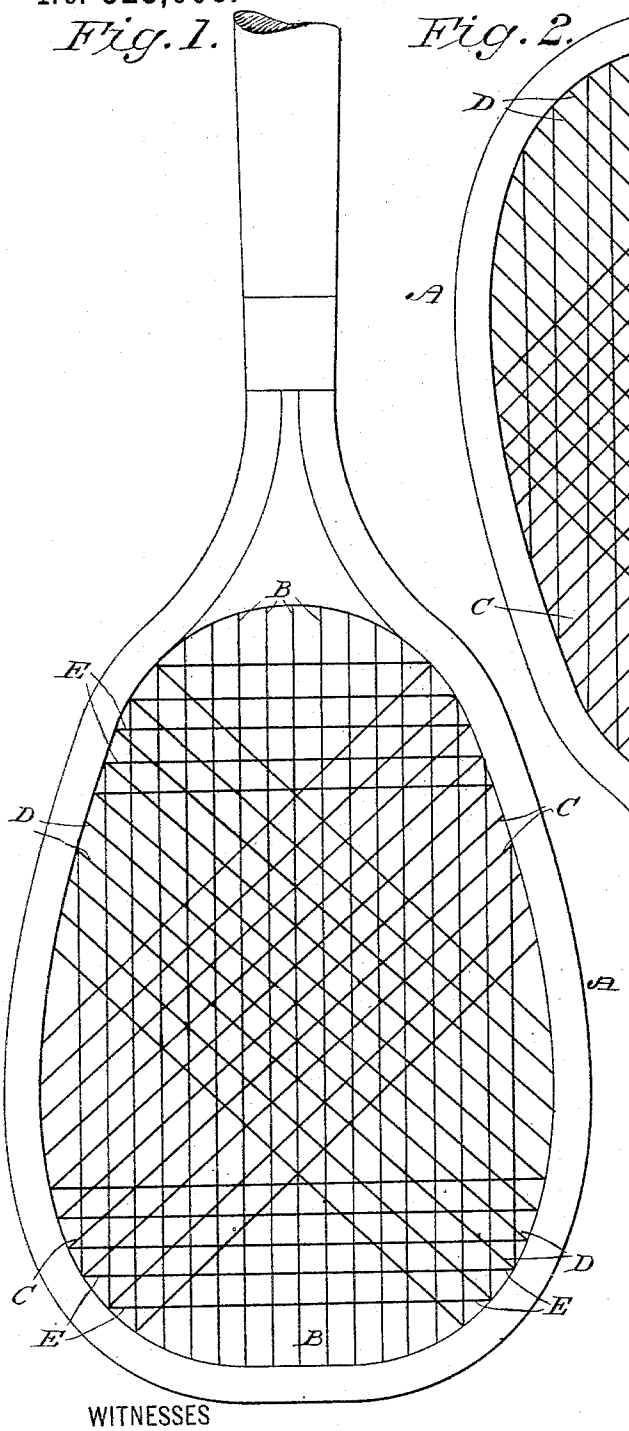
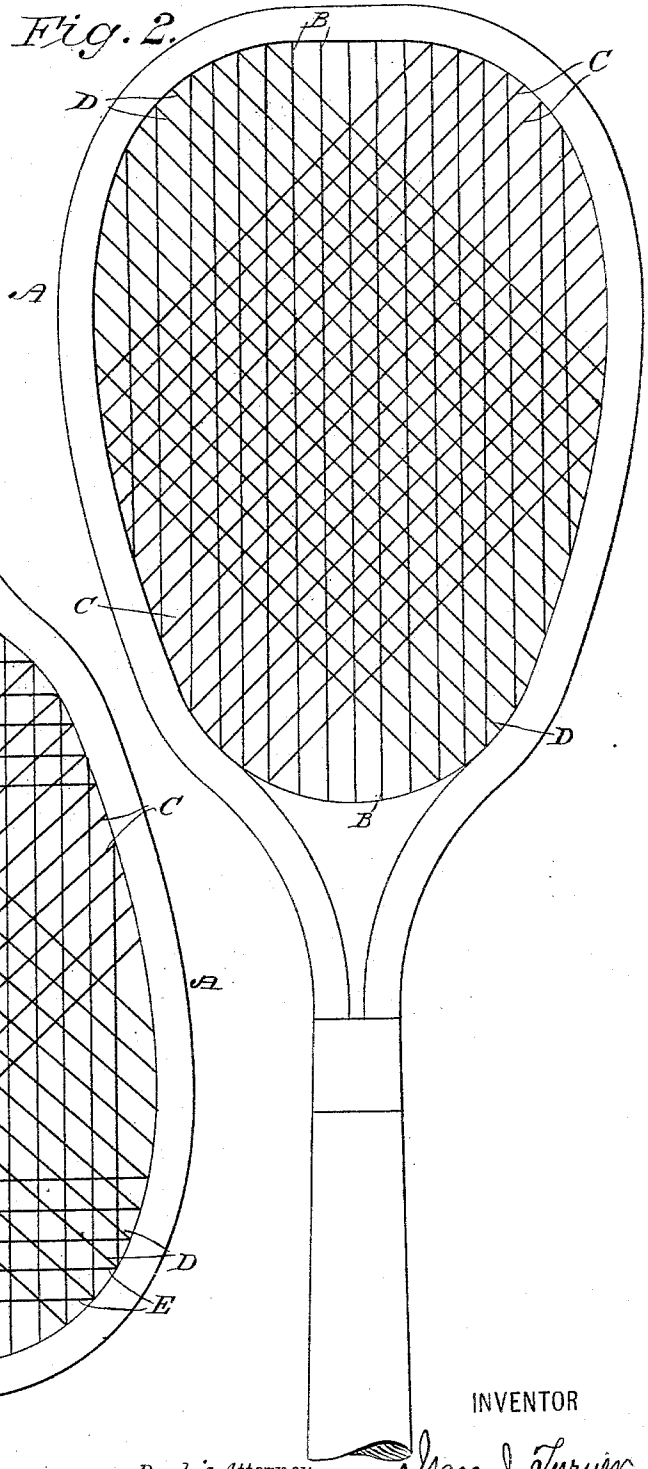


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

ISAAC JACKSON TURNER, OF PRINCETON, NEW JERSEY.

TENNIS-RACQUET.

SPECIFICATION forming part of Letters Patent No. 323,608, dated August 4, 1885.

Application filed April 29, 1885. (No model.)

To all whom it may concern:

Be it known that I, ISAAC JACKSON TURNER, a subject of the Queen of Great Britain, but now residing at Princeton, in the State of New Jersey, have invented an Improved Tennis-Racquet, of which the following is a specification.

Heretofore racquets have been strung with two series or rows of stretched cord or "gut" crossing each other at or about right angles.

My invention consists in an improved manner of stringing, whereby a greater strength or tension is given to the net of the racquet. This I accomplish without increasing the thickness of the wood forming the bow of the racquet and without decreasing the strength of the bow.

In the accompanying drawings, Figures 1 and 2 are plan views illustrating my improvement.

The bow A is in both figures shown as strung with the cord or gut running parallel with the handle or longitudinal length of the racquet, as usual. This part of the stringing is indicated by B. Instead, now, of carrying the cord across the stringing B at right angles, as in the ordinary way, I employ two additional groups or layers of stringing, (marked C and D,) which cross each other at or about right angles, but cross the stringing B diagonally. As shown in both figures of the drawings, the cords marked C or D run from the upper part of one side of the bow to the lower part of the opposite side of the bow. Where the layers of stringing B C D cross each other the net is much closer or finer than in the old plan of stringing, and consequently a better surface for serving the ball is given. Much greater strength and tension are also given this part of the net, as it is composed of three layers of stringing instead of two, and it so fills the central portion of the bow as to practically form the entire working-surface of the net. No greater number of stringing-holes in the bow is really necessary than in the old plan, and there need therefore be no weakening of the bow from that cause.

In Fig. 1 the diagonal sets or groups of strings C D are not so wide as in Fig. 2, and there are, therefore, places left at the top and bottom of the bow which will perhaps require strengthening. For this purpose cross-strings E, running at right angles to the strings B, may be used, if desired. In Fig. 2 the diagonal layers of strings C D are so wide that the spaces left at the top and bottom of the racquet-bow do not require additional strengthening.

Additional cords may be added at the upper sides of the layers of stringing C and D, shown in Fig. 2, so as to extend the three-cord part of the net to the top of the bow. A similar addition at the bottom is thought unnecessary. The stringing shown in the figure is, however, preferred. The cord may be interwoven in any suitable or common manner. Preferably, however, the stringing-holes will be so located that three cords will not cross each other at the same point.

Racquets already in use may be strung according to my improved plan without the boring of any additional holes in the bows or otherwise changing them.

I claim—

1. The combination of the bow, the longitudinal stringing, the two layers of diagonal stringing, and the transverse end layers of stringing, E E.

2. A tennis-racquet strung with three intersecting groups or layers of cord, B C D, substantially as set forth.

3. The combination of the bow, the longitudinal stringing B, and the transverse layers of stringing C D, which cross each other at or about right angles and cross the stringing B diagonally.

ISAAC JACKSON TURNER.

Witnesses:
ALEX. G. CARPENTER,
E. W. CARPENTER.