

(No Model.)

E. J. LUCE.

CONSTRUCTION OF TENNIS RACKETS.

No. 364,596.

Patented June 7, 1887.

Fig. 1

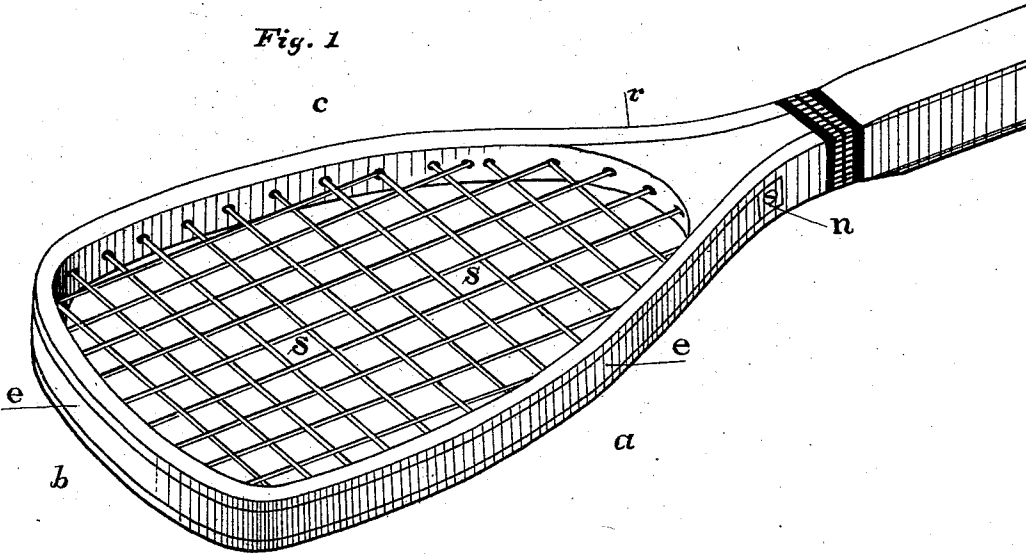


Fig. 2

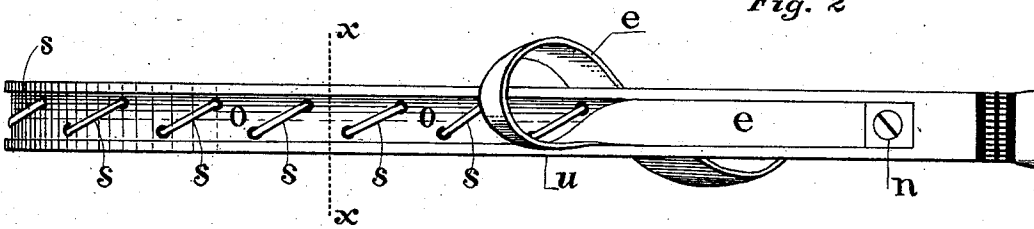


Fig. 3



Witnesses
Hanson Borden
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UNITED STATES PATENT OFFICE.

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CONSTRUCTION OF TENNIS-RACKETS.

SPECIFICATION forming part of Letters Patent No. 364,596, dated June 7, 1887.

Application filed July 26, 1886. Serial No. 209,082. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. LUCE, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and useful Device or Improvement in the Construction of Tennis-Rackets and other Game-Bats, of which the following is a specification.

My invention relates to the protection of the strings of tennis-rackets and game-bats of a similar kind. The stringing of these bats is done by passing and repassing the string (usually of catgut) across the bow of the bat and through holes in the frame of said bow until the net or filling of said bow is woven, as desired. Heretofore the turns of said string on the outer surface of said bow-frame have been left wholly unprotected against abrasion, or else have been but partially protected by sinking said turns of the string in grooves cut from hole to hole in said outer surface of said bow-frame. In conjunction with this sinking of the strings in grooves it has been customary heretofore to tack and glue to said outer surface of said bow-frame a thin leather band or strip over said strings so sunken, as aforesaid. Such a band has heretofore been applied to the outer end only of said bow-frame. Said thin leather band is quickly worn off by the wear incident to the use of these game-bats, since it is impossible to use them freely without frequently hitting and scraping said outside surface of said bow-frame either against the ground or some other obstruction. The turns of string, even although sunk in grooves, as aforesaid, are thus exposed to constant wear and abrasion, which soon cuts the string, thus rendering the bat useless until restrung.

When the turns of string are not sunk as above described, the wear is somewhat faster; but in either case it is constant and rapid, the liability thereto constituting a grave fault in the construction of game-bats of this kind.

Such a band so applied, as aforesaid, is therefore of little or no value as a protection to the strings, while, on the contrary, should the stringing of the racket or bat break in any part, thus necessitating restrung, said band so applied heretofore, as aforesaid, (supposing parts of it still remaining, as is generally the case,) could only be removed by considerable

labor and time, and if said band were but little worn the process of removing it would render it entirely unfit for further use.

My invention aims to remedy these faults and protect said strings against said wear and abrasion; and to that end consists of a strap or band of leather or other suitable material drawn around the outside surface of the bow-frame of a tennis-racket, or other game-bat of similar kind, in a groove or channel fashioned thereon to receive said band or strap. The nature and application of said band and channel is more clearly shown by the accompanying drawings, in which—

Figure 1 is a view in perspective of the bow-frame and a portion of the handle of a tennis-racket or game-bat, and shows the upper surface of all the parts, the outer surface of said bow-frame on the sides *a* and *b* and the inner surface of the same on the side *c*. *s s* are the strings, which pass through holes in said frame, (a number of them being shown at side *c*.) and being turned on the outer surface of said bow-frame, as shown in Fig. 2, are passed back again. *e* is the strap or band of leather or other suitable material, which is fastened at *n* and stretched along a groove or channel (shown in Fig. 2, at *o*) around the outer surface of said frame and fastened at its other extremity at *r* on the outer surface of the side *c*, thus covering and protecting the turns of said string.

Fig. 2 is an edge view of said racket's or game-bat's bow-frame, showing a portion of its outside surface with the band or strap *e* turned aside at *u*, so as to show the channel or groove *o* and the turns of the strings *s s s*, &c., on said surface.

Fig. 3 is a view of a cross-section of said bow-frame of said racket or game-bat made on the dotted line *x x* in Fig. 2, and showing more clearly the channel or groove *o*.

The application of my device is as follows, viz: The outside surface of the bow-frame of the racket or game-bat is first grooved or channeled, as shown. Then, after stringing said racket or bat, the band or strap is fastened at one extremity of the said channel, as at *n*, and, after being stretched around the said outer surface of said bow-frame in said channel and over said strings, the other end of said band

is fastened at the other extremity of said channel, as at *r*, thus protecting from wear and abrasion said strings. The band so applied has its surface flush with that of the bow-
 5 frame, thus increasing its resistance to wear. By unscrewing the screw at *n*, Figs. 1 and 2, one end of the band in my device is set free and the whole band may be at once turned back out of the groove; hence, in case the
 10 racket needs to be restrung, said band can be easily and quickly removed without at all impairing it for further use, and it may be as easily replaced as it was removed.

My invention thus makes it possible to pro-
 15 tect said strings by a band of leather (or other suitable substance) of a considerable thickness, and, while requiring fewer tacks, nails, or fastenings and rendering the use of paste or glue wholly unnecessary, instead of disfig-
 20 uring said bats, as do the devices heretofore

used for this purpose, adds to their ornamental appearance. Said band also permits of embossing, gilding, and many other kinds of ornamentation.

The grooves, hereinbefore mentioned, here- 25 tofore used to sink said turns of string may, in connection with my invention, be used or not as one pleases.

Having fully described my invention, what I desire to claim and secure by Letters Patent 30 is—

A tennis-racket bow having a groove or channel cut in its outer surface, in combina-
 tion with a strip or band fastened at its ex-
 35 tremities in said channel, outside of and over the strings, substantially as set forth.

EDWARD J. LUCE.

Witnesses:

PATRICK F. CARROLL,
 JOSEPH DE LA TORRA.