

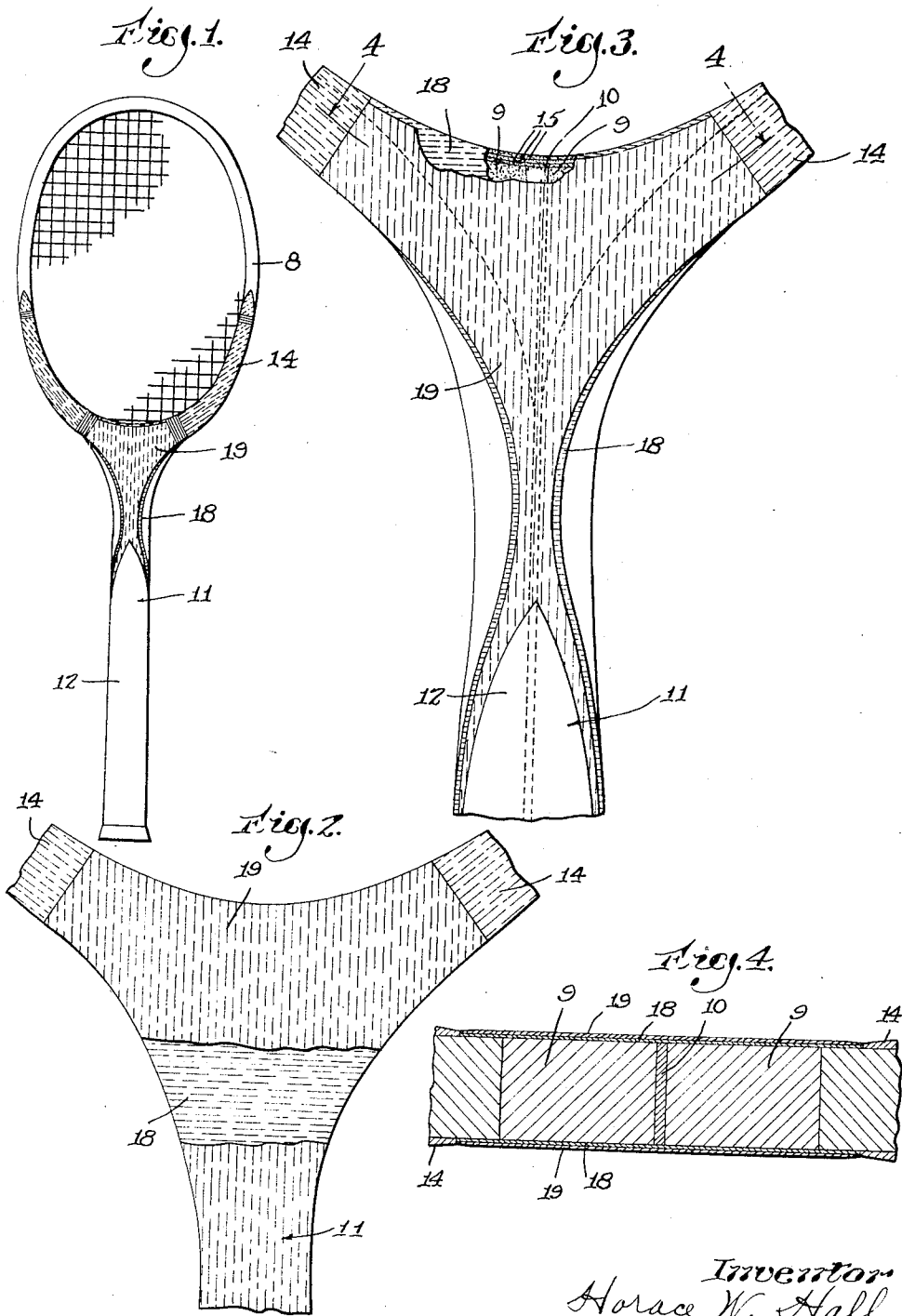
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PLAYING RACKET

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PLAYING RACKET

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2 Claims. (Cl. 273—73)

This invention relates to playing rackets for tennis and similar games.

In hard play certain parts of a racket are subjected to severe strains and these parts must be properly reinforced without materially adding to the weight of the racket. Properly constructing and placing these reinforcements is of the utmost importance for the above reasons and because the weight of the racket must be kept down and any feeling of clubiness in the racket avoided.

One object of my invention is to provide reinforcements in a racket which greatly strengthen it at vulnerable points, which are light in weight, and which add beauty to the racket, the latter making it possible to create a greater variety of models.

Another object is to so unite said reinforcements to the racket that they are practically immune from splitting. A further object is to provide such reinforcements that the labor required in finishing the surface of the racket is reduced, and at the same time the appearance of the finish greatly enhanced.

The foregoing and other objects which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and arrangement of parts such as is disclosed by the drawing and specification. The nature of the invention is such as to render it susceptible to various changes and modifications, and, therefore, I am not to be limited to said disclosure; but am entitled to all such changes therefrom as fall within the scope of my claims.

In the drawing:

Figure 1 is a front elevational view of a completed tennis racket embodying my invention.

Figure 2 is a fragmentary view of a portion of a tennis racket frame in an intermediate stage of production showing the reinforcing laminations on the said frame before they have been sanded down.

Figure 3 is a fragmentary view of a portion of a tennis racket after the reinforcing laminations extending from the shoulders to the handle have been sanded down.

Figure 4 is a sectional view taken on the line 4—4 of Figure 3.

I have illustrated a racket having a bow head 8, and in Figure 3 of the drawing a throat is shown consisting of two side pieces 9 and a narrow center piece or strip 10 which extends down into and forms part of the handle 11. My invention is applicable to rackets having a solid or one piece throat as well. Said handle 11 has the

usual outside covers 12. The shoulders of said bow head 8 are reinforced by shoulder laminations 14. Crescent shaped laminations 15 are glued together and fit within the bow head 8 and are glued to it and the top of said throat pieces 9 and 10. These are shown in the broken away portion of Figure 3 of the drawing.

The glue joints resulting from the use of said crescent-shaped laminations 15 require reinforcement because during the stringing of the longitudinal portion of the racket bow head the frame tends to spread laterally and said joints will often be broken unless they are reinforced properly. This is especially true at the joint between the said throat pieces and the lowest crescent-shaped lamination 15 because it is wood end gluing at that point. The common way to reinforce these is with laminations running across the upper portion of the throat and part way up the bow head in which the grain runs parallel with said crescent-shaped laminations 15, which does not always provide as much reinforcement as needed and is otherwise unsatisfactory. To reinforce these joints I provide a wooden reinforcing lamination 18, the grain of which runs crosswise as clearly illustrated in Figure 2 of the drawing. By running the grain across the throat and handle the joints between said center strip 10 and the throat side pieces 9 are cross banded and also the joints at the crescent-shaped laminations 15 are reinforced. Said lamination 18 continues beyond the throat and forms part of the handle 11 passing under said cover 12. On top of this wooden reinforcing lamination 18 I glue another wooden reinforcing lamination 19 with the grain running longitudinally, that is, in the direction of the handle, which continues below the throat and forms part of said handle 11, passing under said cover 12. This lamination 19 cross bands said lamination 18 and greatly reinforces the whole racket at the most vital points. By using these laminations 18 and 19 double they prevent splitting of the outside lamination 19, whereas if only one such lamination is used splitting is possible under certain circumstances, and while the split would not be deeper than the thickness of the lamination it is likely to arouse fears that the split extends farther.

These laminations 18 and 19 are sanded down so that portions of them are within the outside edges of the racket as illustrated in Figures 1 and 3 of the drawing, being of less width than the adjoining portions of the throat and handle. One of the great objections to reinforcing rackets with wooden laminations has been the extra

weight they added to the racket. This I have overcome by sanding them down where reinforcement is the least needed. By using double laminations 18 and 19 I am also able to use a thinner lamination than has been used before, thereby getting the benefits of cross banding and yet keeping the weight of the racket down.

The lamination 18 is preferably made of wood; but fabric or fiber could be used, and for the lamination 19. Also the grain of said laminations 18 and 19 could be reversed, the grain of the lamination 19 extending crosswise and the grain of the underneath lamination 18 extending longitudinally.

By using a double lamination I can also improve the appearance of the racket, using a different colored wood for the underneath lamination 18 in contrast to the wood of the top lamination 19, in which event the underneath lamination is wider, thereby showing the color of the wood, as illustrated in the drawing.

What I claim is:

1. A racket comprising a bow head, throat and handle, a portion of said racket below said bow head curving inwardly at its outer sides, and two reinforcing laminations on said racket, one above the other, extending from the lower portion of said bow head downwardly on said throat to said handle, a portion of each said reinforcing lamination curving inwardly at its outer sides

to a greater extent than the said inward curving of the adjacent portion of said racket and then curving outwardly, the upper said lamination being narrower in width for a portion of its length than the lower said lamination and so positioned that a portion of each side of said lower lamination is visible below said upper lamination, the grain of said lower lamination extending substantially laterally across said throat and handle and the grain of said upper lamination extending substantially longitudinally.

2. A racket comprising a bow head, throat and handle, a portion of said racket below said bow head curving inwardly at its outer sides, and two reinforcing laminations on said racket, one above the other, extending from the lower portion of said bow head downwardly on said throat to said handle, a portion of each said reinforcing lamination curving inwardly at its outer sides to a greater extent than the said inward curving of the adjacent portion of said racket whereby said adjacent portion of said racket on each side of said reinforcing lamination remains visible, the upper said lamination being narrower in width for a portion of its length than the lower said lamination and so positioned that a portion of each side of said lower lamination is visible below said upper lamination.

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