

April 28, 1936.

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LACROSSE RACKET

Filed July 16, 1935

2 Sheets-Sheet 1

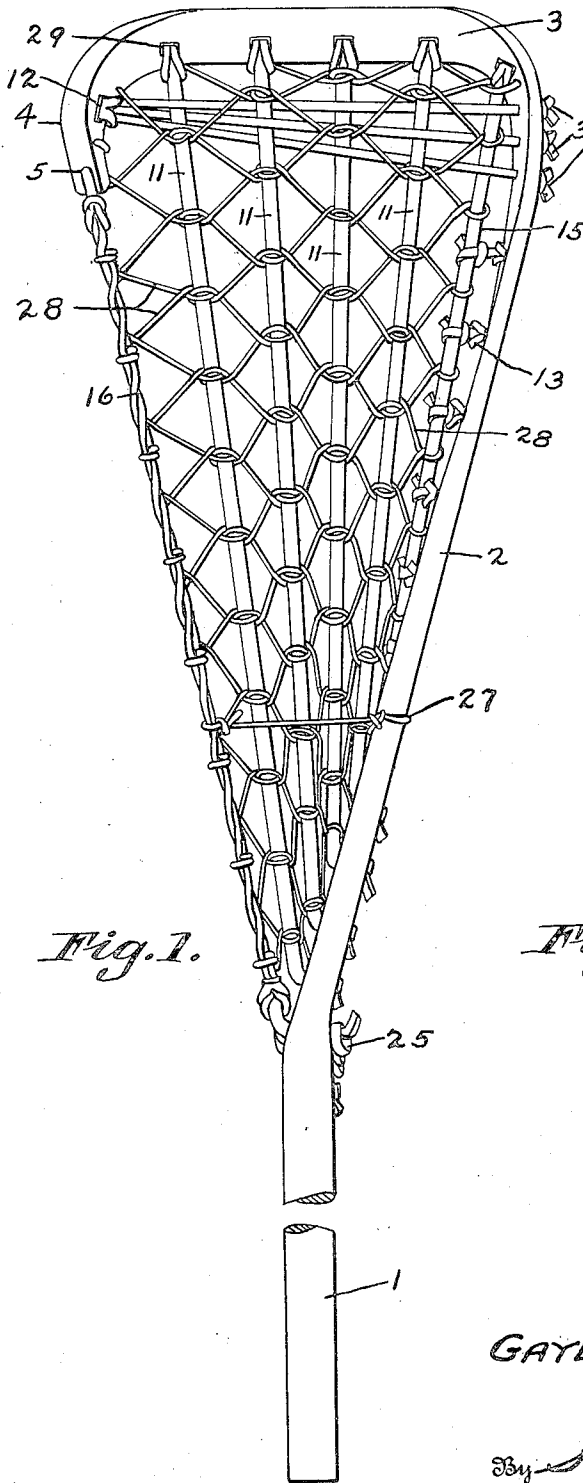


Fig. 1.

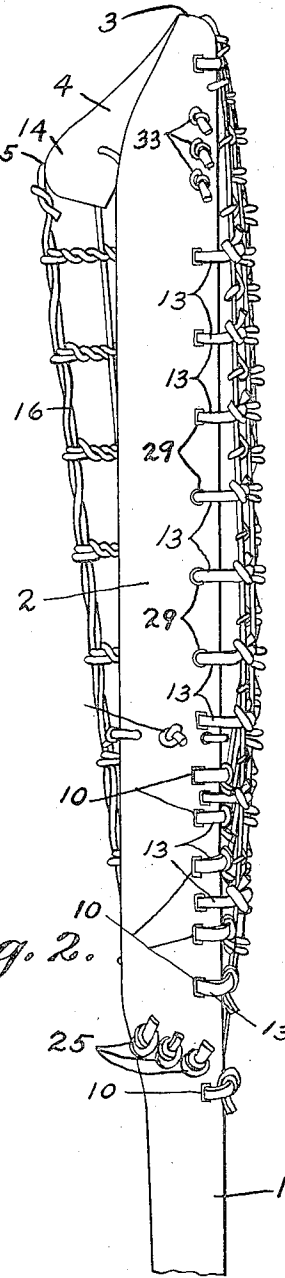


Fig. 2.

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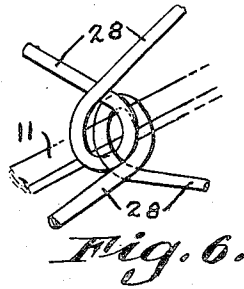
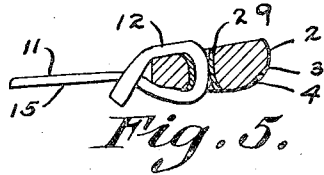
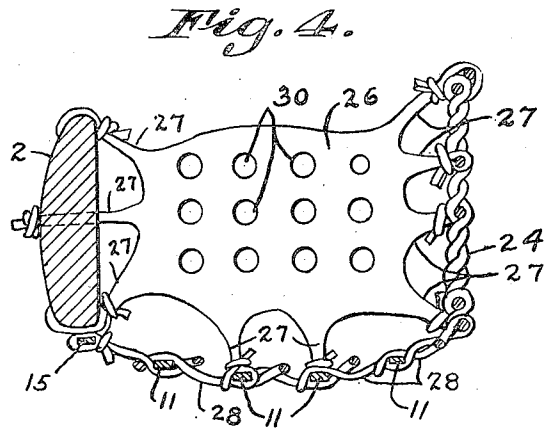
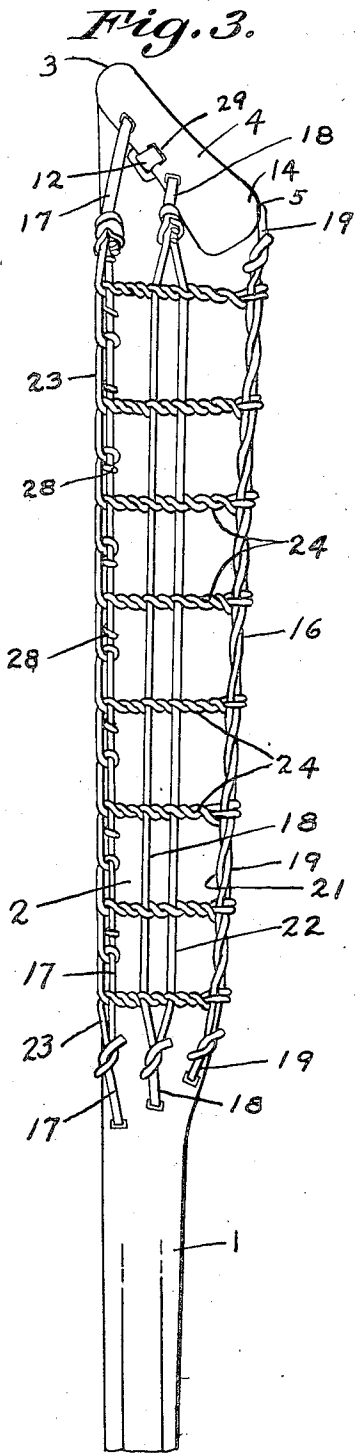
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LACROSSE RACKET

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2 Sheets-Sheet 2



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LACROSSE RACKET

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Application July 16, 1935, Serial No. 31,656

13 Claims. (Cl. 273—96)

This invention refers to athletic games and more particularly to lacrosse rackets. The invention provides for several improved features including a more facile method of stringing, a

replaceable bridge, an adjustable stop, a method of pocket adjustment, a fifth string, friction reducing holes for the strings, adjustable tie-ins, a bracing strap, and other items that will become apparent as the invention is more fully set forth.

The rackets used for the game of lacrosse have been made for generations under certain methods adopted by the Indians of Canada and with certain tools considered most appropriate for their construction by the aboriginal makers. The rackets produced have proven exceptionally suitable for the game and for the type of skill required in playing same successively. Experience, derived from increased use, specialized playing and higher grade requirements has brought out the wearing points and characteristics of the present form of construction, and wherein adjustments are desirable to meet the requirements of different players individually, without materially affecting the desirable uniformity of design or interfering with the proper and fair playing of the game. These features of the wearing points are provided to permit a replaceability of the parts concerned by the players themselves or persons of ordinary assembling capability. This eliminates the usual time and inconvenience required in returning the rackets or sticks to the Indians for restringing and other repairs. The present rackets are so made under hard-and-fast rules that little adjustment is possible. This does not necessarily make the rackets reasonably uniform, as the materials are produced under natural conditions without any scientific selection. Thus, the strings or straps in one case may be stretched taut, while in another may be loose, although apparently made under the same conditions, due to the variance in materials, drying out, different environments, and varying degrees of personal judgment in the cutting or making of parts. Adjustments cannot then be made afterwards without entirely restringing or overhauling, a condition which results in inconvenience to the players which they cannot overcome.

The various terms used herein to describe the parts of the lacrosse racket are not at present strictly identified in its nomenclature. The applicant has adopted terms that seem to apply more aptly, following wording used in similar arts and game implements. The wearing out points of the lacrosse racket, in the present forms, are at the torsionally bent portion, which is termed the toe, the bridge which forms a flexible cross piece for the stringing, and at the holes where the strings or straps pass through in the frame of the racket. One of the locations for adjustment, desirable in this game, is at the space where the ball is caught before throwing, and is called a "pocket". The usual method for providing for this pocket is through depression stretching by allowing a heavily weighted iron or ball to stay in the selected spot for several hours, while suitable provision keeps the other portions of the strings and straps flat, or straight. At another location, the "stop" is located. This location, at present, is definitely placed and cannot be changed conveniently. The "pocket" in this invention can be quickly provided for by loosening up on individual tying to suit the particular player, and avoids any "weighting and stretching process". The "stop" in this invention is made of a flat piece of leather or other suitable material and hitches onto any selected location on the racket. The bracing strap is provided for in this application by using a flat piece of leather suitably cut into fingered strips and hitches at the wide portion of the racket to strengthen and adjustably tighten the strings and straps of the racket at this location. This is not provided for in the present forms.

In the drawings, which illustrate by way of example an embodiment of this invention:—

Figure 1 is a face view of a lacrosse racket embodying this invention.

Figure 2 is a side view of Figure 1.

Figure 3 is a view of the opposite side.

Figure 4 is a detail of the "stop" used in this racket.

Figure 5 is a detail through the frame showing the reinforced and wear preventing construction.

Figure 6 is a detail of the non-slip knot used in connection with the strings.

Similar reference characters refer to similar parts throughout the drawings.

In the construction shown 1 represents the handle of a lacrosse racket which is connected with an L-like frame having a flat angle side or back 2, extending at an acute angle to the axis of the handle with a top-side 3 bent over at right angles to and across the axis and terminating with a torsionally bent toe 4, which is preferably bent as indicated and rounded at 14 where a hole 5 is provided for the stringing. The sides are provided with holes 10 which are preferably rectangular to enable the four lead-straps 11 to insert easily and keep flat, and thus wear longer. The lead-straps are "lassoed" hitched to

the top side of the frame and knotted around at the base of the angle-side 2 near where the handle joins. A brace-strap 12 is similarly secured from the toe portion to the upper portion of the angle side or back. It consists of a strip of material cut into a spread three-fingered member 33 threaded above and below the lead straps as shown and braces the latter. A fifth-lead strap 15 is provided close to the angle side or back and is attached similarly to the other lead straps. It is, however, also held adjustably to the angle side by means of tie-ins or hitches 13 which are knotted and attached as indicated. This permits the tie-ins or hitches to be loosened or tightened to suit and enable a pocket to be made at any selected place in the stringing of the racket.

A stringed bridge 16 consists of cords twisted as indicated and tied into three end strands 17, 18, and 19 to the toe and base of the frame. The bridge has six straps in all, 17, 18, 19, 21, 22, and 23; one of which No. 23 is intertwined on 17 and twisted into cross-ropes 24 and serves to space all of the straps mentioned. The manner of attachment is similar to that of the lead straps and by suitable knots as 25 where same tie on another strap. The purpose of having the strap 23 so tied on is to permit the threading of the stringing 28 for replacements to be done easily as will be described.

The stringing of the racket is arranged with the use of a single string 28 intertwined through the bridge straps and around the lead straps and fifth strap. The manner of locking the knots in the lead straps is clearly shown in Figure 6. By this method the string is kept in place and serves to tighten frictionally and more securely on the straps and lessen the possibility of "creeping". The "stop" consists of a flat piece of material 26 cut as indicated and arranged to fit within the racket space. It has extending hitches 27 of such a length as to permit them to be attached to the straps, frame and bridge at any suitable location thereon, and to be adjusted as tight or loose as preferred. It is provided with circular holes 30 to increase its flexibility. The holes for the various tie-ins or hitches are reinforced with grommets 29 suitably rounded in place to reduce wear on the stringing parts.

When the bridge becomes worn or broken and requires replacement it is quickly detached by cutting the straps 17, 18 and 19. The new bridge is then replaced and the string 28 is retied into it between the brace ropes. The bridge is then tightened or loosened to suit the players' needs. The tie-ins or hitches to the fifth strap are also arranged to suit. The cross strap is readily adjusted to suit the needs of the racket in the portion thereof where located.

The rounding of the toe enables the strap passing through the top hole to rest on same and with much less chafing than encountered with the usual type of end provided. This enables the bridge to withstand longer and severer use. If any part of the strap, stop, bridge or stringing requires replacement, such can be readily done by ordinary players; thereby eliminating the necessity of returning the racket to the original makers. Such cannot be done with the present type of racket, nor can any of the adjustments mentioned be made readily. When in use under the conditions met with, the racket can be readily "tuned up" by the player in a few moments without the use of tools or equipment. All of these features have a practical value that tends to

improve the use of the racket and suit the needs of the players and users fully on all occasions, as well as to better preserve the materials in the whole racket.

While but one form of the invention is shown in the drawings, it is not desired to limit this application for patent to this particular form or in any other way otherwise than limited by the prior art, as it is appreciated that other constructions could be used that would employ the same principles and come within the scope of the appended claims.

What is claimed is:—

1. A lacrosse racket comprising in combination a frame having a back, a top-side and toe member provided with a plurality of holes therethrough, straps attached in said holes to the frame and passing cross-wise over each other between the back, and top-side, a string intertwined about the straps and attached to the back, means for adjusting the straps throughout their length in a plurality of directions and positions on the frame and independently of each other, and means for lessening the frictional wear and bend of the straps at the holes.

2. A lacrosse racket comprising in combination a frame having a back, a top-side and toe member provided with a plurality of holes therethrough, straps attached in said holes to the frame and passing cross-wise over each other between the back, and top-side, a string intertwined about the straps and attached to the back, means for adjusting the straps throughout their length in a plurality of directions and positions on the frame and independently of each other, means for lessening the frictional wear and bend of the straps at the holes, and a stop mounted on the frame and adapted to be adjustably positioned thereon and for ready adjustment of tautness without removal of any portion thereof from the frame.

3. A lacrosse racket comprising in combination a frame having a back, a top-side and toe member provided with a plurality of holes therethrough, straps attached in said holes to the frame and passing cross-wise over each other between the back, and top-side, a string intertwined about the straps and attached to the back, means for adjusting the straps throughout their length in a plurality of directions and positions on the frame and independently of each other, means for lessening the frictional wear and bend of the straps at the holes, a stop mounted on the frame and adapted to be adjustably positioned thereon and for ready adjustment of tautness without removal of any portion thereof from the frame, and a bridge attached between the toe and the back of the frame for supporting the string at one side of the racket and adapted to be adjustably secured thereon.

4. A lacrosse racket comprising in combination a frame having a back, a top-side, and toe member provided with a plurality of holes therethrough, straps attached in said holes to the frame and passing cross-wise over each other between the back, and top-side, a string intertwined about the straps and attached to the back, means for adjusting the straps throughout their length in a plurality of directions and positions on the frame and independently of each other, means for lessening the frictional wear and bend of the straps at the holes, a stop mounted on the frame and adapted to be adjustably positioned thereon and for ready adjustment of tautness without removal of any portion thereof from the

frame, a bridge attached between the toe and the back of the frame for supporting the string at one side of the racket and adapted to be adjustably secured thereon, and a brace having a plurality of finger elements thereon adapted to be adjustably secured to the toe and back of the frame.

5. A lacrosse racket comprising in combination a frame having a back, a top-side, toe member and handle provided with rectangular holes therein, a plurality of straps crossing from the top-side and back, a flexible bridge flexibly attached to the toe member and to the upper portion of the handle, a string detachably attached to the said bridge and intertwined and secured to the said straps, and means for providing a pocket depression at any portion of the stringing without stretching or distorting the string or straps.

6. A lacrosse racket comprising in combination a frame having a back, a top-side, toe member and handle provided with rectangular holes therein, a plurality of straps crossing from the top-side and back, a flexible bridge flexibly attached to the toe member and to the upper portion of the handle, a string detachably attached to the said bridge and intertwined and secured to the said straps, means for providing a pocket depression at any portion of the stringing without stretching or distorting the string or straps, and a stop of flexible material and provided with holes therethrough and with integral hitches for adjustably attaching the stop to the back and bridge.

7. A lacrosse racket comprising in combination a frame having a back, a top-side, toe member and handle provided with rectangular holes therein, a plurality of straps crossing from the top-side and back, a flexible bridge flexibly attached to the toe member and to the upper portion of the handle, a string detachably attached to the said bridge and intertwined and secured to the said straps, means for providing a pocket depression at any portion of the stringing without stretching or distorting the string or straps, a stop of flexible material and provided with holes therethrough and with integral hitches for adjustably attaching the stop to the back and bridge, and a brace of flat material provided with a plurality of fingers attached to the toe and intertwinedly passing through the said straps and spacedly connected with said back.

8. A lacrosse racket comprising in combination a frame having a back, a top-side, toe member and handle provided with rectangular holes therein, a plurality of straps crossing from the top-side and back, a flexible bridge flexibly attached to the toe member and to the upper portion of the handle, a string detachably attached to the said bridge and intertwined and secured to the said straps, means for providing a pocket depression at any portion of the stringing without stretching or distorting the string or straps, a stop of flexible material and provided with holes therethrough and with integral hitches for adjustably attaching the stop to the back and bridge, a brace of flat material provided with a plurality of fingers attached to the toe and intertwinedly passing through the said straps and spacedly connected with said back, and a fifth string adjustably and flexibly holding the string to the said back.

9. A racket of the class described comprising in combination, a frame having a handle, back, top-

side and torsionally formed toe provided with a plurality of rectangular holes therethrough, a bridge member having a plurality of longitudinal strands twisted in sets and with cross strands for spacing the sets, a plurality of strands running longitudinally over the space formed by the frame and adjustably and flexibly secured through said holes, a fifth strap similarly run and attached, a string intertwined through the bridge, straps and the fifth strap to form the netting of the racket, hitches for flexibly attaching the fifth strap to the back, a stop of flexible material adapted to be adjustably positioned over the netting and connected therewith, and a cross brace adjacent the top-side of the frame and with fingers spread to flexibly taut the netting and reinforce the toe.

10. A racket of the class described comprising in combination, a frame having a handle, back, top-side and torsionally formed toe provided with a plurality of rectangular holes therethrough, a bridge member having a plurality of longitudinal strands twisted in sets and with cross strands for spacing the sets, a plurality of strands running longitudinally over the space formed by the frame and adjustably and flexibly secured through said holes, a fifth strap similarly run and attached, a string intertwined through the bridge, straps and the fifth strap to form the netting of the racket, hitches for flexibly attaching the fifth strap to the back, a stop of flexible material adapted to be adjustably positioned over the netting and connected therewith, a cross brace adjacent the top-side of the frame and with fingers spread to flexibly taut the netting and reinforce the toe, and means for enabling the bridge to be attached at the upper portion of the toe in a friction and bending reducing manner.

11. In a lacrosse racket, a removable bridge attached at the open side of the frame for the quick attachment of the stringing thereto and detachment therefrom without removal of the stringing from the racket, and a fifth strap for attachment of the stringing and support thereof without direct attachment to the back of the racket frame.

12. In a lacrosse racket, a removable bridge attached at the open side of the frame for the quick attachment of the stringing thereto and detachment therefrom without removal of the stringing from the rack, a fifth strap for attachment of the stringing and support thereof without direct attachment to the back of the racket frame, and a brace having a plurality of integral fingers spreading radially from one side thereof and adapted to be adjustably hitched to the toe, back, stringing and straps.

13. In a lacrosse racket, a removable bridge attached at the open side of the frame for the quick attachment of the stringing thereto and detachment therefrom without removal of the stringing from the racket, a fifth strap for attachment of the stringing and support thereof without direct attachment to the back of the racket frame, a brace having a plurality of integral fingers spreading radially from one side thereof and adapted to be adjustably hitched to the toe, back, stringing and straps, and a stop of leather or similar flexible material having a plurality of fingers radially diverted out therefrom for attachment to the back, straps and string and fifth strap, and means for friction reducing attachments to the frame.

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