March 2, 1954 R. E. LEISER ET AL 2,670,958

GAME RACKET

Filed March 28, 1949 2 Sheets-Sheet 1

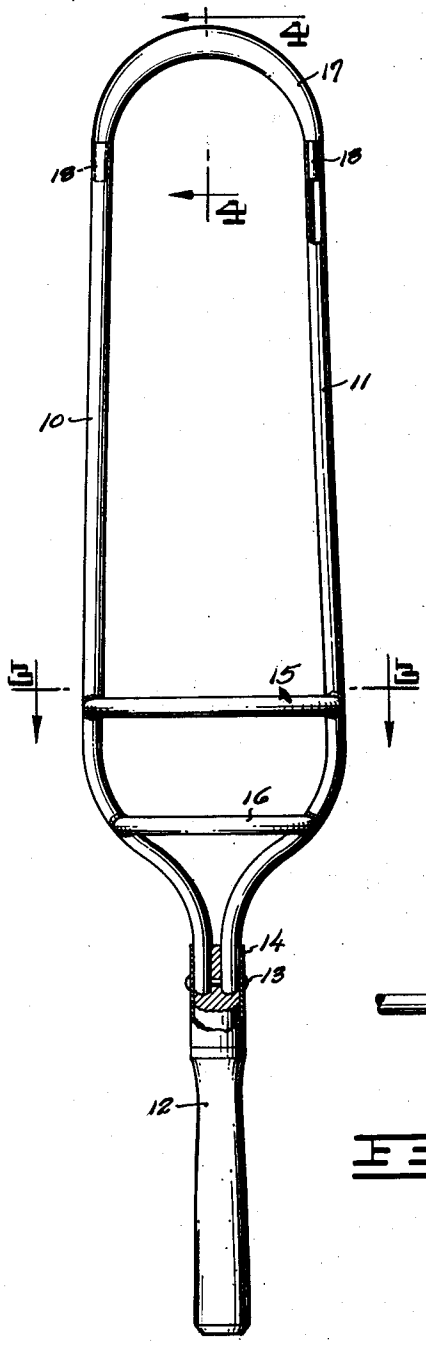


Fig. 1.

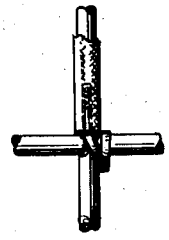


Fig. 6

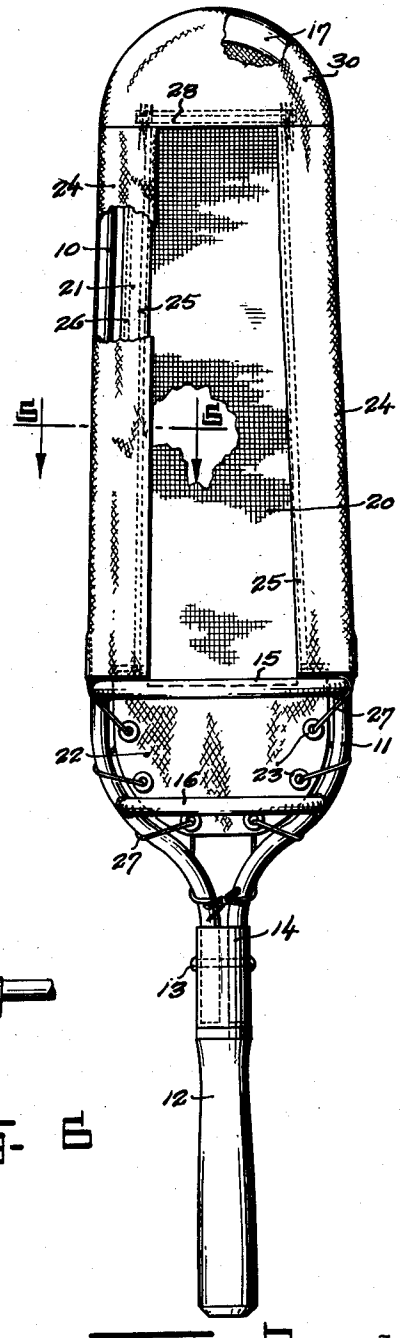


Fig. 2.

Inventors:
Royle E. Leiser
C. A. Soderberg

By Edward E. Downs
Attorney

March 2, 1954 R. E. LEISER ET AL 2,670,958

GAME RACKET

Filed March 28, 1949 2 Sheets-Sheet 2

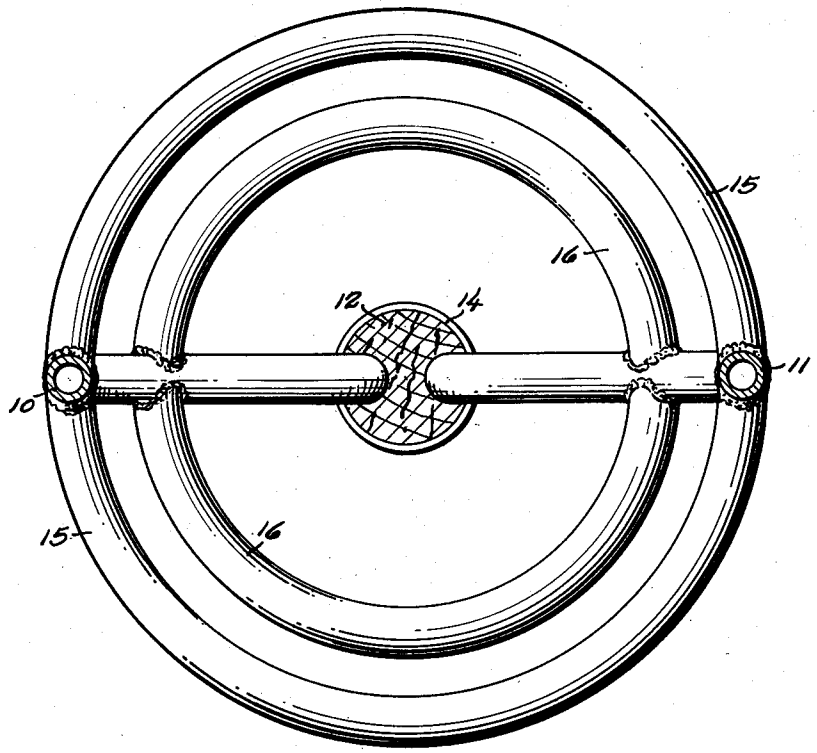


Fig. 3.

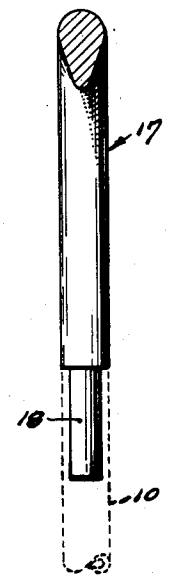


Fig. 4.

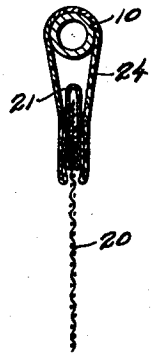


Fig. 5.

Inventors:
Royle E. Leiser
C. A. Soderberg

By Edward D. Ramey
Attorney

Patented Mar. 2, 1954 2,670,958

UNITED STATES PATENT OFFICE

2,670,958

GAME RACKET

Royle E. Leiser and Clifford A. Soderberg, Seattle, Wash.; said Soderberg assignor to Robert M. Anderson, Seattle, Wash.

Application March 28, 1949, Serial No. 83,928

7 Claims. (Cl. 273—96)

1

This invention relates to a game racket, and particularly a racket adapted to be used in picking up or catching a propelled ball and in propelling the ball from the racket to another player when it has been so picked up or caught. Being somewhat suggestive of the device used in the game of lacrosse, the present racket is of that nature providing a handle and having a relatively rigid and terminally looped frame extending as a prolongation thereof, the frame serving as a mounting for a flexible net-like curtain permitting the propelled ball to be interrupted in flight and being formed at its base end with a pocket into which the interrupted ball is caused to be guidably fed and trapped.

It is one object of the present invention to provide a racket of the described character in which sleeve elements made integral with the curtain substantially sheath those sections of the frame from which the curtain derives its support, by such token cushioning the frame sections against direct impact of a propelled ball, and additionally serving the important end, as compared with the lacing usually employed in this character of racket, of giving better support to the curtain and at the same time levelling off shock forces transmitted from the curtain to the frame by distributing the same more effectively.

It is a further and important object to devise a game racket of the described nature characterized in that a ball-trapping pocket is provided at each facing side of the racket, thus to permit forehand and backhand usage without need of turning the racket in the hand.

Other objects and advantages will appear in the course of the following description and claims, the invention consisting in the novel construction and in the adaptation and combination of parts hereinafter described and claimed.

In the accompanying drawings:

Figure 1 is an elevational face view of the frame used in the present racket, parts thereof being broken away and shown in section.

Fig. 2 is a similar elevational view of the complete racket with the ball-catching curtain applied to the frame.

Fig. 3 is a horizontal sectional view taken to an enlarged scale on line 3—3 of Fig. 1.

Fig. 4 is a sectional view on line 4—4 of Fig. 1 confined to a showing of the removable arch-piece which is provided at the head end of the frame, the scale here used corresponding to that of Fig. 3.

Fig. 5 is a fragmentary horizontal sectional view taken to an enlarged scale on line 5—5 of Fig. 2; and

2

Fig. 6 is a fragmentary elevational view detailing the manner in which thongs which are employed to secure the curtain in place upon the frame are attached to the curtain.

First describing the frame of the present invention, and with reference being had to said drawings, there is provided a main frame made much in the shape of a two-pronged candelabrum, and this is to say that there are provided two longitudinal principals, designated by the numerals 10 and 11, spaced rather widely apart for the greater part of their length and with the inner ends being brought together. These inner ends fit in parallel sockets bored in a handle 12 and are secured in position by a traversing pin 13, with a ferrule 14 being fitted to the handle as a safeguard against splitting. Said longitudinal principals are desirably made from metal tubing, aluminum by preference, and at the inner end of the U-throat which occurs between the two the same are connected by transversely extending struts of semi-circular plan configuration. There are two of these struts, as 15 and 16, applied to each facing side of the frame and the same act in complement, the two struts at one side with the two struts at the other side, to produce hoops circumscribing the throat. The hoops, more especially, lie in separated planes each located normal to the plane occupied by the longitudinal principals. Completing the frame and extending as a yoke across the open end of the throat is an arched piece 17 formed upon each end with a stud prolongation 18 arranged to be removably socketed in the open ends of the tubular principals. For a purpose which will be hereinafter described, and which will be seen from an inspection of Fig. 4, the median or throat-spanning portion of said arched piece is sectionally of an ovate-acuminate shape with the thinned edge innermost.

Proceeding now to describe the ball-catching curtain, the same presents a central net 20 comprised, by preference, of plastic screen although any other mesh material having sufficient strength to withstand tearing under impact shock of an intercepted ball would be suitable. Such net is generally rectangular in shape with a width somewhat less than the span between the longitudinal principles of the frame and a length approximating the reach of said principals, or which is to say that part of the same which projects beyond the hoop sections. The outer end margin and the side edge margins of this net are each caught and stitched between two thicknesses of tape 21 composed of canvas, leather or other like or suitable reinforcing material and the inner end

margin is also caught and stitched between superposed lays of a two-thickness canvas tongue **22**. This tongue is more or less semi-circular in plan configuration bounding an area somewhat smaller but generally corresponding in shape to the area comprehended within that portion of the frame's throat which lies between the root end of the frame and the outermost hoop. The tongue has a severality of grommets **23** applied along the curved margin at more or less equidistantly spaced intervals.

Provided for the curtain at each side of the net is a sleeve member **24** which is made from a strip of canvas, leather or other like or suitable material doubled back upon itself along the longitudinal median line, and the two flaps which this folded strip presents extend inwardly into overlying relation one to the top reinforcing tape and the other to the bottom reinforcing tape and are secured thereto by a common line of stitching **25**, the stitching being applied in inwardly spaced parallel relation to the other stitching, designated **26**, used to initially secure the tapes to the net and hence being additive to the latter as a means of holding the net secure against liability of ripping. A respective thong **27** is sewed or otherwise securely attached to the inner ends of these sleeves.

At the head end of the curtain and similarly secured by a line of stitching **28**, in this instance to the tapes which marginally reinforce the outer end edge of the net, there is provided a muff **30**. Such muff, like the sleeves, is comprised of a folded piece of canvas, leather or the like, but is distinguished from the sleeves in that the rim profile is curved to a shape substantially in correspondence with the bowed curvature of the arched piece **17**. As will be apparent from an inspection of Fig. 2, the terminal mouths which give access to the interior of the muff each are in touching registration with the mouth which occurs at the outer end of a related sleeve, but it is to be particularly noted that these touching mouths are unattached to one another.

In applying the curtain to the frame of the racket, the procedure is to first remove the arched piece **17** and then slip the sleeves over the free ends of the frame principals without, however, drawing the sleeves completely onto the principals. The arched piece is now introduced to the muff, being worked inwardly from one end opening thereof until the leading stud prolongation and a minor portion of the parent arch have reached the other end opening and progressed therebeyond into the registering mouth of the related sleeve, thus to cause the following stud to be more or less completely contained within the muff, whereupon the arched piece is backed up to center the same within the muff while coincidently directing said following stud into the mouth of the other sleeve. The frame principals are now pushed farther into the sleeves and the operator establishes engagement of the studs in the mating sockets of said principals, whereupon the thongs are pulled tight and cinched by taking one or more turns about the root ends of one of the two outer hoop sections, and the said thongs are then laced around the frame principals and through the grommets with their free ends being finally drawn tight and knotted together, the arched piece being responsively tensioned by the pull force transmitted to the muff.

Our game racket is used in the following manner: a ball in flight is caught by intercepting the same in the net and causing this intercepted ball to be guidably fed into and trapped within the pocket occurring at one side or the other side of the racket, according as to which face of the racket has been used as the intercepting surface and which usually is determined by whether the ball is caught in a forehand or a backhand play. The caught ball is then propelled from the racket by using a sweeping motion of the arm in conjunction with a final snap of the wrist to give added momentum and directional accuracy. The course of the ball in moving out of the pocket is along the longitudinal median line of the racket and thence off the muff-covered end, and the significance of flattening the inside edge of the arched piece **17** can be here pointed out, and namely to permit the ball to pass freely over this arched piece as it leaves the racket. One particular form of game played with the racket and which has been keenly enjoyed, especially by players of high school and college age, is played on a regulation baseball diamond and follows rules very similar to baseball. The pitcher, catcher, infielders and outfielders each carry one of the rackets while the batter uses an ordinary bat. The pitcher flings the ball over the plate by the use of his racket, and the infielder or outfielder in whose territory the ball may be batted attempts to catch the ball in his racket and, if the same be a ground ball, throws to the first baseman to establish a put-out of the batter or to either of the other two bases to eliminate a runner. A batter is automatically out on a caught fly-ball. One rule differing from baseball is that runners need not be tagged out, it being only necessary that the ball reach the base and be caught before the runner arrives at the base. The game is somewhat faster than ordinary baseball in that the ball can be thrown with extreme speed and unusual accuracy is obtained.

While we have illustrated the frame of our racket as being fabricated from metal, the use of wood frame pieces, preferably laminated in the manner common to the rackets used in tennis, squash and like games, should be self-evident. Should the frame pieces be made of wood, the struts **15** and **16** would be bonded to the frame principals by a glue joint, and the free ends of the longitudinal principals would advantageously be turned down and fitted with tubular metal coupling sleeves to produce sockets for dowel counterparts of the stud prolongations **18**. As another possible modification presently in mind, it would be entirely feasible, albeit less desirable, to make the arch piece **17** an integrated part of the frame principals and, in lieu of sleeving the curtain onto the frame, utilize lacings to bind the same to the frame. In this said laced construction, multiple independent bindings rather than a single continuous run of lacing should be employed in order to maintain relatively uniform tension throughout the length of the ball-catching net. It should, perhaps be further pointed out that the two ball-trapping pockets which our racket provides, one upon one facing side and the other upon the other facing side of the racket, can be produced by the use of only a single circumscribing hoop made up from the congruent sections **15** and employed in conjunction with longitudinal members occupying a plane traversing the longitudinal median line of the racket, these longitudinal members being given a curvature substantially in correspondence with the curvature which obtains at the base end of the two frame principals **10** and **11** and having their inner ends socketed in the handle and their outer

ends joined one to one and the other to the other of said congruent hoop sections at the substantial mid-point of the latter's arcuate span. This is to say that the augmenting longitudinal members, although of less length than the frame principals in that they extend only from the handle to the hoop would, with the frame principals, suggest a four-pronged candelabrum locating each of the four branches at equidistantly spaced intervals within the circumference of a circle taken about the axial line of the handle as a center.

While there have been herein described several possible modifications of our illustrated preferred embodiment which might or might not readily occur to those versed in the art, it is to be understood that these suggested modifications in no sense exhaust the structural changes which might be resorted to without departing from the spirit of the invention. It is our intention that no limitations be implied and that the hereto annexed claims be given a scope fully commensurate with the broadest interpretation to which the employed language fairly admits.

What we claim, is:

1. A game racket providing a handle at one end and a ball-catching flexible curtain at the other end adapted to flex transversely to the plane defined by the side edges of the curtain, and having separated pockets upon each of the opposite facing sides of the racket located between the handle and the curtain with each said pocket having an access mouth opening toward the outer end of the racket for trapping balls caught on the respective facing side of the curtain.

2. A game racket having a handle and providing a frame-work extending as a reach therefrom and comprised of spaced-apart longitudinal principals connected by a terminal loop, transverse arched struts at each facing side of the racket made rigid with said longitudinal principals and occupying a common plane normal to the plane of said principals in proximate but spaced relation to the root end of the latter to form congruent halves of a substantial hoop, and a ball-catching flexible curtain supported between said longitudinal principals and presenting a tongue prolongation extending inwardly beyond the hoop and serving with the congruent halves of the latter to produce open-end pockets at each facing side of the racket for trapping balls caught on either facing surface of the curtain, said curtain and its tongue prolongation being adapted to flex transversely to the plane defined by the longitudinal principals.

3. A game racket having a handle and providing a frame-work extending as a reach therefrom and comprised of spaced-apart longitudinal

principals connected by a terminal loop, a ball-catching flexible curtain removably carried by said longitudinal principals to extend between the same and adapted to flex transversely to the plane defined by the said principals, and means made a part of the frame and acting with an inner-end portion of said curtain to define a pair of pockets each having an access mouth opening toward the outer end of the racket for receiving balls caught on the respective facing side of the curtain.

4. A game racket comprising a racket frame comprised of spaced-apart longitudinal frame principals rooted at one end in a handle and at the other end connected by a removable yoke, and characterized in that the removable connection for said yoke comprises dowel joints the axes of which coincide with the axial lines of the related frame principal, and a ball-catching curtain for the racket provided along each side edge with a sleeve arranged to fit one over one and the other over the other frame principal and provided along the outer end edge with a muff arranged to fit over the yoke, the terminal mouths of said muff being in touching registration with the terminal mouths of the related sleeves.

5. The game racket of claim 4 in which the ball-catching curtain has means at the inner ends of the sleeves for drawing the sleeves inwardly toward the root ends of the principals.

6. The game racket of claim 4 in which the ball-catching curtain has thongs attached to the inner ends of the sleeves arranged to establish a tie connection between the sleeves and the frame for cinching the curtain upon the frame.

7. The game racket of claim 3 in which the amount of flexure of said curtain at the mouth of the pocket is greater than the amount of flexure at the outer end thereof.

ROYLE E. LEISER.
CLIFFORD A. SODERBERG.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
519,770	McNaughton	May 15, 1894
891,813	Ceel	June 30, 1908
2,023,939	Talmadge	Dec. 10, 1935
2,075,372	Taylor	Mar. 30, 1937
2,142,527	Pool	Jan. 3, 1939
2,465,808	Killam	Mar. 29, 1949

FOREIGN PATENTS

Number	Country	Date
339,911	Germany	July 9, 1921
775,076	France	Dec. 19, 1934