Sept. 23, 1924. 1,509,490

F. L. SAWYER

NET AND SUPPORTS FOR RING TENNIS

Filed May 22, 1922 2 Sheets-Sheet 1

Fig:1.

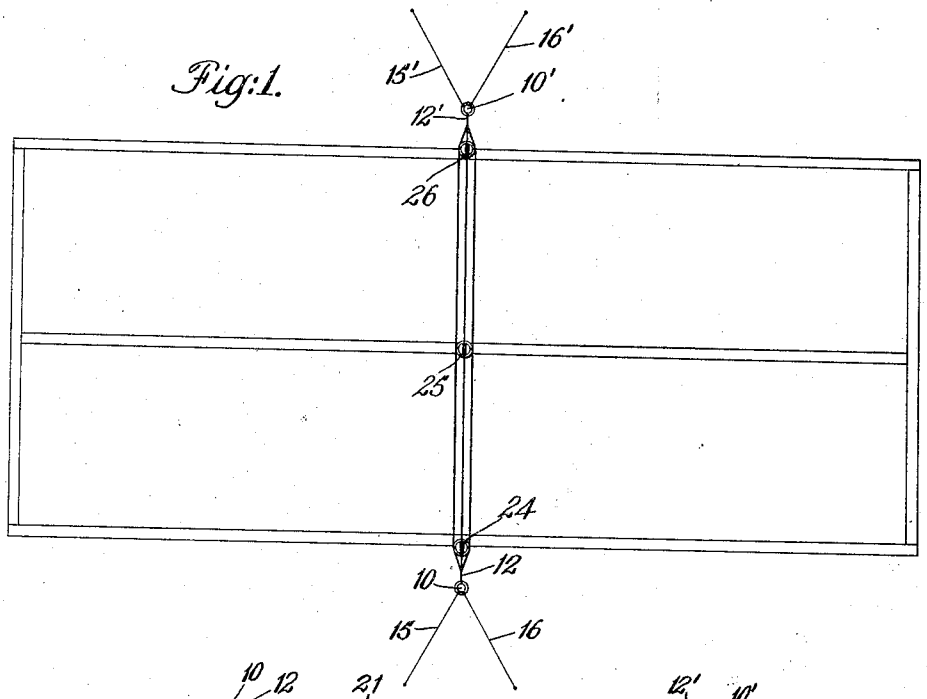


Fig:2.

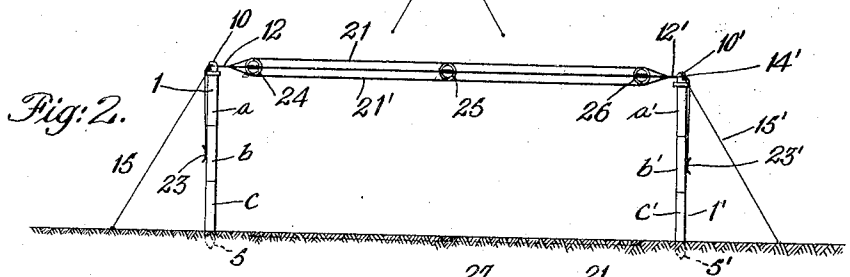


Fig:3.

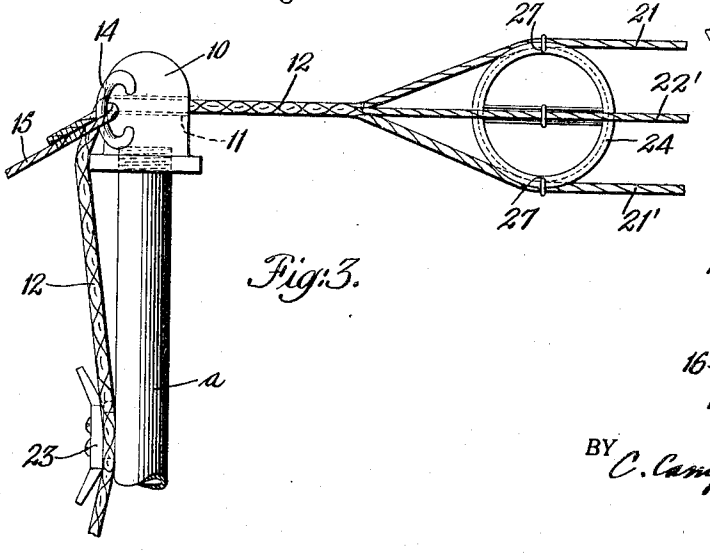
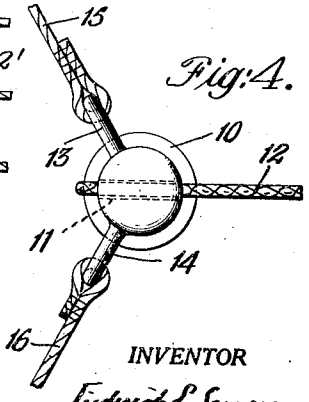


Fig:4.



INVENTOR

Frederick L. Sawyer

BY C. Campbell Hyndman

ATTORNEY

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F. L. SAWYER

NET AND SUPPORTS FOR RING TENNIS

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Fig: 5.

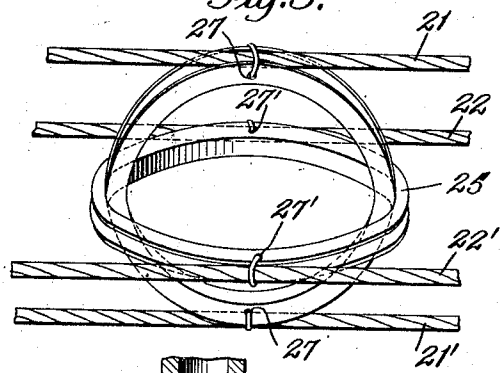
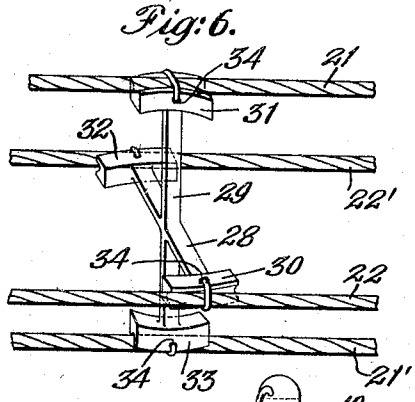


Fig: 6.



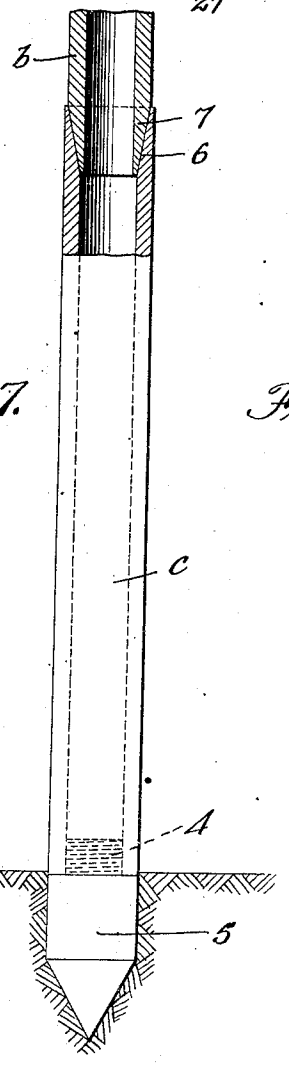


Fig: 7.

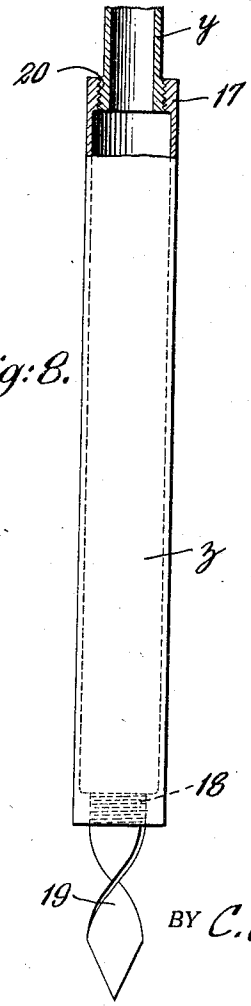


Fig: 8.

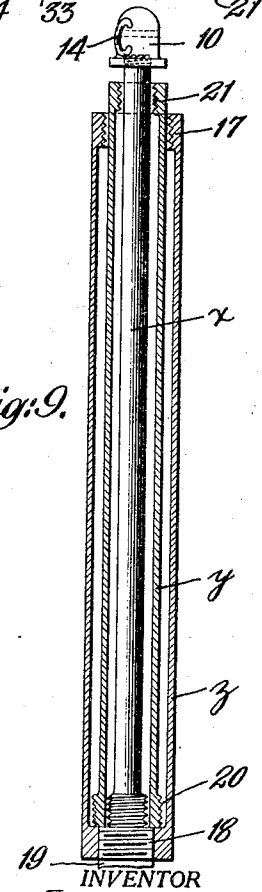


Fig: 9.

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Patented Sept. 23, 1924. 1,509,490

UNITED STATES PATENT OFFICE.

FREDERICK L. SAWYER, OF EVANSTON, ILLINOIS.

NET AND SUPPORTS FOR RING TENNIS.

Application filed May 22, 1922. Serial No. 562,685.

To all whom it may concern:

Be it known that I, FREDERICK L. SAWYER, a citizen of the United States, and resident of Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Nets and Supports for Ring Tennis, of which the following is a specification.

This invention relates to improvements in the net and supports for the game of ring tennis.

For several years there has some times been played upon shipboard an improvised game called ring tennis. The deck is marked out into a court within which the game is played and a net, which consists of a rope stretched about 9 feet high across the deck, is made fast to any convenient form of supports transversely to the center of the court. Two sets of players take their stand on each side of the net and throw the rope grommet over the net from one side to the other, and in case a player fails to catch the ring and return it over the net within the bounds of the court, a point is scored against him. It frequently happens that when the grommet is thrown horizontally in close proximity to the rope, that disputes arise as to whether the grommet passed over the rope. A net such as is used in tennis is unsatisfactory because of its bulk. Applicant has found that a strip of canvas is also unsatisfactory, as it not only twists about and in case of a breeze is difficult to keep taut, but also because when the grommet is thrown horizontally and its line of flight is close to the canvas strip, that for a considerable period of the flight the grommet is obscured by the canvas strip from the view of the opposing players.

One of the objects of this invention is to provide a net of greater visibility than a single rope in order that it may be readily determined whether the ring or grommet passes over or under the net while at the same time not obscuring the ring or grommet in its flight.

Another object of the invention is to provide a net easily put up and one which no matter how the rope twists, will have practically the same apparent width.

Other objects of the invention are to provide a net and supports that will be economical to manufacture, easily set up and taken down and one that can be compactly stowed away and which may be utilized to play the game upon shore as well as upon shipboard.

Referring to the drawings:

Figure 1, is a plan view of a court showing net and supports thereon.

Figure 2, is a view in elevation of net and supports embodying the principles of my invention.

Figure 3, is a detail view showing a portion of the net and means of attachment to the supports.

Figure 4, is a plan view of the top of one of the supports as shown in Fig. 3.

Figure 5, is a detail view of the preferred form of net spreader.

Figure 6 is a detail view of a modified form of net spreader.

Figure 7, is a detail, longitudinal sectional view of the preferred form of a portion of one of the supports.

Figure 8, is a modified form of a detail, longitudinal sectional view of a portion of one of the supports.

Figure 9, is a detail longitudinal sectional view of parts in elevation of the modified form of support in a collapsed position.

In carrying out my invention I propose to provide supports 1, 1′ formed of three or more sections *a*, *b*, *c* and *a′*, *b′* and *c′* in order to provide easy transportation and storage. These supports 1, 1′ in the preferred form, are tubular and have the bottom sections *c*, *c′* internally threaded at 4 to receive pointed bases 5, 5′ and are internally tapered at the other end 6, 6′ to receive the externally tapered ends 7, 7′ to fit therein of sections *b*, *b′*. Similarly the other sections are tapered to fit one within the other. Caps 10, 10′ are adapted to fit into the top sections *a*, *a′*. Caps 10, 10′ have holes 11, 11′ drilled therethrough for net ropes 12, 12′. Exterior eyes 13, 14 and 13′, 14′ are integral with the cap and are cast on each side of holes 11, 11′. Guy ropes 15, 16 are fastened to eyes 13, 14 and guy ropes 15′, 16′ are fastened to eyes 13′, 14′.

In the modified form the ends of the sections of the supports are upset and threaded. The top 17, 17′ and bottom 18, 18′ of the lower sections *z*, *z′* are internally threaded to receive at one end the bases 19, 19′ and at the other end the externally threaded ends, 20, 20′ of sections *y*, *y′*. Sections *y*, *y′* are likewise internally threaded at their

upper ends 21, 21′ to receive the internally threaded bottom end of sections x, x'. The same caps 10, 10′ can be used.

I propose to form a net of three or more strands preferably four, two strands, 21, 21′ in the vertical plane and two strands 22, 22′ in the horizontal plane, the four strands terminating in single braided ropes 12, 12′ adapted to pass through holes 11, 11′ in caps 10, 10′ and delayed on belaying pins 23, 23′ attached to the supports. I also propose to insert net spreaders 24, 25, 26 to separate and maintain the four strands in their proper relative positions one to the other. These spreaders in the preferred form are two concentric circles in different planes, one in the horizontal and the other in the vertical plane. I propose to fasten the spreaders at convenient locations such as at the center and near the ends in proximity to where the four strands form the single braided or twisted ropes 12, 12′. Holes 27, 27′, 27″ in the rims of the spreaders permit of the fastening of the strands 21, 21′, 22 and 22′ to the spreaders 24, 25, and 26. The spreaders 24, 25 and 26 are grooved around their outside circumference for the strands 21, 21′, 22 and 22′ to lie in. It will be seen that if for any reason the strands should not maintain the same relative tension the one to the other, as for instance where one strand becomes wet, the spreader will be slightly twisted but as the ropes will be maintained in their tangential position and as the diameter of the spreaders remains constant the distance between the strands will remain constant the only difference being that the strands will be tangential to the spreaders at another point. It will also be seen that in case of a displacement of the strands 21, 21′ from the horizontal and strands 22, 22′ from the vertical plane due to a twisting of the ropes 12, 12′, that the apparent visibility and apparent width of the net will be but slightly affected since the decrease in the apparent diameter of the net will be a maximum when the net has twisted 45° and the corresponding apparent diameter will then appear to be the diameter multiplied by cos 22½° or approximately 97% of the diameter, a difference that will be so small as to be negligible.

In the modified form of spreader I provide cross pieces 28, 29, having sectors of a circle 30, 31, 32, 33, at the end of the cross pieces 28, 29. The sectors are grooved to receive the strands 22, 22′, 21, 21′ therein and holes 34 in the rims of the sectors 30, 31, 32 permit of a fastening of the separators to the strands 21, 21′, 22, 22′.

What I claim is:—

1. For the game of ring tennis a net, supports therefor, said net comprising strands, spreaders to separate said strands, said strands terminating at each end into a single rope to be attached to said supports.

2. For the game of ring tennis a net, knock down supports therefor, said net comprising a plurality of strands in different planes, spreaders fastened to said strands to maintain the strands in their relative position to each other, the ends of said strands terminating in a single rope for attachment to the supports.

3. For the game of ring tennis a net, supports therefor, said net comprising strands and terminating at the ends thereof in single ropes for attachment to the supports, spreaders for said net to divide and maintain said strands in two planes, said spreaders having a circular groove therein in contact with said strands.

4. For the game of ring tennis a net, supports therefor, said net comprising four strands, means for maintaining said strands two in one plane and two in another plane at right angles thereof, and means for maintaining the strands in the same plane at the same relative distance apart.

5. For the game of ring tennis a net, supports therefor, said net being formed of ropes terminating in single ropes at each end and means for separating the ropes into different planes to maintain the same apparent visibility when the said strands are under varying tensions.

6. For the game of ring tennis a net, supports therefor, said net formed of strands of rope terminating in a single braid at each end thereof, said strands being in different planes and means to maintain the strands in the aforesaid planes relative to each other to have substantially the same apparent visibility when viewed from any position.

7. For the game of ring tennis a net, supports therefor, spreaders for said net comprising circular portions in tangential contact with the strands of the net.

8. For the game of ring tennis a net, comprising strands in two planes, supports therefor, spreaders for the said strands having circumferential grooves therein to hold said strands in tangential contact with said spreaders and means for securing said spreaders to said strands.

9. For the game of ring tennis a net, supports therefor, said net comprising a plurality of strands, spreaders to separate said strands into different planes, said strands being drawn to a single point at each end for attachment to the supports.

Signed at New York, in the county of New York and State of New York, this 20th day of May A. D. 1922.

FREDERICK L. SAWYER.