

[54] **TETHERED BALL TENNIS INSTRUCTION DEVICE**

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[58] Field of Search **273/26 E, 26 R, 29 A, 29 R, 273/95 A, 97 R, 58 C, 106.5 A; 46/51, 52**

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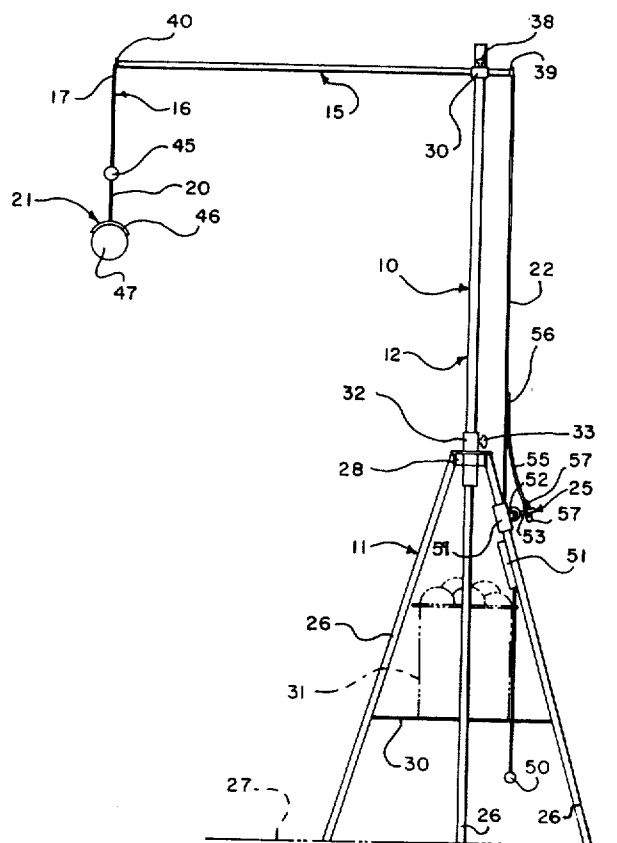
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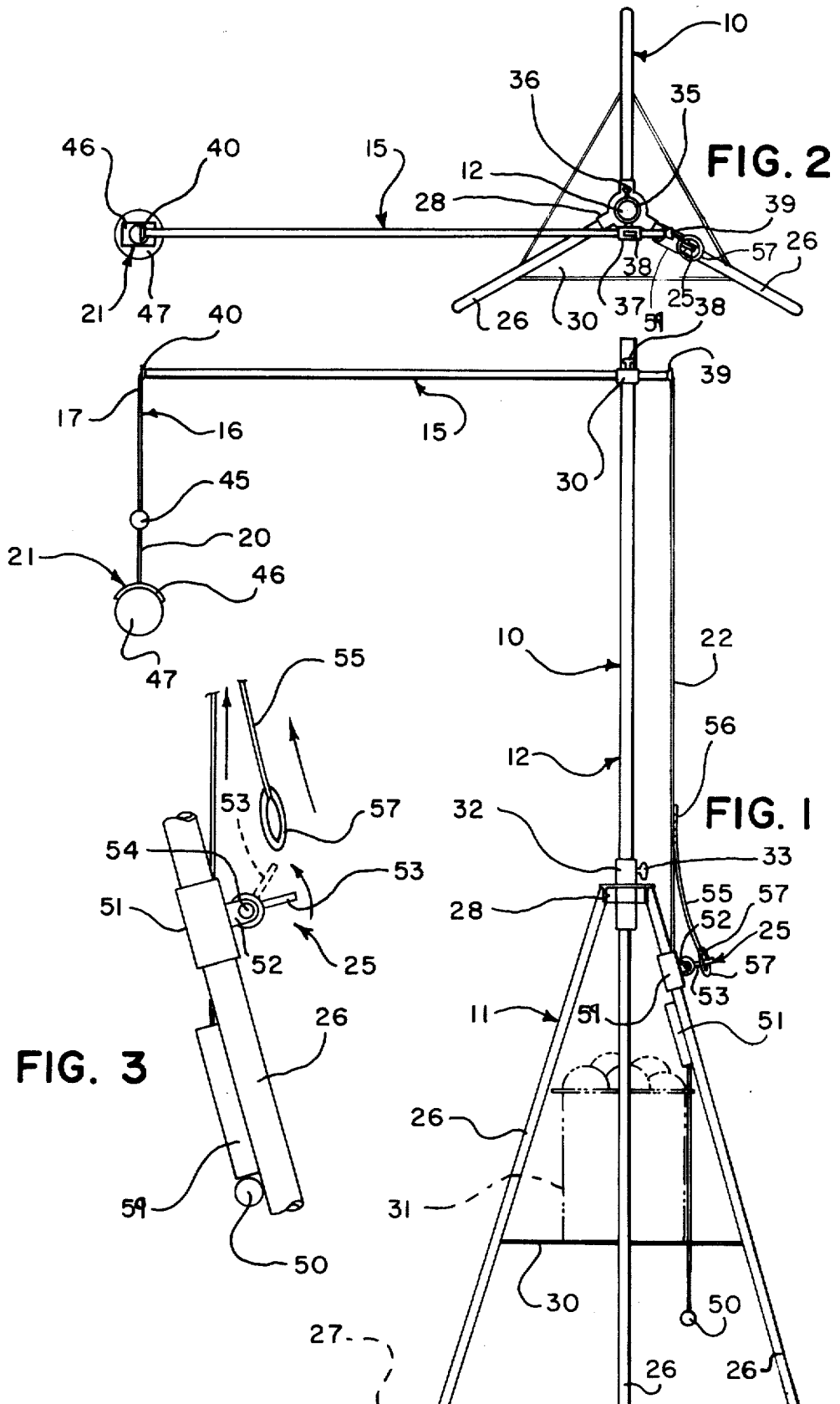
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[57] **ABSTRACT**

A standard having an outstanding arm and a flexible suspension element along the arm and depending from the projecting end of the latter for releasably holding a ball in position to be hit by a racket. The end of the suspension element remote from the end attached to the ball is provided with a loop. A retaining finger is attached to the standard for releasably retaining the loop of the suspension member whereby when the ball is hit the retaining finger will yield to release the loop for allowing the ball retaining end of the suspension element to be lowered.

7 Claims, 3 Drawing Figures





TETHERED BALL TENNIS INSTRUCTION DEVICE

BACKGROUND OF THE INVENTION

While there have, in the past, been provided devices for instruction and practice of tennis, including practice of the serve and other aspects of tennis, the prior devices have not found general acceptance for many reasons. For example, such prior devices have been relatively complex in construction, so as to be costly to manufacture and difficult to operate, say requiring complex adjustment for the practice of a desired shot. Also, in prior devices the ball was usually tethered, and if free presented substantial problems in proper support and release accurately simulating actual tennis play.

SUMMARY OF THE INVENTION

Accordingly, it is an important object of the present invention to provide a tennis instruction device which overcomes the above-mentioned difficulties, is extremely simple in construction and operation, so as to be economical to manufacture and sell, capable of quick and easy adjustment as desired, and wherein the ball being hit is not tethered, but is free and uniquely releasably retained in a collected position to achieve a highly accurate simulation of actual play of the game.

It is another object of the present invention to provide a tennis instruction device of the type described, which has the advantageous characteristics mentioned in the preceding paragraph, and which is readily adapted for manufacture by mass production techniques for achieving considerable savings in cost, and which is staunch, durable and reliable throughout a long useful life.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is an elevational view showing a tennis instruction device constructed in accordance with the teachings of the present invention.

FIG. 2 is a top plan view of the device of FIG. 1.

FIG. 3 is a partial elevational view similar to FIG. 1, but illustrating the manner of release of the suspension element upon racket impact with the ball.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the drawings, and specifically to FIGS. 1 and 2 therefore, an upright support or standard is generally designated 10, and may include a lower part, base or stand 11, and an upright pole or post 12 upstanding from the stand or base.

Carried by the post or pole 12 may be an elongate tubular member or arm 15. A suspension member 16, say including an elongate flexible element or filament 17, say of rope or the like extends along, and advantageously through the tubular member or arm 15, passing outwardly through opposite ends of the latter. The filamentary suspension member 16 has one end region 20

exteriorly of the outer or distal end of arm 15 provided with a releasable ball holder 21.

The other end region 22 of the suspension member 16 extends out of the inner or proximate end of tubular arm 15, and releasable retaining means, generally designated 25 is provided on the suspension member end region 22 and standard 10 for releasably retaining the suspension member in position.

More specifically, the lower support region or base 11 may include a plurality of downwardly divergent legs 26 having their lower ends engageable with a suitable supporting surface or ground 27. The upper ends of the legs 26, being relatively close to each other are connected together by a central connection piece or hub 28 to which the legs may be removably or fixedly secured, as desired.

Intermediate the upper and lower ends of the several legs 26, and extending between the legs, is a generally horizontally disposed support member or platform 30, which may serve advantageously to support a bucket of tennis balls, as shown in phantom in FIG. 1 at 31.

Centrally of the hub 28, there is provided a generally vertically disposed, elongate tubular sleeve or nipple 32, having its opposite ends open and preferably provided with a finger actuable set screw 33 or other suitable releasable and adjustable holding means.

That is, the upstanding pole or post 12 has its lower end region depending into the sleeve 32 for selected vertical positioning of the post. The set screw 33 may be engaged to maintain the desired vertical position of the post.

Circumposed about the post 12, vertically spaced above the sleeve 32, is an annular ring or sleeve 35, also provided with a finger actuable holding means, say a thumb screw 36. The ring or sleeve 35 is thus vertically slidable along the post 12 and selectively positionable therealong by tightening of the screw 36 into setting engagement with the post.

Carried by the ring 35, integral therewith or otherwise suitably fixed thereto, may be a sleeve 37 which has its axis generally horizontal and slidably receives the arm 15. A finger actuable set screw 38 may be threadedly engaged through sleeve 37 for selective holding engagement with the tubular arm 15, to thereby retain the latter at a selected position of its horizontal movement. Further, the tubular arm 15 may be provided on its inner and outer ends with flared regions or flanges 39 and 40, respectively, defining retaining engagements constraining the arm to remain captive within the sleeve 37.

Thus, it will now be apparent that the arm 15 is universally adjustable, being adjustable vertically with the post 12, and relative to the post, as well as being adjustable horizontally by movement relative to its supporting sleeve 37.

The suspension member 16 may be provided on its ballholding end region 20, spaced from the ball holder 21, with an enlargement or stop member 45, as for limiting engagement with the flared arm end 40. The stop member 45 may be a ball having a diameter appreciably larger than that of the arm 15 and its flared end 40, suitably secured to the support member.

At the terminal end region of the support member 16 is located the releasable ball holder 21. Advantageously this releasable ball holder may be defined by a piece or patch of fabric 46 of the type sold under the trademark "Velcro," which is a pile fabric having the

pile loops split or cut for detachable secure fastening to a mating fabric. The releasable ball-holding means 21 will retain a tennis ball 47 in a desired position of elevation against normal abuse, including inadvertent bumping, or the like, by engagement of the velcro against the ball.

The flexible element or line region 22 depending from the inner or proximate end 39 of arm 15 may have its lower end provided with an enlargement or stop member 50, such as a ball, say similar to the ball or enlargement 45. Additionally, the base or stand 11, say one leg 26 may have attached thereto a guide member or tube 51 which slidably receives the suspension member region 22, to slidably pass the latter, while retaining the abutment 50 against passage. Thus, it will be apparent that extension of the suspension member region 20 from the distal end 40 of arm 15 is limited by engagement of the inner end abutment 50 with tubular guide 51, which extension is achieved by weight distribution of the suspension system 16, say by the selected weights of stop members 45 and 50.

The suspension member retaining means 25 may be seen in detail in FIG. 3, as including a mounting member or sleeve 59 suitably fixed to the base 11, as by firm circumposition about on leg 26. The mount may be provided with an outstanding stud or lug 52, and a retainer element or finger 53 carried by the lug 52 and projecting outward therefrom. The retainer finger 53 may be resiliently, yieldably disposed in the outstanding position shown in solid lines in FIGS. 1 and 3, and be resiliently, yieldably swingable to the dotted line position shown in FIG. 3. The retainer element or finger 53 may be resiliently yieldable by suitable spring means, say being rotatable about a pivot 54 and resiliently urged clockwise, or of other suitable construction, say the finger being fabricated of rubber-like material of suitable stiffness.

The retainer means 25 further includes a flexible element or extension 55, say of suitable rope or line joined, as at 56 to the region 22 of suspension member 16, and extending therefrom to a free end provided with an eye or loop 57. The eye or loop 57 is engageable over the yieldable finger or pin 53, as shown in FIG. 1 to retain the distal end of the suspension member 16 and ball 47 in properly elevated and suspended relation. Upon impact with the ball 47 to separate or dislodge the ball from its holder 46, the retainer finger 53 may swing or flex to its phantom position, see FIG. 3, releasing the eye or loop 57 from the finger and permitting gravitational falling of the enlargement 45, together with its suspension member region 20 and ball holder 46 to a lowermost position limited by engagement of the enlargement 50 with the guide 51. In this lowered position of the holder 46, the ball 47 may be replaced and then elevated by replacement of the eye 57 over the outstanding finger 53, all ready for the next cycle of use.

From the foregoing it is seen that the present invention provides a tennis instruction apparatus which is uniquely simple in construction and operation, for manufacture and sale at a reasonable price, serving to facilitate the instruction and practice of tennis play, and which otherwise fully accomplishes its intended objects.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that

certain changes and modifications may be made within the spirit of the invention.

What is claimed is:

1. A tennis instruction device comprising a standard, an arm projecting laterally from said standard, a filamentary suspension member extending along said arm having one end depending freely from the projecting end of said arm and having its other end depending along said standard, a fabric having split pile loops on said one suspension member end for releasable holding engagement with a standard tennis ball, and an elongated suspension member retaining finger attached at one end to said standard and having its free end movable for retaining cooperation with said other suspension member end and selectively releasing the latter to drop said one suspension member end for ball replacement thereon.

2. A tennis instruction device according to claim 1, in combination with adjustable mounting means for adjustably positioning said arm vertically and horizontally relative to said standard.

3. A tennis instruction device according to claim 1, said arm comprising a tubular member slidably receiving said suspension member.

4. A tennis instruction device comprising a standard, an arm projecting laterally from said standard, a filamentary suspension member extending along said arm having one end depending freely from the projecting end of said arm and having its other end depending along said standard, a fabric having split pile loops on said one suspension member end for releasable holding engagement with a standard tennis ball, and suspension member retaining means on said standard for retaining cooperation with said other suspension member end, said suspension member being longitudinally freely movable along said arm and gravitationally urged toward said one suspension member end in the direction against the retaining action of said retaining means, said retaining means comprising forcibly releasable interfitting components mounted on said stand and suspension member remote from said one end of the latter to suspend a ball in hitting position and release said retaining means for gravitational movement of said one suspension member end upon racket impact with the ball.

5. A tennis instruction device according to claim 4, said components comprising a pin projecting from said standard, and an eye on said suspension member circumposed about said pin for resilient deflection of one of said pin and eye upon hitting of the ball and separation of said components.

6. A game instruction device comprising a standard, an arm projecting laterally from said standard, a filamentary suspension member extending along said arm having one end depending freely from the projecting end of said arm and having its other end depending along said standard, releasable ball-holding means on said one suspension member end for releasing a ball upon racket impact with said ball, said suspension member being longitudinally freely movable and gravitationally urged toward said one suspension member end, and releasable suspension member retaining means for retaining said suspension member against gravity, said retaining means comprising forcibly releasable interfitting components mounted on said stand and suspension member remote from said one end of the latter to suspend said ball in hitting position and re-

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lease said retaining means for gravitational movement of said one suspension member end upon racket impact with said ball.

7. A device according to claim 6, said forcibly releasable interfitting components comprising a pin project-

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ing from said standard, and an eye on said suspension member circumposed about said pin for resilient deflection of one of said pin and eye upon hitting of the ball and separation of said components.

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