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(54) **TRAINING DEVICE FOR GYMNASIUM**

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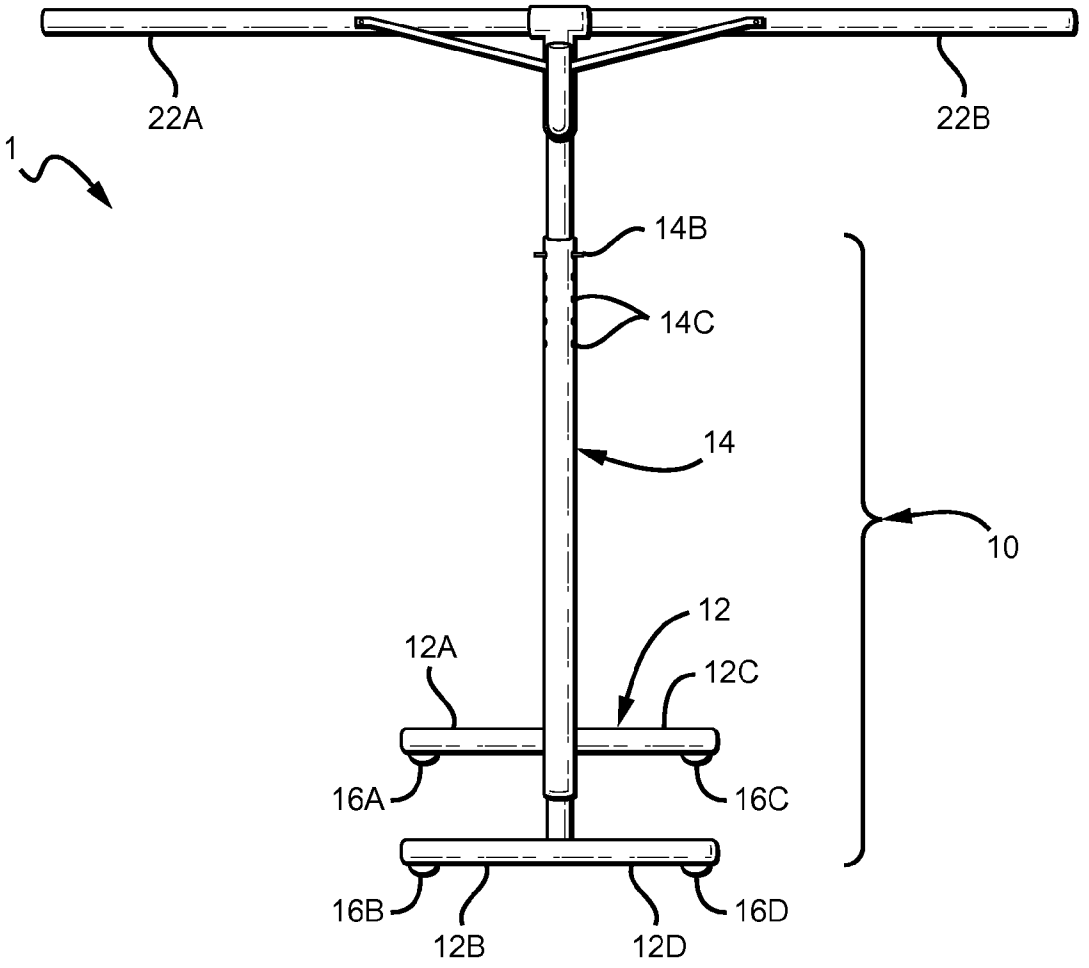
(57) **ABSTRACT**

An apparatus for training basketball players to "stay low" is disclosed. The training device has an outstretched arm under which a basketball player can train to "stay low." In order to not injure the player, the outstretched arm moves if touched. The outstretched arm is able to move independently from the base of the device so that if a player touches the arm, the device does not tip over and fall, or generally move a very large distance that would require repositioning of the device.



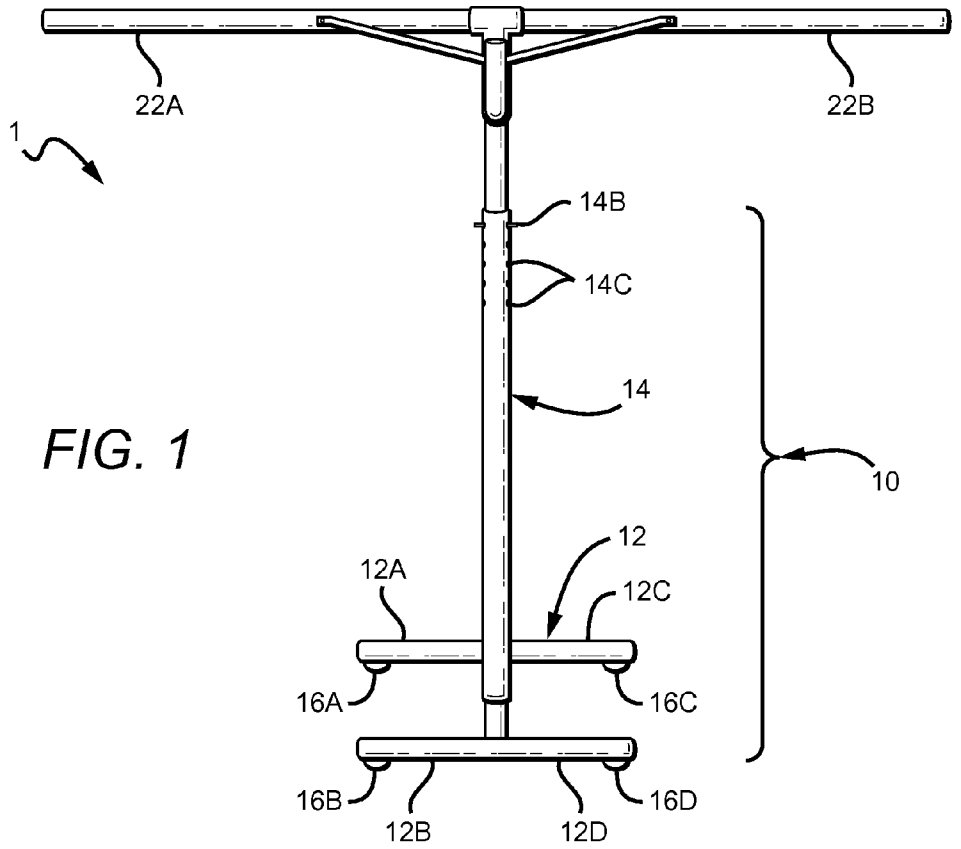

22A
22B
1
14B
14C
14
10
12
12A
12C
16A
16C
16B
16D
12B
12D

FIG. 1

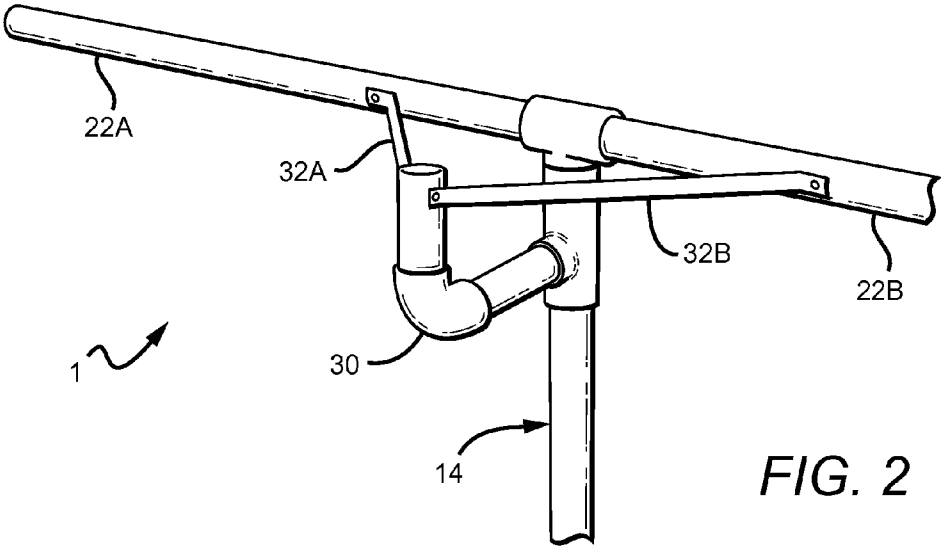

22A
32A
32B
22B
1
30
14

FIG. 2

TRAINING DEVICE FOR GYMNASIUM

[0001] This application claims priority to provisional application Ser. No. 60/795,076 filed on Apr. 25, 2006.

FIELD OF THE INVENTION

[0002] The field of the invention is athletic training devices.

BACKGROUND

[0003] In the game of basketball, players are frequently admonished to "stay low" especially while dribbling, and while picking up the ball for a shot. (See e.g., http://www.angelfire.com/nc/ezyduzits12steptools/cone_weave-.html and http://en.mimi.hu/basketball/ball.html). There and all other extrinsic referenced materials are incorporated herein by reference in their entirety. Where a definition or use of a term in a reference, which is incorporated by reference herein is inconsistent or contrary to the definition of that term provided herein, the definition of that term provided herein applies and the definition of that term in the reference does not apply.

[0004] A similar situation occurs in other sports, and training devices exist that position a bar in a playing field or court at a height below which players must remain. One such device is the Spider Trainer™, in which a bar is supported at its ends by two simple posts. A problem remains, however, in that players that fail to stay under the bar tend to knock down the entire apparatus, rendering it useless until the apparatus is repositioned. That occurrence can stop practice, waste time, and possibly injure the player. As a result, many coaches believe that the use of such an apparatus is not worth the additional trouble. Still further, practice apparatus' such as the Spider Trainer are too bulky to use effectively on a basketball court.

[0005] The obvious solutions are to either weight the legs, or to make them long enough to provide greater resistance to the device being tipped over. But those solutions present their own problems. Weighted legs would make the device cumbersome to move, and longer legs would tend to interfere with the players' movements. Both devices would tend to injure the player more since a stiffer device would not be as forgiving when a player runs into it.

[0006] Thus, there is still a need for a "stay low" training device that is less prone to being knocked down, without causing unnecessary injury to the players or interference with the practice.

SUMMARY OF THE INVENTION

[0007] The present invention provides an apparatus comprising a "stay low" training device with outstretched arms that are mobile relative to the stand while in use. This device comprises a base and movable arm coupled in some manner to the base. The arm is disposed to return to a resting position by a compliance inducing device. All realistic mechanisms of achieving the mobility function are contemplated, including, for example, an arm that pivots with respect to the stand, and an arm that bends with respect to the stand. In preferred embodiments the arm is adapted to return to its original position, as for example using an elastic band or with the arm itself being elastic.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. **1** is a side planar view of an embodiment.

[0009] FIG. **2** is a side perspective view of an embodiment.

DETAILED DESCRIPTION

[0010] In FIGS. **1** and **2** a training device **1** generally includes a stand **10** comprising a base **12** and a post **14**. Coupled to the top of the post **14** are arms **22**A, **22**B, and extending from the post below the arms is a support **30**. Elastic bands **32**A, **32**B are disposed between the support **30** and arms **22**A, **22**B.

[0011] Each part of the embodiment, such as base **12**, post **14**, arms **22**A, **22**B, and the support **30**, can independently be constructed of any suitable material or materials, including for example PVC pipe, wood, and/or metal. These various components can comprise any number of pieces, and can advantageously be user separable for easy storage and setup. The post **14** preferably comprises multiple pieces so that a user can alter the height of the arms **22**A, **22**B above the ground or floor. In preferred embodiments the components are arranged such that the arms are between 3 to 7 feet above the ground or floor, and more preferably no more than 4 feet, no more than 5 feet, no more than 6 feet, or no more than 7 feet above a lower surface of the base. The post **14** preferably comprises telescoping pieces adjusted by inserting a pin **14**B in an appropriate point in one of several holes **14**C. This allows arms **22**A and **22**B to have resting positions of different heights above the floor. The device may have only one arm, two arms as shown, or multiple arms.

[0012] Each of the arms preferably independently extends out from the post **14** between 15" and 40". Support **30** preferably extends between about 5" and 10" from the post **14**, and rises up 4" to 5". All ranges herein are to be interpreted as inclusive of the endpoints, and all distances should be interpreted as approximate.

[0013] In the embodiment shown in FIGS. **1** and **2**, arms **22**A, **22**B swivel about at the top of the post **14**, and are disposed to return to a resting position under the influence of compliance inducing devices. In this embodiment, the compliance inducing devices are the elastic bands **32**A, **32**B. The bands can be any suitable length, and are preferably between about 5"-12" long. The elastic bands allow arms **22**A or **22**B to move when a player bumps into them so as not to injure the player or tip the device over, and also return the moved arm to the resting position. Elastic bands can be replaced or augmented by a spring, or any other suitable compliance inducing device.

[0014] The base **12** is shown in an "H" configuration, but all suitable configurations are contemplated, including for example a star configuration, or a diamond configuration. It is preferable that the ends of the legs **12**A-**12**D of the base **12** do not extend more than about 2 feet from the post **14**, and more preferable extend between 10" and 15". FIG. **1** also shows optional suction cups **16**-**16**D extending from the bottom of the legs, preferably about 1.5" to 3" in diameter, which assist in keeping the device **1** stationary when the arms are struck by a player. In another embodiment, base **12** is a portion of post **14** that inserts into the ground, or a hole

in a basketball court. The base **12** can be attached to the ground in other obvious ways known to people in the art.

[**0015**] All other reasonable configurations consistent with the teachings herein are also contemplated. For example, it is contemplated that one arm can be shorter than the other, or that that device can have fewer or greater than two arms. Where more than one arm is present, they can be disposed at different heights, have different lengths, be painted different colors, operate in different manners from one another, and so forth. Similarly, the arms can be positioned on a slider (not shown) that rides up and down along the post, instead of being situated at the top of the post. Still further, it is contemplated that the device could have more than one post, as for example with two arms extending from one post at a given height, and another one or two arms extending from a different post coupled to the same base.

[**0016**] It should be apparent to those skilled in the art that many more modifications besides those already described are possible without departing from the inventive concepts herein. Moreover, in interpreting the disclosure, all terms should be interpreted in the broadest possible manner consistent with the context. In particular, the terms "comprises" and "comprising" should be interpreted as referring to elements, components, or steps in a non-exclusive manner, indicating that the referenced elements, components, or steps could be present, or utilized, or combined with other elements, components, or steps that are not expressly referenced. Where the specification claims refers to at least one of something selected from the group consisting of A, B, C . . . and N, the text should be interpreted as requiring only one element from the group, not A plus N, or B plus N, etc.

What is claimed is:

1. A "stay low" training apparatus, comprising:

a base;

an arm coupled to the base through a post, the arm disposed to return to a resting position by a compliance inducing device; and

wherein the resting position of the arm is at a height at least three feet above a lower surface of the base.

2. The apparatus of claim 1, wherein the base is sized and dimensioned such that it will not tip over during normal use.

3. The apparatus of claim 2, wherein the base comprises a plurality of support legs.

4. The apparatus of claim 1, wherein the arm can be set to have any of a plurality of resting positions.

5. The apparatus of claim 1, wherein the post comprises telescoping pieces.

6. The apparatus of claim 1, wherein the arm is disposed to swivel around an axis located at the post.

7. The apparatus of claim 1, wherein a resting position of the arm is less than five feet above a lower surface of the base.

8. The apparatus of claim 1, further comprising a second arm.

9. The apparatus of claim 1, wherein the compliance inducing device comprises an elastic member.

10. The apparatus of claim 9, wherein the elastic member is functionally attached to the base is within 15 inches of the post.

11. The apparatus of claim 1, wherein a height of the arm is user adjustable.

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