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(54) **ADJUSTABLE SLOPE SPORTS BACKBOARD TRAINING DEVICE**

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(57)

ABSTRACT

(22) Filed: **Nov. 17, 2015**

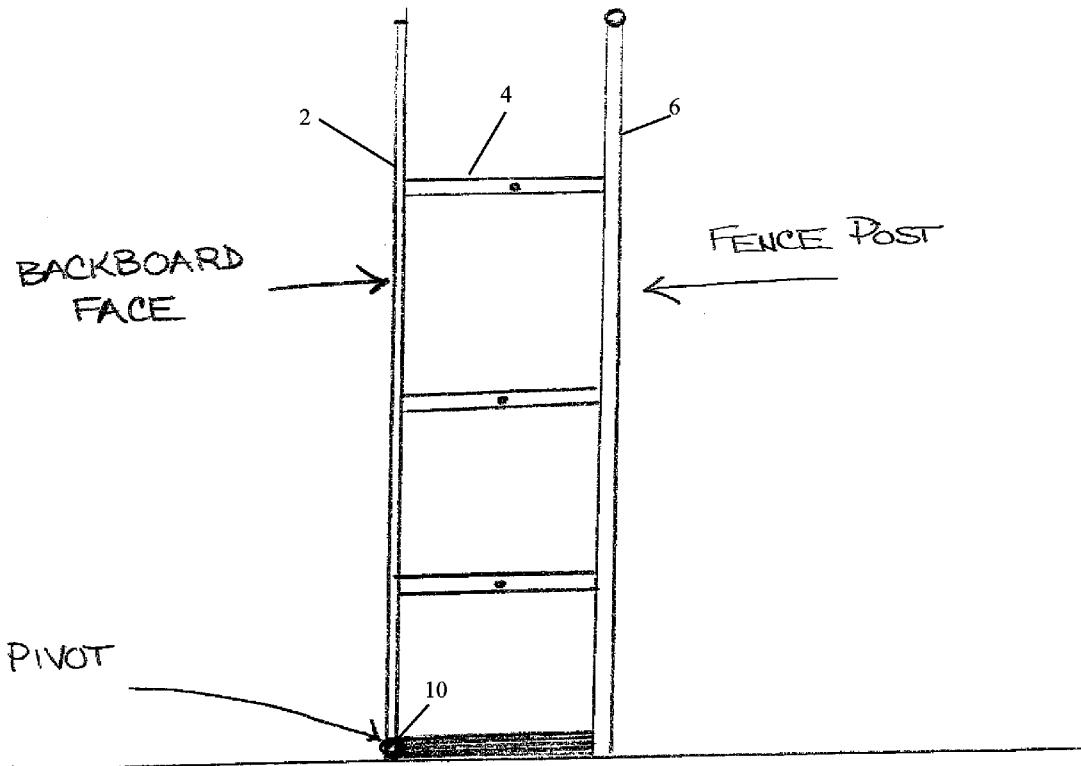
Provided is an adjustable backboard having a mount that allows a user to adjust an angle of the backboard relative to the ground and a method of using the backboard to hit tennis balls. The backboard is constructed and sized to rebound tennis balls.

Related U.S. Application Data

(60) Provisional application No. 62/081,368, filed on Nov. 18, 2014.

SIDE VIEW OF ADJUSTABLE BACKBOARD

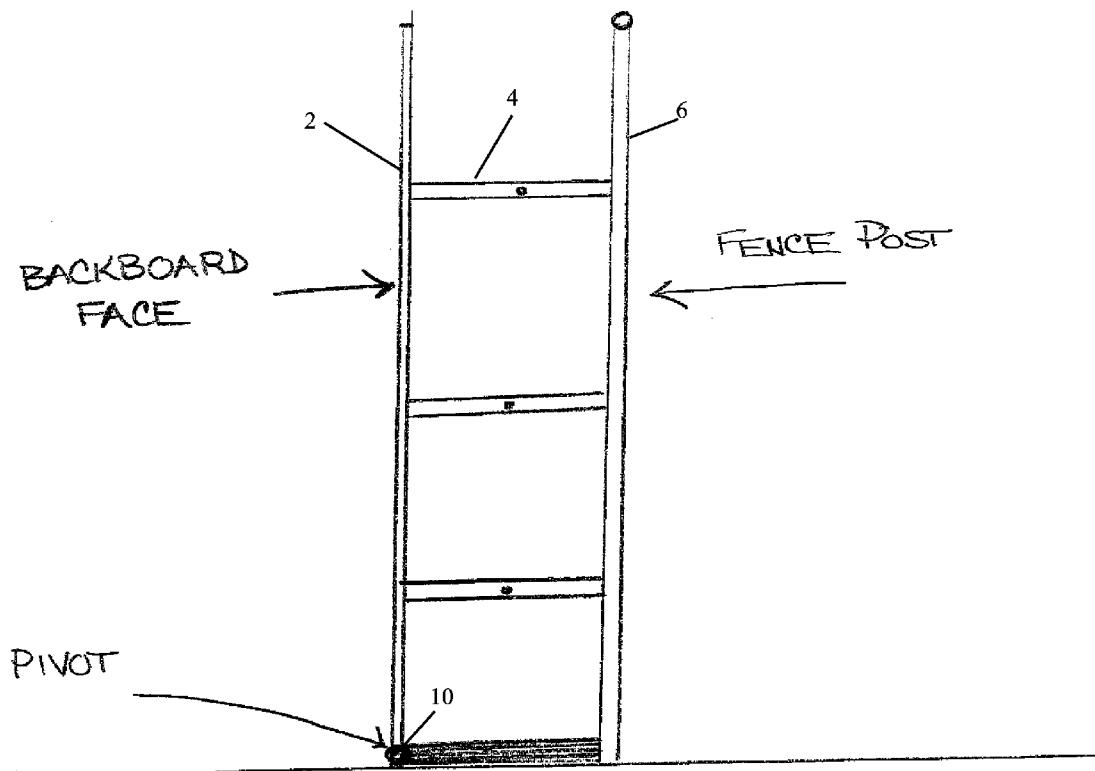
*SCISSOR HINGES
EXTENDED*



SIDE VIEW OF ADJUSTABLE BACKBOARD

Scissor Hinges
EXTENDED

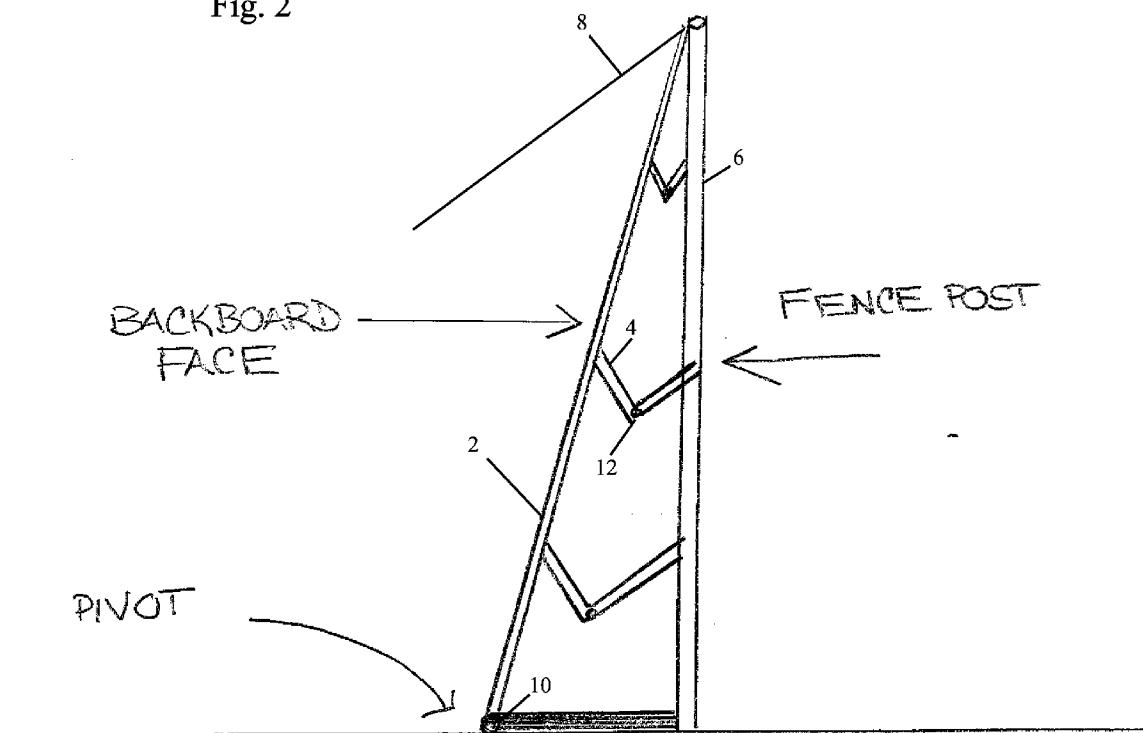
Fig. 1



SIDE VIEW OF ADJUSTABLE BACKBOARD

Scissor Hinges
Folded.

Fig. 2



ADJUSTABLE SLOPE SPORTS BACKBOARD TRAINING DEVICE

FIELD OF THE INVENTION

[0001] This application claims priority to U.S. provisional patent application Ser. No. 62/081,368, filed 18 Nov. 2015, the complete disclosure of which is incorporated herein by reference.

[0002] The invention relates to an adjustable sports backboard, in particular a tennis backboard.

BACKGROUND OF THE INVENTION

[0003] A variety of sports utilize rebound walls ("backboards") to hone sport-specific skills and techniques. Tennis players use backboards to groove strokes, soccer players use them to develop kicking, ball control and defensive skills. Lacrosse players practice shooting technique and ball catching. No matter what the sport, athletes also develop cardio stamina, footwork and positioning skills while practicing on backboards.

[0004] An example of a suitable backboard is shown in my Published U.S. Patent Application Ser. No. 20090139157, published on 4 Jun. 2009, the complete disclosure of which is incorporated herein by reference.

[0005] Essential skills in all such sports involve both projecting a ball (hitting, throwing or kicking) and receiving and controlling balls from different distances, angles of trajectory and varied speeds. Backboard practice is one of the most widely incorporated practice methods in a variety of sports, worldwide.

[0006] Regardless of what material a backboard is made of, there are two basic styles. A Vertically Mounted Backboard ("Vertical") that is erected at an approximate 90 degree angle to the playing surface and a Back-sloped Backboard, ("Back-sloped") which is erected at an angle sloping away from the player at angles typically between 15 and 30 degrees. Both vertical and back-sloped backboards provide essential rebound characteristics required for efficient, all-around skill development.

[0007] Unlike most other sports typically practiced on a backboard, tennis requires that a ball be returned to the opponent's side of the net either before it bounces (a volley) or after one bounce and before a second bounce, a groundstroke. When a player is hitting ground strokes on an actual tennis court, he would receive his opponents shot after one bounce, approximately thirty six feet from the net. A player does receive/hit balls while closer to the net but most shots are hit from the baseline area. No matter how hard a tennis ball is hit against any type of vertical backboard, the ball will usually rebound and take its first bounce at a spot that is about half as deep as a typical return in an actual tennis match. This makes ground stroke practice on a vertical backboard less than ideal because it requires a player to stand much closer to the backboard to hit the ball on one bounce than the player would stand on an actual tennis court in relation to the net. The short, flat ball trajectory off a vertical backboard is particularly troublesome for beginner players because they lack the basic racket and positioning skills to react to the quicker ball rebound and likewise are forced to learn to hit groundstrokes at a position that is too close to the net.

[0008] On the other hand, a vertical backboard is superior for volley drills where the inherent, flatter, shorter rebound characteristics duplicates the actual flight of a ball that is

ideally volleyed, (hit before it strikes the ground) or via a half volley, (played on a short hop). Moreover, side-to-side practice drills, that simulate close-to-net play and develop hand-eye coordination, footwork, proper racket and body positioning, muscle-memory and cardio endurance are best accomplished on a vertical backboard. Similarly, close-order soccer, basketball and lacrosse practice is best performed on a vertical backboard for the same reasons.

[0009] Practice on a back-sloped backboard, sloped away from the player between 5 and 30 degrees or more, provides a deeper, more lofted return that is ideal for realistic ground stroke practice. Additionally, the slower rebound speed allows a player, especially beginners to concentrate on stroke technique without having to cope with the much-faster and shorter rebound of a vertical backboard. These same characteristics are helpful in other sports training where ball trajectories vary as in soccer and lacrosse.

[0010] Prior to the subject invention, one had to choose between a vertical backboard or a back-sloped backboard. Given the pros and cons of each type of backboard, one always had to make a sacrifice in choosing one over another.

[0011] The fact that backboards are used to practice a variety of different skills, some suited to a vertical backboard and others to a back-sloped backboard, made choosing very difficult for players, facility owners and tennis instructors.

[0012] In order to provide a backboard that allowed all-around practice of all types of shots for beginner to expert players, one would need both a vertical and a back-sloped backboard. In most cases either the actual cost of the backboards or the cost of building the additional court space required for two types of backboards was prohibitive.

SUMMARY OF THE INVENTION

[0013] The subject invention provides for an adjustable backboard that allows a player to use the product in a vertical or back-sloped configuration.

[0014] Objectives of the invention can be provided by an adjustable backboard comprising:

[0015] a backboard constructed and sized to rebound tennis balls for practicing tennis shots; and

[0016] an adjustable mount constructed to adjust an angle of the backboard relative to the ground.

[0017] Objectives of the invention are also obtained by a method of practicing tennis comprising the steps of:

[0018] adjusting an angle of the adjustable backboard; and

[0019] hitting tennis balls at the backboard so that the tennis balls rebound off of the backboard

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. 1 illustrates an adjustable backboard in a non-sloped position extended.

[0021] FIG. 2 illustrates an adjustable backboard in a sloped position.

DETAILED DESCRIPTION OF INVENTION

[0022] The invention will be explained with reference to the attached non-limiting Figs.

[0023] A player may practice volley drills on a vertical backboard 2 as shown in FIG. 1 and then easily adjust the same backboard 2 to a back sloped angle as shown in FIG. 2 to facilitate better ground stroke practice. The backboard 2 can be adjusted from the vertical plane (FIG. 1) to a back-sloped plane (FIG. 2) either manually by folding the scissor

hinges **4** and pushing on the face of the backboard **2** causing the top to angle back and lean on the fence post **6** or other support. The backboard **2** can be returned to the vertical plane by pulling on a rope **8** that is affixed to the top of the backboard **2**. Likewise, the backboard **2** can be equipped with an electro-mechanical apparatus, a hand crank set up, piston jack crank and or electro hydraulic, compressed air, or piston assist devices as desired. The backboard **2** includes a pivot **10** at the bottom of the backboard **2**.

[0024] Backboards for tennis practice are now well known in the art. Any desired backboard can be modified by using an adjustable mount as described herein. The backboard should be sized for practicing tennis shots. An example of a suitable size for practicing tennis shots is a minimum of 12 feet of width×8 feet of height for an intermediate to advanced player. Backboards designed for use by beginners or by multiple players at once, should be made considerably wider with a minimum of 16 feet of width per player. The wider and higher the backboard the better regardless of skill level.

[0025] The position of the backboard **2** can be locked into a preferred angle by management with simple padlocks **12** on the scissor hinge **4** or by mechanical means **12**.

[0026] It is to be understood that the foregoing illustrative embodiments have been provided merely for the purpose of explanation and are in no way to be construed as limiting of the invention. Words used herein are words of description and illustration, rather than words of limitation. In addition, the advantages and objectives described herein may not be realized by each and every embodiment practicing the present invention. Further, although the invention has been described herein with reference to particular structure, s and/or embodi-

ments, the invention is not intended to be limited to the particulars disclosed herein. Rather, the invention extends to all functionally equivalent structures, methods and uses, such as are within the scope of the appended claims. Those skilled in the art, having the benefit of the teachings of this specification, may affect numerous modifications thereto and changes may be made without departing from the scope and spirit of the invention.

1. An adjustable backboard comprising:
a backboard constructed and sized to rebound tennis balls
for practicing tennis shots; and
an adjustable mount constructed to adjust an angle of the
backboard relative to the ground.
2. The adjustable backboard according to claim 1, wherein
the mount comprises scissor hinges.
3. The adjustable backboard according to claim 1, wherein
the adjustable mount is constructed to mount to a fence post.
4. The adjustable backboard according to claim 3, wherein
the adjustable mount is mounted to the fence post.
5. The adjustable backboard according to claim 1, wherein
the adjustable mount is constructed so that the backboard can
be secured in a vertical position and positions between verti-
cal and horizontal.
6. A method of practicing tennis comprising the steps of:
adjusting an angle of the adjustable backboard according to
claim 1 and securing the backboard in a desired position
from vertical to horizontal using the adjustable mount;
and
hitting tennis balls at the backboard so that the tennis balls
rebound off of the backboard.

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