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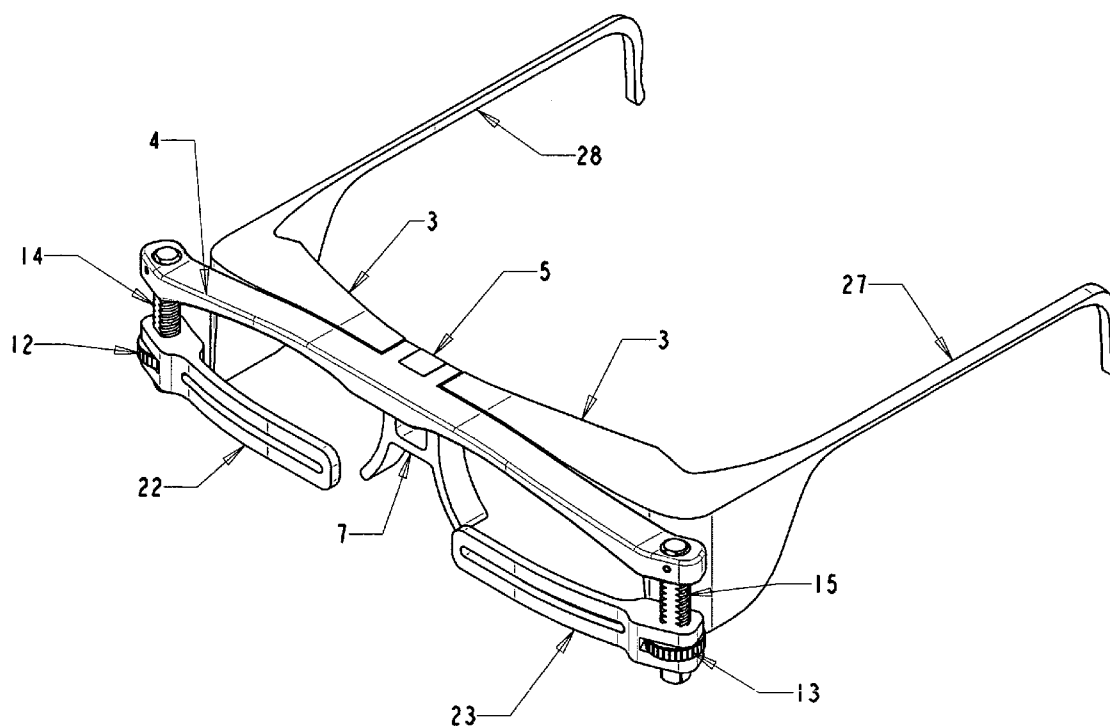
(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0293332 A1****Cranston et al.**(43) **Pub. Date: Dec. 20, 2007**(54) **GOLF TRAINING CLASSES**(52) **U.S. Cl.** ..... **473/208; 473/274**(76) Inventors: **Tim Cranston**, Halifax (CA); **Bill Martin**, Halifax (CA)(57) **ABSTRACT**

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Golf training glasses to assist a golfer's swing and ball connection comprising an inner (base) frame and an outer frame without lenses. The outer frame has separate sight-guides for each eye that are connected to threaded guide posts on the left and right sides of the frame and are designed as hollowed rectangles with the upper and lower ridges creating an optical viewing channel. This channel acts as a pathway to frame in the golf ball, the golf club and the hole enabling a golfer to align and strike the ball in a straight path to the hole from back-swing to follow-through. The sight-guides critically adjust up and down the guide posts independently of each other by tracking wheels on each post to accommodate for the inter-pupillary distance or pupil height which is different for each eye of each golfer. The outer frame is attached to the base frame by a hinged clip and can be flipped up or detached from the base frame entirely when not in use.

(21) Appl. No.: **11/808,784**(22) Filed: **Jun. 13, 2007**(30) **Foreign Application Priority Data**

Jun. 19, 2006 (CA) ..... 2,552,993

**Publication Classification**(51) **Int. Cl.**  
**A63B 69/36** (2006.01)

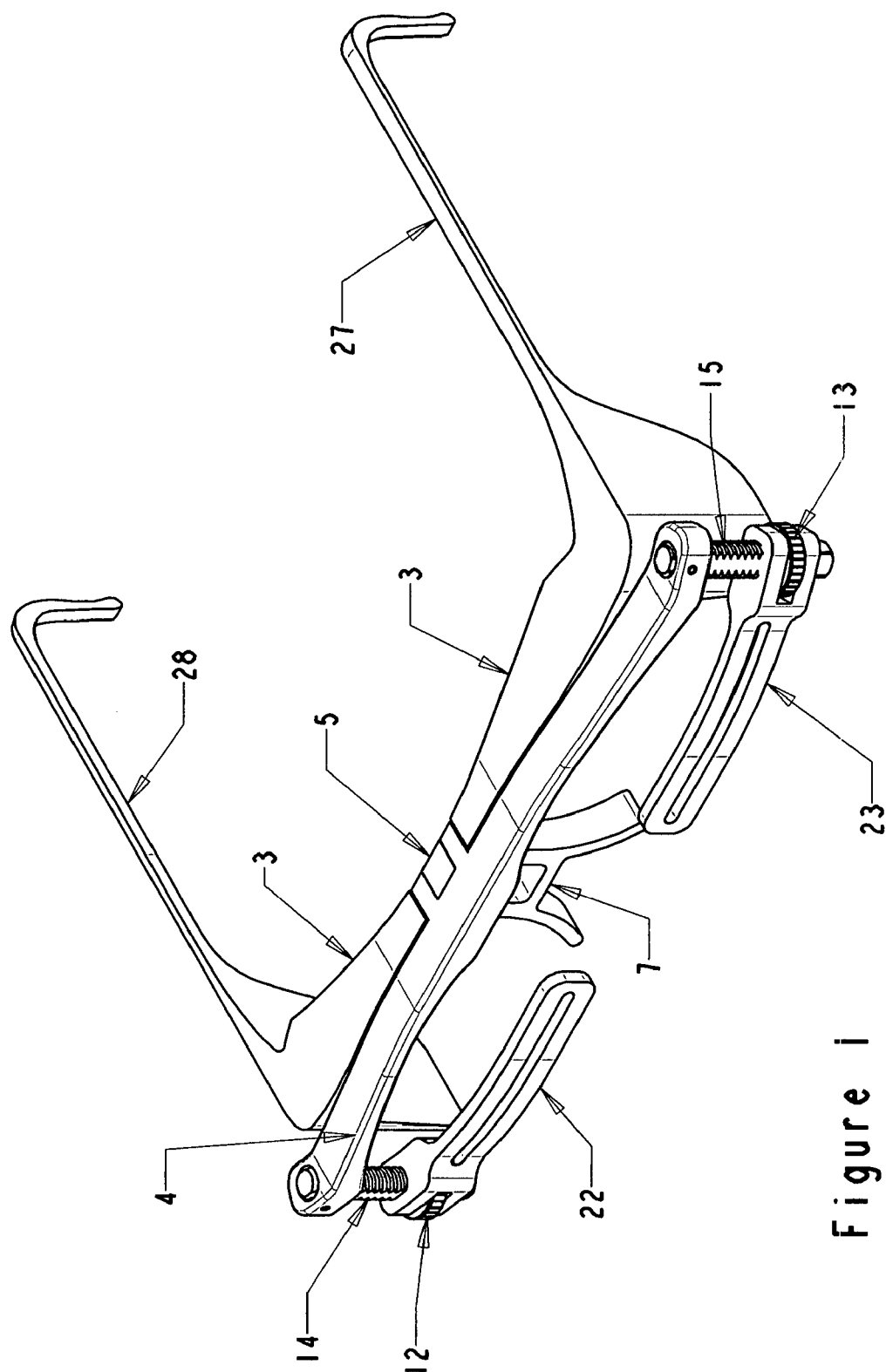


Figure 1

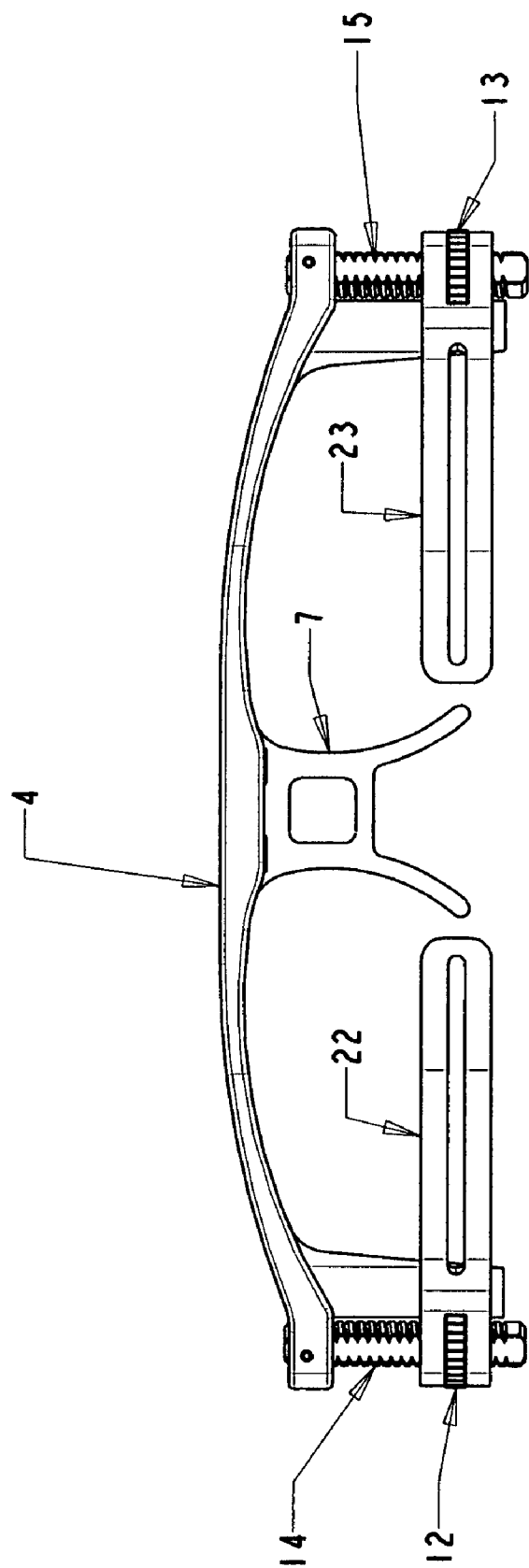


Figure 2

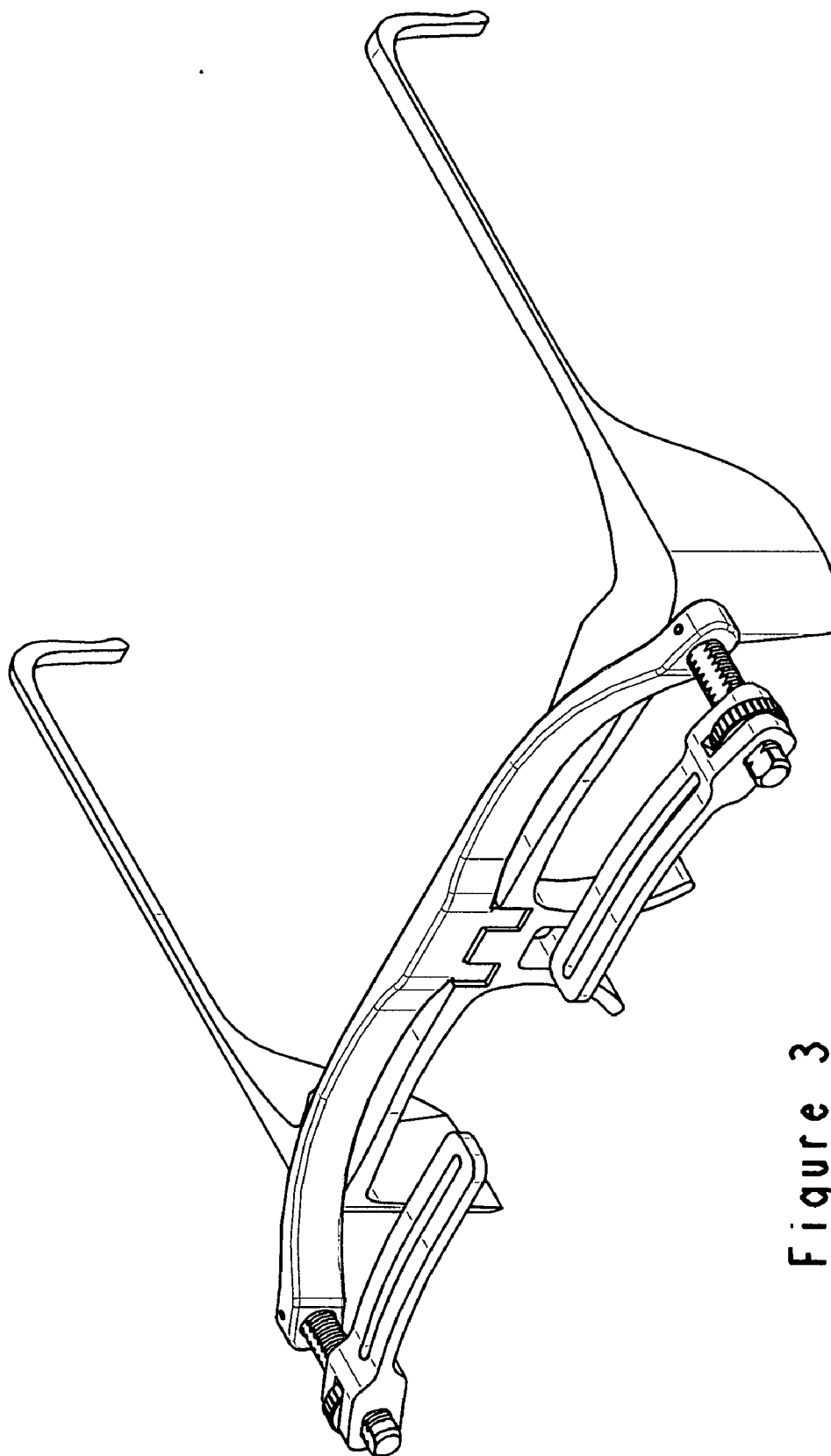


Figure 3

## GOLF TRAINING CLASSES

[0001] The applicants and co-inventors, Tim Cranston and Bill Martin, are both residents and citizens of Canada who seek to claim the benefit of the filing date of a prior filed international copending nonprovisional application the details of which are as follows: the foreign country filed in is Canada; the foreign application number is 2,552,993; the foreign filing date is Jun. 19, 2006; the relationship to this application is that it is made by the same applicants and inventors as named above.

[0002] The applicants/inventors request the grant of a Nonprovisional Utility Patent for an invention, entitled Golf Training Glasses, which is described and claimed in the accompanying specification documents. The applicants are the sole inventors and own the whole interest in the invention.

[0003] The correspondence address for the applicants/inventors is 5537 Hennessey Place, Halifax, Nova Scotia, B3K2A7, Canada.

[0004] The applicants/inventors claim small entity status as per 37 CFR 1.27.

## BACKGROUND TO THE INVENTION

### [0005] 1. Field of the Invention

[0006] The present invention relates in general to golf swing aids, and more particularly to golf training glasses. These are particularly designed to improve a golfer's putting stroke and golfer's swing.

### [0007] 2. Background Art

[0008] Devices to help golfers improve their swing and ball connection have been in the planning and development stages for years but with only limited success. In particular many of these devices have taken the form of spectacles or glasses to be worn by a golfer.

[0009] These glasses or spectacles are generally designed to minimize head movement during the swinging of a golf club, provide a shot line, or a combination of both. However existing designs have only achieved limited success in terms of functionality and use due to the fact the inter-pupillary distance or PD height (ie the distance between the centre of the pupils), which is different for each end-user, was not taken into consideration and accommodated for.

[0010] For instance, each of Fabanich, U.S. Pat. No. 991,849, Palumbo, U.S. Pat. No. 3,264,002 and McMurdo, U.S. Pat. No. 2,009,700 are directed to eye glasses for use as training devices having one or more horizontal lines extending across at least a portion of the lenses for defining a visual path from the ball to the hole. Fabanich further includes a small gap in one of the horizontal lines in which to locate the ball, and a sight guide which may be adjusted between positions closer to and farther from a golfer's eye.

[0011] In contrast Palumbo includes an extension bar which attaches to the frame of a pair of glasses for visual alignment of the ball with a target.

[0012] Other prior art golf training glasses include Engesser, U.S. Pat. No. 3,487,549, Underhill, II, U.S. Pat. No. 3,871,104, Krupicka, U.S. Pat. No. 4,251,107 and Griffith, U.S. Pat. No. 5,489,953, disclose eyeglasses having

one or more horizontal lines extending across at least a portion of the one of the lenses, and one or more vertical elements positioned proximate the horizontal lines in at least one lens. The combination of the vertical and horizontal elements allows alignment of a target, such as a ball, in the cross hairs. Further, the vertical portion may function to help a golfer align a golf club such as a putter, while the horizontal line may provide a guide for the ball path.

[0013] Another prior art golf swing training glasses is Anthony Basil McMahon U.S. Pat. No. 6,558,266. His golf training glasses use a frame, a pair of lenses associated with the frame, and a sight guide associated with each lens. The sight guide includes an upper guide bar and a lower guide bar. The upper and lower guide bars extend from the right side of the lens, to the left side of the lens, the upper guide bar is separated at least partially from the lower guide bar to form a shot pathway between the upper and lower guide bars. The upper and lower guide bars partially merge into one on the right and left sides of the lenses to form a shot pathway to focus a shot line for the golfer. Additionally the sight guide further includes a ball placement locator for positioning the shot pathway, and a foot placement guide to help align a golfer's stance with the ball, the shot pathway and the club path. However the sight guides and/or guide bars are permanent features and are not adjustable up and down vertically to take account of different PD heights for each golfer's which is critically important.

[0014] As stated above these and other prior art devices have only worked in a limited manner, due to the fact the PD height of each user was not taken into consideration or accommodated for. It is therefore desirable to provide an improved pair of truly functional golf training glasses to help shave strokes of a golfer's game. In particular, while prior devices have provided cross hairs for location of a ball and a horizontal line to assist in locating a ball path, none of these prior art references have provided a method by which a golfer can adjust the PD line for both the right and left eye separately and independent of each other. On the other hand, our design and device allows the sight guides to adjust up and down independently to account for different PD heights of each end-user.

[0015] Framing the in the pupil of each eye according to PD heights of each eye of different end-users (golfers) will align both eyes properly and thereby form a truer shot pathway. This function is critical (and the essential distinction of our invention from all other previously granted patents and known golf swing aid devices which makes it unique and novel) because each user has a different PD height and by being able to adjust the sight guides up and down vertically this helps to frame the pathway for each golfer as the PD is different for each user.

## BRIEF SUMMARY OF THE INVENTION

[0016] The present invention is directed to golf training glasses that help assist a golfer's swing; mainly in the putting stroke. The golf glasses will have two frames (an inner and outer), but there will be no need for lenses. The inner frame with its features will act as a base or support frame for the outer frame which with its features will act as an eye gauge.

[0017] The eye gauge will have two separate sight guides, one for the left eye focus and one for the right eye focus,

running horizontally across the view plane from left to right and right to left respectively towards the nose area. Each sight guide will be designed as hollowed rectangles or cylinders and thus will have an upper ridge and a lower ridge separated by a hollowed area of at least three millimeters to form a middle sight line or channel or pathway between the upper and lower ridges.

[0018] In a preferred embodiment the sight guides will have a middle opening or hallowed area of at least three millimeters wide. A middle sight line or channel or pathway will be formed between the upper and lower ridges. When looked through this opening or hallowed area will act as an eye sight line or channel or pathway for the golfer to focus on the ball, club and hole. This will allow the putter to follow back in a straight line and then forward in a straight line.

[0019] The sight guides will separately have the ability to be adjusted up and down vertically by various mechanisms including but not limited to a threaded post and tracking wheel. Each guide will be able to be move and be adjusted independently from the other on its own track. The reason each track moves on its own is because both eyes are different heights and each pupil has its own PD line (interpupillary distance). By moving each guide independently you can create a depth perception that is catered to each eye individually.

[0020] The sight guides can be adjusted and move freely vertically by various mechanisms including a threaded screw posts and tracking wheel system. Rotation of the tracking wheel will allow each sight guide to move up and down in slow increments to help you line each eye up so that they are looking through the middle of the slot. This helps in creating binocular vision, so that each eye works together to create one sister line to take the putter back in a smooth stroke and on a straight plane.

[0021] If the golfer so desires the outer frame or sight gauge will have the ability to flip up and out of the out of the golfer's field of vision when the device is not being used or detached completely by means of a male/female hinged clip on the brow of the inner and outer support frame.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0022] FIG. 1: illustrates a front angle elevational view of an embodiment of the device depicting the inner or base or support frame and its features and the outer frame or eye gauge and its features.

[0023] FIG. 2: illustrates a front view of an embodiment of the device depicting the outer frame or eye gauge separate from the inner base or support frame with the exception of the nose bridge.

[0024] FIG. 3: illustrates a front angle elevational view of an embodiment of the device depicting the outer frame or eye gauge and its features as flipped up from the inner base or support frame by means of a hinged (male/female) clip.

#### DETAILED DESCRIPTION OF THE INVENTION

[0025] While this invention is susceptible of the embodiment in many forms, they are shown in the drawings and will be described in detail in several specific embodiments with the understanding that the present disclosure is to be con-

sidered as an exemplification of the principles of the invention, and is not intended to limit the invention to the embodiments illustrated.

[0026] For example the sight guides 22 & 23 can be adjusted up and down to account for different PD heights of end-users by means of a mechanism system which includes, but is not limited to, a threaded guide post or screw 14 & 15 and a tracking wheel 12 & 13. This system could be changed by having 12 & 13 placed on top of 14 & 15 respectively and thereby having the ability to adjust 22 & 23 up and down from the top of the outer frame. Another mechanism system could include a slider track with an indexed notched locking or ratchet system and various other systems to adjust the sight guides up and down.

[0027] There is shown in FIG. 1 a total view of the putting glasses in it's entirety. It comprises an outer frame 4 which is the embodiment of the putting sight gauge device or device which is attached or clipped to an inner base or sub frame 3 by virtue of a hinged clip 5 which holds the device onto the frame 3. The hinged clip 5 also allows the sight gauge to be flipped up or detached from the base frame entirely when not in use.

[0028] On the base frame 3, we have 27 & 28 which are the support arms, left and right side respectively, to hold the device onto the wearers head. Arms 27 & 28 connect to 3 at a hinge, such that the arms can fold inwardly for storage of glasses as is standard.

[0029] We also have 4 attached to 3 by 5. Moreover, we also have 22 which is the right-side sight guide for the right eye. This is attached to 4 by 14 which is the threaded guide post or screw that lets 22 move up and down 14 by turning 12 which is the tracking wheel that moves 22 to the frame in the pupil of the right eye.

[0030] Also we have 23 which is the left-side sight guide for the left eye. This is attached to 4 by 15 which is the screw or threaded guide post that lets 23 move up an down 15 by turning 13 which is the tracking wheel that moves 23 to frame in the pupil of the left eye.

[0031] Also we have 7 which is the bridge support that helps hold the inner base frame 3 onto the nose of the wearer.

[0032] The present invention dramatically improves all prior golf swing aid devices by providing a sighting aid for the golfer. This device, in particular the sight guides 22 & 23 when properly adjusted to account for different PD heights of end-users (golfers), can be used to align both eyes along an optical sight line or viewing channel which allows the putter/club, ball and hole to be framed in together enabling the golfer to take the putter/club back in a straight line and forward in the same true line to make a good fluid stroke and connection on the golf ball and send it to the hole on the green.

[0033] FIG. 2 shows a front view of the outer frame or sight gauge device 4 in its entirety as detached from the inner or base frame. Essentially this is the embodiment of the putting device. As you can see there are no lenses used in this device, whereas all prior devices needed lenses to support their system or allow it to function.

[0034] Sight guide 22 is the sight guide for the right eye which has the open slot channel to frame in the putter/club, ball and hole. The sight guide 22 moves up and down along

**14** which is the screw or threaded guide post that allows **22** to be adjusted by being turned by **12** which is the tracking wheel that makes **22** move up and down along **14**. This allows **22** to be adjusted to get the correct height to frame in the pupil for the right eye.

[0035] Sight guide **23** is the sight guide for the left eye which has the open slot channel to frame in the putter/club, ball and hole. **23** moves up and down along **15** which is the screw or threaded guide post that allows **23** to be adjusted by being turned by **13** which is the tracking wheel that makes **23** move up and down along **15**. This allows **23** to be adjusted to get the right height to frame in the pupil for the left eye.

[0036] FIG. 3 shows that the device can be flipped up and out of the way of the end-user's field of vision if desired by means of a hinged (male/female) clip.

What is claimed is:

1. A visual swing aid to be worn by a golfer on the head comprising of an inner base or sub frame which, with its features, functions as a support for an attachable outer frame; and an attachable outer frame which, with its features, functions as an adjustable sight gauge. Neither frame has actual lenses.

2. The swing according to claim 1 wherein neither frame has actual lenses.

3. The swing aid according to claim 1 wherein the features of the inner base or sub frame include: a brow bar which is the main support of the other features; and two arms or temples to be worn on the golfer's head around the ears; and a left arm for the left ear; a right arm for the right ear; and a bridge to be worn on the golfer's nose to support the frame; and a male attachment clip located at the center of the brow bar to allow the female attachment clip of the outer frame (sight gauge) to be connected.

4. The swing aid according to claim 1 wherein the features of the outer frame or sight gauge include: a brow bar which is the main support of the other features; and two separate sight guides, one on the left side for the left eye focus and one on the right side for the right eye focus; and two separate screws or threaded guide posts, one on the left side and one on the right side, which support and allow the attachment of the left-side and right-side sight guides respectively to the frame; and separate tracking wheels built into each sight guide which, when turned, allow the sight guides to move up and down vertically on the corresponding screw or threaded post; and a female attachment clip located at the center of the brow bar which allows the outer frame (sight gauge) to be connected to the inner base or sub frame's male attachment clip.

5. The swing aid according to claim 4 wherein the sight guides are designed to be hollowed rectangles situated on a horizontal plane across the golfer's field of vision towards the golfer's nose. The left-side sight guide runs across from left to right towards the nose; the right-side sight guide runs across from right to left towards the nose.

6. The swing aid according to claim 5 wherein the upper and lower ridges of the hollowed rectangle sight guides create a viewing line or sight line or viewing channel between the two ridges.

7. The swing aid according to claim 6 wherein the viewing channel acts as a shot pathway helping to frame in the golf ball, the golf putter/club and the hole so that the golfer is

able to take the putter/club back in a straight line from back-swing to follow-through and strike the ball in a straight path to the hole.

8. The swing aid according to claim 4 wherein the sight guides can be adjusted up and down by means of a mechanism system which includes, but is not limited to, a threaded guide post or screw and a tracking wheel.

9. The swing aid according to claim 8 wherein the purpose of having separate adjustable sight guides for each eye is to account for the inter-pupillary distance or PD height (ie the distance between the centre of the pupils) of each end-user (golfer) which allows both eyes to be aligned. Allowing PD heights to be adjusted for each eye of each end-user will properly align both eyes along a single optical shot pathway.

10. The swing aid according to claim 9 wherein the ability to account for different PD heights of individual end-users (golfers) by means of an adjustable mechanism system is a critical function and the essential distinction between our device and all other known golf swing aid devices and systems.

11. The swing aid according to claim 7 wherein the only way to truly make the viewing channel function properly is to align both eyes by adjusting the PD line for different end-user (golfer) by moving each sight guide up and down the guide posts independently of each other to frame in both the right eye and the left eye separately. By doing this you will be able to focus on the ball, putter/club back-swing and hole at the same time thereby facilitating a smoother stroke on a straight path.

12. The swing aid according to claim 10 wherein the mechanism system includes any adjustable system whereby the inter-pupillary distance or PD height of an end-user (golfer) is taken into consideration and accommodated for.

13. The swing aid according to claim 10 wherein examples of other adjustable mechanism systems include, but are not limited to: the use of a slider track, instead of screws or threaded guide posts, with an indexed notched locking or ratchet system, whereby the sight guides can be moved up and down on the track; another adjustable mechanism system to accommodate for the PD height of individual end-users (golfers) would be a shutter system, without the use of separate sight guides, whereby an upper shutter could be pulled down and a lower shutter pulled up from a lens-less eye-frame whereby the bottom and top of the shutters would form the viewing channel or sight line; and another system would be to take the tracking wheel and threaded guide post system but have the tracking wheel located at the top of the post rather than built-in to the sight guide itself.

14. The swing aid according to claim 4 wherein the sight guides have a built-in tracking wheel which allow the sight guides to be adjusted up and down on the screw or threaded guide posts. Together, the tracking wheel and the guide posts operate as a mechanism system whereby the sight guide can be adjusted up and down.

15. The swing aid according to claim 4 wherein the sight guides, including upper and lower guide ridges, are oriented substantially horizontal.

16. The swing aid according to claim 4 wherein the upper and lower bars are able to move up and down vertically.

17. The swing aid according to claim 2 wherein the upper and lower guide bars will be attached to two vertical posts.

18. The swing aid according to claim 4 wherein the two vertical guide bars will have a ratcheting mechanism on one side to move the horizontal bars up and down.

19. The swing aid according to claim 8 wherein the ratcheting mechanisms will work independent of each other, so as to be able to make a channel to align both eyes so that they can look through the channel to make their sight line to move the golf club in a straight line.

20. The swing aid according to claim 4 wherein this device will be attached to the inner frame by a male/female clip or hinge that is located on the bridges of the inner and outer frames.

21. The swing aid according to claim 4 wherein the bridge of the outer frame will have a hinge clip that will be able to move the sight gauge out of the way by flipping them up out of the golfer's field of vision when the device is not being used or detached completely.

22. The swing aid according to claim 1 wherein the inner frame will consist mainly of a bridge, two temple arms to

hold the frame onto the head of the wearer and a female hinged clip to allow attachment of the outer frame.

23. The swing aid according to claim 9 wherein the PD is the measurement between the height of the pupils in both eyes and therefore a critical measurement since the height of both eyes differs in most people.

24. A swing aid according to claim 1 wherein the device comprises: an inner base or support frame to be worn on the head; and an outer frame or sight gauge with two adjustable horizontal sight guides attached to two vertical guide posts; and the sight guides can be adjusted up and down by a mechanism; and the sight gauge can be flipped up out of the golfer's field of vision when the device is not being used or detached completely; and no lenses associated with the device although a separate a pair of sunglasses may be clipped onto the outer frame if desired.

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