The present invention relates to an eye alignment apparatus for golf practice. The eye alignment apparatus of the present invention comprises at least one eye leading means and a supporting means. The eye leading means allows a user to view a golf ball placed on the floor through each of sighting holes having different shapes or a straight sighting bar. In particular, the eye leading means is formed with a detachable fastening portion at an end thereof. Further, the supporting means is fixed to a support at an end thereof and formed with a fastening portion, which can be detachably mounted to any one of the eye leading means, at the other end thereof. The eye leading means and the supporting means may be detachably mounted to each other through a variety of fastening structures.
Fig 6

(a)

(b) Allowable range of sight movement

(c)
Fig 10

Fig 11
EYE ALIGNMENT APPARATUS FOR GOLF PRACTICE

CROSS-REFERENCE TO RELATED APPLICATION(S)


[0002] 1. Field of the Invention

[0003] The present invention relates to an eye alignment apparatus for golf practice, and more particularly, to an eye alignment apparatus wherein when a user practices playing golf, the apparatus allows the user to fix his/her eyes onto a golf ball placed on the floor such that his/her golf swing posture can be corrected.

[0004] 2. Description of the Prior Art

[0005] As golf has become popular, a number of apparatuses capable of allowing a golfer to simply practice playing the golf have been developed. Most of these apparatuses aim to correct golfer's swing posture. A method of aligning one's eye with a golf ball placed on the floor during the golf swing is preferably used to correct golf swing posture, and an apparatus for correcting the golf swing posture is also disclosed. An example of such an apparatus is disclosed in Korean Utility Model Registration No. 20-2004-0000374 filed on Jan. 7, 2004. As shown in FIG. 1, the apparatus for controlling the position of the golf ball is used to swing a golf club while viewing a golf ball 3 through a sighting hole 2-1 after setting the position of the golf ball onto the ground using a laser illuminated on the position.

[0006] However, there is a problem in that such related art apparatuses cannot be properly applied to a variety of golf practice environments, because they include only a single fixed sighting hole 2-1. That is, a variety of golf clubs are used in playing golf, and desired golf swing posture of the user also varies according to the kind of golf clubs used and exercise circumstances encountered. Accordingly, the range of sight of the user and the shape of the sighting holes should be changed such that the user can swing the golf club without changing one's golf swing posture. Since the prior art cannot be properly adjusted accordingly, there is a problem in that the user cannot practice golf in accordance with variance in the kind of golf clubs used and exercise circumstances encountered.

SUMMARY OF THE INVENTION

[0007] Accordingly, the present invention is conceived to solve the aforementioned problems. It is an object of the present invention to provide an eye alignment apparatus for golf practice capable of allowing a golfer to conveniently select an eye leading means in accordance with the kind of golf clubs used and exercise circumstances encountered such that his/her golf swing posture can be efficiently corrected.

[0008] To achieve the above object of the present invention, there is provided an eye alignment apparatus for golf practice which comprises a plurality of eye leading means and a supporting means.

[0009] The eye leading means according to a first embodiment of the present invention allows the golfer to view a golf ball placed on the floor through a sighting hole having a different shape according to modules. Another eye leading means according to a second embodiment of the present invention allows the golfer to align his/her eye with the golf ball placed on the floor through a straight sighting bar. These eye leading means are formed with a first detachable fastening portion at an end thereof.

[0010] A supporting means is fixed to a support at an end thereof and formed with a second fastening portion, which can be detachably mounted to any one of the eye leading means, at the other end thereof.

[0011] Preferably, the first fastening portion of the eye leading means and the second fastening portion of the supporting means may be configured in the form of a variety of fastening structures such as plunger, screw, and magnetic types. Further, the supporting means may be configured in various manners such that the golfer can easily adjust the angle and position of the sighting holes.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The above and other objects and features of the present invention will become apparent from the following description of preferred embodiments given in conjunction with the accompanying drawings, in which:

[0013] FIG. 1 is a view schematically illustrating a related art eye alignment apparatus for golf practice;

[0014] FIG. 2 is a view showing an eye alignment apparatus for golf practice according to a first embodiment of the present invention;

[0015] FIG. 3 is a view showing the eye alignment apparatus to which a plunger-type fastening structure is applied according to a first embodiment of the present invention;

[0016] FIG. 4 is a view showing the eye alignment apparatus to which a screw-type fastening structure is applied according to a first embodiment of the present invention;

[0017] FIG. 5 is a view showing the eye alignment apparatus to which a magnetic fastening structure is applied according to a first embodiment of the present invention;

[0018] FIG. 6 is a view schematically illustrating an allowed range of sight movement in the eye alignment apparatus according to the first embodiment of the present invention;

[0019] FIG. 7 is a view schematically illustrating the operation of an adjustable supporting means according to the first embodiment of the present invention;

[0020] FIG. 8 shows another example of the adjustable supporting means according to the first embodiment of the present invention;

[0021] FIG. 9 is a view schematically illustrating a second embodiment of an eye alignment apparatus for golf practice in which a sighting bar is employed;

[0022] FIG. 10 is a view showing the eye alignment apparatus for golf practice according to the second embodiment of the present invention;
FIG. 11 is a view showing the eye alignment apparatus to which a plunger-type fastening structure is applied according to the second embodiment of the present invention;

FIG. 12 is a view showing the eye alignment apparatus to which a screw-type fastening structure is applied according to the second embodiment of the present invention;

FIG. 13 is a view showing the eye alignment apparatus to which a magnetic fastening structure is applied according to the second embodiment of the present invention;

FIG. 14 is a view schematically illustrating the operation of an adjustable supporting means according to the second embodiment of the present invention; and

FIG. 15 shows another example of the adjustable supporting means according to the second embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Hereinafter, preferred embodiments of the present invention will be described in detail with reference to the accompanying drawings.

FIG. 2 is a view of an eye alignment apparatus for golf practice according to a first embodiment of the present invention. A support 13 is a component for supporting a supporting means 14 and can be configured in a variety of shapes. An end of the supporting means 14 is fixed to the support 13.

The other end of the supporting means 14 is provided with a second fastening portion 15 such that it can be coupled with or separated from an eye leading means 11.

The eye leading means 11 is composed of a plurality of pieces having sighting holes different from one another. A user can practice playing golf after selecting the desired piece of eye leading means and mounting the selected piece to the second fastening portion 15 in accordance with the current exercise circumstance.

Each of the eye leading means is provided with a specific one of sighting holes 11-1, 11-3 and 11-5 which are different from one another in view of their shapes. In such a state, a user who practices playing golf practices swinging a golf club while viewing a golf ball placed on the floor through the sighting hole 11-1, 11-3 or 11-5. Further, the eye leading means 11 is formed with a first detachable fastening portion 11-2, 11-4 or 11-6 at an end thereof so that it can be coupled with or separated from the second fastening portion 15. That is, since the first fastening portion 11-2, 11-4 or 11-6 of each eye leading means 11 is selectively mounted to the second fastening portion 15, it should be configured in the same manner as the others.

The first fastening portion 11-2, 11-4 or 11-6 provided at each eye leading means and the second fastening portion 15 provided at the supporting means may have any fastening structures for allowing the user to conveniently couple or separate the eye leading means 11 with or from the supporting means 14.

An example of the eye alignment apparatus for golf practice in which the fastening structure is configured in the form of a plunger will be described with reference to FIG. 3.

The first fastening portion 11-2 is provided with a plunger 30 which is generally composed of a spring accommodating portion 32 and a protrusion 31 for receiving an elastic force from the spring 33. The protrusion 31 is configured in such a manner that it is caught in the spring accommodating portion 32 and does not rush out from the spring accommodating portion by means of the elastic force of the spring 33.

The second fastening portion 15 is formed with an insertion slot 15-1 which the first fastening portion 11-2 can be inserted in or taken out from and a protrusion accommodation hole 15-2 in which the protrusion 31 of the plunger can be accommodated. Accordingly, when the first fastening portion 11-2 is inserted in the insertion slot 15-1, the protrusion 31 of the plunger is inserted in a protrusion accommodation hole 51-2 and fixedly mounted to the second fastening portion 15. If the user wishes to remove the eye leading means from the supporting means 14, he/she can do so by merely pushing the protrusion 31 inserted in the protrusion accommodation hole 15-2.

FIG. 4 shows another example of the eye alignment apparatus for golf practice in which the fastening structure is configured in the form of a screw. The first and second fastening portions 11-2 and 15 are configured in the form of male and female screws, respectively, such that the user can selectively attach or detach a desired eye leading means to or from the supporting means.

FIG. 5 shows a further example of the eye alignment apparatus for golf practice to which a magnetic fastening structure is applied. The second fastening portion 15 is provided with a magnet 15-3, and the first fastening portion 11-2 is provided with a metal plate 11-3 capable of detachably mounting to the magnet. Therefore, the user can easily detach the eye leading means to the supporting means in such a manner that the metal plate is mounted to or detached from the magnet. On the other hand, the first fastening portion 11-2 may be provided with the magnet and the second fastening portion 15 may be provided with the metal plate.

The examples shown in FIGS. 3 to 5 are merely used to illustrate the roles of the first and second fastening portions 11-2 and 15, and thus, it is apparent that they can be configured in the form of any fastening structure.

As explained above, a user who wishes to practice playing golf can selectively mount a desired eye leading means to the supporting means in accordance with his/her own exercise circumstances. That is, since the allowed range of sight movement is changed according to the selected eye leading means as shown in FIG. 6, it is possible to practice playing golf in accordance with the kind of golf clubs used and the exercise circumstances encountered. For example, in order to perform golf swing practice in which eye movement should be kept at a specific point, the user will select and use the eye leading means with a circular sighting hole as shown in FIG. 6(a). Furthermore, in order to perform golf swing practice in which sight movement is allowed more widely, the user will select and use the eye leading means with an elongated sighting hole as shown in FIG. 6(b) or (c).
As shown in FIG. 7, the supporting means 14 is also preferably configured in such a manner that the angle and position of the sighting hole can be easily changed to allow the supporting means to be properly employed in accordance with the stature of the user and the exercise circumstances.

That is, even though the eye leading means is properly used in accordance with the current exercise circumstances, the viewing angle itself can be changed. In such a case, therefore, the supporting means 14 can be bent and then aligned to a desired viewing angle.

To this end, the supporting means 14 can be made of a flexible material that the user can easily bend. At this time, the supporting means 14 should have such sufficient supporting force that it can be deformed into any shape due to external force and can be kept at its current state and also hold the eye leading means 11 when the external force is not applied thereto.

Alternatively, the supporting means 14 may be configured to include one or more joints such that it can be easily bent at portions where the joints are placed. Since the joints can be easily made using known conventional technologies, detailed descriptions thereof will be omitted herein.

Another example of the supporting means 14 will be specifically explained with reference to FIG. 8.

The body of supporting means 14-1 is composed of a plurality of sections of which diameters are gradually reduced in such a manner that each of the sections is slid into the adjacent section and the length of the supporting means can be adjusted accordingly. That is, the supporting means may have the same configuration as a general automotive antenna. At this time, the second fastening portion 15 and the supporting means 14 are preferably configured to be pivoted with the supporting means 14 at opposite ends 14-2 and 14-3 such that their rotating actions and angular positions of the supporting means 14 and the second fastening portion 15 can be freely adjusted in both horizontal and vertical directions.

From the foregoing, examples of the eye leading means having a specific shape of sighting hole such as a circle or an ellipse have been described. However, a main objective of the eye leading means is to help a user to fix his/her eye to a golf ball placed on the floor even while the user swings the golf club. Therefore, the eye leading means may be configured in various manners, so long as it can be used to achieve the above objective.

Hereinafter, a second embodiment of an eye alignment apparatus according to the present invention in which an eye leading means is configured in the form of a straight sighting bar will be described in detail with reference to FIGS. 9 to 15.

Referring to FIG. 9, a user views a golf ball 3 through an eye leading means configured in the form of a straight sighting bar 4. More specifically, the user can view the golf ball 3 with reference to the sighting bar 4, as illustrated further in a circle. It is not preferred that eyes are deviated in a vertical direction when the user practices swinging a golf club. That is, since the user views the golf ball 3 with reference to the sighting bar 4, he/she can easily recognize that his/her eyes have been deviated along the vertical direction during the swing.

This first embodiment is different from the first embodiment in that the eye of the user can be guided or aligned by using the sighting bar 4 instead of the sighting hole.

Referring to FIG. 10, the support 13 is a component for holding the supporting means and may be configured in any shape. That is, an end of the supporting means 14 is fixed to the support 13, and the second fastening portion 15 to which the eye leading means 50 can be detachably mounted is formed at the other end of the supporting means 14. Further, the eye leading means 50 includes a straight sighting bar 52 and a first fastening portion 51 formed at an end thereof. The straight sighting bar 52 is used to allow a user who practices golf to align his/her eyes with a golf ball placed on the floor.

The first and second fastening portions 51 and 15, which are provided at the eye leading means 50 and the supporting means 14, respectively, may be configured to have any type of fastening structures for allowing the user to detachably mount the eye leading means 50 to the supporting means 14 in a convenient manner.

An example of the eye alignment apparatus for golf practice in which the fastening structure is configured in the form of a plunger will be described with reference to FIG. 11.

The first fastening portion 51 is provided with a plunger 30 which is generally composed of a spring accommodating portion 32 for accommodating a spring 33 therein and a protrusion 31 for receiving an elastic force from the spring 33. The protrusion 31 is configured in such a manner that it is caught in the spring accommodating portion 32 and does not rotate out from the spring accommodating portion by means of the elastic force of the spring 33.

The second fastening portion 15 is formed with an insertion slot 15-1 which the first fastening portion 51 can be inserted in or taken out from and a protrusion accommodation hole 51-2 in which the protrusion 31 of the plunger can be accommodated. Accordingly, when the first fastening portion 51 is inserted in the insertion slot 15-1, the protrusion 31 of the plunger is inserted in a protrusion accommodation hole 51-2 and fixedly mounted to the second fastening portion 15. If the user wishes to remove the eye leading means from the supporting means 14, he/she can do so by merely pushing the protrusion 31 inserted in the protrusion accommodating hole 15-2.

FIG. 12 shows another example of the eye alignment apparatus for golf practice in which the fastening structure is configured in the form of a screw. The first and second fastening portions 51 and 15 are configured in the form of male and female screws, respectively, such that the user can selectively attach or detach a desired eye leading means to or from the supporting means.

FIG. 13 shows a further example of the eye alignment apparatus for golf practice to which a magnetic fastening structure is applied. The second fastening portion 15 is provided with a magnet 15-3, the first fastening portion 51 is provided with a metal plate 53 capable of detachably mounting to the magnet. Therefore, the user can easily and
detachably mount the any one of the eye leading means to the supporting means in such a manner that the metal plate is mounted to or detached from the magnet. On the other hand, the first fastening portion 51 may be provided with the magnet and the second fastening portion 15 may be provided with the metal plate.

[0058] The examples shown in FIGS. 11 to 13 are merely used to illustrate the roles of the first and second fastening portions 51 and 15, and thus, it is apparent that they can be configured in the form of any fastening structure.

[0059] As shown in FIG. 14, the supporting means 14 is also preferably configured in such a manner that the angle and position of the sighting hole can be easily changed to allow the supporting means to be properly employed in accordance with the stature of the user and the exercise circumstances.

[0060] That is, even though the eye leading means is properly used in accordance with the current exercise circumstances, the viewing angle itself can be changed. In such a case, therefore, the supporting means 14 can be bent and then aligned to a desired viewing angle.

[0061] To this end, the supporting means 14 can be made of a flexible material that the user can easily bend. At this time, the supporting means 14 should have such sufficient supporting force that it can be deformed into any shape due to external force and can be kept at its current state and also hold the eye leading means 50 when the external force is not applied thereto.

[0062] Alternatively, the supporting means 14 may be configured to include one or more joints such that it can be easily bent at portions where the joints are placed. Since the joints can be easily made using known conventional technologies, detailed descriptions thereof will be omitted herein.

[0063] Another example of the supporting means 14 will be specifically explained with reference to FIG. 15.

[0064] The body of supporting means 14-1 is composed of a plurality of sections of which diameters are gradually reduced in such a manner that each of the sections is slid into the adjacent section and the length of the supporting means can be adjusted accordingly. That is, the supporting means may have the same configuration as a general automotive antenna. At this time, the second fastening portion 15 and the support 13 are preferably configured to be pivoted with the supporting means 14 at opposite ends 14-2 and 14-3 such that their rotating actions and angular positions of the supporting means 14 and the second fastening portion 15 can be freely adjusted in both horizontal and vertical directions.

[0065] According to the present invention, since the eye leading means can be easily exchanged, a user can voluntarily adjust the size of the sighting hole through which he/she views a golf ball placed on the floor. Further, since a sighting bar can be utilized if necessary, user’s eyes can be aligned or fixed properly in accordance with the kind of golf clubs used or exercise circumstances encountered, and more efficient golf practice can be performed accordingly.

[0066] Although the present invention has been described in connection with the embodiments of the present invention illustrated in the accompanying drawings, it is not limited thereto. It will be apparent to those skilled in the art that various modifications and changes may be made thereto without departing from the technical scope and spirit of the invention.

What is claimed is:

1. An eye alignment apparatus for golf practice, comprising:
   a plurality of eye leading means each of which is formed with a first detachable fastening portion at an end thereof and is formed with a different kind of sighting hole such that a user who practices playing golf can view a golf ball placed on the floor through the sighting hole;
   a support; and
   a supporting means fixed to the support at an end thereof and formed with a second fastening portion at another end thereof, said second fastening portion being detachably mounted to the first fastening portion of any one of the eye leading means.

2. The apparatus as claimed in claim 1, wherein the first fastening portion is provided with an elastically sliding plunger at a side thereof, and the second fastening portion accommodates the plunger in a state where the first fastening portion is inserted in the second fastening portion.

3. The apparatus as claimed in claim 1, wherein one of the first and second fastening portions is configured in the form of a male screw, and the other is configured in the form of a female screw.

4. The apparatus as claimed in claim 1, wherein one of the first and second fastening portions includes a magnet and the other includes a metallic material that can be stuck to the magnet.

5. The apparatus as claimed in claim 1, wherein the supporting means is made of a flexible material that can be easily transformed into a variety of shapes due to an external force or can be kept at its current state when the external force is not applied thereto, and the supporting means has a supporting force sufficient to hold the eye leading means.

6. The apparatus as claimed in claim 1, wherein the supporting means includes one or more joints such that the supporting means can be bent at positions where the joints are placed.

7. The apparatus as claimed in claim 1, wherein the supporting means is composed of a plurality of sections of which diameters are gradually reduced and each of which is slid into an adjacent section to adjust the length of the supporting means.

8. The apparatus as claimed in claim 7, wherein both ends of the supporting means are pivotally coupled with the support and the second fastening portion, respectively.

9. An eye alignment apparatus for golf practice, comprising:
   an eye leading means provided with a straight sighting bar for allowing a user who practices playing golf to align his/her eyes with a golf ball placed on the floor and formed with a first detachable fastening portion at an end thereof;
   a support; and
   a supporting means fixed to the support at an end thereof and formed with a second fastening portion at another end thereof, said second fastening portion being
detachably mounted to the first fastening portion of any one of the eye leading means.

10. The apparatus as claimed in claim 9, wherein the first fastening portion is provided with an elastically sliding plunger at a side thereof, and the second fastening portion accommodates the plunger in a state where the first fastening portion is inserted in the second fastening portion.

11. The apparatus as claimed in claim 9, wherein one of the first and second fastening portions is configured in the form of a male screw, and the other is configured in the form of a female screw.

12. The apparatus as claimed in claim 9, wherein one of the first and second fastening portions includes a magnet and the other includes a metallic material that can be stuck to the magnet.

13. The apparatus as claimed in claim 9, wherein the supporting means is made of a flexible material that can be easily transformed into a variety of shapes due to an external force or can be kept at a current state when the external force is not applied thereto, and the supporting means has a supporting force sufficient to hold the eye leading means.

14. The apparatus as claimed in claim 9, wherein the supporting means includes one or more joints such that the supporting means can be bent at positions where the joints are placed.

15. The apparatus as claimed in claim 9, wherein the supporting means is composed of a plurality of sections of which diameters are gradually reduced and each of which is slid into an adjacent section to adjust the length of the supporting means.

16. The apparatus as claimed in claim 15, wherein both ends of the supporting means are pivotally coupled with the support and the second fastening portion, respectively.

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