

**(12) PATENT**  
**(19) AUSTRALIAN PATENT OFFICE**

**(11) Application No. AU 199715078 B2**  
**(10) Patent No. 724631**

(54) Title  
**A golf stroke trainer**

(51)<sup>6</sup> International Patent Classification(s)  
**A63B 069/36**

(21) Application No: **199715078** (22) Application Date: **1997.03.05**

(30) Priority Data

(31) Number (32) Date (33) Country  
**PNB463 1996.03.05 AU**

(43) Publication Date : **1997.09.11**  
(43) Publication Journal Date : **1997.09.11**  
(44) Accepted Journal Date : **2000.09.28**

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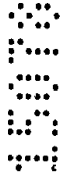
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(56) Related Art  
**US 5050885**  
**DE 19630820**  
**US 5221089**

**ABSTRACT**

A golf stroke trainer having elastic straps to be attached to a forward leg of a golfer and a locating guide for the leg and back part of the hip of a golfer so that during a stroke, the golfer will be given assistance to develop a muscle  
5 memory to ensure appropriate swivelling of the hips during a golf stroke.



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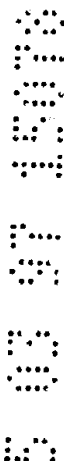
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Regulation 3.2

AUSTRALIA  
Patents Act 1990

## COMPLETE SPECIFICATION

FOR A STANDARD PATENT

ORIGINAL



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**Invention Title:**

A GOLF STROKE TRAINER

**Details of Associated Provisional Application:**

PN8463 dated 5th March 1996

**The following statement is a full description of this invention,  
including the best method of performing it known to me:**

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This invention relates to a golf stroke trainer and to a method of assisting golfers with their swing.

It is known that during a golf down swing one of the important techniques involves ensuring that the hips of the golfer turn before the rest of the body.

5 At the present time, this can be verbally explained and attempts by a learner can be made to practise this technique under the guidance of the professional trainer but in practise it is very difficult to achieve.

The problem to which this invention is directed is to propose apparatus which is of assistance for the training of a golfer and which at the same time can be  
10 economically manufactured and is effective in use.

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According to one form of this invention then this resides in a golf stoke trainer including a hip locater supported to be to one side of a player when standing in a selected position, and means adopted to engage the player through engagement with an upper part of the leg of the player with pressure applying means to effect  
15 pressure to pull the said other side of the player backward during an initial part of a golf swing by the player so that in conjunction with the hip locater, the hips of the player can be urged to rotate at the beginning of the golf down swing.

20

In preference but not essentially there is proposed a golf stroke trainer including a stand on which a player is to stand when making a golf stroke involving a swing, a hip locater positioned to be to one side of a player and behind a front alignment of the player when standing in a selected position on the stand, and, at the other side of the player, means to engage the other side of the hip of the player either directly or through engagement with the top of the leg of the player with pressure applying means to effect pressure to pull the said other side of the hip of the player  
25 backward during an initial part of a golf swing so that in conjunction with the hip locater, the hips of the player are urged to rotate at the beginning of the golf down swing.

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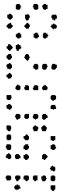
In preference, the stand, the hip locater and the pressure applying means are joined together as a single unit.



In preference, the hip locator is a plate positioned so as to allow for the hip of the player to be positioned by being held against this and allowing the hip to move and in fact rotate relative to this plate during the down swing.

5 According to an alternate form of this invention there is proposed a golf stroke trainer including a hip locator positioned to be to one side of a player and behind a front alignment of the player when standing in a selected position and, at the other side of the player, means to engage the other side of the hip of the player either directly or through engagement with the top of the leg of the player and pressure applying means to effect pressure to pull the said other side of the hip of the  
10 player backward during an initial part of a golf swing so that in conjunction with the hip locator, the hips of the player are urged to rotate at the beginning of the golf down swing.

The hip locator and the means to engage the hip may be adapted to be fixed in a location on the ground such as by having a spike for each of these which can be  
15 pushed into the ground.



The invention will be better understood when described with reference to a preferred embodiment which shall be described with the assistance of drawings in which

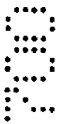


FIG 1 is a perspective view of a first embodiment according to this invention,

20 FIG 2 is the same embodiment as in FIG 1 viewed from a different position,



FIGS 3 through 10 are a sequence of action shots using the embodiment as shown in FIGS 1 and 2 wherein a player is located in the apparatus as shown in FIGS 3 and 7 for the initial address of the ball,

FIGS 4 and 8 show the player in the position of maximum back swing,

25 FIGS 5 and 9 show the position at the instant of striking the ball,

FIGS 6 and 10 show the position of the player with maximum follow through, and

FIG 11 is a sketch of the apparatus particularly showing details of the straps by which the player is attached to the apparatus.



Referring in detail to the drawings, and in particular to FIGS 1, 2 and 11, there is shown a golf stroke trainer 1 which includes a stand 2 on which a player will stand when making a golf stroke involving a swing. A hip locater 3 which comprises a plate 4 comprised of two leaves 5 and 6 which are folded out about an approximately vertical axis so that the two leaves form between them and include an angle of approximately  $25^{\circ}$ . The plate 4 is supported by rod 7 which is secured to the stand 2 so that the rod 7 projects upwardly and is positioned so as to provide support at an appropriate location for the player of the plate 4 and as well locating knee locater 8. This location is to one side of a player and behind a front alignment of a player.

Extending as a continuous rod from the plate 4 down to the stand 2 and then across, the rod 7 then projects upwardly to a point at which are attached means 9 which in this embodiment comprise two straps 10 and 11 which are positioned at a height and are of a length and of such a characteristic that they can be attached around the respective parts of a leg of a golf player and exert appropriate pressure during a swing.

We now look in detail at the characteristics of the straps.

Their purpose is to provide a sufficient pressure at the beginning of a golf swing from the point of maximum back swing that the hips of the player will be urged to rotate during the down swing.

The length of the straps and the strength of elastic and the method of fixing the straps are selected so as to be appropriate to any individual player but in the embodiment, the straps comprise a middle portion of elastic webbing, and an outer end of non stretchable webbing which has on one side a velcro material of either a hook or loop characteristic and the other part of either a hook or loop is secured on another part of the strap so that when the strap is wrapped around a portion of the leg of a player, the two parts with appropriate corresponding parts of velcro will hold together and keep the leg of the person secured to the strap.

The straps are not intended to do all the work of forcing the twisting the hips at the appropriate time but simply to give a strong guidance to a player so that there will be a good trigger pressure acting to persuade or assist the player to move those hips during a swing.



move those hips during a swing.

At the same time, at least during the down swing, the hip and leg, (in the case of a right handed player this being the right hip and the right knee,) are located by the plate 4 and the knee locator 8 which limits their movement backward but does not limit their forward or rotational movement.

It will be seen then that with this apparatus, it can be used to assist a player to develop an appropriate swing by assisting to resist the turn of the left leg and hip in the case of a right handed player while the right leg of that player maintains the same position it had at address and throughout the back swing.

1 0 Once the back swing is completed, the left leg is stored up with tension due to the stretching of the elastic of these straps and is ready to start the down swing in a correct and powerful way. The way the golf swing works is that the legs resist the turning of the upper half of the body while the hips act as a stabiliser between the two halves of the body.

1 5 A very common fault of a player is to start the down swing with shoulders causing the golfer to come across the line of strike of the golf ball. With this device, it makes it very difficult to start the down swing with the shoulders as the legs are already turned back correctly with stored up power to start the down swing. Accordingly, this teaches the average golfer the feeling of how to use their legs in the swing thus making a more correct and powerful golf swing.

What features then does it achieve, these are:

1. Prevents reverse pivoting.
2. Teaches the golfer how to transfer weight properly throughout the golf swing.
3. Makes sure the golfer has body posture at address and throughout the golf swing.
4. Teaches the golfer how to start the down swing using their legs and not their shoulders,

5. Teaches the golfer how to create tension in their legs in the back swing by setting up the golfer for a more correct and powerful golf swing.

This will now be seen by reference to FIGS 3 through 10.

- 5 Referring now to FIGS 3 and 7, the golfer who is a right handed golfer, is positioned in a classic position to address the ball with legs slightly apart, with knees slightly bent, and the two straps 10 and 11 positioned so that the first strap 10 is strapped around the upper part of the leg and is positioned to extend substantially horizontally back to the rod. The second strap 11 is positioned and tightened around the leg and is tightened to the extent as with strap 10. Both are now under tension and again it extends back horizontally to the rod.



- 15 The player is standing about 15 to 20 cms forward of both the plate and the upwardly extending rod so that when the player moves to position 4 and 8, this being at the maximum position of back swing, the right hip and right knee are located and positively aligned by the plate and knee locator. Further, the straps 10 and 11 are now further extended so that the player will feel significant pressure by the straps pulling in a position which is forward and rearward of the player so that there will be a resultant twisting moment through the leg onto the hip. As the player then proceeds from the maximum point of back swing through to the strike as shown in FIGS 5 and 9, there has been caused this additional pressure on the left leg and, as we can see on the drawings, the hip has turned and is now slightly forward at the point of impact of the ball.

- 25 Further, it will be seen that the straps are now loosening and furthermore the right leg which was previously at the point of maximum back swing located and positioned with respect to the plate, is now free from this and is pivoting to follow the hip.

- 30 The final action drawing is shown in FIGS 6 and 10 where in the point of maximum follow through, the straps are now quite slack, the right leg is totally free from any location of the plate or the knee locator and the hips have been turned fully through to point in the direction of the hit ball.



This then describes the preferred embodiment and the method of use of the embodiment. It is clear however that a number of variations could be applicable to this invention.

5 It is clear for instance that the purpose and function of the straps is to provide for appropriate pressure in a controlled way during some part of the golf swing and this can be provided by any number of different support devices and elastic members.

10 In its broader sense then it is considered that the invention is directed to the concept of providing this helpful triggering pressure to assist in a golf swing. Secondly, the location of the hip and leg at the point of maximum back swing is preferred and again can be achieved by use of any number of means by which the location of the leg can be established while at that point while allowing for the freedom of the subsequent swing motion.

15 It is preferable that the device be provided in a portable way for incorporation at any site which includes a stand which of itself then provides for stability but it will be seen that this relates to a preferred embodiment and is only one way in which the invention can be carried out in its broader sense.



## THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A golf stroke trainer including a hip locator supported to be to one side of a player when standing in a selected position, and means adopted to engage the player through engagement with an upper part of the leg of the player with  
5 pressure applying means to effect pressure to pull the said other side of the player backward during an initial part of a golf swing by the player so that in conjunction with the hip locator, the hips of the player can be urged to rotate at the beginning of the golf down swing.
2. A golf stroke trainer as in the preceding claim further characterised in that  
10 the stand, the hip locator and the pressure applying means are joined together as a single unit.
3. A golf stroke trainer as in either one of the preceding claims further characterised in that the hip locator is a plate positioned so as to provide a receiving shape for the hip of the player to be positioned by being held against  
15 this and allowing the hip to move and rotate relative to this plate during the down swing.
4. A golf stroke trainer including a hip locator positioned to be to one side and behind the player when standing in a selected position and, at the other side of the player, means to engage the other side of the player through engagement with  
20 the top of the leg of the player with pressure applying means to effect pressure to pull the said other side of the hip of the player backward during an initial part of a golf swing so that in conjunction with the hip locator, the hips of the player are urged to rotate at the beginning of the golf swing.
5. A golf stroke trainer as in the preceding claim further characterised in that  
25 the hip locator and the means to engage the hip either directly or by engagement of the leg are adapted to be fixed in a location on ground by having a spike for each of these which can be pushed into the ground.
6. A golf stroke trainer as in any one of the preceding claims further characterised in that the hip locator comprises a plate comprised of two leaves which are folded out so that the two leaves form between them and include an angle of approximately 25°.



7. A golf stroke trainer as in the immediately preceding claim further characterised in that the plate is supported by a rod which is secured to a or the stand so that the rod projects upwardly and is positioned so as to provide support at an appropriate location for the player of the plate and, as well, a knee locator.

5 8. A golf stroke trainer as in either one of the immediately preceding claims further characterised in that the rod extends as a continuous rod from the plate down to the stand and then across to project upwardly to a point at which are attached two straps which are positioned at a height and are of a length and of such a characteristic that they can be attached around respective parts of a leg of a golf  
10 player and exert appropriate pressure during a swing.

9. A golf stroke trainer as in the immediately preceding claim further characterised in that the straps comprise a middle portion of elastic webbing, and an outer end of non stretchable webbing which has on one side a velcro material and on another part of the strap a corresponding further part of velcro so that when  
15 the strap is wrapped around a portion of the leg of a player, the two parts with appropriate corresponding parts of velcro adapted to hold together and keep the leg of the person secured to the strap.

10. A method of training a golfer which includes the steps of positioning a player with respect to a golf stroke trainer so that a hip of the player at  
20 commencement of a swing is adjacent a hip locator supported to be to one side and behind a player when standing in a selected position, and then attaching means to engage at the other side of the player the hip of the player either directly or through engagement with the top of the leg of the player with pressure so as to effect pressure to pull the said side of the player backward during an initial down  
25 stroke part of a golf swing by the player so that in conjunction with the hip locator, the hips of the player will be urged to rotate at a beginning of the golf down swing.

11. A method of training a golfer as in any of the immediately preceding claims further characterised in that a first strap is strapped around an upper part of the leg and is positioned to extend substantially horizontally back to a support  
30 member and the second strap is positioned and tightened around the leg and is tightened to the extent so that both straps are now under tension and again the second strap extends back horizontally to a support member.

12. A method of training a golfer as in any of the immediately preceding



claims further characterised in that the player is standing about 15 to 20 cms forward of both the plate so that as the player moves to position through the swing which is at a maximum position of back swing, for a right handed player the right hip and right knee are located and positively aligned by the plate and knee locator.

5 13. A method of training a golfer as in any one of the immediately last three preceding claims further characterised by including the further steps that the straps are further extended so that the player will feel significant pressure by the straps pulling in an alignment which is forward and rearward of the player so that there will be a result twisting moment through the leg onto the hip as the player then  
10 proceeds from the maximum point of back swing through to the strike there has been caused this additional pressure on the left leg.

14. A golf stroke trainer substantially as described in the specification with reference to and as illustrated by figures of the accompanying drawings.



15. A method of assisting in the training of a golf swing substantially as described in the specification with reference to and as illustrated by figures of the accompanying drawings.

Dated this 18th day of July 2000



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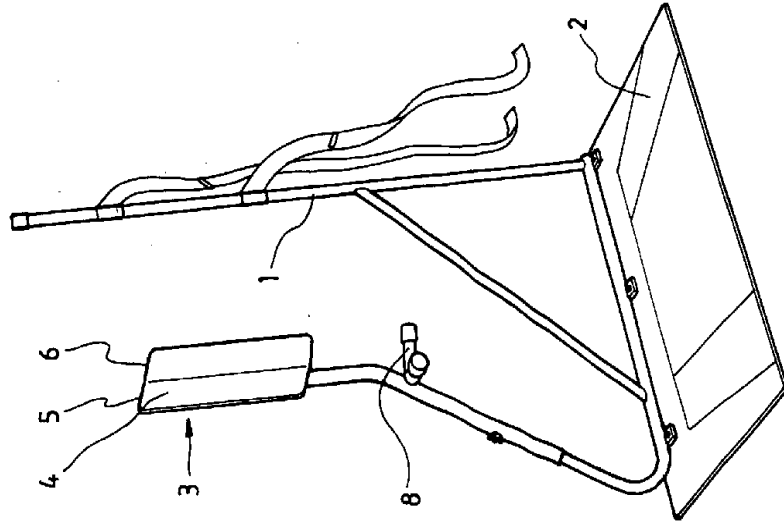


FIG 1

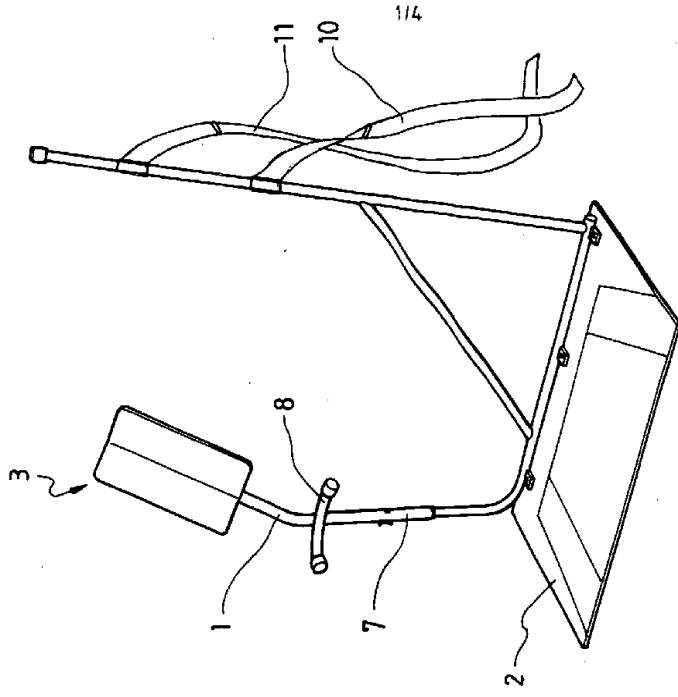


FIG 2



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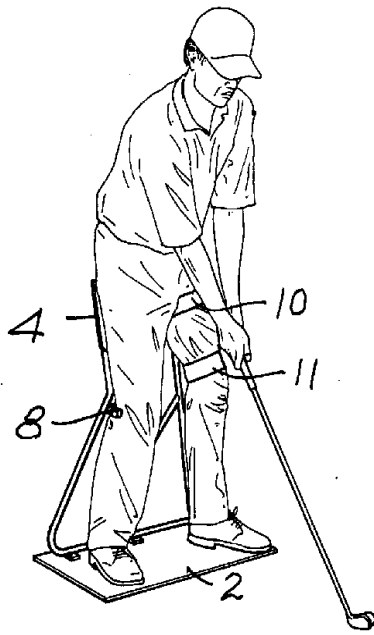


FIG 7

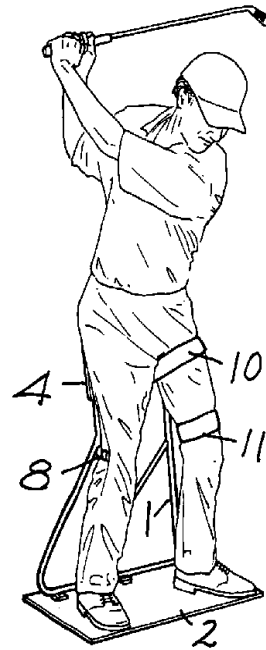


FIG 8

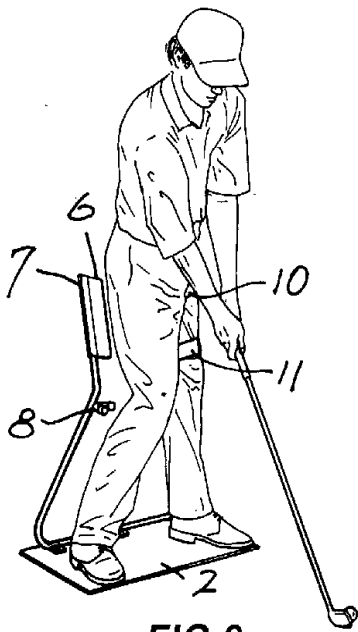


FIG 9

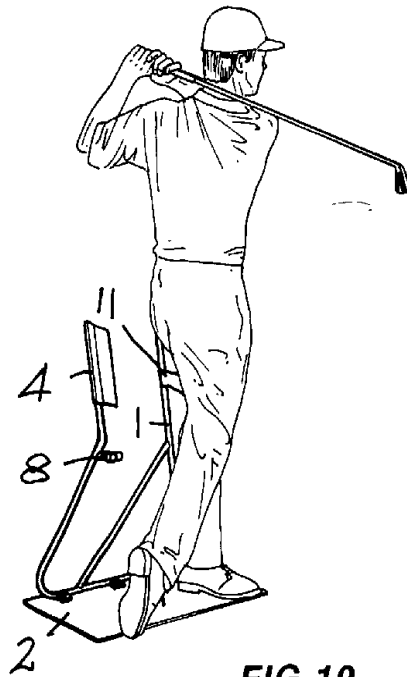


FIG 10

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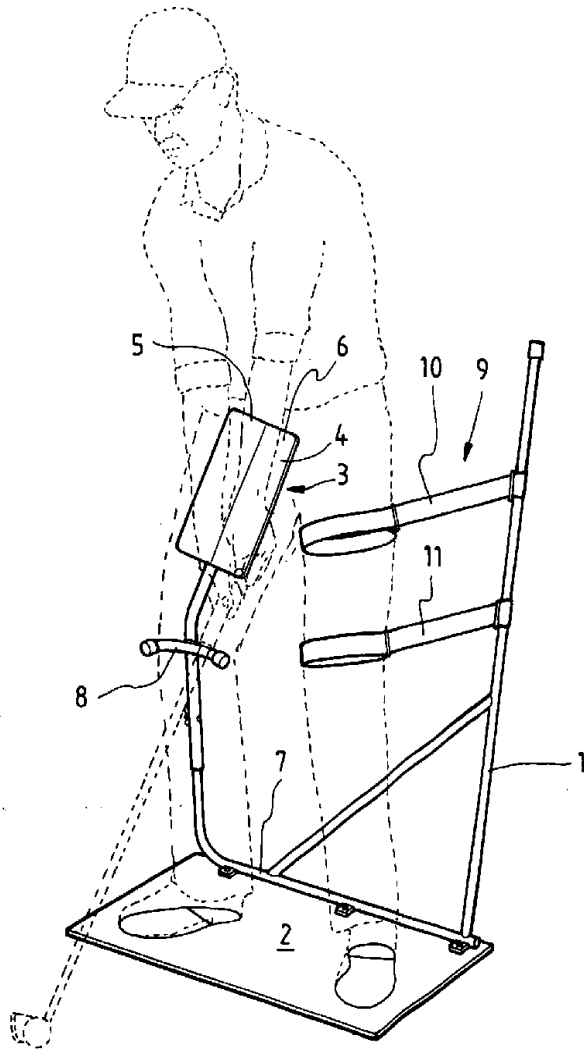


FIG 11