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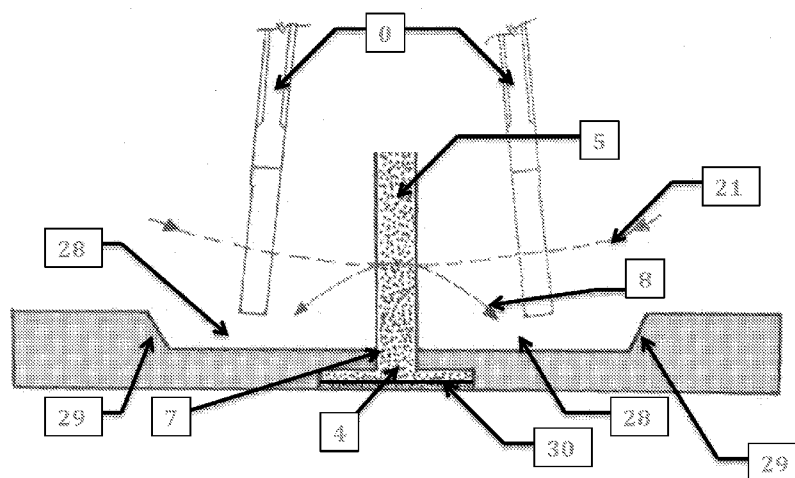


Fig. 22

(57) Abstract: The golf teaching set in the form of a subconscious habit based on established experience contains a special golf training club no. 0, a swing trainer for learning the position of the striking area at the moment of impact and training golf balls. Training golf club no. 0 has zero loft and the plane of the striking area is reflected in the club's grip. The swing trainer serves to develop the ability to perceive the position of the striking area at the moment of impact. It is used together with training club no. 0, where a pupil tries to achieve clean contact, i.e. under an angle of 0°, between the striking area and the area of the flexible panel.

A Golf Teaching Set in the Form of a Subconscious Habit

Field of the Invention

Teaching Golf

Background of the Invention

Almost everybody who starts to play golf makes a few mistakes at the beginning. The mistakes obviously differ by player, having differing intensities and causes.

The biggest limits or errors that golfers commit are, based on my observations, caused by having a mistaken or no idea of the movement of the golf club during the swing and are of two types: the inability to control the ball's flight and unclean contact between the club head and the ball

Instead of pupils getting information about how they should handle a club, the movement of the body is remodelled—instead of work with clubs—and any alterations to handling of clubs is forbidden.

The ability, or rather inability to control the ball's flight is very limited.

A standard golf club comprises three main parts: the club head, which contains the striking area—the club face—the club shaft and the grip.

A standard golf club has a club head, which is the striking area and deviates from the shaft at an angle that is called the loft of the striking area, which is 3° to 64°, depending on the club type, thanks to which the ball, at the moment of impact, flies up, even if the shaft is tilted down.

Because a standard club has loft, a player cannot imagine or realise the plane of the striking area. The shape of the club head and the round shape of the grip worsen the idea and ability to manipulate the plane of the striking area when playing a ball and do not allow a shot to be consciously played in a technically correct fashion.

In all cases of an incorrect shot, the problem is either the incorrect position of the striking area of the club head (its face) or the incorrect direction of movement by the club—swing trajectory, or most frequently both of them. Golf coaches have various ways to teach correct

shot technique. None of them, however, deal with the perception of the plane of the striking area using golf club no. 0 and a golf swing trainer.

A straight shot in golf requires that, at the moment the ball is struck, the club head (its face) is aimed at the target and that it is directly moving towards the target (swing trajectory). It is not always managed and the ball then does not have the expected direction. Each flight trajectory has its own name, and the best known are:

Draw	A shot that is not high, but has distance, where the ball first flies slightly to the right of the target and then curves back to the centre, after landing it usually bounces a long way
Slice	A shot that first flies left and then curves sharply to the right
Fade	A shot where the ball flies slightly to the left of the target and then curves back to the centre, it usually lands softly and does not bounce far
Hook	The ball flies with a lot of right-to-left rotation markedly to the left of the target. A shot that flies to the right or straight at the target and then curves sharply to the left
Pull	A bad shot where the ball flies on a direct path to the left
Pull-hook	A bad shot where the ball flies to the left and arcs even further left
Push	A bad shot where the ball flies on a straight path to the right
Push-slice	A bad shot where the ball flies to the right of the target and keeps turning right
Slice	A shot that flies to the left or straight at the target and then curves sharply to the right, rotating right, and bounces for a long way

These flight trajectories are a combination of swing trajectories (inside out, outside in, straight), the angle of the striking area to the target (closed club face, open club face) and stance (open stance, closed stance), which the beginner golfer is absolutely not able to control, because he is just starting to learn to perceive the plane of the striking area.

A relatively large percentage of players hold the club incorrectly or not entirely correctly, which is again related to misunderstanding the plane of the striking area, and therefore have problems not only with the direction of balls played, but also with the length of shots. Imperfect holding mostly causes the striking area of the club head to be wrongly positioned when hitting the ball, or supports a direction of swing trajectory in the wrong direction

and/or, to a greater or lesser extent, blocks freedom in the wrists. The player cannot subsequently swing the club properly and his movement is forced.

If a student adopts an open stance, this is a situation where the line of his shoulders is pointing to the left of the target: the swing trajectory is not correct, but from the outside in. The consequence of this is that the player mostly slices or plays a straight shot to the left of the target, which is a very frequent mistake.

A closed stance is the opposite mistake, where the line of the shoulders is pointing to the left of the target and in this case the swing trajectory is inside out. The consequence of this is usually playing a draw or hook, but could also be a straight shot to the right of the target.

Unclean Contact between Club Head and Ball

According to the rules of golf, the smallest possible size of an ordinary golf ball is 42.67 mm, this ball is sufficiently large so that even if it is not played cleanly, it will fly in some way.

Most frequent inaccuracies: a fat shot—the club strikes the ground too soon before the ball, which acts as a brake, and then hits the ball, leading to a loss of speed and the resulting shot is shorter, and a head-up shot—at the moment of impact the club head hits the upper half of the ball, so the ball does not fly, but rolls along the ground.

A golf mistake that is made a lot by players is the attempt to get the club “under the ball”. It is naturally a poorly-thought-out idea and motivation for the movement of a golf swing, where the player has the feeling that the ball will fly up only in the event that the club hits it at the bottom, which is the case in tennis, for example. This idea and motivation is subconscious and therefore automatic, and all players start trying this, working it in to their standard movement from the very beginning and maintaining the mistake in their standard approach. At the current time there is the question of whether they are obtaining correct information at all, because this idea is anchored not only in the lay game, but also the professional one.

As a consequent of this idea the body's centre of gravity at the moment of impact is wrongly on the right leg (for right-handed players, or on the left leg for left-handed players). There are lots of drills and exercises for this error that teach a player to move his weight to the left leg, so that a player has his weight on the left leg at the moment of impact. This fact has nothing in common with a player not being able to transfer his weight, but with the fact that his

subconscious idea is again to “get under the ball” and this naturally leads to the transfer of his weight (centre of gravity) to his right leg at the moment of impact.

The below figure shows this situation. It shows incorrect club position at the moment of impact: the club shaft is inclined up and the player’s centre of gravity is above his right leg. This makes clean contact with the ball impossible. The club head loses speed because it slows down against the ground before it hits the ball, the initial trajectory is too high and the ball has too little back spin, which are not parameters for maximum shot length.

If you take a hundred people who have never played golf, put a club in their hand and place them in front of a ball, every single one of them will try to do this. Personally, I would claim that this is the starting line for all beginners. Some people, however, keep hold of this idea for the whole of their golfing life. A change will not occur spontaneously until a student gets the right idea about the principle of movement and manipulation with a golf club, which is fundamental and typical for a correct golf swing.

For a ball to fly up, the correct approach of a club to the ball is such that the club must be inclined down. More specifically, the club shaft and club grip are inclined down. And as the striking area has loft, it is inclined opposite to the shaft, i.e. up, and the ball then goes up.

The above image shows the correct position of a club at the moment of impact. the club shaft is inclined down and the player’s centre of gravity is above his left leg. This enables clean contact between the club head and the ball, a lower initial trajectory and a lot of back spin on the ball, which are ideal parameters for the ball to fly a long way. All successful players do this at the moment a shot is played.

US 6723001B2 describes the configuration for a golf club of the putter type. The putter contains a club head where the striking area (club face) and shaft are linked to the club head on a plane. The golf club is formed with an extension of the grip that has a cross-section in a vertical direction to the plane of the striking area and that is therefore parallel to the mat. The first length of the cross-section is longer than the second length and the cross-section usually has an oval shape, having an oval front and angular back. An indication of the position is provided at the top on the surface of the club by two lines. The first directional line is parallel to the direction to the target and the second directional line is perpendicular to the first line and also parallel to the plane of the striking area. These lines should help a golfer visually

check the correct direction or position of a golf club when setting up to putt towards the intended target. By using the club, however, a golfer does not obtain the ability to play a shot or improve his technique, which he would be subsequently able to apply to standard, approved golf clubs.

US 6780118B1 describes equipment for practicing a golf swing improving a golfer's swing by repeatedly practicing the swing. The equipment imitates (simulates) a golf club having a higher grip and an imitated part of the club head on an oppositely-inclined end. The shaft of the training device is made of a solid material comprising a one-piece structure that includes an axially-symmetrical part extending from the adjoining part of the golf club to a point approximately one third of the total length of the device along the longitudinal axis of the shaft.

Summary of the Invention

As most errors are due to an incorrect understanding or opposite assessment of work with a golf club, I found that it is effective to make the plane of the striking area effectively visible for a learner golfer, who, when he has the chance to genuinely perceive the plane of the striking area, obtains experience of shots made, thanks to which he learns how to genuinely make a shot and what sort of type and shape of flight it will cause.

The proposed golf teaching set offers such transparency of golf techniques. The set contains a special training golf club no. 0, a swing trainer for learning the position of the striking area at the moment of impact and training golf balls. It can also beneficially contain a green marker and impact labels for marking the impact area. Together these components provide an effective system for practicing correct habits for golf shots.

If I explain to a player the basic principles, which he then practices together with training club no. 0, training golf balls and a golf trainer, he will subsequently apply this skill with clubs and balls for the game with a clear idea and established correct movement routine, which will move the whole process of teaching golf forward and make it markedly more effective and faster. This knowledge, in connection with the golf training set, provides a new method and view of training and development of golfers' skills.

Training golf club no. 0 is designed so that a beginner golfer perceives the plane of the striking area both visually and by touching it with his palms, when holding the club handle, as the striking area, shaft and grip are on one plane. Training golf club no. 0 has zero loft, which is why it is called club no. 0. As the plane of the striking area is clear and visible, the pupil assesses the situation correctly and inclines the club as needed. This means that if he needs the striking area to be straight for a shot, then he turns his hands or wrists in accordance with this. He then applies this learned skill to a standard club with loft.

Training golf club no. 0 teaches students to be aware of the plane of the striking area throughout the swing and to develop the ability to consciously control the ball's flight.

Training golf club no. 0 comprises a club head, which includes the striking area, a club grip and the shaft, which links the club head and the club grip. The club head has at least one plane striking area and the club grip has at least one plane area, where these areas are parallel.

It is better if the club head is symmetrical and the reverse of the club's striking area is also plane and parallel to the club's striking area, for visual contact with the plane of the striking area.

The grip can have a second flat area that is again parallel to the plane of the striking area. The grip can also have another two flat areas that are perpendicular to the plane of the striking area, which serves to further increase contact with the plane of the striking area by touch.

The shaft can have plane areas that are parallel to the plane of the club head's striking area.

The club head is heavier than the club grip, which can be resolved by the club head having a weight or being manufactured from a heavier material than the club grip.

The weight can be in the form of a screw on the top and foot of the club head, where the threads of the weight can differ in terms of weight, which can support the opening or closing of the striking area on the club head during a swing.

If a pupil is practicing, at the moment of impact training golf club no. 0 must be set up in such a manner that the ball goes down, not up from club no. 0. As the plane of the striking area is clear and visible, the pupil assesses the situation correctly and inclines the club down. He then uses this learned skill for a standard club with loft. The same as when practicing, the club is pointed down, the striking area up, so the ball flies up.

Swing Trainer

A swing trainer serves to practice driving technique. A pupil with club no. 0 swings in such a manner that the striking area of the club head hits the contact wall of a flexible panel, which is fixed to a mat on one side, where the flat contact of the whole striking area of the club and the wall of the flexible panel is accompanied by a characteristic sound.

A beginner golfer can improve his technique on the swing trainer and by performing a shot he obtains immediate information about what plane the striking area had against the flexible panel at the moment of contact, whether the contact was area on area, i.e. the club's striking area against the wall of the flexible panel, or edge on area, i.e. the edge of the club against the wall of the flexible panel, and he is then able himself to improve his swing and change it in order to achieve area on area contact.

This training creates a subconscious skill that becomes a matter of course for a golfer. With the help of the swing trainer the time needed to learn to drive is significantly shortened and

the driving technique is improved. The swing trainer comprises a solid or soft mat and a flexible striking panel, which is fixed to the mat.

The mat benefits from having extendable fixed panels linked to the mat that fix the flexible striking panel, or the flexible striking panel is threaded through the mat.

The flexible striking panel is made from flexible bendy material, e.g. rubber, gum, synthetic fibrous textiles.

The swing trainer could benefit from having a wedge-shaped base, so that it is possible to train on a tilted plane, which is closer to real conditions in the terrain of a golf course.

Training Balls

The training balls get rid of the bad habit of scooping the golf ball with the club when driving, in order to lift it. By coincidence at a children's golf camp it was found that children learning golf starting with much smaller balls assess the situation correctly and do not scoop the ball with the club at all, they simply move the ball straight, in accordance with an instruction to chip the balls with their club. Small training balls were included among training aids for beginner golfers, who learn the correct technique for contact between a club and ball much faster.

The smaller size of the training balls reduces the room to scoop the ball and a pupil therefore very easily grasps and does not have any other choice but to move the club so that the front edge of the club is hidden and the training ball deflects up from the club head. Thanks to this he better learns the correct movements thanks to these balls and the habit is again transferred to his subconscious, as it arises based on tried-and-tested experience.

The training balls have dimensions of 15 to 19.9 mm and a weight of 6.4 to 9.7 g, the optimum dimensions are 17 to 18 mm. They are made from a compact material. The best materials for production are glass, plastics and composites.

The whole golf swing leads to the moment the ball is struck. The correctness, precision and repeatability of this moment is one of the most important factors in the game.

With these markedly smaller balls we have the opportunity to practice this moment with much greater precision; it also helps better understanding of the basic principles of driving and accelerates the learning process. In addition, there is a reduction in muscle tension when moving and lesser muscle tiredness. The pupil then applies this skill with a large effect to a

standard size ball. Greater precision in striking the ball leads to a better appraisal and control of distance.

For practice we use golf club no. 0 or a standard chipping wedge.

The size (diameter) and material of the ball differ depending on the type of shot and distance the ball is to fly, for which the balls would be made. Principle for selecting the size (diameter) of the ball: “The smaller extent of movement I practice, the smaller diameter of ball I am able to play and use.”

Small training balls are used to practice the smallest extent of movement during a shot and the ball flies a distance of between 50 and 800 cm.

Green Marker

A green marker serves for the visible, but barrier-free marking of the distance from the hole. The green marker comprises a handle, which has loops for fitting chalk, an attachment system, e.g. a hook, loop or snap-link, for fixing it to the flag pole in the hole, and each loop has a label showing the distance from the hole, where the handle contains 1 to 7 loops.

Impact Labels

Impact labels serve to mark the impact area the club head has to hit for a technically correct shot to be played. The impact area is defined by the golf ball on one side and impact label on the other side. Impact labels have an adhesive lower side and are repeatedly stuck to and removed from the mat. In the event that a pupil hits the mat too early and far from the ball when playing a shot, he knocks the labels off and those that are stuck to the mat become fixed to the club head. The pupil can therefore check what distance from the ball the contact with the mat was. If he drives correctly, i.e. the contact with the mat occurs at the place the ball is, the impact labels remain on the mat in the original place, not on the club head.

Use of Golf Training Set

Training club no. 0 is used for practicing a swing without other components or with a swing trainer, with training balls or with soft balls, i.e. made from foam or rubber. The balls have various dimensions. Very small balls include training balls from 17 to 19.5 mm, whereas large ones are from 50 to 100 mm. Balls from 50 mm are used for visualisation of the ball's

rotation after driving, where the pupil can see whether his stance is open or closed, the club face is open or closed, i.e. he sees the striking area, or rather its angle to the swing, which influences the ball's sideways rotation.

The swing trainer serves to develop the ability to perceive the position of the striking area at the moment of impact. It is used together with training club no. 0, when a pupil tries to achieve clean contact, i.e. under an angle of 0° , between the striking area and the area of the flexible board. If pupils practice swinging with club no. 0 using the swing trainer, then the body movement is more correct, because they have a better intention that more closely corresponds to what they need to do. At a more advanced stage of training of perception of the striking area during impact, it is possible to use a club no. 0 that does not have a single plane surface. The pupil therefore progressively prepares himself for the transition to a standard golf club.

Summary of Images in Diagrams

Fig 1: Standard golf club (state of prior art)

Fig 2: Types of shot trajectory (state of prior art)

Fig 3: Influence on flight trajectory of position of club's striking area to plane of swing (state of the art)

Fig 4: Open and closed stance at moment of shot (state of prior art)

Fig 5: Isometric view of swing trainer

Fig 6: Side view of swing trainer

Fig 7: Cross-section of swing trainer in accordance with example

Fig 8: Side view of club 0

Fig 9: Isometric view of club 0

Fig 10: Overall view of club 0

Fig 11: View of club 0 from above and below

Fig 12: View of club 0 in accordance with example

Fig 13: A: View of club no. 0, B: Close-up view of head of club no. 0 in accordance with example

Fig 14: View from above of cross-section shapes of grip 13

Fig 15: View of golfer's correct stance when playing a shot

Fig 16: View of standard pupil's poor stance when playing a shot, when he scoops the ball

Fig 17: View of training shot with training golf ball, A: during backswing, B: on impact, C: after playing shot

Fig 18: View of training shot with standard golf ball, A: during backswing, B: on impact, C: after playing shot

Fig 19: Comparison of size of training golf ball 16 – B and standard golf ball 17 - B

Fig 20: View of green marker

Fig 21: View of training shot with impact label

Fig 22: View of swing trainer in cross-section in accordance with example

Fig 23: View of real flexible striking area and cut-out in swing trainer

Fig 24: View of real mat of swing trainer from below

Embodiments of the Invention

Embodiment 1

Training golf club 0 comprises a club head 11, shaft 12 and grip 13, where the sides of all the aforementioned parts are in one plane.

Embodiment 2

Training golf club 0 comprises a club head 11 that is symmetrical about an axis, it has a plane striking area 10 and a reverse side 16 of the striking area 10 that is also plane and parallel to the striking area 10. The head 11 of the club 0 carries a weight 9. The striking area 10 is parallel to both plane sides 15 of the grip 13. The grip 13 has two flat areas and the remaining parts of the circumference of the grip 13 are rounded. The club 0 is made from one piece of wood, where one end of the shaft 12 forms the club's grip 13 and the other end of the shaft 12 becomes the head 11 of the club 0.

Embodiment 3

Training golf club 0 comprises a club head 11 that is symmetrical about an axis, it has a plane striking area 10 and a reverse side 16 of the striking area 10 that is also plane and parallel to the striking area 10. The head 11 of the club 0 is fitted with a screw that serves as a weight 9, where the lighter part of the screw is screwed into the top 4 of the head 11 of the club 0 and the heavier part to the foot 6 of the head 11 of the club 0. The grip 13 is rounded with one plane area 15. The striking area 10 is parallel to this side plane area 15 of the grip 13. The club 0 is made from one piece of wood, where one end of the shaft 12 forms the club's grip 13 and the other end of the shaft 12 becomes the head 11 of the club 0.

Embodiment 4

The training golf club 0 comprises the club head 11, which has one plane striking area 10. The head 11 of the club 0 is fitted with a screw that serves as a weight 9, where the heavier part of the screw is screwed to the top 4 of the head 11 of the club and the lighter part to the foot 6 of the head 11 of the club 0. The striking area 10 is parallel to one side 15 of the grip 13. The club 0 is made from wood, where one end of the shaft 12 is fitted with a grip 13, which has one side 15 plane and the others rounded, and the other end of the shaft 12 is linked to the head 11 of the club 0, which has a rounded reverse side 16 of the striking area 10.

Embodiment 5

The training golf club 0 comprises a head 11 of the club 0, a shaft 12 and a grip 13. The head 11 of the club 0 is symmetrical about an axis, it has a plane striking area 10 and a reverse side 16 of the striking area 10 that is also plane and parallel to the striking area 10. The head 11 of the club 0 is made from polycarbonate with a 5% mixture of iron that performs the function of a weight. The striking area 10 is parallel to both sides 15 of the grip 13. The club 0 is made from polycarbonate. The shaft 12 of a circular cross-section is, at one end, fitted with a grip 13 with plane sides 15 and the other end of the shaft 12 is linked to the head 11.

Embodiment 6

The swing trainer comprises a wooden mat 1 and a flexible striking panel 5, made from PP of two fibrous textiles, which is fixed to the mat 1.

Embodiment 7

The swing trainer comprises a wooden mat 1 and a flexible striking panel 5, which is fixed to the mat 1. The mat 1 is fitted with two extendable fixed panels 3 linked to the mat 1, which fix the flexible striking panel 5. The flexible striking panel 5 is made from a flexible, bendy material, which is a PES of two fibrous textiles strengthened with an acrylate dispersion.

Embodiment 8

The swing trainer comprises a plastic wedge mat 1 and a flexible striking area 5, made from PP of two fibrous textiles, which is fixed to the mat 1 by two extendable fixed panels 3 using screws linked to the mat 1.

Embodiment 9

The swing trainer comprises the mat 1, to which two upper panels 2 are fixed, between the upper panels 2 there is a flexible panel 5, and stainless steel fixing U-elements 3 are clipped to the edges of the upper panels 2 pressing on the flexible striking panel 5.

Embodiment 10

The swing trainer comprises the mat 1, the flexible striking panel 5 and the base 4. A golf mat for driving with artificial turf that contains an opening 7 of a rectangular shape is used as the mat 1. The flexible striking area 5 is welded to the base 4. The flexible striking panel 5 is

threaded through the mat 1 through the opening 7 and the base 4 with the face 30 of the flexible striking panel 5 is therefore fixed under the mat 1, thanks to which the flexible striking panel 5 is stably fixed to be struck with training golf club no. 0. The flexible striking panel 5 is made from rubber.

Embodiment 11

The swing trainer comprises a mat 1, a flexible striking panel 5 and a base 4 with a face 30. The mat 1 contains an opening 7 of a rectangular shape. The flexible striking panel 5 is welded to the base 4. The flexible striking panel 5 is threaded through the mat 1 through the opening 7 and the base 4 of the flexible striking panel 5 is therefore fixed under the mat 1, thanks to which the flexible striking panel 5 is stably fixed to be struck with training golf club no. 0. The flexible striking panel 5 and the mat 1 are made from PUR.

Embodiment 12

The green marker 27 comprises a handle 16, which has five loops 17 at distances of 80 cm, 100 cm, 120 cm, 140 cm and 200 cm for the insertion of chalk 19, a hook 18 for attachment to the flag pole in the hole, and each loop 17 is fitted with a label 25 showing the distance from the hole. The handle 16 is telescopic and is made from steel.

Embodiment 13

The green marker 27 comprises a rope that has seven loops 17 at distances of 40 cm, 60 cm, 80 cm, 100 cm, 120 cm, 140 cm and 200 cm for the insertion of chalk 19, a hook 18 for attachment to the flag pole in the hole.

Embodiment 14

The green marker 27 comprises a rope that has two loops 17 at distances of 80 cm and 120 cm for the insertion of chalk 19, a hook 18 for attachment to the flag pole in the hole.

Embodiment 15

The impact labels 25 are made from soft, flexible polyurethane with one adhesive side, the height of the labels 25 is 2 mm and the width 10 mm.

Embodiment 16

The training golf balls 26 were made from white glass in the shape of a sphere with a weight of 7.2 g and a diameter of 17 mm.

Embodiment 17

The training golf balls 26 are made from PP in the shape of a sphere with a weight of 9.7 g and a diameter of 19.9 mm.

Embodiment 18

The training golf balls 26 are made from PVC in the shape of a sphere with a weight of 6.4 g and a diameter of 15 mm.

Embodiment 19

The swing trainer comprises a mat 1, a flexible striking panel 5 and a base 4. The mat 1 contains an opening 7 of a rectangular shape and a cut-out 28. The cut out 28 is linked to the flexible striking panel 5 and the opening 7 from one side or the other. The cut-out 28 contains a chamfer 29 on the edge opposite the striking area. The flexible striking panel 5 is welded to the base 4. The flexible striking panel 5 is threaded through the mat 1 through the opening 7 and the base 4 of the flexible striking panel 5 is therefore fixed under the mat 1, thanks to which the flexible striking panel 5 is stably fixed to be struck with training golf club no. 0. The flexible striking panel 5 is made from silicon and the mat 1 is made from a golfing mat for driving with artificial turf.

Embodiment 20

The swing trainer comprises a mat 1, a flexible striking panel 5 and a base 4. The mat 1 contains an opening 7 of a rectangular shape and a cut-out 28. The cut out 28 is linked to the flexible striking panel 5 and the opening 7 from both sides. The cut-out 28 contains a chamfer 29 on the edge opposite the striking area. The flexible striking panel 5 together with the base 4 is made from one piece of polyvinylchloride (PVC). This variant removes the strained joint between the flexible striking panel 5 and the base 4. The flexible striking panel 5 is threaded through the mat 1 through the opening 7 and the base 4 of the flexible striking panel 5 is therefore fixed under the mat 1, thanks to which the flexible striking panel 5 is stably fixed to be struck with training golf club no. 0. The flexible striking panel 5 is made from PVC and the mat 1 is made from a golfing mat for driving with artificial turf.

Industrial Applicability

Sports disciplines, teaching golf.

List of Relational Designations

0. Golf club 0
1. Swing trainer mat
2. Upper panel of swing trainer
3. Fixing U-elements
4. Base of flexible striking panel
5. Flexible striking panel
6. Edge of head 11 of club 0
7. Opening in mat 1
8. Slot for flexible striking panel
9. Weight of club 0
10. Striking area of the head 11 of club 0
11. Head of club 0
12. Shaft of club 0
13. Grip of club 0
14. Flat side of grip 13
15. Plane sides of grip 13
16. Reverse side of striking area 10
17. Marker loop
18. Marker hook
19. Chalk
20. Standard golf ball
21. Path of swing
22. Ball trajectory
23. Plane of striking area
24. Perpendicular to shaft 12 of club
25. Impact labels
26. Training golf ball
27. Green marker
28. Cut-out
29. Chamfer/rounding
30. Horizontal cross-section of base 4

PATENT CLAIMS

1. Training golf club no. 0 for teaching golf in the form of a subconscious habit based on acquired experience is characterised in that it contains a head (11) of the club, a shaft (12) and a grip (13), the club's centre of gravity is in the shaft (12) of the club closer to the head (11) of the club than the grip (13) of the club, the head (11) of the club has at least one plane striking area (10), the grip (13) of the club has at least one plane area (15), where the striking area (10) of the club head (11) and the plane area (15) of the grip (13) of the club are parallel.
2. Training golf club no. 0 in accordance with claim 1 is characterised in that the grip (13) contains two plane areas (15).
3. Training golf club no. 0 in accordance with claim 2 is characterised in that the grip (13) contains two plane areas (14) that are perpendicular to the plane areas (15).
4. Training golf club no. 0 in accordance with claim 3 is characterised in that the grip (13) is of a rectangular or square cross-section.
5. Training golf club no. 0 in accordance with claim 1 is characterised in that the club shaft (12) is of a circular or angular cross-section.
6. A swing trainer for teaching golf in the form of a subconscious habit based on established experience is characterised in that it contains a mat (1) and a flexible striking panel (5) that is fixed to the mat (1).
7. The swing trainer in accordance with claim 6 is characterised in that the flexible striking panel (5) is made from material that has a Young's modulus of 0.2 to 1,000 MPa.
8. The swing trainer in accordance with claim 6 is characterised in that the mat (1) is made from material that has a Young's modulus of 0.2 to 1,000 MPa.

9. The swing trainer in accordance with claim 7 is characterised in that the mat (1) has a wedge shape.
10. The swing trainer in accordance with claim 7 is characterised in that it contains two extendable panels (3) fixed to the mat (1), which fixes the flexible striking panel (5).
11. The swing trainer in accordance with claim 6 is characterised in that the mat (1) contains an opening (7) whose cross-section is of the same or larger dimensions to the cross-section of the flexible striking panel (5), where the flexible striking panel (5) has a base (4), where the base (4) has a horizontal cross-section (30) larger than the horizontal cross-section of the opening (7) in the mat (1) and the flexible striking panel (5) is threaded through the mat (1) through the opening (7), and the base (4) of the flexible striking panel (5) is thereby fixed under the mat (1).
12. The swing trainer in accordance with claim 6 is characterised in that the height of the mat (1) is of larger dimensions than the thickness of the flexible striking panel (5).
13. The swing trainer in accordance with claim 12 is characterised in that the mat (1) contains at least one cut-out linked to the opening (7), where the cut-out has a depth the same or greater than the thickness of the flexible striking panel (5).
14. The swing trainer in accordance with claim 6 is characterised in that the mat (1) is made from a golf turf mat.
15. A training golf ball for teaching golf in the form of a subconscious habit is characterised in that it is of a round shape with a diameter of 15 to 19.9 mm and a weight of 6.4 to 9.7 g.
16. The training golf ball in accordance with claim 15 is characterised in that it has a diameter of 17 to 18 mm.
17. The training golf ball in accordance with claim 15 is characterised in that it is produced from glass, plastic or composite materials.

18. A green marker for teaching golf in the form of a subconscious habit based on acquired experience is characterised in that it comprises a handle (16) that has at least one loop (17) for fitting a chalk (19) and an attachment system (18), where the loop (17) has a label showing the distance from the attachment system (18).
19. The green marker for teaching golf in accordance with claim 18 is characterised in that the handle (16) is telescopic.
20. The green marker for teaching golf in accordance with claim 18 is characterised in that the handle (16) is made from rope.
21. The green marker for teaching golf in accordance with claim 18 is characterised in that the attachment system (18) comprises a hook (18), loop (17) or snap-link and the handle (16) contains up to 7 loops (17).
22. The golf teaching set in the form of a subconscious habit based on established experience is characterised in that it comprises a training golf club no. 0 in accordance with claim 1, a swing trainer in accordance with claim 6, training golf balls in accordance with claim 12, a green marker in accordance with claim 15 and impact labels that have an adhesive side, whose height is no more than 0.5 mm and that are made from a soft and flexible material.

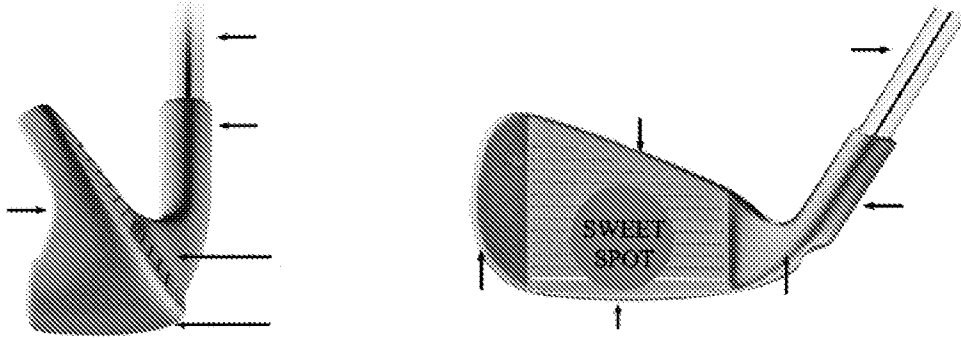


Fig. 1

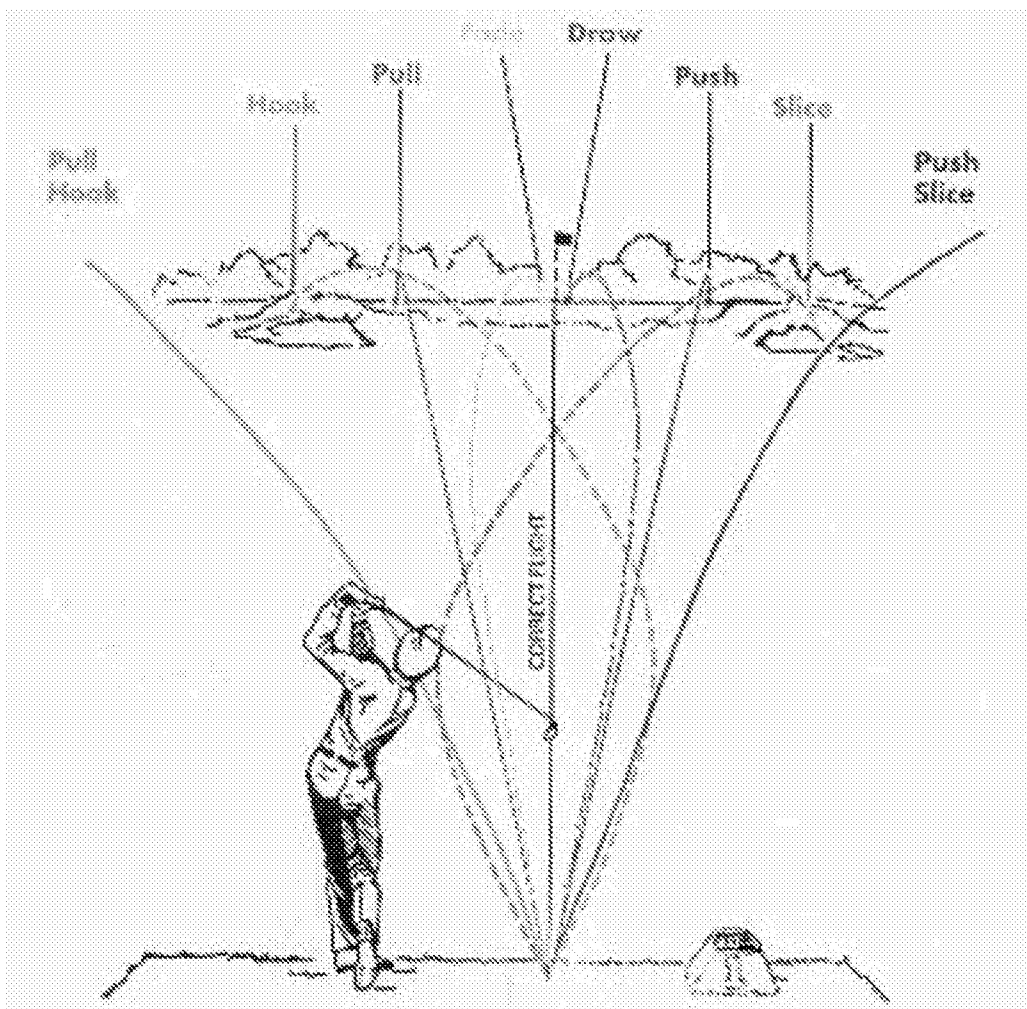


Fig. 2

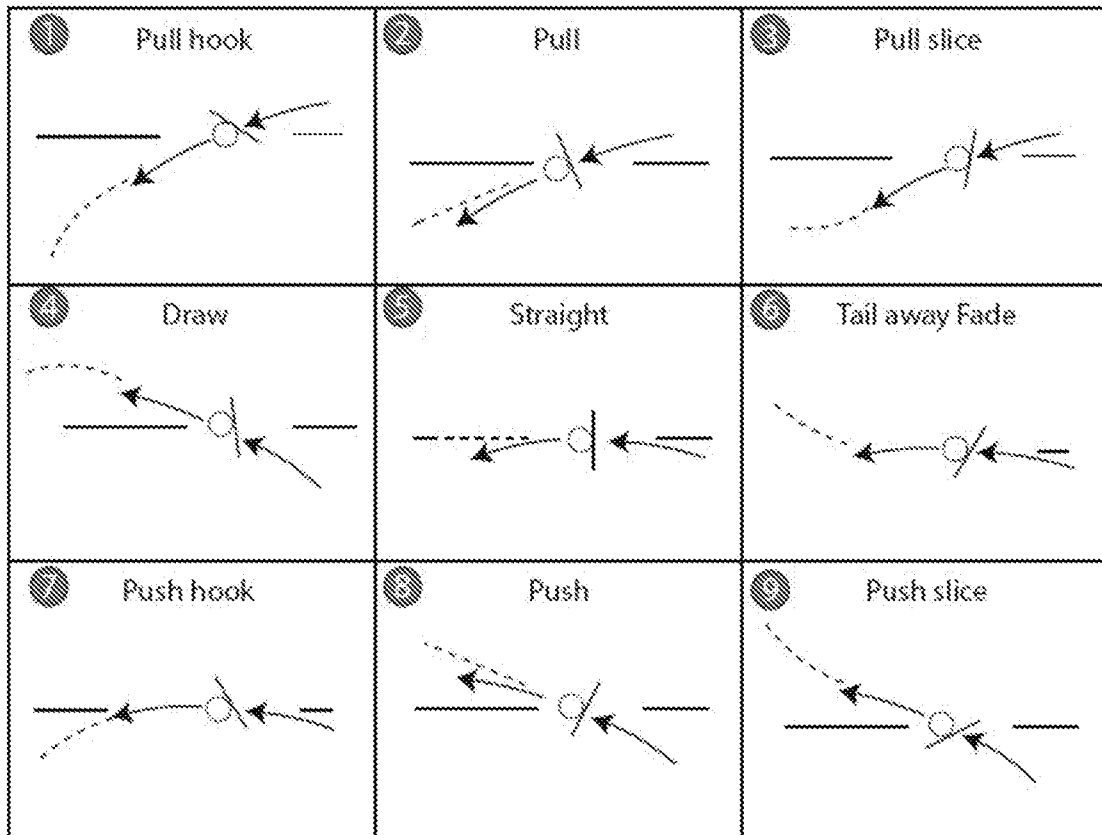


Fig. 3

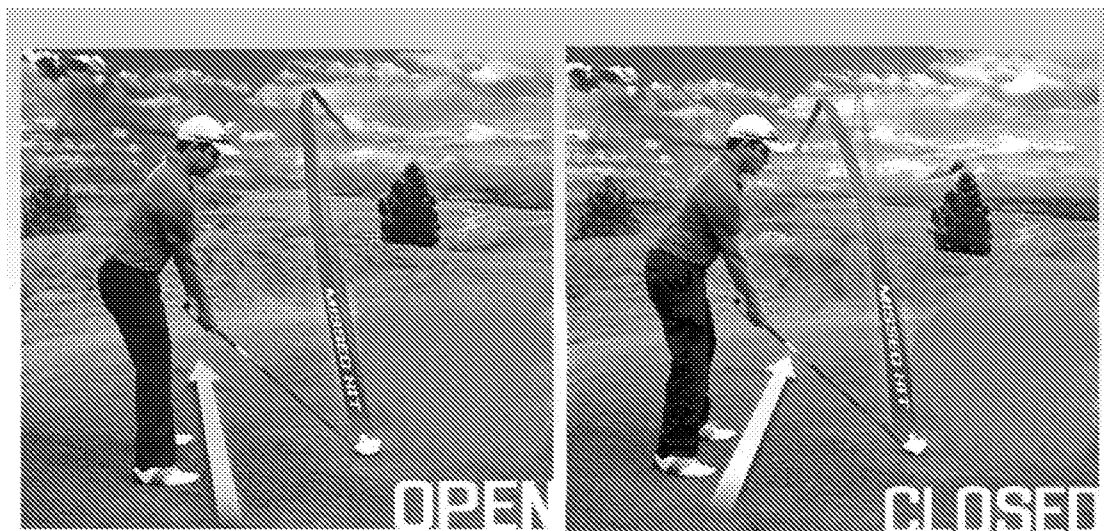


Fig. 4

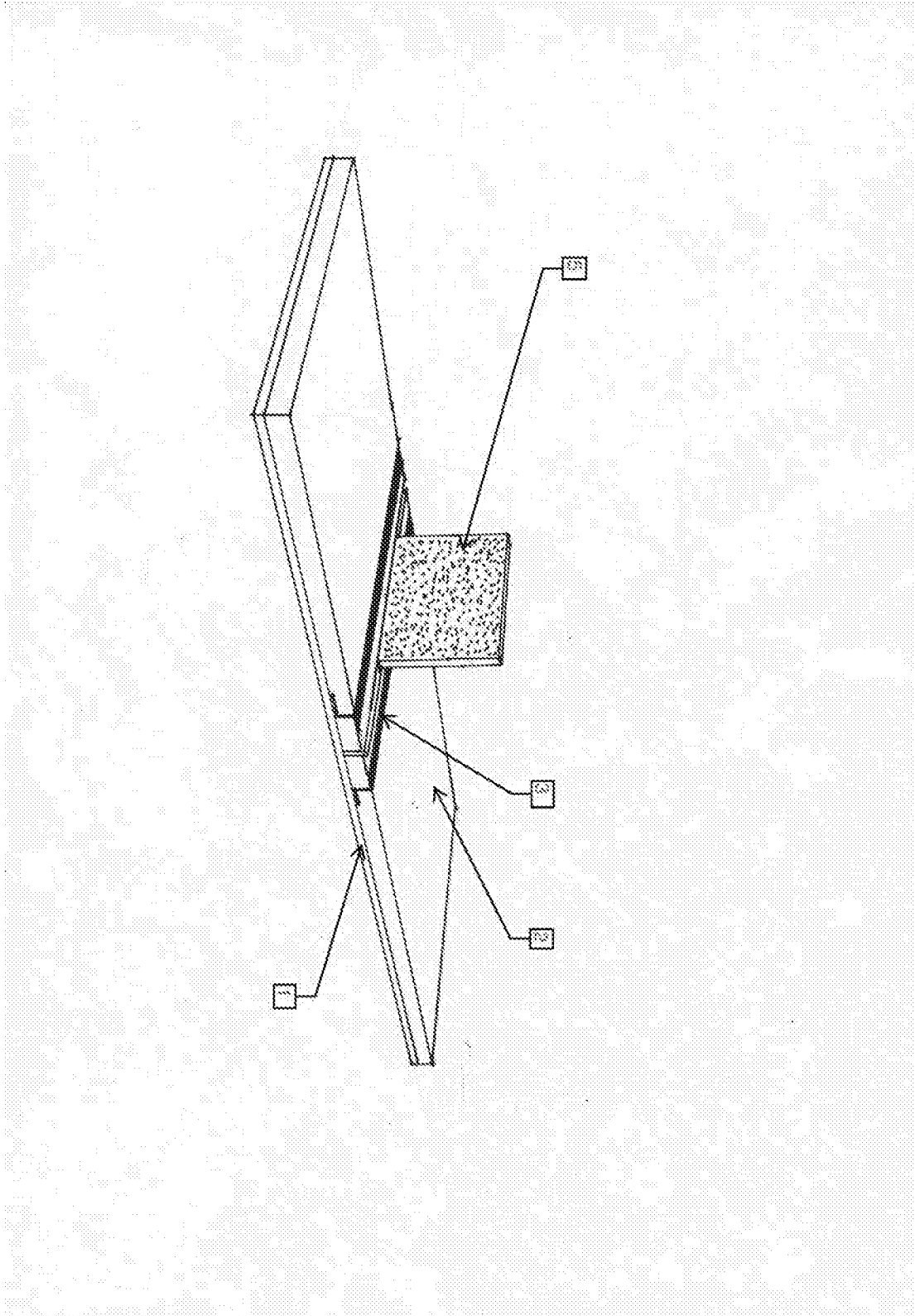


Fig. 5

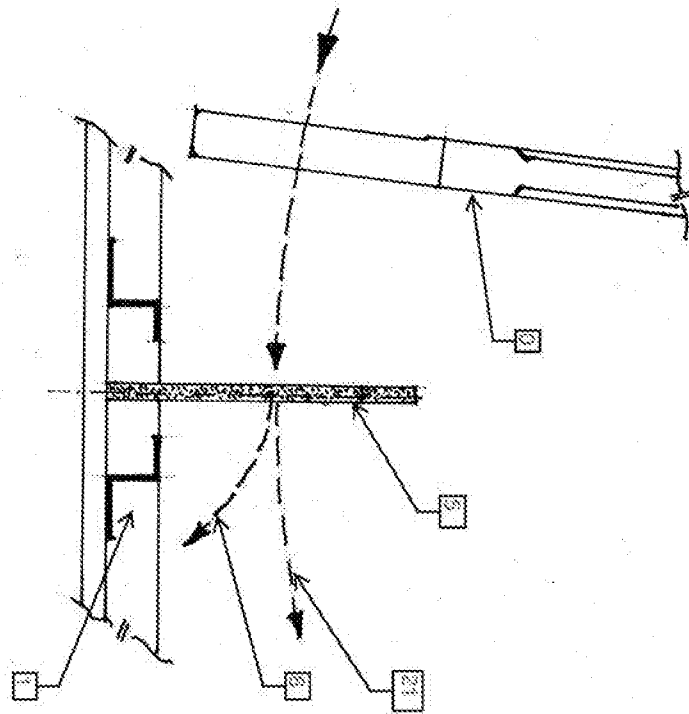


Fig. 6

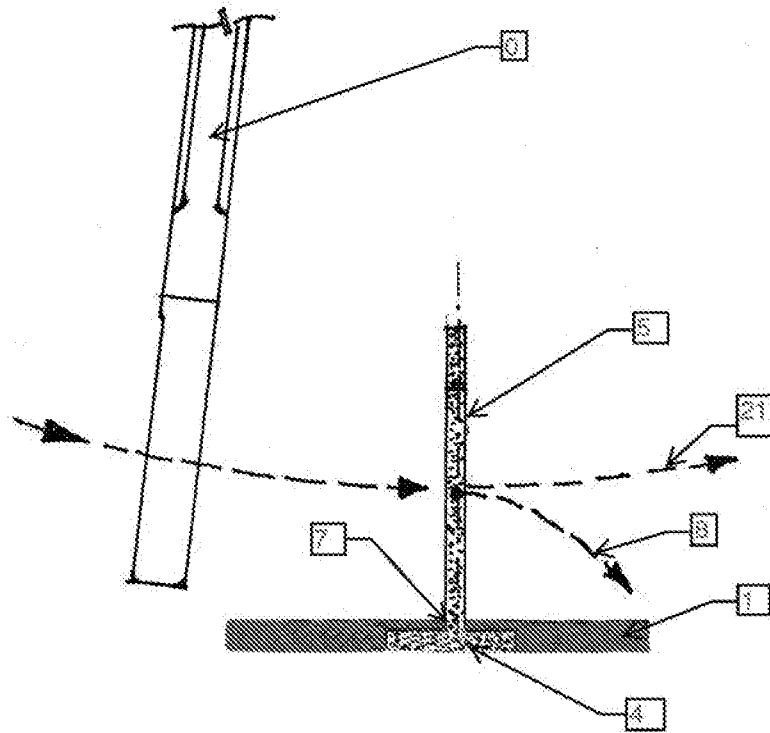


Fig. 7

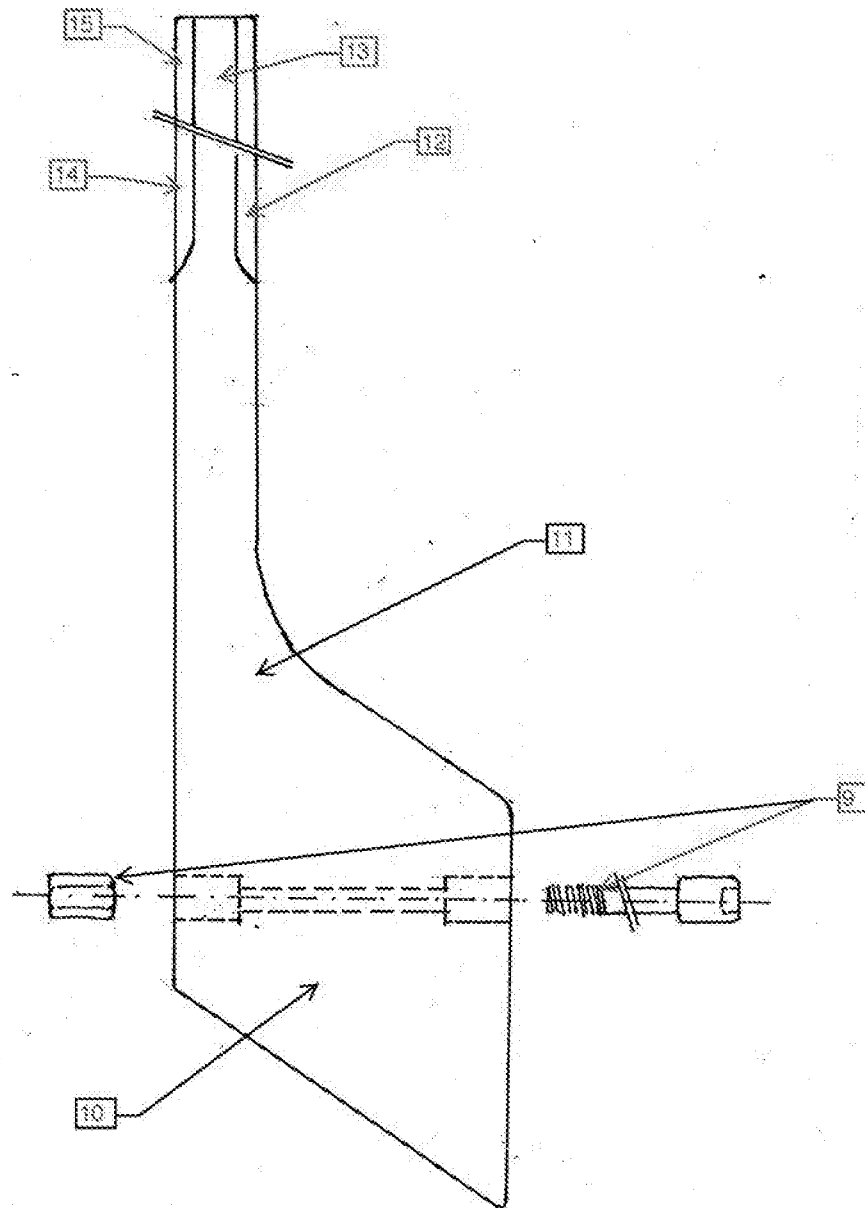


Fig. 8

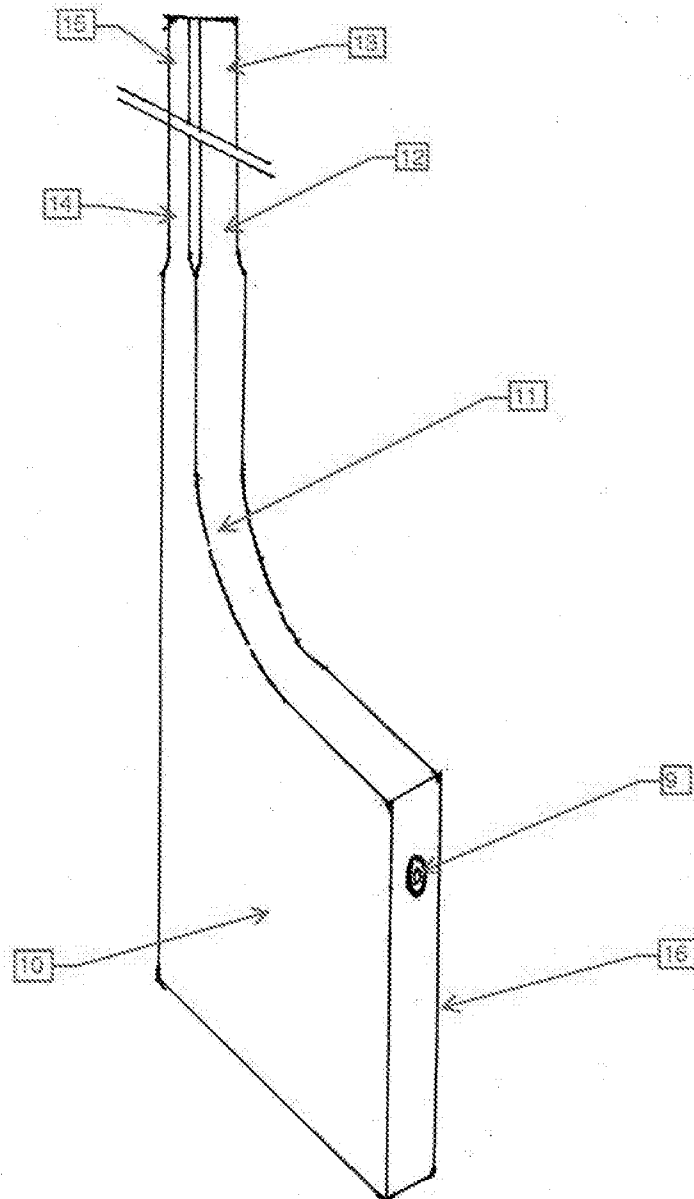


Fig. 9

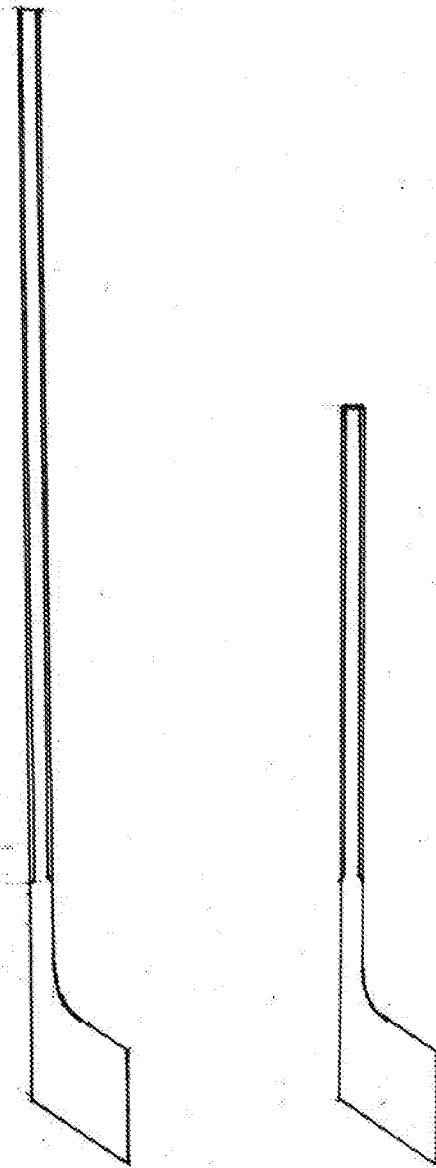


Fig. 10

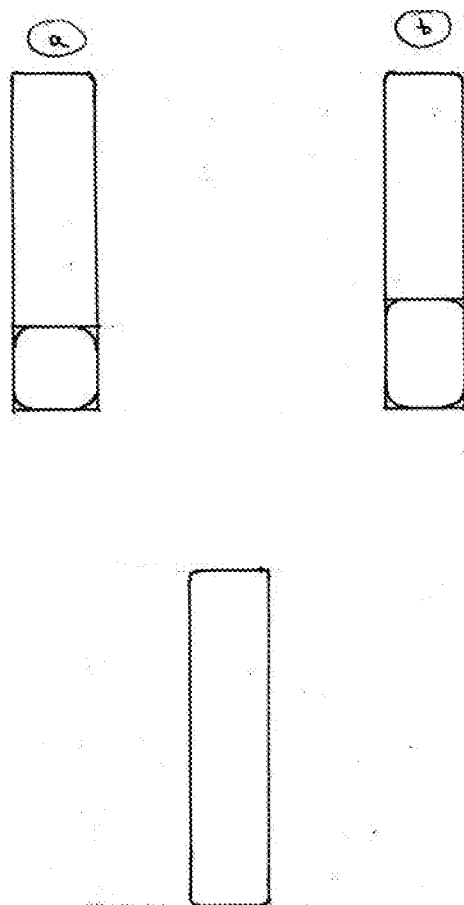


Fig. 11

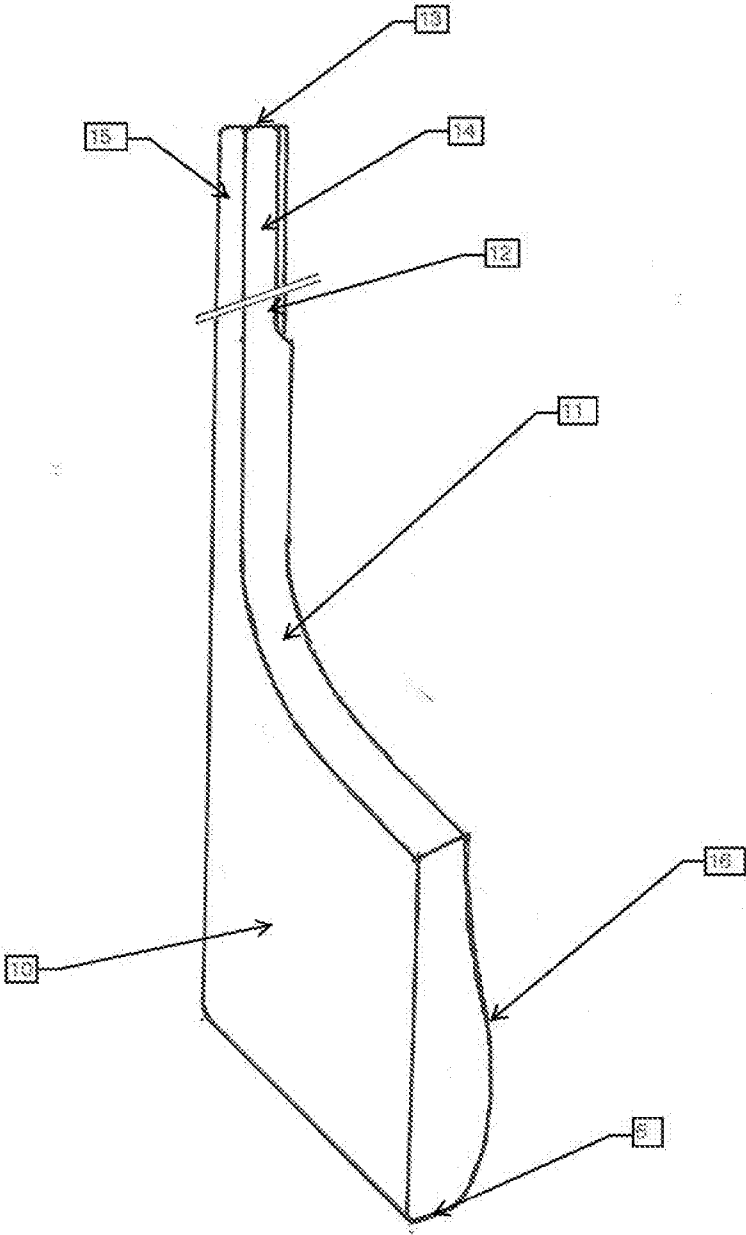


Fig. 12

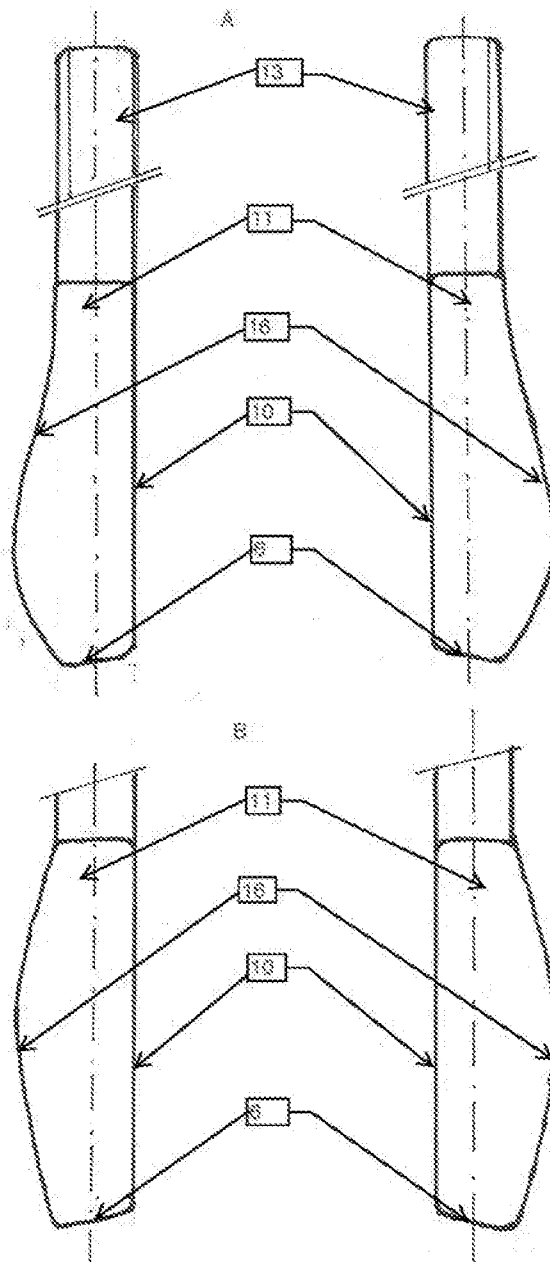


Fig.13

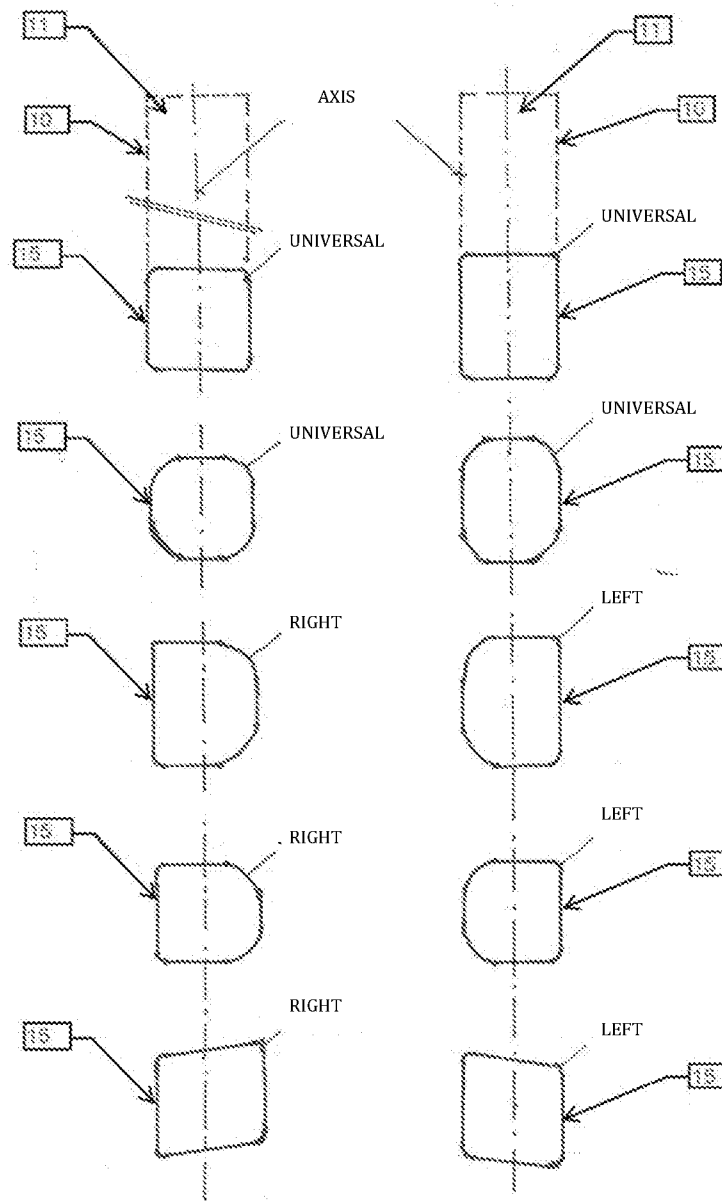


Fig. 14

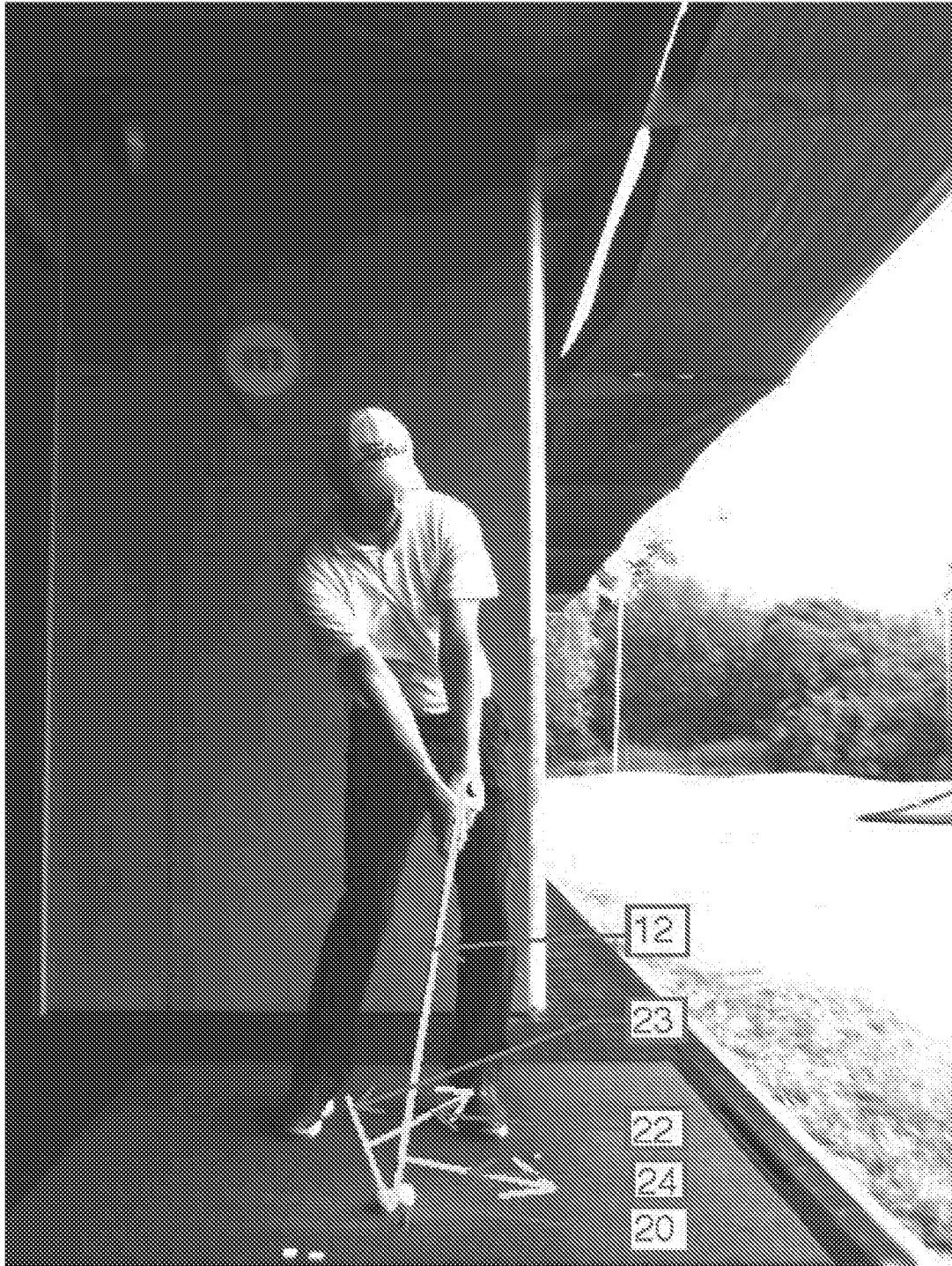


Fig. 15

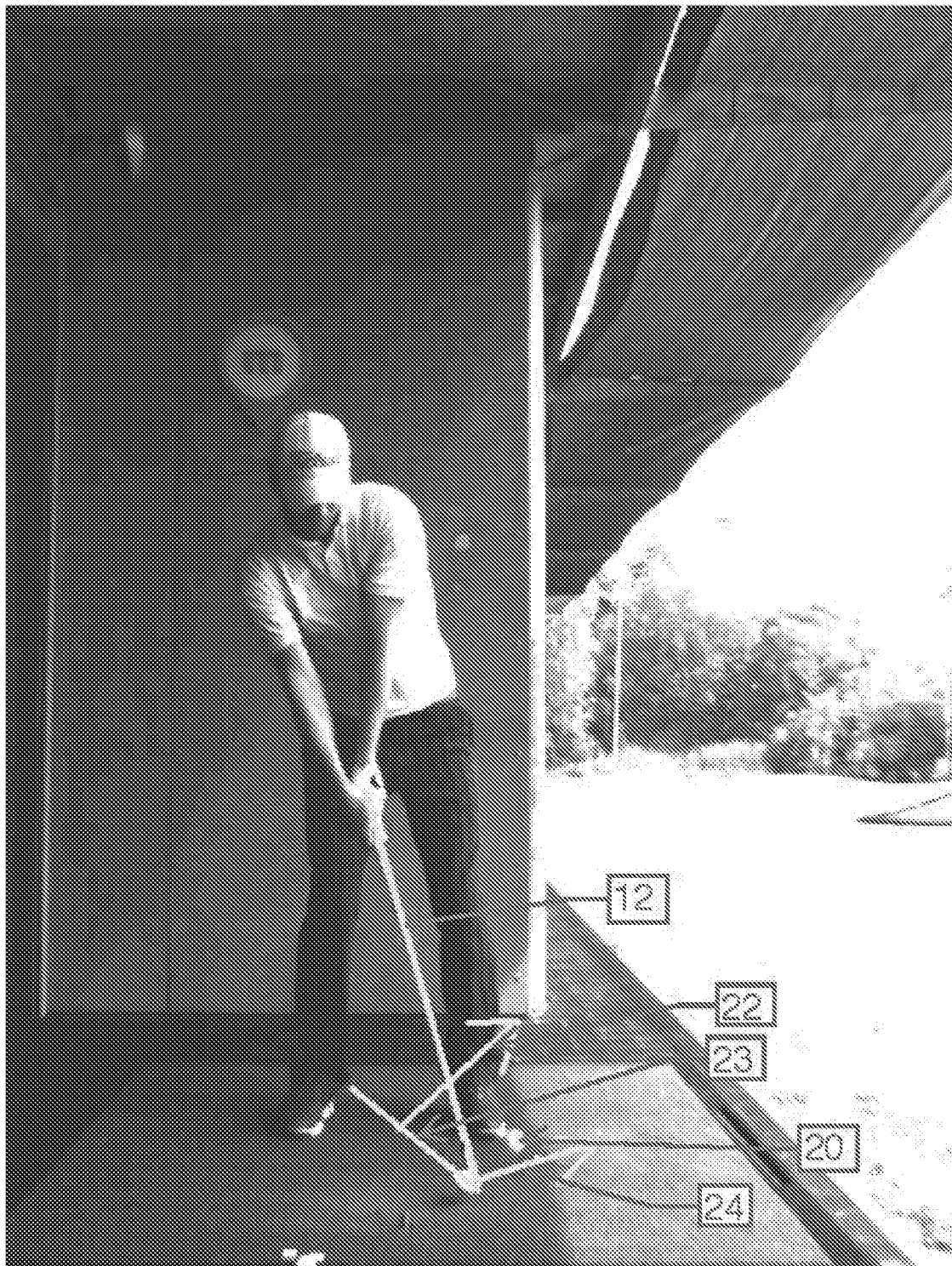


Fig. 16

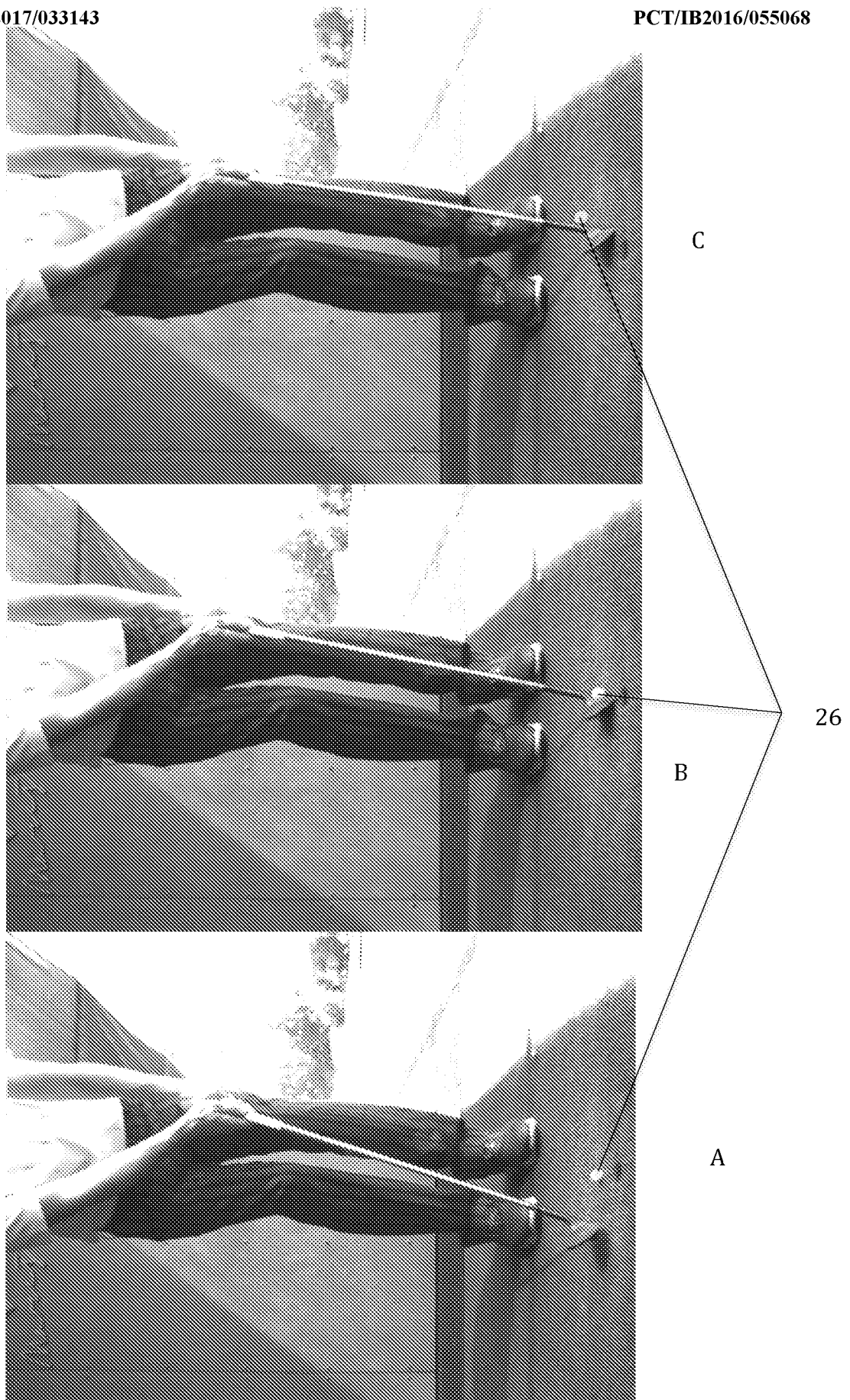


Fig. 17

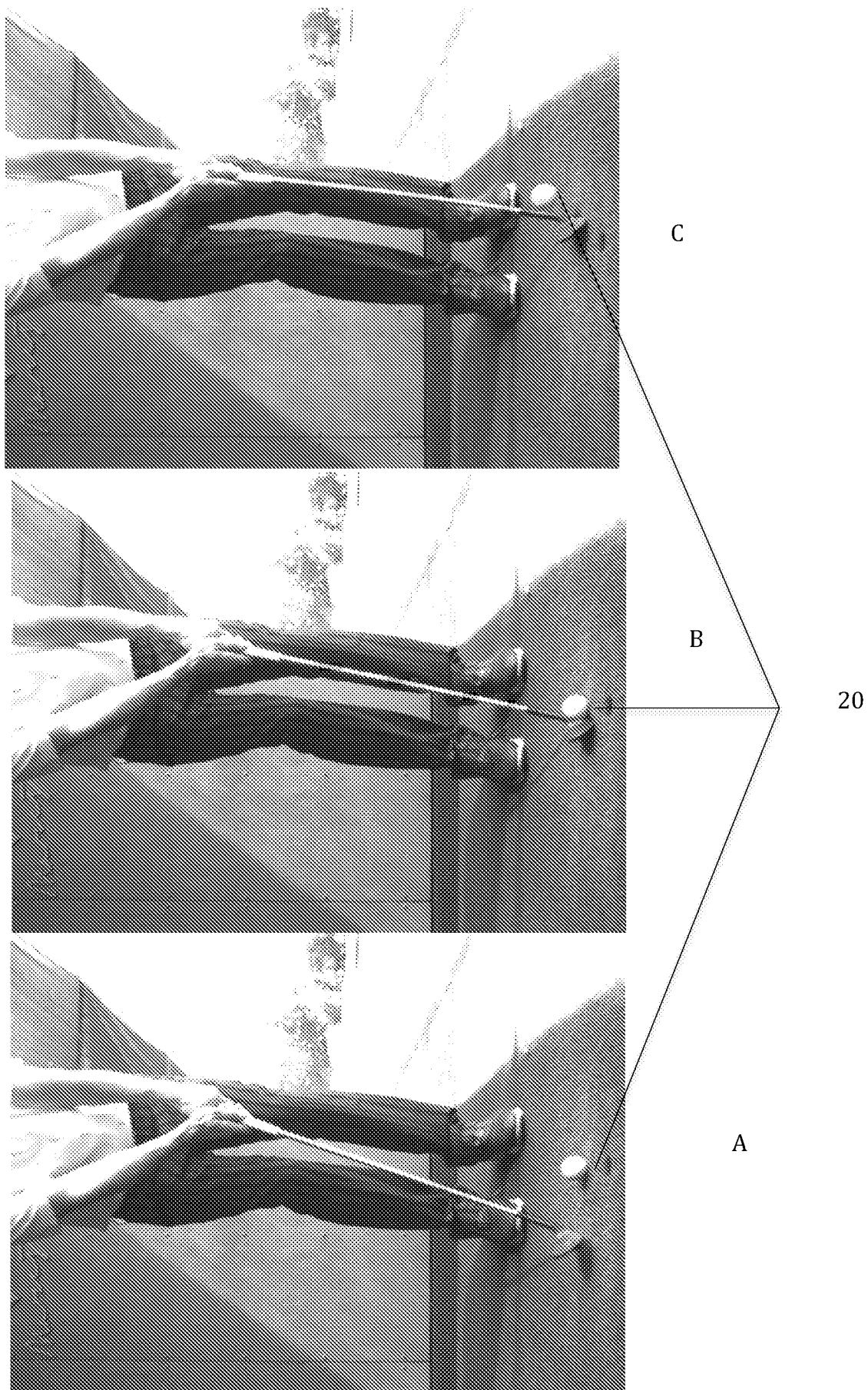
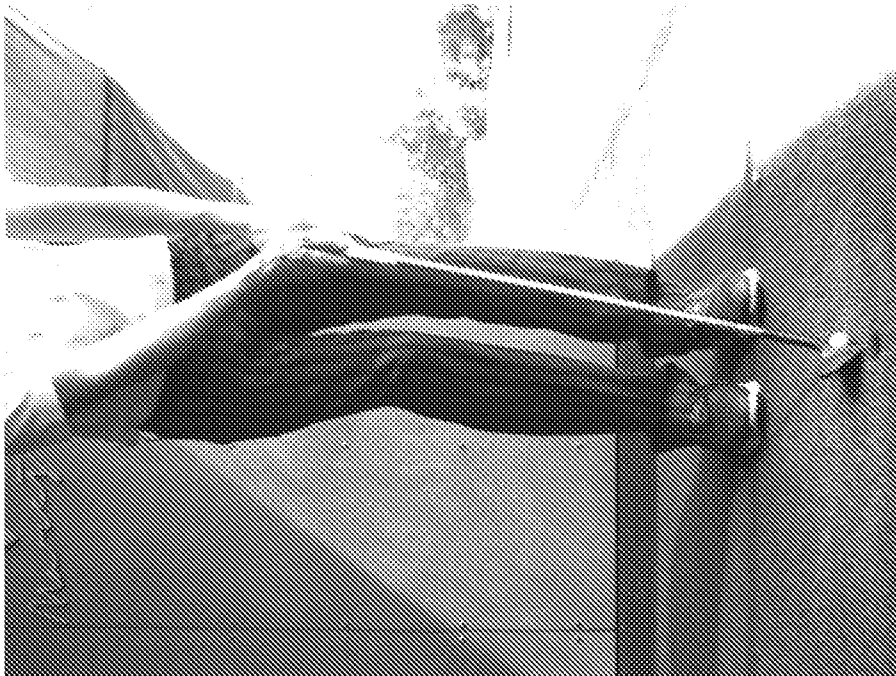
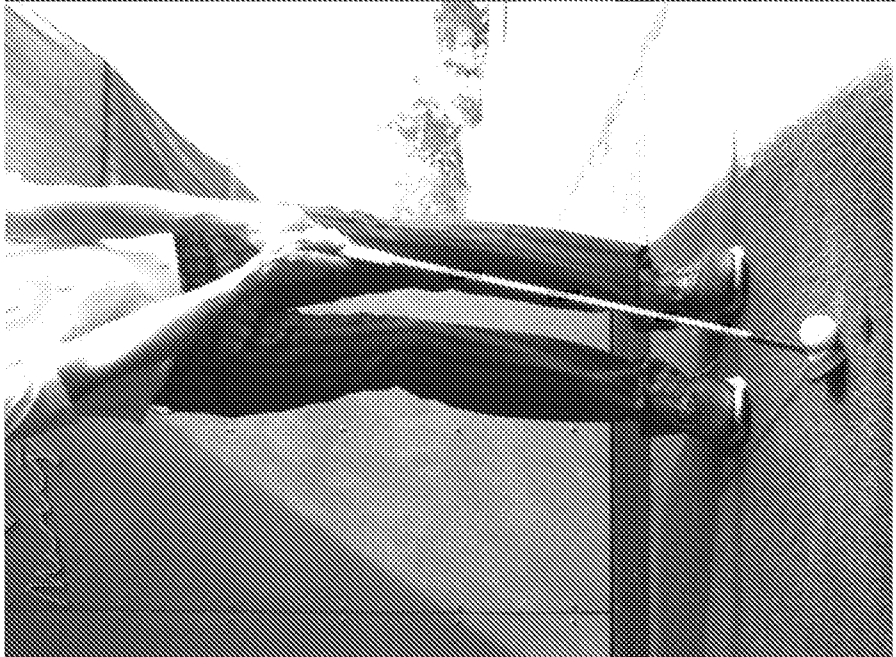


Fig. 18



17 - B



18 - B

Fig. 19

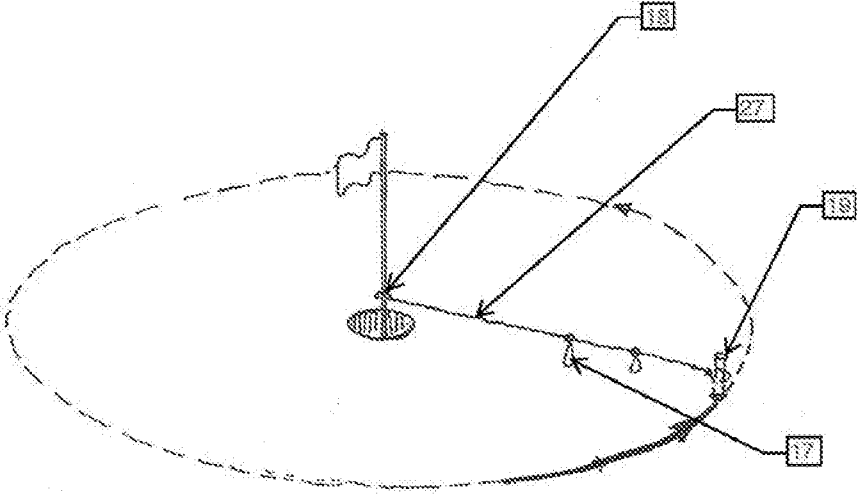


Fig. 20

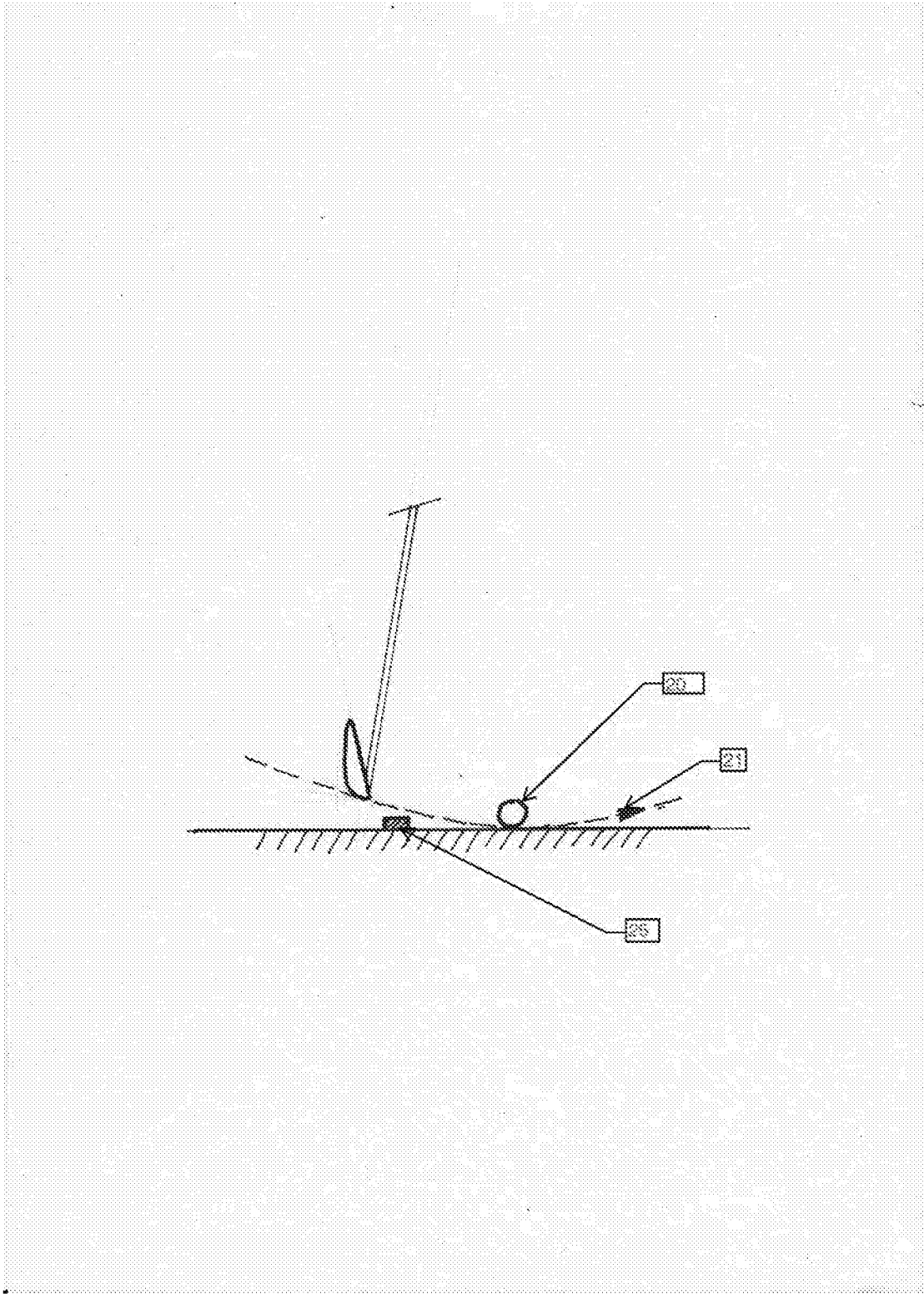


Fig. 21

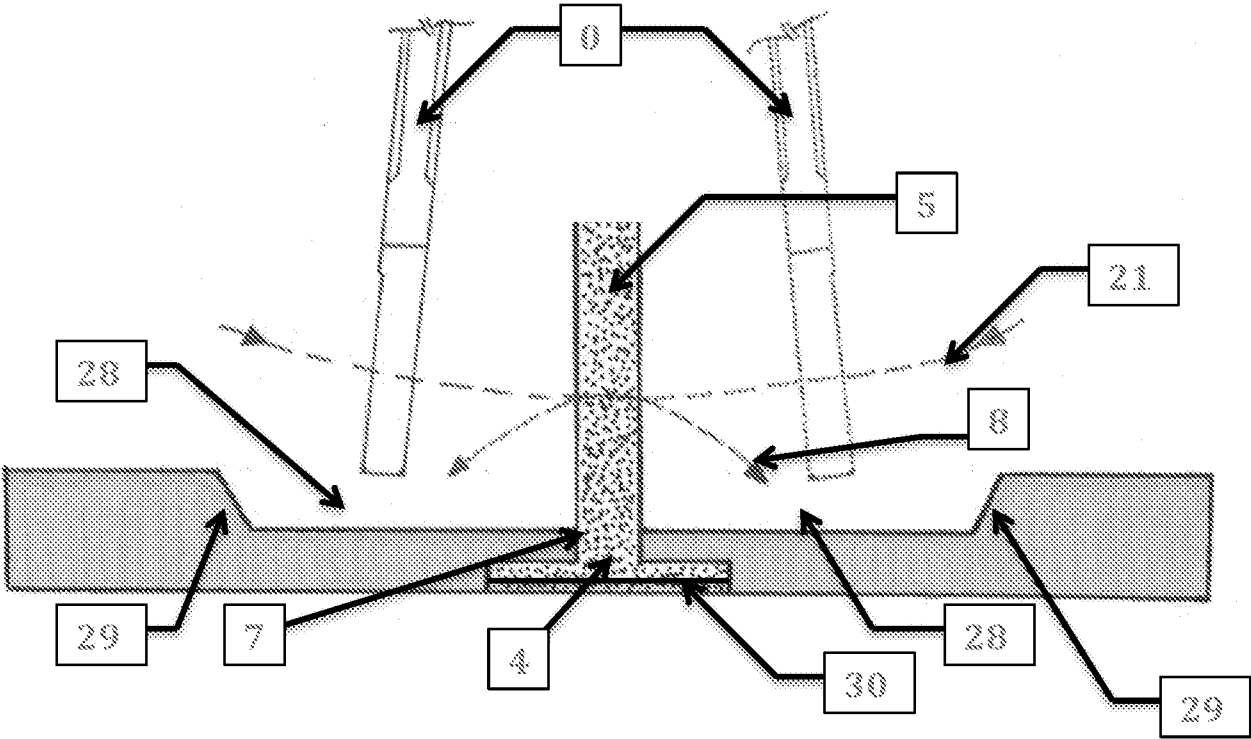


Fig. 22

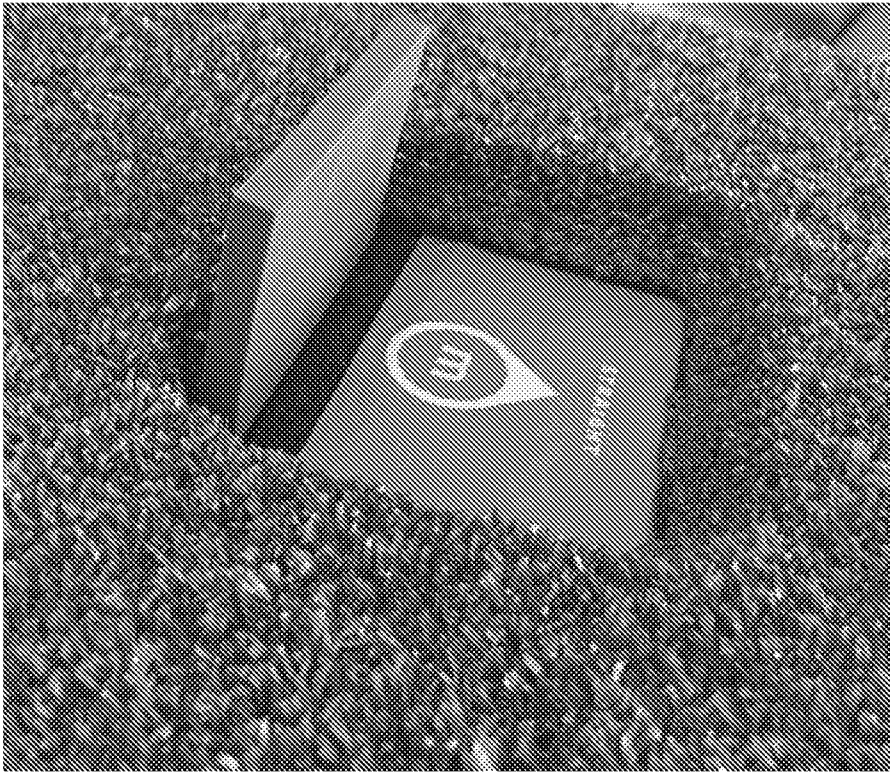


Fig. 23

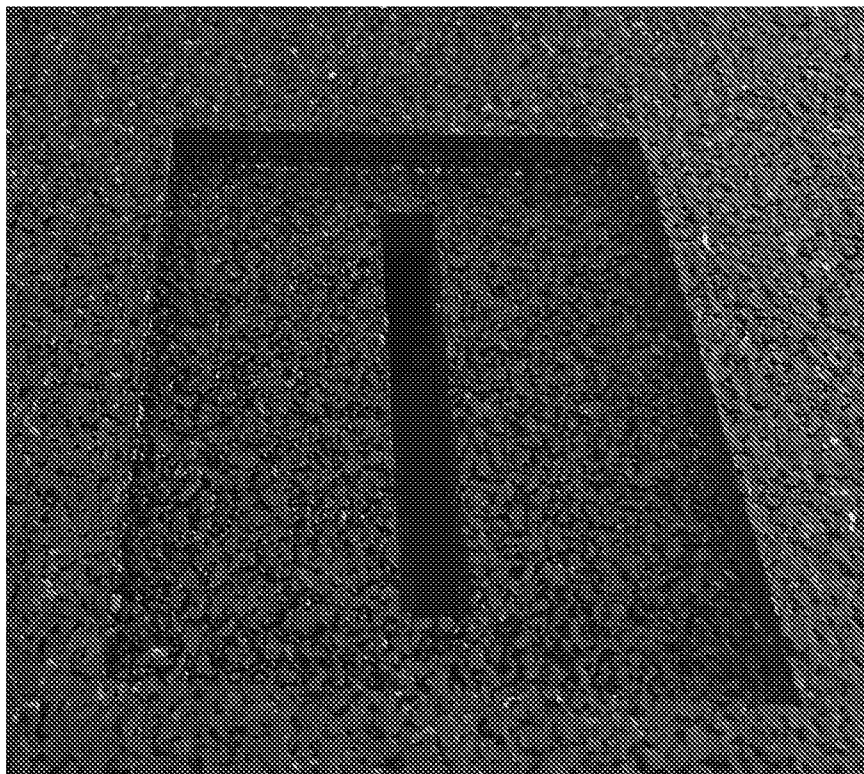


Fig. 24