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(54) **GOIF PUTTER WITH A NEW TYPE OF GRIP**

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(57) **ABSTRACT**

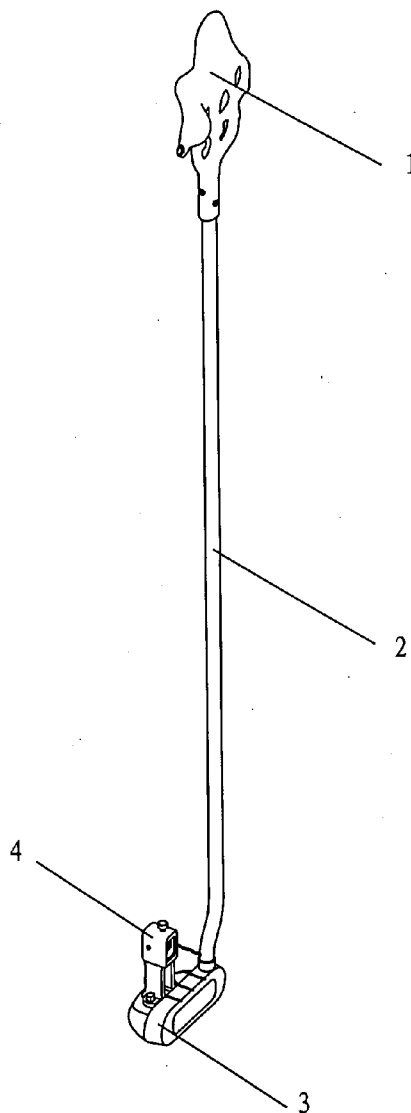
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The invention provides a new type of putter for golfers to improve their putting accuracy and stability. The grip is shaped to help users lock all joints on their hands and arms in place, and thus limits golfers movement of those muscles. By locking all joints and muscles, golfers can concentrate on using only the back and shoulder muscles to putt, making it much easier to have the putter face perpendicular to the intended golf ball path on the x-y plane. Not only would this allow more accurate, stable putts, with repeated usage of this device, golfers will become accustomed to using their back and shoulder muscles to putt, and hence improve their putting skill even with a regular putter.

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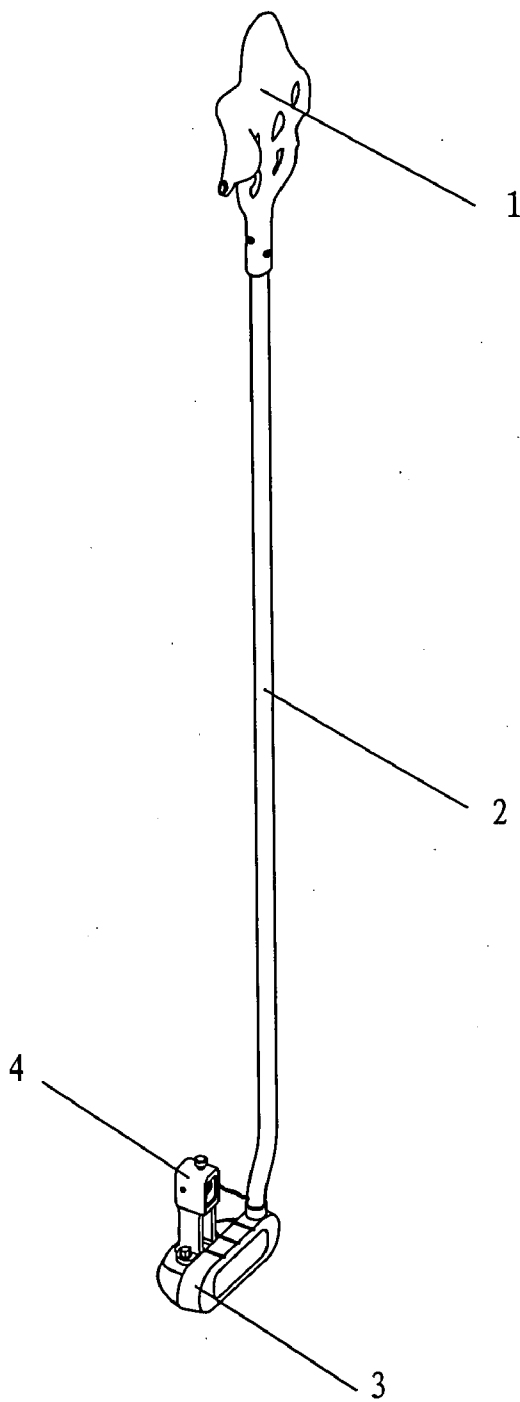


FIG 1

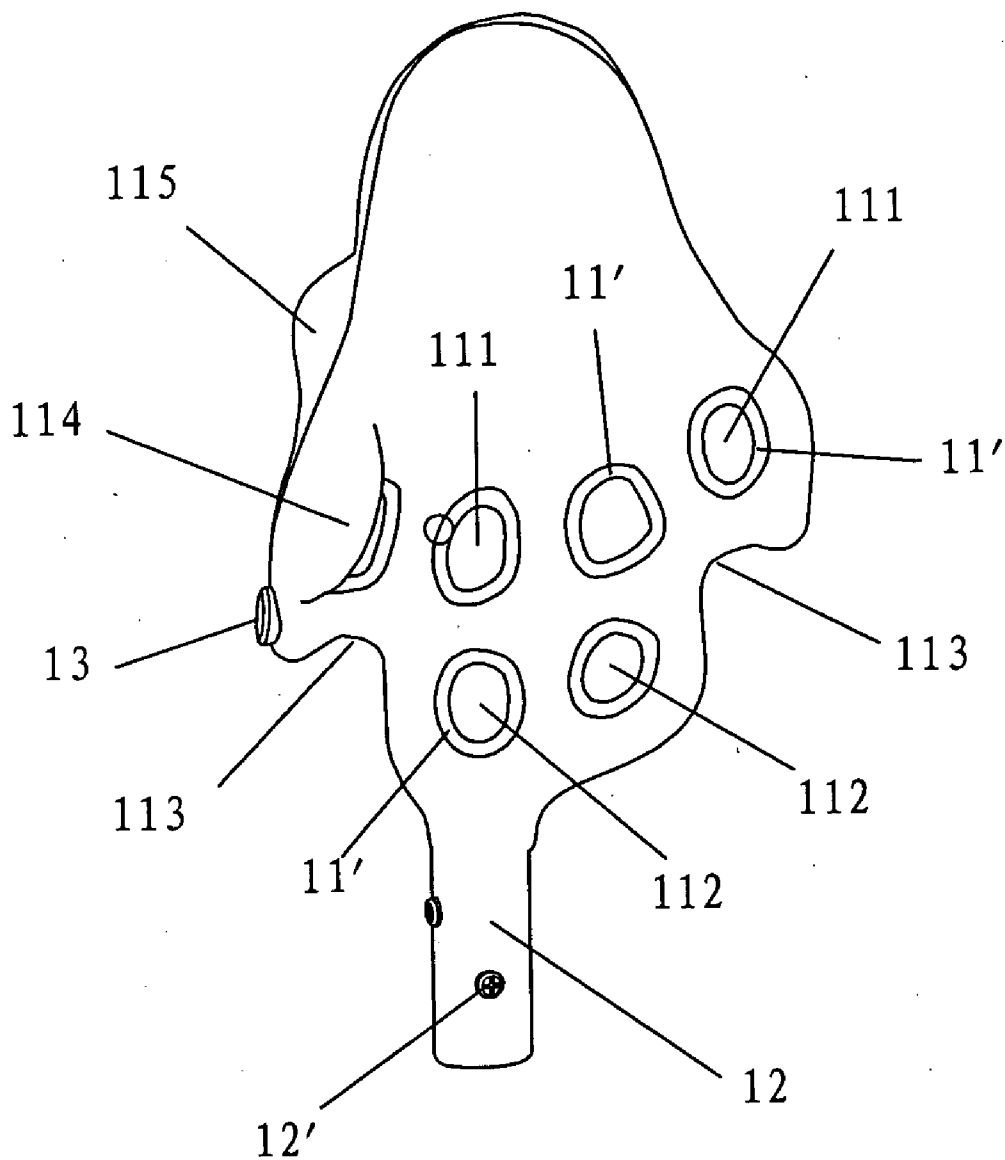


FIG 2

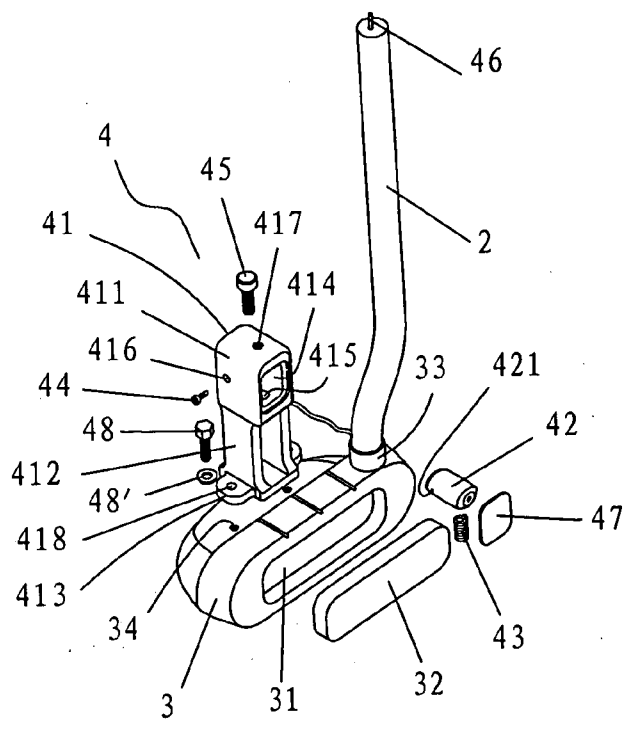


FIG 3

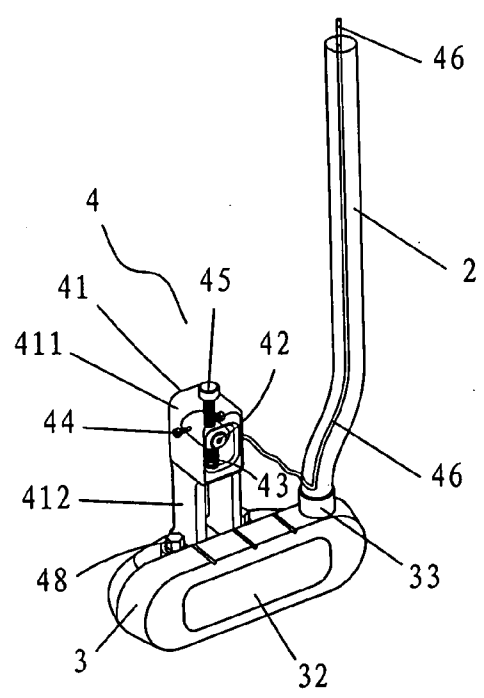


FIG 4

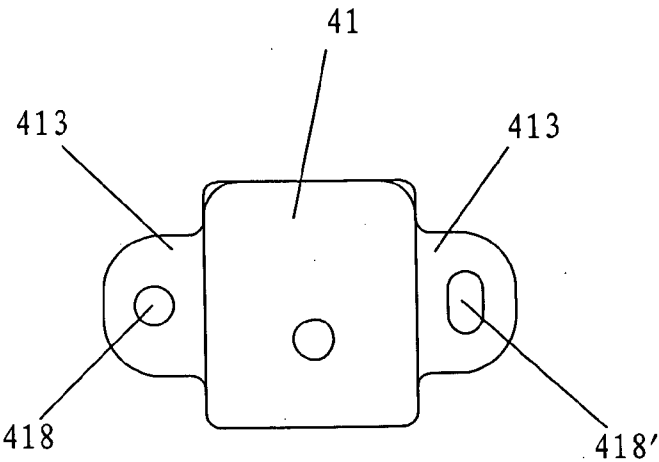


FIG 5

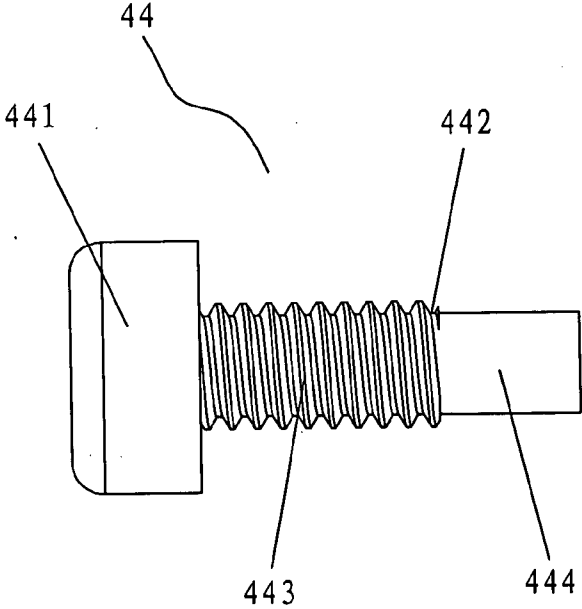


FIG 6

**GOLF PUTTER WITH A NEW TYPE OF GRIP**

**FIELD OF THE INVENTION**

[0001] The present invention relates generally to a golf club, especially with a laser-aiming device.

**BACKGROUND OF THE INVENTION**

[0002] At present, the golf putter or other putters in the market have thin round grip, so it's easy to slide during swing, or the movement of joints of hands, wrist, elbow etc make putt face angle change, which will cause off path and hard to keep steady strike. During the golf competition, putter is the most often used among all the golf clubs. And putting skill is very often the vital factor affecting golf competition result. To help golfer increase their putting skills, golf club manufacturers have developed different kinds of golf putters with laser aiming device, which help golfers to practice while guiding by the laser beam from the laser device to increase chances of hitting ball into hole. But usually the key for putter with laser-aiming device's accuracy is whether the laser devices can be adjusted or accurately adjusted.

**SUMMARY OF THE INVENTION**

[0003] The present invention is to provide a golf putter which ensure steady strike and equips with adjustable laser-aiming device.

[0004] The present invention is carried out by technical methods as follows:

[0005] A golf putter with a new type of grip, comprising of grip portion, shaft, putter head, the grip portion is in palm shape, with transverse holes for fingers.

[0006] The holes include upper holes for forefinger, middle finger, fourth finger and little finger, and also lower holes for middle finger and fourth finger.

[0007] There are concavities for fore finger and little finger on both edge of grip besides the lower holes.

[0008] There is PU foam or TPU injected in the inner circle of or around holes.

[0009] The grip is also with left supporting part and right supporting part to support left and right thumb.

[0010] The putter head is equipped with adjustable laser-aiming device.

[0011] The laser-aiming device includes fixing bracket and laser emitter. The adjustable fixing bracket is installed on the putter head, while the adjustable laser emitter is installed on the fixing bracket.

[0012] The fixing bracket includes main body, foot part and base.

[0013] At the end of laser emitter there is a screw tube, which is fix the laser emitter to the main body by a screw through the main body and can rotate around the screw. The main body has concavity and spring. One end of the spring is inside the concavity, while the other end support the laser-aiming device from bottom.

[0014] The laser-aiming device is also with adjustable screw, which goes through the main body and connects with upper front part of laser-aiming device.

[0015] In front of the main body, there is an opening, which is fixed with a protective film by glue, or ultrasonic or high frequency welding.

[0016] The protective film is a thin transparent film made of glass or acrylic.

[0017] The grip has a control switch to turn on the laser-aiming device, power supply and PCB board. The switch connects with laser-aiming device by lead.

[0018] The lead is embedded inside the shaft.

[0019] The advantage of this utility model patent is that the grip portion is ergonomically designed in palm-shape, with holes for fingers, concavity and supporting part. Golfer holds the grip portion by both of their full palms, thus, all joints of fingers, palms, wrists, elbows etc are all locked, a steady triangle is formed by both arms and shoulder, and the putting strike is only controlled by the back muscle of golfer. This guarantees no change of putting face angle, and better putting stroke. Even if the putting spot is not the sweet spot, the putting face angle won't change for accidental collision. Besides, the putter head is installed with laser-aiming device. And the laser beam direction can be adjusted through the adjustable screw and the arc-shaped oval screw hole, so as to lead to the target, like hole. Golfer can putt by the guidance of laser beam, as to train the accurate putting face, can get better chances of getting ball into hole. And being that the laser-aiming device is adjustable, it settles the problem of laser beam deviating from face center line and ensure better product quality.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0020] FIG. 1 is a structure diagrams of this golf putter for this utility model patent.

[0021] FIG. 2 is a structure diagrams of the grip portion of this golf putter for this utility model patent.

[0022] FIG. 3 is a putter head installation diagrams of this golf putter for this utility model patent.

[0023] FIG. 4 is a putter head's structure diagrams of this golf putter for this utility model patent.

[0024] FIG. 5 is a installation diagrams of installing putter head onto fixing bracket of this golf putter for this utility model patent.

[0025] FIG. 6 is a structure diagrams of the screw of this golf putter for this utility model patent.

[0026] The copyright of the above figures and all other patents belong to the patent applicant.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT**

[0027] Embodiments of the utility model are described below with reference to the drawings.

[0028] As FIG. 1 shows, this utility model patent includes a grip portion 1, a shaft 2, and a putter head 3. The palm-shaped grip portion 1 is made of toughened plastic (e.g. nylon), and is connected with shaft 2 by screw. The grip portion 1 is ergonomically designed with holes for fingers 11. The straight tube-shaped shaft 2 is made of metal (e.g. stainless steel), whose bottom connect with putter head by screw. At top of putter head is the adjustable laser-aiming device, which can emit laser beam as guidance for golfer to train more accurate putting face, and better chances of hitting ball into hole.

[0029] As FIG. 2 shows, the grip portion 1 of this utility model patent is designed to be in palm-shaped, whose bottom is fixed with shaft 2 by fixing part 12 through screw 12'. The grip portion has transverse holes 11 for fingers in it, including upper holes 111 for left hand's forefinger, middle finger, fourth finger and little finger, and also lower holes 112 for right hand's middle finger and fourth finger. There is PU foam

or TPU injected in the inner circle of holes and around. This ensures more comfortable gripping of the grip portion 1, and golfer's finger won't hurt by inner circles of holes 11. On both edges of grip portion 1 besides the lower holes 112, there are concavities 113, mainly for fore finger and little finger. By the grip portion 1, there is also left supporting part 114 and right supporting part 115 to take the pressure from left and right thumb when gripping the grip portion 1. By the supporting part and at the edge of grip portion 1, there is a control switch 13 to activate the laser-aiming device 42 on the putter head 3. And the device will be automatically off in 20 seconds (may be longer or shorter). Golfer holds the grip portion by both of their full palms, and fingers fit into the holes 11, concavity 13, left supporting part 114 and right supporting part 115. Thus, all joints of fingers, palms, wrists, elbows etc are all locked, a steady triangle is formed by both arms and shoulder, and the putting strike is only controlled by the back muscle of golfer. This guarantees no change of putting face angle, and better putting stroke. Even if the putting spot is not the sweet spot, the putting face angle won't change for accidental collision. While using other golf putter with thin round grip portion, the triangle formed by arms and shoulder tend to transform easily, causing off path, and failure of putting ball into hole. Besides, when comes to high ball, golfer usually prefer higher following strike in order to make high ball rolls smoother. And the key factor for smoother high ball rolling is position of the hand for following strike should be lower than the other one when holding the grip portion 1. Therefore, in our present patent, the position of holes 112 for left hand fingers are lower than holes 111 of right hand fingers (For left handed golfer, holes 111 for right hand fingers are lower than holes 112 for left hand fingers).

[0030] The laser-aiming device and the grip portion of this utility model patent can also apply for other golf clubs.

[0031] As FIGS. 3 & 4 show, the putting face of this utility model patent is with a concavity 31, which is glued with a rough-surfaced soft pad 32 made of sticky silicon material. So the soft pad 32 hits the ball in a circle arc, which gets better rolls, better control of rolling distance, less ball jumping, more stable path control. On the putter head 3, there is a connector 33, which connects with one end of shaft 2. Middle of putter 3 is equipped with an adjustable laser-aiming device 4, including fixing bracket 41, laser emitter 42 and spring 43. The fixing bracket 41 includes main body 411, foot part 412 and base 413. In front of the main body 411 is an opening 414. There is also a concavity 415 inside the front part of main body. The laser emitter 42 and spring 43 are installed inside the main body 411. At the end of laser emitter 42 there is a screw tube 421, which fix the laser emitter 42 to the main body 411 by a screw 44 through the main body and can rotate around the screw 44. While on end of the spring 43 is inside the concavity 415 and the other end support the bottom of laser emitter 42 front part. The laser emitter 42 also includes adjustable screw 45 going through the screw hole 417 at the upper part of the main body, and connects with the upper front part of laser emitter 42. By adjusting the adjustable screw can adjust the direction of laser emitter 42, to enable the laser beam to aim at the target, e.g. hole. Inside the laser aiming device, there is lead 46 and protective film 47. One of the lead 46 connects with laser emitter 42 while the other end connects with power supply and switch. The protective film 47 a transparent film made of glass or plastic material (e.g. acrylic), which is fixed to the opening 414 of main body 411 by glue or ultrasonic or high frequency welding. The film can protect

laser emitter from sands and water when putter hits the ball, so to ensure longer durability and longer life. There are screw holes 418 on both sides of the base 413 and screw hole 34 above the putter head 3. The fixing bracket 41 is fixed onto the putter head 3 by the screw 48 going through pad 48', screw holes 418 and screw hole 34.

[0032] FIG. 5 is the overhead view of the fixing bracket 41 of this utility model patent. The left screw hole 418 on the base 413 is a round screw hole, while the right screw hole 418' is an arc-shaped oval screw hole. Therefore, golfer can loose the screw 48 (not shown in the figures) to adjust the laser aiming device, which settles the problem of laser beam deviating from face center line and ensure better product quality.

[0033] FIG. 6 is the screw structure drawing of this utility model patent. The screw 44 is composed by head part 441 and pin part 442. The front part of pin part 442 is with screw thread 443, and the end part 444 is round. The screw 44 can be screw tight on the main body 411, and fix the laser emitter 42 onto the main body 411. The laser emitter 42 can rotate around the round end part 444 of screw 44.

1. A golf putter with a new type of grip, comprising of grip portion, shaft, putter head, wherein, the grip portion is in palm shape, with transverse holes for fingers.

2. A golf putter with a new type of grip according to claim 1, wherein The holes include upper holes for forefinger, middle finger, fourth finger and little finger, and also lower holes for middle finger and fourth finger.

3. A golf putter with a new type of grip according to claim 2, wherein there are concavities for fore finger and little finger on both edge of grip besides the lower holes.

4. A golf putter with a new type of grip according to claim 3, wherein there is PU foam or TPU injected in the inner circle of holes and around.

5. A golf putter with a new type of grip according to claim 4, wherein the grip is also with left supporting part and right supporting part to support left and right thumb.

6. A golf putter with a new type of grip according to claim 5, wherein the putter head is equipped with adjustable laser-aiming device.

7. A golf putter with a new type of grip according to claim 6, wherein the laser-aiming device includes fixing bracket and laser emitter. The adjustable fixing bracket is installed on the putter head, while the adjustable laser emitter is installed on the fixing bracket.

8. A golf putter with a new type of grip according to claim 7, wherein the fixing bracket includes main body, foot part and base.

9. A golf putter with a new type of grip according to claim 8, wherein at the end of laser emitter there is a screw tube, which is fix the laser emitter to the main body by a screw through the main body and can rotate around the screw, and that the main body has concavity and spring, and that one end of the spring is inside the concavity, while the other end support the laser-aiming device from bottom.

10. A golf putter with a new type of grip according to claim 9, wherein the laser-aiming device is also with adjustable screw, which goes through the main body and connects with upper front part of laser-aiming device.

**11.** A golf putter with a new type of grip according to claim **10**, wherein in front of the main body, there is an opening, which is fixed with a protective film by glue, or ultrasonic or high frequency welding.

**12.** A golf putter with a new type of grip according to claim **11**, wherein the protective film is a thin transparent film made of glass or acrylic material.

**13.** A golf putter with a new type of grip according to claim **12**, wherein the grip has a control switch to turn on the laser-aiming device, power supply and PCB board and that the switch connects with laser-aiming device by lead.

**14.** A golf putter with a new type of grip according to claim **13**, wherein the lead is embedded inside the shaft.

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