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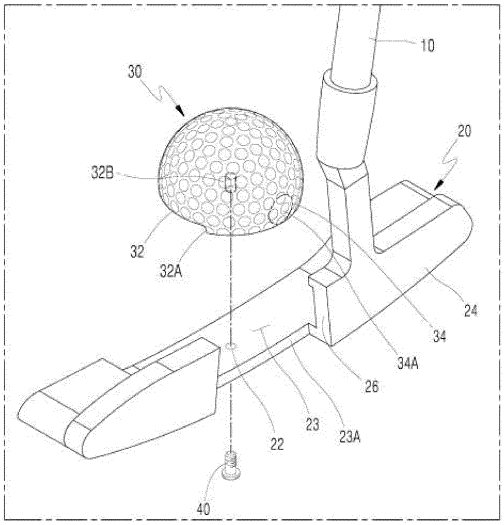
(54) GOLF PUTTER FOR PRACTICE

(57) A golf practice putter is disclosed. A golf practice putter according to the present disclosure includes a putter head coupled to a lower end of a shaft and having a putter face and a hitting member selectively coupled to the putter head, wherein a through hole is formed in the putter head to be stepped such that a fastening bolt pass through the through hole upwards from a bottom face of the putter head, and a cutout portion is formed in the putter face corresponding to the through hole to open a portion of an upper face of the putter head in a hitting direction, and wherein the hitting member is formed in a shape of a golf ball, a seating face seated on the upper face and supported by an edge of the upper face and a support face are formed to be stepped in a bottom face of the hitting member, a screw-fastening groove is formed in the seating face such that the fastening bolt is coupled to the screw-fastening groove, and the hitting member is interchangeably coupled to the putter head by the fastening bolt in a state in which the hitting member is seated on the upper face such that a part of the hitting face protrudes beyond the putter face through the cutout portion.

【FIG.3】



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Description

Technical Field

[0001] The present disclosure relates to a golf putter for practice(hereinafter, referred to as "golf practice putter"), and more particularly, to a golf practice putter, in which a hitting face is capable of being interchangeably used and a right-handed user or a left-handed user is capable of easily use the putter, so that putting practice for precisely putting a golf ball placed on a putting green into a hole can be efficiently performed.

Background Art

[0002] In general, a putter is an iron club for putting and is used to directly hit a ball on a green toward a hole. The term, putting, means an act of hitting a ball using a putter.

[0003] In the above-mentioned putting, direction and distance are important for successful putting, but what is required most is a correct putting posture. In order to have the correct putting posture, it is necessary to learn the feeling of the posture through numerous exercises over a long period of time.

[0004] In this case, the correct putting posture refers to a posture for causing a putter and a golfer's hands holding the putter to perform a pendulum movement around the golfer's head during swing and causing the putter head to impact the ball at the lowest point of the pendulum movement. The ball will be sent to the desired position only when the ball is hit with the posture described above.

[0005] When the wrist is bent or the body is shaken during the swing, a correct pendulum movement is not performed. Thus, the ball is impacted at an improper position and the ball will not be sent to the desired position.

[0006] These problems may be somewhat solved by practicing putting using a practice putter.

[0007] As a prior art, a putter for golf practice is disclosed in Korean Utility Model No. 20-0350462 (published on May 13, 2004).

[0008] As illustrated in FIG. 1, a golf practice putter 1 according to the prior art includes a triangular or semicircular hitting protrusion 2A for straightly hitting a golf ball 3 at the front center of the putter head 2. Such a golf practice putter 1 has an advantage in that it is possible to perform a practice for straight hitting of a golf ball 3 using a semicircular hitting protrusion 2A.

[0009] However, such a putter 1 has a problem in that since the putter head 2 and the hitting protrusion 2A are integrally formed, it is impossible to apply various structures of hitting protrusions 2A.

[0010] As another prior art, a putter practice tool for a golf putter is disclosed in Korean Registered Utility Model No. 20-0395835 (published on September 14, 2005). As illustrated in FIG. 2, the middle portion is formed as a hitting portion 1A having the widest width, and fixing plates 1' and 1" are provided on the opposite sides of a putting tool 1 having a center line 101 indicated on the upper surface thereof such that the fixing plates 1' and 1" are fixed using rubber bands 3 in the state in which the fixing plates 1' and 1" are in contact with the putter head 2. The putting practice tool having the structure described above is configured to be able to replace the putting tool 1, but since the putting tool 1 is configured to be coupled using the rubber bands 3, there is a problem in that it is impossible to maintain strong coupling force.

Detailed Description of the Invention

Technical Problem

[0011] The present disclosure provides a golf practice putter configured such that a hitting face thereof is capable of being interchangeably used so that putting practice for correctly putting a golf ball placed on a putting green into a hole can be efficiently performed, and such that various hitting faces is capable of being used and a right-handed user or a left-handed user is capable of easily use the putter, so that the efficiency of practice can be improved.

[0012] In addition, the present disclosure provides a strong coupling structure between a putter head and a hitting member having various hitting faces.

[0013] Aspects of the present disclosure are not limited to the aforementioned ones, and other unmentioned aspects of the present disclosure will be clearly understood from the following description by those skilled in the art to which the present disclosure pertains.

Technical Solution

[0014] In view of the above, the present disclosure provides a golf practice putter, wherein a through hole is formed in the putter head to be stepped such that a fastening bolt passes through the through hole upwards from a bottom face of the putter head, and a cutout portion is formed in the putter face corresponding to the through hole to open a portion

of an upper face of the putter head in a hitting direction, and wherein the hitting member is formed in a shape of a golf ball and has a hitting face on an outer peripheral face thereof, a seating face seated on the upper face and supported by an edge of the upper face and a support face are formed to be stepped in a bottom face of the hitting member, a screw-fastening groove is formed in the seating face such that the fastening bolt is coupled to the screw-fastening groove, and the hitting member is interchangeably coupled to the putter head by the fastening bolt in a state in which the hitting member is seated on the upper face such that a part of the hitting face protrudes beyond the putter face through the cutout portion.

[0015] Also, the present disclosure provides a golf practice putter including: a putter head coupled to a lower end of a shaft and having a putter face and a hitting member selectively coupled to the putter head, wherein a through hole is formed in the putter head to be stepped such that a fastening bolt passes through the through hole upwards from a bottom face of the putter head, a cutout portion is formed in the putter face corresponding to the through hole to open a portion of an upper face of the putter head in a hitting direction, and a triangular to octagonal coupling protrusion protrudes upwards on the upper face in which the through hole is formed, wherein the hitting member is formed in a shape of a golf ball, hitting faces having different shapes and sizes are formed on an outer peripheral face of the hitting member, a seating face is formed on a bottom face of the hitting member to be seated on the upper face, a triangular to octagonal coupling groove is formed such that the coupling protrusion is inserted into and coupled to the coupling groove and engagement faces aligned with the hitting faces are provided in the coupling groove, and a screw-fastening groove to which the fastening bolt is coupled is provided in the coupling groove, and wherein an orientation of the hitting member is set such that the hitting face selected among the hitting faces is exposed to the cutout portion, the coupling protrusion is coupled to the coupling groove, and the fastening bolt is coupled to the screw-fastening groove in the coupling groove through the through hole.

[0016] The hitting face of the hitting member is formed as a spherical hitting face formed to have a curvature, which is equal to a curvature of the golf ball, or a flat hitting face formed in a plane shape, and when the hitting face is formed as the flat hitting face, multiple hitting heads are provided for each size of the flat hitting face so as to be selectively coupled to the putter head.

[0017] Also, the present disclosure provides a golf practice putter including a putter head coupled to a lower end of a shaft, wherein the putter head includes: a first hitting member formed in a spherical shape corresponding to a shape of a golf ball, the lower end of the shaft being coupled to the first hitting member; a second hitting member formed in the spherical shape corresponding to the shape of the golf ball, and horizontally coupled to a side face of the first hitting member to be located on a straight line with the first hitting member; a third hitting member formed in the spherical shape corresponding to the shape of the golf ball, and horizontally coupled to a side face of the second hitting member to be located on a straight line with the first hitting member and the second hitting member; and a coupling rod configured to integrate the first hitting member, the second hitting member, and the third hitting member by fastening a nut on one end of the coupling rod, which passes through the first hitting member, the second hitting member, and the third hitting member, and fastening the shaft to a remaining end of the coupling rod.

[0018] Each of the first hitting member, the second hitting member, and the third hitting member, may have a spherical hitting face formed in a curvature, which is equal to a curvature of the golf ball, and flat hitting faces formed in a plane shape and having different sizes.

[0019] In opposite side faces of the second hitting member, which face the first hitting member and the third hitting member, respectively, and in the first hitting member and the third hitting member, position change units may be provided to change the positions of the second hitting member and the third hitting member, to select each of the spherical hitting faces and the flat hitting faces, or to make the hitting faces variable depending on whether a user is right-handed or left-handed. The position change units may include polygonal coupling members having a predetermined length, and polygonal positioning grooves formed on opposite side faces of the first hitting member, the second hitting member, and the third hitting member such that the connection members are fitted and coupled to the polygonal positioning grooves, respectively.

[0020] The shaft may be provided with an aiming member including an aiming hole to aim the hole cup to be foldable and unfoldable, one end of the aiming member being coupled to the shaft via an axle, and the shaft may have aiming scales successively formed thereon to indicate the size and number of the aiming hole with reference to the aiming member.

Advantageous Effects

[0021] According to the present disclosure, it is possible to selectively couple a hitting member having various hitting faces, to replace the hitting member, and to select a hitting face. Thus, it is possible to provide an effect of efficiently performing putting practice.

[0022] In addition, since the direction of the hitting face is variable, it is possible to provide an effect of allowing either a left-handed user or a right-handed user to easily use the practice putter.

[0023] In addition, since the shaft is provided with a aiming member capable of aiming to the hole cup, it is possible to provide an effect of accurately determining the putting direction at the time of putting on a green.

Brief Description of the Drawings

[0024]

FIGS. 1 and 2 are views each illustrating a golf practice putter according to the prior art;
FIG. 3 is an exploded perspective view illustrating a first embodiment of the present disclosure;
FIGS. 4A to 4C are perspective views illustrating different embodiments of a hitting member illustrated in FIG. 1;
FIG. 5 is a cross-sectional view illustrating a coupling state of the golf practice putter illustrated in FIG. 3;
FIG. 6 is a plan view illustrating the use state of the golf practice putter illustrated in FIG. 3;
FIG. 7 is an exploded perspective view illustrating a second embodiment of the present disclosure;
FIG. 8 is a cross-sectional view illustrating the use state of the golf practice putter illustrated in FIG. 7;
FIGS. 9A and 9B are plan views illustrating the state in which the hitting direction of the golf practice putter illustrated in FIG. 7 is changed;
FIGS. 10A and 10B are an exploded perspective view and a cross-sectional view illustrating a third embodiment of the present disclosure;
FIG. 11 is a plan view illustrating the use state of the golf practice putter illustrated in FIG. 10;
FIG. 12 is a perspective view illustrating a fourth embodiment of the present disclosure; and
FIG. 13 is a schematic view for explaining the use of an aiming member illustrated in FIG. 12.

Descriptions of Reference Numerals of Drawings

10: shaft	20, 200: putter head
22: through hole	23: upper surface
23A: edge	24: putter face
26: cutout portion	30: hitting member
27: coupling protrusion	32: seating face
32A: support face	32B: screw-fastening groove
32C: coupling groove	32C-1: engagement face
34: hitting face	34A: spherical hitting face
34B: flat hitting face	40: fastening bolt
300A: first hitting member	300B: second hitting member
320C: third hitting member	400: coupling rod
500: position changing means	510: connection member
520: positioning groove	600: hole cup
700: aiming member	710: axle
720: aiming hole	730: aiming scale

Mode for Carrying Out the Invention

[0025] Hereinafter, exemplary embodiments of the present disclosure will be described in detail with reference to the accompanying drawings. In the description of the present disclosure, the description of the well-known function or structure will be omitted in order to clear the subject matter of the present disclosure.

[0026] FIG. 3 is an exploded perspective view illustrating a first embodiment of the present disclosure, FIGS. 4A to 4C are perspective views illustrating different embodiments of a hitting member illustrated in FIG. 1, and FIG. 5 is a cross-sectional view illustrating a coupling state of the golf practice putter illustrated in FIG. 3.

[0027] As illustrated in FIGS. 3 to 5, a golf practice putter according to a first embodiment of the present disclosure includes a putter head 20 having a putter face 24 at a lower end of a shaft 10 having a grip at an upper end thereof, and a hitting member 30 is detachably coupled to the putter head 20.

[0028] This will be described in more detail.

[0029] A through hole 22 is formed in the putter head 20 to be stepped such that a fastening bolt 40 upwardly passes through the through hole 22 from the bottom face of the putter head 20, and a cutout portion 26 is formed in the putter face 24 corresponding to the through hole 22 to open a portion of the upper face 23 of the putter head 20 in a hitting direction.

[0030] Forming the through hole 22 to be stepped is to prevent the head of the fastening bolt 40 from protruding from the bottom face of the putter head 20 when the fastening bolt 40 is coupled to the hitting member 30 through the through hole 22.

[0031] It is desirable to form the through hole 22 and the cutout portion 26 in the middle portion of the putter head 20.

[0032] The hitting member 30 is configured to be selectively coupled to or separated from the putter head 20, and is formed to have the shape of a golf ball as illustrated in FIG. 3 in a size, which is the same as or similar to that of the golf ball. The hitting member 30 has a spherical or flat hitting face 34 on the outer peripheral face thereof, a seating face 32 seated on the upper face 23 of the putter head 20, and a support face 32A formed on one side of the seating face 32 in a stepped form so as to be supported by the edge 23A of the upper face 32 when the seating face 32 is seated on the upper face 23. The seating face 32 is provided with a screw-fastening groove 32B having female threads such that the fastening bolt 40 is coupled thereto.

[0033] The hitting member 30 described above is interchangeably coupled to the putter head 20 by the fastening bolt 40 in the state of being seated on the upper face 23 such that a part of the hitting face 34 protrudes beyond the putter face 24 through the cutout portion 26. In addition, even if the fastening bolt 40 is fastened to the screw-fastening groove 32B through the through hole 22 from the bottom face of the putter head 20, the head of the fastening bolt 40 does not protrude from the bottom face of the putter head 20 since the head of the fastening bolt 40 is seated in the stepped through hole 22.

[0034] Meanwhile, the hitting face 34 of the hitting member 30 is formed as a spherical hitting face 34A formed in a curvature, which is the same as the golf ball or a flat hitting face 34B formed in a plane shape. When a flat hitting face 34B is formed as the hitting face 34, it is desirable to provide multiple hitting members 30 for respective sizes of flat hitting faces 34B. That is, when multiple hitting members 30 having different flat hitting surfaces 34B of different sizes are provided, a user may select a hitting member 30 having the flat face 34B of a desired size, and may use the hitting member 30 by coupling the hitting member 30 to the putter head 20.

[0035] The action of the golf practice putter according to the first embodiment of the present disclosure, which is configured as described above, will be described.

[0036] The user may select hitting members 30 having different hitting faces 34. For example, the user may select and a hitting member 30 having a spherical hitting face 34A to the upper face 23 of the putter head 20, or may select and couple a hitting member 30 having a flat face 34B and couple the hitting member 30 to the upper face 23 of the putter head 20. That is, the user selects a hitting member 30 having a desired hitting surface 34 and couples the hitting member 30 to the putter head 20 using the fastening bolt 40.

[0037] Next, when the hitting member 30 is coupled to the putter head 20, since the hitting face 34 protrudes beyond the hitting face 24 of the putter head 20 in the hitting direction through the cutout portion 26, the user is capable of performing putting practice for hitting a golf ball with the hitting member 30, as illustrated in FIG. 6.

[0038] Since it is possible to select one of a hitting member 30 having a spherical hitting face 34A and a hitting member 30 having a flat hitting face 34B and to use the selected one by coupling the selected one to the putter head 20, the user may perform putting practice more efficiently using various hitting faces.

[0039] In addition, since the seating face 32 of the hitting member 30 is seated on the upper face 23 of the putter head 20, the support face 32A is supported on the edge of the upper face 23, and the fastening bolt 40 is fastened to the fastening groove 32B through the through hole 22, the hitting member 30 and the putter head 20 are maintained in the strongly coupled state, and thus the hitting member 30 does not move during putting practice. Further, since the support face 32A is supported by the edge 23A of the upper surface 23, it is possible to stably hit the golf ball without movement of the hitting member 30.

[0040] In the accompanying drawings, FIG. 7 is an exploded perspective view illustrating a second embodiment of the present disclosure, FIG. 8 is a cross-sectional view illustrating the coupled state of the golf practice putter illustrated in FIG. 7, and FIGS. 9A and 9B are plan views illustrating the state in which the hitting direction of the golf practice putter illustrated in FIG. 7 is changed.

[0041] As illustrated in FIGS. 7 to 9, a golf practice putter according to a second embodiment includes a putter head 200 coupled to the lower end of the shaft 10. The putter head 200 includes: a first hitting member 300A formed in a spherical shape corresponding to the shape of a golf ball, the lower end of the shaft 10 being coupled to the first hitting member; a second hitting member 300B formed in the spherical shape corresponding to the shape of the golf ball, and horizontally coupled to a side face of the first hitting member 300A to be located on a straight line with the first hitting member 300A; a third hitting member 300C formed in the spherical shape corresponding to the shape of the golf ball, and horizontally coupled to a side face of the second hitting member 300B to be located on a straight line with the first hitting member 300A and the second hitting member 300B; and a coupling rod 400 configured to integrate the first hitting member 300A, the second fitting member 300B, and the third hitting member 300C by fitting a nut to one end thereof, which passes through the first hitting member 300A, the second hitting member 300B, and the third hitting member 300C, and by fastening the shaft to the other end thereof.

[0042] On the outer peripheral face of each of the first hitting member 300A, the second hitting member 300B, and

the third hitting member 300C described above, a spherical hitting face 320 having a curvature, which is the same as the golf ball, and flat hitting faces 340, which are formed in a plane shape, are disposed, the flat hitting faces 340 having different sizes. That is, the outer peripheral surface of each of the hitting members 300A, 300B, and 300C is divided into four equal parts to form the spherical hitting face 320 in one part, and different flat hitting faces 340 are formed in the other parts, respectively. Forming multiple different hitting surfaces on one hitting member is to allow the user to select and use hitting surfaces having various sizes and shapes (spherical or flat shapes).

[0043] In addition, position change units 500, which are configured to change the positions of the second hitting member 300B and the third hitting member 300C, to select each of the spherical hitting faces 320 and each of the flat hitting faces 340, or to make the hitting faces 320 and 340 variable depending on whether a user is left-handed or right-handed, are provided on the opposite side faces of the second hitting member 300B, which face the first hitting member 300A and the third hitting member C, respectively, and on the first hitting member 300A and the third hitting member 300C.

[0044] Each position change unit 500 consists of a triangular to octagonal connection member 510 having a predetermined length, and a triangular to octagonal positioning groove 520 formed in each of the opposite side faces of the first hitting member 300A, the second hitting member 300B, and the third hitting member 300C to be fitted on the connection member 510.

[0045] The polygonal connection members 510 and the polygonal positioning grooves 520 will be described as being formed in a rectangular shape. The minimum number of the connection members 510 is two.

This is to connect the different hitting members to the opposite sides of the centrally positioned hitting member, respectively.

[0046] The first hitting member 300A, the second hitting member 300B, and the third hitting member 300C may be made of a material, which is the same as that of the golf ball, a metal material, or a synthetic resin material.

[0047] In addition, a through hole may be formed in each of the connection members 510 so as to allow the coupling rod 400 therethrough.

[0048] The action of the golf practice putter according to the second embodiment, which is configured as described above, will be described.

[0049] As illustrated in FIG. 8, in the state in which the shaft 10 is coupled to the first hitting member 300A, the second hitting member 300B is located on one side face of the first hitting member 300A, the third hitting member 300C is located on one side face of the second hitting member 300B, one end of one connection member 510A is fitted to the positioning groove 520 of the first hitting member 300A, and the other end is fitted to the positioning groove 520 formed in the one side face of the second hitting member 300B. In addition, one end of another connection member 510B is fitted to the positioning groove 520 formed in the other face of the second hitting member 300B, and the other end is fitted to the positioning groove 520 formed in one face of the third hitting member 300C.

[0050] Next, the coupling rod 400 is inserted through the first hitting member 300A, the first connection member 510A, the second hitting member 300B, the second connection member 510B, and the third hitting member 300C. The first, second, and third hitting members 300A, 300B, and 300C are integrated by fastening nuts to the coupling rods 400 exposed to the positioning groove 520 on the other side face side of the third hitting member 300C and the positioning groove 520 on the other side face side of the first hitting member 300A.

[0051] In this state, as illustrated in FIG. 9A, a right-handed user may perform putting practice using the putter having a putter head 200 consisting of the first, second, and third hitting members 300A, 300B, and 300C. At this time, the hitting face for hitting a golf ball is a spherical hitting face 320 or a flat hitting face 340 of the centrally located hitting member.

[0052] Meanwhile, in order for the user to select a spherical hitting face 320 among the hitting faces 320 and 340, the nuts of the coupling rod 40, which integrate the first, second, and third hitting members 300A, 300B, and 300C, are loosened to pull out the connection members 510A and 510B from the centrally located second hitting member 300B, then the position of the second hitting member 300B is rotated so as to locate a desired spherical hitting face 320 in the hitting direction, and then the nuts are fastened to the opposite ends of the coupling rod 40 in the above-described process, thereby integrating again the first, second, and third hitting members 300A, 300B, and 300C.

[0053] In addition, when the user is left-handed, the user may perform hitting by changing the hitting direction as illustrated in FIG. 9B. That is, since spherical or flat hitting faces 320 and 340 are formed in various portions in each of the hitting members 300B and 300C, a left-handed user will be able to perform hitting with a different direction of hitting after holding the club.

[0054] As described above, the golf practice putter according to the present embodiment is configured to select a hitting face by selecting respective hitting members 300B and 300C, so that putting practice can be performed more efficiently using the various hitting faces 320 and 340. Particularly, since the hitting surfaces 320 and 340 are formed in both directions rather than being fixed to one location, both a right-handed user and a left-handed user are capable of practicing putting easily.

[0055] In the accompanying drawings, FIGS. 10A and 10B are an exploded perspective view and a cross-sectional view illustrating a third embodiment of the present disclosure, and FIG. 11 is a plan view illustrating the use state of the golf practice putter illustrated in FIG. 10.

[0056] In the accompanying drawings, as illustrated in FIGS. 10 and 11, a golf practice putter according to a third embodiment has a structure in which a through hole 22 is formed to be stepped in the putter head 20 such that a fastening bolt 40 passes through the through hole 22 upwards from the bottom surface, a cutout portion 26 is formed in the putter face 24 corresponding to the through hole 2 to open a portion of the upper face 23 of the putter head 20 in the hitting direction, and a triangular to octagonal coupling protrusion 27 protrudes upwards from the upper face 23 in which the through hole 22 is formed. The present embodiment is described with reference to the case in which the coupling protrusion 27 is formed in a rectangular shape. However, without being limited thereto, the coupling protrusion 27 may be formed in a triangular to octagonal shape. The hitting member 30 is formed in the shape of a golf ball and hitting faces 34 having different shapes and sizes are formed on the outer peripheral surface of the hitting member 30, a seating face 32 is formed on the bottom face of the hitting member 30 so as to be seated on the upper face 23, and a triangular to octagonal coupling groove 32C is provided in the seating face 32 to have engagement faces 32C-1 oriented in the same directions as the hitting faces 34 such that the coupling protrusion 27 is inserted into and coupled to the coupling groove when the hitting member 30 is seated on the upper face 23. The coupling groove 32C is provided with a screw-fastening groove 32B to which a fastening bolt is fastened and coupled.

[0057] The golf practice putter having a structure described above is configured to select and use any one hitting face 34 among the spherical hitting faces 34A and the flat hitting faces 34B formed on the hitting member 30. That is, the orientation of the hitting member 30 is set such that a hitting face 34 selected among the hitting faces 34 is exposed to the cutout portion 26, the coupling protrusion 27 is coupled to the coupling groove 32C, and the fastening bolt 40 is fastened to the screw-fastening groove 32B in the coupling groove 32C through the through hole 22.

[0058] For example, when the user select a spherical hitting face 34A among the spherical hitting faces 34A or flat hitting faces 34B of the hitting member 30, the coupling protrusion 27 is inserted into the coupling groove 32C in the hitting member 30 such that the engagement faces 32C-1 in the coupling groove 32C, which coincide with the spherical hitting face 34A, is oriented toward the cutout portion 26 such that the spherical hitting face 34A is exposed to the cutout portion 26, and then the fastening bolt 40 is fastened to firmly couple the hitting member 30.

[0059] As described above, since the polygonal coupling groove 32C having multiple engagement faces 32C-1 in the same direction as respective hitting faces 34 are formed in the hitting member 30 having multiple hitting faces 34 and the polygonal protrusion 27 is formed in the upper face 23 of the putter head 20, after the user selects a preferred hitting face 34 among the multiple hitting faces 34, the coupling protrusion 27 is coupled to the coupling groove 32C such that the engagement faces 32C-1, which coincide with the selected hitting face 34, faces the cutout portion direction 26 such that the selected face 34 is exposed to the cutout portion 26, and then hitting practice can be performed using the selected hitting face 34.

[0060] That is, one hitting member 30 is provided with multiple hitting faces 34, and each hitting face 34 is configured to be selected and used with a simple structure, whereby it is possible to provide the user with a wide selection width of a hitting face 34.

[0061] FIG. 12 is a perspective view illustrating a fourth embodiment of the present disclosure, and FIG. 13 is a schematic view for explaining the use of an aiming member illustrated in FIG. 12.

[0062] As illustrated in FIGS. 12 and 13, a golf practice putter according to a fourth embodiment is the same as those of the above-described embodiment, except that an aiming member 700 including aiming hole 720 configured to aim a hole cup 600 on the green is provided to be foldable and unfoldable, one end of the aiming member 700 is coupled to the shaft 10 using an axle 710, the shaft 10 includes aiming scales 730 successively formed in order to indicate the size and number of the aiming hole 720 with reference to the aiming member 700.

[0063] At this time, the aiming member 700 is preferably formed to be curved as illustrated in FIG. 12 such that the aiming member 700 is in close contact with the shaft 10 when it is coupled to the shaft 10 via the axle 710 and folded. With this structure, the aiming member 700 is in contact with the shaft 10 when it is folded, and thus interference is prevented when the putter is used.

[0064] In addition, the aiming hole 720 may be formed in the shape of circular hole or long hole. When the aiming hole 720 are formed as the long hole, scales may be formed at equal intervals in the long hole. It is possible to aim the size of the hole cup 600 and to correctly set a putting direction through the scales of the aiming hole 720.

[0065] Meanwhile, when the shaft 10 is provided with the aiming member 700 and the aiming scales 730, as illustrated in FIG. 13, it is possible to determine how far the golf ball should be hit to the hole cup 600 depending on the slope of the green by determining number of hole cup.

[0066] At this time, the number of hole cup refer to a method of numerically expressing a putting-target point determined by an advisor such as a caddy on the basis of the hole cup 600.

[0067] For example, if the aiming hole 720 and the hole cup 600 are aligned with the aiming hole 720 when the slope of the green is 1°, it is determined how far putting should be performed from the hole cup 600 in terms of the number of hole cups. For example, a location spaced away from the hole cup 600 by two hole cups is determined as the putting direction. Subsequently, in the state in which the hole cup 600 is aligned with the aiming hole 720, a virtual position corresponding to the aiming scales 730 corresponding to two aiming hole 720, that is, the hole cup 600, is placed at the

center of a virtual horizontal line and the position of the virtual horizontal line coinciding with the aiming scales 730 corresponding to the two aiming hole 720 is set as the putting direction. When the putting direction is determined in this way, the user performs putting in the putting direction of the virtual horizontal line.

[0068] In this way, it is possible to precisely set a virtual position to be put, so that accurate putting can be performed.

[0069] Although the specific embodiment of the present disclosure has been described above, it is apparent to those skilled in the art that the present disclosure is not limited to the embodiment disclosed herein and various modifications and changes can be made without departing from the spirit and scope of the present disclosure. Therefore, such modifications and changes should not be individually construed from the spirit or point of view of the present disclosure, and it should be understood that modified embodiments belong to the claims of the present disclosure.

Industrial Applicability

[0070] With the golf practice putter according to the present disclosure, it is possible to selectively couple a hitting member having various hitting faces, to replace the hitting member, and to select a hitting face, so that putting practice can be performed efficiently. In these viewpoints, since the present disclosure overcomes the limits of existing technologies, there is a good chance that an apparatus to which the present disclosure is applied will be commercially available or will be marketed without being limited to an apparatus that uses the related technique of the present disclosure. Further, it is evident that it is practically possible to carry out the present disclosure. Consequently, the present disclosure can be industrially used.

Claims

1. A golf practice putter comprising a putter head coupled to a lower end of a shaft and having a putter face and a hitting member selectively coupled to the putter head,
wherein a through hole is formed in the putter head to be stepped such that a fastening bolt pass through the through hole upwards from a bottom face of the putter head, and a cutout portion is formed in the putter face corresponding to the through hole to open a portion of an upper face of the putter head in a hitting direction, and
wherein the hitting member is formed in a shape of a golf ball and has a hitting face on an outer peripheral face thereof, a seating face seated on the upper face and supported by an edge of the upper face and a support face are formed to be stepped in a bottom face of the hitting member, a screw-fastening groove is formed in the seating face such that the fastening bolt is coupled to the screw-fastening groove, and the hitting member is interchangeably coupled to the putter head by the fastening bolt in a state in which the hitting member is seated on the upper face such that a part of the hitting face protrudes beyond the putter face through the cutout portion.

2. The golf practice putter of claim 1, wherein the hitting face of the hitting member is formed as a spherical hitting face formed to have a curvature, which is equal to a curvature of the golf ball, or a flat hitting face formed in a plane shape, and when the hitting face is formed as the flat hitting face, multiple hitting members are provided for each size of the flat hitting face so as to be selectively coupled to the putter head.

3. A golf practice putter comprising a putter head coupled to a lower end of a shaft and having a putter face and a hitting member selectively coupled to the putter head,
wherein a through hole is formed in the putter head to be stepped such that a fastening bolt pass through the through hole upwards from a bottom face of the putter head, a cutout portion is formed in the putter face corresponding to the through hole, to open a portion of an upper face of the putter head in a hitting direction, and a triangular to octagonal coupling protrusion protrudes upwards on the upper face in which the through hole is formed,
wherein the hitting member is formed in a shape of a golf ball, hitting faces having different shapes and sizes are formed on an outer peripheral face of the hitting member, a seating face is formed on a bottom face of the hitting member to be seated on the upper face, a triangular to octagonal coupling groove is formed such that the coupling protrusion is inserted into and coupled to the coupling groove and engagement faces aligned with the hitting faces are provided in the coupling groove, and a screw-fastening groove to which the fastening bolt is coupled is provided in the coupling groove, and
wherein an orientation of the hitting member is set such that the hitting face selected among the hitting faces is exposed to the cutout portion, the coupling protrusion is coupled to the coupling groove, and the fastening bolt is coupled to the screw-fastening groove in the coupling groove through the through hole.

4. A golf practice putter comprising a putter head coupled to a lower end of a shaft,
wherein the putter head includes:

a first hitting member formed in a spherical shape corresponding to a shape of a golf ball, the lower end of the shaft being coupled to the first hitting member;
a second hitting member formed in the spherical shape corresponding to the shape of the golf ball, and horizontally coupled to a side face of the first hitting member to be located on a straight line with the first hitting member;
a third hitting member formed in the spherical shape corresponding to the shape of the golf ball, and horizontally coupled to a side face of the second hitting member to be located on a straight line with the first hitting member and the second hitting member; and
a coupling rod configured to integrate the first hitting member, the second hitting member, and the third hitting member by fastening a nut on one end of the coupling rod, which passes through the first hitting member, the second hitting member, and the third hitting member, and fastening the shaft to a remaining end of the coupling rod.

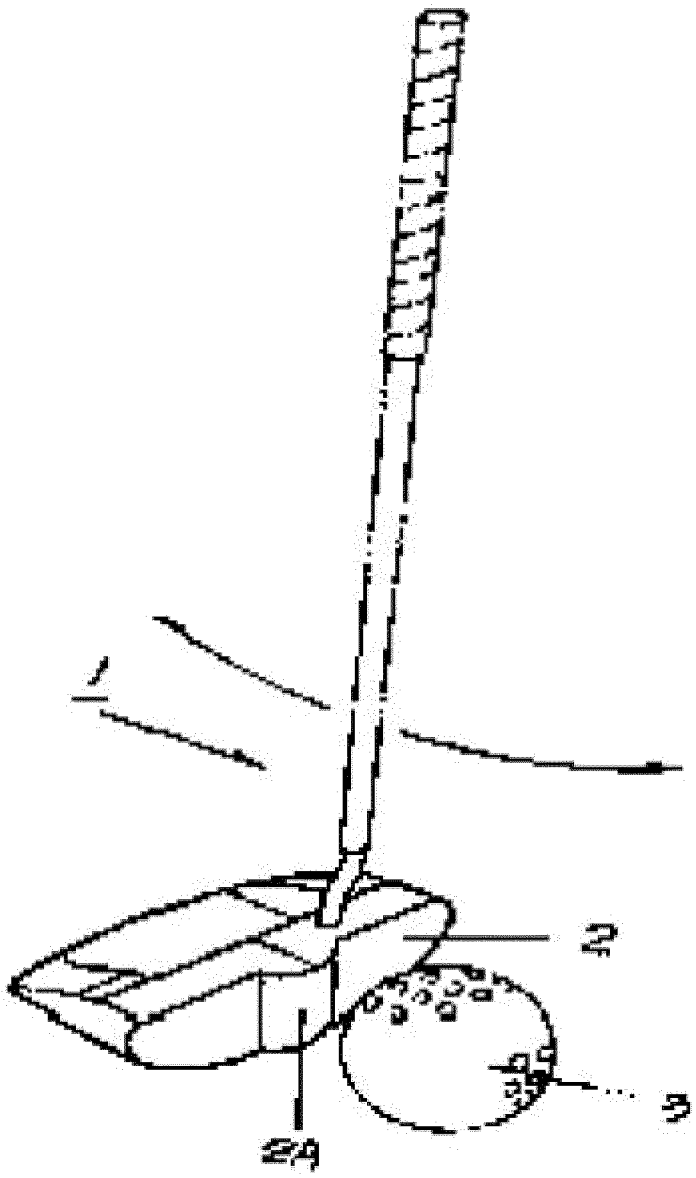
5. The golf practice putter of claim 4, wherein each of the first hitting member, the second hitting member, and the third hitting member has a spherical hitting face formed in a curvature, which is equal to a curvature of the golf ball, and flat hitting faces formed in a plane shape and having different sizes.

6. The golf practice putter of claim 4, wherein, in opposite side faces of the second hitting member, which face the first hitting member and the third hitting member, respectively, and in the first hitting member and the third hitting member, position change units are provided to change the positions of the second hitting member and the third hitting member, to select each of the spherical hitting faces and the flat hitting faces, or to make the hitting faces variable depending on whether a user is right-handed or left-handed, and
wherein the position change units include:

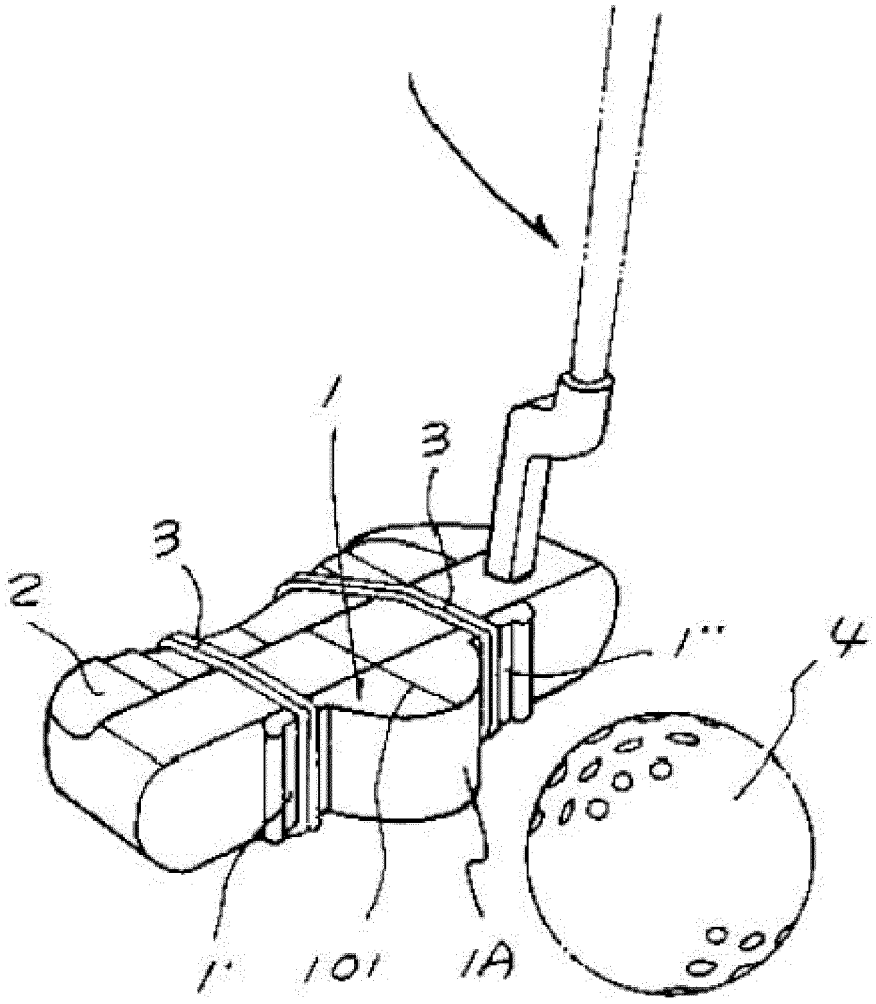
polygonal connection members having a predetermined length; and
polygonal positioning grooves formed on opposite side faces of the first hitting member, the second hitting member, and the third hitting member such that the connection members are fitted to the polygonal positioning grooves, respectively.

7. The golf practice putter of any one of claims 1 to 6, wherein the shaft is provided with an aiming member including an aiming hole to aim a hole cup to be foldable and unfoldable, one end of the aiming member being coupled to the shaft via an axle, and
wherein the shaft has aiming scales successively formed thereon to indicate the size and number of the aiming hole with reference to the aiming member.

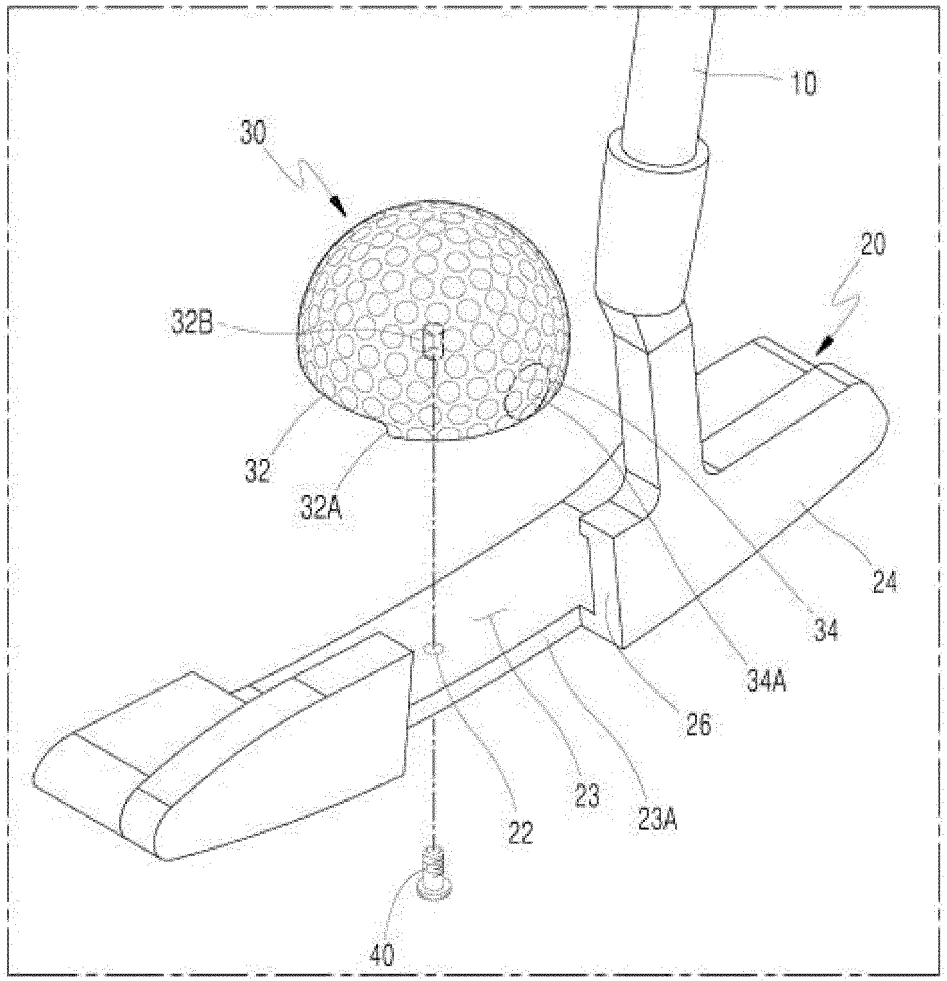
【FIG.1】



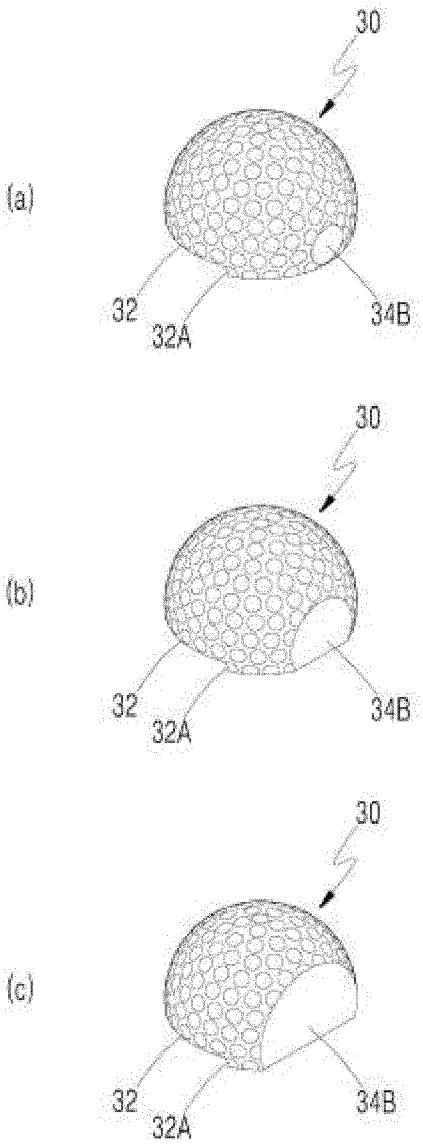
【FIG.2】



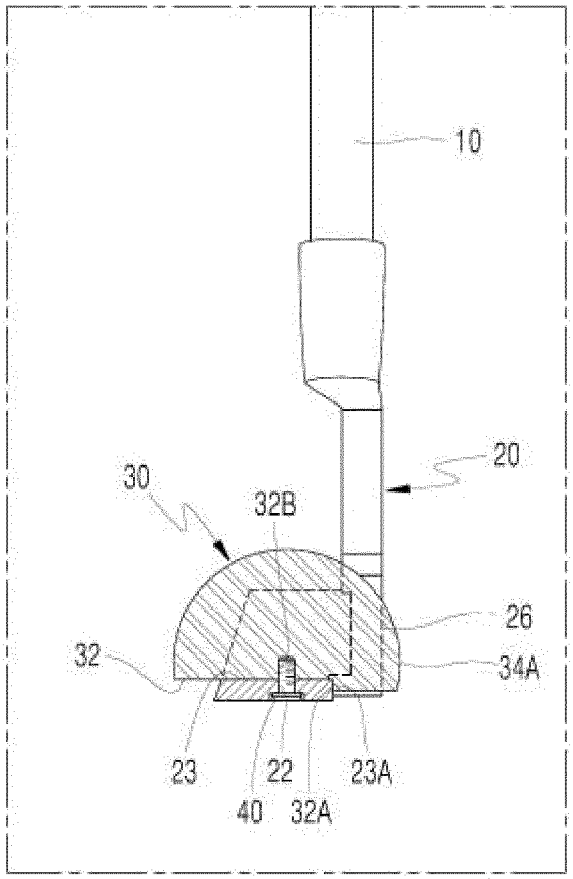
【FIG.3】



【FIG.4】



【FIG.5】



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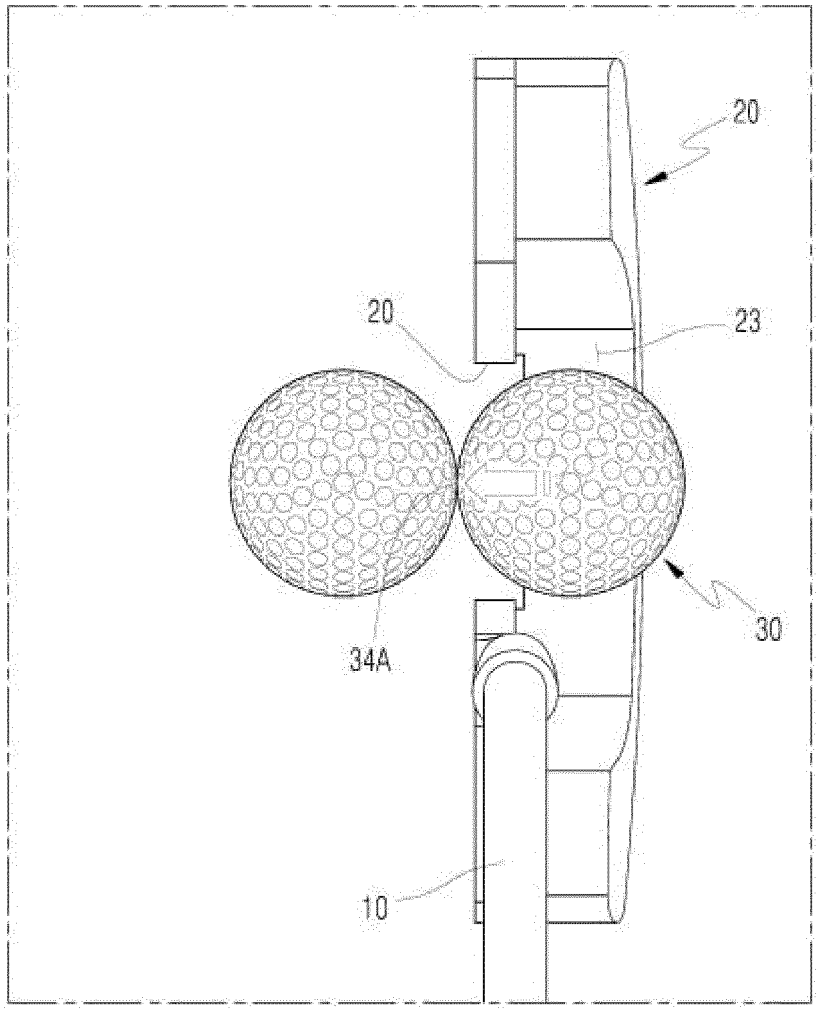
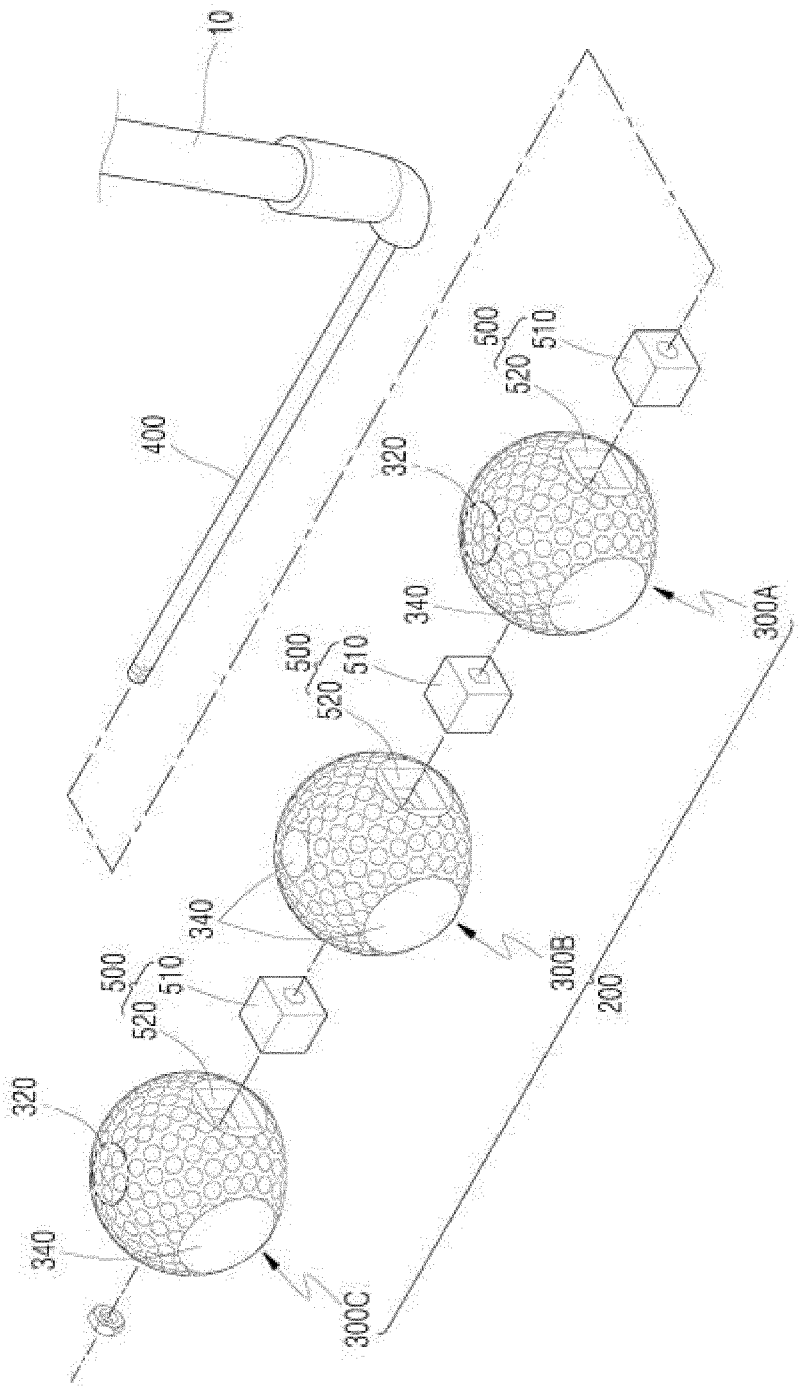
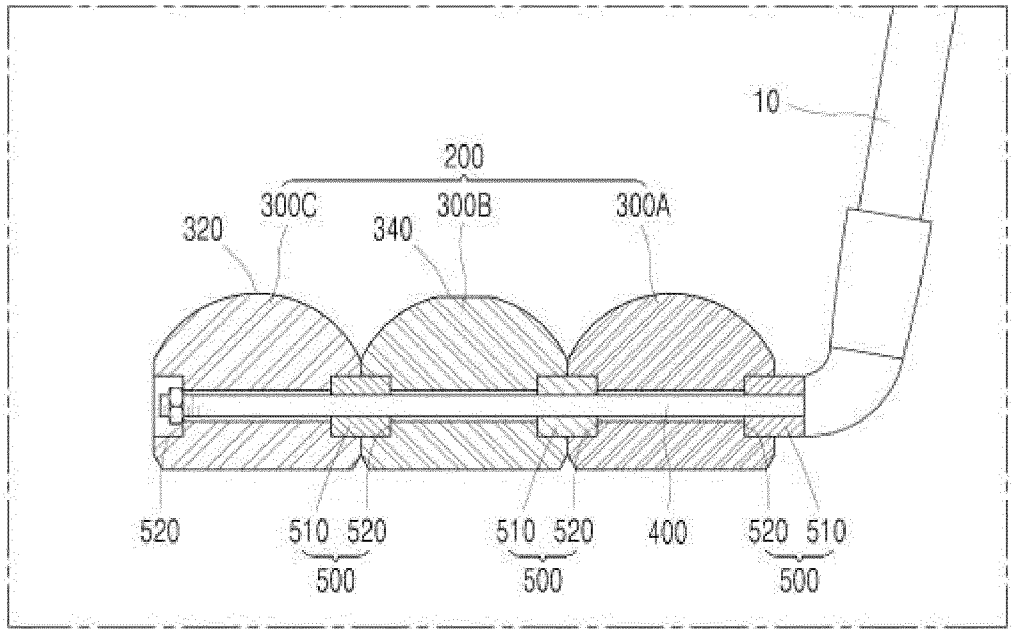


【FIG.7】



【FIG.8】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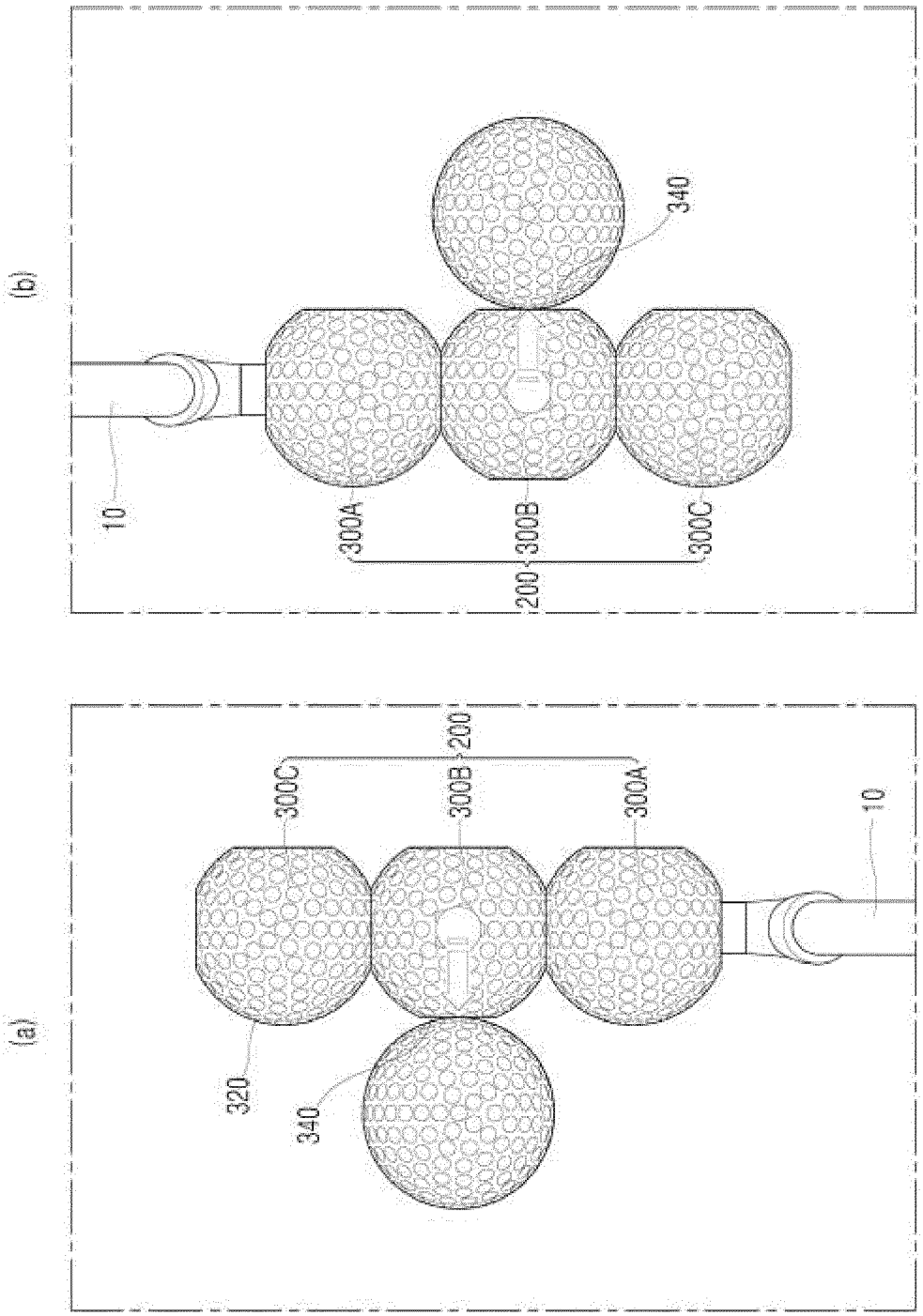
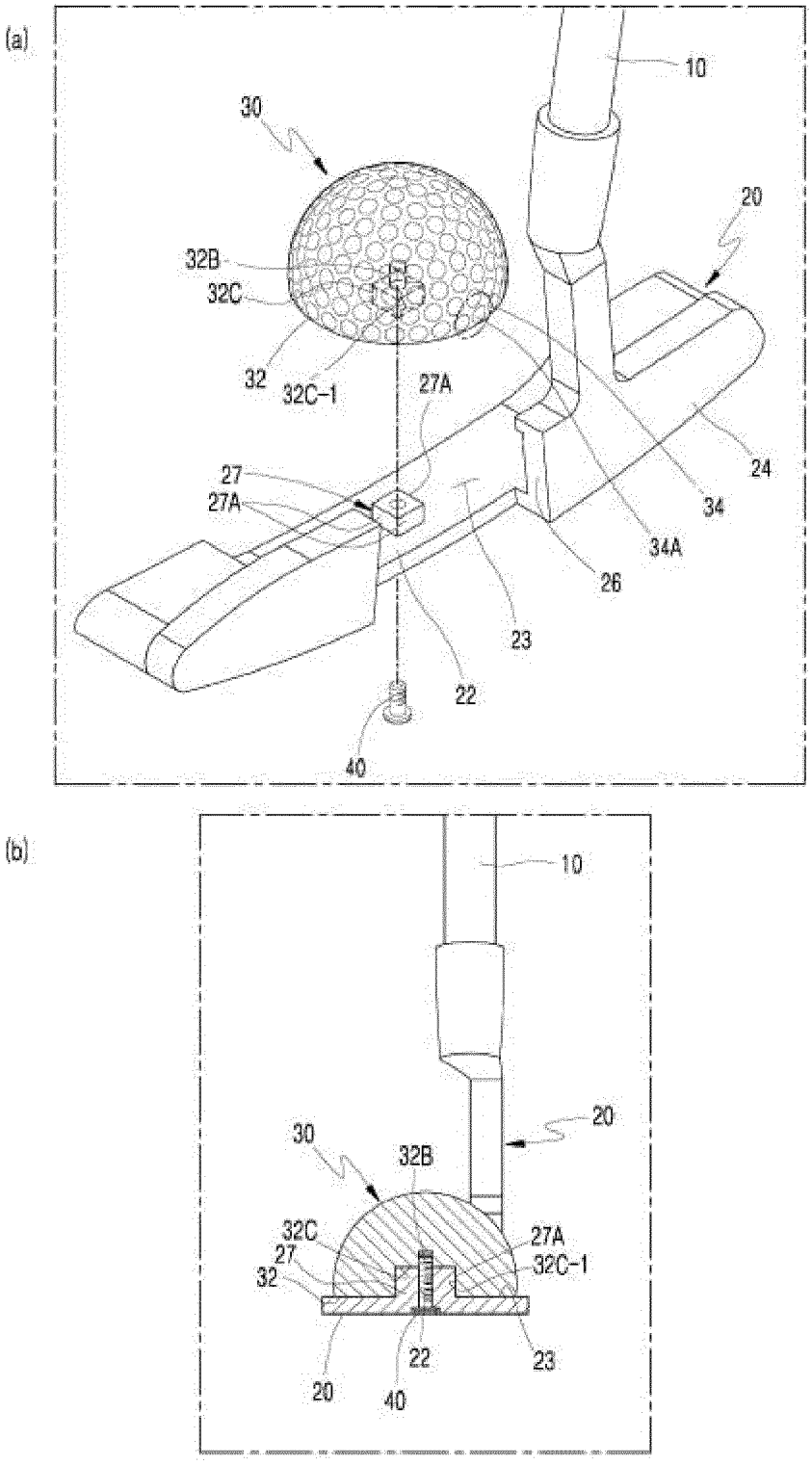
【FIG.9】



【FIG.10】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32C
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27A
24
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27A
34
34A
26
23
22
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(b)
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32B
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32
27A
32C-1
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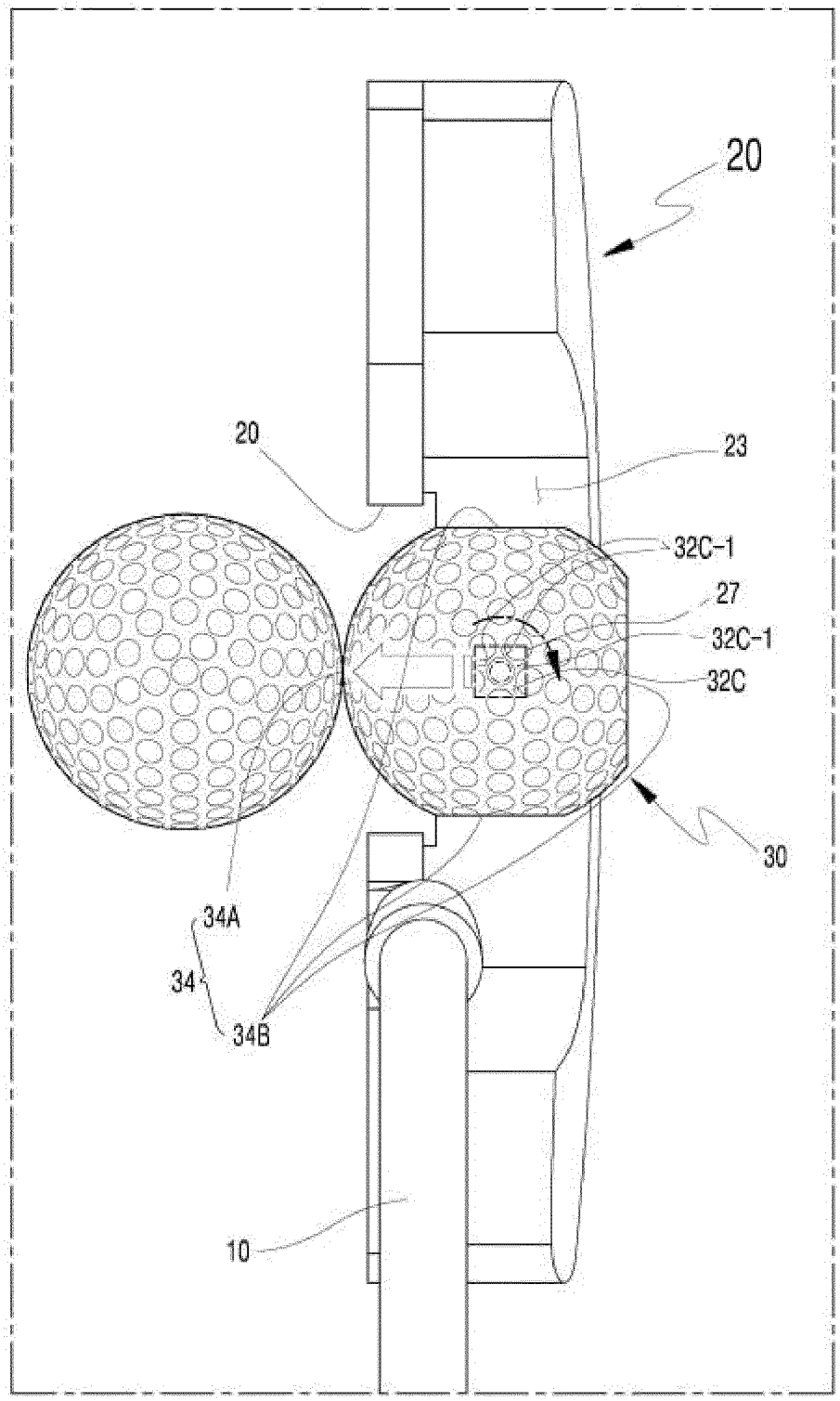
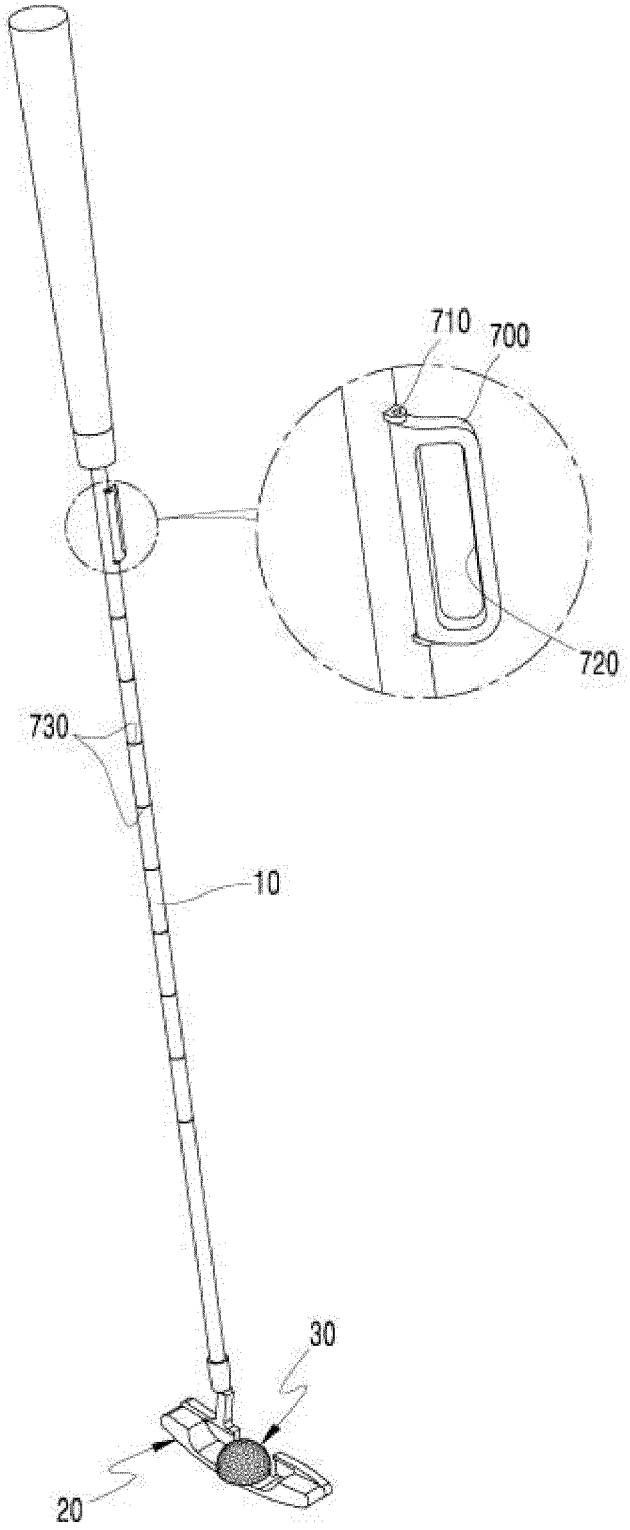
22
23
40

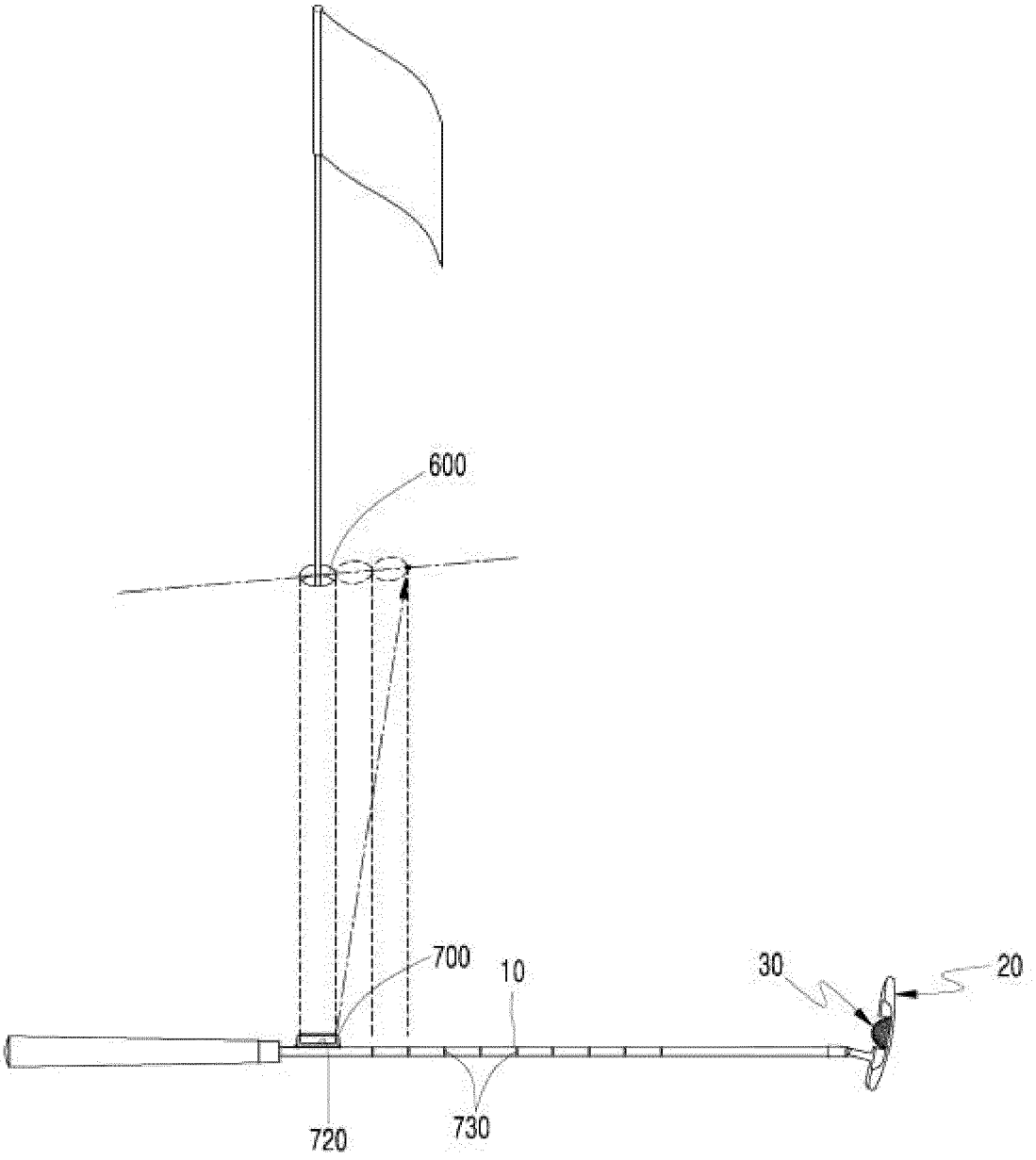
【도 11】



【도 12】



【도 13】



INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2017/008111

A. CLASSIFICATION OF SUBJECT MATTER

A63B 53/04(2006.01)i, A63B 53/06(2006.01)i, A63B 53/00(2006.01)i, A63B 69/36(2006.01)i, A63B 102/32(2014.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A63B 53/04; A63B 69/36; A63B 53/00; A63B 53/06; A63B 102/32

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean Utility models and applications for Utility models: IPC as above
Japanese Utility models and applications for Utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) & Keywords: golf putter, head, hitting member, through-hole, combination rod

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2016-0088649 A (SOHN, Kwang-Young et al.) 26 July 2016 See paragraphs [0021]-[0033], claims 1-3 and figures 1-5.	1-7
A	KR 20-2012-0001619 U (JIN, Jae Sam) 08 March 2012 See paragraphs [0013]-[0022], claim 1 and figures 5-8.	1-7
A	KR 20-0263698 Y1 (TECHNET CO., LTD.) 08 February 2002 See pages 2-4, claim 1 and figures 1-2.	1-7
A	US 7169058 B1 (FAGAN, Robert P.) 30 January 2007 See column 3, line 64-column 4, line 21 and figure 10.	1-7
A	KR 10-2011-0087589 A (LEE, Chul Ho) 03 August 2011 See paragraphs [0022]-[0030], claims 1-3 and figures 2-5.	1-7

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
28 SEPTEMBER 2017 (28.09.2017)	**29 SEPTEMBER 2017 (29.09.2017)**
Name and mailing address of the ISA/KR Korean Intellectual Property Office Government Complex-Daejeon, 189 Seonsa-ro, Daejeon 302-701, Republic of Korea Facsimile No. +82-42-481-8578	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/KR2017/008111

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KR 20-0263698 Y1	08/02/2002	NONE	
US 7169058 B1	30/01/2007	NONE	
KR 10-2011-0087589 A	03/08/2011	NONE	

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REFERENCES CITED IN THE DESCRIPTION

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- KR 200350462 **[0007]**
- KR 200395835 **[0010]**