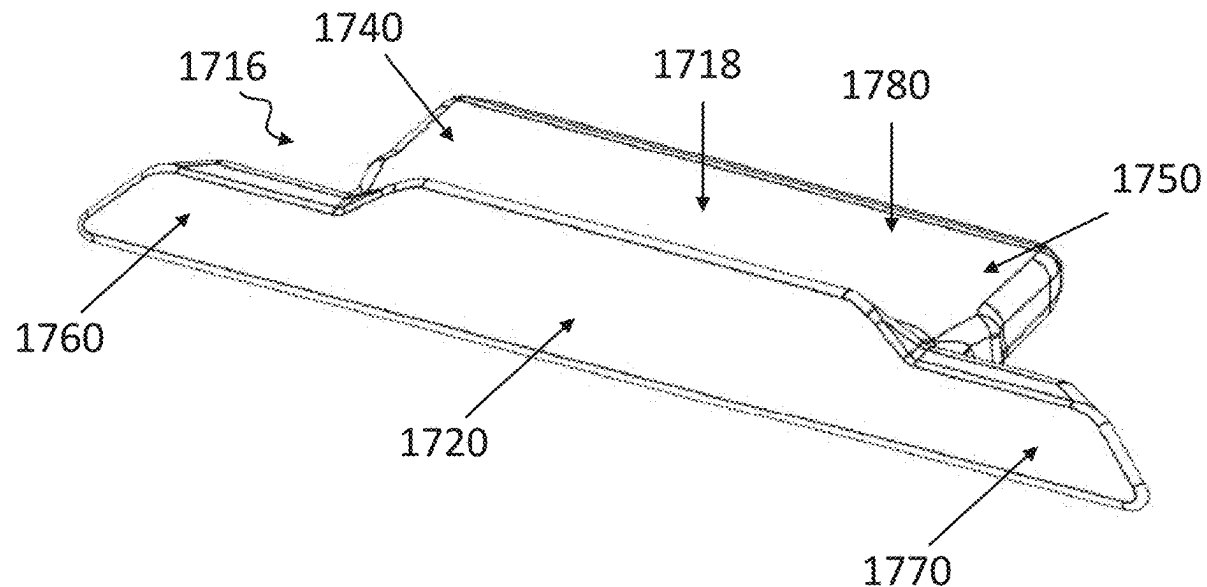
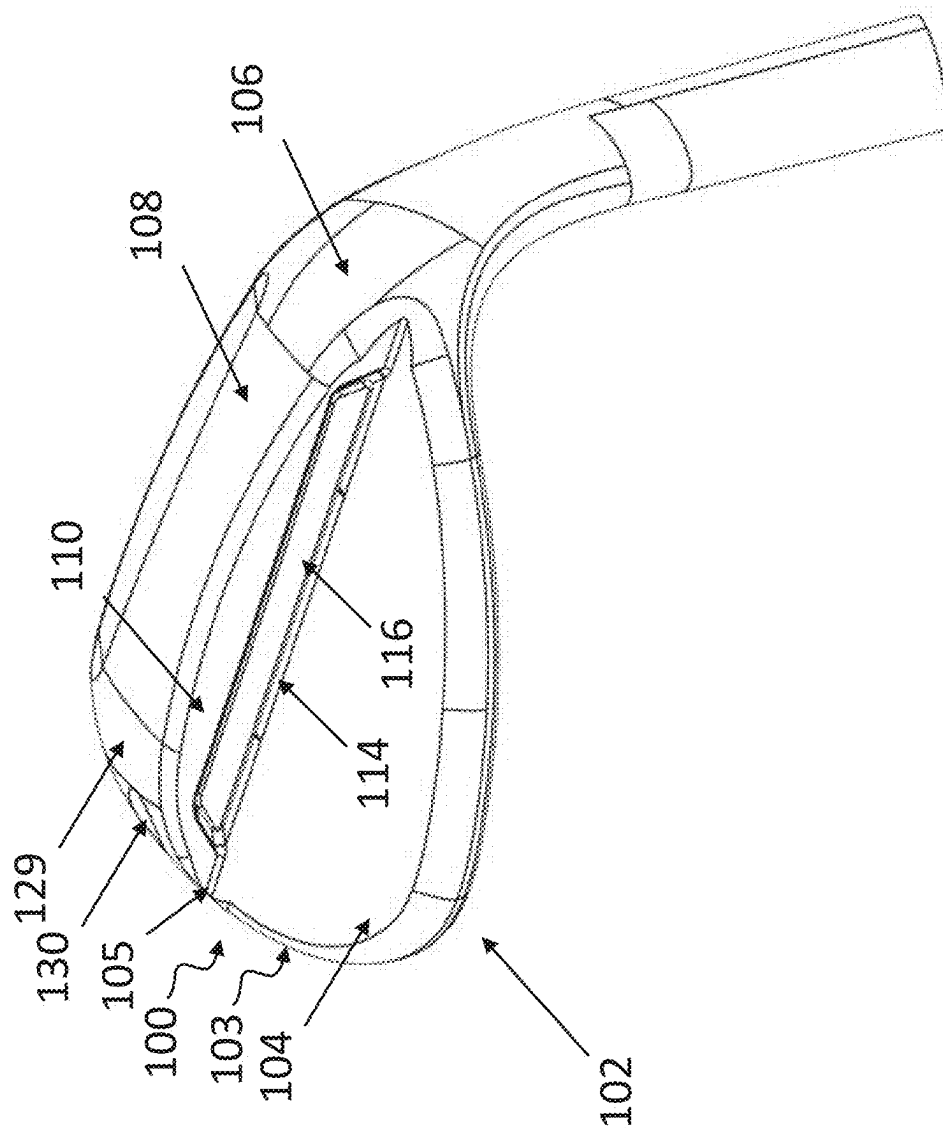


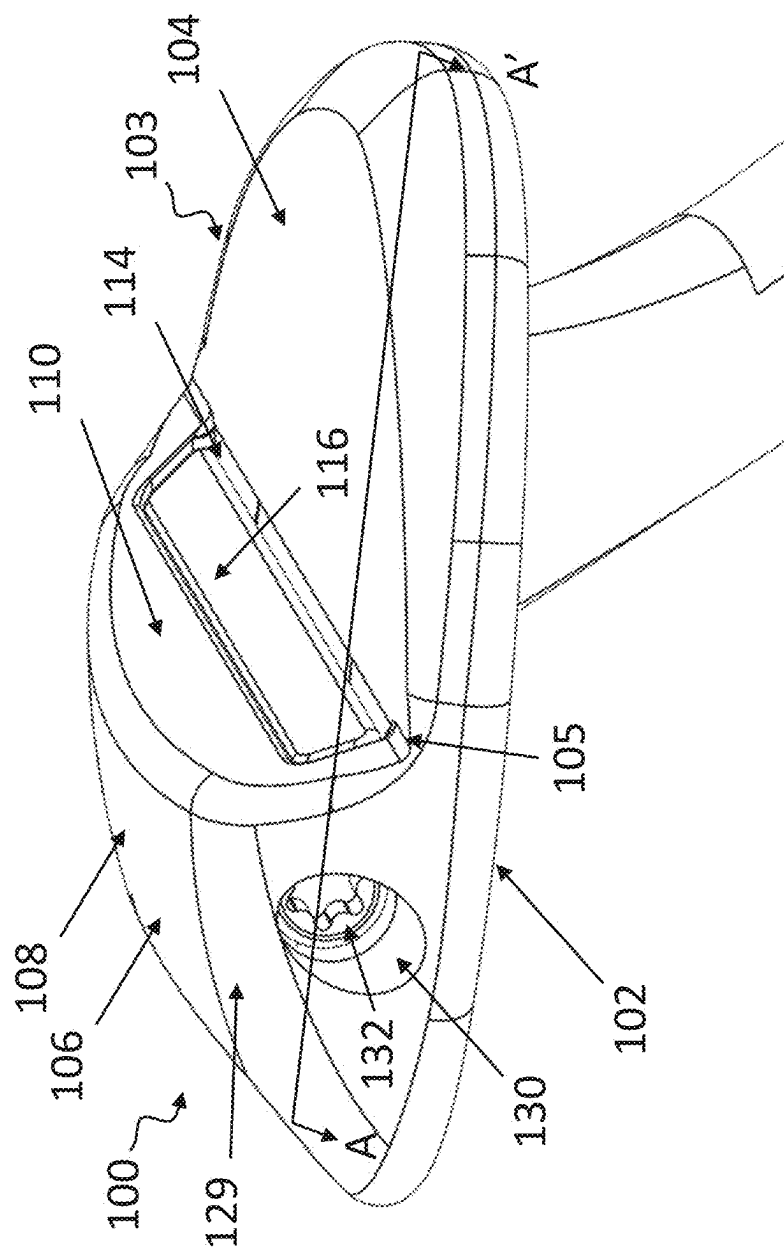
(43) **Pub. Date:** **Aug. 14, 2025**

(22) Filed: **Oct. 3, 2024**

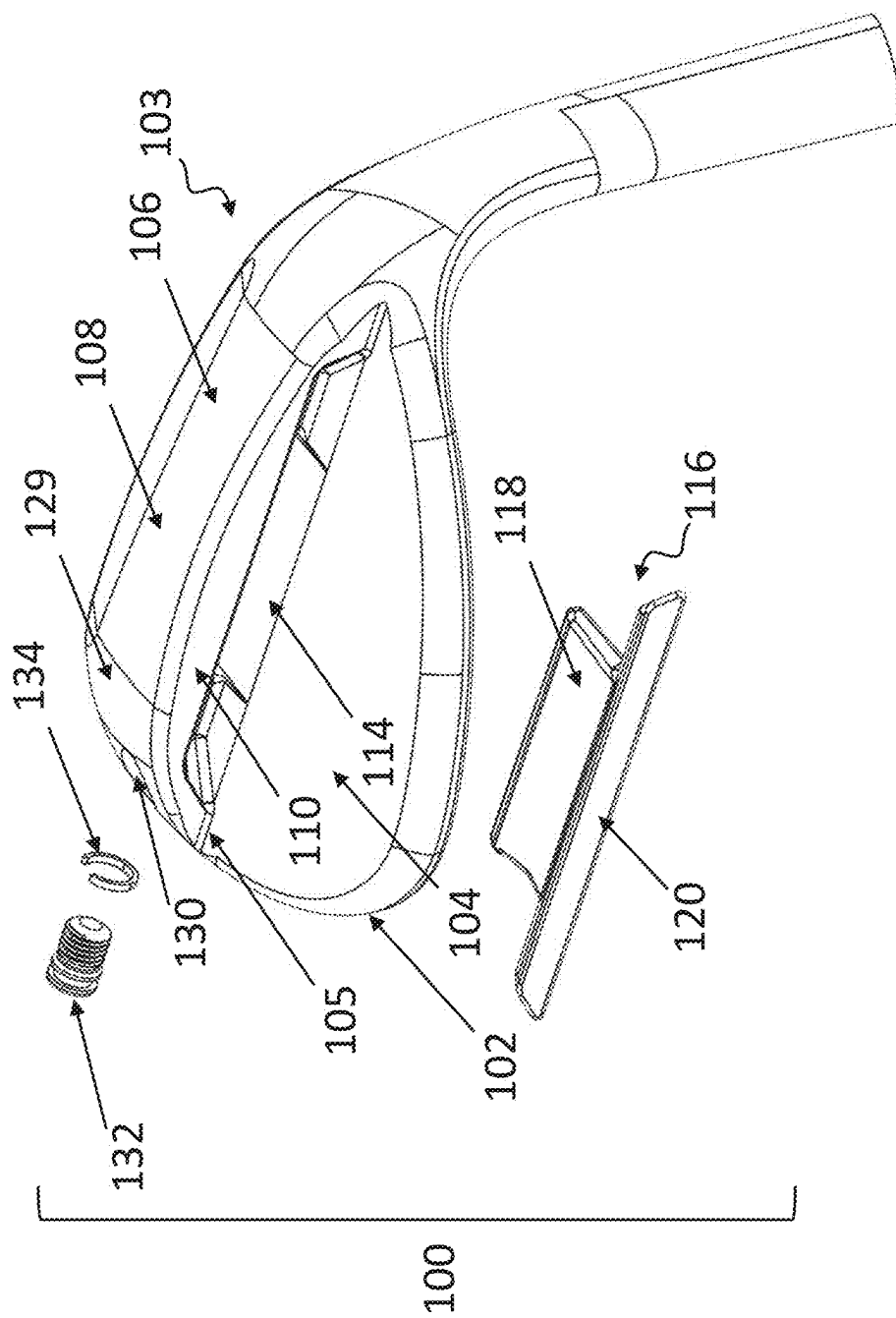




A 4x4 grid of 16 small squares, each containing a different geometric shape or pattern. The shapes include various combinations of lines, dots, and geometric forms like circles, triangles, and rectangles.



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15

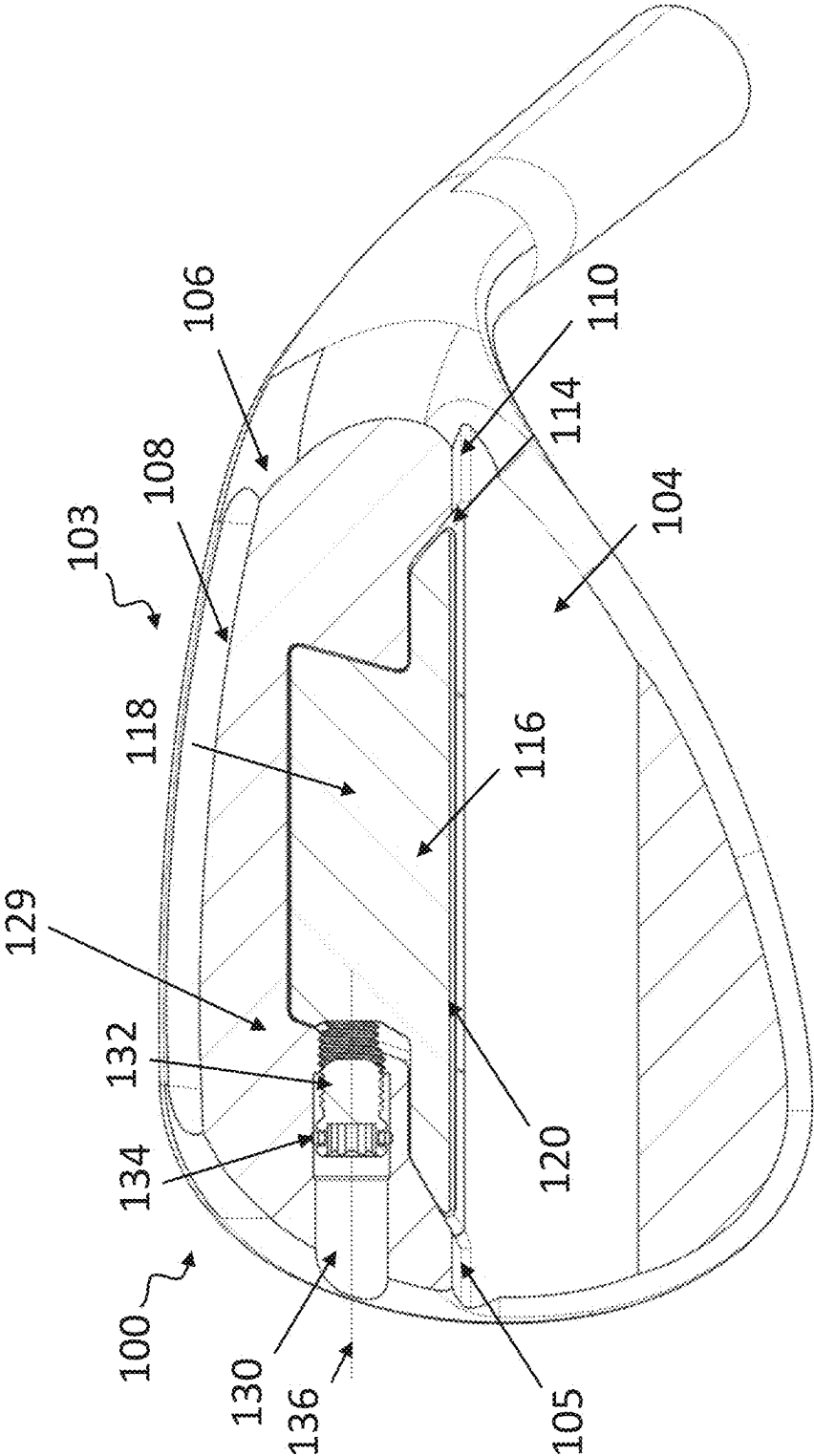


FIG. 4

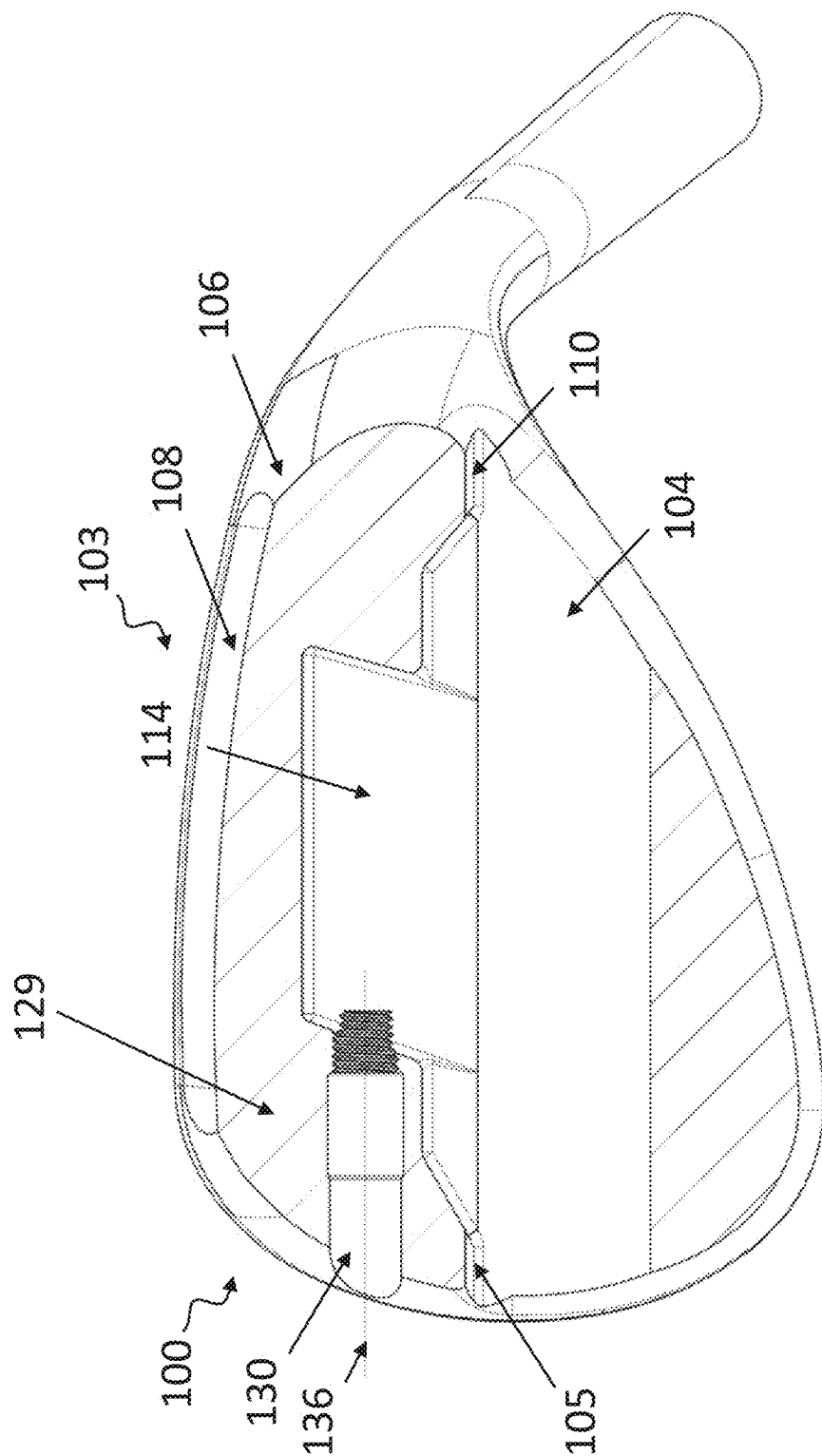


FIG. 5

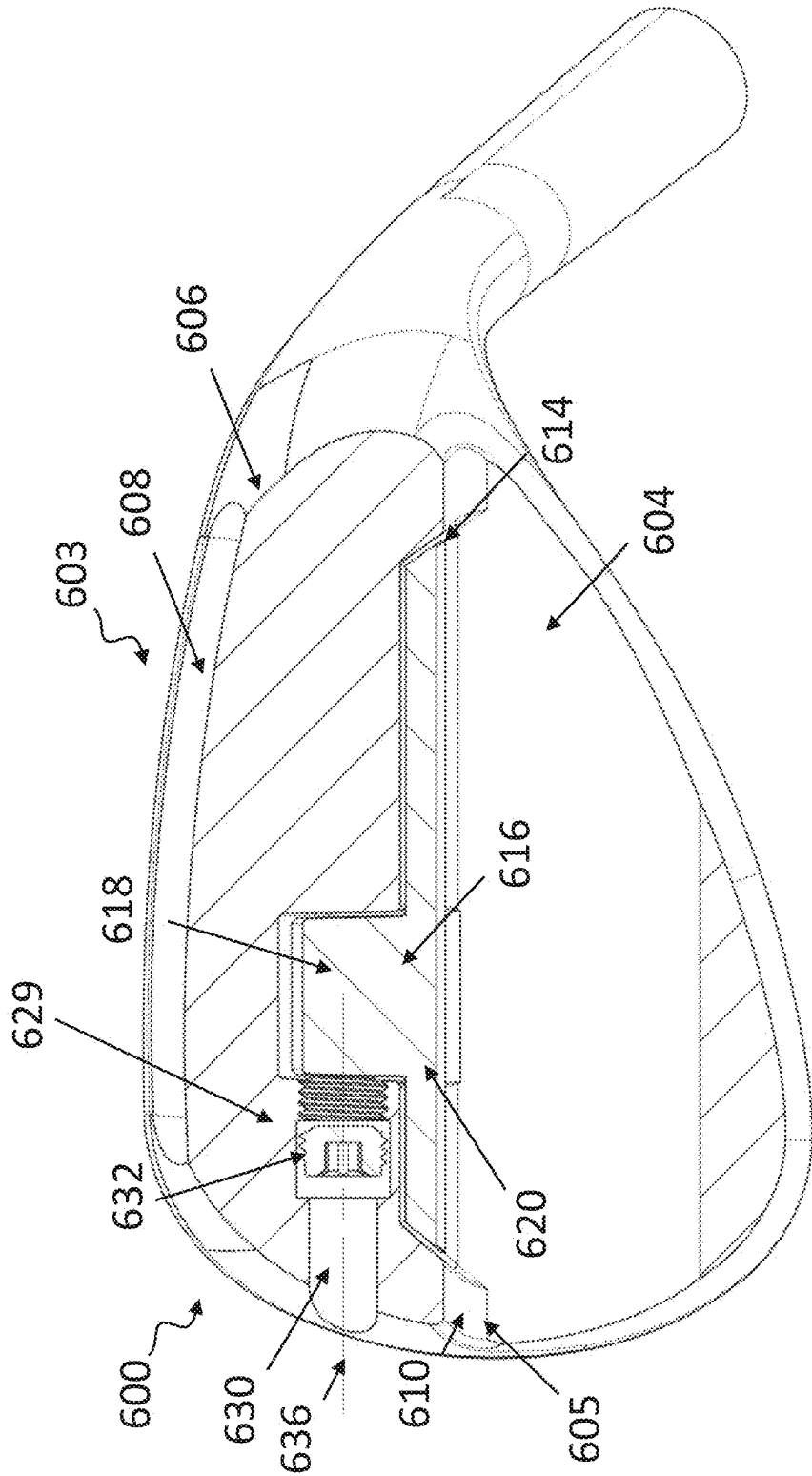


FIG. 6

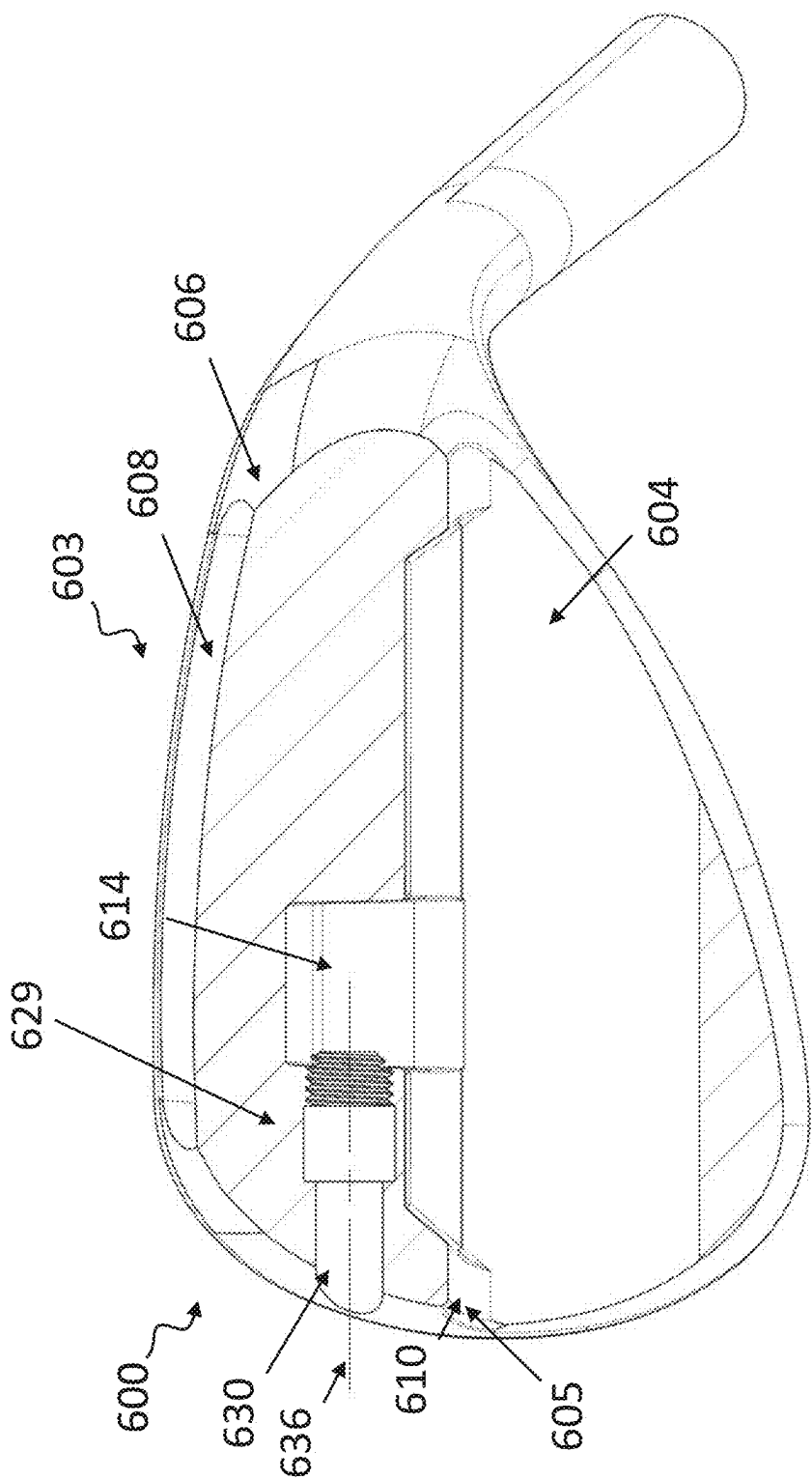


FIG. 7



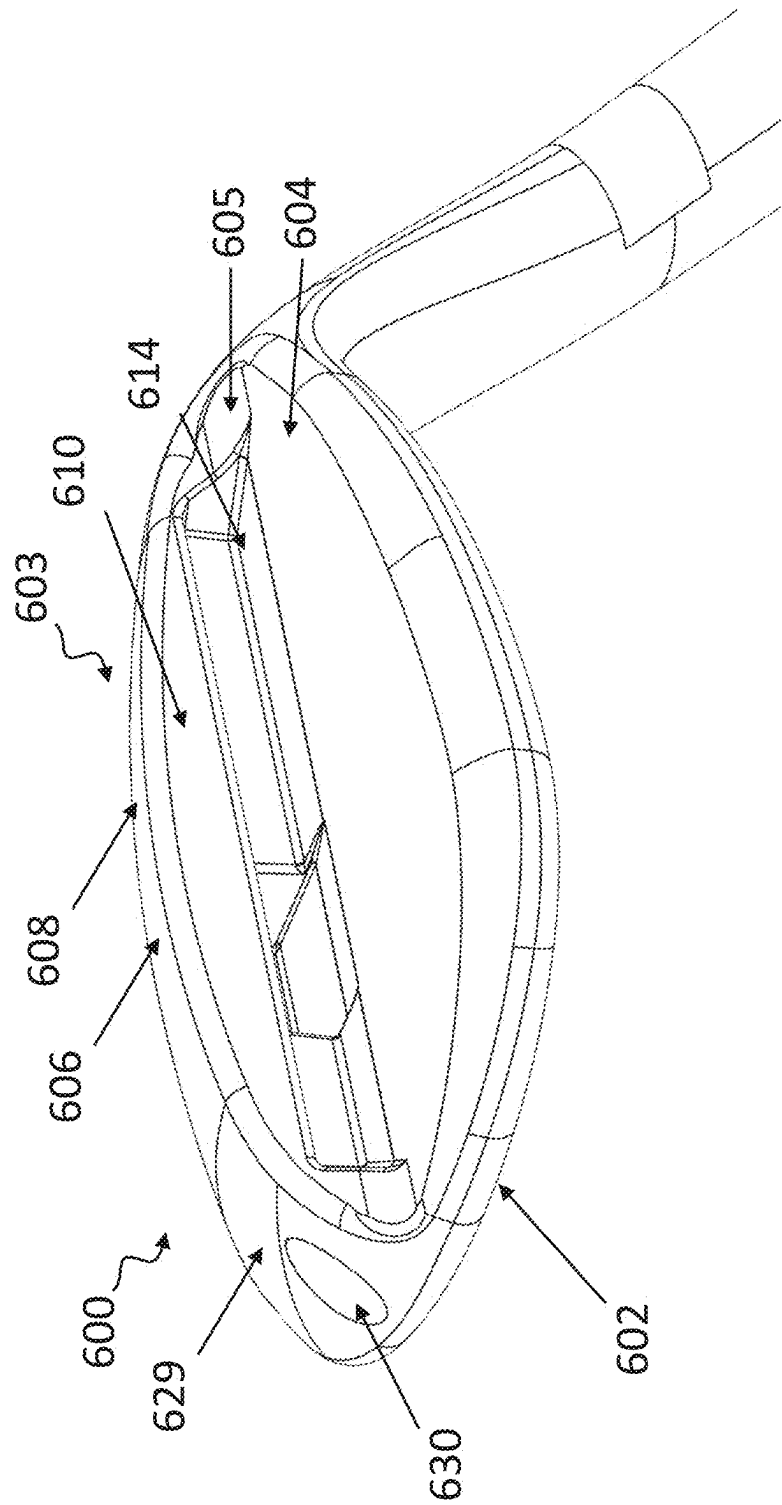


FIG. 8

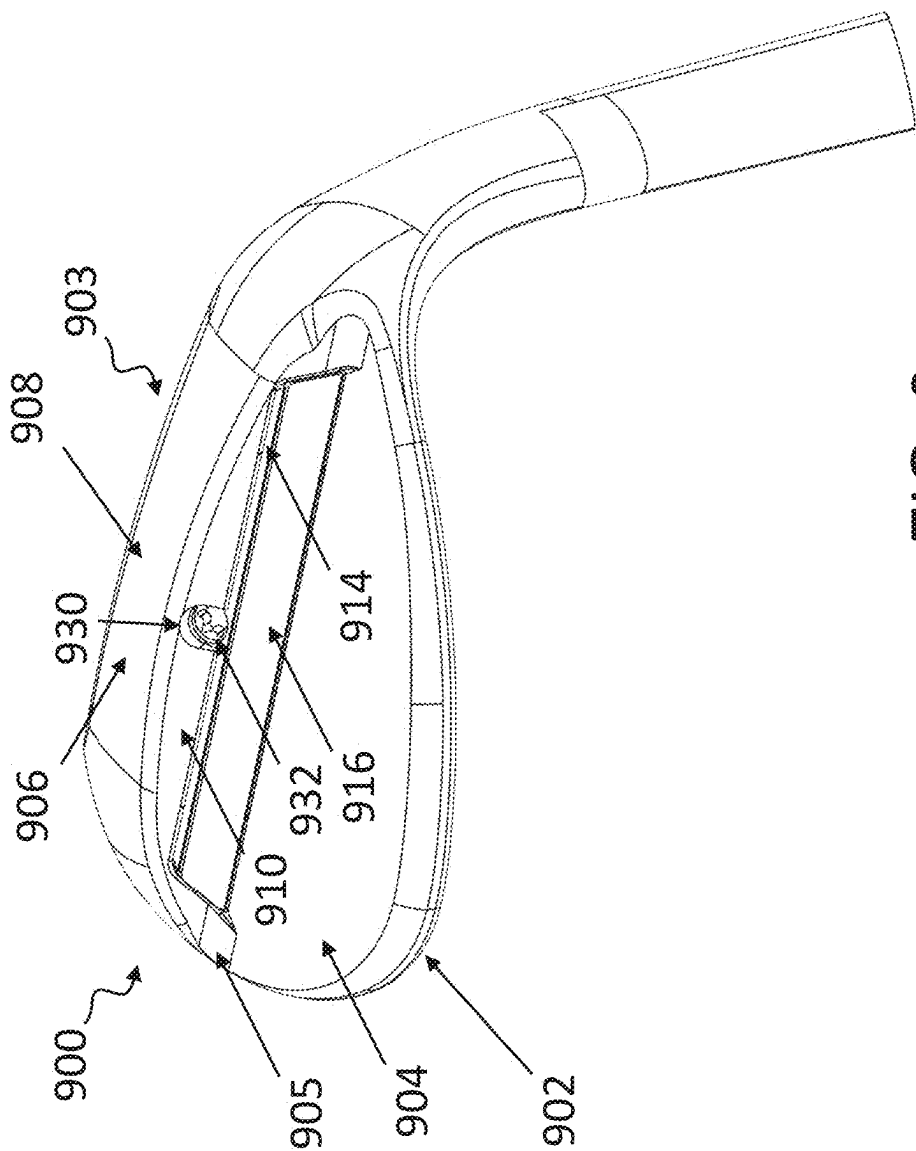


FIG. 9

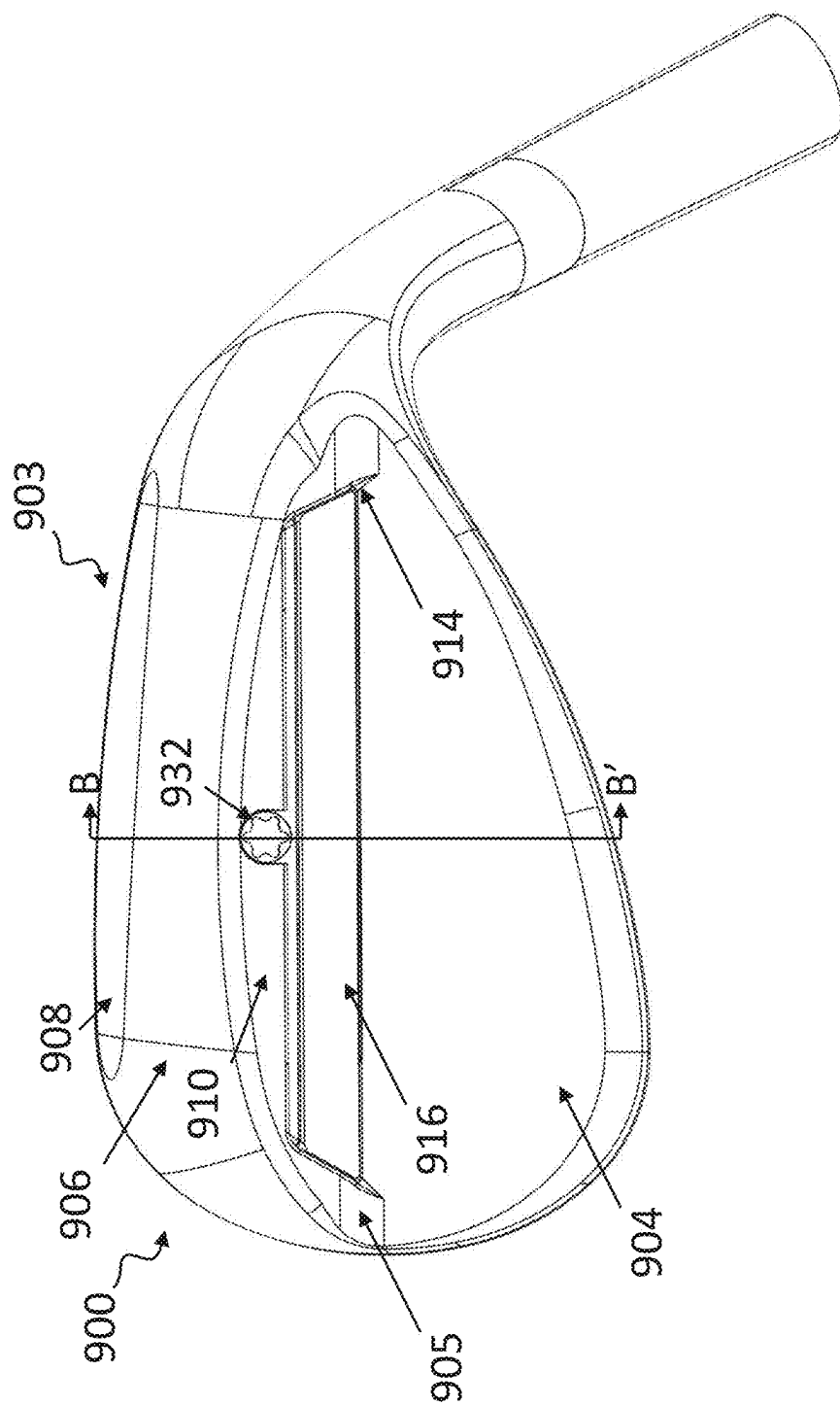
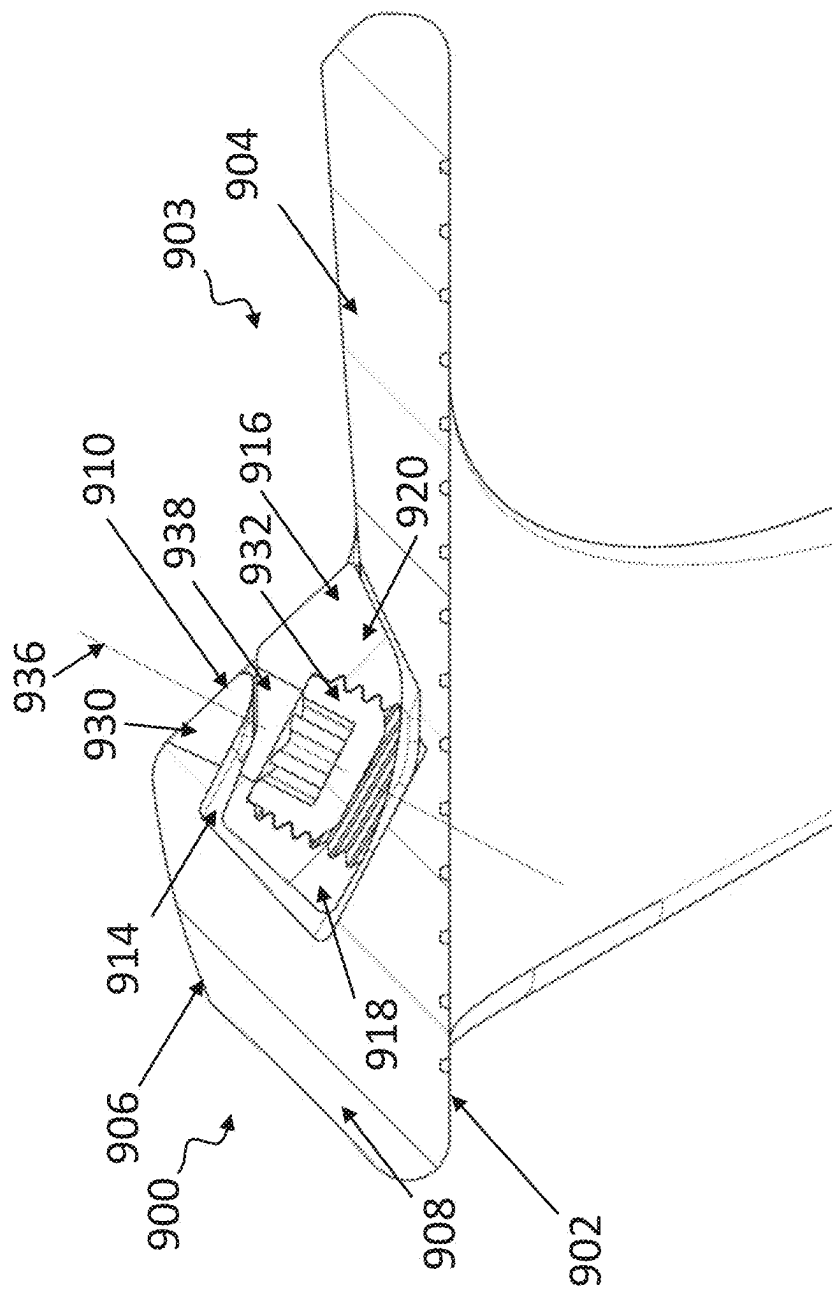


FIG. 10



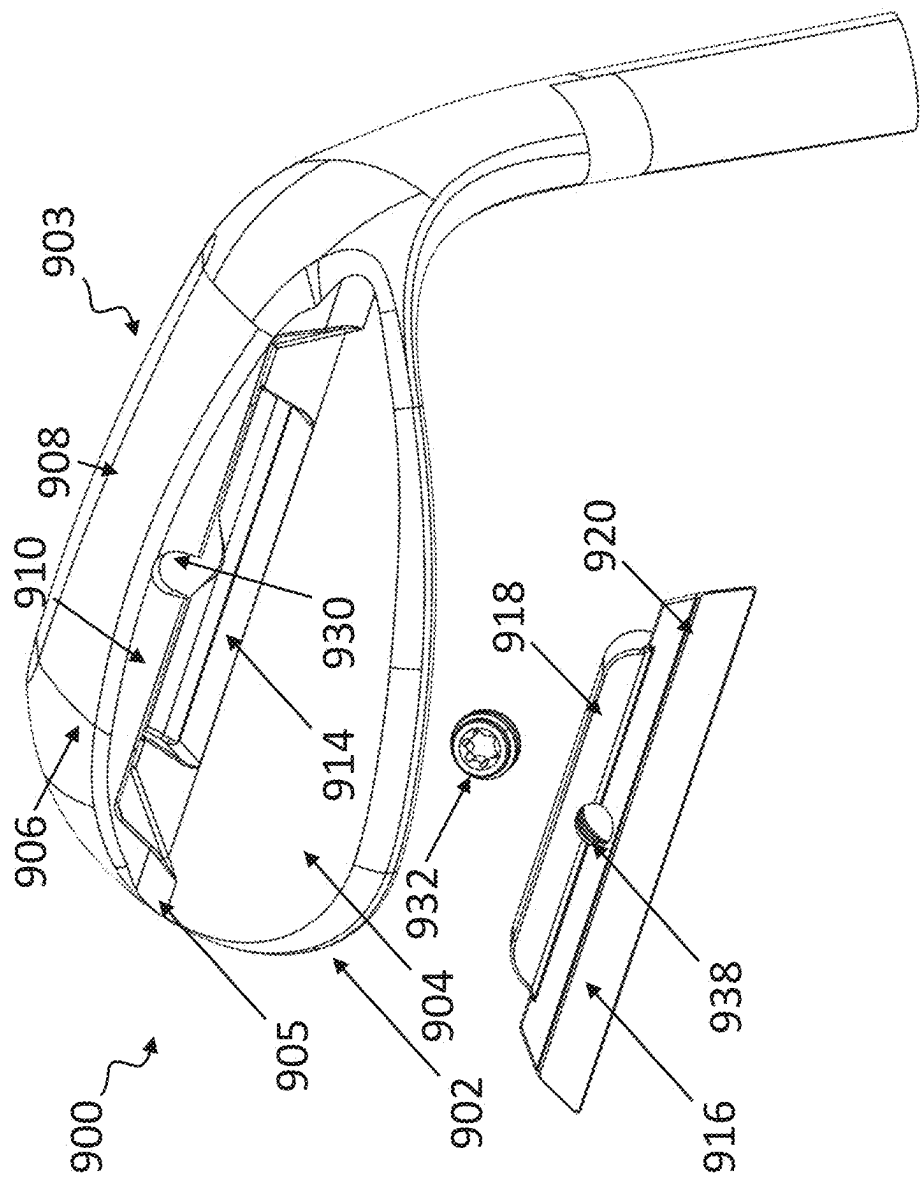


FIG. 12

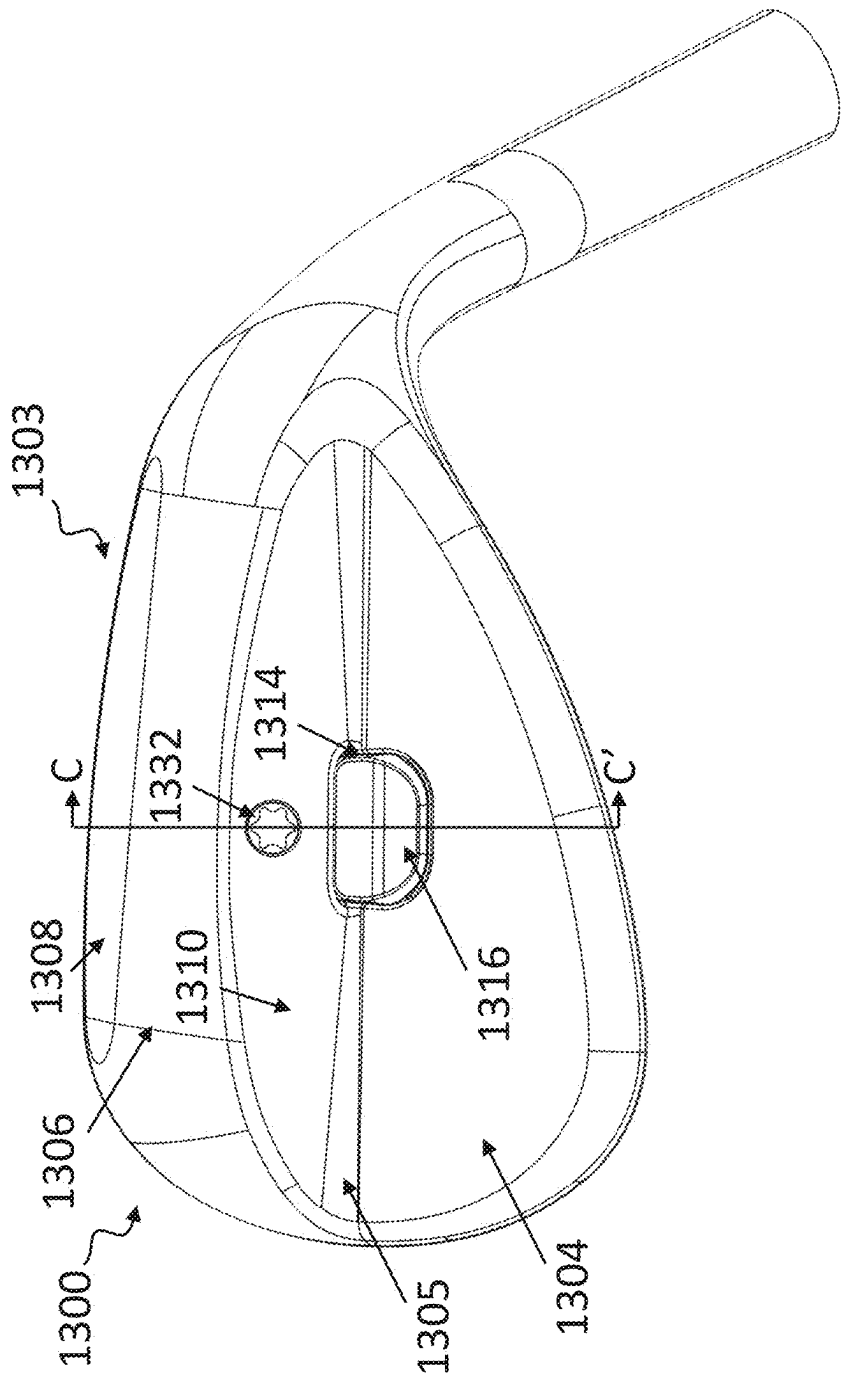


FIG. 13

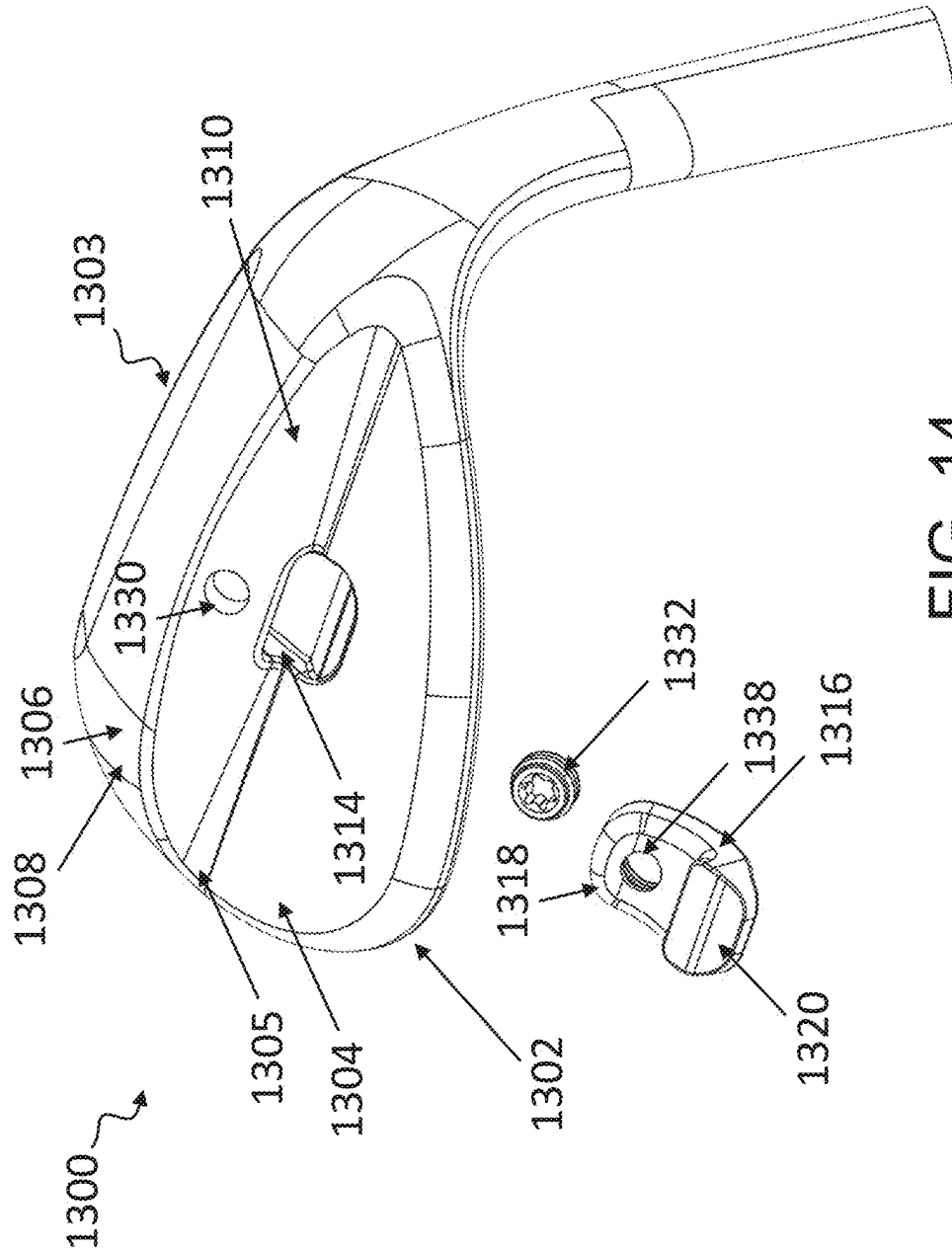
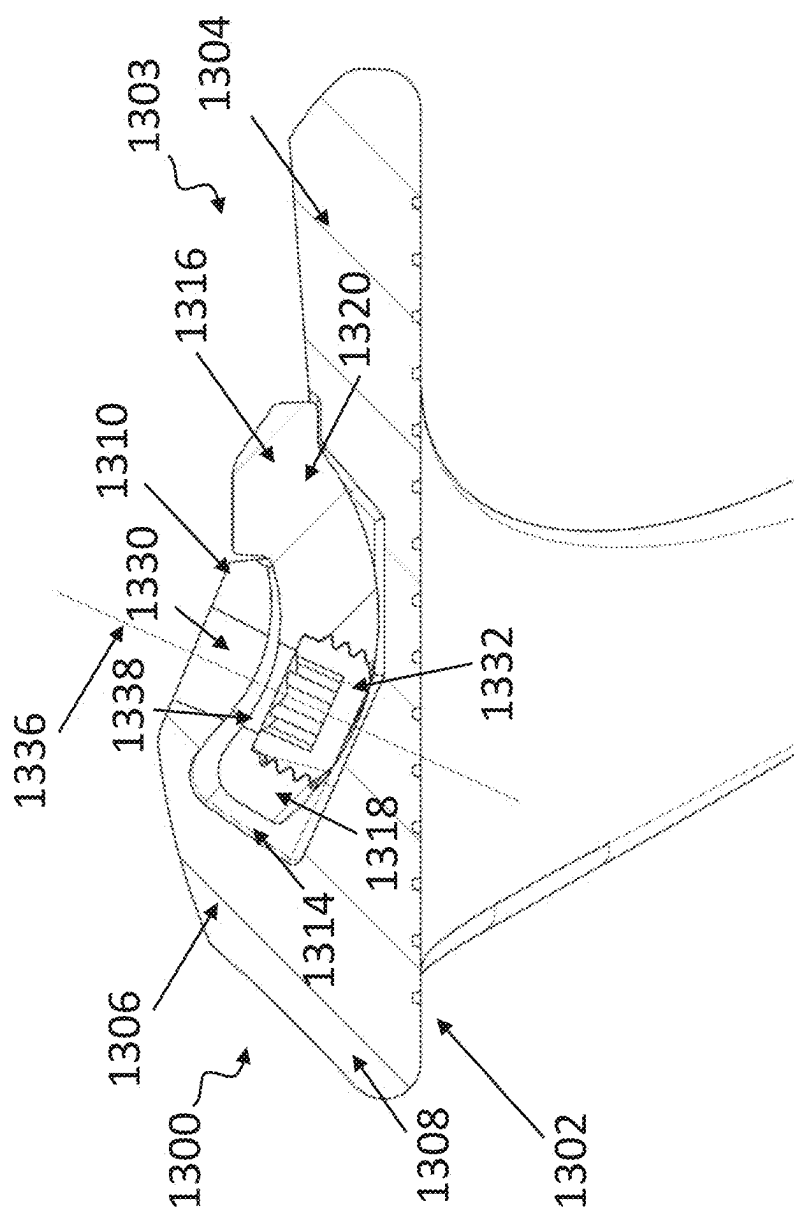


FIG. 14





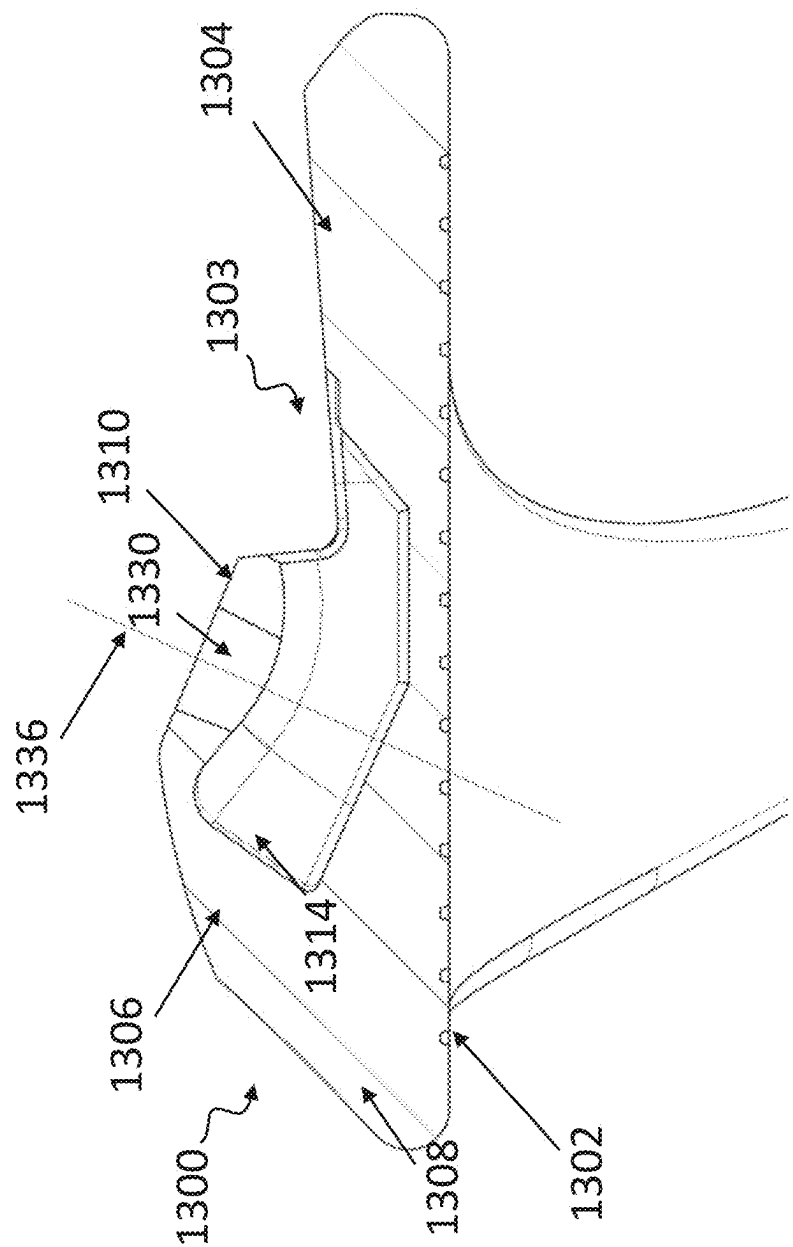


FIG. 16



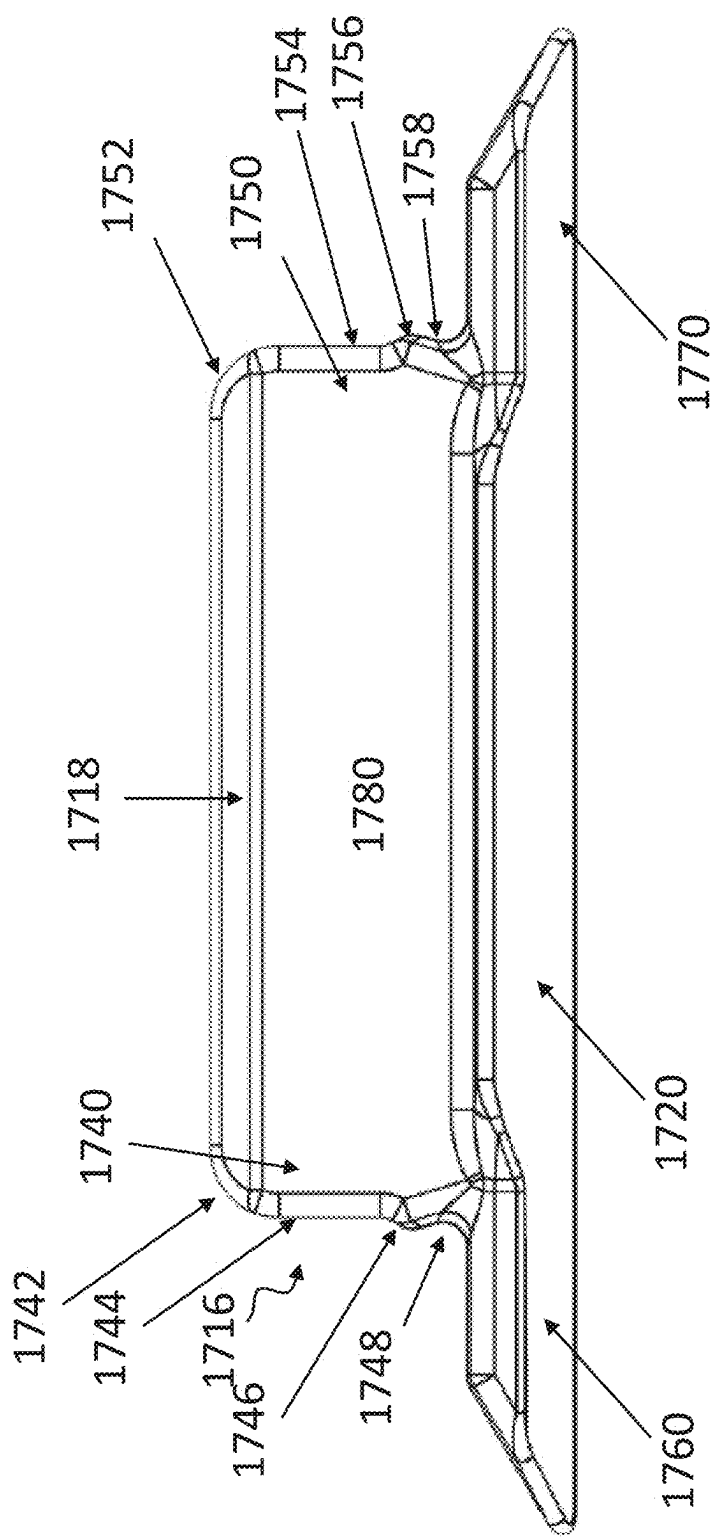


FIG. 18

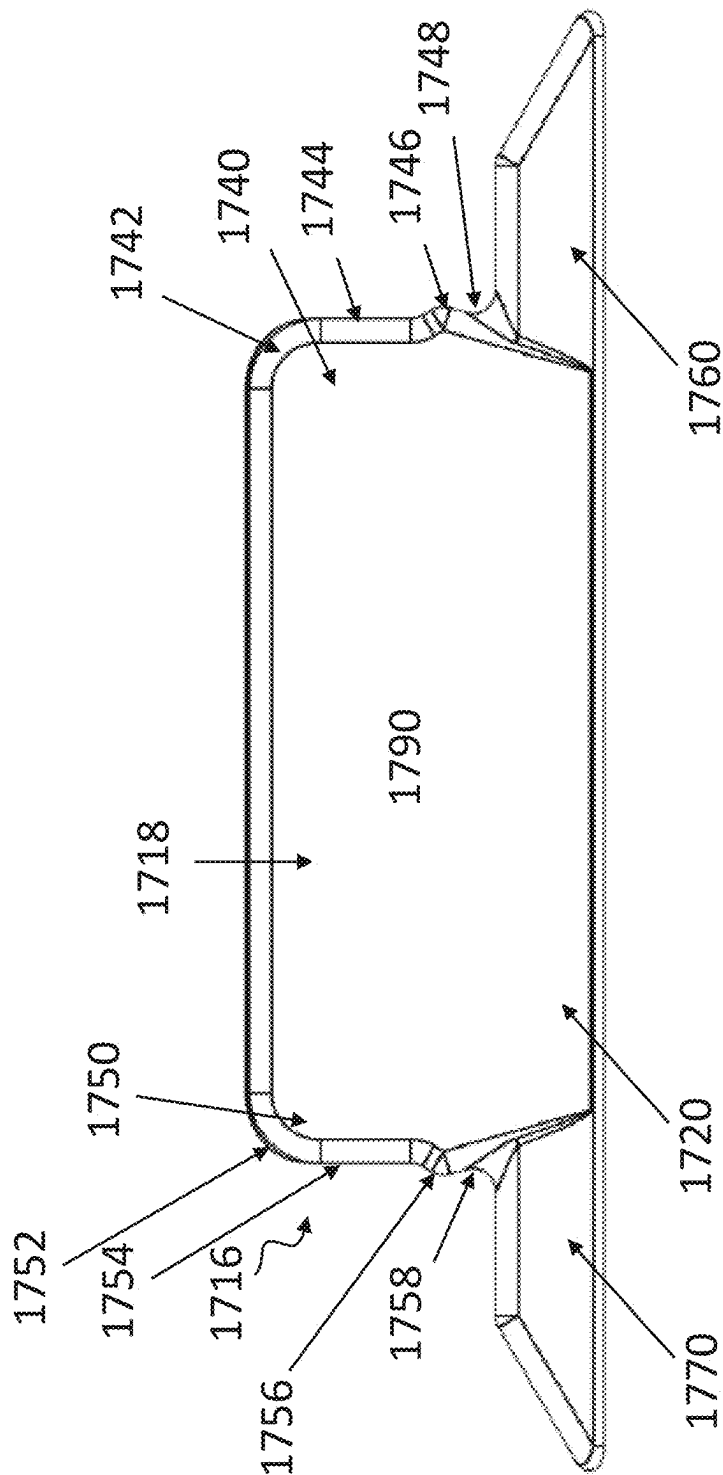


FIG. 19

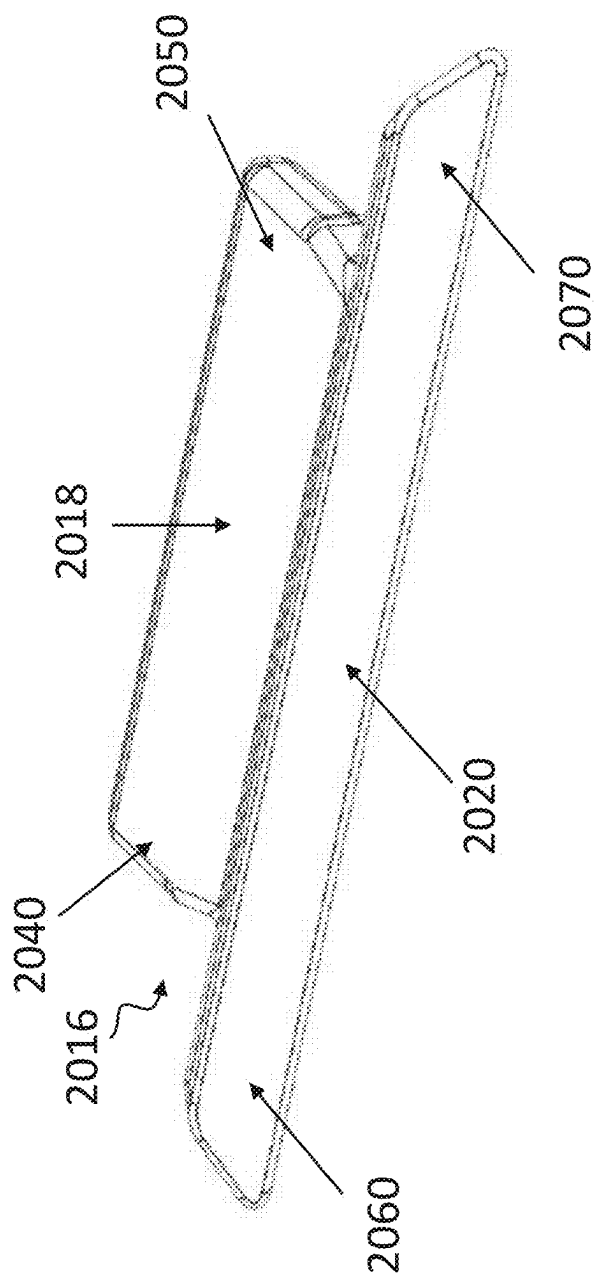


FIG. 20

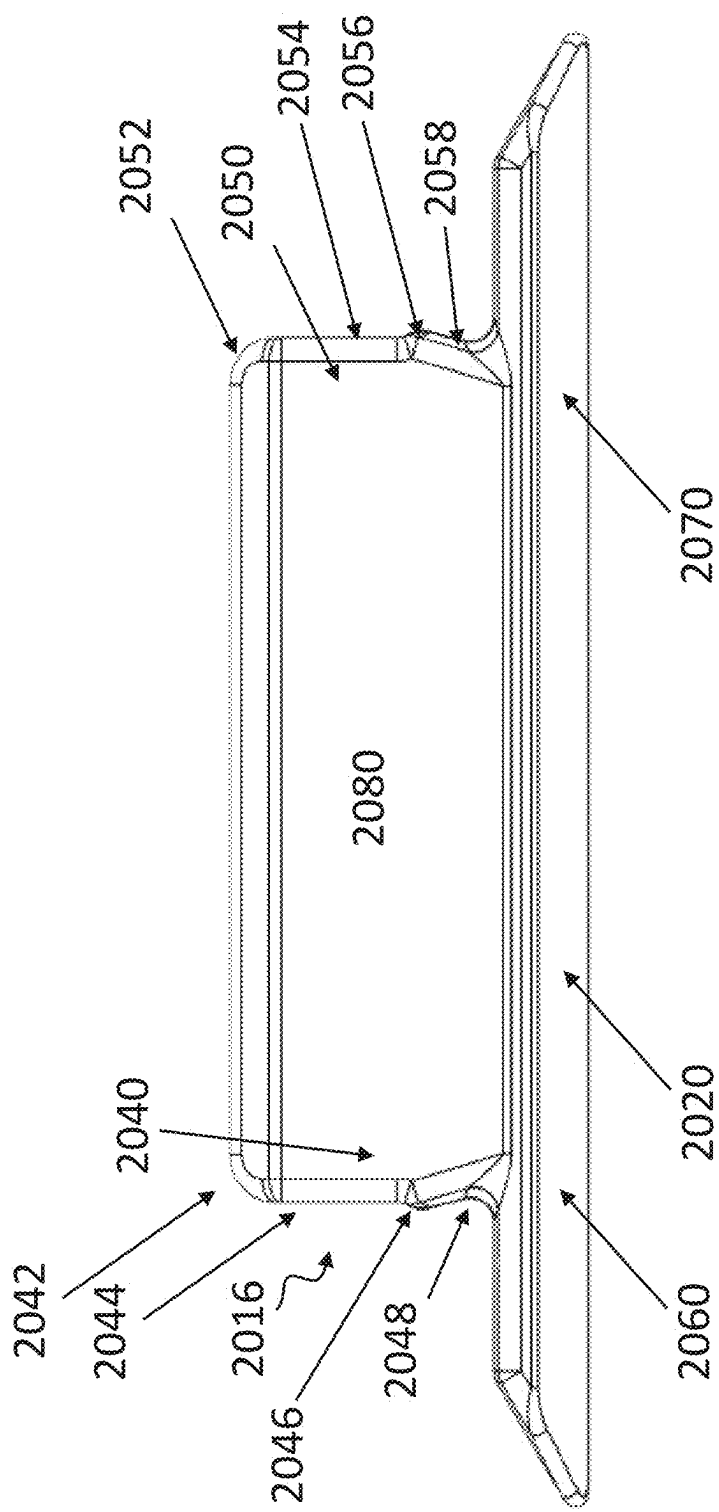


FIG. 21

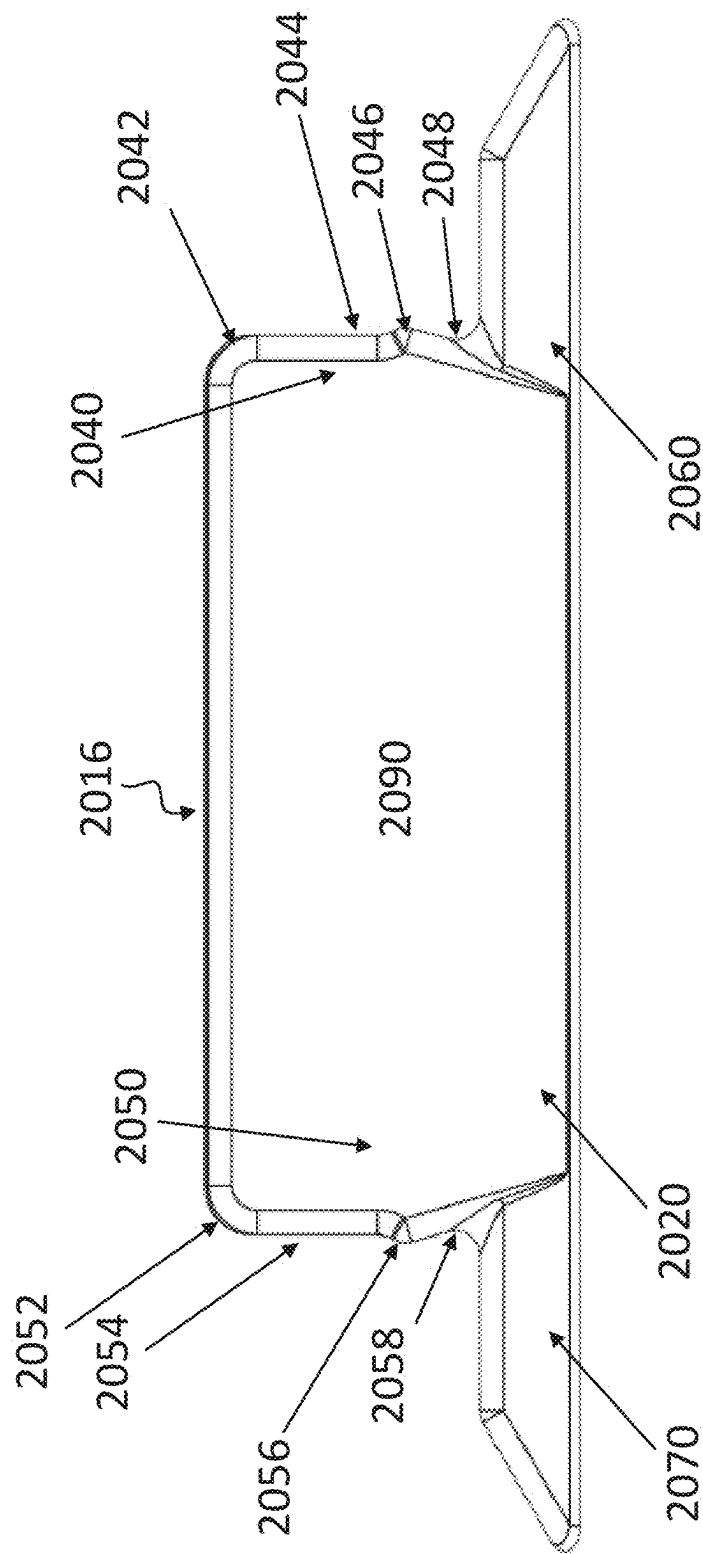


FIG. 22

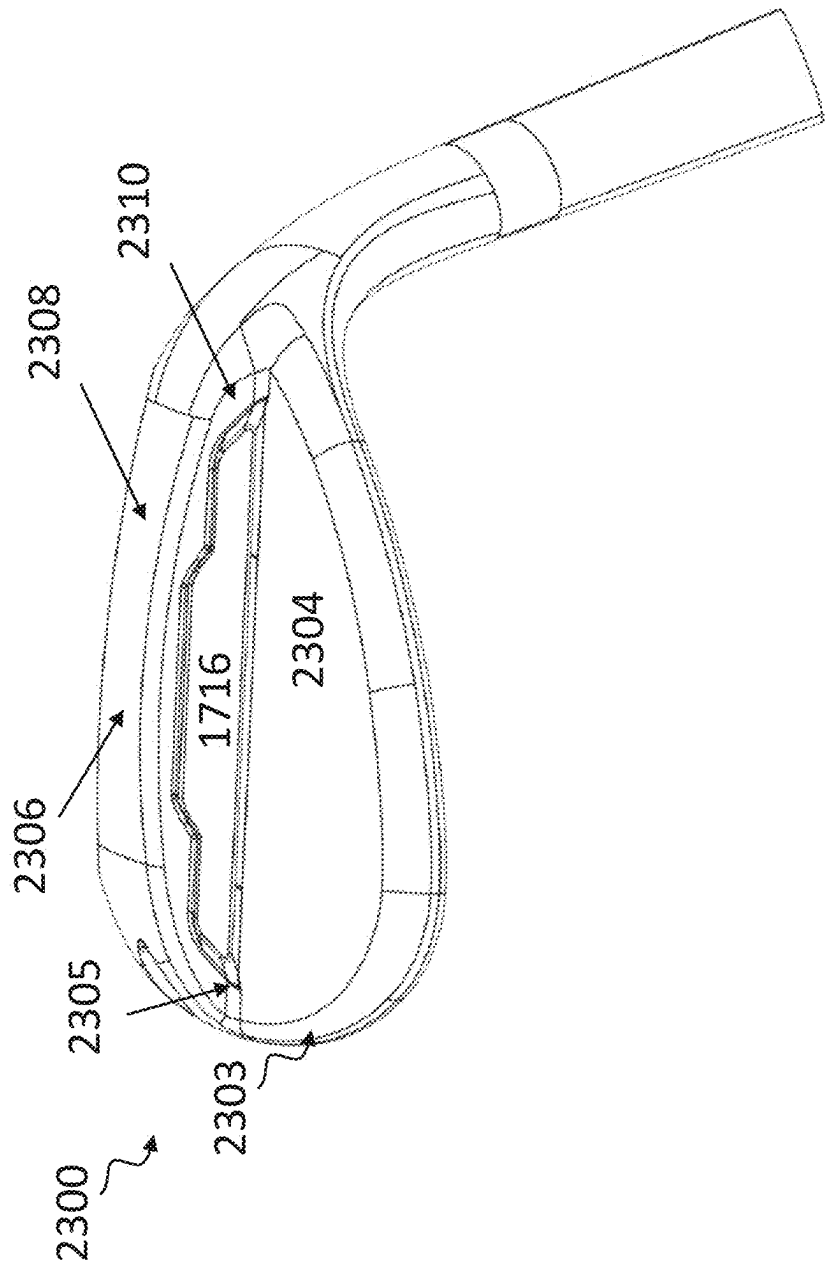


FIG. 23



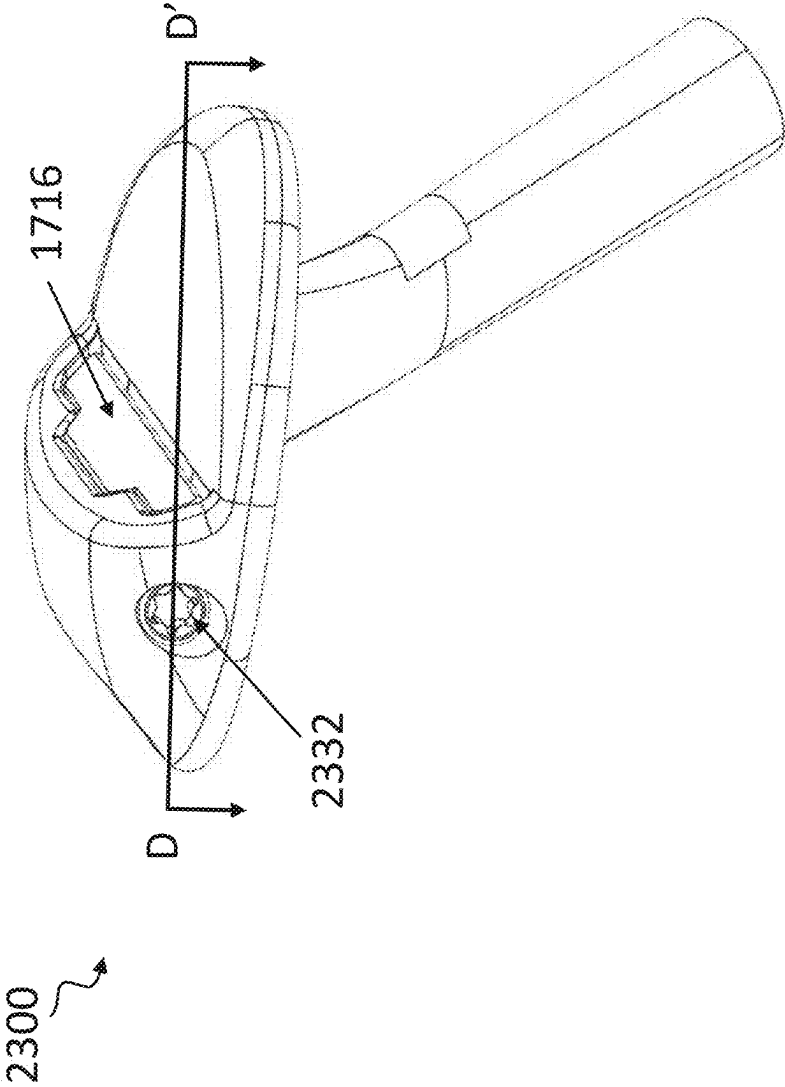


FIG. 24

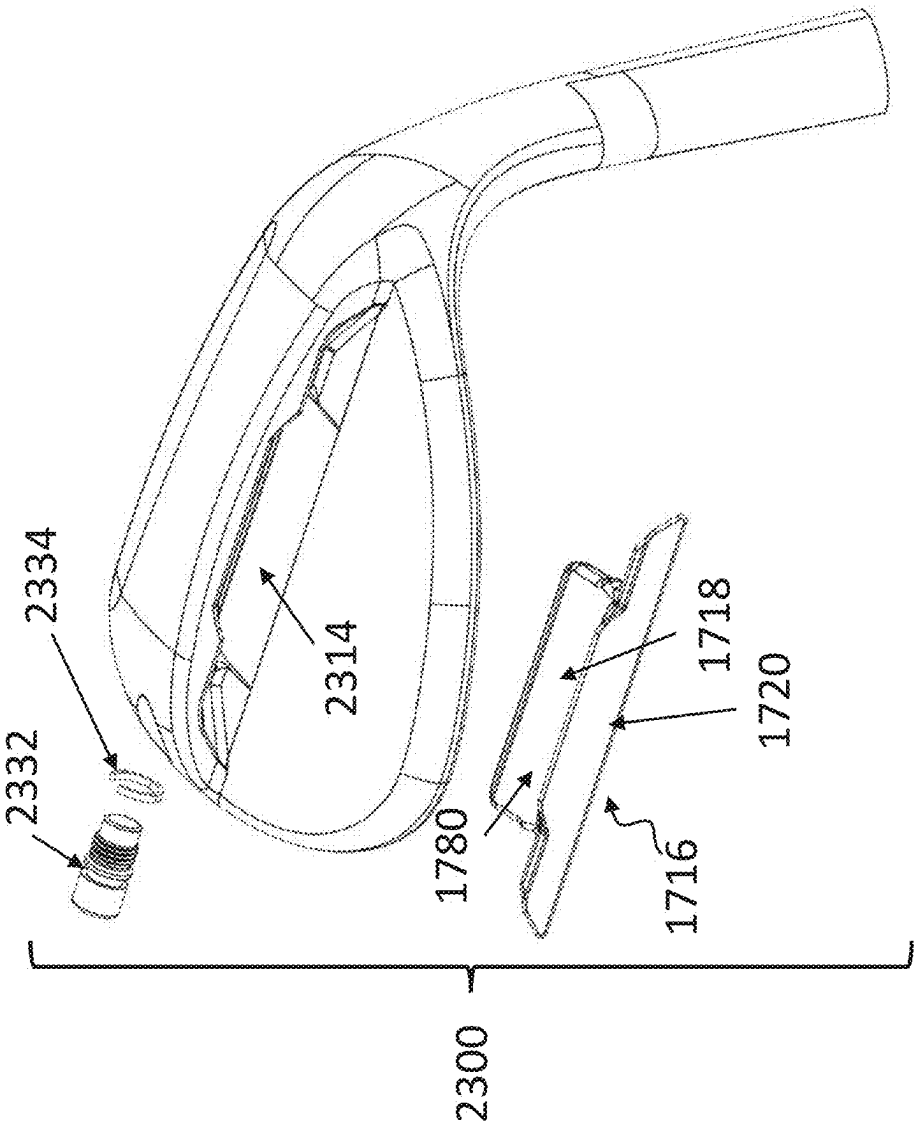


FIG. 25

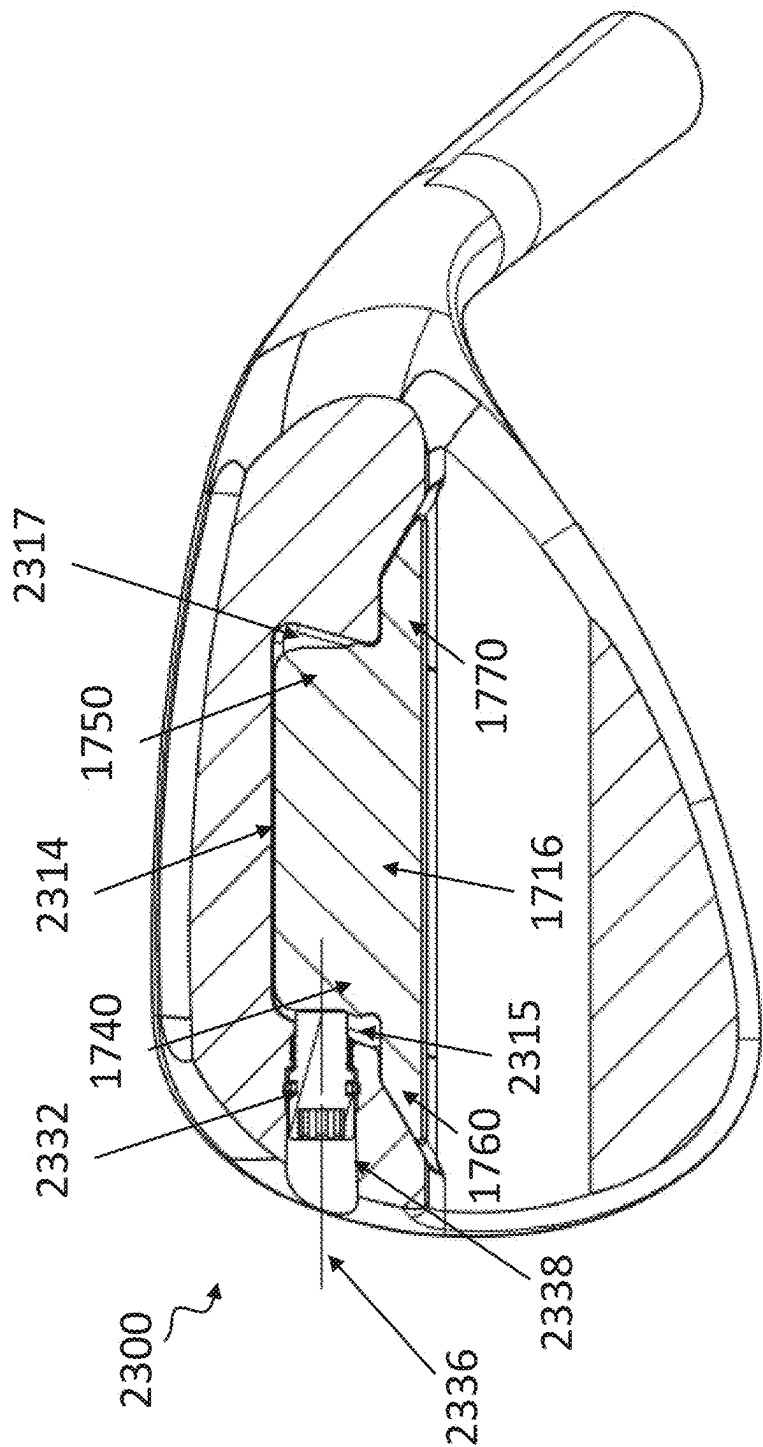


FIG. 26

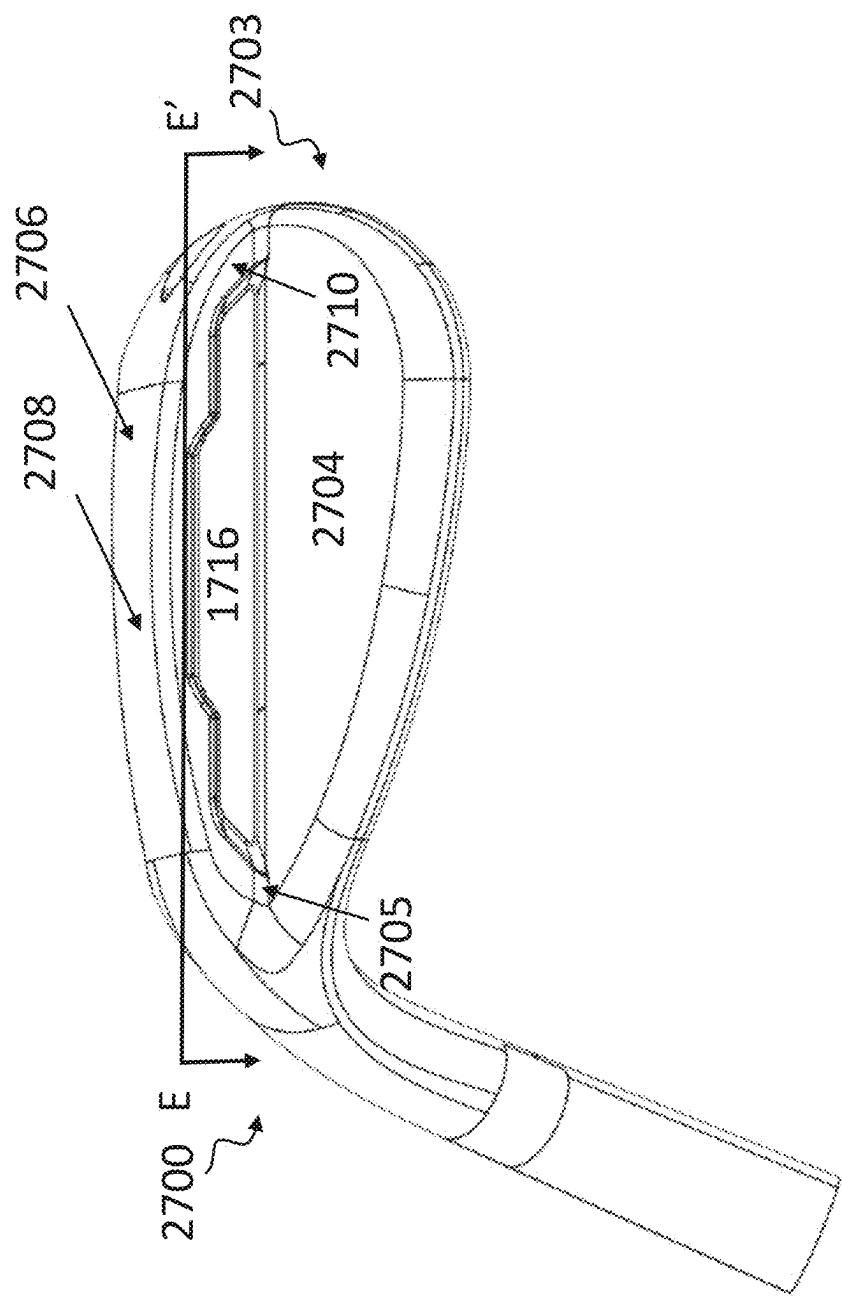


FIG. 27

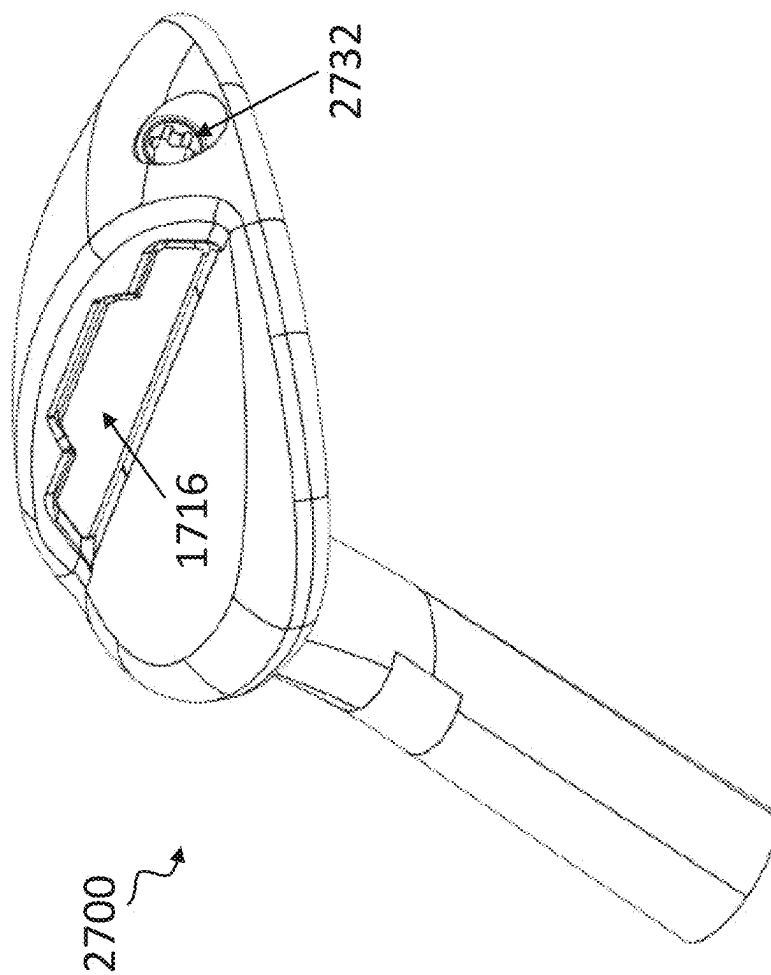


FIG. 28

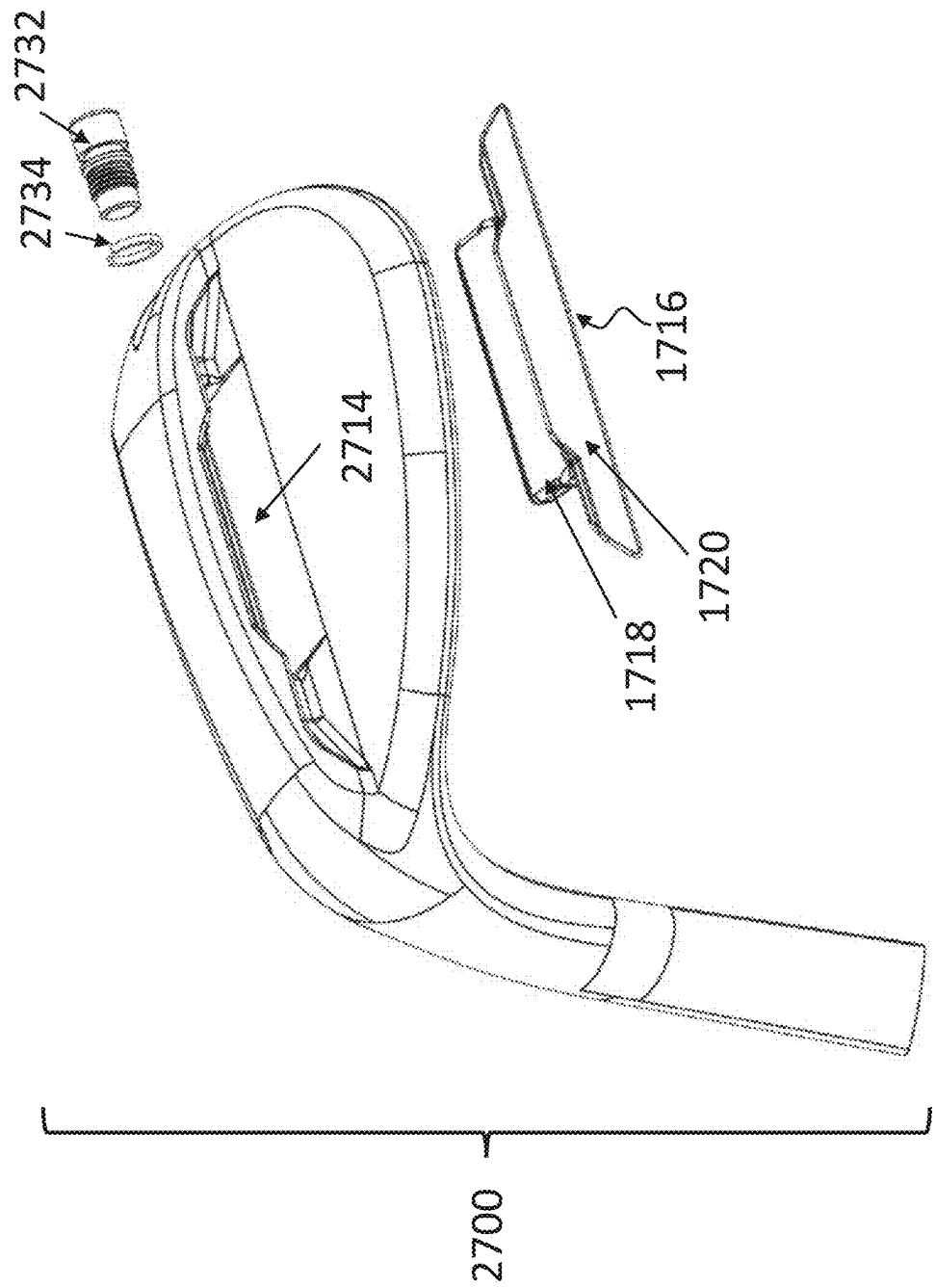


FIG. 29

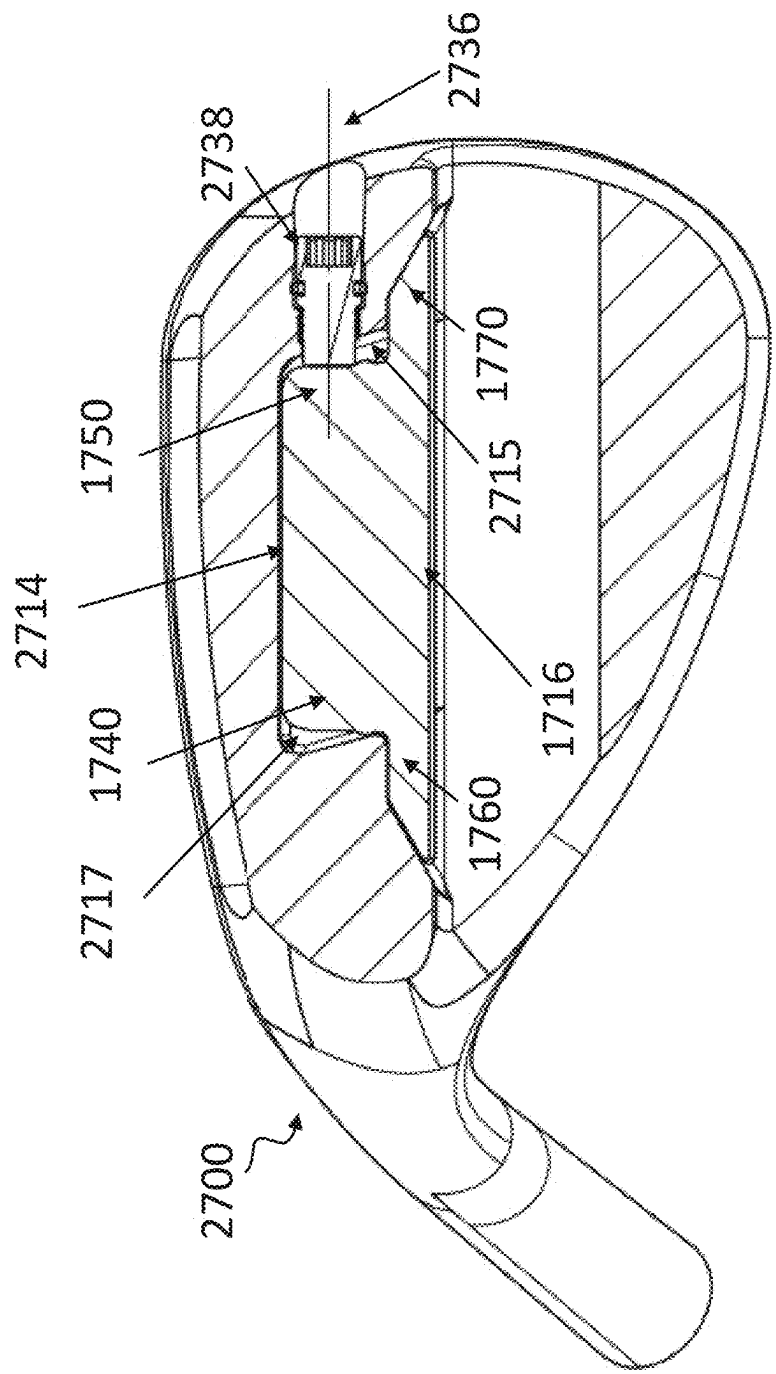


FIG. 30

## GOLF CLUB HEAD INCLUDING A REMOVABLE WEIGHT

### RELATED APPLICATIONS

[0001] This application is a Continuation-In-Part (CIP) of U.S. patent application Ser. No. 18/441,387, filed on Feb. 14, 2024, the disclosure of which is incorporated by reference herein in its entirety.

### FIELD OF THE DISCLOSURE

[0002] The present disclosure generally relates to golf clubs, and more specifically to a golf club head including a removable weight.

### SUMMARY

[0003] Embodiments of the presently disclosed technology may include removable weight. In accordance with some aspects of the presently disclosed technology, a removable weight to fit into a right handed golf club head or a left handed golf club head. Each of the right handed golf club head and the left handed golf club head may include a lower muscle portion including a back flange including a weight recess. The removable weight may include a body portion including a first body end and a second body end. The first body end may fit in a toward end of a first weight recess in a first installed position corresponding to the right handed golf club head or a heelward end of a second weight recess in a second installed position corresponding to the left handed golf club head. The second body end may fit in a heelward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a toward end of the second weight recess in the second installed position corresponding to the left handed golf club head. The removable weight may include a cover portion to cover the weight recess in the first installed position corresponding to the right handed golf club head or the second installed position corresponding to the left handed golf club head.

[0004] In embodiments, the cover portion may include a first cover end and a second cover end. The first cover end may cover the toward end of the first weight recess corresponding to the right handed golf club head or the heelward end of the second weight recess corresponding to the left handed golf club head. The second cover end may cover the heelward end of the first weight recess corresponding to the right handed golf club head or the toward end of the second weight recess corresponding to the left handed golf club head.

[0005] In embodiments, the removable weight may include a metal.

[0006] In embodiments, the metal may include one of tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, and iron.

[0007] In embodiments, a width of the removable weight may be more than about 75% of a width of the back flange.

[0008] In embodiments, a width of the body portion may be less than a width of the cover portion.

[0009] In accordance with some aspects of the presently disclosed technology, a set of golf club heads may be disclosed. The set of golf club heads may include a right handed golf club head and a left handed golf club head. The right handed golf club head may include a first striking face portion, a first back portion, a removable weight, and a first

fastener. The first back portion may include a first upper blade portion, a first gutter extending downward from the first upper blade portion, and a first lower muscle portion extending downward from the first gutter. The first lower muscle portion may include a first back flange. The first back flange may include a first weight recess. The first sole may extend backward from a first lower portion of the first striking face portion to the first back flange. The removable weight may fit into the first weight recess. The removable weight may include a body portion covered by the first sole in a first installed position. The body portion may fit into a portion of the first weight recess. The removable weight may include a cover portion to cover the first weight recess in the first installed position. The left handed golf club head may include a second striking face portion, a second back portion, the removable weight, and a second fastener. The second back portion may include a second upper blade portion, a second gutter extending downward from the second upper blade portion, and a second lower muscle portion extending downward from the second gutter. The second lower muscle portion may include a second back flange. The second back flange may include a second weight recess. The second sole may extend backward from a second lower portion of the second striking face portion to the second back flange. The removable weight may fit into the second weight recess. The removable weight may include the body portion covered by the second sole in a second installed position. The body portion may fit into a portion of the second weight recess. The removable weight may include the cover portion to cover the second weight recess in the second installed position.

[0010] In embodiments, the body portion may include a first body end and a second body end. The first body end may fit in a toward end of a first weight recess in a first installed position corresponding to the right handed golf club head or a heelward end of a second weight recess in a second installed position corresponding to the left handed golf club head. The second body end may fit in a heelward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a toward end of the second weight recess in the second installed position corresponding to the left handed golf club head.

[0011] In embodiments, the cover portion may include a first cover end and a second cover end. The first cover end may cover the toward end of the first weight recess corresponding to the right handed golf club head or the heelward end of the second weight recess corresponding to the left handed golf club head. The second cover end may cover the heelward end of the first weight recess corresponding to the right handed golf club head or the toward end of the second weight recess corresponding to the left handed golf club head.

[0012] In embodiments, the removable weight may include a metal.

[0013] In embodiments, the metal may include one of tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, and iron.

[0014] In embodiments, a width of the removable weight may be more than about 75% of a width of the back flange.

[0015] In embodiments, a width of the body portion may be less than a width of the cover portion.

[0016] In accordance with some aspects of the presently disclosed technology, a removable weight to fit into a right



handed golf club head or a left handed golf club head. Each of the right handed golf club head and the left handed golf club head may include a lower muscle portion including a back flange including a weight recess. The removable weight may include a body portion including a first body end and a second body end. The first body end may fit in a toeward end of a first weight recess in a first installed position corresponding to the right handed golf club head or a heelward end of a second weight recess in a second installed position corresponding to the left handed golf club head. The second body end may fit in a heelward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a toeward end of the second weight recess in the second installed position corresponding to the left handed golf club head. The removable weight may include a cover portion to cover the weight recess in the first installed position corresponding to the right handed golf club head or the second installed position corresponding to the left handed golf club head. The cover portion may include a first cover end and a second cover end. The first cover end may cover the toeward end of the first weight recess corresponding to the right handed golf club head or the heelward end of the second weight recess corresponding to the left handed golf club head. The second cover end may cover the heelward end of the first weight recess corresponding to the right handed golf club head or the toeward end of the second weight recess corresponding to the left handed golf club head.

[0017] In embodiments, the removable weight may include a metal.

[0018] In embodiments, the metal may include one of tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, and iron.

[0019] In embodiments, a width of the removable weight may be more than about 75% of a width of the back flange.

[0020] In embodiments, a width of the body portion may be less than a width of the cover portion.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0021] FIG. 1 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0022] FIG. 2 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0023] FIG. 3 is a perspective exploded view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0024] FIG. 4 is a cross-sectional rear view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2.

[0025] FIG. 5 is a cross-sectional rear view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2.

[0026] FIG. 6 is a cross-sectional rear view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2.

[0027] FIG. 7 is a cross-sectional rear view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2.

[0028] FIG. 8 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0029] FIG. 9 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0030] FIG. 10 is a rear view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0031] FIG. 11 is a cross-sectional side view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line B-B' in FIG. 10.

[0032] FIG. 12 is a perspective exploded view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0033] FIG. 13 is a rear view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0034] FIG. 14 is a perspective exploded view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0035] FIG. 15 is a cross-sectional side view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line C-C' in FIG. 13.

[0036] FIG. 16 is a cross-sectional side view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line C-C' in FIG. 13.

[0037] FIG. 17 is a perspective view of a removable weight in accordance with one or more embodiments of the presently disclosed technology.

[0038] FIG. 18 is a top-down view of a removable weight in accordance with one or more embodiments of the presently disclosed technology.

[0039] FIG. 19 is a bottom-up view of a removable weight in accordance with one or more embodiments of the presently disclosed technology.

[0040] FIG. 20 is a perspective view of a removable weight in accordance with one or more embodiments of the presently disclosed technology.

[0041] FIG. 21 is a top-down view of a removable weight in accordance with one or more embodiments of the presently disclosed technology.

[0042] FIG. 22 is a bottom-up view of a removable weight in accordance with one or more embodiments of the presently disclosed technology.

[0043] FIG. 23 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0044] FIG. 24 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0045] FIG. 25 is an exploded view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0046] FIG. 26 is a cross-sectional view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line D-D' in FIG. 24.

[0047] FIG. 27 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0048] FIG. 28 is a perspective view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0049] FIG. 29 is an exploded view of a golf club head in accordance with one or more embodiments of the presently disclosed technology.

[0050] FIG. 30 is a cross-sectional view of a golf club head in accordance with one or more embodiments of the presently disclosed technology taken along line E-E' in FIG. 24.

[0051] These and other features of the presently disclosed technology, as well as the methods of operation and functions of the related elements of structure and the combination of parts, may be clearer upon consideration of the following detailed description and the claims with reference to these drawings, all of which form a part of this specification, with like reference numerals designating corresponding parts in the various figures. It is to be expressly understood that these drawings are for illustration purposes and description and are not intended to be limiting. It should be noted that for clarity and ease of illustration these drawings are not necessarily made to scale. As used in the specification and in the claims, the singular form of “a,” “an,” and “the” may include plural referents unless the context clearly dictates otherwise.

#### DETAILED DESCRIPTION

[0052] Currently there are limited techniques to dynamically adjust a weight of a golf club iron or golf club wedge. Of the limited techniques, many are permanent and/or time-consuming. For example, this may include polishing off material on the golf club head, drilling holes, and/or adding tip plugs. The presently disclosed technology may allow a golf club head to be dynamically adjustable in mass, center of gravity (CG), and/or moment of inertia (MOI). The presently disclosed technology may include a removable weight. The presently disclosed technology may eliminate the need to remove or add material to the golf club head during assembly to meet customization requirements. This may provide dynamic fine tuning of the mass, CG, and/or MOI of the golf club head after manufacturing.

[0053] The presently disclosed technology is directed to a golf club head. The golf club head may include a striking face portion, a back portion, a removable weight, and a fastener. The back portion may include an upper blade portion, a gutter, and a lower muscle portion. The lower muscle portion may include a back flange and a sole. The back flange may include a weight recess. The removable weight may be used to adjust characteristics of the golf club head. For example, the golf club head may include components to adjust the CG of the golf club head, the mass of the golf club head, the MOI of the golf club head, the materials of the golf club head, the aesthetics of the golf club head, and/or other characteristics. The presently disclosed technology may allow a user to quickly and easily modify the characteristics of a manufactured golf club head depending on the user's needs.

[0054] FIGS. 1-5 illustrate golf club head 100 in accordance with one or more embodiments of the presently disclosed technology. For example, FIG. 1 is a perspective view of a golf club head 100 in accordance with one or more embodiments of the presently disclosed

technology. FIG. 3 is a perspective exploded view of a golf club head 100 in accordance with one or more embodiments of the presently disclosed technology. FIG. 4 is a cross-sectional rear view of a golf club head 100 in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2. FIG. 5 is a cross-sectional rear view of a golf club head 100 in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2. Each of these figures may provide different views of the same or similar components, and may be discussed together herein. Referring first to FIG. 1, golf club head 100 may include striking face portion 102, back portion 103, removable weight 116, and fastener 132 (at least shown in FIG. 2). Golf club head 100 may include metal, plastic, composite, and/or other materials. The metal may include tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, iron, alloys, and/or other metals without departing from the spirit and scope of the presently disclosed technology. The plastic may include thermosets, thermoplastics, and/or other plastics. Composites may include a variety of materials known to those skilled in the art, including for example, graphite, carbon fiber, resins, ceramics, boron fiber, polymers, foams, and so on. Striking face portion 102 may refer to a frontal portion of a golf club head 100. Striking face portion 102 may be intended to strike a golf ball. A frontal surface of striking face portion 102 may be substantially planar.

[0055] Back portion 103 may include upper blade portion 104, gutter 105, and lower muscle portion 106. Upper blade portion 104 may include an upper portion of back portion 103. Upper blade portion 104 may refer to a blade portion of golf club head 100. Gutter 105 may extend downward from upper blade portion 104. For example, gutter 105 may extend from a lower portion of upper blade portion 104. Gutter 105 may include a substantially curved region. For example, gutter 105 may include a curve downward and backward from a bottom of upper blade portion 104. In some embodiments, gutter 105 may be a linear region. For example, gutter 105 may extend down and back from a bottom of upper blade portion 104. Gutter 105 may include a portion of weight recess 114, which will be described in greater detail below.

[0056] Lower muscle portion 106 may include back flange 110 and sole 108. Lower muscle portion 106 may extend downward from gutter 105. Lower muscle portion 106 may refer to a muscle portion of golf club head 100. For example, lower muscle portion 106 may extend downward from a bottom portion and/or backward portion of gutter 105. Back flange 110 may include weight recess 114. Back flange 110 may extend substantially backward from a bottom portion and/or backward portion of gutter 105. Weight recess 114 may receive or be configured to receive removable weight 116, which will be described in greater detail herein. Weight recess 114 may extend downward from back flange 110. For example, weight recess 114 may extend down in a parallel direction of a plane of a frontal surface of striking face portion 102. Weight recess 114 may be asymmetrical. For example, weight recess 114 may have more of a recess heelward than toward from a geometric center, or vice versa based on removable weight 116. In some embodiments, the asymmetry may be forward or backward from the geometric center. Matching the shape, size, and/or dimension of weight recess 114 to removable weight 116 may reduce, prevent or otherwise stop unwanted movement of

removable weight 116 in the installed position and/or reduce, prevent or otherwise stop unwanted sound of removable weight 116 in the installed position.

[0057] Sole 108 may extend substantially downward away from back flange 110 toward striking face portion 102. For example, sole 108 may extend downward from a backward portion of back flange 110 to a bottom portion of striking face portion 102. Sole 108 may extend substantially backward from a bottom portion of striking face portion 102 to back flange 110. Sole 108 may include weight recess 114 and toeward sole portion 129. Weight recess 114 may be between an exterior surface of sole 108 and striking face portion 102. Toeward sole portion 129 may refer to a toeward portion of sole 108. Toeward sole portion 129 may include fastener through hole 130. Fastener through hole 130 may extend into weight recess 114. For example, fastener through hole 130 may extend from toeward sole portion 129 heelward into weight recess 114. Fastener through hole 130 may be accessible to weight recess 114. In some embodiments, fastener through hole 130 may be recessed as compared to surrounding regions of golf club head 100. Referring to FIG. 2, fastener through hole 130 may receive a portion of fastener 132. For example, fastener through hole 130 may receive a bottom portion of fastener 132.

[0058] Referring to FIG. 3, golf club head 100 may include removable weight 116, which may include body portion 118 and cover portion 120. Removable weight 116 may fit or be configured to fit into weight recess 114. In an installed position, removable weight 116 may be flush with surrounding surfaces, including gutter 105, back flange 110, and/or sole 108 in the installed position. The installed position may be when removable weight 116 is fully inserted into weight recess 114. In the installed position, removable weight 116 may form a substantially continuous shape along back portion 103 to provide a uniform appearance to golf club head 100. A uniform appearance may make it hard to visually distinguish golf club head 100 from a traditional golf club head.

[0059] Removable weight 116 may include a metal, a plastic, and/or a composite. In some embodiments, removable weight 116 may be a multi-material component. For example, body portion 118 may be a first material and cover portion 120 may be a second material. In some embodiments, a heelward portion of removable weight 116 may be a first material and a toeward portion of removable weight 116 may be a second material. These materials may be different from the rest of golf club head 100. In some embodiments, some of the materials may be the same as the rest of golf club head 100. In embodiments, removable weight 116 may be solid. In some embodiments, removable weight 116 may be hollow. Removable weight 116 may be between about 1.0 g to about 70.0 g. In some embodiments, removable weight 116 may be between about 2.0 g to about 35.0 g.

[0060] Body portion 118 may be a bottom portion of removable weight 116. Body portion 118 may be covered by sole 108 and/or cover portion 120 in the installed position. Body portion 118 may fit into a portion of weight recess 114 in the installed position. For example, body portion 118 may fit into a bottom portion of weight recess 114. Cover portion 120 may be a top portion of removable weight 116. Cover portion 120 may extend upward from body portion 118. Cover portion 120 may cover body portion 118 and/or

weight recess 114 in the installed position. A portion of cover portion 120 may fit into a portion of weight recess 114. For example, a bottom portion of cover portion 120 may fit into a top portion of weight recess 114. In some embodiments, cover portion 120 and/or removable weight 116 may cover at least 90% of a width of upper blade portion 104, gutter 105, lower muscle portion 106, sole 108, and/or back flange 110. In embodiments, cover portion 120 and/or removable weight 116 may cover at least 75% of the width of upper blade portion 104, gutter 105, lower muscle portion 106, sole 108, and/or back flange 110. A width of body portion 118 may be less than a width of cover portion 120. For example, the width of body portion 118 may be less than 95% of the width of cover portion 120. In some embodiments, the width of body portion 118 may be less than 75% of the width of cover portion 120. In some embodiments, body portion 118 may be a different material than cover portion 120. A height of body portion 118 may be larger than a height of cover portion 120. A depth, from face-to-back, of body portion 118 may be less than a depth of cover portion 120.

[0061] Referring to FIG. 4, golf club head 100 may include fastener 132. Fastener 132 may fasten removable weight 116 into the installed position, where fastener 132 may be fully fastened. Fastener 132 may include a threaded end and a head end. The threaded end may be on a bottom end of fastener 132 and a head end may be on a top end of fastener 132. The threaded end may engage a threaded portion of fastener through hole 130. Fastener 132 may fasten along fastener axis 136, described in greater detail below. Fastener through hole 130 may include varying sized holes to accommodate different widths of fastener 132. For example, a toeward portion of fastener through hole 130 may include a first hole with a first circumference to fit the head end. A heelward portion of fastener through hole 130 may include a second hole with a second circumference to fit the threaded end. The heelward portion of fastener through hole may be the threaded portion. The varying sized holes may help seat fastener 132. Fastener axis 136 may run along a heel-to-toe direction. Referring back to FIG. 3, golf club head 100 may include retaining ring 134. Retaining ring 134 may help prevent fastener 132 from being fully decoupled or unfastened from golf club head 100. This may prevent loss of fastener 132. Referring back to FIG. 4, in the installed position, a portion of fastener 132 may contact a portion of removable weight 116. For example, a bottom portion of a threaded end of fastener 132 may contact a toeward portion of body portion 118 in the installed position. Fastener 132 may help retain and/or secure removable weight 116 in the installed position. In the installed position, a bottom portion of a threaded end of fastener 132 may contact a toeward portion of body portion 118 which makes contact with an interior surface of golf club head 100 near a heelward end of a bottom portion of weight recess 114 which may help secure removable weight 116 in the installed position. In some embodiments, the toeward portion of body portion 118 may be shaped, sized, and/or dimensioned to receive the bottom portion of the threaded end of fastener 132. For example, fastener axis 136 may be perpendicular to the toeward portion of body portion 118 in contact with the threaded end of fastener 132 in the installed position. Fastener 132 may include metal, plastic, or other materials, as discussed herein.

[0062] FIGS. 6-8 illustrate golf club head 600 in accordance with one or more embodiments of the presently disclosed technology. Golf club head 600 may be the same or substantially similar to golf club head 100. For example, FIG. 6 is a cross-sectional rear view of golf club head 600 in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2. FIG. 7 is a cross-sectional rear view of golf club head 600 in accordance with one or more embodiments of the presently disclosed technology taken along line A-A' in FIG. 2. FIG. 8 is a perspective view of golf club head 600 in accordance with one or more embodiments of the presently disclosed technology. Each of these figures may provide different views of the same or similar components, and may be discussed together herein. Referring first to FIG. 6, the width of body portion 618 may be smaller than the width of cover portion 620. For example, the width of body portion 618 may be less than about 50% of the width of cover portion 620. In some embodiments, the width of body portion 618 may be less than about 25% of the width of cover portion 620. It should be appreciated that body portion 618 and cover portion 620 may be otherwise shaped, sized, and/or dimensioned without departing from the spirit and scope of the presently disclosed technology. Weight recess 614 may be shaped, sized, and/or dimensioned accordingly to fit body portion 618. For example, a bottom portion of weight recess 614 may have a smaller width to accommodate a less wide 618, as compared to weight recess 114 and body portion 118 respectively. The rest of golf club head 600, which may include, for example, striking face portion 602, back portion 603, upper blade portion 604, gutter 605, lower muscle portion 606, sole 608, back flange 610, toward sole portion 629, fastener through hole 630, fastener 632, and/or fastener axis 636, may be the same as, or substantially similar to, other golf club heads discussed herein, which may include, for example, striking face portions, back portions, upper blade portions, gutters, lower muscle portions, soles, back flanges, toward sole portions, fastener through holes, fasteners, retaining rings, and/or fastener axes. FIG. 7 and FIG. 8 may provide additional views of weight recess 614.

[0063] FIGS. 9-12 illustrate golf club head 900 in accordance with one or more embodiments of the presently disclosed technology. For example, FIG. 9 is a perspective view of golf club head 900 in accordance with one or more embodiments of the presently disclosed technology. FIG. 10 is a rear view of golf club head 900 in accordance with one or more embodiments of the presently disclosed technology. FIG. 11 is a cross-sectional side view of golf club head 900 in accordance with one or more embodiments of the presently disclosed technology taken along line B-B' in FIG. 10. FIG. 12 is a perspective exploded view of golf club head 900 in accordance with one or more embodiments of the presently disclosed technology. Each of these figures may provide different views of the same or similar components, and may be discussed together herein. Golf club head 900, which may include, for example, striking face portion 902, back portion 903, upper blade portion 904, gutter 905, lower muscle portion 906, sole 908, and/or back flange 910 may be the same as, or substantially similar to, other golf club heads discussed herein, which may include, for example, striking face portions, back portions, upper blade portions, gutters, lower muscle portions, soles, and/or back flanges. Referring first to FIG. 9, back flange 910 may include fastener through

hole 930. Fastener through hole 930 may not be threaded. In some embodiments, fastener through hole 930 may be fully or partially threaded. Referring to FIG. 10, fastener through hole 930 may be centered along a width of removable weight 916. In some embodiments, fastener through hole 930 may be centered on a CG of removable weight 916 or a geometric center of removable weight 916, though it should be appreciated that fastener through hole 930 may be otherwise located, shaped, sized, and/or dimensioned without departing from the spirit and scope of the presently disclosed technology. As illustrated, fastener through hole 930 may intersect or overlap with weight recess 914. For example, a continuous shape may be formed by fastener through hole 930 and weight recess 914.

[0064] Referring to FIG. 11, in the installed position, removable weight 916 may be substantially flush with surrounding regions of golf club head 900. For example, removable weight 916 may be flush with surrounding surfaces, including gutter 905, back flange 910, and/or sole 908 in the installed position. Removable weight 916 may include multiple surfaces. For example, from a side view, a first portion of removable weight 916 may extend partially faceward in the installed position, and a second portion of removable weight 916 may extend partially backward in the installed position. In one example, removable weight 916 may be flat on an exterior surface in the installed position and angle substantially downward on a backward surface, angle backward and downward on the backward surface, angle faceward and downward on a downward surface, angle forward and upward on a forward surface, angle forward and upward on the forward surface, and angle upward and backward to the exterior surface. It should be appreciated that some or all of these angled surfaces may be curved without departing from the spirit and scope of the presently disclosed technology. It should also be appreciated that removable weight 916 may be shaped, sized, and/or dimensioned without departing from the spirit and scope of the presently disclosed technology.

[0065] Referring to FIG. 12, golf club head 900 may include removable weight 916, which may be differently shaped, sized, and/or dimensioned than other removable weights discussed herein. For example, body portion 918 may be shorter in height than other body portions discussed herein. A bottom of body portion 918 may be more rounded than other bottoms of body portions discussed herein. In embodiments, the width of body portion 918 may be less than about 95% of the width of cover portion 920. The width of body portion 918 may be larger than other widths of body portion discussed herein.

[0066] Removable weight 916 may include weight through hole 938. Weight through hole 938 may receive a portion of fastener 932. For example, weight through hole 938 may receive a threaded portion of fastener 932. Weight through hole 938 may be threaded to engage the threaded portion of fastener 932. Fastener through hole 930 may allow access to, or otherwise communicate with, weight through hole 938. Fastener through hole 930 may be the same circumference or size as weight through hole 938. In some embodiments, fastener through hole 930 may have a greater circumference or size as compared to weight through hole 938. Referring back to FIG. 10, additional views of weight recess 914, fastener through hole 930, and fastener 932 may be illustrated that may clarify their shapes, though it should be appreciated that these component may be

shaped, sized, and/or dimensioned differently without departing from the spirit and scope of the presently disclosed technology. Weight recess 914 may be differently shaped, sized, and/or dimensioned than other weight recesses discussed herein to receive and/or accommodate removable weight 916.

[0067] Fastener 932 may be smaller than other fasteners discussed herein. For example, fastener 932 may be smaller in height than other fasteners discussed herein. Fastener 932 may have a single circumference throughout fastener 932. In some embodiments, fastener 932 may be similar to other fasteners discussed herein. Fastener 932 may be threaded throughout its height. A height of fastener 932 may be larger than the height of weight through hole 938. This may allow a bottom of fastener 932 to engage an interior surface of golf club head 900 near a faceward portion of weight recess 914 to secure removable weight 916 to golf club head 900. In embodiments, a top of fastener 932 may engage both a threaded portion of fastener through hole 930 and weight through hole 938 to secure removable weight 916 to golf club head 900. In some embodiments, the height of weight through hole 938 may be bigger or smaller than the height of fastener 932. Referring back to FIG. 11, fastener axis 936 may run through geometric centers of fastener through hole 930 and weight through hole 938. For example, fastener axis 936 may be perpendicular to an exterior surface of back flange 910. Fastener through hole 930 and weight through hole 938 may be aligned. In some embodiments, fastener through hole 930 and weight through hole 938 may have the same circumference. In embodiments, fastener through hole 930 may have a wider circumference than the circumference of weight through hole 938.

[0068] FIGS. 13-16 illustrate golf club head 1300 in accordance with one or more embodiments of the presently disclosed technology. For example, FIG. 13 is a rear view of golf club head 1300 in accordance with one or more embodiments of the presently disclosed technology. FIG. 14 is a perspective exploded view of golf club head 1300 in accordance with one or more embodiments of the presently disclosed technology. FIG. 15 is a cross-sectional side view of golf club head 1300 in accordance with one or more embodiments of the presently disclosed technology taken along line C-C' in FIG. 13. FIG. 16 is a cross-sectional side view of golf club head 1300 in accordance with one or more embodiments of the presently disclosed technology taken along line C-C' in FIG. 13. Each of these figures may provide different views of the same or similar components, and may be discussed together herein. Golf club head 1300, which may include, for example, striking face portion 1302, back portion 1303, upper blade portion 1304, gutter 1305, lower muscle portion 1306, sole 1308, and/or back flange 1310 may be the same as, or substantially similar to, other golf club heads discussed herein, which may include, for example, striking face portions, back portions, upper blade portions, gutters, lower muscle portions, soles, and/or back flanges. Referring first to FIG. 13, golf club head 1300 may include removable weight 1316. A width of removable weight 1316 may be less than about 50% of widths of upper blade portion 1304, gutter 1305, lower muscle portion 1306, and/or sole 1308. In some embodiments, the width of removable weight 1316 may be less than about 25% of the widths of upper blade portion 1304, gutter 1305, lower muscle portion 1306, and/or sole 1308. Removable weight 1316 may be differently shaped, sized, and/or dimensioned

than other removable weights discussed herein. Weight recess 1314 may be shaped, sized, and/or dimensioned to fit and/or accommodate removable weight 1316, as discussed herein.

[0069] Golf club head 1300 may include fastener through hole 1330. For example, back flange 1310 may include fastener through hole 1330. Fastener through hole 1330 may not be threaded. In some embodiments, fastener through hole 1330 may be fully or partially threaded. Fastener through hole 1330 may be centered along a width of removable weight 1316. In some embodiments, fastener through hole 1330 may be centered on a CG of removable weight 1316 or a geometric center of removable weight 1316, though it should be appreciated that fastener through hole 1330 may be otherwise located, shaped, sized, and/or dimensioned without departing from the spirit and scope of the presently disclosed technology. Referring to FIG. 15, in the installed position, removable weight 1316 may protrude beyond surrounding surfaces of golf club head 1300, including, for example, gutter 1305, back flange 1310, and/or sole 1308 in the installed position. The protruded cover portion 1320 may allow a user to more easily handle removable weight 1316, including removal and installation.

[0070] Referring to FIG. 14, back portion 1303 may include weight recess 1314. Upper blade portion 1304, gutter 1305, lower muscle portion 1306, and/or sole 1308 may include portions of weight recess 1314. Fastener through hole 1330 may be separated from weight recess 1314. For example, there is no intersection and/or overlap between an opening created by fastener through hole 1330 and an opening created by weight recess 1314. Fastener 1332 may be the same as, or substantially similar to fasteners discussed herein.

[0071] Removable weight 1316 may include body portion 1318, cover portion 1320, and weight through hole 1338. Removable weight 1316 may be curved. For example, referring to FIG. 15, in a side view, a bottom of removable weight 1316 may curve faceward toward the middle of removable weight 1316 and curve backward toward the top of removable weight 1316. In this side view, removable weight 1316 may appear u-shaped. Body portion 1318 may have a larger height than cover portion 1320. Referring back to FIG. 14, body portion 1318 may have a same width as cover portion 1320.

[0072] Referring back to FIG. 15, fastener axis 1336 may go through a geometric center of fastener through hole 1330 and weight through hole 1338. Fastener through hole 1330 may have the same circumference of weight through hole 1338. Fastener axis 1336 may run perpendicular to the exterior surface of back flange 1310. Fastener axis 1336 may run along geometric centers of fastener through hole 1330 and weight through hole 1338. Fastener through hole 1330 and weight through hole 1338 may be aligned such that both geometric centers are along the same axis, such as, for example, fastener axis 1336. In some embodiments, fastener through hole 1330 and weight through hole 1338 may have the same circumference. In embodiments, fastener through hole 1330 may have a wider circumference than the circumference of weight through hole 1338 or vice versa.

[0073] Referring to FIG. 16, a shape of weight recess 1314 may be more apparent in this view. Weight recess 1314 may be curved to match the shape, size, and/or dimension of removable weight 1316. In embodiments, a bottom of weight recess 1314 may be larger from a back of weight

recess 1314 to a front of weight recess 1314 at a bottom than at the top of weight recess 1314 when measured perpendicular from one of the side walls in weight recess 1314.

[0074] FIGS. 17-19 illustrate removable weight 1716 in accordance with one or more embodiments of the presently disclosed technology. For example, FIG. 17 is a perspective view of removable weight 1716 in accordance with one or more embodiments of the presently disclosed technology. FIG. 18 is a top-down view of removable weight 1716 in accordance with one or more embodiments of the presently disclosed technology. FIG. 19 is a bottom-up view of removable weight 1716 in accordance with one or more embodiments of the presently disclosed technology. Referring first to FIG. 17, removable weight 1716 may be the same as, or substantially similar to, other removable weights discussed herein. Removable weight 1716 may include body portion 1718 and/or cover portion 1720. Body portion 1718 may include first body end 1740 and second body end 1750. Removable weight 1716 may be substantially symmetrical along a center plane of removable weight 1716 between first body end 1740 and second body end 1750. For example, body portion 1718 may be substantially symmetrical along the center plane. Cover portion 1720 may be substantially symmetrical along the center plane. Cover portion 1720 may include first cover end 1760 and second cover end 1770. Removable weight 1716 may include rear body portion 1780. Rear body portion 1780 may include a stepped portion near a bottom of removable weight 1716 in an installed position. This stepped portion may fit into a corresponding portion of a weight recess of a golf club head. This may form a triangular-like cross-section, taken perpendicular to a face of a golf club head along a back-to-front direction, to help secure removable weight 1716 into an installed position. Rear body portion 1780 may include drafted edges on sides, perimeters, and/or junctions between body portion 1718 and cover portion 1720, as well as other portions of removable weight 1716 to help fit removable weight 1716 into the weight recess. A rear of cover portion 1720, as viewed from an installed position, may protrude further rearward. From a top-down view, cover portion 1720 may appear as if there are two trapezoidal shapes stacked on top of each other.

[0075] Referring to FIG. 18, first body end 1740 may include first bottom corner 1742, first bottom side 1744, first top corner 1746, and/or first top side 1748. For example, first bottom corner 1742 may be curved, curving from a bottom of removable weight 1716, in an installed position, to first bottom side 1744. First bottom side 1744 may be substantially straight. First top corner 1746 may be curved, curving from a top of first bottom side 1744, in an installed position, to first top side 1748. First top side 1748 may curve inward toward second body end 1750. In some embodiments, first top side 1748 may be substantially straight until reaching the top of the curved corner near cover portion 1720. Second body end 1750 may include second bottom corner 1752, second bottom side 1754, second top corner 1756, and/or second top side 1758. For example, second bottom corner 1752 may be curved, curving from a bottom of removable weight 1716, in an installed position, to second bottom side 1754. Second bottom side 1754 may be substantially straight. Second top corner 1756 may be curved, curving from a top of second bottom side 1754 to second top side 1758. Second top side 1758 may curve inward toward first body end 1740. In some embodiments, second top side 1758 may be substantially straight until reaching the top of the

curved corner near cover portion 1720. First top side 1748 and/or second top side 1758 may engage sidewalls formed by a weight recess to help secure removable weight 1716 to a golf club head. First bottom side 1744 and/or second bottom side 1754 may engage with a portion of a fastener as discussed herein.

[0076] Referring to FIG. 19, removable weight 1716 may include a front body portion 1790. Front body portion 1790 may include drafted edges on sides, perimeters, and/or junctions between body portion 1718 and cover portion 1720, as well as other portions of removable weight 1716 to help fit removable weight 1716 into the weight recess. Front body portion 1790 may be angled around a central portion of removable weight 1716, as compared to side portions on cover portion 1720. For example, the side portions may be substantially planar with a face of a golf club head, while the central portion may be slightly angled. Front body portion 1790 may be substantially flat, or planar, aside from the drafted edges.

[0077] FIGS. 20-22 illustrate removable weight 2016 in accordance with one or more embodiments of the presently disclosed technology. For example, FIG. 20 is a perspective view of removable weight 2016 in accordance with one or more embodiments of the presently disclosed technology. FIG. 21 is a top-down view of removable weight 2016 in accordance with one or more embodiments of the presently disclosed technology. FIG. 22 is a bottom-up view of removable weight 2016 in accordance with one or more embodiments of the presently disclosed technology. Referring first to FIG. 20, removable weight 2016, including, for example, body portion 2018, first body end 2040, and/or second body end 2050 may be the same as, or substantially similar to, removable weight 1716. Removable weight 2016 may be substantially symmetrical along a center plane of removable weight 2016 between first body end 2040 and second body end 2050. For example, body portion 2018 may be substantially symmetrical along the center plane. Cover portion 2020 may be substantially symmetrical along the center plane. Cover portion 2020 may appear substantially trapezoidal from a top-down view. First cover end 2060 may be symmetrical until the center plane to second cover end 2070 along the center plane.

[0078] Referring to FIG. 21, first top side 2048 and/or second top side 2058 may extend along a longer dimension than first top side 1748 and/or second top side 1758, respectively. This may provide additional surface area to engage sidewalls of a weight recess to help secure removable weight 2016 to a golf club head. In some embodiments, first top side 2048 and/or second top side 2058 may be less angled and more vertical than first top side 1748 and/or second top side 1758. First bottom side 2044 and/or second bottom side 2054 may be a smaller dimension than first bottom side 1744 and/or second bottom side 1754, respectively. First bottom side 2044 and/or second bottom side 2054 may be shaped, sized, and/or dimensioned to receive a fastener, as discussed herein. First bottom corner 2042, second bottom corner 2052, first top corner 2046, second top corner 2056, and/or rear body portion 2080, may be the same as, or substantially similar to, first bottom corner 1742, second bottom corner 1752, first top corner 1746, second top corner 1756, and/or rear body portion 1780, respectively. Referring to FIG. 22, front body portion 2090 may be the same as, or substantially similar to, front body portion 1790.

[0079] FIGS. 23-26 illustrate first golf club head 2300 in accordance with one or more embodiments of the presently disclosed technology. For example, FIG. 23 is a perspective view of golf club head 2300 in accordance with one or more embodiments of the presently disclosed technology. FIG. 24 is a perspective view of golf club head 2300 in accordance with one or more embodiments of the presently disclosed technology. FIG. 25 is an exploded view of golf club head 2300 in accordance with one or more embodiments of the presently disclosed technology. FIG. 26 is a cross-sectional view of golf club head 2300 in accordance with one or more embodiments of the presently disclosed technology taken along line D-D' in FIG. 24. Referring first to FIG. 23, first golf club head 2300 may be the same as, or substantially similar to, other golf club heads discussed herein. First golf club head 2300 may include first back portion 2303, first upper blade portion 2304, first gutter 2305, first lower muscle portion 2306, first sole 2308, first back flange 2310, and/or removable weight 1716. It should be appreciated that while removable weight 1716 is illustrated and discussed below with respect to first golf club head 2300, removable weight 2016 may be used with first golf club head 2300. First golf club head 2300 may be a right handed golf club head.

[0080] Referring to FIG. 24, first golf club head 2300 may include first fastener 2332, as discussed herein. Referring to FIG. 25, first golf club head 2300 may include first weight recess 2314. First fastener 2332 may be prevented from being fully removed from first golf club head 2300 via first retaining ring 2334. For example, first fastener 2332 may help secure removable weight 1716 to first golf club head 2300. Unfastening first fastener 2332 may not remove first fastener 2332 completely from first golf club head 2300 at least in part due to first retaining ring 2334. Body portion 1718 may fit into a bottom portion of first weight recess 2314 in a first installed position corresponding to first golf club head 2300. Rear body portion 1780 may fit into a rear portion of first weight recess 2314 in the first installed position corresponding to first golf club head 2300. Cover portion 1720 may fit into a top portion of first weight recess 2314 in the first installed position corresponding to first golf club head 2300. The first installed position may be removable weight 1716 installed into first weight recess 2314 of first golf club head 2300.

[0081] Referring to FIG. 26, first body end 1740 may fit into first toeward end 2315 of first weight recess 2314. Second body end 1750 may fit into first heelward end 2317 of first weight recess 2314. First cover end 1760 may cover first toeward end 2315. Second cover end 1770 may cover first heelward end 2317. Cover portion 1720 may cover body portion 1718 and/or first weight recess 2314 in the first installed position. First fastener 2332 may fasten along first fastener axis 2336, as discussed herein. First fastener 2332 may fit through first weight through hole 2338, as discussed herein.

[0082] FIGS. 27-30 illustrate second golf club head 2700 in accordance with one or more embodiments of the presently disclosed technology. FIG. 27 is a perspective view of golf club head 2700 in accordance with one or more embodiments of the presently disclosed technology. FIG. 28 is a perspective view of golf club head 2700 in accordance with one or more embodiments of the presently disclosed technology. FIG. 29 is an exploded view of golf club head 2700 in accordance with one or more embodiments of the pres-

ently disclosed technology. FIG. 30 is a cross-sectional view of golf club head 2700 in accordance with one or more embodiments of the presently disclosed technology taken along line E-E' in FIG. 24. Referring first to FIG. 27, second golf club head 2700 may be the same as, or substantially similar to, first golf club head 2300. Second golf club head 2700 may include second back portion 2703, second upper blade portion 2704, second gutter 2705, second lower muscle portion 2706, second sole 2708, second back flange 2710, and/or removable weight 1716. It should be appreciated that while removable weight 1716 is illustrated and discussed below with respect to second golf club head 2700, removable weight 2016 may be used with second golf club head 2700. Second golf club head 2700 may be a left handed golf club head. The presently disclosed removable weight, such as, for example, removable weight 1716 and/or removable weight 2016 may fit into both a right handed golf club head (e.g., first golf club head 2300), and a left handed golf club head (e.g., second golf club head 2700).

[0083] Second golf club head 2700 may be exactly the same as first golf club head 2300, except that second golf club head 2700 is a left handed golf club head. For example, referring to FIGS. 28 and 29, second fastener 2732, second weight recess 2714, and/or second retaining ring 2734 may be the same as first fastener 2332, first weight recess 2314, and/or first retaining ring 2334, except flipped, or mirrored, to accommodate a left handed golf club head. Body portion 1718 may fit into a bottom portion of second weight recess 2714 in a second installed position corresponding to second golf club head 2700. Rear body portion 1780 may fit into a rear portion of second weight recess 2714 in the second installed position corresponding to second golf club head 2700. Cover portion 1720 may fit into a top portion of second weight recess 2714 in the second installed position corresponding to second golf club head 2700. The second installed position may be removable weight 1716 installed into second golf club head 2700. Removable weight 1716 may be installable into at least the first installed position corresponding to first golf club head 2300 and the second installed position corresponding to second golf club head 2700. No change may need to be made to removable weight 1716 to fit into the first installed position and the second installed position due to the novel design disclosed herein.

[0084] Referring to FIG. 30, first body end 1740 may fit into second heelward end 2717 of second weight recess 2714. Second body end 1750 may fit into first toeward end 2715 of second weight recess 2714. First cover end 1760 may cover first toeward end 2715. Second cover end 1770 may cover second heelward end 2717. Cover portion 1720 may cover body portion 1718 and/or second weight recess 2714 in the second installed position. Second fastener 2732 may fasten along second fastener axis 2736 as discussed herein. Second fastener 2732 may fit through second weight through hole 2738, as discussed herein. The presently disclosed technology may reduce manufacturing costs and provide a novel design for a universal weight to fit into different handed golf club heads (i.e., left handed and right handed golf club heads).

[0085] Other than in at least some of the operating examples, or unless otherwise expressly specified, all of the numerical ranges, amounts, values and percentages such as those for amounts of materials, moment of inertias, center of gravity locations, loft, angles, various ratios, and others in the aforementioned portions of the specification may be read

as if prefaced by the word “about” even though the term “about” may not expressly appear in the value, amount, or range. Accordingly, unless indicated to the contrary, the numerical parameters set forth in the above specification and appended claims are approximations that may vary depending upon the desired properties sought to be obtained by the presently disclosed technology. At the very least, and not as an attempt to limit the application of the doctrine of equivalents to the scope of the claims, each numerical parameter should at least be construed in light of the number of reported significant digits and by applying ordinary rounding techniques.

**[0086]** Notwithstanding that the numerical ranges and parameters setting forth the broad scope of the presently disclosed technology are approximations, the numerical values set forth in the specific examples are reported as precisely as possible. Any numerical value, however, inherently contains certain errors necessarily resulting from the standard deviation found in their respective testing measurements. Furthermore, when numerical ranges of varying scope are set forth herein, it is contemplated that any combination of these values inclusive of the recited values may be used.

**[0087]** While various embodiments of the disclosed technology have been described above, it should be appreciated these are examples only, and not limiting. Likewise, the various figures may depict an example configuration or structure to aid in understanding the features and functionality that can be included in the disclosed technology. The presently disclosed technology is not intended to be restricted to the illustrated example configurations and structures, and the desired features can be implemented with a variety of alternative configurations and structures. It may be apparent to one of skill in the art how alternative embodiments can be implemented to impart the desired features of the presently disclosed technology. Therefore, it will be understood that the appended claims are intended to cover all such modifications and embodiments, which would come within the spirit and scope of the presently disclosed technology.

**[0088]** While the presently disclosed technology may be described herein in terms of various exemplary embodiments, it should be understood that the various features described in any individual embodiment is not limited to its particular embodiment, and can be applied, whether alone or in combinations with features of other embodiments, to another embodiment, whether or not such an embodiment is described herein or described as part of a single embodiment. Thus, the breadth and scope of the presently disclosed technology should not be limited to any of the above-described exemplary embodiments.

**[0089]** Words, phrases, and their variations that are used herein, unless otherwise expressly stated, should be construed as open ended, not as limiting. For example, the term “include” should be read to mean “include, without limitation”; the term “example” should be read to mean the following provides exemplary instances, not an exhaustive or limiting list thereof; “a” or “an” should be read as meaning “at least one,” “one or more” etc.; and “traditional,” “normal,” and similar terms should not be construed as limiting to a given time period, but should be read to encompass traditional, normal, like technologies that may be known now or at any future point. In addition, references herein to technologies that would be apparent or known to

one of ordinary skill in the art includes such technologies that are apparent or known to one of ordinary skill in the art now or at any time in the future.

**[0090]** The presence of words and phrases such as “one or more,” “at least,” “not limited to,” or other similar phrases shall not be read to necessarily mean that the narrower case is intended in instances where such broadening phrases may be absent. The presence of words such as “first,” “second,” or other similar words shall not be read to mean that there can only be one or two elements.

We claim:

1. A removable weight to fit into a right handed golf club head or a left handed golf club head, wherein each of the right handed golf club head and the left handed golf club head comprise a lower muscle portion comprising a back flange comprising a weight recess, and wherein the removable weight comprises:

a body portion comprising a first body end and a second body end, wherein the first body end fits in a toeward end of a first weight recess in a first installed position corresponding to the right handed golf club head or a heelward end of a second weight recess in a second installed position corresponding to the left handed golf club head, and wherein the second body end fits in a heelward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a toeward end of the second weight recess in the second installed position corresponding to the left handed golf club head; and

a cover portion to cover the weight recess in the first installed position corresponding to the right handed golf club head or the second installed position corresponding to the left handed golf club head.

2. The removable weight of claim 1, wherein the cover portion comprises a first cover end and a second cover end, wherein the first cover end covers the toeward end of the first weight recess corresponding to the right handed golf club head or the heelward end of the second weight recess corresponding to the left handed golf club head, and wherein the second cover end covers the heelward end of the first weight recess corresponding to the right handed golf club head or the toeward end of the second weight recess corresponding to the left handed golf club head.

3. The removable weight of claim 1, wherein the removable weight comprises a metal.

4. The removable weight of claim 3, wherein the metal comprises one of tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, and iron.

5. The removable weight of claim 1, wherein a width of the removable weight is more than about 75% of a width of the back flange.

6. The removable weight of claim 1, wherein a width of the body portion is less than a width of the cover portion.

7. A set of golf club heads comprising:

a right handed golf club head comprising:

a first striking face portion;

a first back portion comprising:

a first upper blade portion;

a first gutter extending downward from the first upper blade portion; and

a first lower muscle portion extending downward from the first gutter, wherein the first lower muscle portion comprises:



a first back flange, wherein the first back flange comprises a first weight recess; and  
 a first sole extending backward from a first lower portion of the first striking face portion to the first back flange; and  
 a removable weight to fit into at least the first weight recess, comprising:  
 a body portion covered by the first sole in a first installed position, wherein the body portion fits into a portion of the first weight recess; and  
 a cover portion to cover the first weight recess in the first installed position; and  
 a left handed golf club head comprising:  
 a second striking face portion;  
 a second back portion comprising:  
 a second upper blade portion;  
 a second gutter extending downward from the second upper blade portion; and  
 a second lower muscle portion extending downward from the second gutter, wherein the second lower muscle portion comprises:  
 a second back flange, wherein the second back flange comprises a second weight recess; and  
 a second sole extending backward from a second lower portion of the second striking face portion to the second back flange; and  
 the removable weight to fit into the second weight recess, comprising:  
 the body portion covered by the second sole in a second installed position, wherein the body portion fits into a portion of the second weight recess; and  
 the cover portion to cover the second weight recess in the second installed position.

**8.** The set of golf club heads of claim 7, wherein the body portion comprises a first body end and a second body end, wherein the first body end fits in a toeward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a heelward end of the second weight recess in the second installed position corresponding to the left handed golf club head, and wherein the second body end fits in a heelward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a toeward end of the second weight recess in the second installed position corresponding to the left handed golf club head.

**9.** The set of golf club heads of claim 8, wherein the cover portion comprises a first cover end and a second cover end, wherein the first cover end covers the toeward end of the first weight recess corresponding to the right handed golf club head or the heelward end of the second weight recess corresponding to the left handed golf club head, and wherein the second cover end covers the heelward end of the first weight recess corresponding to the right handed golf club

head or the toeward end of the second weight recess corresponding to the left handed golf club head.

**10.** The set of golf club heads of claim 7, wherein the removable weight comprises a metal.

**11.** The set of golf club heads of claim 10, wherein the metal comprises one of tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, and iron.

**12.** The set of golf club heads of claim 7, wherein a width of the removable weight is more than about 75% of a width of the first back flange or the second back flange.

**13.** The set of golf club heads of claim 7, wherein a width of the body portion is less than a width of the cover portion.

**14.** A removable weight to fit into a right handed golf club head or a left handed golf club head, wherein each of the right handed golf club head and the left handed golf club head comprise a lower muscle portion comprising a back flange comprising a weight recess, and wherein the removable weight comprises:

a body portion comprising a first body end and a second body end, wherein the first body end fits in a toeward end of a first weight recess in a first installed position corresponding to the right handed golf club head or a heelward end of a second weight recess in a second installed position corresponding to the left handed golf club head, and wherein the second body end fits in a heelward end of the first weight recess in the first installed position corresponding to the right handed golf club head or a toeward end of the second weight recess in the second installed position corresponding to the left handed golf club head; and

a cover portion to cover the weight recess in the first installed position corresponding to the right handed golf club head or the second installed position corresponding to the left handed golf club head, wherein the cover portion comprises a first cover end and a second cover end, wherein the first cover end covers the toeward end of the first weight recess corresponding to the right handed golf club head or the heelward end of the second weight recess corresponding to the left handed golf club head, and wherein the second cover end covers the heelward end of the first weight recess corresponding to the right handed golf club head or the toeward end of the second weight recess corresponding to the left handed golf club head.

**15.** The removable weight of claim 14, wherein the removable weight comprises a metal.

**16.** The removable weight of claim 15, wherein the metal comprises one of tungsten, steel, titanium, aluminum, scandium, zinc, nickel, copper, and iron.

**17.** The removable weight of claim 14, wherein a width of the removable weight is more than about 75% of a width of the back flange.

**18.** The removable weight of claim 14, wherein a width of the body portion is less than a width of the cover portion.

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