

Description

Title of Invention: A GRIP FOR A GOLF CLUB

Technical Field

- [1] The invention relates to the field of sports equipment and, particularly but not exclusively, to a grip for use in a sports equipment such as a golf club.

Background Art

- [2] Like many sports, the sport of golf requires precision at a chain of events which relies heavily on fine control and coordination between the player and the golf club. Traditional golf clubs such as putting clubs, which are also commonly called 'putters', are often equipped with hand grips aimed to improve hand feel, to assist a tighter holding, as well as to facilitate a smoother movement of the hands and arms of the user. For example, most of the traditional putter grips are designed to encourage mobility of the joints in the hands and arms. One typical design is to provide the putter grip with a substantially cylindrical body, and optionally with a flat top surface for the user to position their thumb pads, such those as shown in Figs. 1 and 2. This configuration enables the palms of the user to face each other on opposing sides of the grip during a holding action, which is known to allow good mobility of the joints at the hands and arms to enable a full range of motion. Nevertheless, such mobility may also encourage inconsistencies in control, which may result in undesirable rotation of the putter during the holding, and thus misalignment to target and deviation of intended ball path. This is particularly difficult for golfers who suffer from the 'yips' - a movement disorder known to interfere with putting - which is known to be a relatively common movement disorder leading to involuntary joint movements in hands and arms.

Disclosure of Invention

- [3] The techniques disclosed herein may provide for an improved grip for a golf club.
- [4] The techniques disclosed herein may also provide a golf club having a novel grip configured to reduce mobility of the joints at the user's hands and arms in use.
- [5] The techniques disclosed herein may also mitigate or obviate to some degree one or more problems associated with known grips for golf clubs.
- [6] Aspects of the invention are defined in the independent claims. Some optional features of the invention are defined in the dependent claims.
- [7]

- [8] In general, there is disclosed a grip for use in a golf club such as, but not limited to, a putting club or putter. Specifically, the grip is configured such that, when being held by a user's hands in use, it guides the user into a specific holding posture which reduces or restricts the degree of movement available at the user's hands and arms. Particularly, there is provided a grip comprising a gripping member which extends longitudinally along at least a part of the grip. The gripping member comprises a longitudinal base portion and at least two angled side portions extending from the base portion. When the base portion engages medial or central parts of the user's palms when the grip is being held, the user's fingers are guided and encouraged to naturally rest onto the respective base portions of the gripping member. With this specific holding posture, mobility of the joints at the user's hands and arms, and particularly when during a putting and/or a swing, will be substantially reduced or restrict to allow control and consistency over the series of motions required during the play. The limitation to joints movement is particularly beneficial to players who experience involuntary hands and arms movement, such as those who suffer from the yips. Furthermore, the holding posture results in both of the user's palms facing forwards from a back surface of the gripping member, i.e. the palms are not opposed to each other as in a typical putter holding posture, but both facing the same direction.
- [9] In a first exemplary arrangement, there is provided a grip for a golf club. The grip comprises a gripping member having a base portion extending longitudinally along a portion of the gripping member adapted to engage one or more palms when held by one or more hands of a user, and at least two side portions extending from said base portion; wherein the at least two side portions are inclined towards one another, such that when the based portion is engaged by the one or more palms of the user during a holding, one or more fingers of the or each of the user's hands are guided to rest on the at least two inclined side portions to thereby reduce or restrict mobility of joints at the user's hands and arms.
- [10] In a second exemplary arrangement, there is provided a golf club comprising the grip according to the first aspect.
- [11] In a third exemplary arrangement, there is provided a method of manufacturing a grip for a golf club. The method comprises the step of providing a grip body and providing a gripping member. The gripping member has a base portion extending longitudinally along a portion of the gripping member adapted to engage one or more palms when held by one or more hands of a user, and at least two side portions extending from said base portion; wherein the at least two side portions are inclined towards one another, such that when the based portion is engaged by the one or more palms of the user during a holding, one or more fingers of the or

each of the user's hands are guided to rest on the at least two inclined side portions to thereby reduce or restrict mobility of joints at the user's hands and arms.

[12]

Brief Description of Drawings

Description of Drawings

- [13] The foregoing and further features of the present invention will be apparent from the following description of preferred embodiments which are provided by way of example only in connection with the accompanying figure, of which:
- [14] Figure 1 shows the holding at a conventional putter grip in the prior art;
- [15] Figure 2 shows the holding at another conventional putter grip in the prior art;
- [16] Figure 3 is a perspective view showing an embodiment of a grip for a putter;
- [17] Figure 4 is a bottom view showing a base portion of the grip of Figure 3;
- [18] Figure 5 is a top view showing two side portions and a front edge of the grip of Figure 3;
- [19] Figure 6 is a side view showing the grip of Figure 3;
- [20] Figure 7 is a front view showing a shaft receiving portion of the grip of Figure 3;
- [21] Figure 8 is a rear view of the grip of Figure 3;
- [22] Figure 9 shows the holding of the grip of Figure 3 by a user; and
- [23] Figure 10 is a full body view of Figure 9 showing position of the hands and the wrists of the user.

Mode for the Invention

Mode for Invention

- [24] The following description is of preferred embodiments by way of example only and without limitation to the combination of features necessary for carrying the invention into effect.
- [25] Reference in this specification to 'one embodiment' or 'an embodiment' means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of the phrase 'in one embodiment' in various places in the specification are not necessarily all referring to the same embodiment, nor are separate or alternative embodiments mutually exclusive of other embodiments. Moreover, various features are described which may be exhibited by some embodiments and not by others. Similarly, various requirements are described which may be requirements for some embodiments but not other embodiments.
- [26] The present techniques relate to a hand grip or grip for use in a golf club. Although specific embodiments of putter grips have been described and illustrated, the techniques are generally applicable to any known type of golf clubs, such as woods, irons and putters, etc. and

therefore, the disclosure is not limited to a grip for use in a putting club, although this is its preferred application. In addition, a person skilled in the art will also appreciate that the grip will be applicable in other types of sports equipment which requires hand gripping by the user, as long as such application does not depart from the spirit and scope of the present invention.

- [27] In the context of the present description, any descriptions on the dimensions of the grip, components of the grip and/or the golf club in one or more embodiments generally relate to exemplified dimensions of such item or items in their average, standard sizes suitable for use by a user with an average palm size and body height. It will be apparent to the skilled person that any proportional variations based on the described dimensions, for example, a reduction in the overall dimension of grip and/or a golf club so as to fit a user with a smaller than average palm size such as, a child or a teenager, shall also be encompassed.
- [28] Referring to Fig. 3, shown is an embodiment of a grip 10 for use in a golf club such as a putting club. The grip 10 comprises a gripping member 20 which extends along at least part of the grip 10 at a distance sufficient to enable a user to place two hands on the gripping member 20 in longitudinal alignment, for example, with one hand behind another along a longitudinal axis of the gripping member 20, or alternatively, with overlapping or partially overlapping hands on the gripping member 20. In one embodiment, the gripping member 20 extends along at least part of the grip 10 a distance of at least about 14 inches.
- [29] It is preferred for the gripping member 20 to be manufactured from a light-weight material such as, but not limited to, one or more of rubber, leather, wood, cork, as well as synthetic polymers such as polyurethane (PU), polyvinyl chloride (PVC) and poly (ethylene-vinyl acetate) (PEVA), etc. Without being limited to the specific materials described above, a person skilled in the art will appreciate that many other materials which are considered suitable and applicable to the present techniques, should also be encompassed.
- [30] As shown in Figs. 3 to 6, the gripping member 20 is preferred to comprise a base portion 22 extending longitudinally along a portion of the gripping member 20 adapted to engage one or more palms, and more specifically, medial or central parts of the user's palms, when held by one or more hands of a user during a golf play, and at least two side portions 24 extending from said base portion 22. The at least two side

portions 24 are configured to incline towards one another, such that when the based portion 22 is engaged by the one or more palms of the user during a holding, one or more fingers of the or each of the user's hands are guided to rest on the at least two opposed inclined side portions 24 to thereby reduce or restrict mobility of joints at the user's hands and/or arms.

- [31] In the embodiment as shown in the figures, the longitudinal base portion 22 of the gripping member 20 is arranged at a rear or bottom side of the grip 10 relative to a direction of extension of a ball striking surface of the golf club or putter head. In addition, the at least two side portions 24 are each configured to extend a sufficient distance away from the base portion 22 such that, where medial or central parts of the user's palms engage the base portion 22 during a holding, one or more finger pads of respective hands of the user are allowed to engage the respective opposed inclined side portions 22. More particularly, the two inclined side portions 24 are arranged such that, when the base portion 22 is engaged by medial or central parts of the user's palms during a holding, one or more thumb pads of the respective hands of the user are allowed to engage the respective opposing side portions as on the sides where their respective wrists are located, with the thumbs aligning substantially in a direction of the longitudinal axis of the gripping member 20. In one embodiment, medial or central parts of the user's palms engaging the longitudinal base portion 22 of the gripping member 20 are substantially longitudinally aligned, with the user's thumb pads engaging respective inclined side portions 24 on same sides of the gripping member 20 as their respective wrists.
- [32] Specifically, the two side portions 24 are substantially flat and inclined towards each other to meet at a front edge 25 opposing the base portion 22 of the gripping member 20. In one specific embodiment, each of the side portions is of about 1 inch in width extending from the base portion 22 towards the front edge 25. The two side portions 24 define an acute angle therebetween, which may range from about 20 deg to about 80 deg, but preferably 25 deg to 50 deg and even more preferably 35 deg to 45 deg.
- [33] The base portion 22 is configured with a width ranged from about 1.0 inch to about 1.5 inches, but preferably about 1.25 inches. Preferably, the base portion 22 comprises a curved surface having a substantially semi-cylindrical surface conforms with the shape of the palm of the user. The semi-cylindrical surface can be configured with a radius of curvature of about 0.5 inch to about 0.75 inch, with the curved surface being positioned substantially symmetrically about a central longitudinal axis or plane of the gripping member 20. In one preferred embodiment, the base portion 22 defines a curved, segmental cross-section having a chord of about 1.25 inches in length. In a further embodiment, the gripping member 20 comprises a substantially constant cross-section as defined by the base portion 22 and the two side portions 24 along its length,

with a cross-sectional height of about 0.75 inch for the base portion 22, and a total height of about 1.2 inches to a maximum of 1.75 inches, and more preferably, 1.75 inches along the central vertical plane. The central axis of the curved base portion 22 is preferably coincident or substantially parallel with a longitudinal axis of a golf club shaft. These specific dimensions and configurations allow a user with average sized hands, when closing his or her palms to hold onto the gripping member 20, to naturally rest the thumbs and the other fingers on respective different sides of the opposed inclined side portions 24 and at the same time, to maintain the medial or central parts of the palms facing upwards when the club is in a horizontal orientation and to substantially align with, for example, the front edge 25 of the gripping member 20. This guided holding posture reduces rotational movements of the user's hands and/or arms about the central axis of the grip 10, which results in a reduction or restriction of mobility of joints at the user's hands and/or arms. This is in contrast to the holding effect offered by the conventional golf grips, on which palms of the user are encouraged to turn over or rotate sideways to face each other so as to allow a maximum mobility at the joints.

- [34] In one embodiment, the grip 10 may further comprise an elongated grip body 12 having a shaft receiving portion 30 as shown in Fig. 7 adapted to receive a shaft of a golf club. The shaft receiving portion 30 may comprise a bore 32 extending longitudinally and at least partially along the grip 10. Preferably, the bore 32 is positioned offset to at least one of a central vertical plane (v-v) and a central horizontal plane (h-h) of the grip 10, as more clearly shown in the figure (Fig. 7), to thereby allow a better sensation of the weight and thus a better recognition of the rotation of the golf shaft when held in the hands.
- [35] In one embodiment, the gripping member 20 can be provided in the form of a sleeve capable of permanently or releasably receiving or slipping over the grip body 12. Alternatively, the gripping member 20 can be manufactured integrally with the grip body 12 connectable with a shaft of a golf club. In a further embodiment, the gripping member 20, the grip body 12 and the shaft of the golf club may also be integrally formed in one piece, with the gripping member 20 being arranged to extend in a direction substantially parallel to an axis of a shaft of the golf club.
- [36] The gripping member 20 can be formed of one or more anti-slipping materials and/or provided on the gripping surface with one or more anti-slipping patterns. In one preferred embodiment, the grip 10 can be of a weight less than or equal to about 100 grams. In a further embodiment, a counter weight can be arranged and positioned at a free end of the grip body 12 distal to a head of the golf club. Fig. 8 further shows a rear end 14 of the grip body 12. The receiving portion 30 of the grip body 12 may receive the shaft of the golf club all the way to the rear end 14. Alternatively, the shaft may

stop a few inches before reaching the rear end 14 to thereby reserve space for positioning a counter weight.

[37] The present disclosure further relates to a method of manufacturing a grip 10 for a golf club as described above. The method comprises the step of providing a grip body 12 by any known manufacturing methods such as, but not limited to, molding, 3-dimensional printing, carving, sculpting, etc. The method further comprises the step of providing a gripping member 20 as hereinbefore described.

[38] The present techniques are advantageous in that it allows, when the medial or central part of the user's palms engage the base portion of the gripping member during a holding at the golf grip, the user's fingers to be guided and encouraged by the specific configuration of the grip to rest comfortably on the respective inclined base portions of the gripping member, as shown in Figs. 9 and 10. Fig. 9 shows the holding posture when the golf club is in a horizontal orientation and Fig. 10 shows the holding posture when the club is in an in use orientation, e.g. a putting orientation. Positioning of the palms and the fingers and therefore the corresponding holding posture are naturally guided by the specific configuration of the grip, which keep the palms of the user facing upward when the club is horizontal, i.e. substantially aligned with and facing the front edge of the gripping member during the grip, as shown in Fig. 9. The thumb and the other fingers of one hand are encouraged to rest on the two respective side portions, i.e. the thumb at one side and the other fingers at the other side, with the thumb and the wrist of the same hand being substantially aligned and arranged at the same side and direction, as shown in Fig. 10. The specific dimensions of the grip further assist in reducing rotational movement of the user's palms about the longitudinal axis of the grip. This holding posture, as allowed by the specific configuration of the grip as herein disclosed, substantially reduces or restricts mobility of joints at the user's hands and arms during a putting and/or a swinging action or a series of actions during a golf play. The restriction in joint movement is particularly beneficial to players who experience involuntary movements at their hands and/or arms, such as those who are suffered from the YIPS.

[39] The present description illustrates the principles of the present invention. It will thus be appreciated that those skilled in the art will be able to devise various arrangements that, although not explicitly described or shown herein, embody the principles of the invention and are included within its spirit and scope.

[40] Moreover, all statements herein reciting principles, aspects, and embodiments of the invention, as well as specific examples thereof, are intended to encompass both structural and functional equivalents thereof. Additionally, it is intended that such equivalents include both

currently known equivalents as well as equivalents developed in the future, i.e., any elements developed that perform the same function, regardless of

structure.

[41] While the invention has been illustrated and described in detail in the drawings and foregoing description, the same is to be considered as illustrative and not restrictive in character, it being understood that only exemplary embodiments have been shown and described and do not limit the scope of the invention in any manner. It can be appreciated that any of the features described herein may be used with any embodiment. The illustrative embodiments are not exclusive of each other or of other embodiments not recited herein. Accordingly, the invention also provides embodiments that comprise combinations of one or more of the illustrative embodiments described above. Modifications and variations of the invention as herein set forth can be made without departing from the spirit and scope thereof, and, therefore, only such limitations should be imposed as are indicated by the appended claims.

[42] In the claims hereof, any element expressed as a means for performing a specified function is intended to encompass any way of performing that function. The invention as defined by such claims resides in the fact that the functionalities provided by the various recited means are combined and brought together in the manner which the claims call for. It is thus regarded that any means that can provide those functionalities are equivalent to those shown herein.

[43] In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word 'comprise' or variations such as 'comprises' or 'comprising' is used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention.

Claims

1. A grip for a golf club, comprising:
 - a gripping member having a substantially constant cross-section along its length, the gripping member having:
 - a base portion extending longitudinally along a portion of the gripping member adapted to engage one or more palms when held by one or more hands of a user, and
 - at least two substantially flat side portions extending from said base portion;
 - a shaft receiving portion adapted to receive a shaft of the golf club, the shaft receiving portion comprises a bore extending longitudinally and at least partially along the grip;
 - wherein the base portion comprises a curved surface, and the at least two substantially flat side portions are inclined towards one another, such that when the base portion is engaged by the palms of the user during a holding, fingers of the user's hands are guided to rest on the at least two inclined and substantially flat side portions to thereby reduce or restrict mobility of joints at the user's hands and arms;
 - wherein the bore is arranged to offset from both of a central vertical plane and a central horizontal plane of the grip.
2. The grip according to claim 1, wherein the at least two side portions define an acute angle therebetween.
3. The grip according to claim 2, wherein the acute angle is ranged from 20 deg to 80 deg.
4. The grip according to claim 1, wherein the at least two side portions meet at a front edge of the gripping member relative to the base portion.
5. The grip according to claim 1, wherein the base portion is of a width ranged from 1.0 inch to 1.5 inches.
6. The grip according to claim 1, wherein the curved surface comprises a substantially semi-cylindrical surface having a radius of curvature of 0.5 inch to 0.75 inch.

7. The grip according to claim 1, wherein the at least two side portions extend a sufficient distance away from the base portion such that, when the base portion is engaged by the one or more user's palms during a holding, one or more finger pads of respective hands of the user are allowed to engage respective opposed inclined side portions.
8. The grip according to claim 1, wherein the at least two side portions are arranged such that, when the base portion is engaged by the one or more user's palms during a holding, one or more thumb pads of respective hands of the user are allowed to engage the respective side portions as their respective wrists.
9. The grip according to claim 1, wherein the at least two side portions are inclined towards a central vertical plane of the gripping member, the gripping member is of a height of 1.2 inches to 1.75 inches along said central vertical plane.
10. The grip according to claim 1, wherein the gripping member is configured substantially symmetrically along a longitudinal central plane.
11. The grip according to claim 1, wherein the gripping member is formed of one or more anti-slipping materials and/or provided with one or more anti-slipping patterns.
12. The grip according to claim 1, wherein the gripping member is of a length of at least 14 inches.
13. The grip according to claim 1, further comprising an elongated body comprising the shaft receiving portion and the gripping member.
14. The grip according to claim 13, wherein the elongated body, the shaft receiving portion and the gripping member are integrally formed.
15. The grip according to claim 1, wherein the gripping member is arranged to extend in a direction substantially parallel to an axis of a shaft of the golf club.

16. The grip according to claim 1, wherein the grip is of less than or equal to 100 grams in weight.
17. The grip according to claim 1, further comprising a counter weight positioned at an end distal to a head of the golf club.
18. A golf club comprising the grip according to any one of the preceding claims.
19. The golf club according to claim 21, wherein the grip is integrally formed with a shaft of the golf club.
20. The golf club according to claim 21, wherein the gripping member is integrally formed with the grip and a shaft of the golf club.
21. The golf club according to claim 21, wherein the base portion of the gripping member of the grip is positioned at a rear side of the grip relative to a direction of extension of a ball striking surface of a head of the golf club.
22. The golf club according to claim 21, wherein the base portion comprises a curve surface having a central axis substantially parallel to a longitudinal axis of a shaft of the golf club.
23. A method of manufacturing a grip for a golf club, comprising the step of:
 - providing a grip body;
 - providing a gripping member at the grip body, the gripping member having a substantially constant cross-section along its length, the gripping member having:
 - a base portion extending longitudinally along a portion of the gripping member adapted to engage one or more palms when held by one or more hands of a user, and
 - at least two substantially flat side portions extending from said base portion;
 - a shaft receiving portion adapted to receive a shaft of the golf club, the shaft receiving portion comprises a bore extending longitudinally and at least partially along the grip;

wherein the base portion comprises a curved surface, and the at least two substantially flat side portions are inclined towards one another, such that when the base portion is engaged by the palms of the user during a holding, fingers of the user's hands are guided to rest on the at least two inclined and substantially flat side portions to thereby reduce or restrict mobility of joints at the user's hands and arms;

wherein the bore is arranged to offset from both of a central vertical plane and a central horizontal plane of the grip.



FIG. 1
Prior Art



FIG. 2
Prior Art

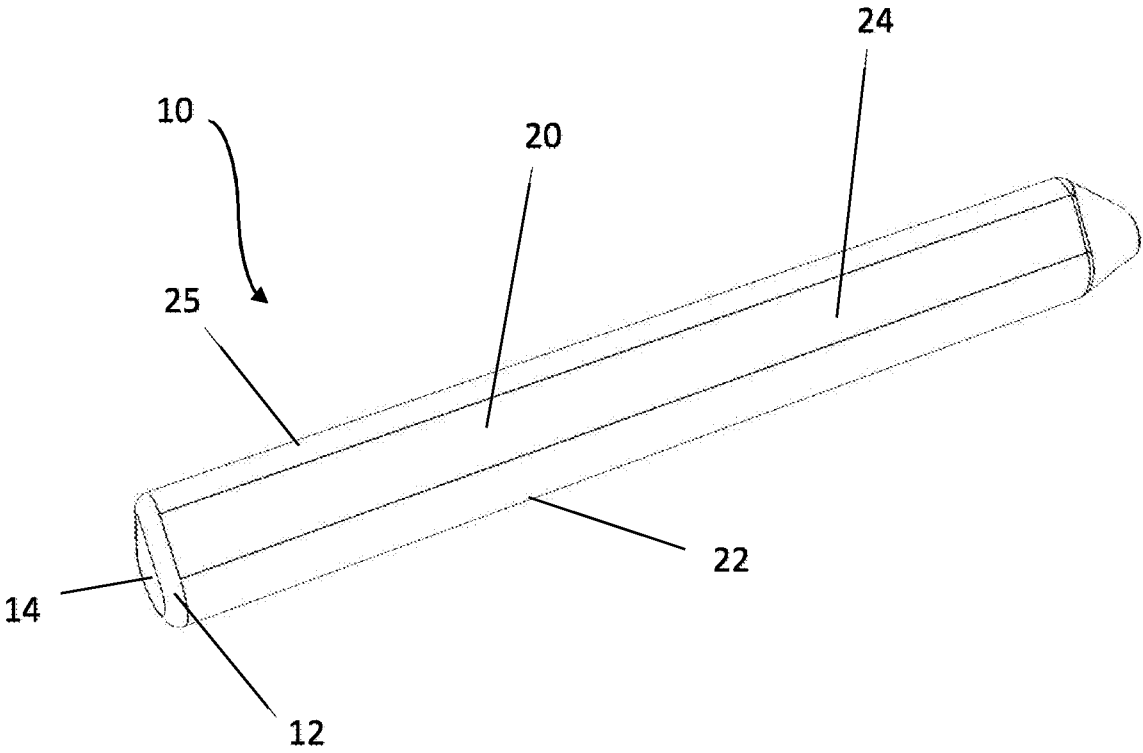


FIG. 3

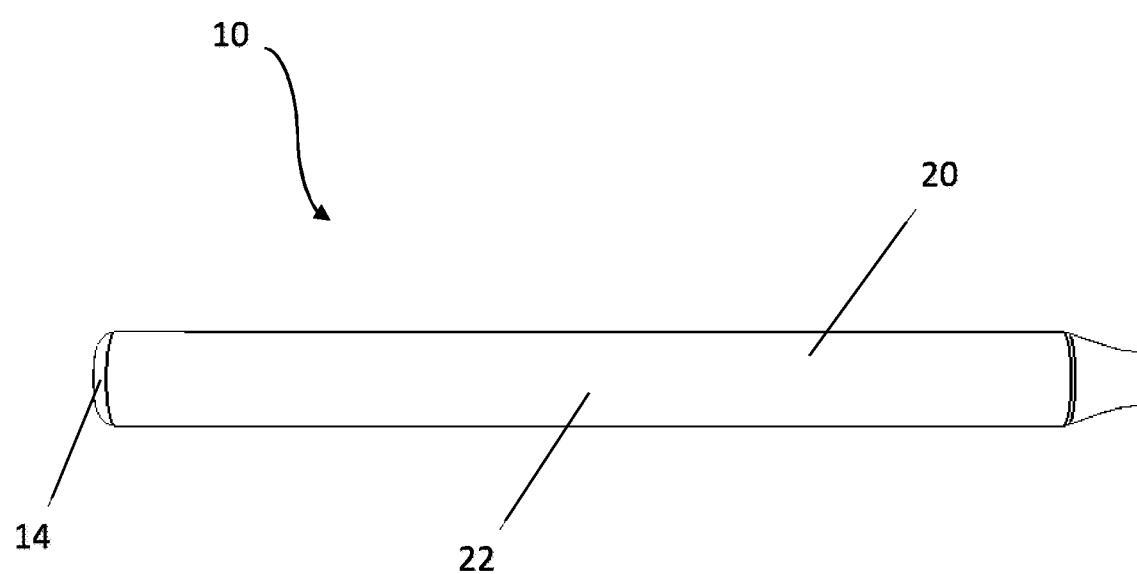


FIG. 4

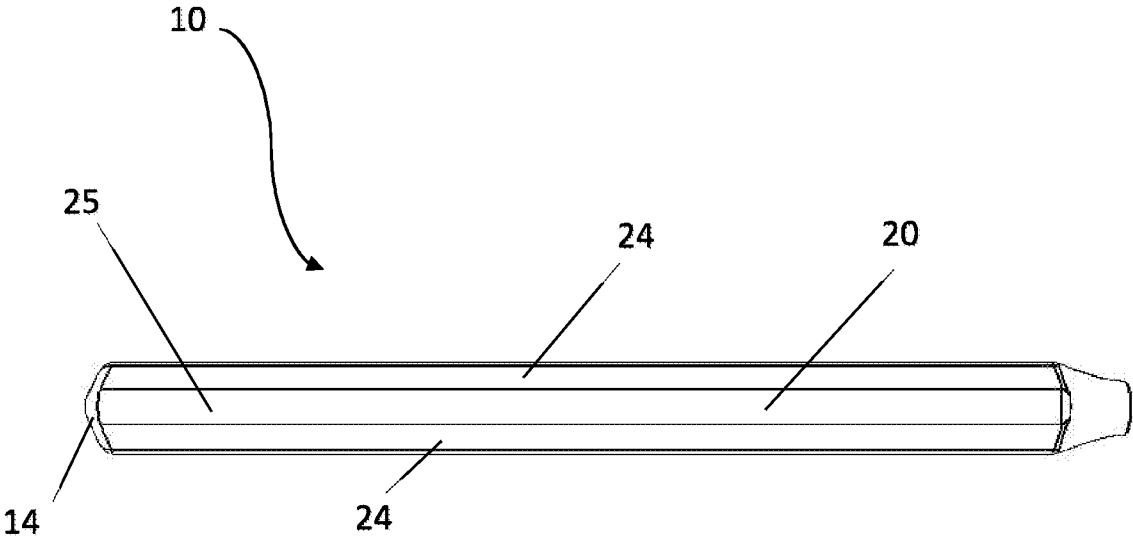


FIG. 5

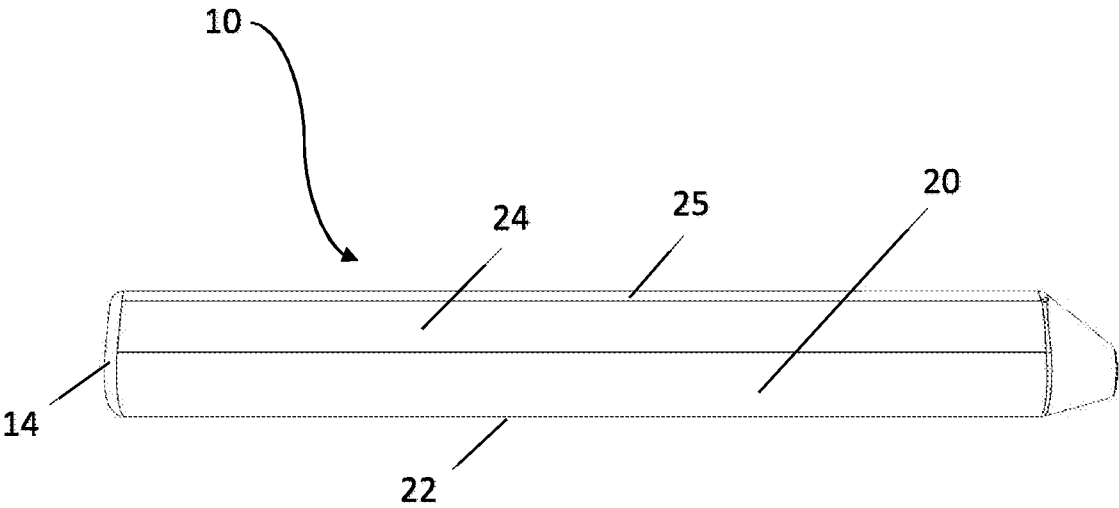


FIG. 6

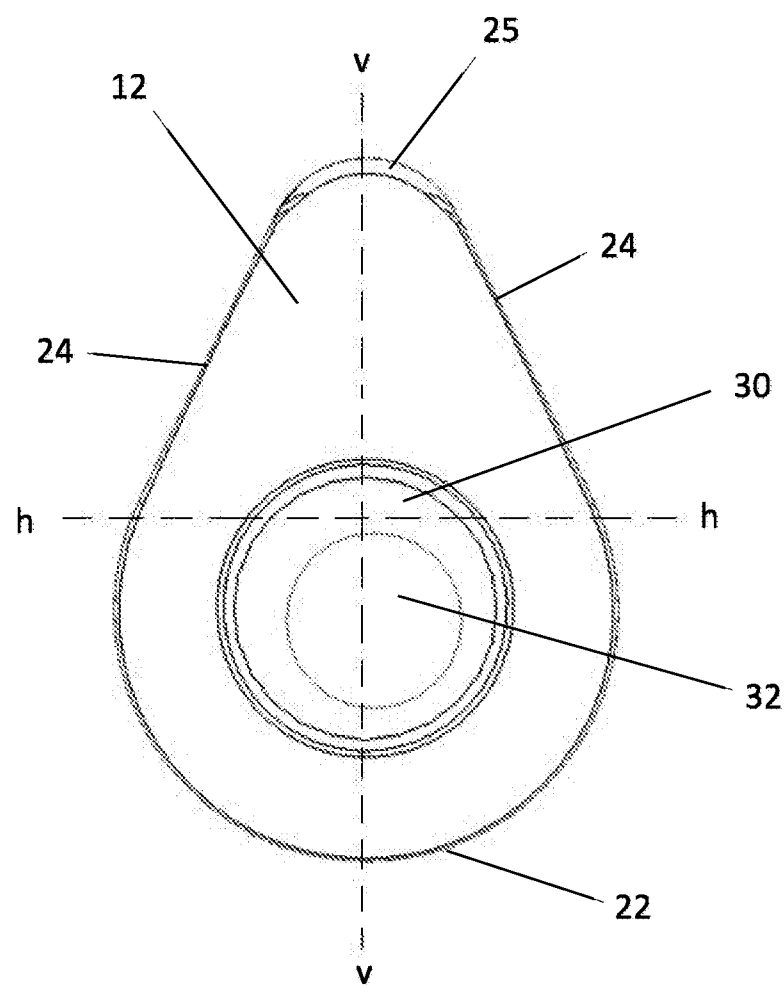


FIG. 7

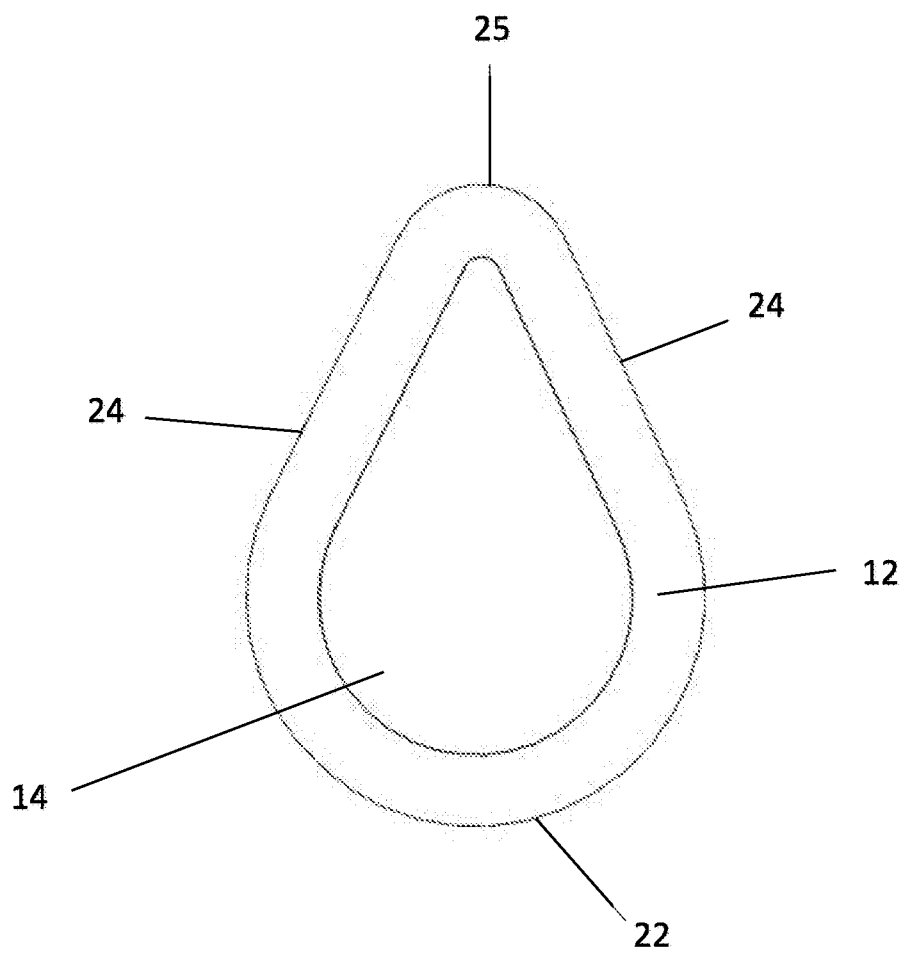


FIG. 8

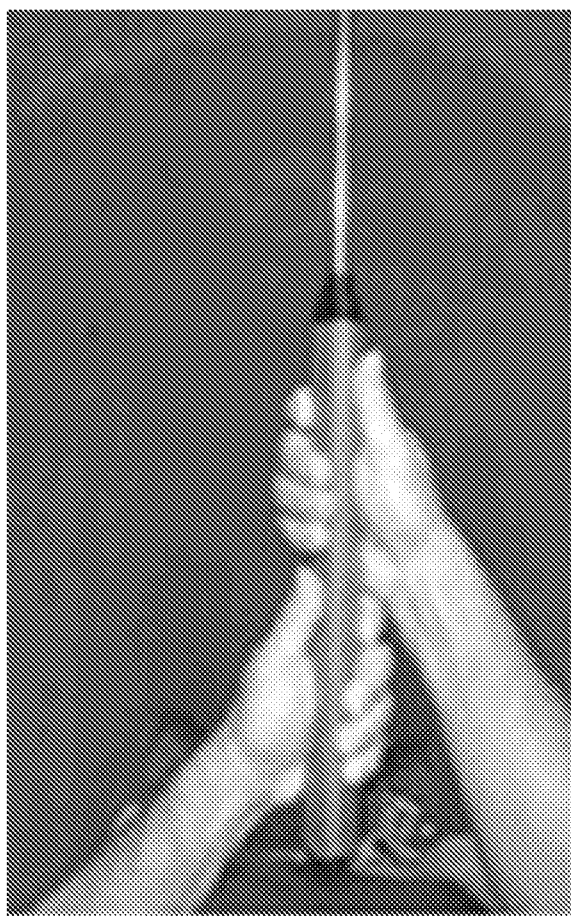


FIG. 9

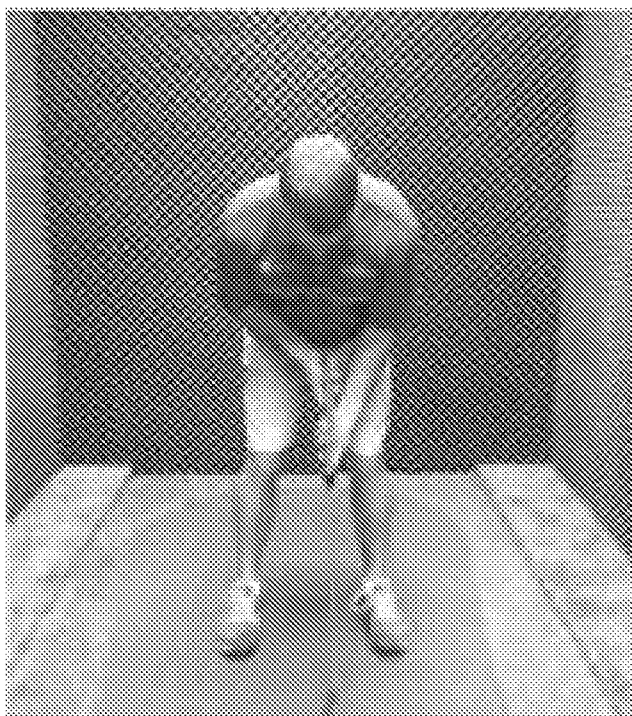


FIG. 10