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(54) **SEMITRANSPARENT GRIPS FOR USE WITH ATHLETIC EQUIPMENT**

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CPC ***A63B 59/0014*** (2013.01); ***A63B 53/14*** (2013.01)

USPC **473/298**; 473/516

(57) **ABSTRACT**

A semitransparent grip can be used on various types of athletic equipment such as golf clubs, baseball bats, hockey sticks, and lacrosse sticks to cover a customizable label while maintaining features such as durability, clarity, lifespan, visibility, tackiness, and durometer, and resisting degradation from weather and chemical factors.

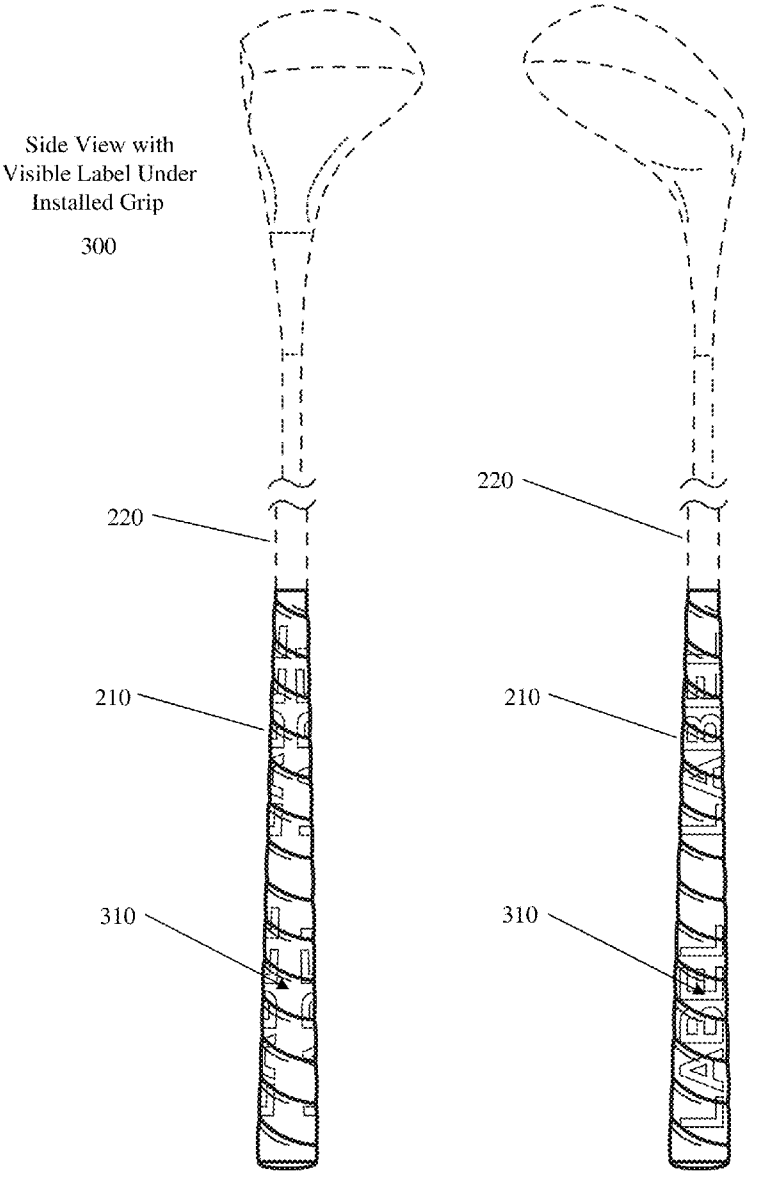


FIG. 1

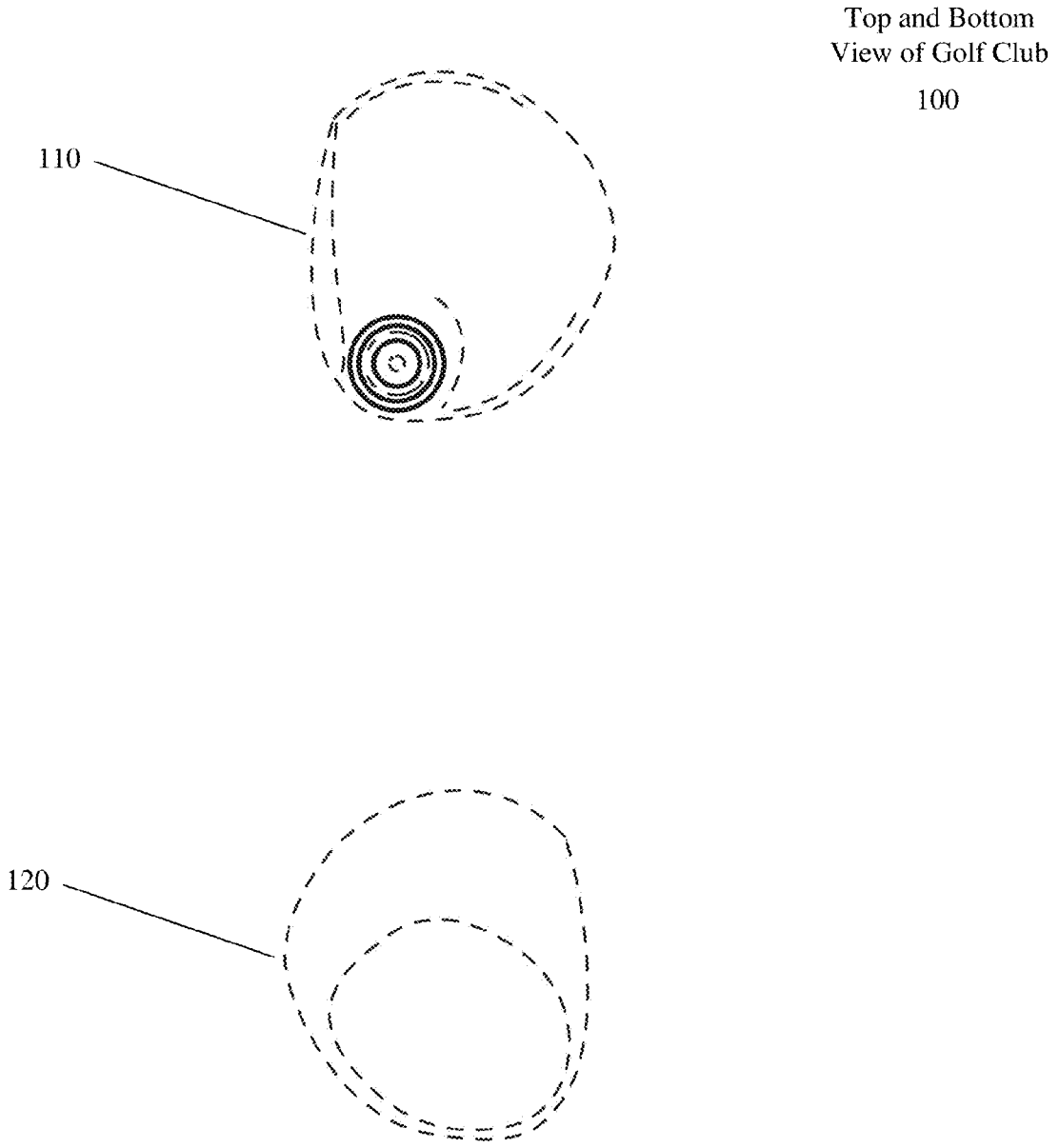


FIG. 2

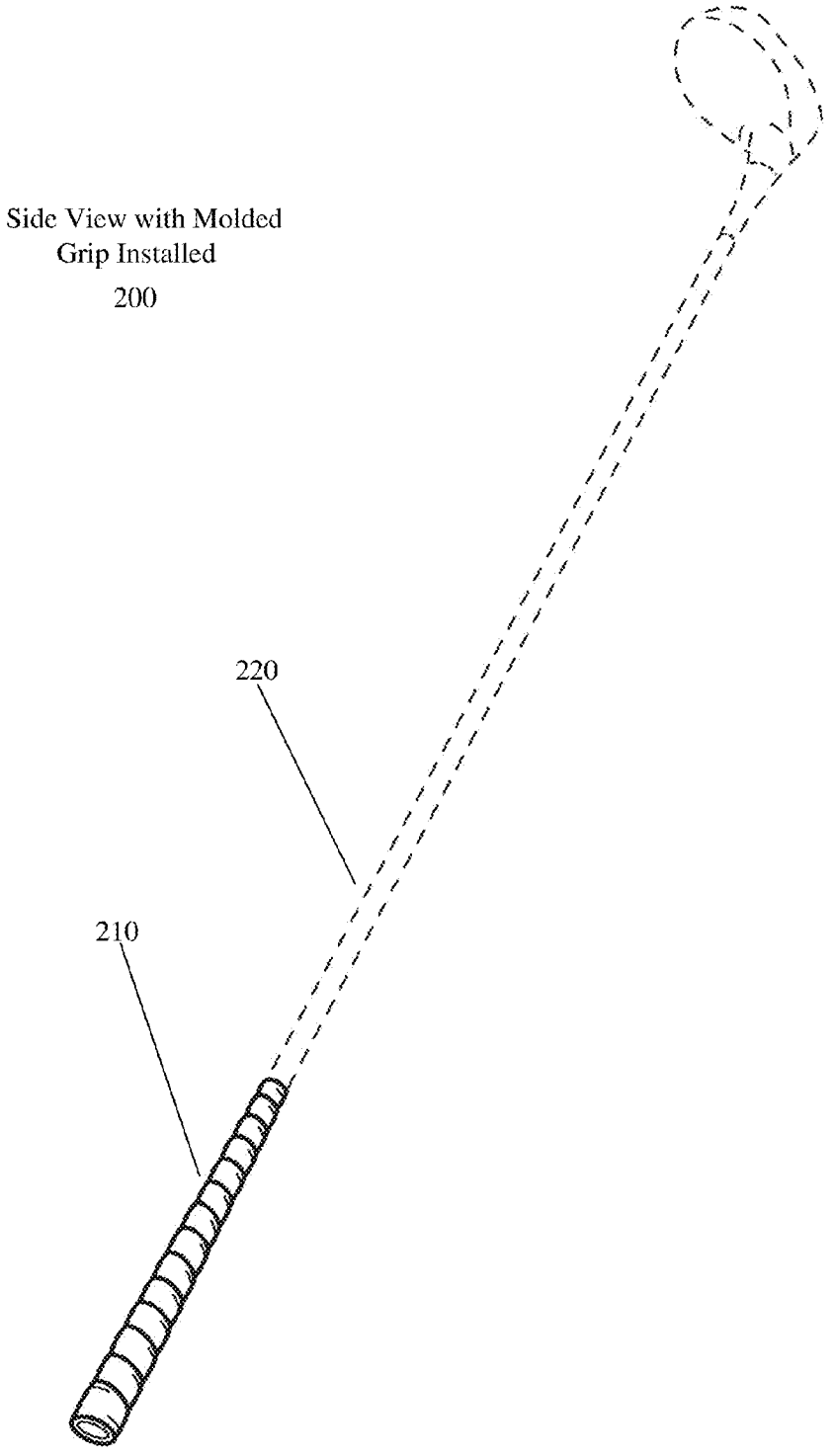


FIG. 3

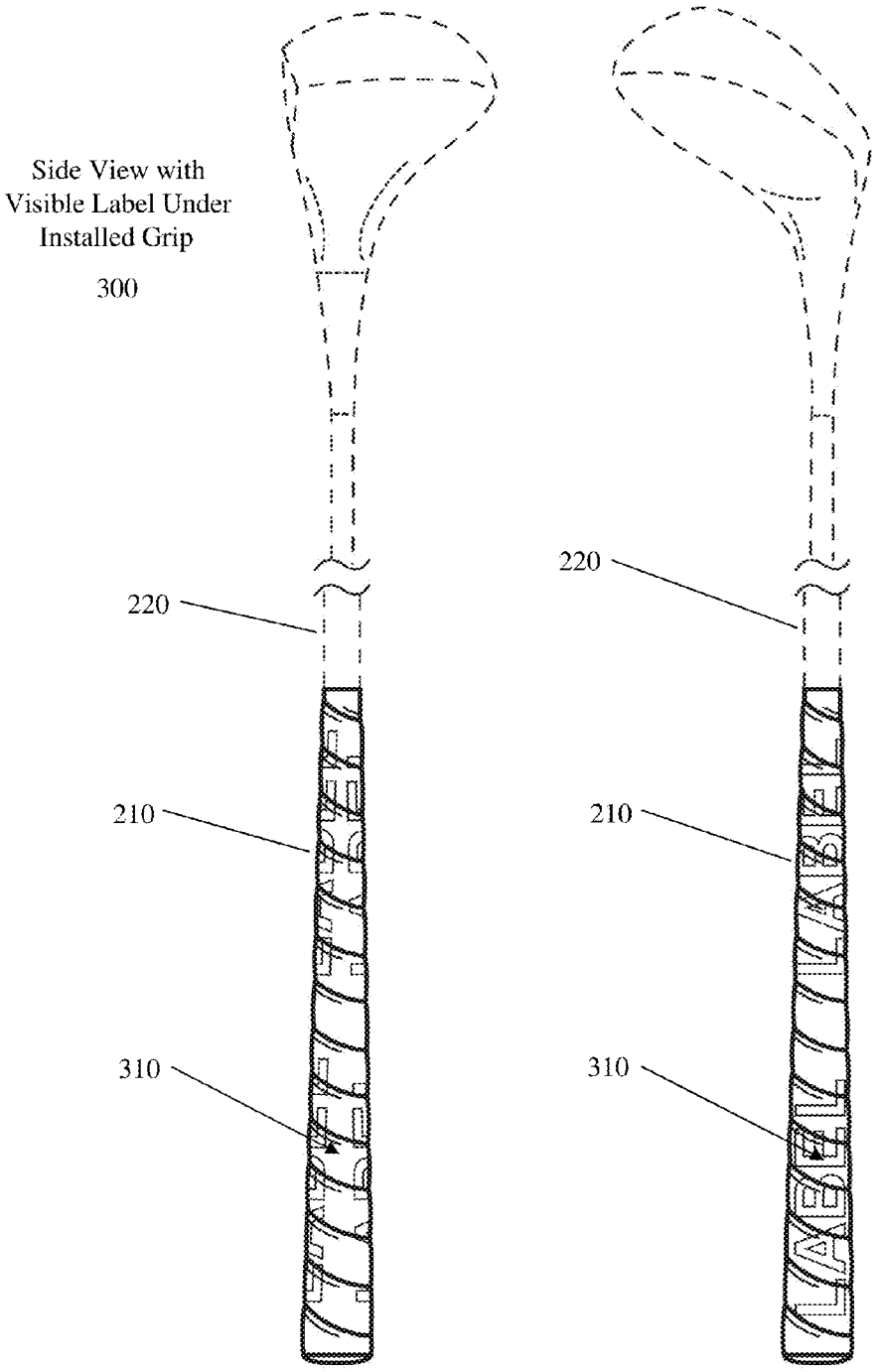

Side View with
Visible Label Under
Installed Grip
300
220
210
310
220
210
310

FIG. 4

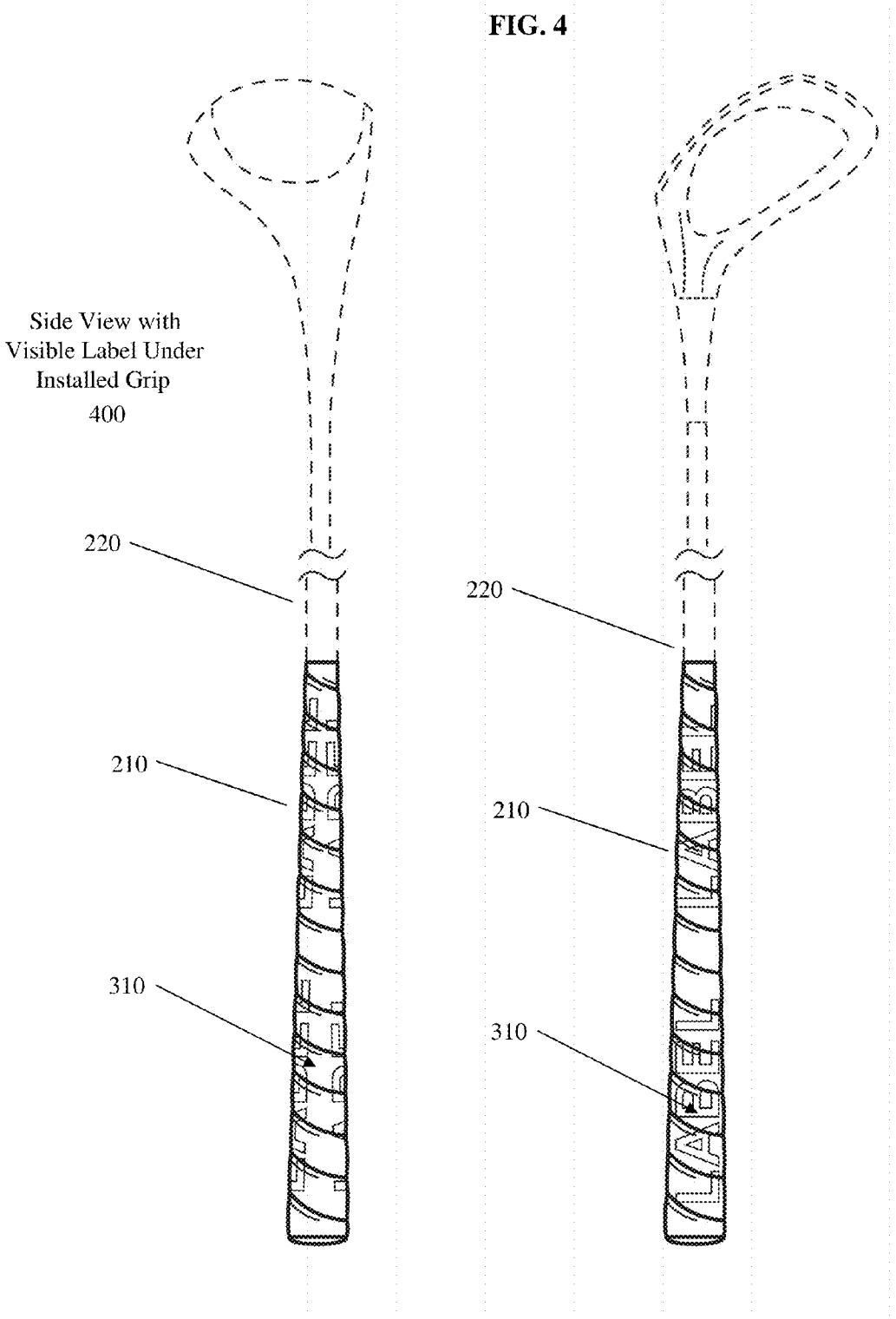

Side View with
Visible Label Under
Installed Grip
400
220
210
310
220
210
310

FIG. 5

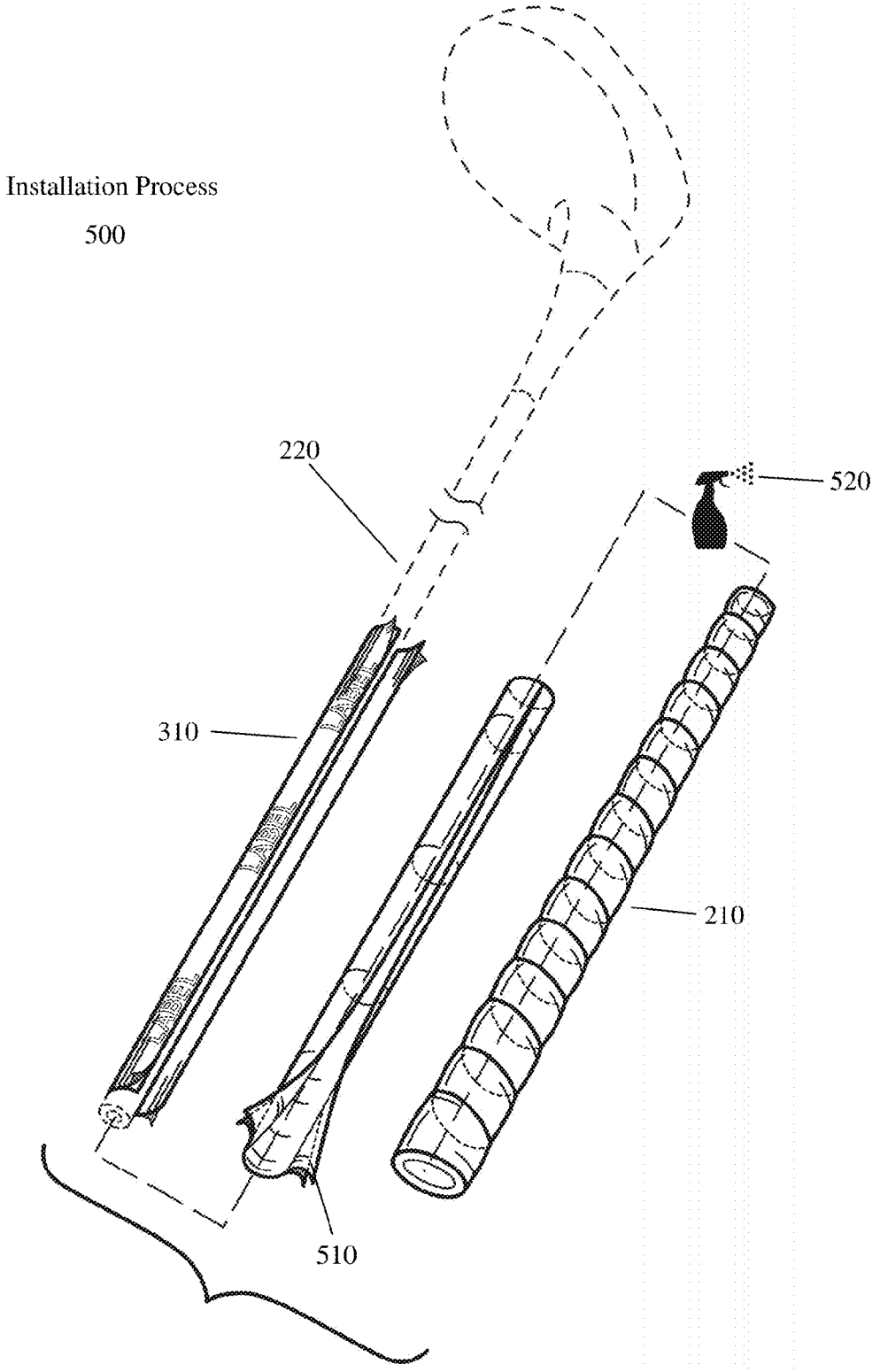
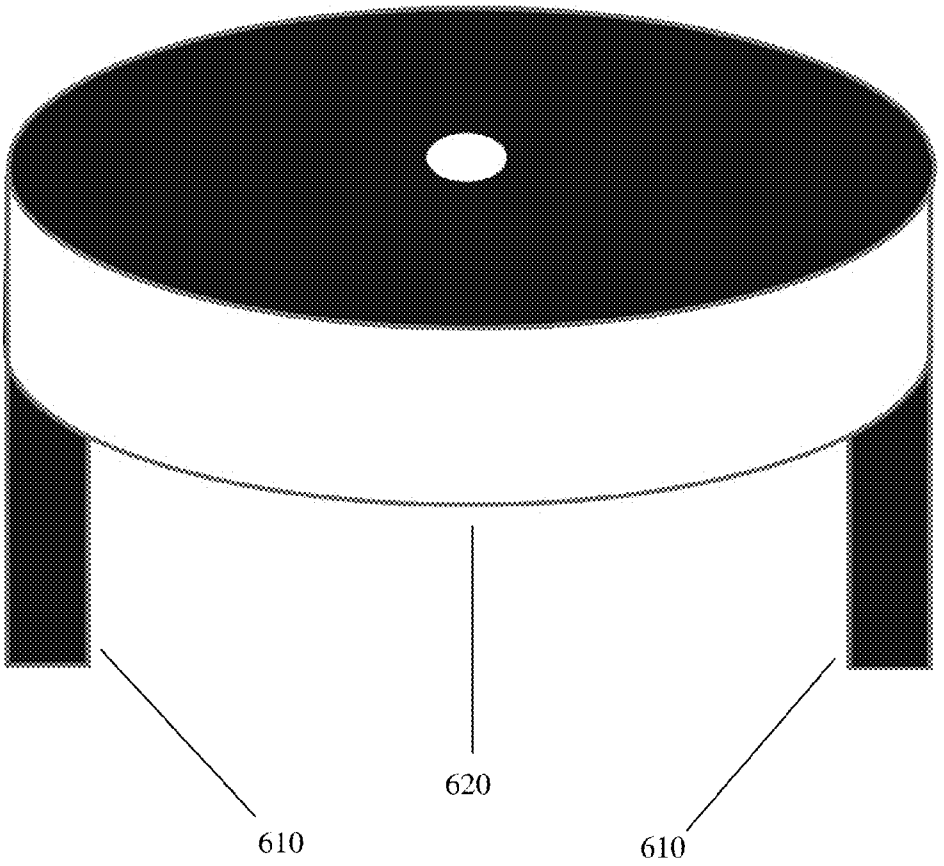


FIG. 6



Exemplary Pronged Cap

600

FIG. 7

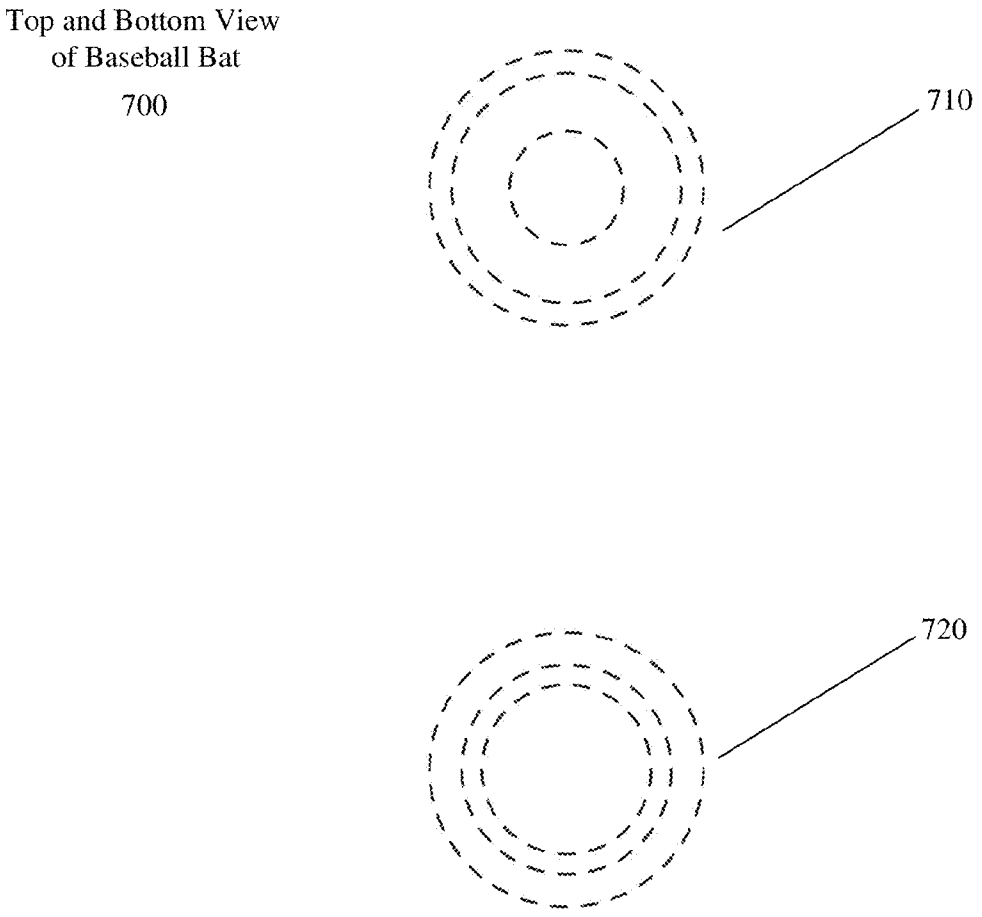


FIG. 8

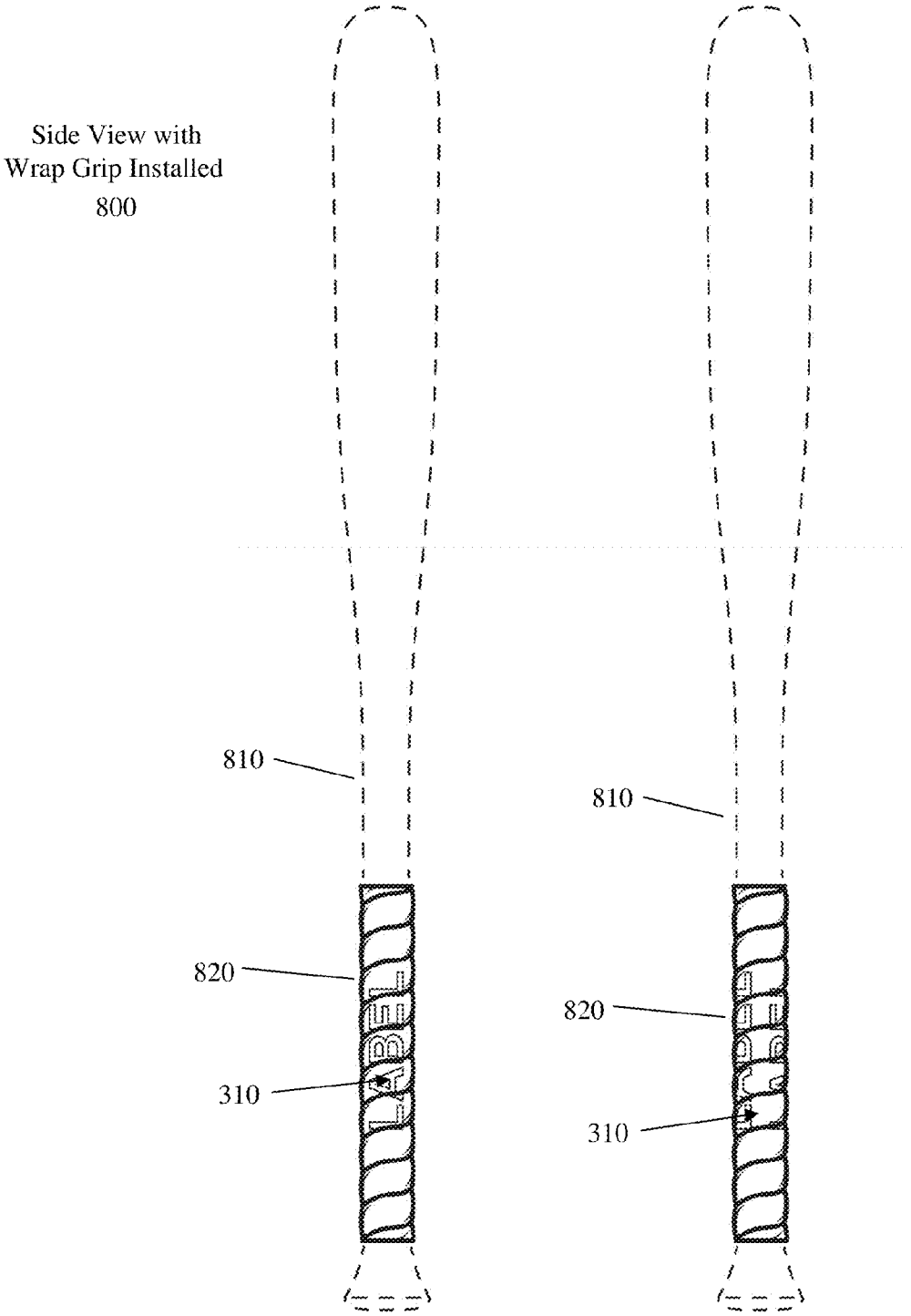

Side View with
Wrap Grip Installed
800
810
820
310
810
820
310

FIG. 9

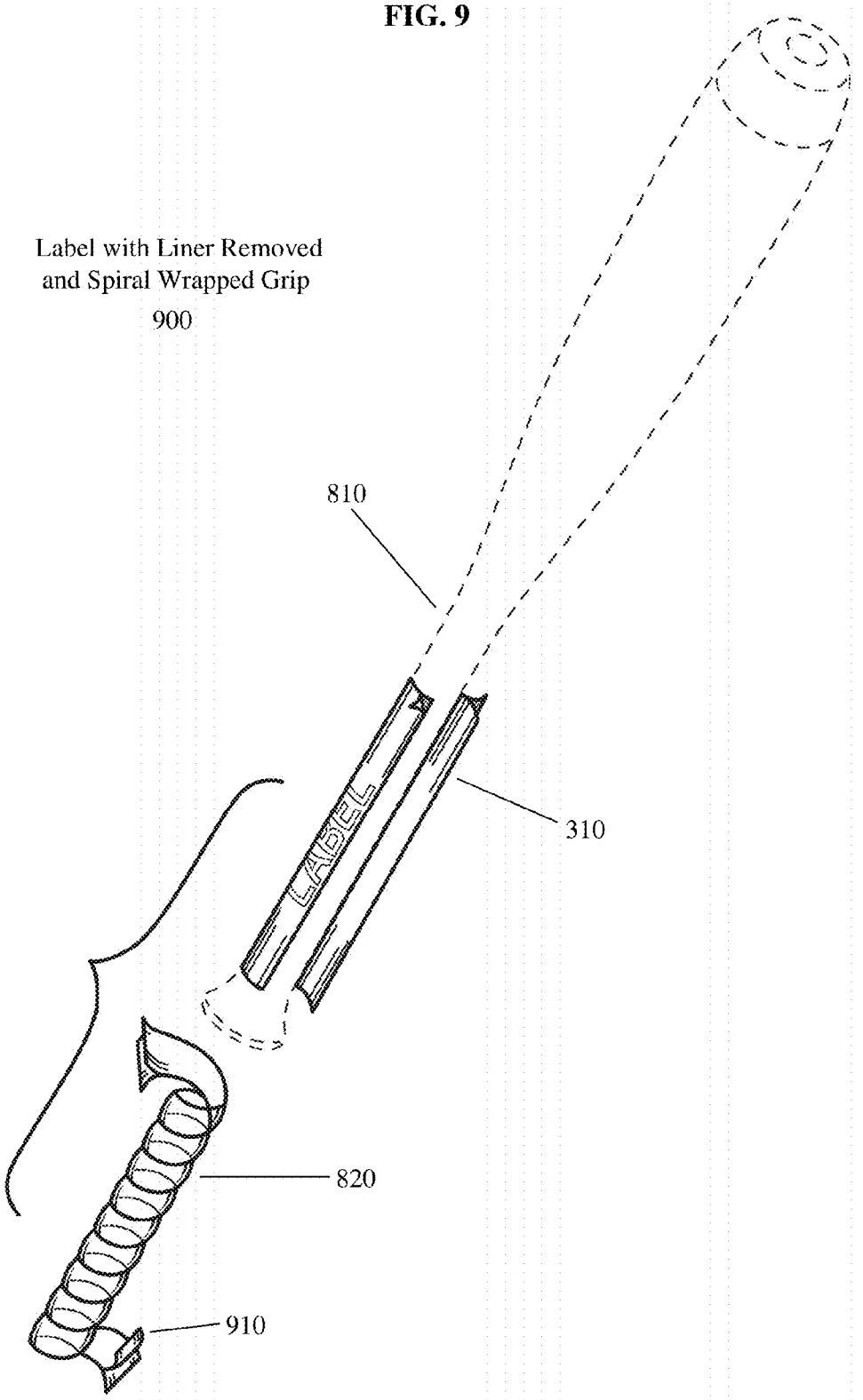

Label with Liner Removed
and Spiral Wrapped Grip
900
810
310
LABEL
820
910

FIG. 10

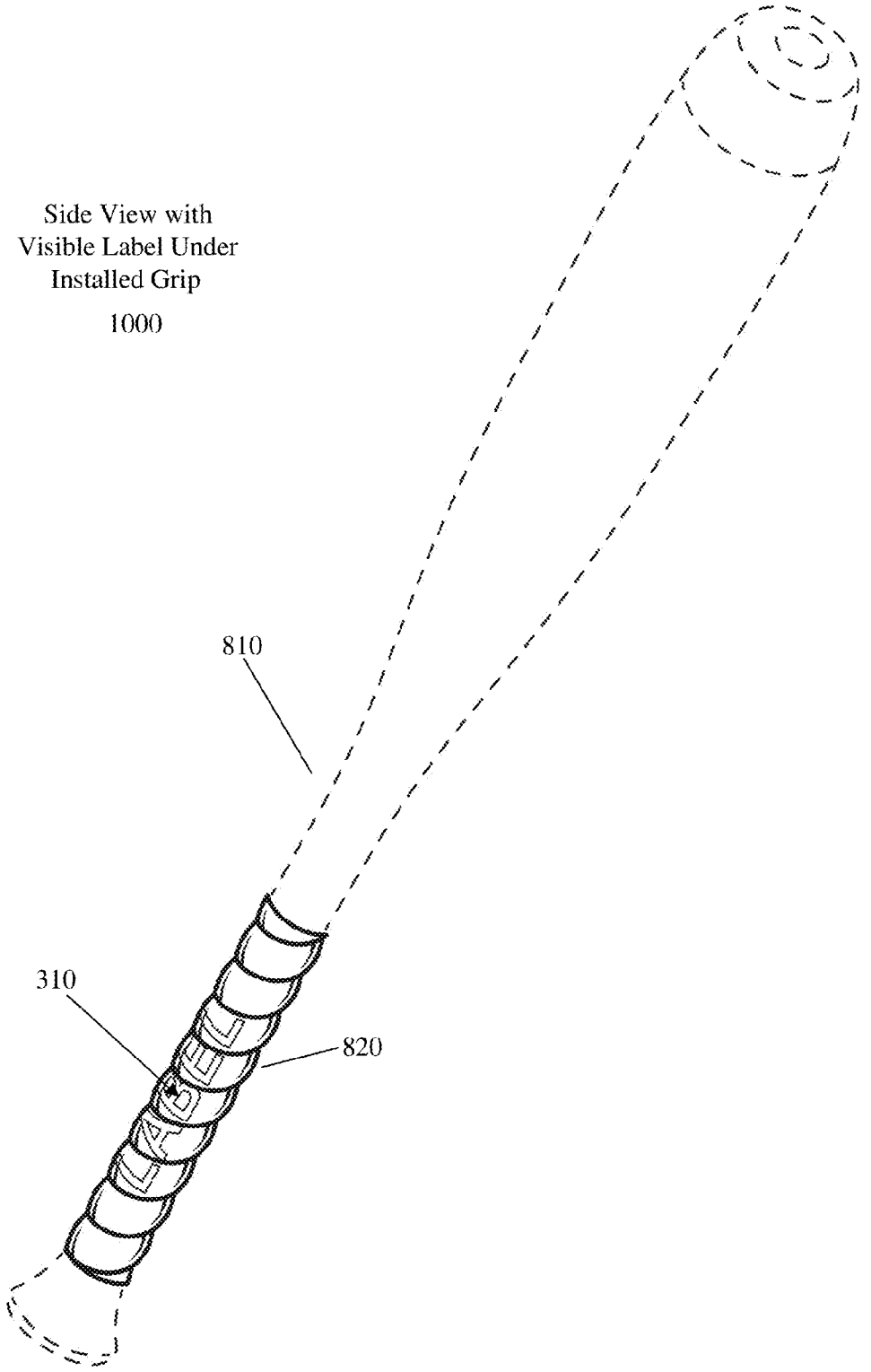
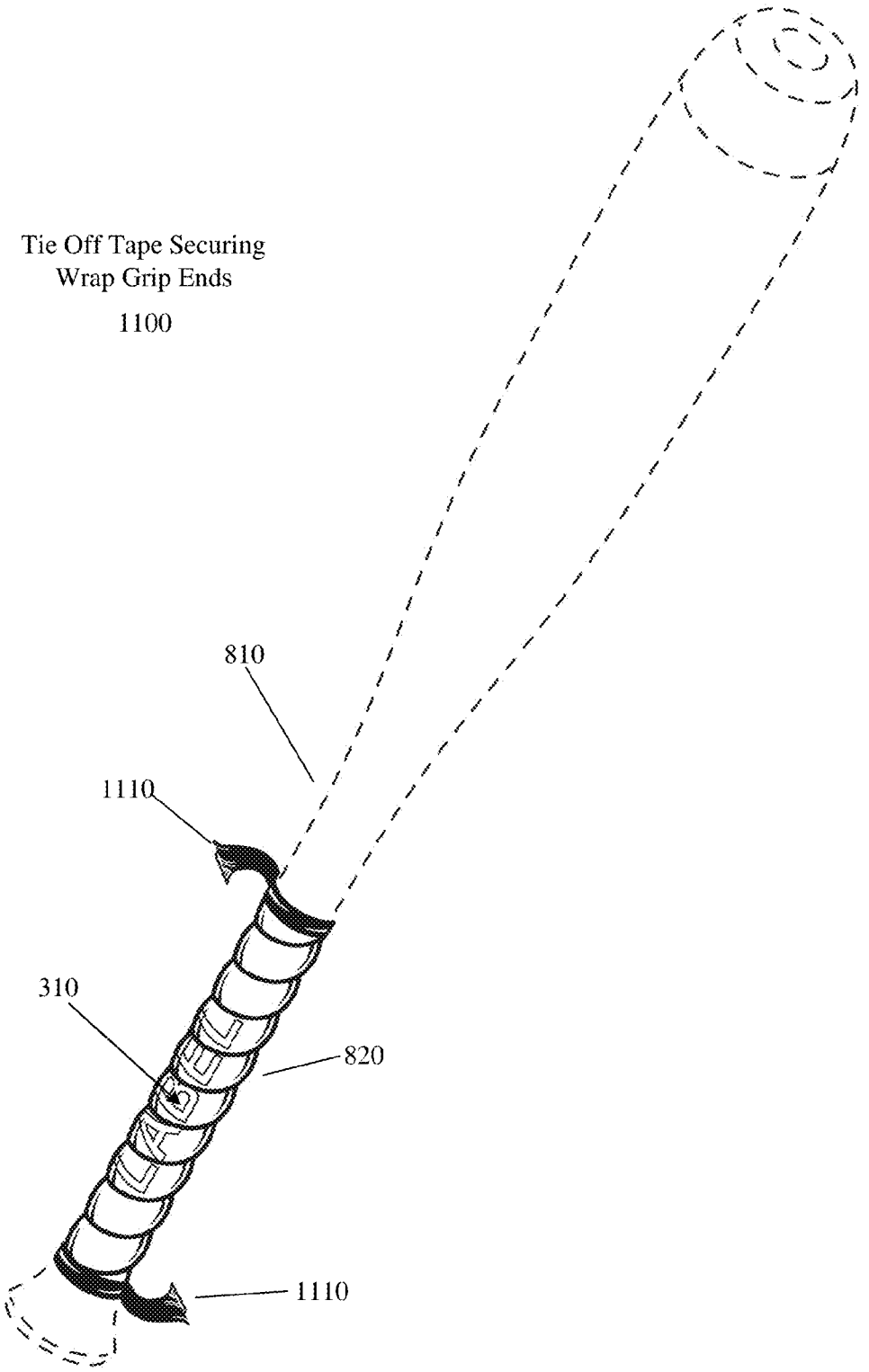

Side View with
Visible Label Under
Installed Grip
1000
810
310
820

FIG. 11


Tie Off Tape Securing
Wrap Grip Ends
1100
810
1110
310
820
1110

SEMITRANSPARENT GRIPS FOR USE WITH ATHLETIC EQUIPMENT

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of U.S. Provisional Application No. 61/719,130 filed Oct. 26, 2012, titled SEMITRANSPARENT GRIPS FOR USE WITH ATHLETIC EQUIPMENT.

FIELD

[0002] The present disclosure relates to semitransparent grips that can be used with a variety of athletic equipment in order to allow a label to be placed, and to be visible, beneath a weather and chemical resistant grip.

BACKGROUND

[0003] Currently, some athletic equipment, such as golf clubs, baseball bats, hockey sticks, and lacrosse sticks, use grips to increase tackiness and assist the user in maintaining a better hold on the piece of equipment. These grips are frequently opaque. Often, they do not provide customizable features. Additionally, the few grips that are semitransparent lack durability, they deteriorate when exposed to grip solvents, and they decrease quickly in clarity and lifespan due to UV exposure. A better semitransparent grip is needed in order to provide resistance to side effects from grip solvents, extended use, and UV exposure and to assist with visibility of customizable labels.

BRIEF SUMMARY OF THE INVENTION

[0004] The present disclosure generally relates to grips for use with athletic equipment. More specifically, the present disclosure relates to semitransparent grips for use with athletic equipment such as golf clubs or baseball bats, or any other athletic equipment that may be of a similar shape, such as a lacrosse stick or hockey stick. The semitransparent grip allows a user to place a label underneath the grip and to be able to view the label through the grip. The label may include images or words, or may be an advertisement.

[0005] In some embodiments, the semitransparent grip is molded in the form of a tube so as to allow a user to install the grip by sliding the grip over the end of an article of athletic equipment with a uniform shape throughout the length to be covered by the grip, such as the shaft of a golf club. In some embodiments, the semitransparent grip is in the form of a wrap, allowing a user to install the grip on an article of athletic equipment with a non-uniform shape, with a lip or ridge at the end of the article, or with a shape that is wider at the end than at the point where the grip will rest, such as the shaft of a baseball bat or lacrosse stick. In any of the above, the grip can be made of material designed to provide flexibility to the grip.

[0006] Reference is made throughout the present disclosure to certain aspects of the grip described herein. Such references to aspects of the presently described grip do not limit the scope of the disclosure. Additionally, any examples set forth in this disclosure are not intended to be limiting and merely set forth some of the many possible embodiments for the disclosed grip. It is to be understood that the phraseology and terminology used herein are for the purpose of description and should not be regarded as limiting.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. **1** is a top and bottom view of a golf club.

[0008] FIG. **2** is a side view of a golf club with one embodiment of the grip installed.

[0009] FIG. **3** is close-up side views of a label on a golf club with one embodiment of the molded grip installed over the label, wherein the label is visible through the grip.

[0010] FIG. **4** is close-up side views of a label on a golf club with one embodiment of the molded grip installed over the label, wherein the label is visible through the grip.

[0011] FIG. **5** is a diagram illustrating the installation process of a label, clear, double-sided adhesive and a semitransparent grip using solvent.

[0012] FIG. **6** shows one example of a pronged cap used with the molded grip according to one embodiment of the present invention.

[0013] FIG. **7** is a top and bottom view of a baseball bat.

[0014] FIG. **8** depicts side views of a baseball bat with one embodiment of the wrap grip installed over a label, wherein the label is visible through the grip.

[0015] FIG. **9** illustrates a label with liner removed installed on a baseball bat and held in place with adhesive on underside of label. The liner is removed from wrap grip and wrapped in a spiral motion around the bat with clear adhesive securing the wrap grip to the bat.

[0016] FIG. **10** is a view of the wrap grip, installed over a label and secured to a baseball bat, wherein the label is visible through the grip.

[0017] FIG. **11** depicts tie off tape securing both ends of the wrap grip to the bat.

DETAILED DESCRIPTION

[0018] The present disclosure relates to a semitransparent grip for use with an article of athletic equipment, such as a baseball bat or golf club. Various embodiments of the grip will be described in detail with reference to the drawings, wherein like reference numerals represent like parts and assemblies throughout the several views. Reference to various embodiments does not limit the scope of the grip disclosed herein. Additionally, any examples set forth in this specification are not intended to be limiting and merely set forth some of the many possible embodiments for the grip. It is understood that various omissions and substitutions of equivalents are contemplated as circumstances may suggest or render expedient, but these are intended to cover applications or embodiments without departing from the spirit or scope of the disclosure. Also, it is to be understood that the phraseology and terminology used herein are for the purpose of description and should not be regarded as limiting.

[0019] Referring to FIG. **1** through **5**, the grip may be molded in the form of a tube to fit over an article of athletic equipment such as the shaft of a golf club. The semitransparent molded grip is ideally made of a thermoplastic elastomer (TPE). TPEs, sometimes referred to as thermoplastic rubbers, are a class of copolymers or a physical mix of polymers, such as a plastic and a rubber, which consist of materials with both thermoplastic (i.e., moldable above a certain temperature) and elastomeric (i.e., viscous and elastic) properties. TPEs are relatively easy to use in manufacturing, for example, by injection molding. While most elastomers are thermosets (a polymer material that irreversibly cures), thermoplastics, unlike thermosets, show advantages typical of both rubbery materials and plastic materials. The principal molecular dif-

ference between thermoset elastomers and TPEs is how the polymers are linked to each other through the use of a crosslink. In fact, crosslinking is a critical structural factor which contributes to impart high elastic properties for polymers with non-covalently crosslinked bonds. The crosslink in thermoset polymers is a covalent bond created during the vulcanization process. On the other hand, the crosslink in TPE polymers is a weaker dipole or hydrogen bond that takes place during the process of creating a TPE. Therefore, the crosslinking properties that result from weaker bonds are preferred for the disclosed invention because they allow the final product to maintain more elastic properties.

[0020] In one embodiment, the materials used to make the grip **210** are comprised of a petroleum-based blend of TPEs. Use of a TPE may have many benefits: clarity of the grip is maintained, the weight can be adjusted to fit the needs of each specific grip manufactured, and the durometer, or hardness factor, can be adjusted to the precise durometer rating required, among other things.

[0021] In one embodiment, the synthetic materials may also include a UV protectant, for example, fluoropolymers such as PTFE, FEP, PFA or other extruded resins, to maintain its clarity, durometer rating, and tackiness, and to enhance the finished product. Because UV exposure can cause the clarity, lifespan, and visibility of a grip to deteriorate quickly, one embodiment of the grip **210** disclosed herein includes a UV protectant to maintain clarity of the grip, extend product life and increase visibility of the printed label.

[0022] Many grip solvents, which are used to install the majority of grips, will instantly deteriorate the materials used in earlier models of semitransparent grips. Therefore, in one embodiment of the disclosed invention, the TPE used as base material for the grip may include solvent-safe materials so as to allow the use of grip solvents, such as, but not limited to, Mineral Spirits, Acrylic Lacquer Thinner and/or other similar solvents, without destroying the grip. In some embodiments, the molded grip **210** disclosed herein uses a blend of materials, which will stand up to all grip solvents.

[0023] Some embodiments of the molded grip **210** may include an anti-leaching agent. Due to the properties of the oil based raw product, the inclusion of an anti-leaching agent, such as pentanediol diisobutyrates, cyclohexanedicarboxylic acid esters, or monostearate derivatives, will prevent the oils from reaching the surface of the grip and ensure the desired tackiness.

[0024] The curing stage of the manufacturing process may include an improved cooling method to improve the clear finish and texture of the molded grip **210**. Commonly, grips are air cooled at room temperature; a more consistent product can be achieved by using an improved cooling process through the use of, for example, water, air, a combination of water and air, or some other material or combination therefrom, that makes contact with the mold after it is heated.

[0025] As illustrated in FIG. **1** through **5**, the exterior of the molded grip **210** may be of a shape and size that is not uniform, for example, the molded grip **210** may be wider at one end than at the other so as to make it easier for a user to hold the grip firmly. FIG. **1** includes a top **110** and bottom **120** view of an example article of athletic equipment **220** which the molded grip **210** may be used with, specifically, a golf club in this example. FIG. **2** through **4** show the molded grip **210** after it has been installed on or attached to a golf club. Referring now to FIGS. **3** and **4**, the molded grip **210** may be slid over an artwork sticker or label **310** that has been attached to the article of athletic equipment **220**. The artwork labels may consist of a variety of substrates that are colorfast. Many grips are installed using an opaque, double-sided adhesive, which attaches to the shaft of an article of athletic equipment (such as a golf club) to secure the grip in place. The grip disclosed herein can include a clear, double-sided adhesive with a semitransparent grip. By using the clear, double-sided adhesive, the grip enhances visibility of the label, while also having a secure bond to the grip.

[0026] FIG. **5** is a diagram which illustrates an installation process of the label **310**, a clear, double-sided adhesive **510** and the semitransparent molded grip **210**. A liner (not numbered) is removed from the label **310**, exposing an adhesive on the non-printed side of the label **310**. The label **310** is then wrapped completely around the shaft of the article of athletic equipment **220** (for example, a golf club) and secured there. A disposable peel-off liner (not numbered) is then removed from one side of the clear, double-sided adhesive **510**, and the clear, double-sided adhesive **510** is placed over the label **310** to completely cover the label **310** before the liner (not numbered) is removed from the other side of the clear, double-sided adhesive **510**. Grip solvent **520** is then applied (for example, by spraying) to the inner surface of the molded grip **210** and emptied completely over the clear, double sided adhesive **510** which is attached to the label **310** that is secured to the shaft of the article of athletic equipment **220** (here, a golf club). The molded grip **210** is then slid completely over the adhesive **510** and label **310**. Additionally, an air compressor may be used to assist in sliding the grip **210** over the label **310** and adhesive **510**. The clear, double sided adhesive strip **510**, attached to the label/bumper sticker **310**, will ensure a complete attachment to the grip **210** when installed. The grip solvent **520** will be used to deactivate the adhesive, allowing the grip **210** to be slid over the label **310** and adhesive **510**. The adhesive will then dry and provide durable attachment to the label **310** and article of athletic equipment **220**.

[0027] Traditionally, other models of grips have a cap that is one piece together with the grip. This one-piece design became a major concern since continually putting a golf club back in the bag may quickly cut a hole in the top of the grip. The grip disclosed herein may include a separate cap piece attached to the grip. The cap **620**, an example of which is illustrated in FIG. **6**, may be made of a hard cap material, or an injection molded part, and may feature a pronged design **610** to create a better attachment to the grip in the manufacturing process, and to add needed firmness to this area of the grip. The multiple pronged cap design **610** will extend down inside the molded grip. The cap **620** may also be an opaque color for easier recognition in regards to size and style. In some embodiments, the cap **620** may be a metal cap in lieu of the injection molded cap to create a firmer cap area of the grip.

[0028] Referring now to FIG. **7** through **11**, the grip disclosed herein may be in the form of a wrap, allowing a user to install the grip on an article of athletic equipment with a non-uniform shape, with a lip or ridge at the end of the article, or with a shape that is wider at the end than at the point where the grip will rest, such as the shaft of a baseball bat or lacrosse stick. FIG. **7** includes a top **710** and bottom **720** view of an example article of athletic equipment **810** which the wrap grip **820** may be used with, specifically, a baseball bat in this example. The wrap grip **820** is comprised of a TPE, as described in the variations above. The TPE may include all of the benefits as described above such as, but not limited to, maintenance of the clarity of the grip, adjusted weight to fit

the needs of each specific grip manufactured, and a durometer, or hardness factor, that can be adjusted to the precise durometer rating required. Additionally, the TPE may include a UV protectant, an anti-leaching agent, or both.

[0029] The artwork sticker or label **310**, which is wrapped around an article of athletic equipment **810** (such as a baseball bat, as illustrated in FIG. **7** through **11**) prior to installation of the wrap grip **820**, is identical to the label **310** used with the molded grip **210** and described above. As with the molded grip **210**, the label **310** is visible through the wrap grip **820** (see, for example, FIGS. **8**, **10** and **11**).

[0030] The wrap grip **820** has a clear, double-sided adhesive (not numbered) attached to an inner side of the wrap grip **820**. The clear, double-sided adhesive is covered by a liner **910**, as illustrated in FIG. **9**. The liner **910** is removed prior to installation to expose the clear, double-sided adhesive. The wrap grip **820** is then installed in a spiral motion around the article of athletic equipment **810** such as, for example, a baseball bat or other article with a non-uniform shape. As illustrated in FIG. **11**, tie-off tape **1110** (for example, black electrical tape) is used to secure the two ends of the wrap grip **700** when completely installed on an article of athletic equipment **810**.

[0031] The wrap grip **820** may include a patterned texture with recessed or imprinted markings for improved gripping capability. The recessed or imprinted markings can increase the resistance to slippage when the wrap grip **820** is in use. The label/substrate materials have improved clarity and adhesive characteristics due to production with an industrial printing machine. Resistance to wrinkles and improved adhesive characteristics will ensure continued performance of the wrap grip **820** under normal use.

[0032] For a better understanding of the present disclosure, its advantages, and the specified objects attained by its uses, reference should be made to the accompanying drawings and descriptive matter in which there are illustrated exemplary embodiments of the present disclosure. The various embodiments described above are provided by way of illustration only and should not be construed to limit the disclosure. Those skilled in the art will readily recognize various modifications and changes that may be made without following the example embodiments and applications illustrated and described herein and without departing from the true spirit and scope of the disclosed grip.

1. A semitransparent, thermoplastic elastomer-based athletic grip capable of maintaining clarity of the semitransparent nature of the grip, being resistant to degradation from UV light, and preventing oils from reaching the surface of the grip.

2. The grip of claim **1**, wherein the grip is also capable of being resistant to degradation from grip solvents.

3. The grip of claim **2**, wherein the grip is in a cylindrical shape that is sufficiently flexible to be slid over the end of a golf club.

4. The grip of claim **3**, wherein a cap is attached to the grip at the top of the golf club.

5. The grip of claim **1**, wherein the grip is in the form of an adhesive wrap that can be installed on articles of athletic equipment with a non-uniform shape.

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