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(54) **PORTABLE GOLF BALL DAMAGE REPAIR DEVICE**

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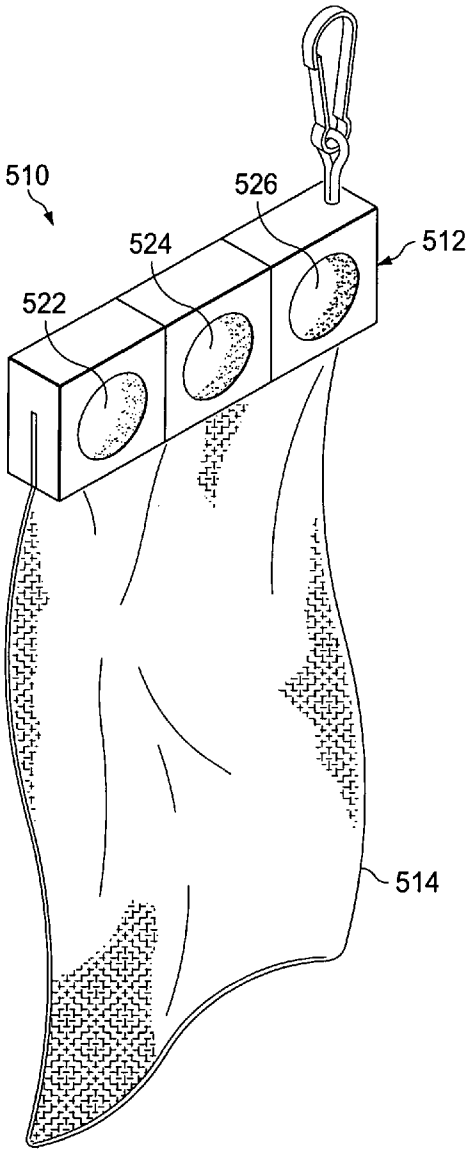
(57) **ABSTRACT**

A tool is provided for repairing or restoring the surface of a golf ball. A portable, hand-held, lightweight tool comprises one or more abrasive surfaces for repairing or lessening burs, gouges, scratches and other damage from the cover of a golf ball. The tool may be made from a pliable, deformable material, such as foam rubber, to conform to the curved surface of a golf ball. The tool may include a fastener so that the tool may be attached to a belt loop, golf bag, key chain, golf cart, or the like. In other exemplary embodiments, the tool may be an article of clothing or other golf equipment, such as a glove, towel, or golf club cover.



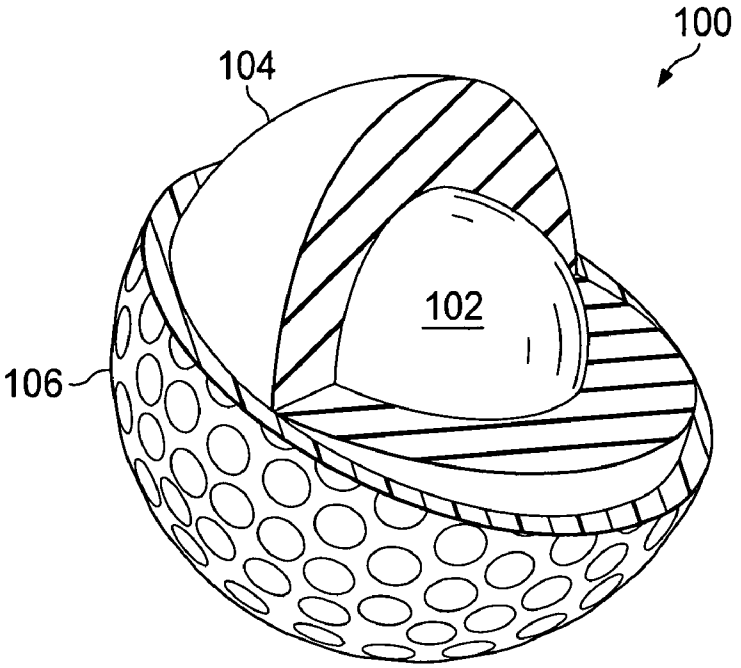


FIG. 1

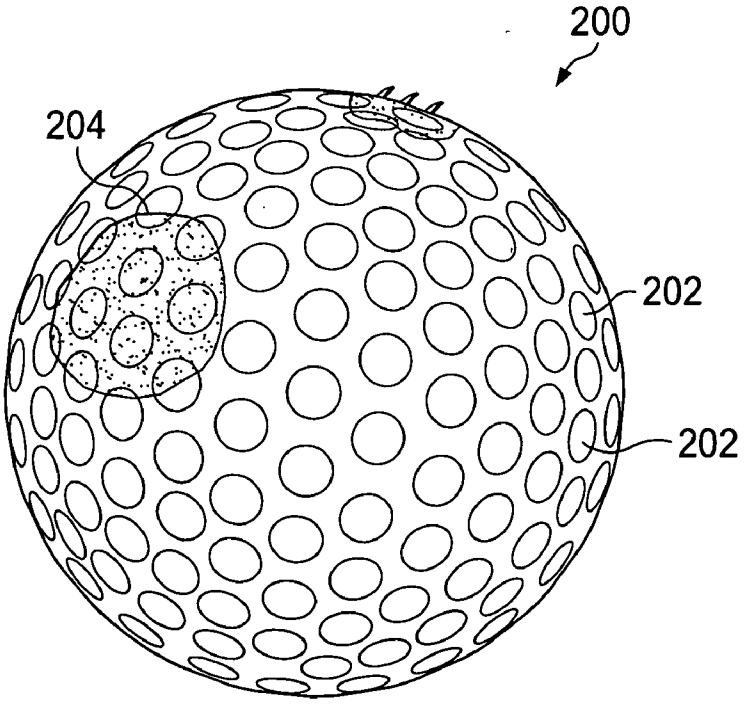


FIG. 2

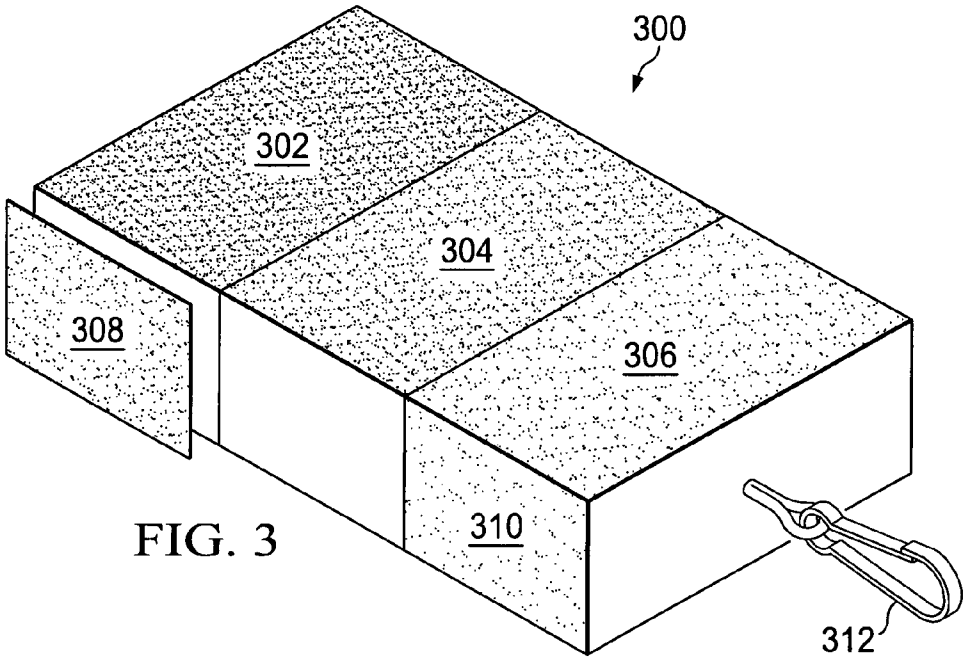


FIG. 3

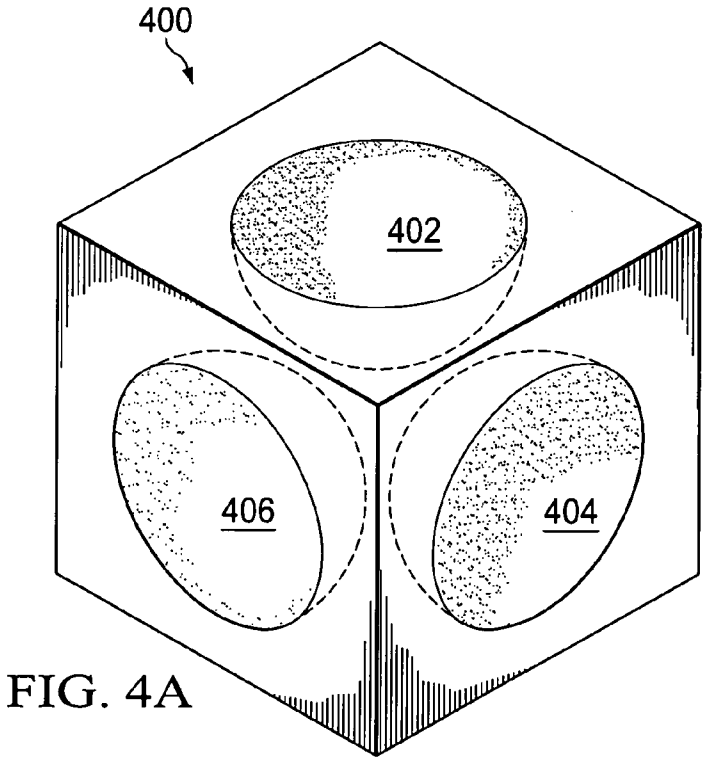


FIG. 4A

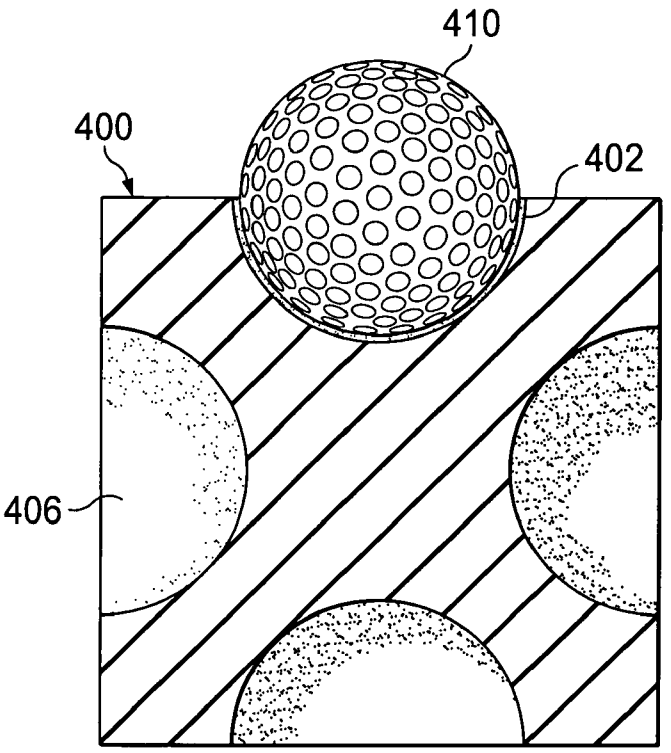


FIG. 4B

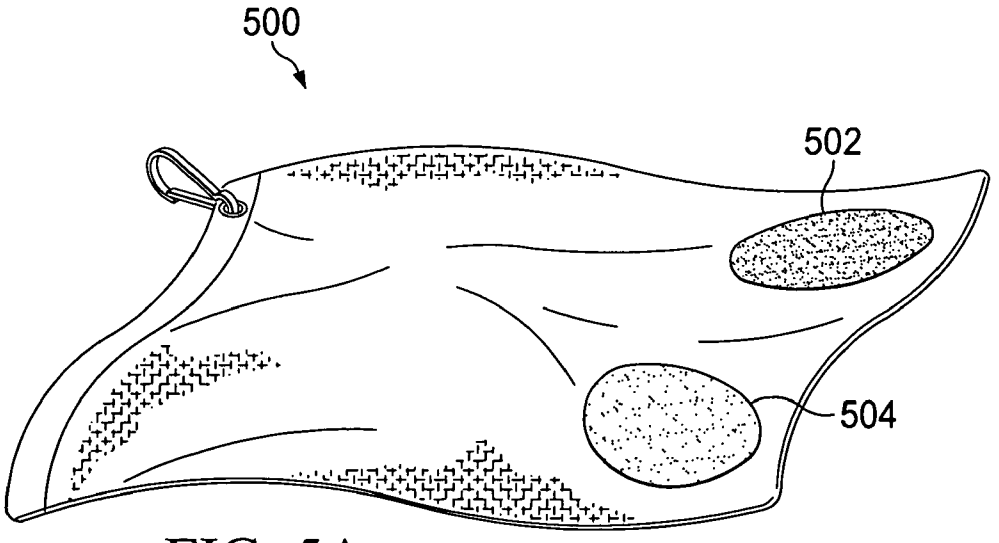
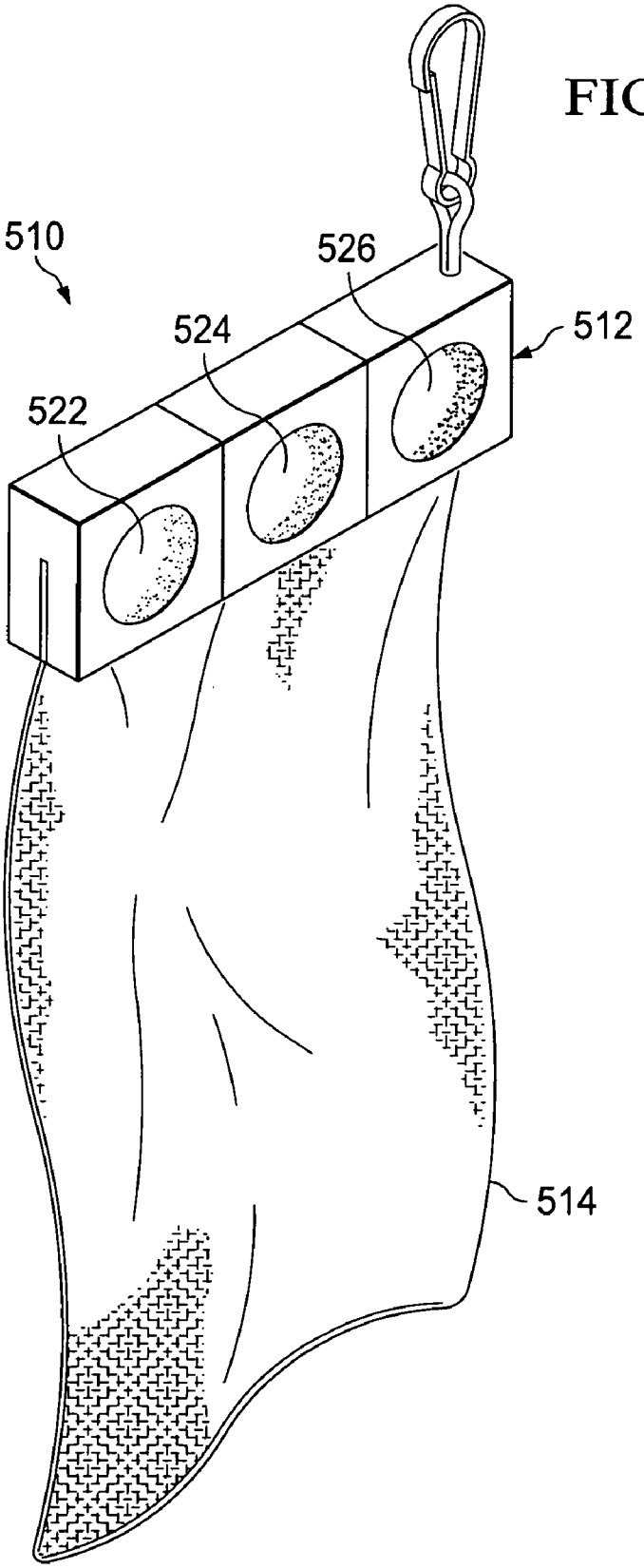


FIG. 5A

FIG. 5B



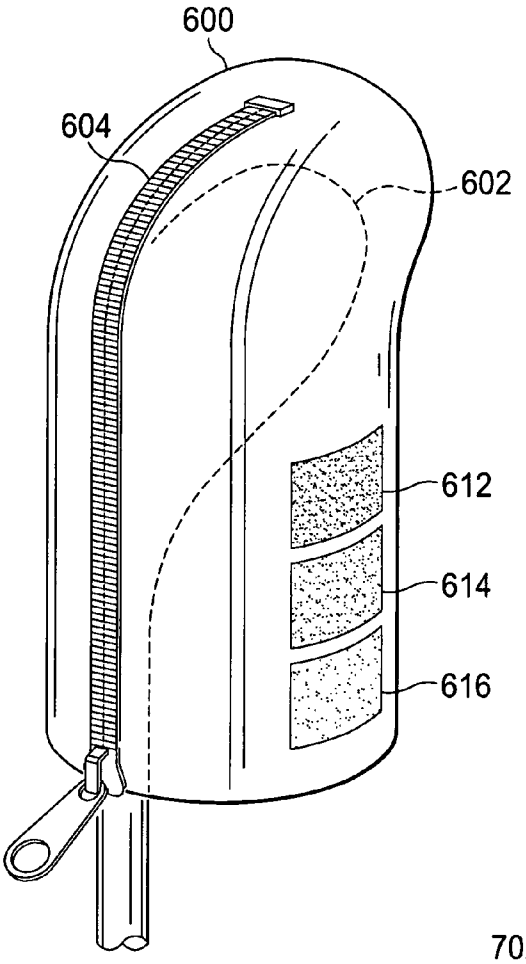


FIG. 6

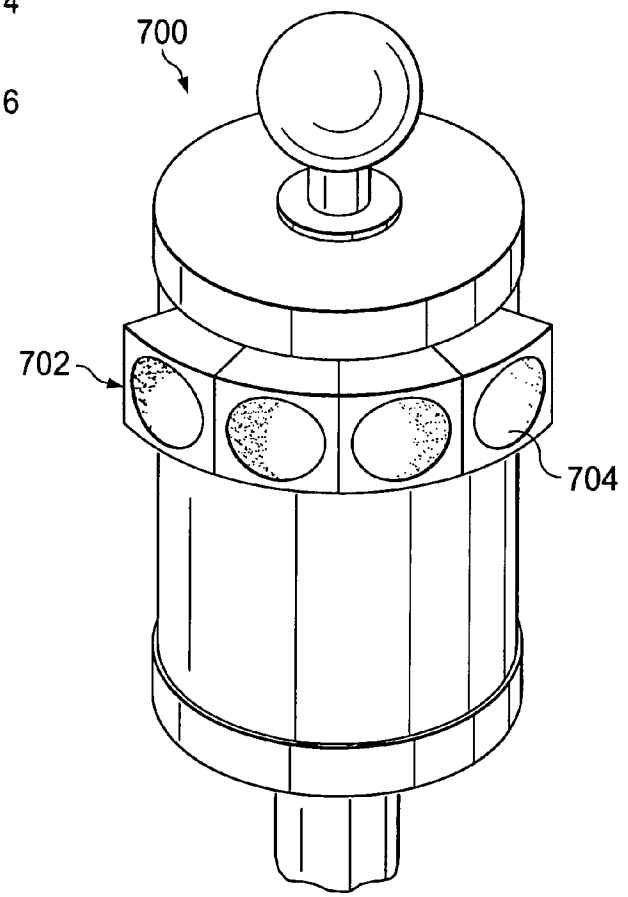


FIG. 7

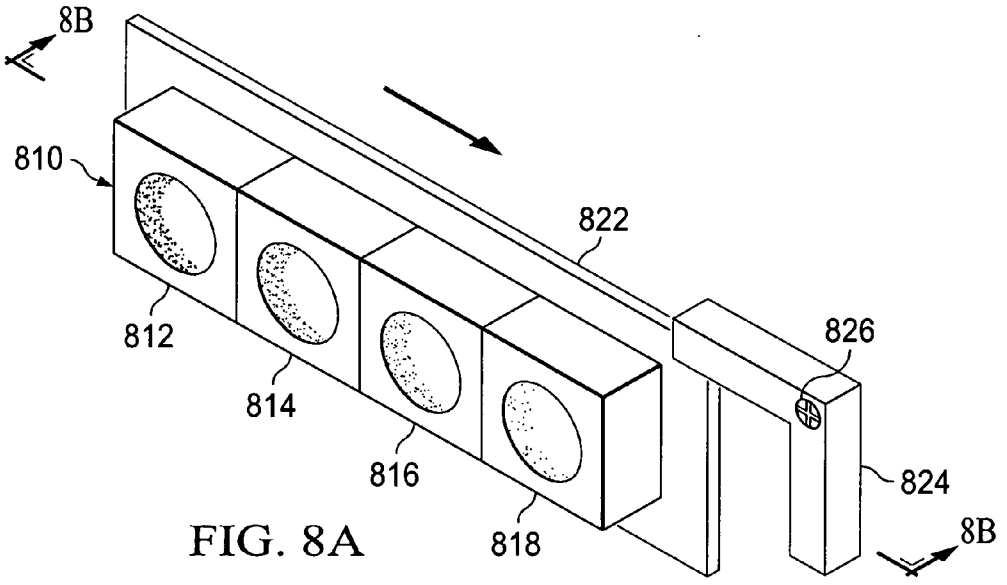


FIG. 8A

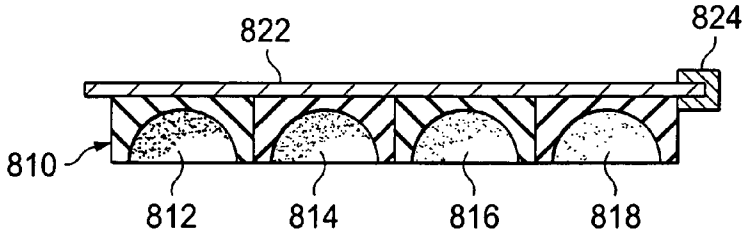


FIG. 8B

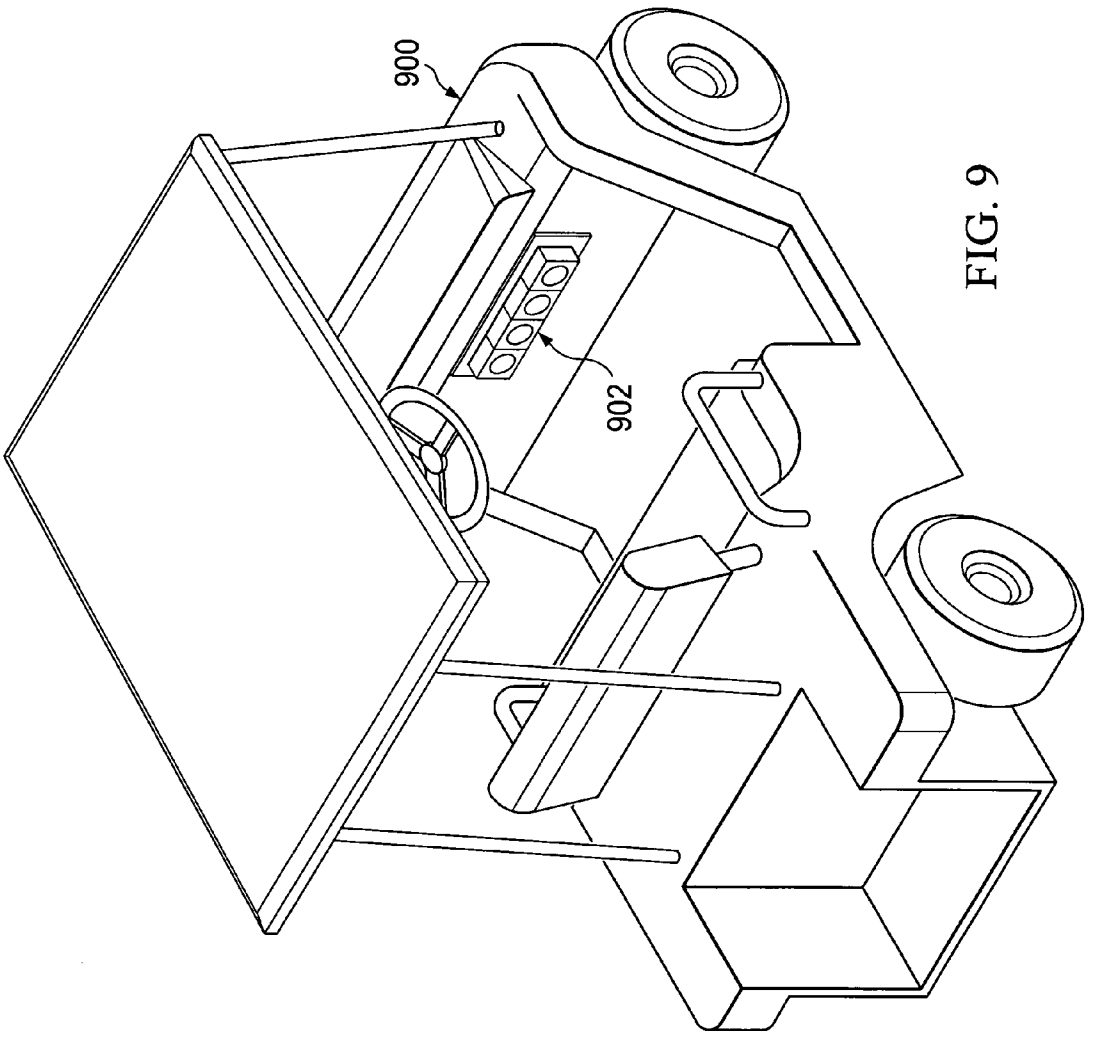


FIG. 9

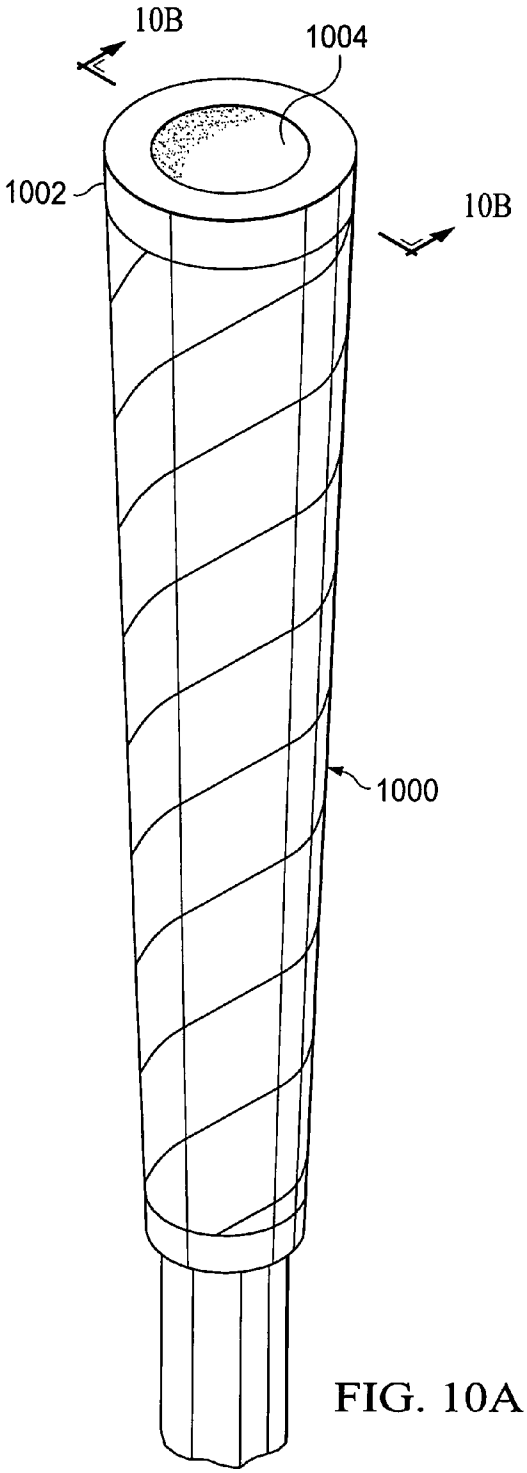


FIG. 10A

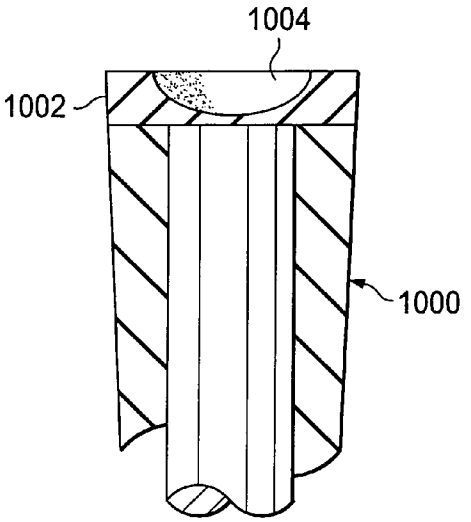


FIG. 10B

PORTABLE GOLF BALL DAMAGE REPAIR DEVICE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present application relates generally to a tool for repairing or restoring the surface of a golf ball and more specifically to a portable, hand-held, lightweight tool for repairing surface damage on the cover of a golf ball.

[0003] 2. Background of the Invention

[0004] The game of golf is a very popular sport. Professional, amateur, and casual players alike enjoy the challenges that golf presents. Unlike other sports, golf is an individual sport where a player combines several skills on each hole to try to lower his score. For example, in a given hole of golf, a player may attempt a long drive, pitch his way out of a sand trap, strategically place the ball on the green, read the layout of the green, and execute a putt with the proper angle and force to place the ball into the cup and finish the hole below par.

[0005] The drive in particular demands a great amount of attention from players. The drive itself can make or break a hole. The player attempts to hit the ball with enough distance and accuracy to make each following shot easier, and to ultimately reduce the number of strokes it takes to complete the hole. Players often visit driving ranges to perfect all the components of their swings to increase distance and accuracy during the drive.

[0006] A great amount of research and development goes into improving golf clubs and golf balls to achieve better results, particularly with respect to the drive. The golf club that is used to drive the ball off the tee, the driver, is considered by many players to be the most important club in the bag, and players often covet the latest and greatest driver on the market. In addition, the golf ball itself has seen an evolution starting with the original featherie ball, which was a leather pouch that was filled with goose feathers, stitched shut, dried, oiled, and painted white. The gutta-percha ball was made from the gum of the Malaysian Sapodilla tree, which was heated and molded into a sphere. A common golf ball consists of a rubber core with wound rubber thread and an enamel cover, although golf ball manufacturers are always attempting to improve the design.

[0007] The cover of the current golf ball has rows of dimples, which affect certain aerodynamic forces. When in flight, a sphere experiences two types of drag. The first type is the obvious drag due to friction, which only accounts for a small part of the drag experienced by a golf ball in flight. The majority of the drag comes from the separation of the flow behind the ball. This drag is known as pressure drag due to separation. The dimples achieve a fairly constant drag, even when the speed of the golf ball increases. Dimples also cause a pressure differential between the top and bottom of a back-spinning ball, which causes lift.

BRIEF SUMMARY OF THE INVENTION

[0008] In one illustrative embodiment, a portable tool for modifying a surface of a golf ball comprises a three-dimensional core of material having at least one exterior surface and at least one abrasive surface portion attached to the at least one exterior surface. The at least one abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to an exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties caused by surface damage.

[0009] In another illustrative embodiment, a tool for modifying a surface of a golf ball comprises a core of material having at least one exterior surface and at least one abrasive surface portion attached to the at least one exterior surface. The at least one abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to the exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties of the golf ball caused by surface damage. The tool further comprises a backing. The core of pliable material is affixed to the backing, and the backing slides into a mounting bracket.

[0010] In another illustrative embodiment, a ball washer comprises an exterior housing, an interior ball washing mechanism, a mounting bracket, a core of material having at least one exterior surface, and at least one abrasive surface portion attached to the at least one exterior surface. The at least one abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to the exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties of the golf ball caused by surface damage. The ball washer further comprises a backing. The core of material is affixed to the backing, and the backing slides into the mounting bracket.

[0011] In yet another illustrative embodiment, a golf club grip comprises a tactile cover that fits over a handle portion of a golf club on a first end of the golf club grip and a golf ball repair tool on a second end of the golf club grip. The golf ball repair tool comprises an abrasive surface portion. The abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to an exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties of the golf ball caused by surface damage.

[0012] These and other features and advantages of the present invention will be described in, or will become apparent to those of ordinary skill in the art in view of, the following detailed description of the exemplary embodiments of the present invention.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0013] The invention, as well as a preferred mode of use and further objectives and advantages thereof, will best be understood by reference to the following detailed description of illustrative embodiments when read in conjunction with the accompanying drawings, wherein:

[0014] FIG. **1** is a three-dimensional cross-sectional view illustrating the composition of a golf ball with which aspects of the illustrative embodiments may be implemented;

[0015] FIG. **2** illustrates a damaged surface of a golf ball with which aspects of the illustrative embodiments may be implemented;

[0016] FIG. **3** depicts a portable hand-held tool for repairing the surface of a ball in accordance with an illustrative embodiment;

[0017] FIGS. **4**A and **4**B show views of a portable hand-held golf ball surface repair tool with concave surfaces in accordance with an illustrative embodiment;

[0018] FIGS. **5**A and **5**B depict embodiments comprising a hand towel comprising a tool for repairing the surface of a ball in accordance with an illustrative embodiment;

[0019] FIG. **6** depicts a golf club cover comprising a tool for repairing the surface of a ball in accordance with an illustrative embodiment;

[0020] FIG. **7** depicts a ball washer having a tool for repairing the surface of a ball in accordance with an illustrative embodiment;

[0021] FIGS. **8**A and **8**B show views of a golf ball surface repair tool with concave surfaces in accordance with an illustrative embodiment;

[0022] FIG. **9** depicts a golf cart in which the illustrative embodiments may be implemented; and

[0023] FIGS. **10**A and **10**B illustrate a golf club grip with a golf ball repair tool in accordance with an illustrative embodiment.

DETAILED DESCRIPTION OF THE INVENTION

[0024] The illustrative embodiments provide a tool for repairing or restoring the surface of the material of a damaged golf ball. A portable, hand-held, lightweight tool comprises one or more abrasive surfaces for repairing surface damage on the cover of a golf ball. The cover of a golf ball is the hard coating on the outside of a golf ball. As used herein, the term "surface" refers to the outside surface of the material of the cover of the golf ball. The tool is configured to repair, remove, or lessen material damage to the surface of the golf ball by application of one or more of the abrasive surfaces. As used herein, the term "application" refers to manipulation of an abrasive surface while in contact with the surface of a damaged golf ball or manipulation of the golf ball while in contact with an abrasive surface. The tool may be made from a pliable material, such as foam rubber, to conform to the curved surface of a golf ball. The tool may include a fastener so that the tool may be attached to a belt loop, golf bag, key chain, golf cart, or the like. In other exemplary embodiments, the tool may be an article of clothing or other golf equipment, such as a glove, towel, golf club cover, golf ball washer, or the like.

[0025] The illustrative embodiments may be utilized with many different types of sports balls or other projectile objects. In order to provide a context for the description of the specific elements and functionality of the illustrative embodiments, FIGS. **1** and **2** are provided hereafter as exemplary golf balls with which exemplary aspects of the illustrative embodiments may be implemented. While the description following FIGS. **1** and **2** will focus primarily on a particular golf ball implementation, this is only exemplary and is not intended to state or imply any limitation with regard to the features of the present invention. To the contrary, the illustrative embodiments are intended to be applicable to any projectile the flight of which may be affected by imperfections in the surface of the projectile.

[0026] FIG. **1** is a three-dimensional cross-sectional view illustrating the composition of a golf ball with which aspects of the illustrative embodiments may be implemented. Golf ball **100** comprises a rubber core **102**, which is surrounded by rubber winding **104**. The outer surface of golf ball **100** is made up of a urethane cover **106**. In the depicted example, urethane cover **106** has a smooth, dimpled surface. The surface of urethane cover **106** affects certain aerodynamic forces on golf ball **100**. While golf ball **100** is shown with a rubber winding **104**, many golf ball designs may differ. For example, many golf balls available today do not use a rubber winding.

[0027] FIG. **2** illustrates a damaged surface of a golf ball with which aspects of the illustrative embodiments may be implemented. Golf ball **200** has a smooth urethane cover surface. The surface of golf ball **200** comprises dimples, such as dimples **202**. In the depicted example, golf ball **200** has a damaged portion **204**, which may be a bur, gouge, or scratch, for example.

[0028] During play, a golf ball may come into contact with several objects or surfaces. For instance, a game of golf is typically initiated by striking (driving) the ball from a wooden or plastic tee. The ball may bounce and come to rest on a fairway, the rough (areas of long grass), a sand trap (areas of sand that are usually around the green), the green (areas of short grass around the cup), and the cup. The ball also comes into contact with the clubs themselves. In addition, the ball may strike other objects, such as trees, golf carts, cement or gravel cart paths, and so forth.

[0029] As a result of the abuse a typical golf ball endures, the surface of the ball may suffer surface damage, such as burs, gouges, scratches, etc. The term "surface damage," as used herein, refers to any such damage to the material surface of the ball that may affect the aerodynamics and rolling dynamics of the ball, including, but not limited to, gouges and scratches. Because the cover surface of the golf ball is specifically designed for long, accurate flight, maintaining the integrity of the surface of the golf ball is very important. Many pro shops and driving ranges collect damaged balls and send them to be resurfaced using complicated and expensive machinery. However, during the course of the game, the only solution for damage to the surface of the ball is to replace it with a new one.

[0030] In accordance with an illustrative embodiment, a tool is provided for substantially repairing or restoring the surface of a golf ball. That is, the tool modifies the material surface of the ball to reduce the effects of surface damage and to lessen the negative effects on aerodynamics, rolling dynamics, or other dynamic properties caused by surface damage. In one exemplary embodiment, the tool is portable, hand-held, and lightweight so that it may be carried on the golf course to allow the player to modify the surface of the ball on the fly rather than relying on an expensive, cumbersome machine. The tool may comprise one or more abrasive surfaces for reducing the effects of surface damage on the material of the cover of a golf ball.

[0031] FIG. **3** depicts a portable hand-held tool for repairing the surface of a ball in accordance with an illustrative embodiment. Tool **300** has a rectangular block shape with six sides. At least one of the sides has one or more abrasive surfaces. For instance, in the example depicted in FIG. **3**, the top surface of tool **300** has three abrasive surfaces **302**, **304**, and **306**. Surface **302** may have a coarse grade of granularity, or grit; surface **304** may have a medium grade of granularity; and, surface **306** may have a fine grade of granularity. Thus, for example, surface **302** may have a coarseness of 80-200 grit to repair, remove, or lessen large burs, surface **304** may have a coarseness of 200-800 grit to smooth scratches, and surface **306** may have a coarseness of 800-1600 grit to polish the surface of the golf ball. Tool **300** may have additional surfaces, such as surfaces **308**, **310**. In one exemplary embodiment, the granularity of the surfaces **302-310** may be color coded, numbered, or labeled.

[0032] In another exemplary embodiment, tool **300** may have a fastener **312**. Using fastener **312**, a player may attach tool **300** to a belt loop, a golf bag, a golf cart, or the like.

Alternatively, tool **300** may be small and portable enough to keep in the player's pocket or on a keychain.

[0033] Tool **300** may be made of a pliable core material, such as foam rubber. Surfaces **302-310** may be paper or fabric surfaces that are applied to the outside surface of the core of tool **300** with adhesive, for example. In an alternative embodiment, an abrasive may be applied to the outside surface of the core of the tool **300** using a spray or the like. Thus, when the player rubs the golf ball into a surface, such as surface **302**, for example, the shape of tool **300** conforms to the curvature of the ball, allowing more surface-to-surface contact. Rubbing the golf ball against an abrasive surface of tool **300** effectively modifies the surface of the golf ball at the initial point of contact as well as surrounding areas to repair, remove, or lessen the damaged portion with little effort. With the surface of the golf ball thus modified or repaired—that is, with the negative effects on dynamic properties of the ball effectively limited—the player may continue use of the ball without any significant effect on the flight of the ball.

[0034] While tool **300** is depicted as a rectangular block, tool **300** may take a variety of different forms depending upon the implementation. For example, tool **300** may be a cube, pyramid, cylinder, tetrahedron, or the like.

[0035] FIGS. **4**A and **4**B show views of a portable hand-held golf ball surface repair tool with concave surfaces in accordance with an illustrative embodiment. More particularly, FIG. **4**A is a three-dimensional view of a portable hand-held tool for modifying the surface of a golf ball in accordance with an illustrative embodiment. Tool **400** has a square block shape with six sides. In the example depicted in FIG. **4**A, each side of tool **400** has a concave abrasive surface. For example, surface **402** may have a coarse grade of granularity (e.g., 80-200 grit); surface **404** may have a medium grade of granularity (e.g., 200-800 grit); and, surface **406** may have a fine grade of granularity (e.g., 800-1600 grit). Thus, for example, surface **402** may be used to repair, remove, or lessen large burs, surface **404** may be used to smooth scratches, and surface **406** may be used to polish the surface of the golf ball.

[0036] FIG. **4**B is a side cross-sectional view of the portable hand-held tool for repairing the surface of a golf ball in accordance with the illustrative embodiment. Tool **400** has concave surfaces **402** and **406** in this view. Surfaces **402** and **406** substantially match the curvature of golf ball **410**. Thus, when golf ball **410** comes into contact with surface **402**, for example, the surface-to-surface contact is increased. Tool **400** may also be made of a pliable, deformable material, such as foam rubber, with flexible abrasive surfaces, such as paper or fabric, being affixed to the outer surface of tool **400**, to increase surface-to-surface contact.

[0037] In other embodiments, the portable tool may also take the form of an article, such as clothing or other items used on the golf course. For example, the tool may be incorporated into a glove, shirt, pants, hat, visor, or the like. The tool may also be incorporated into a golf bag, golf cart, golf club, etc.

[0038] FIGS. **5**A and **5**B depict example hand towels comprising a tool for repairing the surface of a ball in accordance with an illustrative embodiment. As shown in FIG. **5**A, hand towel **500** has two abrasive surfaces **502** and **504** in the depicted example. However, depending upon the implementation, hand towel **500** may have more or fewer abrasive surfaces without departing from the spirit and scope of the illustrative embodiments. Surface **502** may have a coarse grade of granularity, and surface **504** may have a fine grade of granularity. Thus, for example, surface **502** may be used to repair, remove, or lessen large burs, and surface **504** may be used to polish the surface of the golf ball. In one exemplary embodiment, the granularity of the surfaces **502** and **504** may be color coded, numbered, or labeled.

[0039] In an alternative embodiment shown in FIG. **5**B, hand towel **510** comprises a tool portion **512** and a towel portion **514**. Tool portion **512** may have a square block shape. In the example depicted in FIG. **5**B, one side of tool portion **512** has three concave abrasive surfaces. For example, surface **522** may have a coarse grade of granularity (e.g., 80-180 grit); surface **524** may have a medium grade of granularity (e.g., 180-320 grit); and, surface **526** may have a fine grade of granularity (e.g., 320-800 grit). Thus, for example, surface **522** may be used to repair, remove, or lessen large burs, surface **524** may be used to smooth a scratch, and surface **526** may be used to smooth the surface of the golf ball. The player may first wipe the golf ball with towel portion **514**, and then rub the surface of the ball against the abrasive surfaces **522-526** of tool portion **512**, in order from coarse to medium to fine to very fine, for example.

[0040] FIG. **6** depicts a golf club cover comprising a tool for repairing the surface of a ball in accordance with an illustrative embodiment. Golf club cover **600** includes a zipper **604**, which opens to allow cover **600** to be slipped over golf club **602**. Golf club cover **600** has three abrasive surfaces **612**, **614**, and **616**. Surface **612** may have a coarse grade of granularity (e.g., 80-200 grit); surface **614** may have a medium grade of granularity (e.g., 200-800 grit); and, surface **616** may have a fine grade of granularity (e.g., 800-1600 grit). Thus, for example, surface **612** may be used to repair, remove, or lessen large burs, surface **614** may be used to smooth a scratch, and surface **616** may be used to polish the surface of the golf ball. In one exemplary embodiment, the granularity of the surfaces **612-616** may be color coded, numbered, or labeled.

[0041] FIG. **7** depicts a ball washer having a tool for repairing the surface of a ball in accordance with an illustrative embodiment. Ball washer **700** may be stationed at various locations on a golf course, such as at each tee. Ball washer **700** typically has a cleaning fluid and a mechanism for washing the ball inside. A player may open ball washer **700**, place the ball in the opening, and clean dirt and debris from the outside of the ball. Thus, a player may use ball washer **700** to improve the appearance of the outside surface of a golf ball. Ball washer **700** may also have a towel attached to allow the player to dry the outside surface of the ball.

[0042] In accordance with an illustrative embodiment, ball washer **700** has golf ball repair tool **702** mounted thereon or incorporated within. Golf ball repair tool **702** may have a plurality of abrasive surfaces, such as surface **704**, thereon to modify the surface of the golf ball to limit the negative effects on aerodynamics, rolling dynamics, or other dynamic properties caused by surface damage. Each abrasive surface, such as surface **704**, may be concave to match the curvature of a golf ball.

[0043] Tool **702** may be made of a pliable, deformable material, such as foam rubber. Surface **704**, for example, may be a paper or fabric surface that is applied to the outside surface of tool **702** with adhesive, for example. Thus, when the player rubs the golf ball into surface **704**, for example, the shape of tool **702** conforms to the curvature of the ball, allowing more surface-to-surface contact.

[0044] FIGS. **8**A and **8**B show views of a golf ball surface repair tool with concave surfaces in accordance with an illustrative embodiment. More particularly, FIG. **8**A is a three-

dimensional view of a tool for modifying the surface of a golf ball, such as tool **702** in FIG. **7**, in accordance with an illustrative embodiment. Tool **810** has a square block shape. In the example depicted in FIG. **8**A, one side of tool **810** has four concave abrasive surfaces. For example, surface **812** may have a coarse grade of granularity (e.g., 80-180 grit); surface **814** may have a medium grade of granularity (e.g., 180-320 grit); surface **816** may have a fine grade of granularity (e.g., 320-800 grit); and, surface **818** may have a very fine grade of granularity (e.g., 800-1600 grit). Thus, for example, surface **812** may be used to repair, remove, or lessen large burs, surface **814** may be used to smooth a scratch, surface **816** may be used to smooth the surface of the golf ball, and surface **818** may be used to polish the surface of the golf ball to a shine. The player may first wash the golf ball in a golf ball washer, such as washer **700** in FIG. **7**, and then rub the surface of the ball against the abrasive surfaces **812-818** of tool **810**, in order from coarse to medium to fine to very fine, for example.

[0045] Tool **810** is affixed to a backing **822**, which may be secured within a mounting bracket **824**. FIG. **8**A shows only a portion of mounting bracket **824**. Backing **822** may slide into mounting bracket **824** and be secured by screw **826**. Thus, when the abrasive surfaces wear out or the material of tool **810** begins to deteriorate from weather effects, for instance, the tool may be replaced by sliding tool **810** out and sliding a new tool **810** into bracket **824**.

[0046] FIG. **8**B is a side cross-sectional view of the tool for repairing the surface of a golf ball in accordance with the illustrative embodiment. Tool **810** has concave surfaces **812-818** in this view. Tool **810** is affixed to backing **822**, which slides into mounting bracket **824**. Surfaces **812-818** may substantially match the curvature of a golf ball (not shown). Thus, when a golf ball comes into contact with surface **812**, for example, the surface-to-surface contact is increased. Tool **810** may also be made of a pliable material, such as foam rubber, with flexible abrasive surfaces, such as paper or fabric, being affixed to the outer surface of tool **810**, to increase surface-to-surface contact.

[0047] The golf ball repair tool may be mounted to other objects, such as a golf bag or golf cart, for example. FIG. **9** depicts a golf cart in which the illustrative embodiments may be implemented. Golf cart **900** includes console **902** to which a golf ball repair tool, such as tool **810** in FIGS. **8**A and **8**B, may be mounted. Console **902** may be a dashboard of golf cart **900**, for example. Thus, whenever a player notices that the golf ball has suffered surface damage that may affect the dynamic properties of the ball, the player may bring the ball to golf cart **900** and modify the material surface of the ball to lessen the negative effects on aerodynamics of the golf ball.

[0048] FIGS. **10**A and **10**B illustrate a golf club grip with a golf ball repair tool in accordance with an illustrative embodiment. With reference to FIG. **10**A, golf club grip **1000** is placed over the handle end of a golf club. Golf club grip **1000** has a leather or rubber surface that helps to improve the player's grip on the club. In accordance with an illustrative embodiment, golf club grip **1000** includes golf ball repair tool **1002** on the end of grip **1000**. Golf ball repair tool **1002** has concave surface **1004**, which is made of an abrasive material.

[0049] FIG. **10**B shows a cross sectional view of the tool for repairing the surface of a golf ball in accordance with the illustrative embodiment. Golf club tool **1002** has concave surface **1004**, which is either made of an abrasive material or has an abrasive material attached thereto. Thus, whenever a player notices that the golf ball has suffered material surface damage that may affect the aerodynamics, rolling dynamics, or other dynamic properties of the ball, the player may rub the ball against surface **1004** modify the surface of the ball to lessen the negative effects on dynamic properties of the golf ball. Within a set of golf clubs, different clubs may have various golf club grips **1000** with different repair tools **1002**, each with a concave, abrasive surface **1004** of a different granularity.

[0050] Thus, the illustrative embodiments provide a tool for modifying the material of the surface of a golf ball to limit the negative effects on aerodynamics, rolling dynamics, and other dynamic properties caused by material surface damage. A portable, hand-held, lightweight tool comprises one or more abrasive surfaces for removing or lessening material damage from the cover of a golf ball. The tool may be made from a pliable, deformable material, such as foam rubber, to conform to the curved surface of a golf ball. The tool may include a fastener so that the tool may be attached to a belt loop, golf bag, key chain, golf cart, or the like. In other exemplary embodiments, the tool may be an article of clothing or other golf equipment, such as a glove, towel, hat, visor, or golf club cover.

[0051] The description of the present invention has been presented for purposes of illustration and description, and is not intended to be exhaustive or limited to the invention in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art. The embodiment was chosen and described in order to best explain the principles of the invention, the practical application, and to enable others of ordinary skill in the art to understand the invention for various embodiments with various modifications as are suited to the particular use contemplated.

What is claimed is:

1. A portable tool for modifying a surface of a golf ball, the tool comprising:

a three-dimensional core of material having at least one exterior surface; and

at least one abrasive surface portion attached to the at least one exterior surface, wherein the at least one abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to an exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties caused by surface damage.

2. The portable tool of claim **1**, wherein the at least one abrasive surface portion comprises:

a first surface portion having a first grade of granularity such that the first surface portion is used to remove or lessen burs from a surface of the golf ball;

a second surface portion having a second grade of granularity such that the second surface portion is used to smooth damage from the surface of the golf ball;

a third surface portion having a third grade of granularity such that the third surface portion is used to buff the surface of the golf ball; and

a fourth surface portion having a fourth grade of granularity such that the fourth surface portion is used to shine the surface of the golf ball.

3. The portable tool of claim **1**, wherein the at least one abrasive surface portion is concave.

4. The portable tool of claim **3**, wherein the at least one surface portion has a concavity that substantially matches a curvature of the exterior surface of the golf ball.

5. The portable tool of claim **1**, wherein the three-dimensional core of material comprises a deformable material.

6. The portable tool of claim **5**, wherein the deformable material is foam rubber.

7. The portable tool of claim **1**, wherein the at least one abrasive surface portion comprises a plurality of abrasive surface portions that are labeled to indicate grade of granularity.

8. The portable tool of claim **1**, further comprising:

a fastener.

9. The portable tool of claim **1**, further comprising:

a towel attached to the three-dimensional deformable core of material.

10. A tool for modifying a surface of a golf ball, the tool comprising:

a core of material having at least one exterior surface;

at least one abrasive surface portion attached to the at least one exterior surface, wherein the at least one abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to the exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties of the golf ball caused by surface damage; and

a backing, wherein the core of pliable material is affixed to the backing and wherein the backing slides into a mounting bracket.

11. The tool of claim **10**, wherein the mounting bracket is affixed to a ball washer.

12. The tool of claim **10**, wherein the mounting bracket is affixed to a golf cart.

13. The tool of claim **10**, wherein the at least one abrasive surface portion comprises:

a first surface portion having a first grade of granularity such that the first surface portion is used to remove or lessen burs from a surface of the golf ball;

a second surface portion having a second grade of granularity such that the second surface portion is used to smooth damage from the surface of the golf ball;

a third surface portion having a third grade of granularity such that the third surface portion is used to buff the surface of the golf ball; and

a fourth surface portion having a fourth grade of granularity such that the fourth surface portion is used to shine the surface of the golf ball.

14. The tool of claim **10**, wherein the at least one abrasive surface portion is concave.

15. The tool of claim **14**, wherein the at least one surface portion has a concavity that substantially matches a curvature of the exterior surface of the golf ball.

16. The tool of claim **10**, wherein the three-dimensional core of material comprises a deformable material.

17. The tool of claim **16**, wherein the deformable material is foam rubber.

18. The tool of claim **10**, wherein the at least one abrasive surface portion comprises a plurality of abrasive surface portions that are labeled to indicate grade of granularity.

19. A ball washer, comprising:

an exterior housing;

an interior ball washing mechanism;

a mounting bracket;

a core of material having at least one exterior surface;

at least one abrasive surface portion attached to the at least one exterior surface, wherein the at least one abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to the exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties of the golf ball caused by surface damage; and

a backing, wherein the core of material is affixed to the backing and wherein the backing slides into the mounting bracket.

20. The ball washer of claim **19**, wherein the at least one abrasive surface portion comprises:

a first surface portion having a first grade of granularity such that the first surface portion is used to remove or lessen burs from a surface of the golf ball;

a second surface portion having a second grade of granularity such that the second surface portion is used to smooth damage from the surface of the golf ball;

a third surface portion having a third grade of granularity such that the third surface portion is used to buff the surface of the golf ball; and

a fourth surface portion having a fourth grade of granularity such that the fourth surface portion is used to shine the surface of the golf ball.

21. The ball washer of claim **19**, wherein the at least one abrasive surface portion is concave.

22. The ball washer of claim **21**, wherein the at least one surface portion has a concavity that substantially matches a curvature of the exterior surface of the golf ball.

23. The ball washer of claim **19**, wherein the core of material comprises a deformable material.

24. The ball washer of claim **23**, wherein the deformable material is foam rubber.

25. The ball washer of claim **19**, wherein the at least one abrasive surface portion comprises a plurality of abrasive surface portions that are labeled to indicate grade of granularity.

26. A golf club grip, comprising:

a tactile cover that fits over a handle portion of a golf club on a first end of the golf club grip;

a golf ball repair tool on a second end of the golf club grip, wherein the golf ball repair tool comprises an abrasive surface portion, wherein the abrasive surface portion has a grade of granularity such that application of the at least one abrasive surface portion to an exterior surface of a golf ball modifies material of the exterior surface of the golf ball to lessen negative effects on dynamic properties of the golf ball caused by surface damage.

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