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RAZOR HANDLE

Abstract

A razor handle is proposed. The razor handle may include an elongated-type grip portion having a hollow portion, and a body portion comprising a latch portion. At least part of the body portion may be configured to be accommodated in the hollow portion. The razor handle may also include a head portion configured to be connected to a razor cartridge, the head portion connected to one side of the body portion. The razor handle may also include a fixing pin configured to be coupled to the other side of the body portion. When the fixing pin is positioned on the other side of the body portion, the fixing pin may be configured to be latch-coupled with the latch portion by rotating in a first direction around a rotational axis passing through the body portion and parallel to a longitudinal direction of the body portion.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS [0001] This is a continuation application of International Patent Application No. PCT/KR2023/017474 filed on Nov. 3, 2023, which claims priority to Korean Patent Application No. 10-2022-0146068 filed on Nov. 4, 2022, the contents of each of which are incorporated by reference herein in their entirety.

BACKGROUND
Technical Field
[0002] The present disclosure relates to a razor handle.
Description of Related Technology
[0003] The seriousness of environmental destruction has recently emerged, and accordingly, each country and various international organizations are establishing measures related to environmental regulations. For example, measures such as prohibiting or reducing the use of disposable plastics are being established, and accordingly, the manufacturers of various disposable products are replacing at least part of their products with eco-friendly materials.
SUMMARY
[0004] One aspect is a razor handle that not only utilizes an eco-friendly material but also allows for easy separation and replacement of the eco-friendly material.
[0005] Another aspect is a razor handle comprising: an elongated-type grip portion having a hollow portion; a body portion comprising a latch portion, wherein at least of the body portion configured to be accommodated in the hollow portion; a head portion configured to be connected to a razor cartridge, the head portion connected to one side of the body portion; and a fixing pin configured to be coupled to the other side of the body portion, wherein when the fixing pin is positioned on the other side of the body portion, the fixing pin is configured to be latch-coupled with the latch portion by rotating in a first direction around a rotational axis passing through the body portion and parallel to a longitudinal direction of the body portion.
[0006] According to an embodiment of the present disclosure described above, there is the effect that it is possible to provide a razor handle that not only utilizes an eco-friendly material but also allows for easy separation and replacement of the eco-friendly material.

Description

BRIEF DESCRIPTION OF THE DRAWINGS
[0007] FIG. **1** is a top view of a razor assembly in an assembled state according to an embodiment of the present disclosure.
[0008] FIG. **2** is an exploded perspective view of the razor assembly according to an embodiment of the present disclosure.
[0009] FIG. **3** is a cross-sectional view of the razor handle, taken along line A-A′ in FIG. **1** and shown in a Y-axis direction, according to an embodiment of the present disclosure.
[0010] FIG. **4**A to FIG. **4**C are views showing a process in which a fixing pin according to an embodiment of the present disclosure is moved along at least one guide groove.
[0011] FIG. **5**A to FIG. **5**D are enlarged views showing a process in which the fixing pin according

to an embodiment of the present disclosure is latch-coupled to a latch portion.
[0012] FIG. **6**A to FIG. **6**C are cross-sectional views shown in the Y-axis direction after cutting the fixing pin and a body portion shown in FIG. **5**B to FIG. **5**D along line B-B′, including a grip portion.

DETAILED DESCRIPTION

[0013] Domestically, the government aims to reduce the amount of waste generated relative to Gross Domestic Product (GDP) by 20% by 2027 and increase the current effective recycling rate from 70% to 82%. Further, to this end, plans are in place to provide financial support and prototype assistance to promote development and production of eco-friendly materials as alternatives to plastic.
[0014] Meanwhile, a wet razor falls into the category of products that require periodic replacement due to repeated use or single-use disposal. Therefore, in the market related to wet razors, there is a need for razors that comply with such environmental regulations, but most razors currently in use are made primarily of plastic materials.
[0015] Further, products in which certain components of the razor assembly, such as a razor handle, are manufactured using eco-friendly materials have been introduced. However, since components made of eco-friendly materials cannot be separated when disposing of the razor assembly, there is a problem of increased unnecessary waste.
[0016] Hereinafter, some embodiments of the present disclosure will be described in detail with reference to the accompanying drawings. It is to be noted that in giving reference numerals to components of each of the accompanying drawings, the same components will be denoted by the same reference numerals even though they are illustrated in different drawings. Further, in describing exemplary embodiments of the present invention, well-known functions or constructions will not be described in detail since they may unnecessarily obscure the understanding of the present invention.
[0017] Terms ‘first’, ‘second’, i), ii), a), b), and the like, will be used in describing components according to embodiments of the present disclosure. These terms are only for distinguishing the components from other components, and the nature, sequence, order, or the like of the components are not limited by the terms. Throughout the present specification, unless explicitly described to the contrary, “including” or “comprising” any components will be understood to imply the inclusion of other elements rather than the exclusion of any other elements.
[0018] FIG. **1** is a top view of a razor assembly **1** in an assembled state according to an embodiment of the present disclosure.
[0019] FIG. **2** is an exploded perspective view of the razor assembly **1** according to an embodiment of the present disclosure.
[0020] Referring to FIG. **1** and FIG. **2**, a razor assembly **1** according to an embodiment of the present disclosure may comprise a razor cartridge **180** and a razor handle **10**.
[0021] The razor handle **10** may comprise all or some of a grip portion **140**, a body portion **200**, a head portion **100**, a buffer unit **120**, and a fixing pin **160**.
[0022] The grip portion **140** has a hollow portion **145** and is configured in an elongated type. The grip portion **140** can provide a region enabling a user to hold the razor handle **10** when shaving.
[0023] Further, the grip portion **140** may include at least one of materials that are recyclable, reusable, and/or degradable (e.g., biodegradation, photodegradation, and composite degradation). For example, the grip portion **140** may be manufactured using eco-friendly materials such as wood, metal, glass, and biomass. Accordingly, the razor handle **10** according to an embodiment of the present disclosure can minimize the proportion of plastic constituting a razor.
[0024] Meanwhile, even when using eco-friendly materials, if separation and replacement of such eco-friendly materials are not easy, recycling and reuse may become difficult. Accordingly, hereafter, a structure for easy separation and replacement of the grip portion **140** is described.
[0025] The body portion **200** is configured such that at least a portion thereof can be

accommodated in the hollow portion **145**. For example, the body portion **200** may be configured such that at least a portion extends in a direction parallel to the Y-axis direction in FIG. **2**, and accordingly, the body portion **200** may be configured to pass through at least a portion of the hollow portion **145**.

[0026] The body portion **200** may comprise a latch portion **225** and at least one guide groove **215**. The latch portion **225** may be latch-coupled with the fixing pin **160** to be described below, and the guide groove **215** can guide the latch coupling. Detailed description related to the latch portion **225** and the guide groove **215** will be provided below.

[0027] The body portion **200** may comprise a tension unit **224** for elastically supporting at least a portion of the inner circumferential surface of the hollow portion **145** when at least a portion thereof is accommodated in the hollow portion **145**. The tension unit **224** may include an elastic material and be compressed in a direction not parallel to the longitudinal direction of the body portion **200** when the body portion **200** is accommodated in the hollow portion **145**, thereby being able to provide a supporting force toward at least a portion of the inner circumferential surface of the hollow portion **145**.

[0028] The tension unit **224** may protrude convexly in a direction not parallel to the longitudinal direction of the body portion **200**. In this case, when the body portion **200** is accommodated in the hollow portion **145**, the convexly protruding portion can be compressed toward the longitudinal central axis of the body portion **200**, whereby the tension unit **224** can provide a supporting force toward at least a portion of the inner circumferential surface of the hollow portion **145**. However, as long as the tension unit **224** can elastically support at least a portion of the inner circumferential surface of the hollow portion **145**, the shape of the tension unit **224** is not necessarily limited thereto.

[0029] Further, the tension unit **224** is composed of a plurality of arms formed symmetrically with respect to the longitudinal direction of the body portion **200** and spaced apart from each other in FIG. **2**, but it is also not necessarily limited to this shape.

[0030] Meanwhile, the body portion **200** may comprise a first body portion **210** and a second body portion **220**. Further, the first body portion **210** may include a rigid material and the second body portion **220** may include an elastic material.

[0031] The second body portion **220** may be coupled to at least one side of the first body portion **210**, and the latch portion **225** and the tension unit **224** may be integrally formed on the second body portion **220**. Further, the at least one guide groove **215** may be integrally formed on the first body portion **210**. In this case, with respect to the body portion **200**, the tension unit **224** may be positioned at the positive Y-axis side, and the latch portion **225** and the at least one guide groove **215** may be positioned at the negative Y-axis side.

[0032] Further, the first body portion **210** may comprise at least one coupling hole **212** for coupling to the second body portion **220**, and the second body portion **220** may comprise at least one coupling protrusion **222** coupled to the at least one coupling hole **212**. In this case, the first body portion **210** and the second body portion **220** can be coupled and separated in a direction parallel to the Z-axis direction in FIG. **2**, but are not necessarily limited thereto.

[0033] The head portion **100** is configured to be connected to one side of the body portion **200** and connected to the razor cartridge **180**. For example, the head portion **100** may be connected to the positive Y-axis side of the body portion **200** in FIG. **2**.

[0034] In this case, the razor cartridge **180** may be connected to be able to pivot with respect to the razor handle **10**, but is not necessarily limited thereto.

[0035] For example, the razor cartridge **180** may be mounted on the razor handle **10** such that it can be replaced, and the razor cartridge **180** may be mounted on the razor handle **10** using a fixed-type connector or a rotary-type connector. Further, one side of the razor cartridge **180** may be directly mounted on the one side of the razor handle **10**.

[0036] Meanwhile, the head portion **100** may comprise a cartridge ejection button **105** protruding

to the outside so that a user can operate it. In this case, a user can attach/detach the razor cartridge **180** to/from the razor handle **10** by operating the cartridge ejection button **105**, for example, pressing, pushing, or pulling the cartridge ejection button **105**.

[0037] The buffer unit **120** is disposed between an end of the grip portion **140** adjacent to the head portion **100** and the head portion **100**. The buffer unit **120** prevents direct contact of the head portion **100** and the grip portion **140** in shaving, whereby it can prevent damage to the end of the grip portion **140** adjacent to the head portion **100** due to repeated contact, and accordingly, it can extend the lifespan of the grip portion **140**. Further, the buffer unit **120** can also prevent pressure, which is applied to the head portion **100** during shaving or when the razor handle **10** is impacted by a fall, from being directly transmitted to the grip portion **140**.

[0038] Meanwhile, it is possible to freely adjust the gap between the head portion **100** and the grip portion **140**, depending on the size and shape of the buffer unit **120**. In order to improve the grip of the razor handle **10**, a rubber pattern may be formed on the buffer unit **120**, but the present disclosure is not necessarily limited thereto.

[0039] The fixing pin **160** is configured to be coupled to the other side of the body portion **200**. For example, the fixing pin **160** may be coupled to the negative Y-axis side of the body portion **200** in FIG. **2**.

[0040] In this case, the fixing pin **160** is positioned on the other side of the body portion **200**, and in this state, is rotated in a first direction around a rotational axis **150** passing through the body portion **200** in the longitudinal direction of the body portion **200**, whereby it can be coupled with the latch portion **225**. In this case, the first direction, for example, may refer to the clockwise direction around the rotational axis **150** in FIG. **1**, but is not necessarily limited thereto.

[0041] Further, the latch coupling of the fixing pin **160** with the latch portion **225** can be disengaged by rotating the fixing pin **160** in a second direction opposite to the first direction, for example, counterclockwise around the rotational axis **150**.

[0042] Accordingly, the razor handle **10** according to an embodiment of the present disclosure is configured such that the body portion **200** and the fixing pin **160** are latch-coupled and decoupled using rotation of the fixing pin **160**, so it has the advantage in that the grip portion **140**, which may include an eco-friendly material, can be easily separated for disposal and replaced.

[0043] Meanwhile, when the fixing pin **160** is latch-coupled to the latch portion **225**, at least a portion of the fixing pin **160**, for example, a fixing pin head **161** may be supported by the end of the grip portion **140** adjacent to the fixing pin **160**. Accordingly, even after the fixing pin **160** is latch-coupled to the latch portion **225**, it can be firmly maintained in the state.

[0044] The fixing pin **160** may comprise at least one guide arm **162** and a guide protrusion **164**.

[0045] The at least one guide arm **162** extends in a direction parallel to the longitudinal direction of the body portion **200**. For example, in FIG. **2**, the at least one guide arm **162** is provided as two guide arms. The two guide arms **162** may extend symmetrically with respect to the rotational axis **150**, in this case, the two guide arms **162** may be spaced apart from each other by a predetermined distance. This will be described in detail below.

[0046] However, the shape and the formation position of the at least one guide arm **162** are not necessarily limited thereto.

[0047] Further, when the at least one guide arm **162** is provided as a plurality of guide arms, at least one bridge **166** may be configured to connect between the plurality of guide arms **162**. For example, as shown in FIG. **2**, when the plurality of guide arms **162** is provided as two guide arms, the at least one bridge **166** may be provided as two bridges. In FIG. **2**, one bridge may be formed on the positive X-axis side and the other one may be formed on the negative X-axis side, and the two bridges **166** may be formed not to face each other. However, the shape and the formation position of the at least one bridge **166** are not necessarily limited thereto.

[0048] Since the at least one bridge **166** is configured to connect the plurality of guide arms **162**, it may provide a supporting force between the plurality of guide arms **162** and can maintain the

distance between the plurality of guide arms **162**.
[0049] Meanwhile, though not shown in the figures, when the at least one guide arm **162** is provided as two guide arms, the at least one guide groove **215** may also be provided as two guide grooves, and it is preferable that the number of the at least one guide arm **162** and the number of the at least one guide groove **215** are the same in this way. However, the present disclosure is not necessarily limited thereto.
[0050] The at least one guide arm **162** is a component that is inserted first into the hollow portion **145** so that the fixing pin **160** is latch-coupled to the body portion **200**, and can guide the insertion direction of the fixing pin **160** to a user.
[0051] For example, when the at least one guide arm **162** is provided as two guide arms, the two guide arms **162** should be inserted in the Z-axis direction to face each other when they are inserted into the hollow portion **145** so that the fixing pin **160** can be rotated and latch-coupled. In this case, when the first body portion **210** is accommodated in the hollow portion **145**, the two guide grooves **215** can be accommodated to face each other in the Z-axis direction.
[0052] Further, the at least one guide arm **162** may comprise, at an end, a locking portion **165** latch-coupled to the latch portion **225** and configured to generate a cam action with the latch portion **225**. Detailed description related to the cam action of the locking portion **165** will be described below.
[0053] The guide protrusion **164** protrudes from the at least one guide arm **162** and is configured to be movable along the at least one guide groove **215**. For example, as shown in FIG. **2**, when the at least one guide arm **162** is provided as two guide arms, the guide protrusion **164** may protrude from each of the guide arms **162** and the protrusion may be directed toward the rotational axis **150**, but is not necessarily limited thereto.
[0054] Since the guide protrusion **164** is configured to move along the at least one guide groove **215**, it can guide the coupling direction of the fixing pin **160** to a user. This will be described in detail below.
[0055] Meanwhile, the razor handle **10** according to an embodiment of the present disclosure may comprise at least one sealing member **181**, **182**. For example, the at least one sealing member **181**, **182** may be provided as two sealing members, as in FIG. **2**, and they may be positioned between the grip portion **140** and the head portion **100** and between the grip portion **140** and the fixing pin **160**, respectively. In this case, with respect to the grip portion **140**, the sealing member **181** between the grip portion **140** and the head portion **100** may be positioned on the positive Y-axis side and the sealing member **182** between the grip portion **140** and the fixing pin **160** may be positioned on the negative Y-axis side. Accordingly, the fixing forces between the grip portion **140** and the head portion **100** and between the grip portion **140** and the fixing pin **160** can be increased.
[0056] Further, the sealing members **181** and **182** prevent water from permeating the interior of the razor handle **10**, thereby being able to prevent the grip portion **140**, etc. that are made of decomposable materials from being contaminated and damaged.
[0057] However, the number and position of the at least one sealing member **181**, **182** are not necessarily limited to those described above.
[0058] FIG. **3** is a cross-sectional view of the razor handle, taken along line A-A′ in FIG. **1** and shown in the Y-axis direction, according to an embodiment of the present disclosure.
[0059] Referring to FIG. **3**, when the fixing pin **160** comprises two guide arms **162**, the two guide arms **162** are configured not to be in contact with the inner wall of the grip portion **140** when they are accommodated in the hollow portion **145**. The distance between the two guide arms **162** may be larger than the diameter of the first body portion **210**, so the first body portion **210** can be easily inserted between the guide arms **162**.
[0060] When the fixing pin **160** is accommodated in the hollow portion **145**, the fixing pin can be freely rotated and moved unless the two guide protrusions **164** are engaged with the two guide grooves **215**. Accordingly, a user can easily insert the fixing pin **160** into the hollow portion **145** or easily separate the fixing pin **160** from the hollow portion **145**.

[0061] Further, the guide groove **215** is not exposed to the outside when the body portion **200** is accommodated in the hollow portion **145**, so when a user initially inserts the fixing pin **160** into the hollow portion **145**, the guide protrusion **164** may not be engaged with the guide groove **215**. However, even in this case, a user can freely rotate or move the fixing pin **160** so that the guide protrusion **164** is engaged with the guide groove **215**, so the fixing pin **160** can be more easily latch-coupled.

[0062] FIG. **4**A to FIG. **4**C are views showing a process in which the fixing pin **160** according to an embodiment of the present disclosure is moved along at least one guide groove **215**. For the convenience of description, the grip portion **140** is not shown in FIG. **4**A to FIG. **4**C.

[0063] Referring to FIG. **4**A, the at least one guide groove **215** may comprise a first groove **300**, a second groove **320**, and a stopper **350**. Further, the at least one guide groove **215** may be formed by recessing at least a portion of the body portion **200**, for example, the first body portion **210**.

[0064] The first groove **300** is a part for guiding movement of the guide protrusion **164** that is parallel to the longitudinal direction of the body portion **200**. For example, in FIG. **4**A, the first groove **300** may extend in a direction parallel to the Y-axis direction and the width of the first groove **300** in the X-axis direction may correspond to the width of the guide protrusion **164** in the X-axis direction, but the present disclosure is not limited thereto.

[0065] Further, the first groove **300** may comprise an entry groove **305** that is open at another end of the body portion **200**. The entry groove **305**, for example, may be configured such that, in FIG. **4**A, the width in the X-axis direction at the negative Y-axial end of the first groove **300** is larger than the width in the X-axis direction at the positive Y-axial end. In this case, the entry groove **305** can enable the guide protrusion **164** to more easily enter the first groove **300**. The second groove **320** is a part for guiding movement of the guide protrusion **164** in the first direction and the second direction. For example, the second groove **320** may be connected to the first groove **300** and extend in the first direction. In this case, the width of the second groove **320** in the Y-axis direction may correspond to the width of the guide protrusion **164** in the Y-axis direction, but is not necessarily limited thereto.

[0066] The stopper **350** is a component stepped at a position adjacent to an end of the second groove **320**. For example, the stopper **350** may be formed at a position adjacent to the end of the second groove **320** in the first direction.

[0067] Further, the stopper **350** may be formed not only at the end of the second groove **320** in the first direction but also at the end of the second groove **320** in the second direction, and may also be formed at the end of the second groove **320** in the positive Y-axis direction.

[0068] Hereafter, the process in which the guide protrusion **164** is moved along at least one guide groove **215** is described in detail.

[0069] FIG. **4**B shows the state in which the guide protrusion **164** enters the second groove **320** after passing through the first groove **300**. In this case, the movement of the guide protrusion **164** in the positive Y-axis direction may be completed. When the stopper **350** is formed at the end of the second groove **320** in the second direction as well, rotation of the fixing pin **160** in the second direction can be stopped by the stopper **350**, whereby the rotation direction of the fixing pin **160** can be correctly guided.

[0070] Further, when the stopper **350** is formed at the end of the second groove **320** in the positive Y-axis direction, movement of the fixing pin **160** in the positive Y-axis direction can be stopped by the stopper **350**, whereby a user can recognize that insertion of the fixing pin **160** in the positive Y-axis direction has been completed.

[0071] FIG. **4**C shows the state in which the guide protrusion **164** is positioned adjacent to an end of the second groove **320**. In this case, the movement of the guide protrusion **164** in the first direction may be completed. Further, in the state shown in FIG. **4**C, the fixing pin **160** may be in a state where latch coupling with the latch part **225** has been completed.

[0072] In this case, rotation of the fixing pin **160** in the first direction can be stopped by the stopper

350 formed at the end of the second groove **320** in the first direction, whereby a user can recognize that latch coupling of the fixing pin **160** has been completed.

[0073] FIG. **5**A to FIG. **5**D are enlarged views showing a process in which the fixing pin **160** according to an embodiment of the present disclosure is latch-coupled to the latch portion **225**. For the convenience of description, the grip portion **140** is not shown in FIG. **5**A to FIG. **5**D.

[0074] FIG. **6**A to FIG. **6**C are cross-sectional views shown in the Y-axis direction after cutting the fixing pin **160** and a body portion **200** shown in FIG. **5**B to FIG. **5**D along line B-B′, including the grip portion **140**.

[0075] Referring to FIG. **5**A, the latch portion **225** may comprise an elastic arm **400** and a locking portion **420**.

[0076] The elastic arm **400** extends in a direction not parallel to the longitudinal direction of the body portion **200** and a free end of the elastic arm **400** can be moved within a predetermined range. For example, the elastic arm **400** may extend in the first direction, and when the elastic arm **400** is formed at the second body portion **220**, it may be configured to surround at least a portion of the first body portion **210**. In this case, the free end of the elastic arm **400** can be moved in a direction parallel to the Y-axis direction in FIG. **5**A. However, the extension direction and movement direction of the elastic arm **400** are not necessarily limited thereto.

[0077] Meanwhile, in order to enable the free end of the elastic arm **400** to move within a predetermined range, the body portion **200** may comprise a gap **450** that is adjacent to a surface of the latch portion **225** that faces the head portion **100**.

[0078] For example, as shown in FIG. **5**A, the gap **450** may be formed at the positive Y-axis side of the latch portion **225** in the positive Y-axis direction, and in this case, the free end of the elastic arm **400** can also be moved in a direction parallel to the Y-axis direction.

[0079] The locking portion **420** protrudes at a position adjacent to the free end of the elastic arm **400**. For example, the locking portion **420** may protrude in the negative Y-axis direction in FIG. **5**A from a region adjacent to the free end of the elastic arm **400**. In this case, with respect to the elastic arm **400**, the gap **450** may be formed at one side and the locking portion **420** may be formed at the other side. However, the protrusion direction of the locking portion **420** is not necessarily limited thereto.

[0080] Meanwhile, the shape of the locking portion **420** may correspond to the shape of the locking portion **165** of the fixing pin **160** for smooth latch coupling.

[0081] Hereafter, the process in which the fixing pin **160** is latch-coupled with the latch portion **225** is described in detail.

[0082] FIG. **5**B and FIG. **6**A show the state after a user inserts the fixing pin **160** into the hollow portion **145** of the grip portion **140** shown in FIG. **2**. In this case, the locking portion **165** of the fixing pin **160** may be positioned in the second direction with respect to the locking portion **420**, and the guide protrusion **164** may have entered the second groove **320**. Since the guide protrusion **164** enters the second groove **320**, a user can recognize whether the fixing pin **160** has been inserted in the correct direction.

[0083] The fixing pin **160** is not yet coupled to the body portion **200** and a user can recognize that the fixing pin **160** has been inserted in the hollow portion **145** by feeling the state in which the locking portion **165** of the fixing pin **160** is in contact with the elastic arm **400** or the guide protrusion **164** is in contact with the end of the second groove **320** in the positive Y-axis direction.

[0084] FIG. **5**C and FIG. **6**B show the state in which a user rotates the fixing pin **160** in the first direction after the locking portion **165** of the fixing pin **160** is brought into contact with the locking portion **420**. In this case, the locking portion **165** of the fixing pin **160** may be brought into contact with the end of the locking portion **420** in the negative Y-axis direction, and the guide protrusion **164** may be passing through the central region of the second groove **320**.

[0085] The fixing pin **160** can apply force to the latch portion **225** in the positive Y-axis direction, and accordingly, the elastic arm **400** including an elastic material can move in the positive Y-axis

direction.
[0086] Further, in FIG. **5**C, although the elastic arm **400** has been moved by the amount of the gap **450** shown in FIG. **5**A and FIG. **5**B, the movement amount of the elastic arm **400** is not necessarily limited thereto. For example, the elastic arm **400** may be configured to move a distance smaller than the gap **450** shown in FIG. **5**A and FIG. **5**B, and in this case, the gap **450** may be formed adjacent to a surface of the latch portion **225** with only the size thereof partially reduced.
[0087] Meanwhile, for the cam action by the locking portion **165** and the locking portion **420**, the locking portion **420** may comprise a first cam surface **420_1** and a second cam surface **420_2**, and the locking portion **165** may comprise a third cam surface **165_1** and a fourth cam surface **165_2**. The first cam surface **420_1** may be formed on one side of the latch portion **225**, for example, at the end of the latch portion **225** in the first direction and the second cam surface **420_2** may be formed on the other side of the latch portion **225**, for example, at the end of the latch portion **225** in the second direction.
[0088] The cam surface **165_1** is configured to generate cam action with the first cam surface **420_1** and may be formed on the other side of the locking portion **165**, for example, at the end of the locking portion **165** in the second direction, and the fourth cam surface **165_2** is configured to generate cam action with the second cam surface **420_2** and may be formed on one side of the locking portion **165**, for example, at the end of the locking portion **165** in the first direction.
[0089] When the fixing pin **160** is rotated in the first direction after the guide protrusion **164** of the fixing pin **160** enters the second groove **320** by moving along the first groove **300**, cam action can be generated by the second cam surface **420_2** and the fourth cam surface **165_2**, and latch coupling of the fixing pin **160** and the latch portion **225** can be completed.
[0090] Meanwhile, the first cam surface **420_1** may be formed in a continuous curved-surface shape, and in this case, the cam action with the third cam surface **165_1** can be smoothly generated, so latch coupling can be easily completed and disengaged.
[0091] Further, the second cam surface **420_2** may comprise a cam surface extending in a direction parallel to the Y-axis direction, and in this case, a predetermined resistance force is generated during latching coupling, which enables a user to recognize whether latch coupling is before or after completion.
[0092] Referring to FIG. **5**D and FIG. **6**C, which show the state in which the fixing pin **160** has been latch-coupled with the latch portion **225**, the first cam surface **420_1** and the third cam surface **165_1** may be in contact with each other after cam action is generated.
[0093] Further, rotation of the fixing pin **160** in the second direction with the fixing pin **160** latch-coupled to the latch portion **225** can be stopped by the locking portion **420**. For example, the locking portion **165** of the fixing pin **160**, opposite to FIG. **5**B, may be positioned in the first direction with respect to the locking portion **420**, and in this case, a user has to intentionally apply force in the second direction to decouple the fixing pin **160**, so the fixing pin **160** cannot be easily decoupled.
[0094] Meanwhile, though not shown in FIG. **5**A to FIG. **5**D, the process of decoupling the fixing pin **160** may be performed in the reverse order of the coupling process. In this case, as described above, a user may need to intentionally apply force in the second direction.
[0095] When the fixing pin **160** is rotated in the second direction, the latch coupling may be disengaged by the cam action by the first cam surface **420_1** of the locking portion **420** and the third cam surface **165_1** of the locking portion **165**. When decoupling is completed, the locking portion **165** of the fixing pin **160** can be positioned in the second direction with respect to the locking portion **420**. When the fixing pin **160** is rotated in the second direction, the latch coupling may be disengaged by the cam action by the first cam surface **420_1** of the locking portion **420** and the third cam surface **165_1** of the locking portion **165**. When decoupling is completed, the locking portion **165** of the fixing pin **160** can be positioned in the second direction with respect to the locking portion **420**.

[0096] The spirit of the present embodiment is illustratively described hereinabove. It will be appreciated by those skilled in the art to which the present embodiment pertains that various modifications and alterations may be made without departing from the essential characteristics of the present embodiment. Accordingly, the present embodiments are not to limit the spirit of the present embodiment, but are to describe the spirit of the present embodiment. The technical idea of the present embodiment is not limited to these embodiments. The scope of the present embodiment should be interpreted by the following claims, and it should be interpreted that all the spirits equivalent to the following claims fall within the scope of the present embodiment.

Claims

1. A razor handle comprising: an elongated-type grip portion comprising a hollow portion; a body portion comprising a latch portion, wherein at least part of the body portion configured to be accommodated in the hollow portion; a head portion configured to be connected to a razor cartridge, the head portion connected to a first side of the body portion; and a fixing pin configured to be coupled to a second side of the body portion opposing the first side, wherein when the fixing pin is positioned on the second side of the body portion, the fixing pin is configured to be latch-coupled with the latch portion by rotating in a first direction around a rotational axis passing through the body portion and parallel to a longitudinal direction of the body portion.
2. The razor handle of claim 1, wherein latch coupling of the fixing pin with the latch portion is configured to be disengaged by rotating the fixing pin in a second direction opposite to the first direction.
3. The razor handle of claim 1, wherein when the fixing pin is latch-coupled to the latch portion, at least a portion of the fixing pin is configured to be supported by an end of the grip portion that is adjacent to the fixing pin.
4. The razor handle of claim 1, wherein the body portion comprises at least one guide groove configured to guide latch coupling of the fixing pin.
5. The razor handle of claim 4, wherein the fixing pin comprises: at least one guide arm extending in a direction parallel to the longitudinal direction of the body portion; and a guide protrusion protruding from the at least one guide arm and movable along the at least one guide groove.
6. The razor handle of claim 5, wherein the at least one guide arm comprises a locking portion at an end that is latch-coupled to the latch portion and configured to generate cam action with the latch portion.
7. The razor handle of claim 5, wherein the at least one guide arm is provided as a plurality of guide arms spaced apart from each other by a distance corresponding to a diameter of the hollow portion.
8. The razor handle of claim 7, wherein the fixing pin comprises at least one bridge connecting between the plurality of guide arms.
9. The razor handle of claim 5, wherein the at least one guide groove comprises: a first groove configured to guide movement of the guide protrusion parallel to the longitudinal direction of the body portion; and a second groove configured to guide movement of the guide protrusion in the first direction and a second direction opposite to the first direction.
10. The razor handle of claim 9, wherein the first groove comprises an entry groove that is open at the other side end of the body portion.
11. The razor handle of claim 9, wherein the at least one guide groove comprises a stopper stepped at a position adjacent to an end of the second groove.
12. The razor handle of claim 11, wherein when the fixing pin is latch-coupled to the latch portion, rotation of the fixing pin in the first direction is configured to be stopped by the stopper.
13. The razor handle of claim 1, wherein the latch portion comprises: an elastic arm having a free end movable within a predetermined range, as an elastic arm extending in a direction not parallel to

the longitudinal direction of the body portion; and a locking portion protruding adjacent to the free end of the elastic arm.

14. The razor handle of claim 13, wherein the locking portion comprises a first cam surface on a first side and a second cam surface on a second opposing side, and wherein the fixing pin comprises a third cam surface on the other side thereof configured to generate cam action with the first cam surface and a fourth cam surface on one side thereof configured to generate cam action with the second cam surface.

15. The razor handle of claim 13, wherein when the fixing pin is latch-coupled to the latch portion, rotation of the fixing pin in a second direction opposite to the first direction is configured to be stopped by the locking portion.

16. The razor handle of claim 1, wherein the latch portion comprises an elastic arm comprising a free end movable within a predetermined range, as an elastic arm extending in a direction not parallel to the longitudinal direction of the body portion, and the body portion comprises a gap adjacent to a surface of the latch portion that faces the head portion.

17. The razor handle of claim 1, wherein the body portion comprises a tension unit configured to elastically support at least a portion of an inner circumferential surface of the hollow portion when at least a portion of the body portion is accommodated in the hollow portion.

18. The razor handle of claim 17, wherein the body portion comprises: a first body portion including a rigid material; and a second body portion coupled to at least one side of the first body portion and including an elastic material, and wherein the latch portion and the tension unit are integrally formed on the second body portion.

19. The razor handle of claim 1, further comprising a buffer unit disposed between an end of the grip portion adjacent to the head portion and the head portion.

20. The razor handle of claim 1, wherein the grip portion includes at least one of materials that are recyclable, reusable, or degradable.