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(54) **MULTI-FOLDABLE ELECTRONIC DEVICE**

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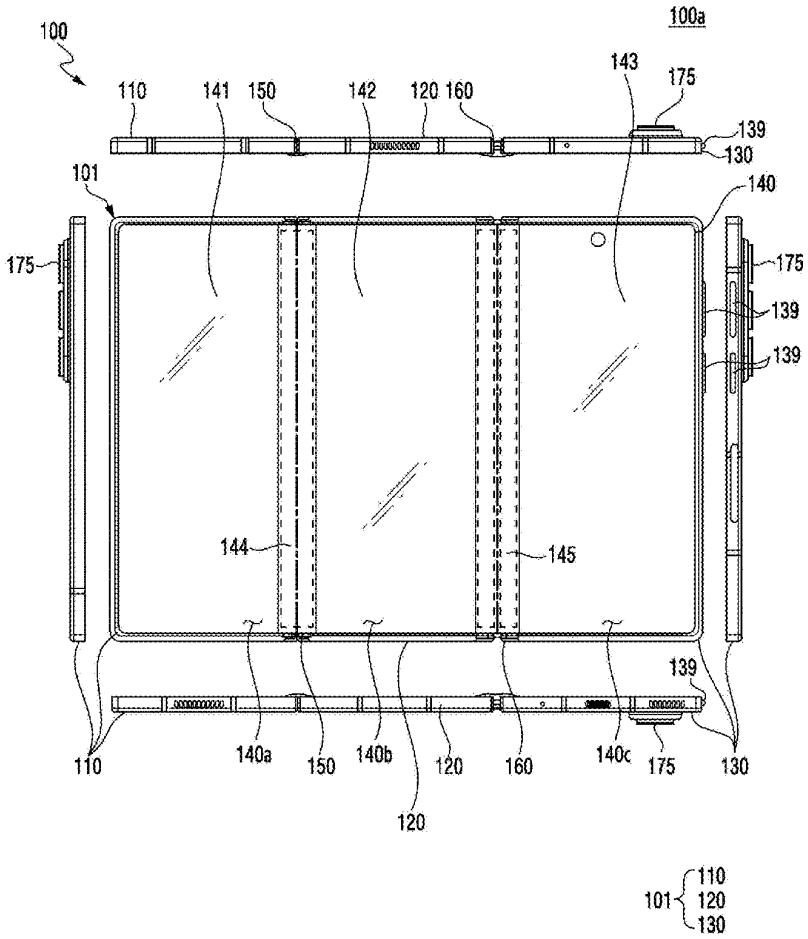
CPC ***G06F 1/1656*** (2013.01); ***G06F 1/1616*** (2013.01); ***G06F 1/1652*** (2013.01); ***G06F 1/1681*** (2013.01)

(57) **ABSTRACT**

An electronic device includes a housing. The housing includes a first housing part. The housing includes a second housing part rotatably coupled with the first housing part. The housing includes a third housing part rotatably coupled with the second housing part. The first housing part is configured to be positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state. The electronic device includes a foldable display disposed to overlie the first housing part, the second housing part, and the third housing part.



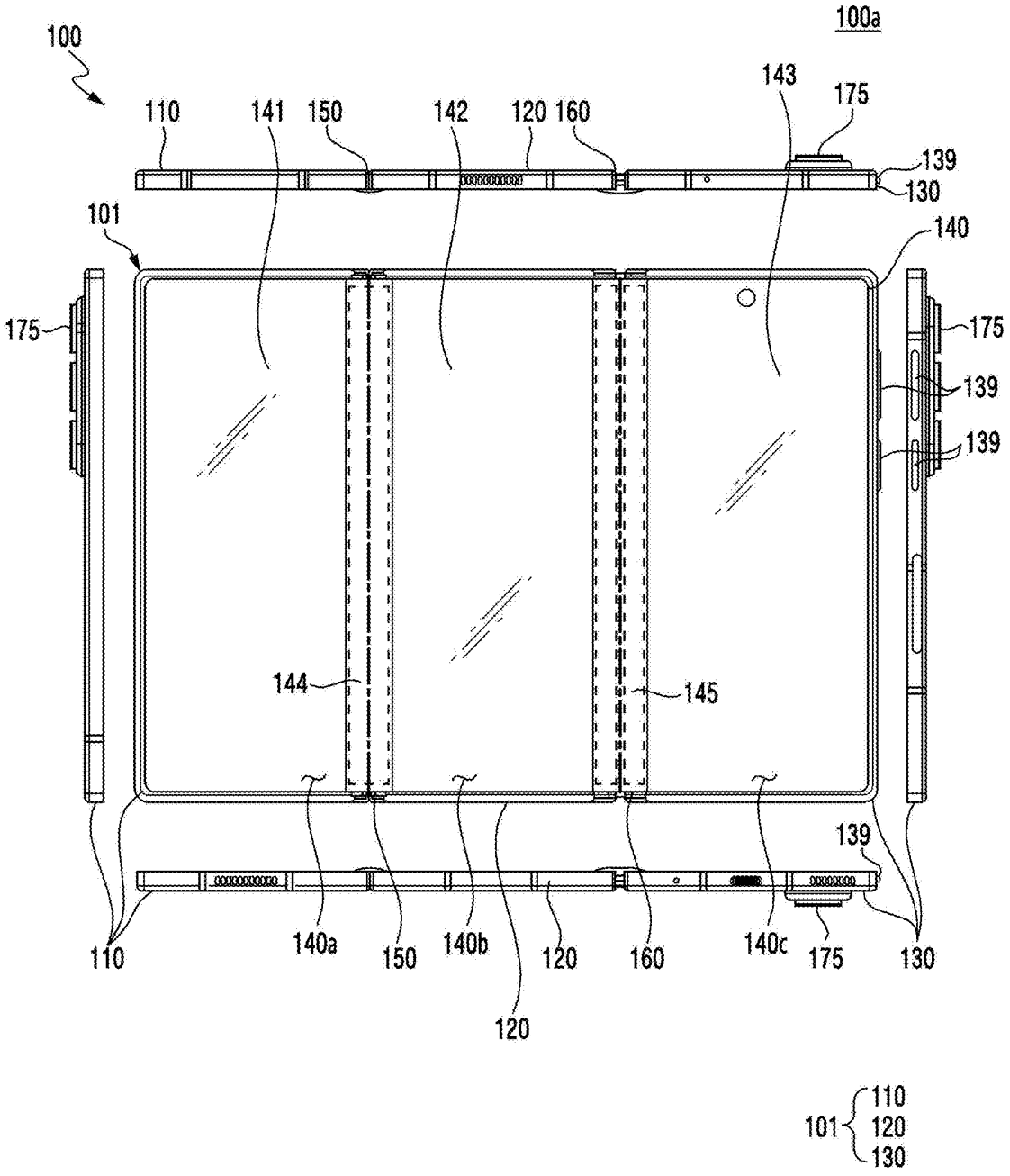

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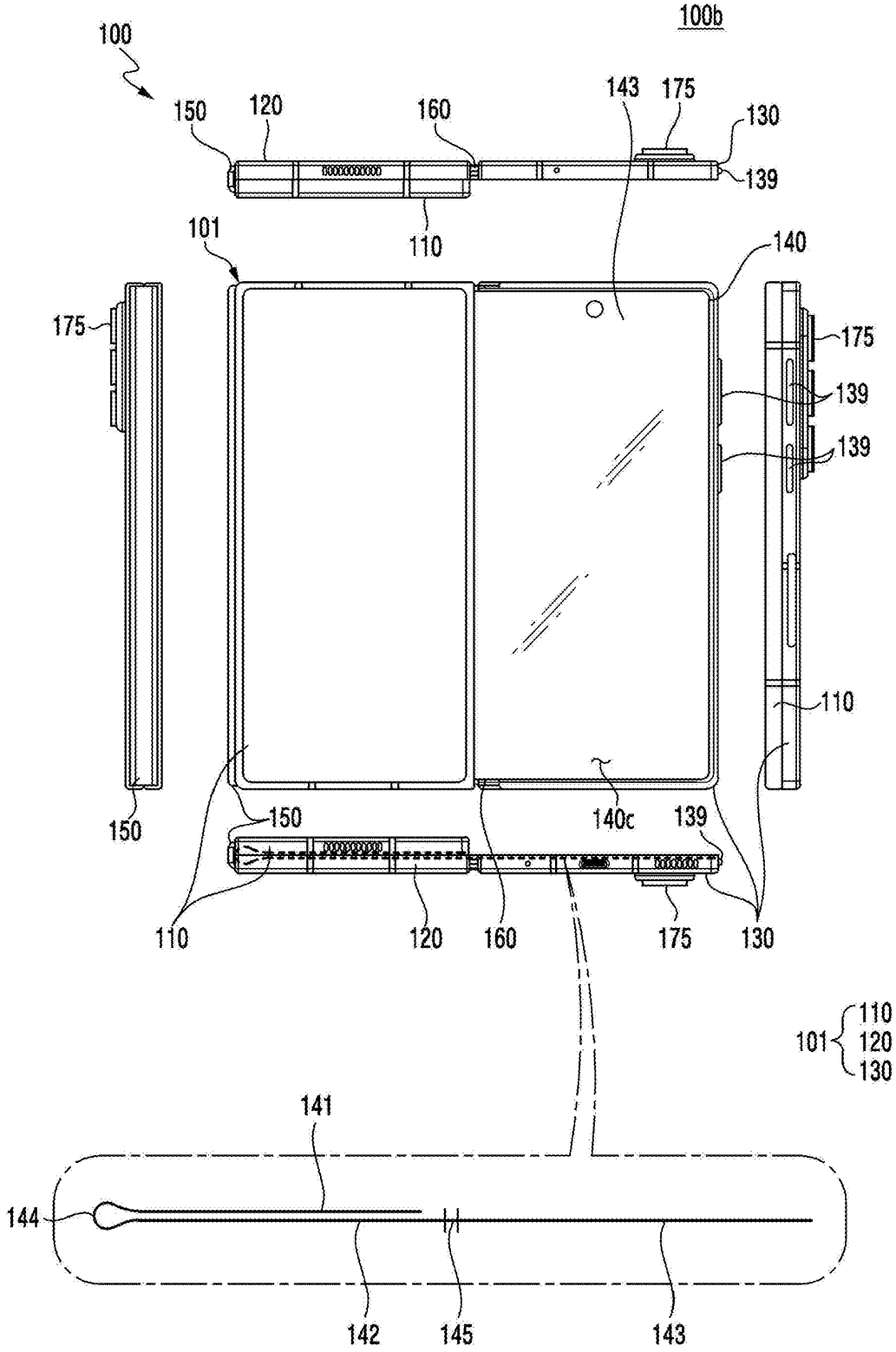
FIG. 1A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140c
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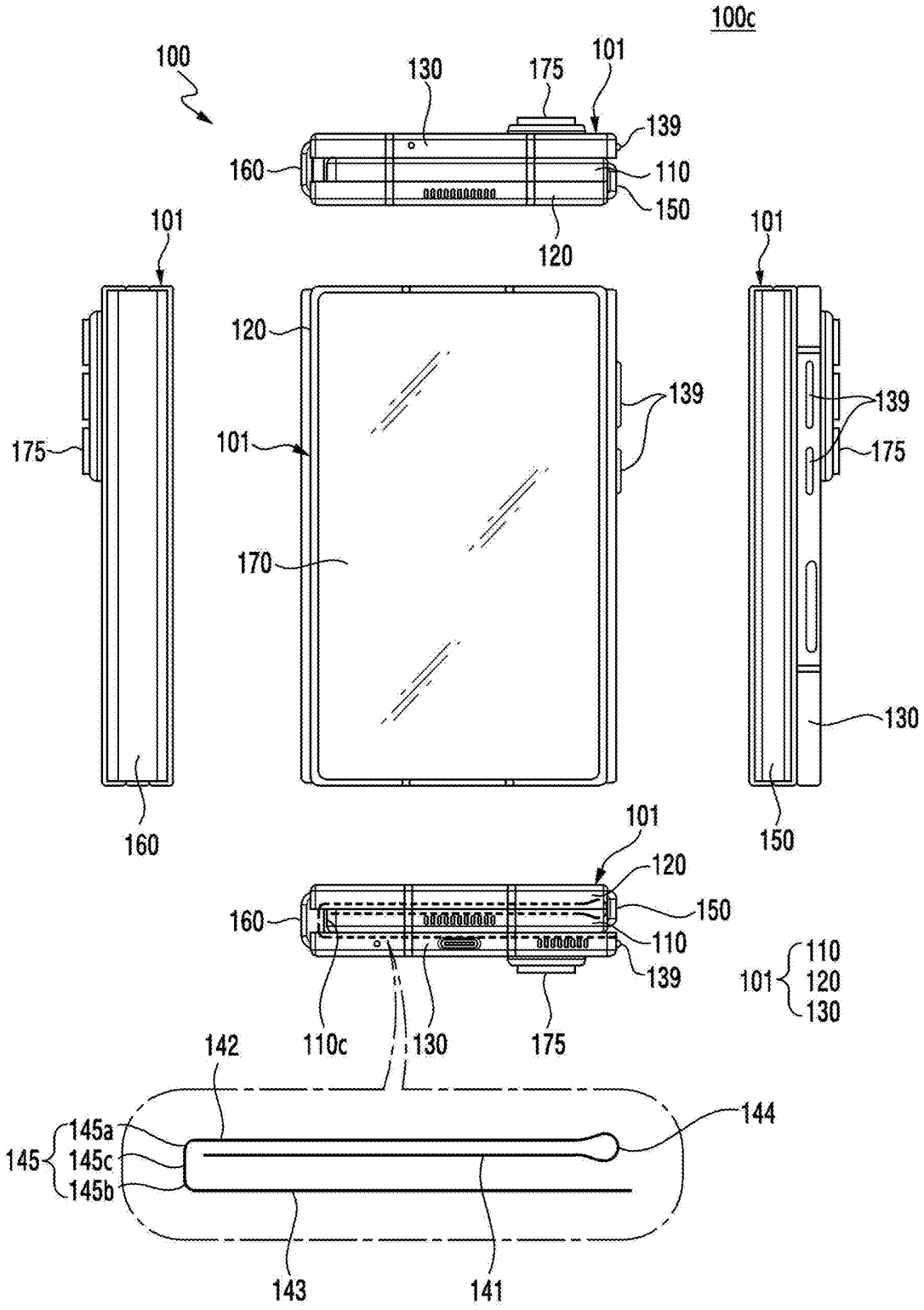
FIG. 1B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150
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160
150
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110c
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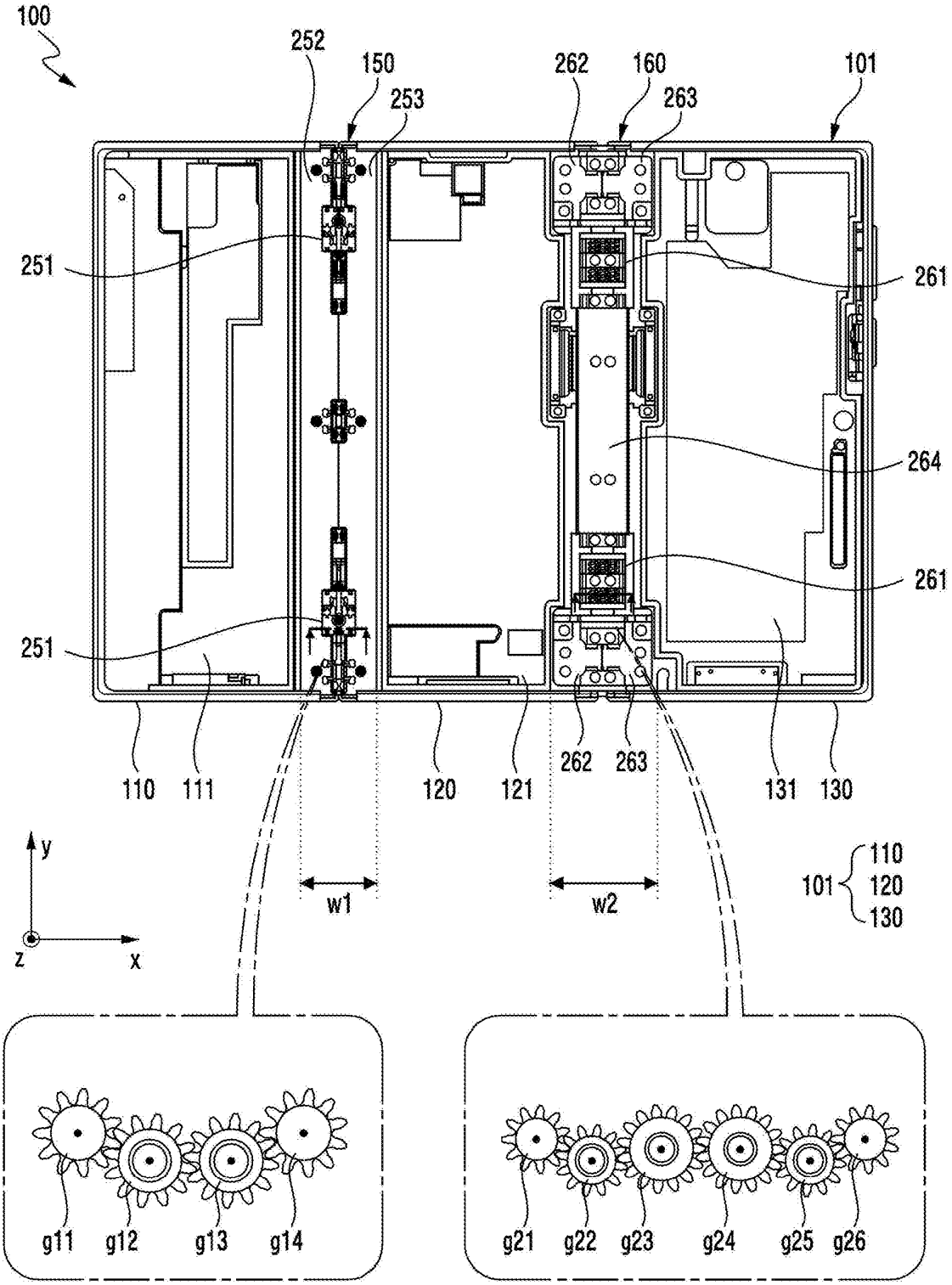
FIG. 1C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z
x
w1
w2
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FIG. 2A

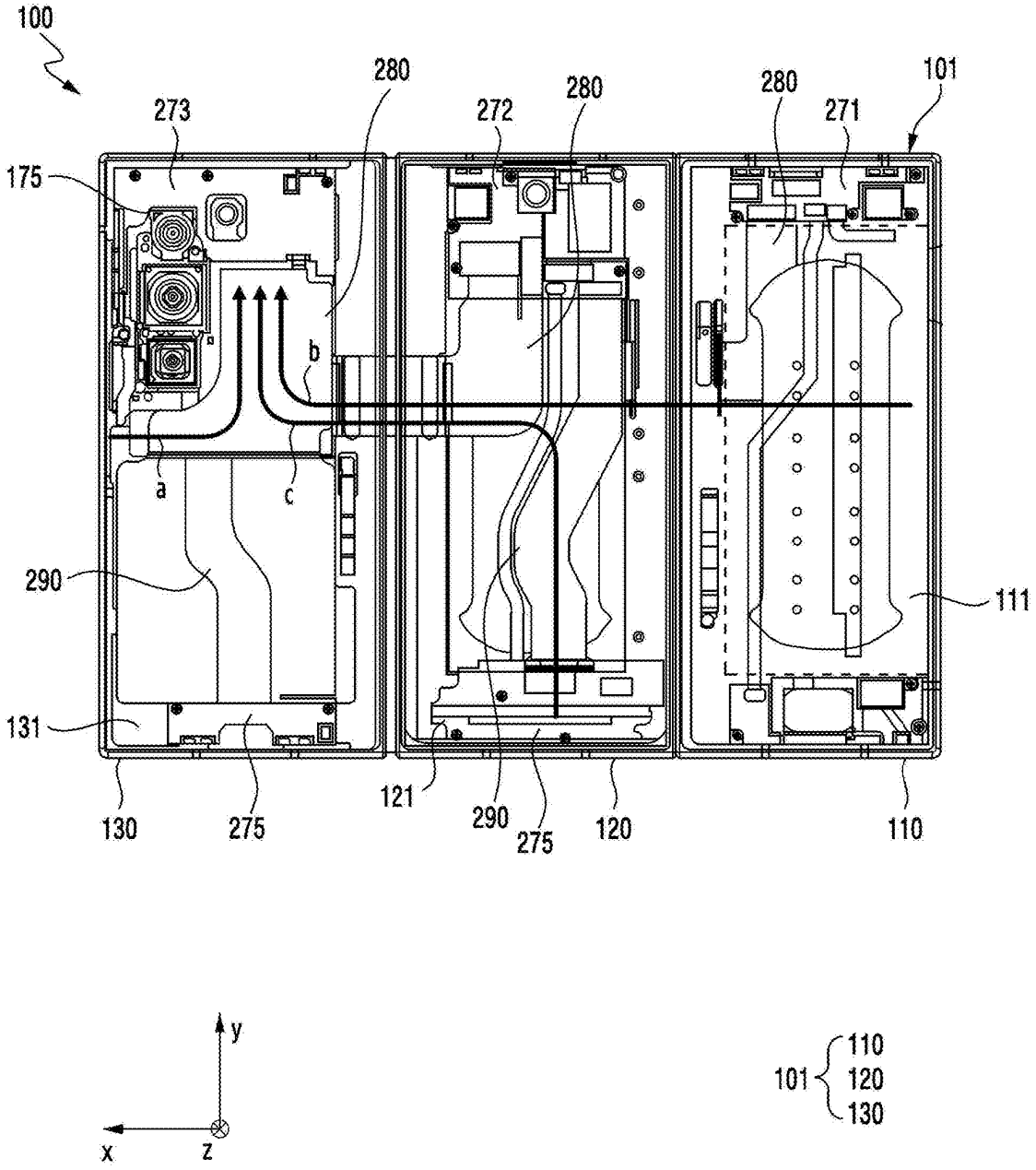
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FIG. 2B

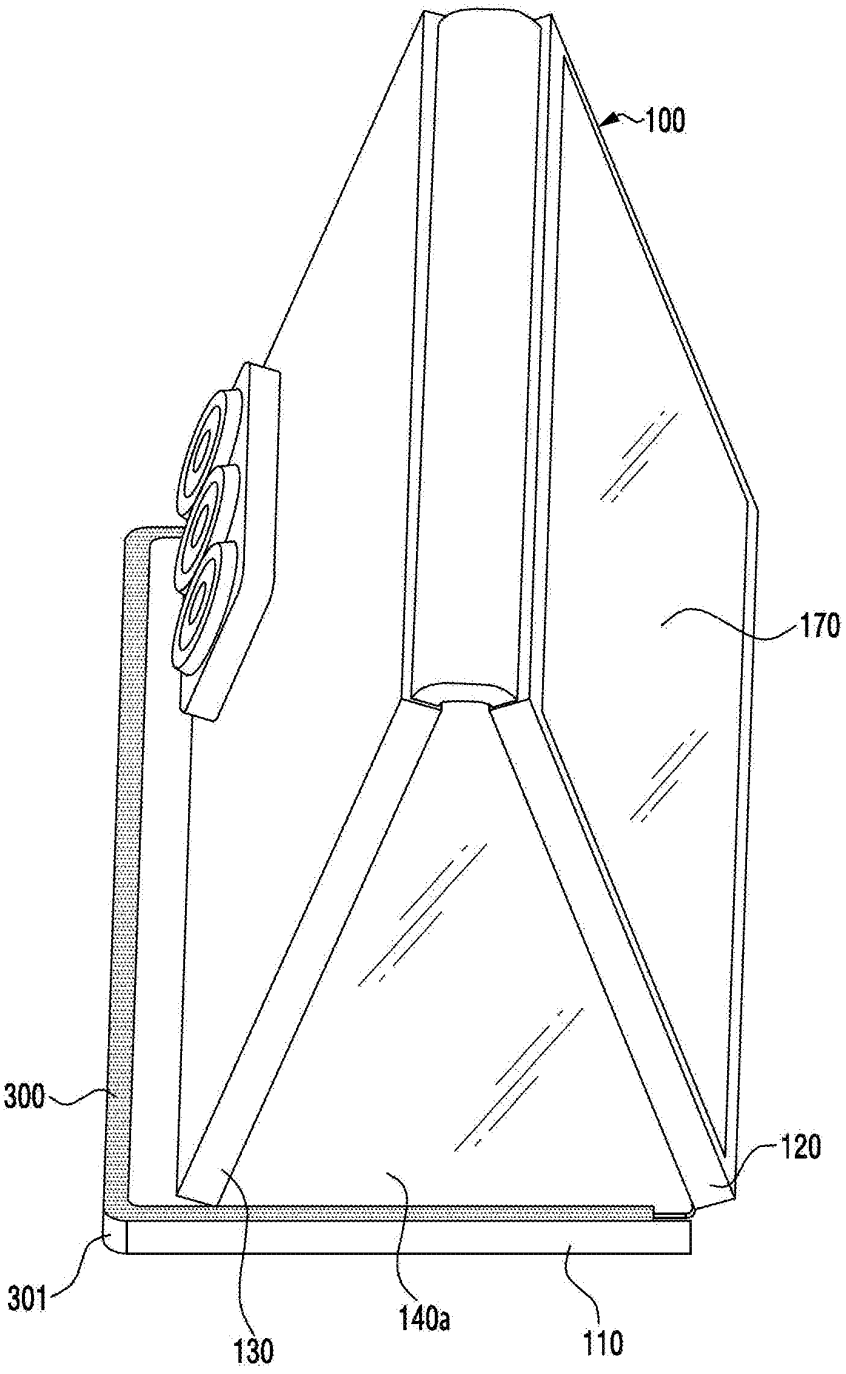

FIG. 3

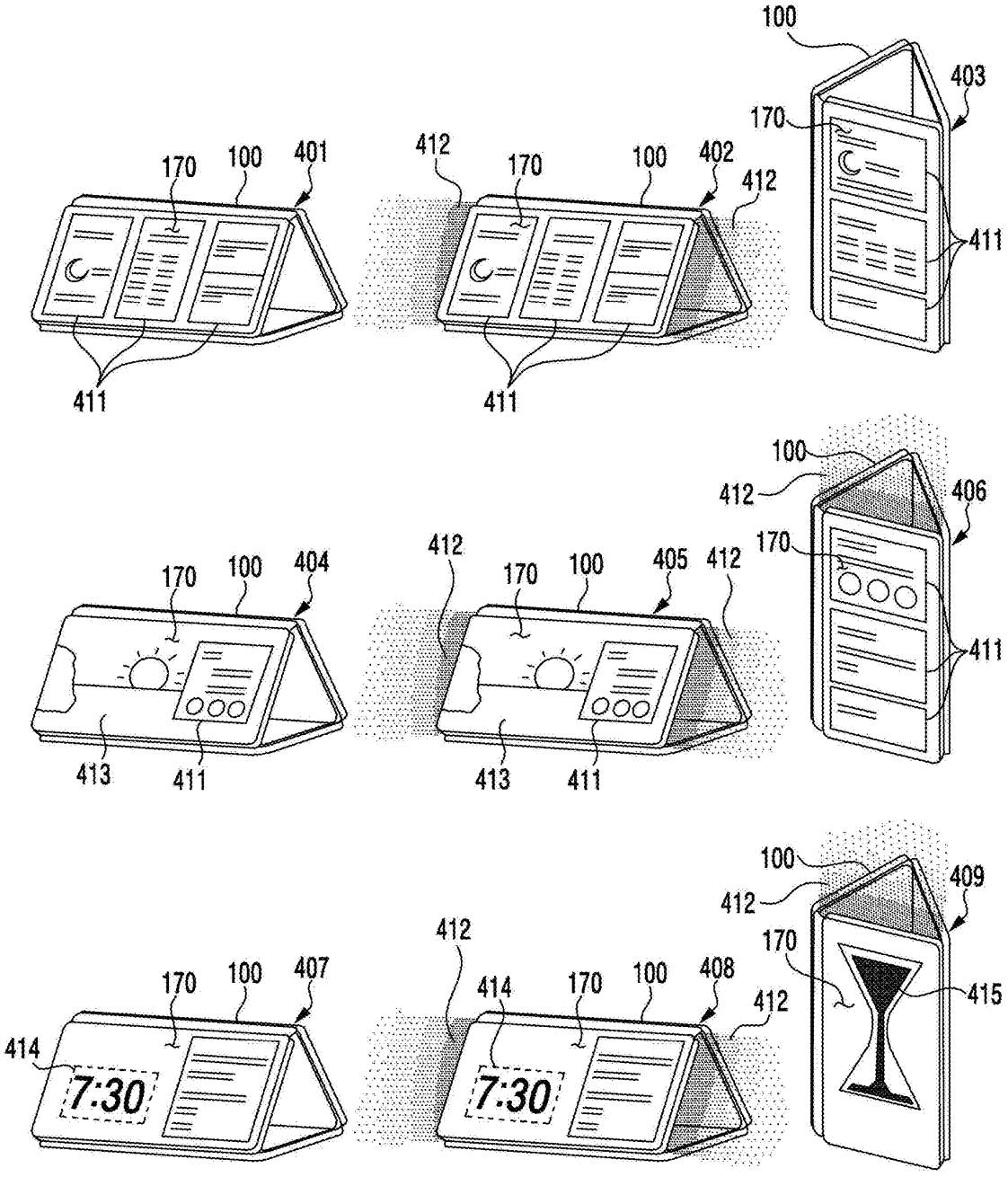
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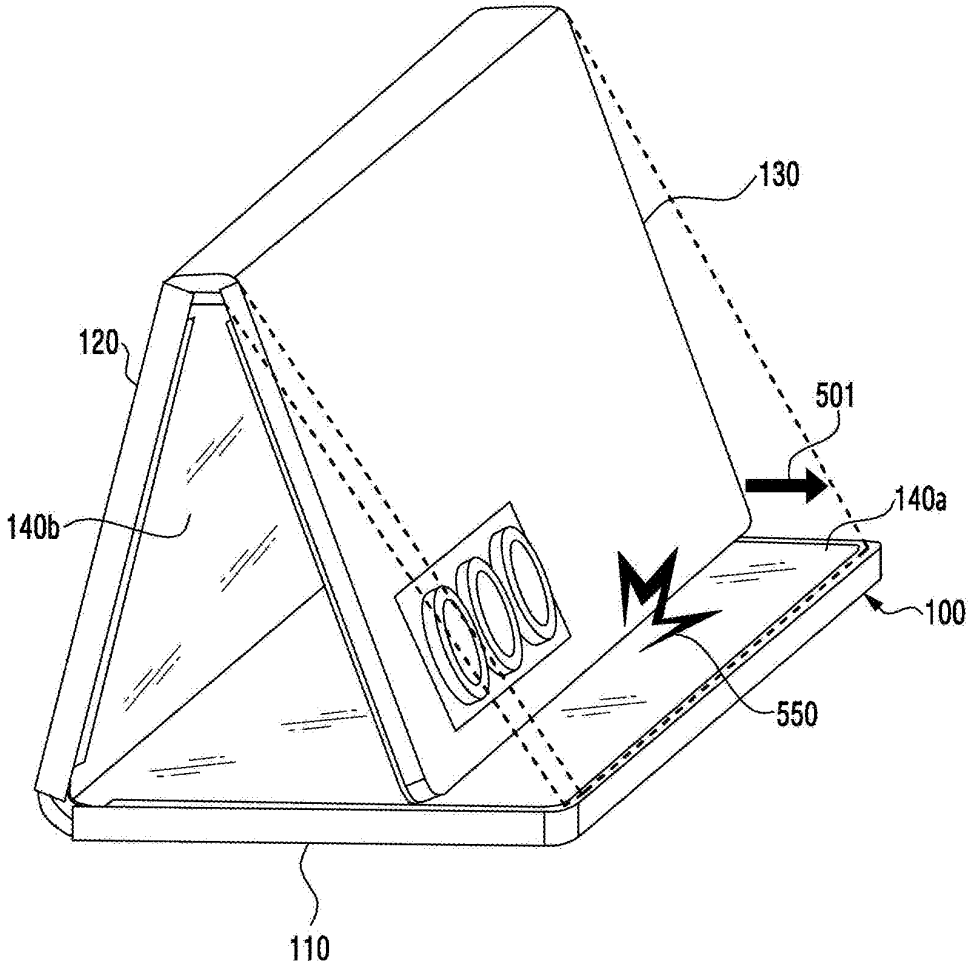
FIG. 4



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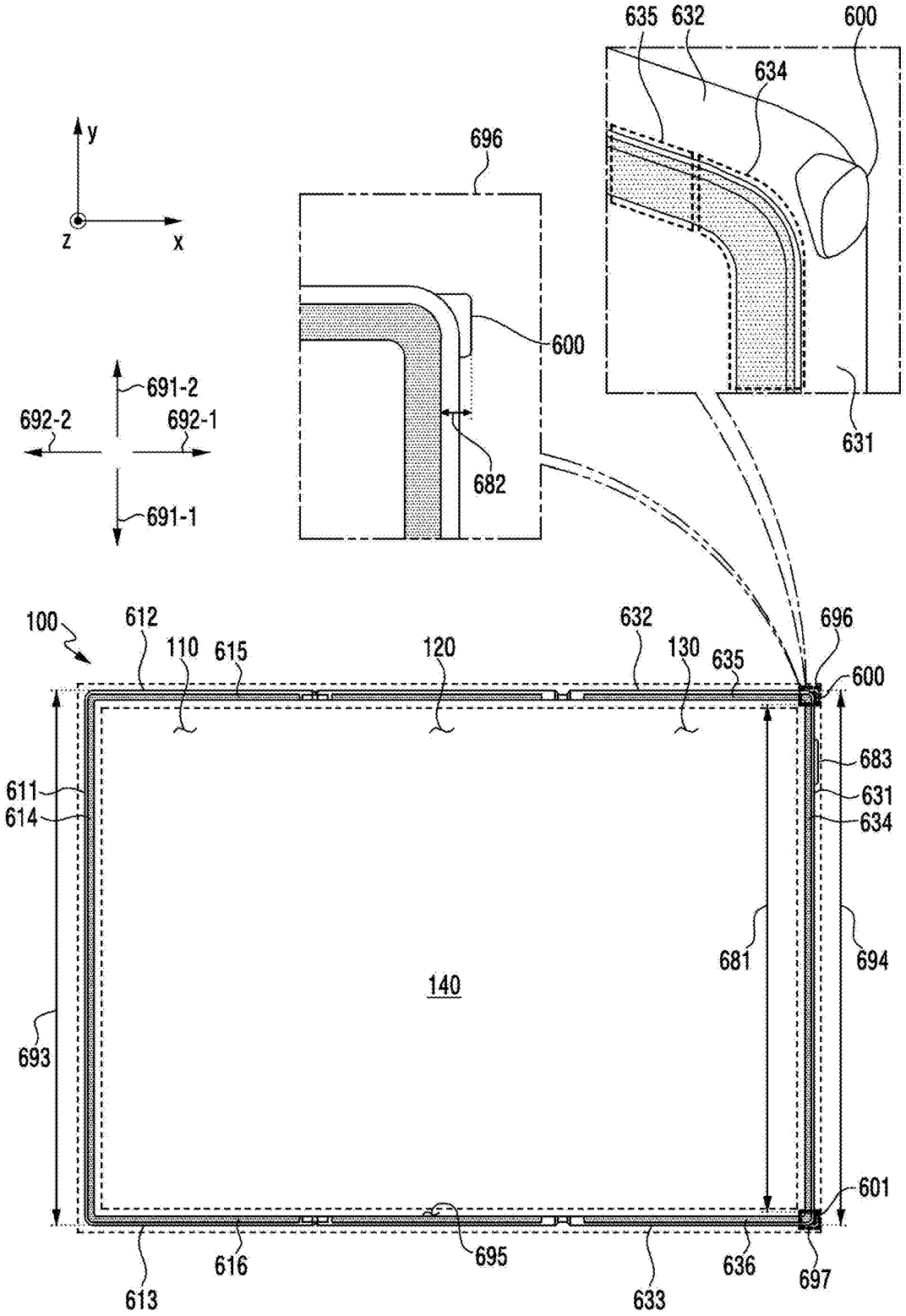
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FIG. 6

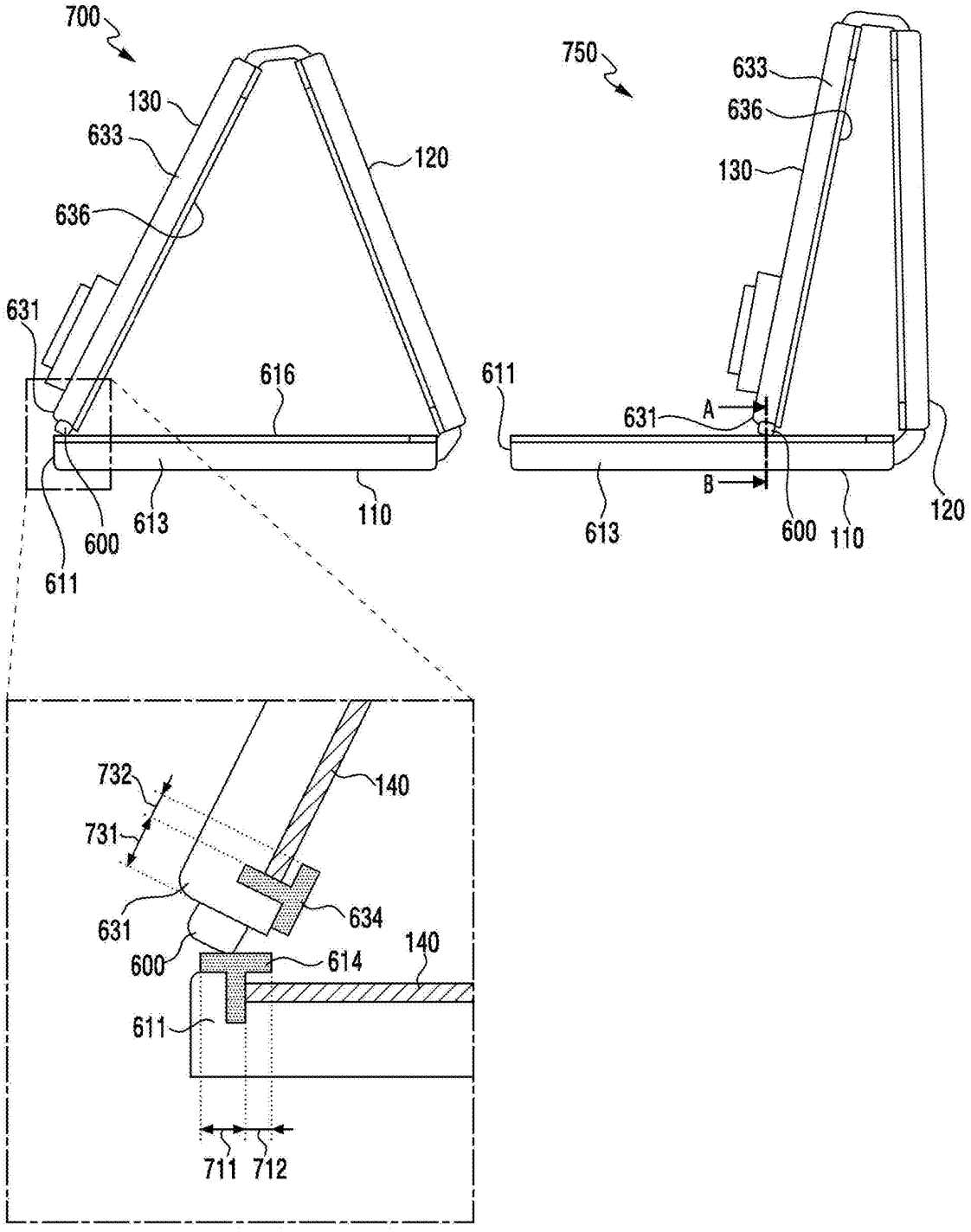
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FIG. 7

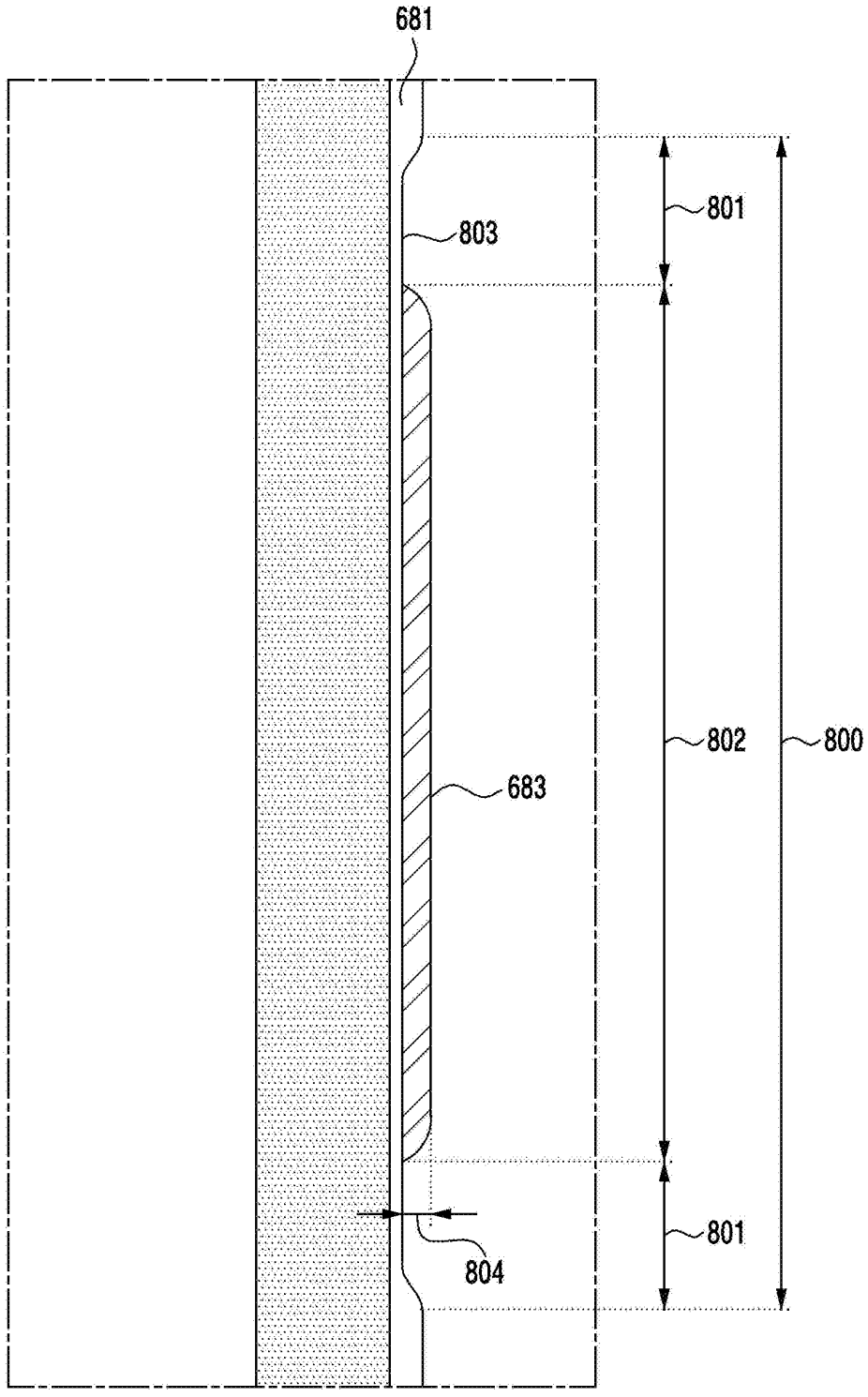
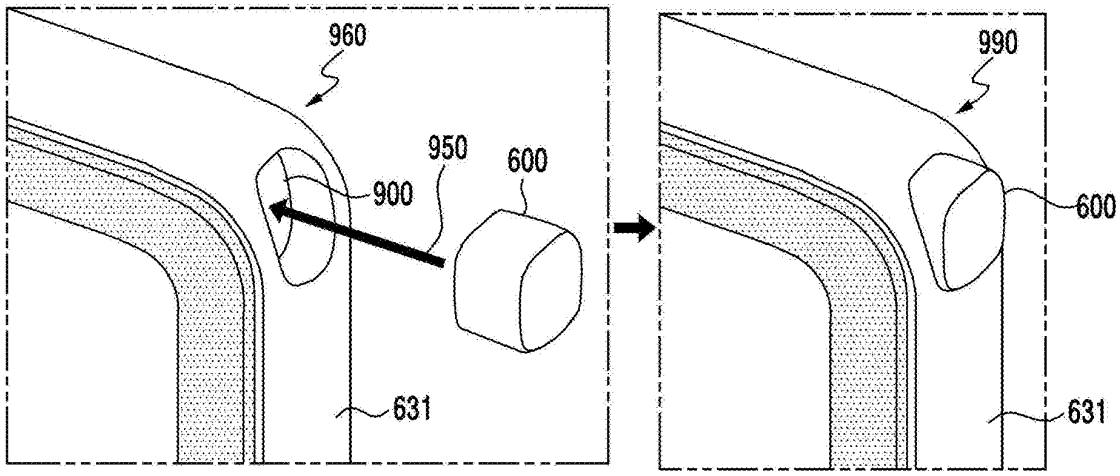


FIG. 8



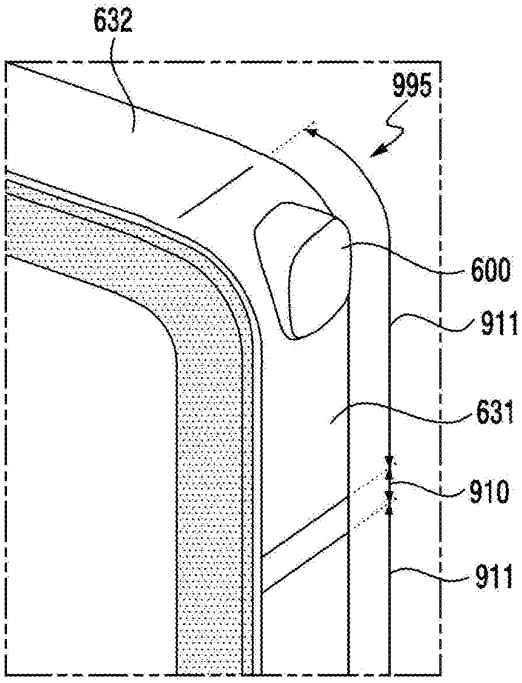


FIG. 9

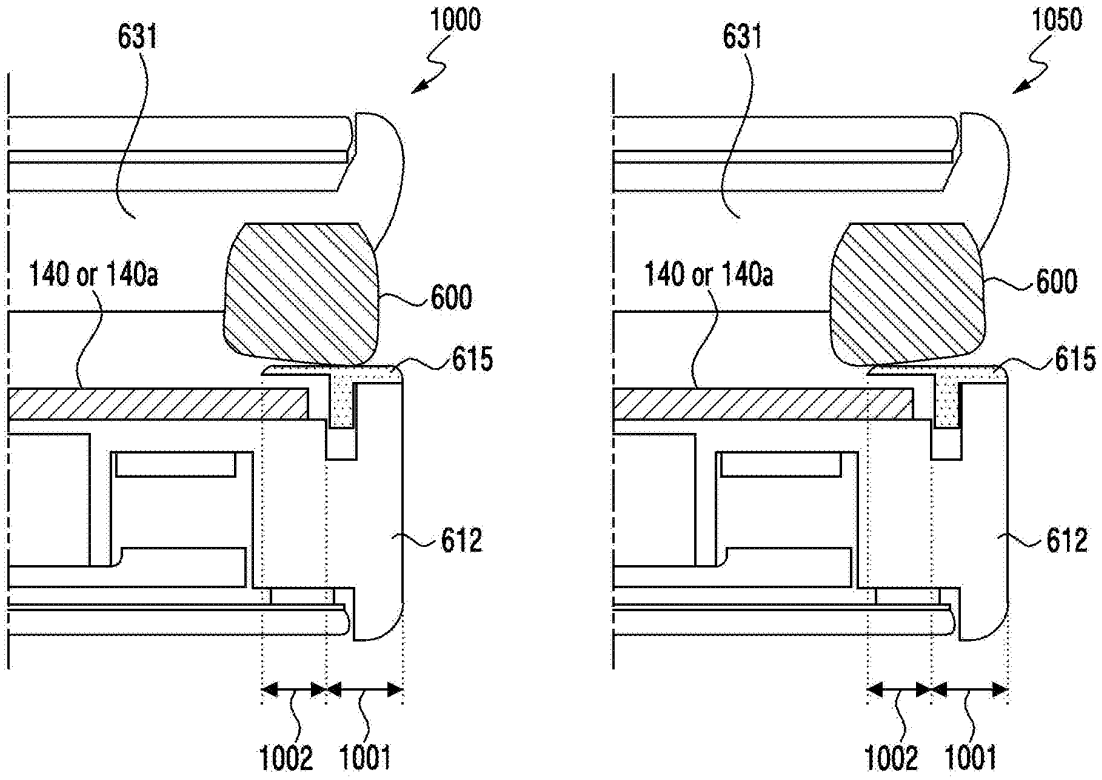

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FIG. 10

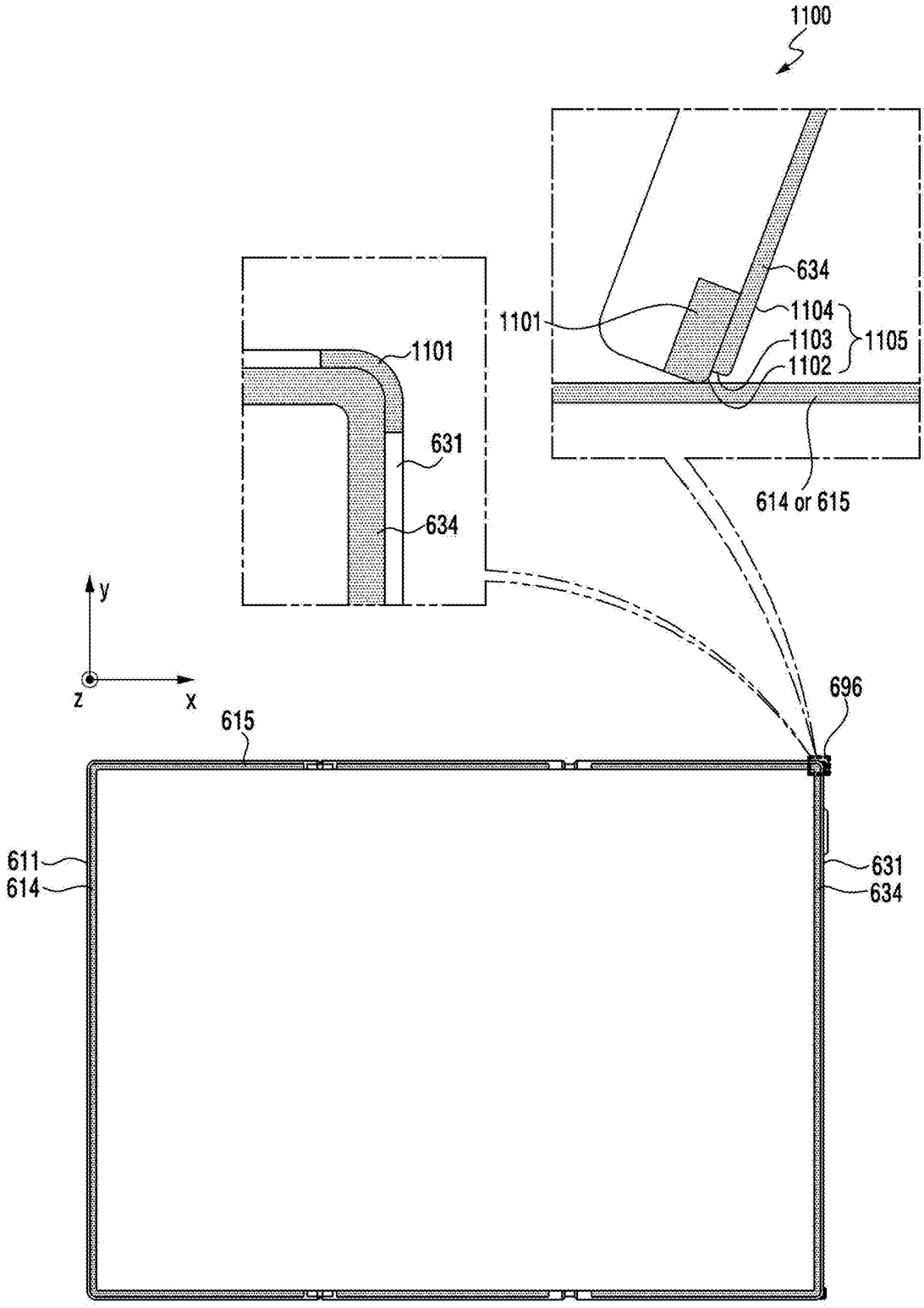
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FIG. 11

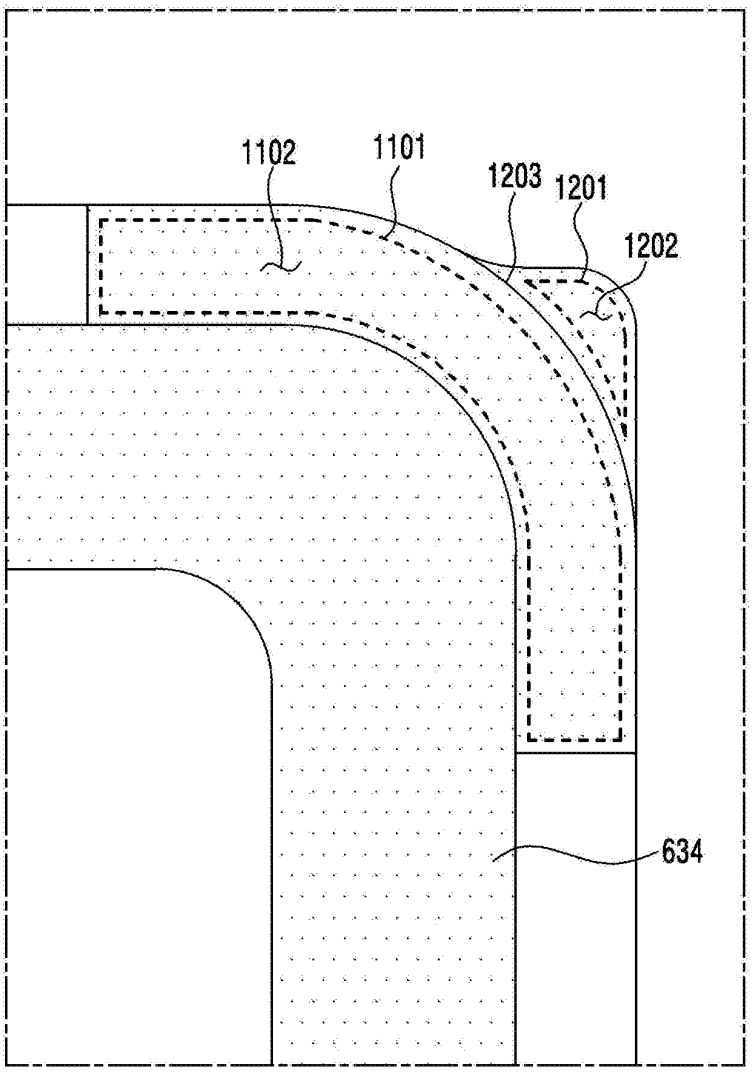

FIG. 12

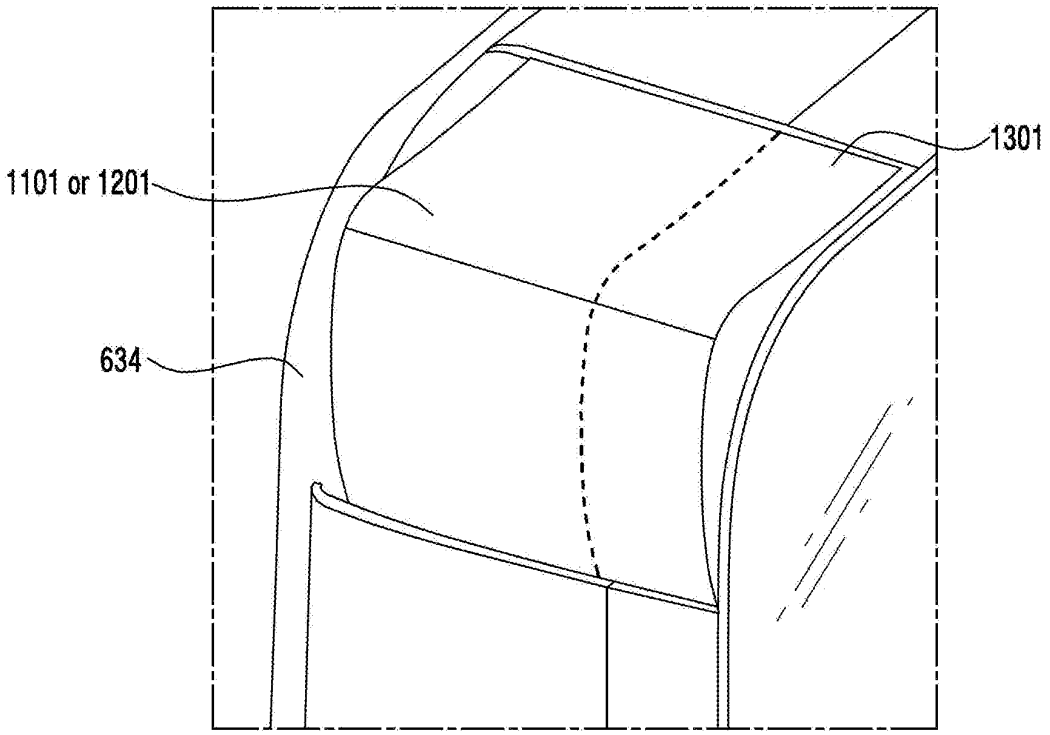

FIG. 13

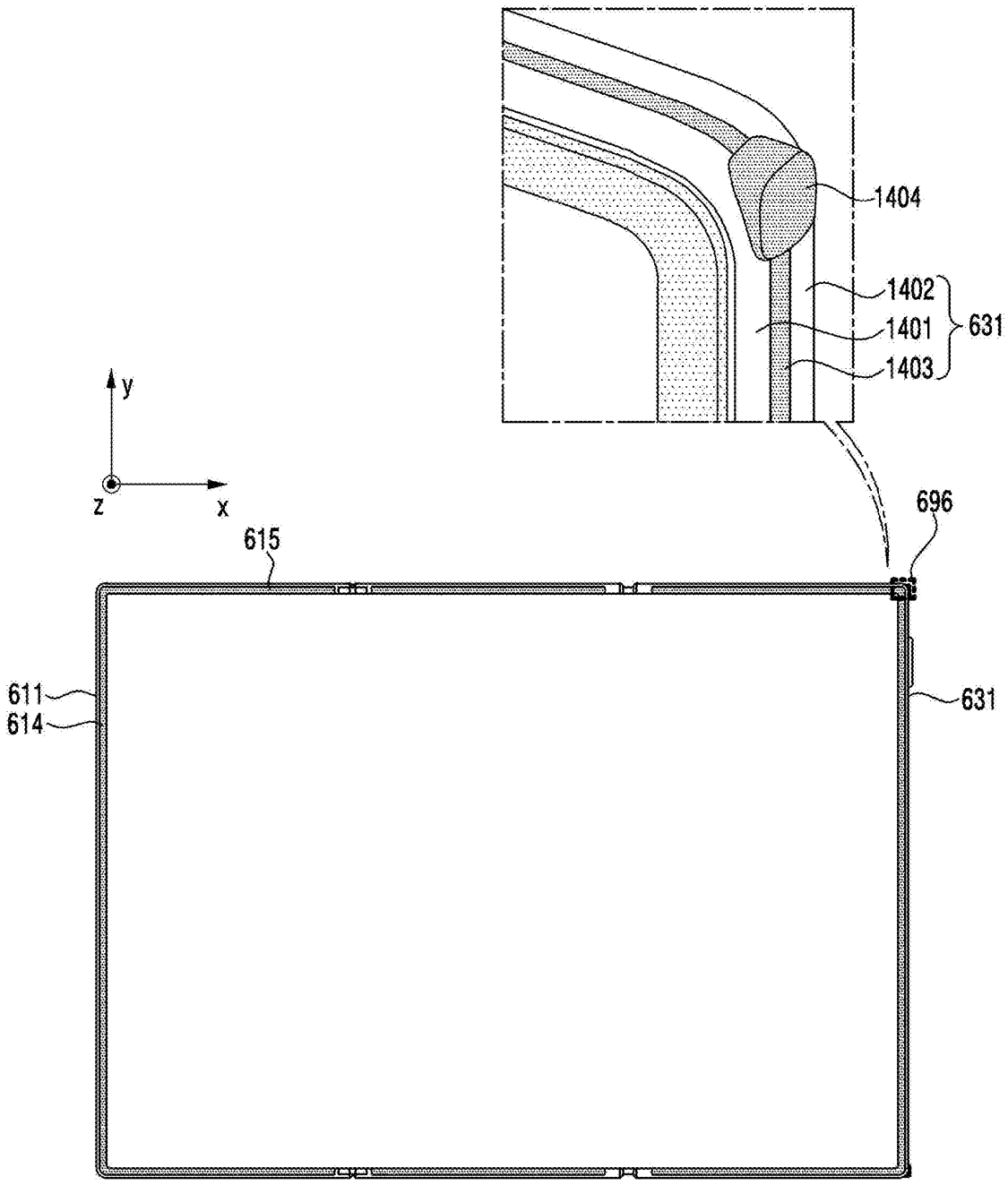

FIG. 14

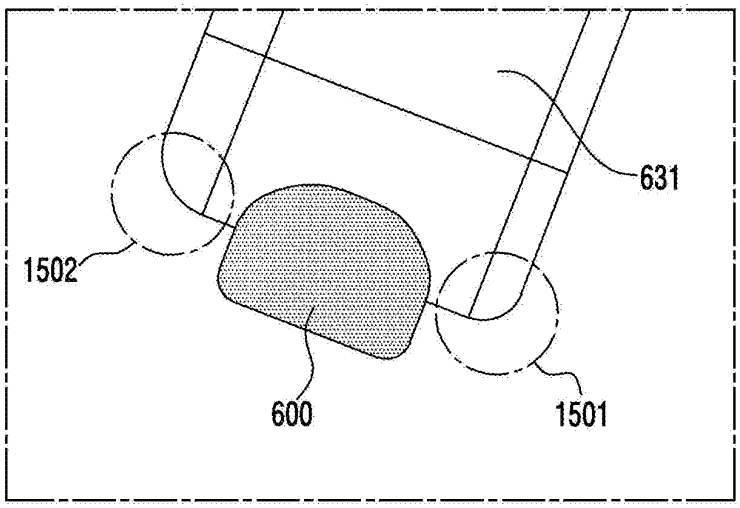

FIG. 15

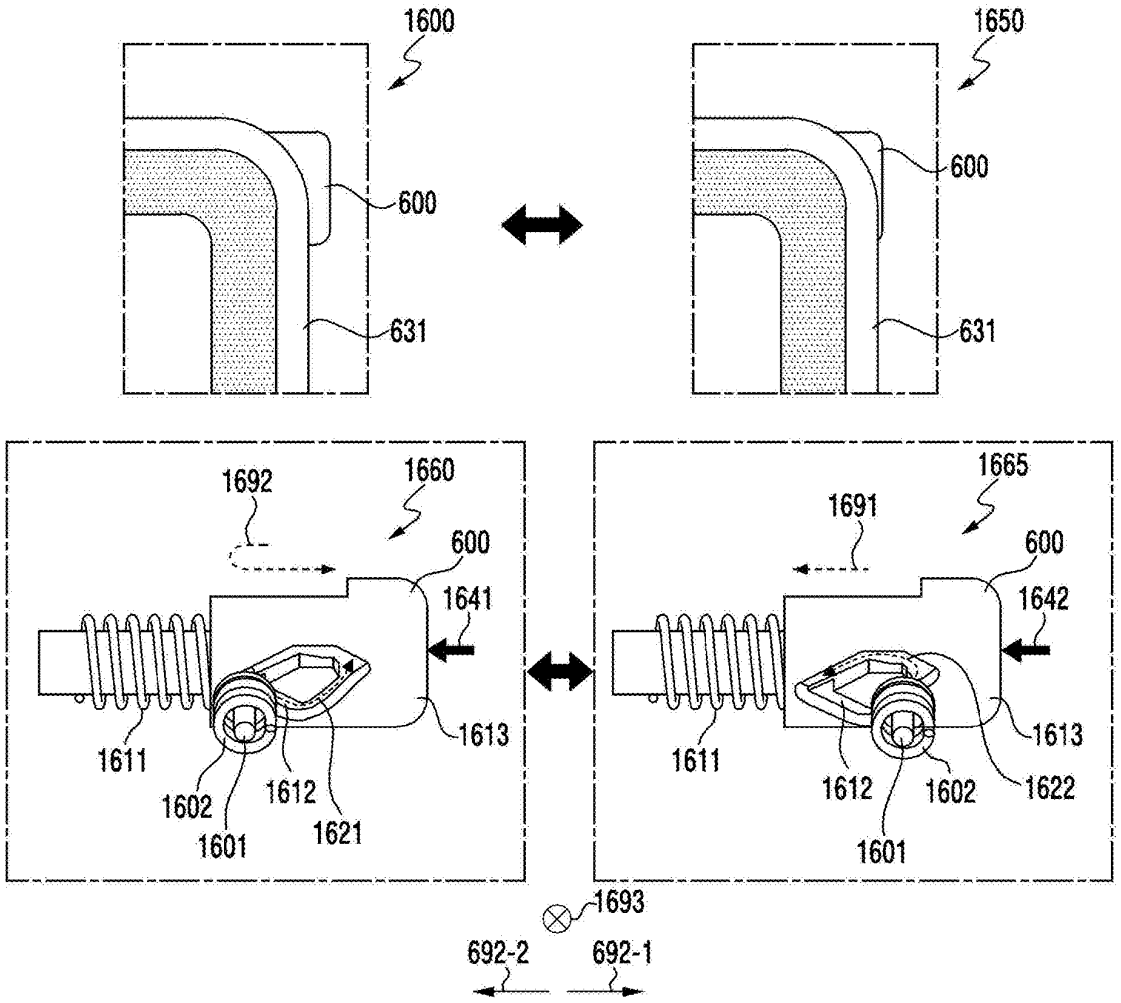
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FIG. 16

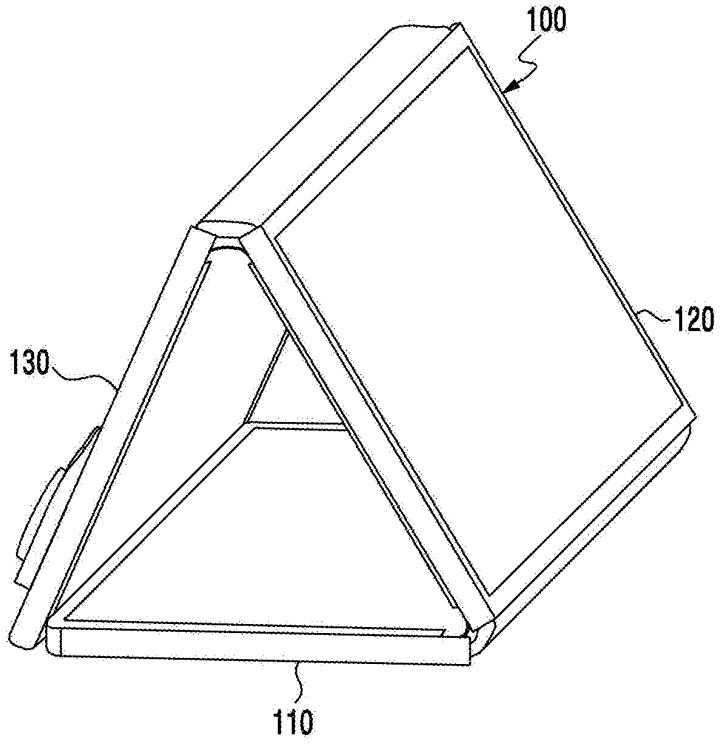

FIG. 17

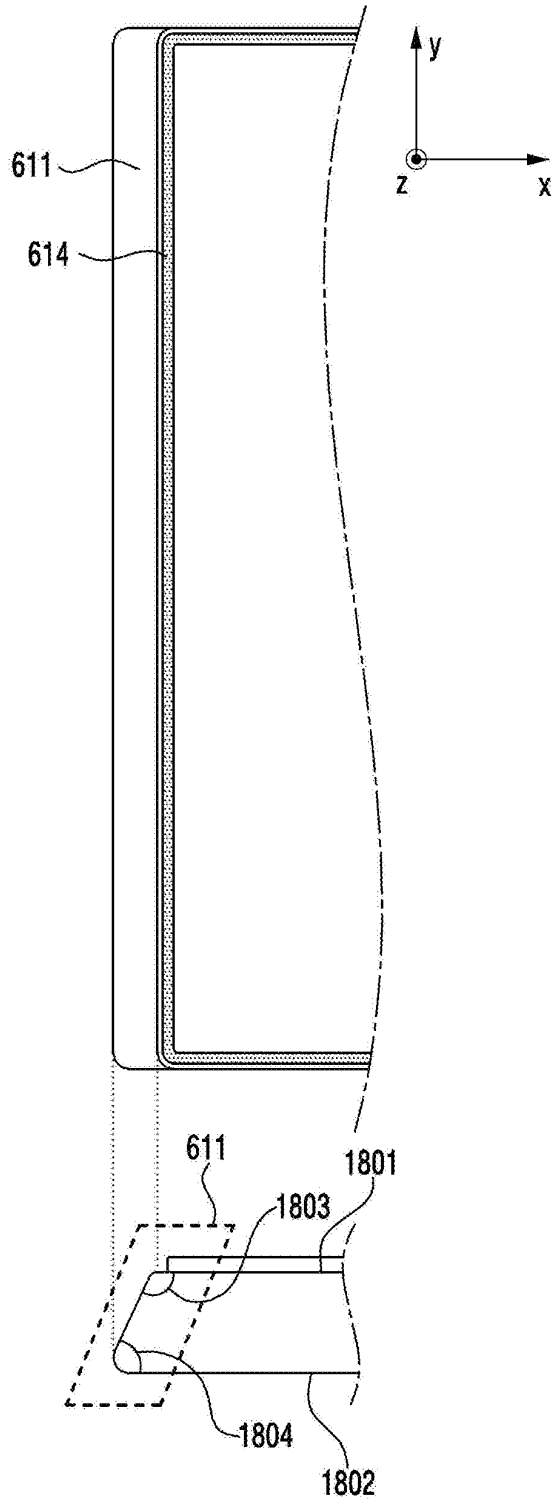

FIG. 18

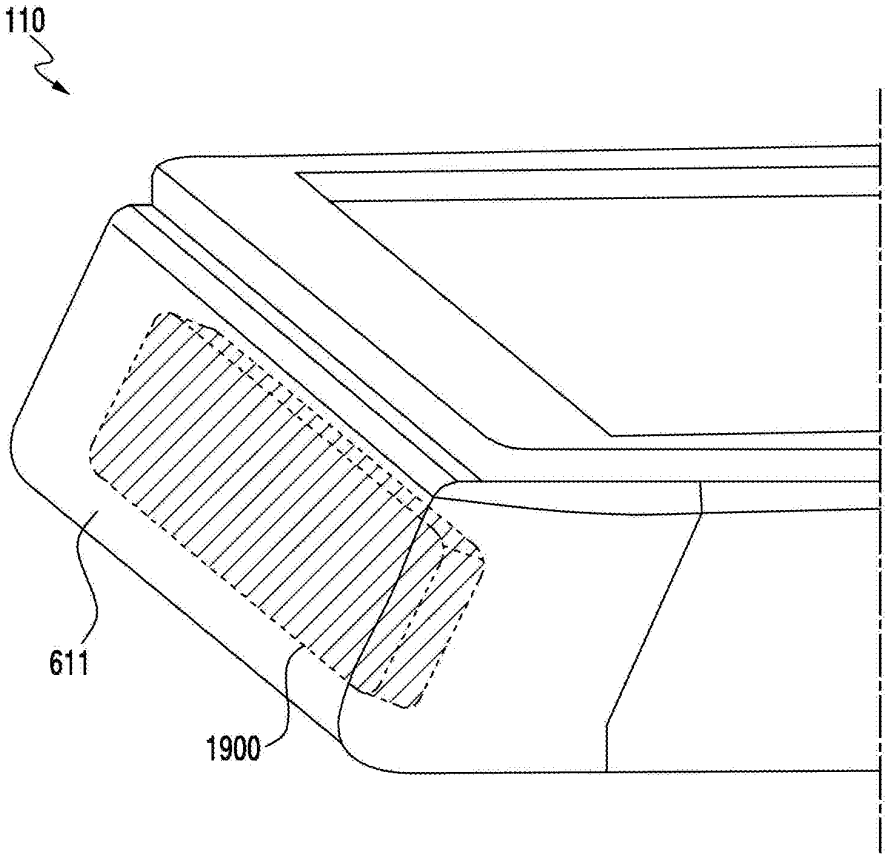

FIG. 19

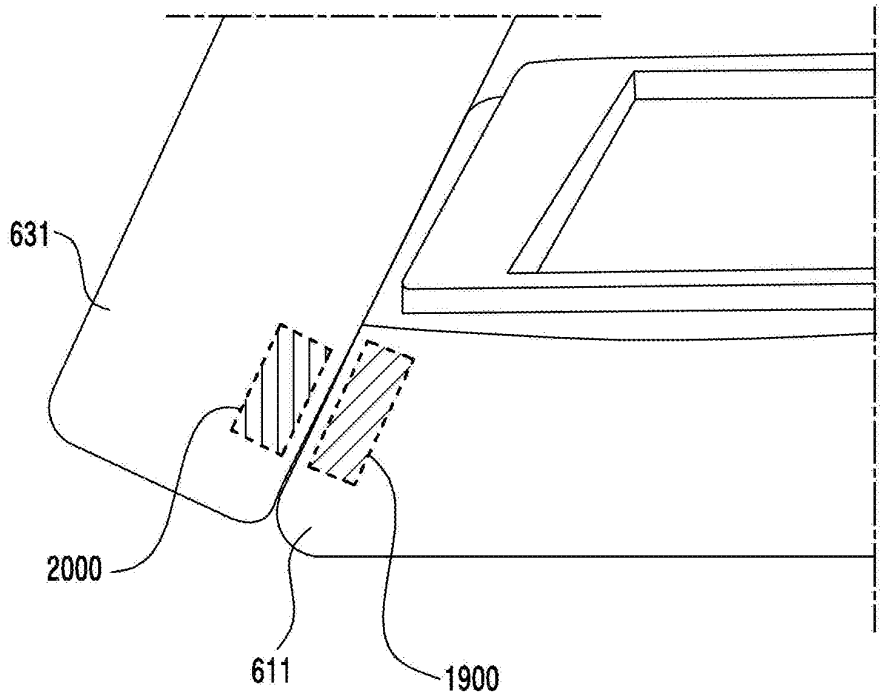

FIG. 20

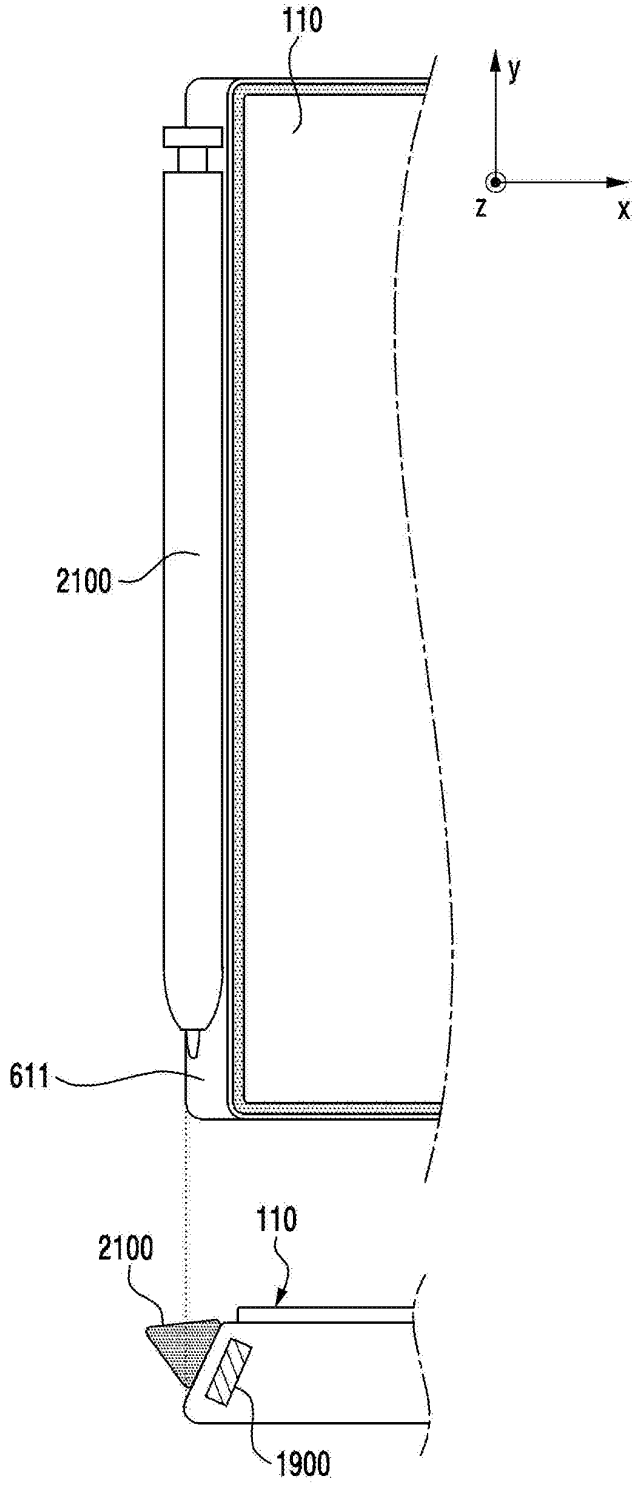

FIG. 21

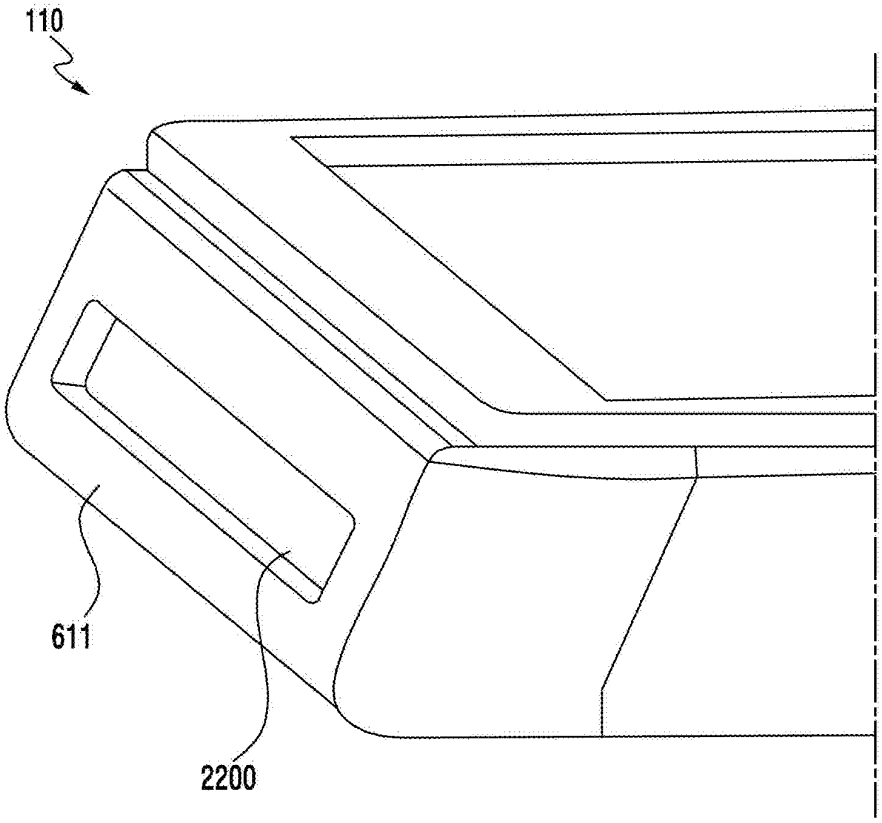

FIG. 22

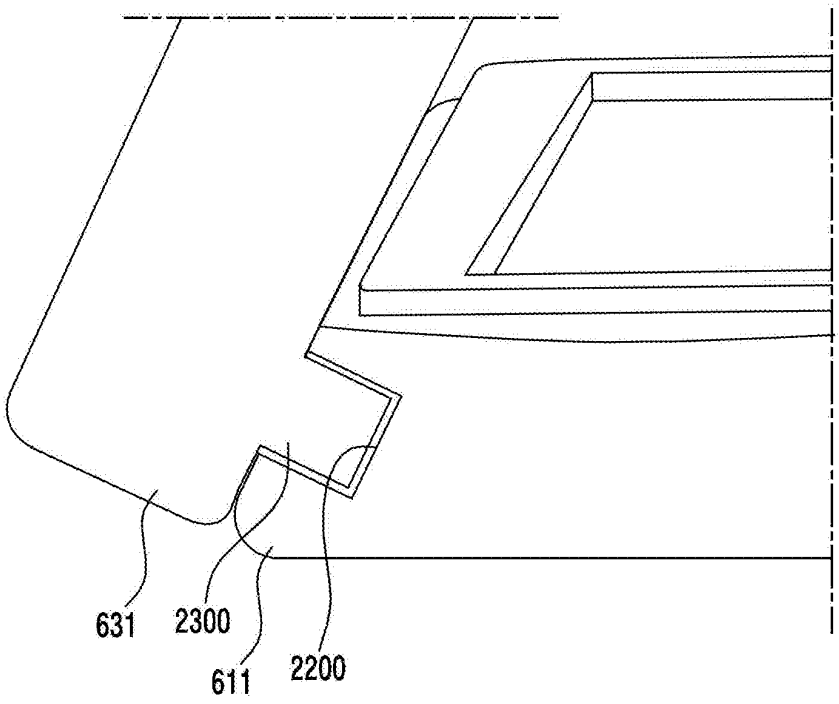

FIG. 23

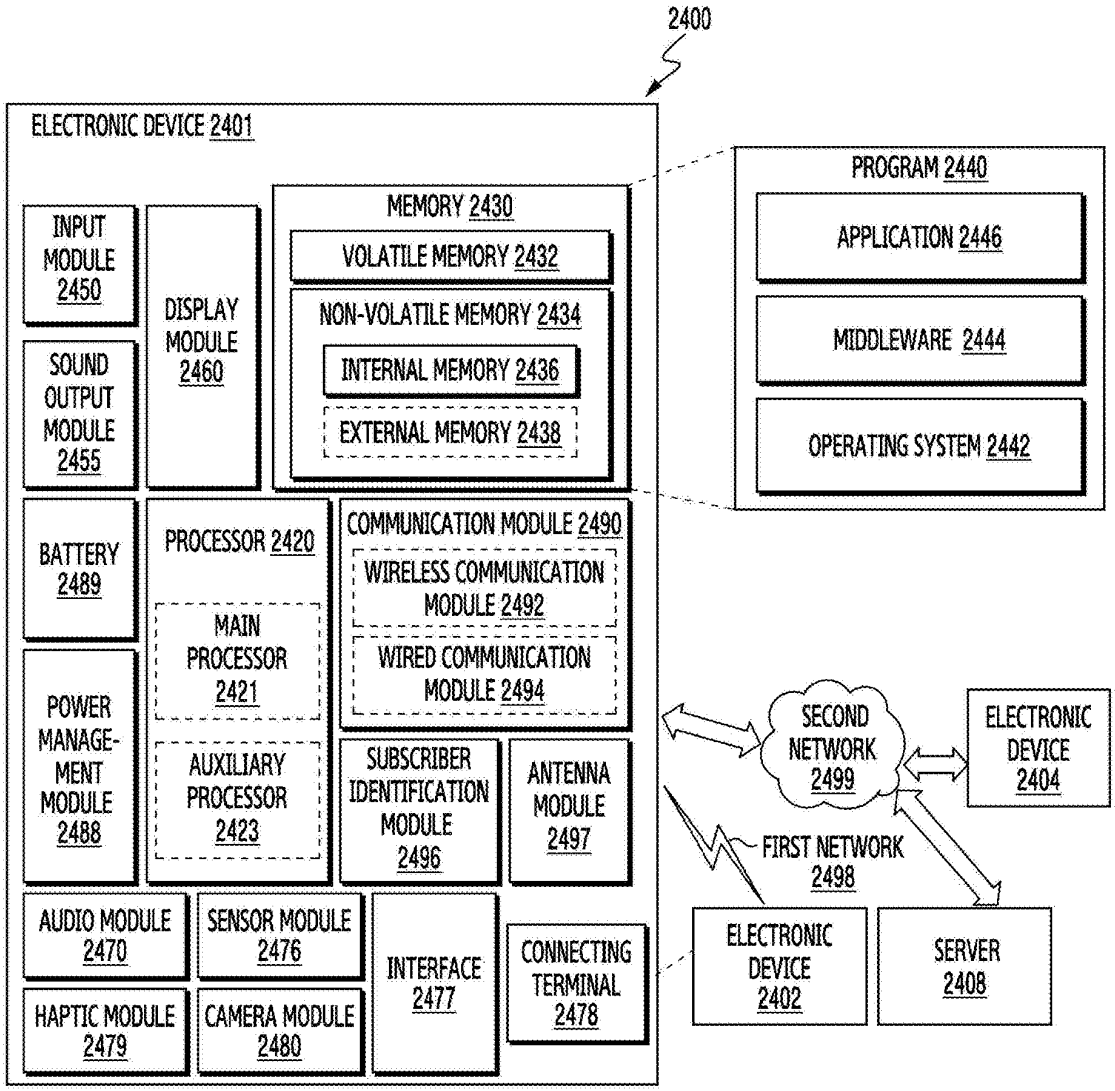
2400
ELECTRONIC DEVICE 2401
INPUT MODULE 2450
SOUND OUTPUT MODULE 2455
DISPLAY MODULE 2460
MEMORY 2430
VOLATILE MEMORY 2432
NON-VOLATILE MEMORY 2434
INTERNAL MEMORY 2436
EXTERNAL MEMORY 2438
PROGRAM 2440
APPLICATION 2446
MIDDLEWARE 2444
OPERATING SYSTEM 2442
BATTERY 2489
POWER MANAGE-MENT MODULE 2488
PROCESSOR 2420
MAIN PROCESSOR 2421
AUXILIARY PROCESSOR 2423
COMMUNICATION MODULE 2490
WIRELESS COMMUNICATION MODULE 2492
WIRED COMMUNICATION MODULE 2494
SUBSCRIBER IDENTIFICATION MODULE 2496
ANTENNA MODULE 2497
AUDIO MODULE 2470
SENSOR MODULE 2476
HAPTIC MODULE 2479
CAMERA MODULE 2480
INTERFACE 2477
CONNECTING TERMINAL 2478
SECOND NETWORK 2499
ELECTRONIC DEVICE 2404
FIRST NETWORK 2498
ELECTRONIC DEVICE 2402
SERVER 2408

FIG. 24

MULTI-FOLDABLE ELECTRONIC DEVICE

CROSS-REFERENCE TO RELATED APPLICATION(S)

[0001] This application is a continuation application, claiming priority under 35 U.S. C. § 365(c), of International Application No. PCT/KR2025/007113, filed on May 26, 2025, which is based on and claims priority to Korean Patent Application No. 10-2024-0123799, filed on Sep. 11, 2024, in the Korean Intellectual Property Office, and Korean Patent Application No. 10-2024-0138791, filed on Oct. 11, 2024, in the Korean Intellectual Property Office, the disclosures of each of which is incorporated by reference herein in its entirety.

BACKGROUND

1. Field

[0002] The present disclosure relates to a multi-foldable electronic device.

2. Description of Related Art

[0003] A multi-foldable electronic device may include housing parts that are rotatably coupled, and a foldable display. The display may be bent according to a rotation of the housing parts. The multi-foldable electronic device may include two or more hinge assemblies that rotatably connect the housing parts. The two or more hinge assemblies may provide various states of the electronic device.

[0004] The above-described information may be provided as a related art for the purpose of helping to understand the present disclosure. No claim or determination is raised as to whether any of the above-described information may be applied as a prior art related to the present disclosure.

SUMMARY

[0005] Aspects will be set forth in part in the description which follows and, in part, will be apparent from the description, or may be learned by practice of the presented embodiments.

[0006] An electronic device is provided. The electronic device may comprise a housing. The housing may comprise a first housing part. The housing may include a second housing part rotatably coupled with the first housing part. The housing may include a third housing part rotatably coupled with the second housing part. The first housing part may be configured to be positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state. The electronic device may comprise a foldable display disposed to overlie the first housing part, the second housing part, and the third housing part. The first housing part may include a side wall defining a portion of a periphery of the electronic device. The first housing part may include a protection member supported by the side wall of the first housing part and disposed at a periphery of the foldable display. The third housing part may include a side wall parallel to the side wall of the first housing part. The third housing part may include at least one camera disposed in a rear surface of the third housing part. The third housing part may include at least one input member disposed in the side wall of the third housing part. The third housing part may include a buffer member disposed in the side wall of the third housing part. The buffer member may include a first buffer member disposed at a first position of the side wall of the third housing part and a second buffer member positioned at a second position of the side wall of the third housing part. The first buffer member and the second buffer member may be configured to protrude from the side wall of the third housing part.

[0007] An electronic device is provided. The electronic device may comprise a housing. The housing may include a first housing part. The housing may include a second housing part rotatably coupled with the first housing part. The housing may include a third housing part rotatably coupled with the second housing part. The first housing part may be configured to be positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state. The electronic device may comprise a foldable display disposed above the first housing part, the second housing part, and the third housing part. The first housing part may include a first side wall defining a portion of a periphery of the electronic device. The first housing part may include a second side wall, defining a portion of the periphery of the electronic device, perpendicular to the first side wall of the first housing part. The first housing part may include a first protection member, supported by the first side wall of the first housing part, covering a portion of a periphery of the foldable display. The first housing part may include a second protection member. The second protection member may include a first portion supported by the second side wall of the first housing part, and a second portion, extending from the first portion of the second protection member, covering a portion of the periphery of the foldable display. The third housing part may include a side wall, defining a portion of the periphery of the electronic device, parallel to the first side wall of the first housing part. The third housing part may include a protection member, supported by the side wall of the third housing part, covering a portion of the periphery of the foldable display. The third housing part may include a buffer member protruded in a direction of the side wall of the third housing part. When the third housing part is positioned on a portion of the foldable display disposed above the first housing part in accordance with the second housing part partially folded with respect to both the first housing part and the third housing part, the buffer member may be contacted on the first portion of the second protection member of the first housing part.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The above and other aspects, features, and advantages of certain embodiments of the present disclosure will be more apparent from the following description taken in conjunction with the accompanying drawings, in which:

[0009] FIG. **1**A illustrates an example of a first state of an electronic device.

[0010] FIG. **1**B illustrates an example of a second state of an electronic device.

[0011] FIG. **1**C illustrates an example of a third state of an electronic device.

[0012] FIG. **2**A is a plan view of an electronic device from which a flexible display is removed.

[0013] FIG. **2**B is a rear view of an electronic device from which a rear cover and a display are removed.

[0014] FIG. **3** illustrates an electronic device having a triangular prism shape.

[0015] FIG. **4** illustrates a function executed by an electronic device having a triangular prism shape.

[0016] FIG. **5** illustrates an impact that may occur in relation to a display of an electronic device having a triangular prism shape.

[0017] FIG. **6** illustrates a damper included in a third housing part of an electronic device.

[0018] FIG. **7** illustrates a size of a damper included in a third housing part of an electronic device.

[0019] FIG. **8** illustrates a button included in a third housing part of an electronic device.

[0020] FIG. **9** illustrates a method of including a damper in a third housing part of an electronic device.

[0021] FIG. **10** illustrates a shape of a damper included in a third housing part of an electronic device.

[0022] FIG. **11** illustrates a first example configuration of an expanded front frame portion in a third housing part of an electronic device.

[0023] FIG. **12** illustrates a second example configuration of an expanded front frame portion in a third housing part of an electronic device.

[0024] FIG. **13** illustrates a third example configuration of an expanded front frame part in a third housing part of an electronic device.

[0025] FIG. **14** illustrates an example configuration of a side frame portion included in a third housing part of an electronic device.

[0026] FIG. **15** illustrates a size of a damper included in a third housing part of an electronic device that omits a front frame part.

[0027] FIG. **16** illustrates a damper capable of being inserted into a third housing part of an electronic device.

[0028] FIG. **17** illustrates a third housing part of an electronic device configured to be detachably attached to a first housing part of an electronic device.

[0029] FIG. **18** illustrates a shape of a side wall of a first housing part of an electronic device.

[0030] FIG. **19** illustrates a magnet included in a first housing part of an electronic device.

[0031] FIG. **20** illustrates a magnet in a third housing part of an electronic device paired with a magnet included in a first housing part of the electronic device.

[0032] FIG. **21** illustrates a stylus configured to be detachably attached through a magnet included in a first housing part of an electronic device.

[0033] FIG. **22** illustrates a groove included in a first housing part of an electronic device.

[0034] FIG. **23** illustrates a protruding portion of a third housing part of an electronic device paired with a groove included in a first housing part of the electronic device.

[0035] FIG. **24** is a block diagram of an electronic device in a network environment according to various embodiments.

DETAILED DESCRIPTION

[0036] FIG. **1**A illustrates an example of a first state of an electronic device. FIG. **1**B illustrates an example of a second state of the electronic device. FIG. **1**C illustrates an example of a third state of the electronic device.

[0037] Referring to FIGS. **1**A, **1**B, and **1**C, an electronic device **100** may include a housing structure **101** (also referred to housing **101**), a flexible display **140** (which may be described as a foldable display **140** or a main display **140**), a first hinge structure **150**, a second hinge structure **160**, and a display **170** (which may be described as a sub-display **170**). The housing structure **101** may include a first housing part **110**, a second housing part **120**, and a third housing part **130**.

[0038] The first housing part **110** may be rotatably coupled to the second housing part **120** by the first hinge structure **150**. The second housing part **120** and the first housing part **110** may be rotated with respect to the first hinge structure **150**. While the first housing part **110** is rotated with respect to the first hinge structure **150**, the second housing part **120** may be rotated with respect to the first hinge structure **150**. For example, when the second housing part **120** and the first housing part **110** are rotated with respect to the first hinge structure **150**, each displacement of the second housing part **120** may be substantially equal to each displacement of the first housing part **110**.

[0039] The third housing part **130** may be rotatably coupled to the second housing part **120** by the second hinge structure **160**. The second housing part **120** and the third housing part **130** may be rotated with respect to the second hinge structure **160**. While the second housing part **120** is rotated with respect to the second hinge structure **160**, the third housing part **130** may be rotated with respect to the second hinge structure **160**. For example, when the second housing part **120** and the third housing part **130** are rotated with respect to the second hinge structure **160**, each displacement (or each change) of the second housing part **120** may be substantially equal to each displacement of the third housing part **130**.

[0040] The first hinge structure **150** and the second hinge structure **160** may change a state of the electronic device. The first hinge structure **150** and the second hinge structure **160** may provide (e.g., enable) a first state **100***a* of the electronic device **100** (or a first state **100***a* of the housing structure **101**). The first state **100***a* of the electronic device **100** (or the first state **100***a* of the housing structure **101**) may be described as an unfolded state of the electronic device **100** (or the housing structure **101**). In the first state **100***a*, a front surface of the first housing part **110**, a front surface of the second housing part **120**, and a front surface of the third housing part **130** may define a front surface of the electronic device **100**. In the first state **100***a*, the front surface of the first housing part **110**, the front surface of the second housing part **120**, and the front surface of the third housing part **130** may face the same direction. In the first state **100***a*, the electronic device **100** may provide, to a user, a large display region of the flexible display **140**.

[0041] The first hinge structure **150** and the second hinge structure **160** may provide a second state **100***b* of the electronic device **100**. The second state **100***b* of the electronic device **100** may be described as a state in which the electronic device **100** is partially folded and partially unfolded (or a single folding state or a half-folding state). For example, in the second state **100***b*, the front surface of the second housing part **120** and the front surface of the third housing part **130** may face the same direction, and the front surface of the first housing part **110** and the front surface of the second housing part **120** may face opposite directions. For example, in the second state **100***b*, the first housing part **110** and the second housing part **120** may be folded, and the second housing part **120** and the third housing part **130** may be unfolded. In the second state **100***b*, the electronic device **100** may provide visual information through a portion (e.g., a third display region **140***c*) of the flexible display **140**.

[0042] The electronic device **100** may change from the first state **100***a* to a third state **100***c* through the second state **100***b*. The electronic device **100** may change from the first state **100***a*, which is an unfolded state, to the second state **100***b*, which is a partially unfolded state. For example, the electronic device **100** may change from the first state **100***a* in which the first housing part **110**, the second housing part **120**, and the third housing part **130** face the same direction to the second state **100***b* in which the front surface of the first housing part **110** faces the front surface of the second housing part **120**. The electronic device **100** may change from the second state **100***b*, which is a partially unfolded state, to the third state **100***c*, which is a folded state. For example, when the second state **100***b* changes to the third state **100***c*, the first housing part **110** and the second housing part **120**, which are folded, may be disposed on the third housing part **130**.

[0043] The first hinge structure **150** and the second hinge structure **160** may provide a third state **100***c* of the electronic device **100** (or a third state **100***c* of the housing structure **101**). The third state **100***c* of the electronic device **100** (or the third state **100***c* of the housing structure **101**) may be described as a folded state (or a folding state or a multi-folding state) of the electronic device **100** (or the housing structure **101**). In the third state **100***c*, the front surface of the first housing part **110** and the front surface of the second housing part **120** may face opposite directions, and the front surface of the second housing part **120** and the front surface of the third housing part **130** may face opposite directions. In the third state **100***c*, the front surface of the first housing part **110** and the front surface of the third housing part **130** may face the same direction. For example, in the third state **100***c*, the front surface of the second housing part **120** may face the front surface of the first housing part **110**, and the front surface of the third housing part **130** may face a rear surface of the first housing part **110**. In the third state **100***c*, a rear surface of the second housing part **120** may be exposed to the outside. The display **170** may be disposed on the rear surface of the second housing part **120**. In the third state **100***c*, the rear surface of the third housing part **130** may be exposed to the outside. A camera **175** may be disposed on the rear surface of the third housing part **130**. In the third state **100***c*, the electronic device **100** may be folded to improve portability, and may provide visual information through the display **170** disposed on the rear surface of the second housing part **120**.

[0044] The electronic device **100** may further include a key button **139**. The key button **139** may be exposed from a structure (e.g., an opening) formed on a side surface of the third housing part **130** and may be partially protruded to the outside of the electronic device **100**. The key button **139** may provide a physical input to processing circuitry inside the electronic device **100** by a pressure transmitted from the outside. The key button **139** may not be included in the electronic device **100**, but may be implemented in another form, such as a soft key displayed on the flexible display **140** or the display **170**.

[0045] The key button **139** may be disposed on the side surface of the third housing part **130** so as to be exposed to the outside in the third state **100***c*. As the key button **139** is disposed on the side surface of the third housing part **130**, it may be disposed in a direction in which the side surface of the third housing part **130** faces. Even when the third state **100***c* is changed to the first state **100***a* by a user looking at the display **170**, a position of the key button **139** disposed on the side surface of the third housing part **130** may not be moved. For example, referring to FIG. **1**A, in the first state **100***a*, when the flexible display **140** is viewed from above, the key button **139** may be disposed at the right. Referring to FIG. **1**B, in the third state **100***c*, when the display **170** is viewed from above, the key button **139** may be disposed at the right.

[0046] The flexible display **140** may at least partially define an exterior of the electronic device **100**. The flexible display **140** may be partially disposed in the housing structure **101**. The flexible display **140** may define a front surface of the electronic device **100**. The flexible display **140** may include a first unbendable portion **141**, a second unbendable portion **142**, a third unbendable portion **143**, a first bendable portion **144**, and a second bendable portion **145**. The first unbendable portion **141**, the second unbendable portion **142**, and the third unbendable portion **143** may be included in the electronic device **100** so as not to be bent, but the first unbendable portion **141**, the second unbendable portion **142**, and the third unbendable portion **143**, which are detached from the electronic device **100**, may be deformable or bendable, like the first bendable portion **144** and the second bendable portion **145**. The first unbendable portion **141** of the flexible display **140** may be disposed on the front surface of the first housing part **110**. The second unbendable portion **142** of the flexible display **140** may be disposed on the front surface of the second housing part **120**. The third unbendable portion **143** of the flexible display **140** may be disposed on the front surface of the third housing part **130**. The first bendable portion **144** of the flexible display **140** may be disposed between the first unbendable portion **141** and the third unbendable portion **143** of the flexible display **140**. For example, the first bendable portion **144** of the flexible display **140** may be disposed on the first hinge structure **150** connecting the first housing part **110** and the second housing part **120**. The second bendable portion **145** of the flexible display **140** may be disposed between the second unbendable portion **142** and the third unbendable portion **143** of the flexible display **140**. For example, the second bendable portion **145** of the flexible display **140** may be disposed on the second hinge structure **160** connecting the second housing part **120** and the third housing part **130**.

[0047] The first hinge structure **150** and the second hinge structure **160** may face substantially the same direction as the first unbendable portion **141** of the flexible display **140**, the second unbendable portion **142** of the flexible display **140**, and the third unbendable portion **143** of the flexible display **140**. In the first state **100***a*, the first bendable portion **144** and the second bendable portion **145** may be disposed in substantially the same horizontal plane as the first unbendable portion **141**, the second unbendable portion **142**, and the third unbendable portion **143**.

[0048] The first hinge structure **150** and the second hinge structure **160** may provide the second state **100***b* of the electronic device **100**. In the second state **100***b*, the first unbendable portion **141** of the flexible display **140** may face the second unbendable portion **142** of the flexible display **140**, and the third unbendable portion **143** of the flexible display **140** may face the same direction as the second unbendable portion **142** of the flexible display **140**. For example, the second unbendable portion **142** and the third unbendable portion **143** may be disposed in substantially the same horizontal plane.

[0049] In the second state **100***b*, as the first bendable portion **144** of the flexible display **140** is bent by the first hinge structure **150**, the first bendable portion **144** of the flexible display **140** may be folded so that the first unbendable portion **141** of the flexible display **140** and the second unbendable portion **142** of the flexible display **140** face different directions.

[0050] In the second state **100***b*, as the second bendable portion **145** of the flexible display **140** is maintained in the unfolded state by the second hinge structure **160**, the second bendable portion **145** of the flexible display **140** may be unfolded so that the second unbendable portion **142** of the flexible display **140** and the third unbendable portion **143** of the flexible display **140** face the same direction.

[0051] The first hinge structure **150** and the second hinge structure **160** may provide the third state **100***c* of the electronic device **100**. In the third state **100***c*, the second unbendable portion **142** of the flexible display **140** may face the first unbendable portion **141** of the flexible display **140**, and the third unbendable portion **143** of the flexible display **140** may face the rear surface of the first housing part **110**.

[0052] In the third state **100***c*, as the first bendable portion **144** of the flexible display **140** is bent by the first hinge structure **150**, the first bendable portion **144** of the flexible display **140** may be folded so the first unbendable portion **141** of the flexible display **140** and the second unbendable portion **142** of the flexible display **140** face different directions.

[0053] In the third state **100***c*, as the second bendable portion **145** of the flexible display **140** is bent by the second hinge structure **160**, the second bendable portion **145** of the flexible display **140** may be folded so that the second unbendable portion **142** of the flexible display **140** and the third unbendable portion **143** of the flexible display **140** face different directions. The second bendable portion **145** may further include a first deformable portion **145***a*, a second deformable portion **145***b*, and a planar portion **145***c*. The first deformable portion **145***a* may be disposed between the planar portion **145***c* and the second unbendable portion **142**, and the second deformable portion **145***b* may be disposed between the planar portion **145***c* and the third unbendable portion **143**. The planar portion **145***c* may be disposed between the first deformable portion **145***a* and the second deformable portion **145***b*. The planar portion **145***c* may be supported by a support plate (e.g., the support plate **264** of FIG. **2**A) that is distinct from hinge plates (e.g., the third hinge plate **262** and the fourth hinge plate **263** of FIG. **2**A) of the second hinge structure **160**. Regardless of the state of the electronic device **100**, the planar portion **145***c* may maintain a flat surface. In the first state **100***a* and the second state **100***b*, the first deformable portion **145***a* and the second deformable portion **145***b* may be unfolded, and in the third state **100***c*, the first deformable portion **145***a* and the second deformable portion **145***b* may be bent so that the second unbendable portion **142** and the third unbendable portion **143** face different directions. In the third state **100***c*, the first housing part **110** may be disposed between the second housing part **120** and the third housing part **130**. In the third state **100***c*, the second bendable portion **145** of the flexible display **140**, which is disposed on the second hinge structure **160**, may partially face a side surface **110***c* of the first housing part **110**.

[0054] The display region of the flexible display **140** may include a first display region **140***a*, a second display region **140***b*, and a third display region **140***c*. The display region indicates a region capable of providing visual information from the flexible display **140**. In the first state **100***a*, the entire display region of the flexible display **140** may be visible from the front of the housing structure **101**. For example, in the first state **100***a*, the first display region **140***a*, the second display region **140***b*, and the third display region **140***c* of the flexible display **140** may be visually exposed. The electronic device **100** may provide, to the user, a large display region including the first display region **140***a*, the second display region **140***b*, and the third display region **140***c*.

[0055] In the second state **100***b*, the display region of the flexible display **140** may be partially visible from at least the front surface of the third housing part **130**. For example, the third display region **140***c* may be visually exposed, and the first display region **140***a* and at least a portion of the second display region **140***b* may not be visually exposed.

[0056] In the third state **100***c*, the display regions of the flexible display **140** may not be visible. For example, in the third state **100***c*, the first display region **140***a*, the second display region **140***b*, and the third display region **140***c* of the flexible display **140** may not be visually exposed.

[0057] As a non-limiting example, when the flexible display **140** is used to display a screen in the first state **100***a* of the electronic device **100**, the first display region **140***a*, the second display region **140***b*, and the third display region **140***c* of the flexible display **140** may be activated. As a non-limiting example, when the flexible display **140** is used to display a screen in the third state **100***c*, the first display region **140***a*, the second display region **140***b*, and the third display region **140***c* of the flexible display **140** may be deactivated. As a non-limiting example, when the flexible display **140** is used to display a screen in the second state **100***b* of the electronic device **100**, the third display region **140***c* may be activated, and the first display region **140***a* and the second display region **140***b* of the flexible display **140** may be deactivated.

[0058] As a non-limiting example, when the flexible display **140** is used to display a screen in the first state **100***a* of the electronic device **100**, the first display region **140***a*, the second display region **140***b*, and the third display region **140***c* of the flexible display **140** may display visual information. As a non-limiting example, in the third state **100***c*, the first display region **140***a*, the second display region **140***b*, and the third display region **140***c* of the flexible display **140** may provide a black image. As a non-limiting example, in the second state **100***b* of the electronic device **100**, when the flexible display **140** is used to display a screen, the third display region **140***c* may provide visual information, and the first display region **140***a* and the second display region **140***b* of the flexible display **140** may provide a black image.

[0059] FIG. **2**A is a plan view of an electronic device from which a flexible display is removed. FIG. **2**B is a rear view of an electronic device from which a rear cover and a display are removed.

[0060] Referring to FIGS. **2**A and **2**B, an electronic device **100** may include a first hinge structure **150** and a second hinge structure **160**. A first width w**1** of the first hinge structure **150** may be narrower than a second width w**2** of the second hinge structure **160**. A difference between the first width w**1** of the first hinge structure **150** and the second width w**2** of the second hinge structure **160** may be greater than or equal to a thickness of the first housing part **110**. For

example, the second hinge structure **160** may have the second width w**2** wider than the first width w**1**, so that the first housing part **110** is disposed between the second housing part **120** and the third housing part **130** according to the third state **100***c*. The first hinge structure **150** may be referred to as a narrow hinge structure in terms of having a narrower width than the second hinge structure **160**. The second hinge structure **160** may be referred to as a wide hinge structure in terms of having a wider width than the first hinge structure **150**.

[0061] The first hinge structure **150** may include a first set of gears **251**, a first hinge plate **252**, and a second hinge plate **253**. The first hinge plate **252** may be coupled to a first support portion **111** of the first housing part **110**. The second hinge plate **253** may be coupled to a second support portion **121** of the second housing part **120**. Gears g**11**, g**12**, g**13**, and g**14** included in the first set of gears **251** may be configured to rotate the first hinge plate **252** and the second hinge plate **253**. For example, the gears g**11**, g**12**, g**13**, and g**14** included in the first set of gears **251** may rotate the second hinge plate **253** (or the second housing part **120**) by linking with a rotation of the first hinge plate **252** (or the first housing part **110**). After the first hinge plate **252** (or the first housing part **110**) is rotated, the gears g**11**, g**12**, g**13**, and g**14** included in the first set of gears **251** may rotate in accordance with the rotation of the first hinge plate **252** (or the first housing part **110**). The second hinge plate **253** (or the second housing part **120**) may be rotated by linking with the rotation of the first hinge plate **252** in accordance with the rotation of the gears included in the first set of gears **251**. The gears g**11**, g**12**, g**13**, and g**14** included in the first set of gears **251** may include a first gear g**11**, a second gear g**12**, a third gear g**13**, and a fourth gear g**14**. The first gear g**11** may be disposed adjacent to the first hinge plate **252**, and the fourth gear g**14** may be disposed adjacent to the second hinge plate **253**. The second gear g**12** and the third gear g**13** may be disposed between the first gear g**11** and the fourth gear g**14**. The first gear g**11**, the second gear g**12**, the third gear g**13**, and the fourth gear g**14** may be sequentially engaged. According to a rotation of the first gear g**11** in a first rotation direction (e.g., clockwise), the second gear g**12** engaged with the first gear g**11** may be rotated in a second rotation direction (e.g., counterclockwise) opposite to the first rotation direction. According to the rotation of the second gear g**12** in the second rotation direction, the third gear g**13** engaged with the second gear g**12** may be rotated in the first rotation direction. According to the rotation of the third gear g**13** in the first rotation direction, the fourth gear g**14** may be rotated in the second rotation direction. As the first gear g**11** and the fourth gear g**14** rotate in different directions, the first housing part **110** connected to the first hinge plate **252** and the second housing part **120** connected to the second hinge plate **253** may be folded or unfolded.

[0062] The second hinge structure **160** may include a second set of gears **261**, a third hinge plate **262**, a fourth hinge plate **263**, and a support plate **264**. The third hinge plate **262** may be coupled to the second support portion **121** of the second housing part **120**. The fourth hinge plate **263** may be coupled to a third support portion **131** of the third housing part **130**. Gears g**21**, g**22**, g**23**, g**24**, g**25**, and g**26** included in the second set of gears **261** may be configured to rotate the third hinge plate **262** and the fourth hinge plate **263**. For example, the gears g**21**, g**22**, g**23**, g**24**, g**25**, and g**26** included in the second set of gears **261** may rotate the fourth hinge plate **263** (or the third housing part **130**) by linking with a rotation of the third hinge plate **262** (or the second housing part **120**). After the third hinge plate **262** (or the second housing part **120**) is rotated, the gears g**21**, g**22**, g**23**, g**24**, g**25**, and g**26** included in the second set of gears **261** may rotate in accordance with the rotation of the third hinge plate **262** (or the second housing part **120**). The fourth hinge plate **263** (or the third housing part **130**) may be rotated by linking with the rotation of the third hinge plate **262** in accordance with the rotation of the gears g**21**, g**22**, g**23**, g**24**, g**25**, and g**26** included in the second set of gears **261**.

[0063] The gears g**21**, g**22**, g**23**, g**24**, g**25**, and g**26** included in the second set of gears **261** may include a first gear g**21**, a second gear g**22**, a third gear g**23**, a fourth gear g**24**, a fifth gear g**25**, and a sixth gear g**26**. The first gear g**21** may be disposed adjacent to the third hinge plate **262**, and the sixth gear g**26** may be disposed adjacent to the fourth hinge plate **263**. The second gear g**22**, the third gear g**23**, the fourth gear g**24**, and the fifth gear g**25** may be disposed between the first gear g**21** and the sixth gear g**26**. The first gear g**21**, the second gear g**22**, the third gear g**23**, the fourth gear g**24**, the fifth gear g**25**, and the sixth gear g**26** may be sequentially engaged. According to the rotation of the first gear g**21** in a first rotation direction (e.g., clockwise), the second gear g**22** engaged with the first gear g**21** may be rotated in a second rotation direction (e.g., counterclockwise) opposite to the first rotation direction. According to the rotation of the second gear g**22** in the second rotation direction, the third gear g**23** engaged with the second gear g**22** may be rotated in the first rotation direction. According to the rotation of the third gear g**23** in the first rotation direction, the fourth gear g**24** may be rotated in the second rotation direction. According to the rotation of the fourth gear g**24** in the second rotation direction, the fifth gear g**25** engaged with the fourth gear g**24** may be rotated in the first rotation direction. According to the rotation of the fifth gear g**25** in the first rotation direction, the sixth gear g**26** engaged with the fifth gear g**25** may be rotated in the second rotation direction. As the first gear g**21** and the sixth gear g**26** rotate in different directions, the second housing part **120** connected to the third hinge plate **262** and the third housing part **130** connected to the fourth hinge plate **263** may be folded or unfolded.

[0064] The first hinge structure **150** and the second hinge structure **160** may further include a spiral structure. The spiral structure may include a spiral groove formed in each hinge plate or rotation member connected to the hinge plate, and a moving member sliding along the spiral groove. The hinge plates connected to the hinge structure may be configured to rotate with substantially the same angular displacement through the spiral structure.

[0065] The electronic device **100** may include a first printed circuit board **271**, a second printed circuit board **272**, and a third printed circuit board **273**.

[0066] The first printed circuit board **271** may be disposed in the first support portion **111** of the first housing part **110**. A hardware component in the first housing part **110** may be disposed on the first printed circuit board **271**. The second printed circuit board **272** may be disposed in the second support portion **121** of the second housing part **120**. The third printed circuit board **273** may be disposed in the third support portion **131** of the third housing part **130**. A hardware component in the third housing part **130** may be disposed on the third printed circuit board **273**.

[0067] A hardware component disposed on the first printed circuit board **271** may support a hardware component disposed on the second printed circuit board **272** and/or a hardware component disposed on the third printed circuit board **273** or may operate independently.

[0068] The hardware component disposed on the second printed circuit board **272** may support the hardware component disposed on the first printed circuit board **271** or the third printed circuit board **273**, or may operate independently. The hardware component disposed on the second printed circuit board **272** may include a speaker, a front camera, and/or display driving circuitry.

[0069] The hardware component disposed on the third printed circuit board **273** may include at least one processor (e.g., an application processor (AP), a communication processor (CP)) including processing circuitry, memory including one or more storage media, communication circuitry, and a rear camera **175**. The rear camera **175** may be exposed through a structure (e.g., an opening) on the rear surface of the second housing part **120**.

[0070] The electronic device **100** may further include a sub-printed circuit board **275**, flexible printed circuit boards **280** and **290**. The sub-printed circuit board **275** may be disposed on at least a portion of the first housing part **110**, the second housing part **120**, and the third housing part **130**. The flexible printed circuit board **280** and **290** may include a first flexible printed circuit board **280** and a second flexible printed circuit board **290**. The first flexible printed circuit board **280** may electrically connect printed circuit boards disposed in each of housing parts **110**, **120**, and **130**. The second flexible printed circuit board **290** may connect the sub-printed circuit board **275** and a printed circuit board within a housing part in which the sub-printed circuit board **275** is disposed, by the second flexible printed circuit board **290**.

[0071] Components within the electronic device **100** may be connected to at least one processor within the third printed circuit board **273** through the flexible printed circuit boards **280** and **290**. For example, a signal received from an antenna disposed in the third housing part **130** may be transmitted, through a signal path (a) provided by the first flexible printed circuit board **280**, to the third printed circuit board **273** on which at least one processor (e.g., AP or CP) is disposed. Driving circuitry for the flexible display **140** disposed within the first housing part **110** may be electrically connected to the third printed circuit board **273** on which at least one processor (e.g., AP) is disposed, through a signal path (b) provided by the sub-printed circuit board **275** and the first flexible printed circuit board **280**. Driving circuitry for the display **170** connected to the sub-printed circuit board **275** disposed in the second housing part **120** may be electrically connected to the third printed circuit board **273** on which at least one processor (e.g., AP) is disposed, through a signal path (c) provided by the sub-printed circuit board **275** and the first flexible printed circuit board **280** and the second flexible printed circuit board **290**.

[0072] The electronic device **100** may further include batteries. Each of the batteries may be attached to support portions **111**, **121**, and **131** included in the housing parts **110**, **120**, and **130**. The support portions **111**, **121**, and **131** may support rechargeable batteries.

[0073] The arrangement of hardware components is exemplary, unlike the above description, the rear camera **175** and the second printed circuit board **272** may be disposed in the third housing part **130**, and the third printed circuit board **273** may be disposed in the second housing part **120**.

[0074] It is illustrated that the first housing part **110** and the third housing part **130** rotate in the opposite direction with respect to the second housing part **120**, but are not limited thereto. For example, while changing from the first state **100***a* to the third state **100***c*, the first housing part **110** may rotate counterclockwise with respect to the second housing part **120**, and the third housing part **130** may rotate counterclockwise with respect to the second housing part **120**. As the first housing part **110** and the third housing part **130** rotate in the same direction, a portion of the display region of the flexible display **140** within the second state may be visually exposed.

[0075] The housing structure **101** of the electronic device **100** (which may be described as the housing **101**) may include a first housing part **110**, a second housing part **120** rotatably coupled with respect to the first housing part **110**, and a third housing part **130** rotatably coupled with respect to the second housing part **120**. Since the second housing part **120** is rotatably coupled with respect to both the first housing part **110** and the third housing part **130**, the second housing part **120** may be partially folded with respect to both the first housing part **110** and the third housing part **130**. The electronic device **100** may be configured to have a triangular prism shape, in accordance with the second housing part **120** being partially folded with respect to both the first housing part **110** and the third housing part **130**. The electronic device **100** having the triangular prism shape is described with reference to FIG. **3**.

[0076] FIG. **3** illustrates an electronic device having a triangular prism shape.

[0077] Referring to FIG. **3**, the second housing part **120** may be partially folded with respect to the first housing part **110** and partially folded with respect to the third housing part **130**. The third housing part **130** may be supported by the first housing part **110**, in accordance with the second housing part **120** being partially folded with respect to the first housing part **110** and the third housing part **130**. A portion of the third housing part **130** may be positioned on the first housing part **110** (or the first display region **140***a*), in accordance with the second housing part **120** being partially folded with respect to the first housing part **110** and the third housing part **130**. The electronic device **100** may be configured to have a triangular prism shape (or rounded triangular prism shape) when the third housing part **130** is supported by the first housing part **110** in accordance with the second housing part **120** being partially folded with respect to the first housing part **110** and the third housing part **130**, as illustrated in FIG. **3**. The electronic device **100** may be configured to have the triangular prism shape when a portion of the third housing part **130** is positioned (or contacted) on the first housing part **110** (or the first display region **140***a*). The electronic device **100** may be configured to have the triangular prism shape when the third housing part **130** is supported by the first display region **140***a* disposed above the first housing part **110**. The electronic device **100** may be configured to have the triangular prism shape when the third housing part **130** is supported by a front frame **300** of the first housing part **110**. The front frame **300** may be described as a component of the first housing part **110** that is supported by a side wall **301** of the first housing part **110** and covers a portion of a periphery of the foldable display **140**. The front frame **300**

may include a plurality of portions. The plurality of portions of the front frame **300** will be described below.

[0078] When the electronic device **100** has the triangular prism shape, the electronic device **100** may provide various user experiences (UXs). For example, the electronic device **100** having the triangular prism shape may provide various user experiences through the foldable display **140** forming inner side surfaces of the triangular prism. For example, the electronic device **100** having the triangular prism shape may provide various user experiences through the display **170** disposed above (or on) a rear wall of the second housing part **120**. The display**170** may also be disposed above (or on) a rear wall of the third housing part **130**, according to an embodiment. A function for providing the various user experiences is described with reference to FIG. **4**.

[0079] FIG. **4** illustrates a function executed by an electronic device having a triangular prism shape.

[0080] Referring to FIG. **4**, the electronic device **100** having a triangular prism shape may display one or more widgets **411** through the display **170**, as in a state **401**. As a non-limiting example, the one or more widgets **411** may be provided within a locked state of the electronic device **100** in which some of functions of the electronic device **100** are inaccessible. The state **401** may be described as a state that displays information (e.g., the one or more widgets **411**) while the first housing part **110** or the third housing part **130** of the housing **101** of the electronic device **100** having the triangular prism shape is supported by an external object (e.g., the ground or a desk). As a non-limiting example, in the state **401**, the foldable display **140** may be disabled (or deactivated, or turned off). For example, in the state **401**, the foldable display **140** may provide a black color.

[0081] The electronic device **100** having the triangular prism shape may emit light **412** through the foldable display **140**, while displaying the one or more widgets **411** through the display **170**), as in a state **402**. The state **402** may be described as a state that further emits the light **412** through the foldable display **140** relative to the state **401**. In the state **402**, the light **412** may be emitted to (intuitively) indicate a state of a user and/or a state of the electronic device **100**. For example, the light **412** may be emitted to indicate information (e.g., weather information) provided through at least a portion of the one or more widgets **411**. In the state **402**, the light **412** may also be emitted for aesthetic purposes.

[0082] The electronic device **100** having the triangular prism shape may display the one or more widgets **411** through the display **170**, as in a state **403**. The state **403** may be described as a state that displays information (e.g., the one or more widgets **411**) while the side wall of the first housing part **110**, the side wall of the second housing part **120**, and the side wall of the third housing part **130**, which define a bottom side of the triangular prism, are supported by an external object. As a non-limiting example, in the state **403**, the foldable display **140** may be deactivated, as in the state **401**.

[0083] The electronic device **100** having the triangular prism shape may display a background image **413** and the one or more widgets **411** superimposed on the background image **413** through the display **170**, as in a state **404**. The state **404** may be described as a state that further displays the background image **413** relative to the state **401**. For example, the background image **413** may be displayed to induce a user's action. As a non-limiting example, the background image **413** may be displayed for the user's sleep. As a non-limiting example, in the state **404**, the foldable display **140** may be deactivated, as in the state **401**.

[0084] The electronic device **100** having the triangular prism shape may emit light **412** through the foldable display **140**, while displaying the background image **413** and the one or more widgets **411** superimposed on the background image **413** through the display **170**, as in a state **405**. The state **405** may be described as a state that further emits the light **412** through the foldable display **140** relative to the state **404**. In the state **405**, the light **412** may represent information provided through the background image **413**, and/or may represent information provided through at least a portion of the one or more widgets **411**. In the state **405**, the light **412** may be emitted for aesthetic purposes.

[0085] The electronic device **100** having the triangular prism shape may emit light **412** through the foldable display **140**, while displaying the one or more widgets **411** through a display **170**, as in a state **406**. The state **406** may be described as a state that further emits light **412** through the foldable display **140** relative to the state **403**.

[0086] The electronic device **100** having the triangular prism shape may simultaneously display the one or more widgets **411** and a clock **414**, through the display as in a state **407**. The clock **414** may indicate a local time of a geographical location where the electronic device **100** is located. The state **407** may be described as a state that further displays the clock **414** relative to the state **401**. As a non-limiting example, in the state **407**, the foldable display **140** can be deactivated, as in the state **401**.

[0087] The electronic device **100** having the triangular prism shape may emit light **412** while simultaneously displaying the one or more widgets **411** and the clock **414** through the display **170**, as in a state **408**. The state **408** may be described as a state that further emits light **412** through the foldable display **140** relative to the state **407**. As a non-limiting example, the light **412** may be emitted to indicate the time indicated by the clock **414**.

[0088] The electronic device **100** having the triangular prism shape may display an clock **414**(e.g., sandglass (**414**) through the display **170**, as in a state **409**. The state **409** may be described as a state that displays information (e.g., the clock **414**) while the side wall of the first housing part **110**, the side wall of the second housing part **120**, and the side wall of the third housing part **130**, which define the bottom side of the triangular prism, are supported by an external object. As a non-limiting example, the clock **414** may be a function of the electronic device **100** displayed in the state **409**. In the state **409**, the electronic device **100** may further emit the light **412** through the foldable display **140**.

[0089] The electronic device **100** having the triangular prism shape may be configured to further perform second functions as well as the first functions exemplified through the states **401** to **409**. The first functions and the second functions may be performed based on a prism mode of the electronic device **100**. The prism mode of the electronic device **100** may be described as a mode provided while identifying the electronic device **100** having the triangular prism shape through one or more sensors of the electronic device **100**.

[0090] While the electronic device **100** has the triangular prism shape to provide various user experiences, the third housing part **130** may be supported by the foldable display **140** and/or the first housing part **110**. When an unintended impact is applied (or provided) to the electronic device **100**

having the triangular prism shape, the third housing part **130** may damage the foldable display **140**. The impact is described with reference to FIG. **5**.

[0091] FIG. **5** illustrates an impact that may occur in relation to a display of an electronic device having a triangular prism shape.

[0092] Referring to FIG. **5**, the electronic device **100** may have a triangular prism shape according to the second housing part **120** being partially folded with respect to the first housing part **110** and the third housing part **130**. In the electronic device **100** described with reference to FIG. **5**, the structure described through FIGS. **6** to **23** may be omitted.

[0093] While the electronic device **100** has the triangular prism shape, a portion of the third housing part **130** may be contacted on the first display region **140***a* of the foldable display **140**, which is disposed above the first housing part **110**. Since the portion of the third housing part **130** is contacted on the first display region **140***a* of the foldable display **140** disposed above the first housing part **110** while the electronic device **100** has the triangular prism shape, the third housing part **130** may be supported by the foldable display **140** while the electronic device **100** has the triangular prism shape.

[0094] For example, the electronic device **100** having the triangular prism shape may be dropped contrary to user intention. The first housing part **110** (or the rear wall of the first housing part **110**) of the dropped electronic device **100** may collide with an external object (e.g., the ground). Since the foldable display **140** supports the third housing part **130** while the electronic device **100** has the triangular prism shape, an impact **550** transmitted from the third housing part **130** to at least a portion (e.g., the first display region **140***a*) of the foldable display **140** may occur due to the collision with the external object. The impact **550** may damage at least a portion of the foldable display **140**. For example, a window of the foldable display **140** may be at least partially broken by the impact **550**. For example, at least a portion of pixels in the foldable display **140** may be damaged by the impact **550**. The electronic device **100** having the triangular prism shape may provide various user experiences, but the foldable display **140** of the electronic device **100** having the triangular prism shape may be damaged due to the impact **550**. A structure for reducing the damage of the foldable display **140** due to the impact **550** will be described with reference to FIGS. **6** to **23**.

[0095] At least a portion of the side wall of the third housing part **130** may be formed from a relatively slippery material (e.g., metal). A window of the foldable display **140**, which is an outer surface of the foldable display **140**, may be formed from a relatively slippery material (e.g., glass). Since at least a portion of the side wall of the third housing part **130** and the window of the foldable display **140** are formed from a relatively slippery material, the third housing part **130** may slide in a direction indicated by an arrow **501** on the foldable display **140** (or the first display region **140***a*) while the electronic device **100** has the triangular prism shape. Since the third housing part **130** sliding on the foldable display **140** may be different from user intention, a structure for maintaining a posture (or position) of the third housing part **130** contacted on the foldable display **140** will be described with reference to FIGS. **6** to **17**.

[0096] FIG. **6** illustrates a damper included in a third housing part of an electronic device.

[0097] Referring to FIG. **6**, the electronic device **100** may further include a damper **600** in relation to the electronic device **100** illustrated in FIG. **5**.

[0098] The first housing part **110** may include a side wall **611** defining a portion **693** of a periphery 695 of the electronic device **100**. The side wall **611** may extend from a rear wall (or bottom wall) of the first housing part **110**. The side wall **611** may have a longitudinal direction corresponding to a direction **691-1** or a direction **691-2**. The side wall **611** will be illustrated in more detail in FIG. **7**.

[0099] The side wall **611** may include conductive portions, and one or more non-conductive portions between the conductive portions. Each of the conductive portions may function as an antenna radiator. Each of the conductive portions may be formed from a metal. For example, each of the conductive portions may be formed from stainless steel, titanium, and/or aluminum. For example, the one or more non-conductive portions may be formed from a plastic.

[0100] The first housing part **110** may include a side wall **612** defining a portion of the periphery 695 of the electronic device **100** and a side wall **613** defining a portion of the periphery 695 of the electronic device **100**. The side wall **612** and the side wall **613** may extend from the rear wall of the first housing part **110**. Each of the side wall **612** and the side wall **613** may have a longitudinal direction corresponding to a direction **692-1** or a direction **692-2**. Each of the side wall **612** and the side wall **613** may extend from the side wall **611** in the direction **692-1**. The side wall **612** will be illustrated in more detail in FIG. **10**.

[0101] The first housing part **110** may include a front frame portion **614** that is supported by the side wall **611** of the first housing part **110** and covers a portion of a periphery (or edge) of the foldable display **140**. The front frame portion **614** may be described as a protection member. The front frame portion **614** may correspond to the front frame **300** of the first housing part **110** described with reference to FIG. **3**. The front frame portion **614** may have a longitudinal direction corresponding to the direction **691-1** or the direction **691-2**. The front frame portion **614** will be described in more detail in FIG. **7**. The front frame portion **614** may be contacted to the portion of the periphery of the foldable display **140**.

[0102] The first housing part **110** may include a front frame portion **615** that is supported by the side wall **612** of the first housing part **110** and covers a portion of a periphery of the foldable display **140**. The front frame portion **615** may be described as a protection member. The front frame portion **615** may have a longitudinal direction corresponding to the direction **692-1** or the direction **692-2**. The front frame portion **615** may extend from the front frame portion **614** in the direction **692-1**. The front frame portion **615** will be illustrated in more detail in FIG. **10**. The front frame portion **615** may be contacted to the portion of the periphery of the foldable display **140**.

[0103] The first housing part **110** may include a front frame portion **616** that is supported by the side wall **613** of the first housing part **110** and covers a portion of a periphery of a foldable display **140**. The front frame portion **616** may be described as a protection member. The front frame portion **616** may have a longitudinal direction corresponding to the direction **692-1** or the direction **692-2**. The front frame portion **616** may extend from the front frame portion **614** in

the direction **692-1**. The front frame portion **616** may be contacted to the portion of the periphery of the foldable display **140**.

[0104] The third housing part **130** may include a side wall **631** defining a portion **694** of the periphery **695** of the electronic device **100**. The side wall **631** may extend from a rear wall (or bottom wall) of the third housing part **130**. The side wall **631** may have a longitudinal direction corresponding to the direction **691-1** or the direction **691-2**. The side wall **631** will be illustrated in more detail in FIG. **7**.

[0105] The side wall **631** may include conductive portions, and one or more non-conductive portions between the conductive portions. Each of the conductive portions may function as an antenna radiator. Each of the conductive portions may be formed from a metal. For example, each of the conductive portions may be formed from stainless steel, titanium, and/or aluminum. For example, the one or more non-conductive portions may be formed from a plastic.

[0106] The third housing part **130** may include a side wall **632** defining a portion of the periphery **695** of the electronic device **100** and a side wall **633** defining a portion of the periphery **695** of the electronic device **100**. The side wall **632** and the side wall **633** may extend from the rear wall of the third housing part **130**. Each of the side wall **632** and the side wall **633** may have a longitudinal direction corresponding to the direction **692-1** or the direction **692-2**. Each of the side wall **632** and the side wall **633** may extend from the side wall **631** in the direction **692-2**. The side wall **632** will be illustrated in more detail in FIG. **10**.

[0107] The third housing part **130** may include a front frame portion **634** that is supported by the side wall **631** of the third housing part **130** and covers a portion of a periphery of the foldable display **140**. The front frame portion **634** may be described as a protection member. The front frame portion **634** may have a longitudinal direction corresponding to the direction **691-1** or the direction **691-2**. The front frame portion **634** will be illustrated in more detail in FIG. **7**. The front frame portion **634** may be contacted to the portion of the periphery of the foldable display **140**.

[0108] The third housing part **130** may include a front frame portion **635** that is supported by the side wall **632** of the third housing part **130** and covers a portion of the periphery of the foldable display **140**. The front frame portion **635** may be described as a protection member. The front frame portion **635** may have a longitudinal direction corresponding to the direction **692-1** or the direction **692-2**. The front frame portion **635** may extend from the front frame portion **634** in the direction **692-2**. The front frame portion **635** will be illustrated in more detail in FIG. **10**. The front frame portion **635** may be contacted to the portion of the periphery of the foldable display **140**.

[0109] The third housing part **130** may include a front frame portion **636** that is supported by the side wall **633** of the third housing part **130** and covers a portion of the periphery of the foldable display **140**. The front frame portion **636** may be described as a protection member. The front frame portion **636** may have a longitudinal direction corresponding to the direction **692-1** or the direction **692-2**. The front frame portion **636** may extend from the front frame portion **634** in the direction **692-2**. The front frame portion **636** may be contacted to the portion of the periphery of the foldable display **140**.

[0110] The third housing part **130** may include a damper **600** and a damper **601**. The damper **600** may be described as a first buffer member, and the damper **601** may be described as a second buffer member. The first buffer member and/or the second buffer member may be described as buffer members. The damper **600** and the damper **601** may be configured to protrude from a portion of the side wall **631** of the third housing part **130** (or in a direction of the side wall **631**). The damper **600** may be disposed at a first position of the side wall **631** of the third housing part **130**, and the damper **601** may be disposed at a second position of the side wall **631** of the third housing part **130**. The damper **600** and the damper **601** may be structures included in the electronic device **100** to reduce the damage due to the impact **550** described with reference to FIG. **5**. The damper **600** and the damper **601** may be structures included in the electronic device **100** to maintain a posture (or position) of the third housing part **130** contacted on the foldable display **140**. The damper **600** and the damper **601** may be formed from a material for absorbing the impact **550**. For example, the damper **600** and the damper **601** may be formed from rubber. For example, the damper **600** and the damper **601** may be formed from urethane. For example, the damper **600** and the damper **601** may be formed from silicone. As a non-limiting example, since the damper **600** and the damper **601** are contacted to the foldable display **140** or the first housing part **110**, the damper **600** and the damper **601** may be formed from a material having wear resistance (e.g., polyoxymethylene (POM) or polycarbonate (PC)). A contact area between the damper **600** formed from POM (or PC) and the first housing part **110** (or foldable display **140**) may be wider than a contact area between the damper **600** formed from rubber (or urethane) (or silicone) and the first housing part **110** (or foldable display **140**).

[0111] The damper **600** and damper **601** may protrude from a portion of the side wall **631** of the third housing part **130**.

[0112] A size of a portion of the damper **600** protruded from the portion of the side wall **631** of the third housing part **130** is described with reference to FIG. **7**.

[0113] FIG. **7** illustrates a size of a damper included in a third housing part of an electronic device.

[0114] Referring to FIG. **7**, while the electronic device **100** has the triangular prism shape, the third housing part **130** may be contacted to the first housing part **110** or the foldable display **140** only through the damper **600**.

[0115] The front frame portion **614** of the first housing part **110** may include a first portion **711** supported by the side wall **611** of the first housing part **110** and a second portion **712** covering a portion of the periphery of the foldable display **140**. The first portion **711** of the front frame portion **614** may be disposed on the side wall **611**.

[0116] The front frame portion **634** of the third housing part **130** may include a first portion **731** supported by the side wall **631** of the third housing part **130** and a second portion **732** covering a portion of the periphery of the foldable display **140**. The first portion **731** of the front frame portion **634** may be disposed on the side wall **631**.

[0117] Since the first portion **711** of the front frame portion **614** is disposed on the side wall **611** and the first portion **731** of the front frame portion **634** is disposed on the side wall **631**, the damper **600** may be protruded from the portion of the side wall **631** so that the third housing part **130** is contacted on the front frame portion **614** only through the damper **600**, within the state **700**. For example, when the damper **600** is protruded from the portion of the side wall

631 so that the front frame portion 634 is spaced from the front frame portion 614 within the state 700, while the electronic device 100 has the triangular prism shape, the third housing part 130 may be contacted to the first housing part 110 or the foldable display 140 only through the damper 600. For example, when the damper 600 is protruded from the portion of the side wall 631 so that the front frame portion 634 is spaced apart from the front frame portion 614 within the state 700, the third housing part 130 may be contacted on the foldable display 140 (or the first display region 140*a*) or the first housing part 110 only through the damper 600 within the state 750.

[0118] In other words, when the third housing part 130 is supported by the front frame portion 614 according to the second housing part 120 partially folded with respect to the first housing part 110 and the third housing part 130, the front frame portion 634 may be spaced apart from the front frame portion 614 by the damper 600 contacted on the front frame portion 614.

[0119] Referring back to FIG. 6, the side wall 631 may include a rounded corner portion 696 and a rounded corner portion 697 of the electronic device 100. The rounded corner portion 696 of the side wall 631 may correspond to an end portion of the side wall 631 connected to the side wall 632, and the rounded corner portion 697 of the side wall 631 may correspond to another end portion of the side wall 631 connected to the side wall 633. The side wall 631 may further include a portion 681, which corresponds to a planar portion of a lateral surface of a rounded cuboid and extends from the rounded corner portion 696 to the rounded corner portion 697.

[0120] A portion of the side wall 631 from which the damper 600 is protruded may correspond to the rounded corner portion 696. A portion of the side wall 631 from which the damper 601 is protruded may correspond to the rounded corner portion 697. The damper 600 may be protruded from the rounded corner portion 696 in the direction 692-1. The damper 601 may be protruded from the rounded corner portion 697 in the direction 692-1.

[0121] The damper 600 may be protruded further than the portion 681 of the side wall 631. As a non-limiting example, a vertical height 682 of the damper 600, which is defined from the portion 681 of the side wall 631, may be greater than about 0.1 millimeter (mm).

[0122] The third housing part 130 may include a button 683 (or key button 683) (e.g., the key button 139). The damper 600 may be more protruded from the side wall 631 than the button 683. For example, while the electronic device 100 has a triangular prism shape, the damper 600 may be more protruded from the side wall 631 than the button 683, in order to reduce (or prevent) the third housing part 130 from contacting the first housing part 110 or the foldable display 140 through the button 683.

[0123] Since the button 683 is a physical button configured to receive a press input, a structure for providing a sense of distinguishing the button 683 may be applied to the side wall 631. This structure is described with reference to FIG. 8.

[0124] FIG. 8 illustrates a button included in a third housing part of an electronic device.

[0125] Referring to FIG. 8, the side wall 631 (or the portion 681 of the side wall 631) may include a dented portion 800. The button 683 included in the third housing part 130 may be protruded from the dented portion 800. The dented portion 800 may include a first portion 802 from which the button 683 is protruded, and second portions 801 surrounding the button 683. The second portions 801 of the dented portion 800 surrounding the button 683 may provide a sense of distinguishing the button 683. As a non-limiting example, a height 804 of the button 683 protruded from a base 803 of the dented portion 800 may be longer than about 0.3 (mm) and shorter than about 0.5 (mm).

[0126] Referring back to FIG. 6, since the damper 600 is pressed (or depressed) by the first housing part 110 or the foldable display 140, the damper 600 may be attached to the side wall 631 from the outside of the electronic device 100. The damper 600 attached to the side wall 631 from the outside of the electronic device 100 is described with reference to FIG. 9.

[0127] FIG. 9 illustrates a method of including a damper in a third housing part of an electronic device.

[0128] Referring to FIG. 9, as in a state 960, the side wall 631 of the third housing part 130 may include a groove portion 900. A portion of the damper 600 may be inserted into the groove portion 900 or may be included within the groove portion 900, as indicated by the arrow 950. For example, as in a state 990, the damper 600 inserted into the groove portion 900 may be protruded from the side wall 631. For example, the damper 600 may be attached to the side wall 631 by the portion of the damper 600 that is fitted into the groove portion 900. For example, the damper 600 may be attached to the groove portion 900 via an adhesive on the portion of the damper 600. However, embodiments of the disclosure are not limited thereto. For example, the groove portion 900 may be replaced with an opening defined by the side wall 631. The damper 600 may include a first portion that passes through the opening and is protruded from the side wall 631, a second portion that is positioned within the opening and is contacted to the opening, and a flange portion that is attached to an inner surface of the side wall 631 and has a size larger than a size of the opening. The damper 600 may be attached to the side wall 631 by the flange portion of the damper 600 attached to a portion of the inner surface of an opening portion of the side wall 631 surrounding the opening.

[0129] As a non-limiting example, the side wall 631 may include conductive portions 911 and non-conductive portions 910 between the conductive portions 911, as described above. The damper 600 and the non-conductive portion 910 may be attached to the conductive portions 911 of the side wall 631 through an injection process. For example, the damper 600 and the non-conductive portion 910 attached to the conductive portions 911 may be provided, by injecting a molten resin (molten plastic) forming the damper 600 and the non-conductive portion 910 into a mold into which the conductive portions 911 are inserted, and hardening the molten resin injected into the mold.

[0130] Referring back to FIG. 6, since the damper 600 is disposed within the rounded corner portion 696 connected to the side wall 632, the damper 600 may be contacted on the front frame portion 615, while the electronic device 100 has the triangular prism shape. The front frame portion 615 may include a first portion supported by the side wall 612, and a second portion extending from the first portion of the front frame portion 615 and covering a portion of the periphery of the foldable display 140. Since the second portion of the front frame portion 615 covers a portion of the periphery of the foldable display 140, the damper 600 may have a shape

to be contacted on the first portion of the front frame portion **615** while the electronic device **100** has the triangular prism shape. Since the first portion of the front frame portion **615** is supported by the side wall **612**, the damper **600** may have a shape to be contacted on the first portion of the front frame portion **615** while the electronic device **100** has the triangular prism shape. The shape is described with reference to FIG. **10**.

[0131] FIG. **10** illustrates a shape of a damper included in a third housing part of an electronic device.

[0132] Referring to FIG. **10**, a state **1000** may correspond to the cross-sectional view of A-B in FIG. **7**. The front frame portion **615** may include a first portion **1001** supported by the side wall **612** and a second portion **1002** covering a portion of the periphery of the foldable display **140**.

[0133] The damper **600** being protruded from the side wall **631** of the third housing part **130** may be contacted on the first portion **1001** of the front frame portion **615**, when the third housing part **130** is positioned on a portion of the foldable display **140** (e.g., a portion of the first display region **140***a*) positioned above the first housing part **110**, according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**, as in the state **1000**. As a non-limiting example, force from the damper **600** protruded from the side wall **631** of the third housing part **130** may be distributed toward the side wall **612** through the first portion **1001** of the front frame portion **615** contacted on the damper **600**.

[0134] The damper **600** protruded from the side wall **631** of the third housing part **130** may have a shape that prevents (or reduces) being contacted on only the second portion **1002** of the front frame portion **615**, when the third housing part **130** is positioned on a portion of the foldable display **140** (e.g., a portion of the first display region **140***a*) positioned above the first housing part **110**, according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**, as in a state **1050**.

[0135] The damper **600** may be included in the electronic device **100** to reduce damage of the foldable display **140** and/or to reduce sliding of the third housing part **130** on the foldable display **140**, but embodiments of the disclosure are not limited to the damper **600**. For example, the damper **600** may be replaced or modified with another structure. Another structure is described with reference to FIGS. **11** to **23**.

[0136] FIG. **11** illustrates a first example configuration of an expanded front frame portion in a third housing part of an electronic device.

[0137] Referring to FIG. **11**, the damper **600** may be replaced with an expanded (or extended) front frame portion **1101**, which is included within the third housing part **130**. For example, the expanded front frame portion **1101** may be disposed within the rounded corner portion **696**. The expanded front frame portion **1101** may be expanded or extended from a portion of the front frame portion **634**. The expanded front frame portion **1101** may be supported by the side wall **631**. The expanded front frame portion **1101** may be disposed such that, when viewed from a front side of the electronic device **100**, a portion of the side wall **631** supporting the expanded front frame portion **1101** is covered by the expanded front frame portion **1101**.

[0138] As a non-limiting example, the front frame portion **634** and the expanded front frame portion **1101** may define a step portion **1105**, as in a state **1100**. The step portion **1105** may include a horizontal portion **1102** that is a portion of the expanded front frame portion **1101**, a horizontal portion **1104** that is a portion of the front frame portion **634**, and a vertical portion **1103** that connects the horizontal portion **1104** to the horizontal portion **1102**. As a non-limiting example, the step portion **1105** may be a structure for replacing the damper **600**.

[0139] For example, when the third housing part **130** is supported by the front frame portion **614** of the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**, the front frame portion **634** can be spaced apart from the front frame portion **614** of the first housing part **110** by the expanded front frame portion **1101** that is contacted on the front frame portion **614** of the first housing part **110**.

[0140] For example, the expanded front frame portion **1101** may be contacted on a first portion **1001** of the front frame portion **615** of the first housing part **110**, when the third housing part **130** is positioned on a portion of the foldable display **140** positioned above the first housing part **110**, according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0141] FIG. **12** illustrates a second example configuration of an expanded front frame portion in a third housing part of an electronic device.

[0142] Referring to FIG. **12**, an expanded front frame portion **1201** according to the second example configuration may be expanded from the expanded front frame portion **1101** according to the first example configuration illustrated in FIG. **11**.

[0143] As a non-limiting example, the expanded front frame portion **1101** and the expanded front frame portion **1201** may define a step portion **1205**. The step portion **1205** may include a horizontal portion **1102** that is a portion of the expanded front frame portion **1101**, a horizontal portion **1202** that is a portion of the expanded frame portion **1201**, and a vertical portion **1203** that connects the horizontal portion **1202** to the horizontal portion **1102**. As a non-limiting example, the step portion **1205** may be a structure for replacing the damper **600**.

[0144] For example, the front frame portion **634** and/or the expanded front frame portion **1101** may be spaced apart from the front frame portion **614** of the first housing part **110** by the expanded front frame portion **1201** that is contacted on the front frame portion **614** of the first housing part **110**, when the third housing part **130** is supported by the front frame portion **614** of the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0145] For example, the expanded front frame portion **1201** may be contacted on the first portion **1001** of the front frame portion **615** of the first housing part **110**, when the third housing part **130** is positioned on a portion of the foldable display **140** positioned above the first housing part **110**, according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0146] FIG. **13** illustrates a third example configuration of an expanded front frame part in a third housing part of an electronic device.

[0147] Referring to FIG. **13**, an expanded front frame portion **1301** according to the third example configuration

may be expanded (or extended) in a direction of a rear wall of the third housing part **130** from the expanded front frame portion **1101** according to the first example configuration or the expanded front frame portion **1201** according to the second example configuration.

[0148] As a non-limiting example, the side wall **631** included within the rounded corner portion **696** by the expanded front frame portion **1301** may be (fully) covered.

[0149] For example, the front frame portion **634** and/or the expanded front frame portion **1101** may be spaced apart from the front frame portion **614** of the first housing part **110** by the expanded front frame portion **1301** (or the expanded front frame portion **1201** and the expanded front frame portion **1301**) that is contacted on the front frame portion **614** of the first housing part **110**, when the third housing part **130** is supported by the front frame portion **614** of the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0150] For example, the expanded front frame portion **1301** (or the expanded front frame portion **1201** and the expanded front frame portion **1301**) may be contacted on the first portion **1001** of the front frame portion **615** of the first housing part **110**, when the third housing part **130** is positioned on a portion of the foldable display **140** positioned above the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0151] FIG. **14** illustrates an example configuration of a side frame portion included in a third housing part of an electronic device.

[0152] Referring to FIG. **14**, the side wall **631** may include a first conductive portion **1401**, a second conductive portion **1402**, and a side frame portion **1403**. The side frame portion **1403** may be a non-conductive portion. The side frame portion **1403** may be disposed between the first conductive portion **1401** and the second conductive portion **1402**. The first conductive portion **1401**, the second conductive portion **1402**, and the side frame portion **1403** may be attached to the first conductive portion **1401** and the second conductive portion **1402** of the side wall **631**, through an injection process. For example, the side frame portion **1403** attached to the first conductive portion **1401** and the second conductive portion **1402** may be provided, by injecting a molten resin forming the side frame portion **1403** into a mold into which the first conductive portion **1401** and the second conductive portion **1402** are inserted, and curing the molten resin injected into the mold.

[0153] The side frame portion **1403** may include a protruding portion **1404** disposed within the rounded corner portion **696**.

[0154] For example, the front frame portion **634** may be spaced apart from the front frame portion **614** of the first housing part **110** by the protruding portion **1404**, when the third housing part **130** is supported by the front frame portion **614** of the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0155] For example, the protruding portion **1404** may be contacted on the first portion **1001** of the front frame portion **615** of the first housing part **110**, when the third housing part **130** is positioned on a portion of the foldable display **140** positioned above the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0156] FIG. **15** illustrates a size of a damper included in a third housing part of an electronic device that omits a front frame part.

[0157] Referring to FIG. **15**, front frame portions (e.g., front frame portions of the first housing part **110**, front frame portions of the second housing part **120**, and front frame portions of the third housing part **130**) covering the periphery of the foldable display **140** may be omitted from the electronic device **100**.

[0158] The side wall **631** may include edge portions **1503** connected to the side wall **632** (not illustrated in FIG. **15**). The edge portions **1503** may be positioned within the rounded corner portion **696**. The edge portions **1503** may include a first edge portion **1501** and a second edge portion **1502**. The first edge portion **1501** may be closer to a front wall (or front surface) of the third housing part **130** than the second edge portion **1502**. The second edge portion **1502** may be closer to a rear wall (or rear surface) of the third housing part **130** than the first edge portion **1501**.

[0159] For example, the first edge portion **1501** may be spaced apart from the edge portion of the side wall **611** of the first housing part **110** by the damper **600** contacted on the edge portion of the side wall **611** of the first housing part **110**, when the third housing part **130** is supported by an edge portion (e.g., an edge portion adjacent to the front wall (or front surface) of the first housing part **110**) of the side wall **611** of the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0160] For example, the damper **600** may be contacted on the side wall **612** of the first housing part **110** (or only on the side wall **612** of the first housing part **110**), when the third housing part **130** is positioned on a portion of the foldable display **140** positioned above the first housing part **110** according to the second housing part **120** partially folded with respect to the first housing part **110** and the third housing part **130**.

[0161] FIG. **16** illustrates a damper capable of being inserted into a third housing part of an electronic device.

[0162] Referring to FIG. **16**, at least a portion of the damper **600** may be insertable into the side wall **631**.

[0163] The damper **600**, which is insertable into the side wall **631** (or the third housing part **130**), may be in a state **1600** that is more protruded from the side wall **631** or in a state **1650** that is more inserted into the side wall **631**.

[0164] For the damper **600** that is insertable into the side wall **631** (or the third housing part **130**), a push latch structure may be applied.

[0165] The damper **600** may include a body portion **1613** and an elastic body (or spring) **1611**.

[0166] The elastic body **1611** may cause the damper **600** to move in the direction **692-1**, in response to a release of a force **1641** in the direction **692-2**, which causes the damper **600** to move in the direction **692-2** within the state **1600**. The elastic body **1611** may cause a movement **1692** of the damper **600**, which includes a first movement of the damper **600** in the direction **692-2** and a second movement of the damper **600** in the direction **692-1** (which is a movement of the damper **600** after the first movement).

[0167] The body portion **1613** may include a cam **1612** (or a guide groove **1612**). The guide groove **1612** may guide a movement path of a cam follower **1601** included in the third

housing part **130**. The third housing part **130** may include an elastic body **1602** (or a spring **1602**) that covers at least a portion of the cam follower **1601** and provides a force in a direction **1693**.

[0168] For example, based on the force **1641** provided to the damper **600** and a release of the force **1641** within a state **1660** corresponding to the state **1600**, the cam follower **1601** may be moved along a movement path **1621**. For example, the cam follower **1601** moved along the movement path **1621** may be in a state **1665** changed from the state **1660**. When the cam follower **1601** is in the state **1665**, the damper **600** may be further inserted into the side wall **631** or the third housing part **130**, as in the state **1650**.

[0169] For example, based on the force **1642** provided to the damper **600** in the state **1665** corresponding to the state **1650**, the cam follower **1601** may be moved along a movement path **1622**. For example, the cam follower **1601** moved along the movement path **1622** may be in a state **1660** changed from the state **1665**. When the cam follower **1601** is in the state **1660**, the damper **600** may be more protruded from the side wall **631** or the third housing part **130**, as in the state **1600**.

[0170] The electronic device **100** may be intended to have a single triangular prism shape. In relation to the electronic device **100** having the single triangular prism shape, a structure included within the electronic device **100** is described with reference to FIGS. **17** to **23**.

[0171] FIG. **17** illustrates a third housing part of an electronic device configured to be detachably attached to a first housing part of an electronic device.

[0172] Referring to FIG. **17**, the electronic device **100** may have a single triangular prism shape, such as the illustration of FIG. **17**. The electronic device **100** may have the single triangular prism shape by a third housing part **130** detachably attached to the first housing part **110**. For example, the electronic device **100** may have the single triangular prism shape according to detachably attaching a portion (e.g., at least a portion of the front frame portion **634**, or at least a portion of the side wall **631**) of the third housing part **130** to the side wall **611** of the first housing part **110**.

[0173] The side wall **611** may have a structure for attaching the portion of the third housing part **130**. The structure is described with reference to FIG. **18**.

[0174] FIG. **18** illustrates a shape of a side wall of a first housing part of an electronic device.

[0175] Referring to FIG. **18**, the first housing part **110** may include an inclined side wall **611** as the structure for attaching the portion of the third housing part **130**. The first housing part **110** may include a front surface face **1801** and a rear surface **1802** wider than the front surface **1801**. Since the front surface **1801** is narrower than the rear surface **1802**, the side wall **611** extending from the front surface **1801** to the rear surface **1802** may be inclined. For example, an angle **1803** between the front surface **1801** and an outer surface of the side wall **611** may be an interior angle, and an angle **1804** between the rear surface **1802** and the outer surface of the side wall **611** may be an exterior angle. The angle **1803** and the angle **1804** may determine the single triangular prism shape. The first housing part **110** may further include an additional structure for detachably attaching the portion of the third housing part **130**. The additional structure may be disposed in relation to the side wall **611**. The additional structure may be paired with the portion of the third housing part **130**. The additional structure is described with reference to FIG. **19**.

[0176] FIG. **19** illustrates a magnet included in a first housing part of an electronic device.

[0177] Referring to FIG. **19**, the first housing part **110** may include a magnet **1900** adjacent to the side wall **611**. The magnet **1900** may be included within the first housing part **110** to be invisible from the outside. The magnet **1900** may be paired with a magnet included within the third housing part **130**. The magnet included within the third housing part **130** is described with reference to FIG. **20**.

[0178] FIG. **20** illustrates a magnet in a third housing part of an electronic device paired with a magnet included in a first housing part of the electronic device.

[0179] Referring to FIG. **20**, the third housing part **130** may include a magnet **2000** adjacent to the side wall **631**. The magnet **2000** may be included within the third housing part **130** to be invisible from the outside. A polarity of the magnet **2000** may be opposite to a polarity of the magnet **1900**. For example, the single triangular prism shape of the electronic device **100** may be determined by an attractive force between the magnet **1900** and the magnet **2000**, a position of the magnet **1900**, and a position of the magnet **2000**.

[0180] The magnet **1900** may be used not only for the electronic device **100** having the single triangular prism shape, but also for detachably attaching an accessory device. The accessory device is described with reference to FIG. **21**.

[0181] FIG. **21** illustrates a stylus configured to be detachably attached through a magnet included in a first housing part of an electronic device.

[0182] Referring to FIG. **21**, the accessory device (or peripheral device) may further include a stylus **2100** (or an electromagnetic pen **2100**). The stylus **2100** may be used to provide a handwriting input through the foldable display **140**. The stylus **2100** may provide the handwriting input by providing an electromagnetic signal to the foldable display **140** according to an active electrostatic (AES) method, a capacitive method, and/or an electromagnetic resonance (EMR) method.

[0183] The stylus **2100** may include a magnet paired with the magnet **1900**. The magnet may be disposed within a body portion of the stylus **2100** to be invisible from the outside of the stylus **2100**. For example, a polarity of the magnet of the stylus **2100** may be opposite to the polarity of the magnet **1900**. For example, a position at which the stylus **2100** is detachably attached to the side wall **611** may be determined by an attractive force between the magnet **1900** and the magnet of the stylus **2100**, a position of the magnet **1900**, and a position of the magnet of the stylus **2100**.

[0184] For the third housing part **130** detachably attached to the first housing part **110**, the first housing part **110** may include a structure that replaces the structure illustrated in FIGS. **19** to **21**, or a structure that is additionally applied in relation to the structure illustrated in FIGS. **19** to **21**.

[0185] FIG. **22** illustrates a groove included in a first housing part of an electronic device.

[0186] Referring to FIG. **22**, the first housing part **110** may include, within the side wall **611**, a groove portion **2200** for detachably attaching the third housing part **130** to the side wall **611** of the first housing part **110**, either to replace the magnet **1900** or together with the magnet **1900**. The groove

portion **2200** may be paired with a structure included within the third housing part **130**. The structure is described with reference to FIG. **23**.

[0187] FIG. **23** illustrates a protruding portion of a third housing part of an electronic device paired with a groove included in a first housing part of the electronic device.

[0188] Referring to FIG. **23**, the third housing part **130** may include, within the side wall **613**, a protruding portion **2300** for detachably attaching the third housing part **130** to the side wall **611** of the first housing part **110**, either to replace the magnet **2000** or together with the magnet **2000**. A shape and size of the protruding portion **2300** may correspond to the shape and size of a groove portion **2200**.

[0189] As described above, the electronic device **100** may include at least a portion of the electronic device **2401** of FIG. **24**.

[0190] FIG. **24** is a block diagram illustrating an electronic device **2401** in a network environment **2400** according to various embodiments. Referring to FIG. **24**, the electronic device **2401** in the network environment **2400** may communicate with an electronic device **2402** via a first network **2498** (e.g., a short-range wireless communication network), or at least one of an electronic device **2404** or a server **2408** via a second network **2499** (e.g., a long-range wireless communication network). According to an embodiment, the electronic device **2401** may communicate with the electronic device **2404** via the server **2408**. According to an embodiment, the electronic device **2401** may include a processor **2420**, memory **2430**, an input module **2450**, a sound output module **2455**, a display module **2460**, an audio module **2470**, a sensor module **2476**, an interface **2477**, a connecting terminal **2478**, a haptic module **2479**, a camera module **2480**, a power management module **2488**, a battery **2489**, a communication module **2490**, a subscriber identification module (SIM) **2496**, or an antenna module **2497**. In some embodiments, at least one of the components (e.g., the connecting terminal **2478**) may be omitted from the electronic device **2401**, or one or more other components may be added in the electronic device **2401**. In some embodiments, some of the components (e.g., the sensor module **2476**, the camera module **2480**, or the antenna module **2497**) may be implemented as a single component (e.g., the display module **2460**).

[0191] The processor **2420** may execute, for example, software (e.g., a program **2440**) to control at least one other component (e.g., a hardware or software component) of the electronic device **2401** coupled with the processor **2420**, and may perform various data processing or computation. According to an embodiment, as at least part of the data processing or computation, the processor **2420** may store a command or data received from another component (e.g., the sensor module **2476** or the communication module **2490**) in volatile memory **2432**, process the command or the data stored in the volatile memory **2432**, and store resulting data in non-volatile memory **2434**. According to an embodiment, the processor **2420** may include a main processor **2421** (e.g., a central processing unit (CPU) or an application processor (AP)), or an auxiliary processor **2423** (e.g., a graphics processing unit (GPU), a neural processing unit (NPU), an image signal processor (ISP), a sensor hub processor, or a communication processor (CP)) that is operable independently from, or in conjunction with, the main processor **2421**. For example, when the electronic device **2401** includes the main processor **2421** and the auxiliary processor **2423**, the auxiliary processor **2423** may be adapted to consume less power than the main processor **2421**, or to be specific to a specified function. The auxiliary processor **2423** may be implemented as separate from, or as part of the main processor **2421**.

[0192] The auxiliary processor **2423** may control at least some of functions or states related to at least one component (e.g., the display module **2460**, the sensor module **2476**, or the communication module **2490**) among the components of the electronic device **2401**, instead of the main processor **2421** while the main processor **2421** is in an inactive (e.g., sleep) state, or together with the main processor **2421** while the main processor **2421** is in an active state (e.g., executing an application). According to an embodiment, the auxiliary processor **2423** (e.g., an image signal processor or a communication processor) may be implemented as part of another component (e.g., the camera module **2480** or the communication module **2490**) functionally related to the auxiliary processor **2423**. According to an embodiment, the auxiliary processor **2423** (e.g., the neural processing unit) may include a hardware structure specified for artificial intelligence model processing. An artificial intelligence model may be generated by machine learning. Such learning may be performed, e.g., by the electronic device **2401** where the artificial intelligence is performed or via a separate server (e.g., the server **2408**). Learning algorithms may include, but are not limited to, e.g., supervised learning, unsupervised learning, semi-supervised learning, or reinforcement learning. The artificial intelligence model may include a plurality of artificial neural network layers. The artificial neural network may be a deep neural network (DNN), a convolutional neural network (CNN), a recurrent neural network (RNN), a restricted boltzmann machine (RBM), a deep belief network (DBN), a bidirectional recurrent deep neural network (BRDNN), deep Q-network or a combination of two or more thereof but is not limited thereto. The artificial intelligence model may, additionally or alternatively, include a software structure other than the hardware structure.

[0193] The memory **2430** may store various data used by at least one component (e.g., the processor **2420** or the sensor module **2476**) of the electronic device **2401**. The various data may include, for example, software (e.g., the program **2440**) and input data or output data for a command related thereto. The memory **2430** may include the volatile memory **2432** or the non-volatile memory **2434**.

[0194] The program **2440** may be stored in the memory **2430** as software, and may include, for example, an operating system (OS) **2442**, middleware **2444**, or an application **2446**.

[0195] The input module **2450** may receive a command or data to be used by another component (e.g., the processor **2420**) of the electronic device **2401**, from the outside (e.g., a user) of the electronic device **2401**. The input module **2450** may include, for example, a microphone, a mouse, a keyboard, a key (e.g., a button), or a digital pen (e.g., a stylus pen).

[0196] The sound output module **2455** may output sound signals to the outside of the electronic device **2401**. The sound output module **2455** may include, for example, a speaker or a receiver. The speaker may be used for general purposes, such as playing multimedia or playing record. The receiver may be used for receiving incoming calls. Accord-

ing to an embodiment, the receiver may be implemented as separate from, or as part of the speaker.

[0197] The display module **2460** may visually provide information to the outside (e.g., a user) of the electronic device **2401**. The display module **2460** may include, for example, a display, a hologram device, or a projector and control circuitry to control a corresponding one of the display, hologram device, and projector. According to an embodiment, the display module **2460** may include a touch sensor adapted to detect a touch, or a pressure sensor adapted to measure the intensity of force incurred by the touch.

[0198] The audio module **2470** may convert a sound into an electrical signal and vice versa. According to an embodiment, the audio module **2470** may obtain the sound via the input module **2450**, or output the sound via the sound output module **2455** or a headphone of an external electronic device (e.g., an electronic device **2402**) directly (e.g., wiredly) or wirelessly coupled with the electronic device **2401**.

[0199] The sensor module **2476** may detect an operational state (e.g., power or temperature) of the electronic device **2401** or an environmental state (e.g., a state of a user) external to the electronic device **2401**, and then generate an electrical signal or data value corresponding to the detected state. According to an embodiment, the sensor module **2476** may include, for example, a gesture sensor, a gyro sensor, an atmospheric pressure sensor, a magnetic sensor, an acceleration sensor, a grip sensor, a proximity sensor, a color sensor, an infrared (IR) sensor, a biometric sensor, a temperature sensor, a humidity sensor, or an illuminance sensor.

[0200] The interface **2477** may support one or more specified protocols to be used for the electronic device **2401** to be coupled with the external electronic device (e.g., the electronic device **2402**) directly (e.g., wiredly) or wirelessly. According to an embodiment, the interface **2477** may include, for example, a high definition multimedia interface (HDMI), a universal serial bus (USB) interface, a secure digital (SD) card interface, or an audio interface.

[0201] A connecting terminal **2478** may include a connector via which the electronic device **2401** may be physically connected with the external electronic device (e.g., the electronic device **2402**). According to an embodiment, the connecting terminal **2478** may include, for example, an HDMI connector, a USB connector, a SD card connector, or an audio connector (e.g., a headphone connector).

[0202] The haptic module **2479** may convert an electrical signal into a mechanical stimulus (e.g., a vibration or a movement) or electrical stimulus which may be recognized by a user via his tactile sensation or kinesthetic sensation. According to an embodiment, the haptic module **2479** may include, for example, a motor, a piezoelectric element, or an electric stimulator.

[0203] The camera module **2480** may capture a still image or moving images. According to an embodiment, the camera module **2480** may include one or more lenses, image sensors, image signal processors, or flashes.

[0204] The power management module **2488** may manage power supplied to the electronic device **2401**. According to an embodiment, the power management module **2488** may be implemented as at least part of, for example, a power management integrated circuit (PMIC).

[0205] The battery **2489** may supply power to at least one component of the electronic device **2401**. According to an embodiment, the battery **2489** may include, for example, a primary cell which is not rechargeable, a secondary cell which is rechargeable, or a fuel cell.

[0206] The communication module **2490** may support establishing a direct (e.g., wired) communication channel or a wireless communication channel between the electronic device **2401** and the external electronic device (e.g., the electronic device **2402**, the electronic device **2404**, or the server **2408**) and performing communication via the established communication channel. The communication module **2490** may include one or more communication processors that are operable independently from the processor **2420** (e.g., the application processor (AP)) and supports a direct (e.g., wired) communication or a wireless communication. According to an embodiment, the communication module **2490** may include a wireless communication module **2492** (e.g., a cellular communication module, a short-range wireless communication module, or a global navigation satellite system (GNSS) communication module) or a wired communication module **2494** (e.g., a local area network (LAN) communication module or a power line communication (PLC) module). A corresponding one of these communication modules may communicate with the external electronic device via the first network **2498** (e.g., a short-range communication network, such as Bluetooth™, wireless-fidelity (Wi-Fi) direct, or infrared data association (IrDA)) or the second network **2499** (e.g., a long-range communication network, such as a legacy cellular network, a 5G network, a next-generation communication network, the Internet, or a computer network (e.g., LAN or wide area network (WAN)). These various types of communication modules may be implemented as a single component (e.g., a single chip), or may be implemented as multi components (e.g., multi chips) separate from each other. The wireless communication module **2492** may identify and authenticate the electronic device **2401** in a communication network, such as the first network **2498** or the second network **2499**, using subscriber information (e.g., international mobile subscriber identity (IMSI)) stored in the subscriber identification module **2496**.

[0207] The wireless communication module **2492** may support a 5G network, after a 4G network, and next-generation communication technology, e.g., new radio (NR) access technology. The NR access technology may support enhanced mobile broadband (eMBB), massive machine type communications (mMTC), or ultra-reliable and low-latency communications (URLLC). The wireless communication module **2492** may support a high-frequency band (e.g., the mmWave band) to achieve, e.g., a high data transmission rate. The wireless communication module **2492** may support various technologies for securing performance on a high-frequency band, such as, e.g., beamforming, massive multiple-input and multiple-output (massive MIMO), full dimensional MIMO (FD-MIMO), array antenna, analog beam-forming, or large scale antenna. The wireless communication module **2492** may support various requirements specified in the electronic device **2401**, an external electronic device (e.g., the electronic device **2404**), or a network system (e.g., the second network **2499**). According to an embodiment, the wireless communication module **2492** may support a peak data rate (e.g., 20 Gbps or more) for implementing eMBB, loss coverage (e.g., 2464 dB or less) for implementing mMTC, or U-plane latency (e.g., 0.5 ms or less for each of downlink (DL) and uplink (UL), or a round trip of 24 ms or less) for implementing URLLC.

[0208] The antenna module **2497** may transmit or receive a signal or power to or from the outside (e.g., the external electronic device) of the electronic device **2401**. According to an embodiment, the antenna module **2497** may include an antenna including a radiating element composed of a conductive material or a conductive pattern formed in or on a substrate (e.g., a printed circuit board (PCB)). According to an embodiment, the antenna module **2497** may include a plurality of antennas (e.g., array antennas). In such a case, at least one antenna appropriate for a communication scheme used in the communication network, such as the first network **2498** or the second network **2499**, may be selected, for example, by the communication module **2490** (e.g., the wireless communication module **2492**) from the plurality of antennas. The signal or the power may then be transmitted or received between the communication module **2490** and the external electronic device via the selected at least one antenna. According to an embodiment, another component (e.g., a radio frequency integrated circuit (RFIC)) other than the radiating element may be additionally formed as part of the antenna module **2497**.

[0209] According to various embodiments, the antenna module **2497** may form a mmWave antenna module. According to an embodiment, the mmWave antenna module may include a printed circuit board, an RFIC disposed on a first surface (e.g., the bottom surface) of the printed circuit board, or adjacent to the first surface and capable of supporting a designated high-frequency band (e.g., the mmWave band), and a plurality of antennas (e.g., array antennas) disposed on a second surface (e.g., the top or a side surface) of the printed circuit board, or adjacent to the second surface and capable of transmitting or receiving signals of the designated high-frequency band.

[0210] At least some of the above-described components may be coupled mutually and communicate signals (e.g., commands or data) therebetween via an inter-peripheral communication scheme (e.g., a bus, general purpose input and output (GPIO), serial peripheral interface (SPI), or mobile industry processor interface (MIPI)).

[0211] According to an embodiment, commands or data may be transmitted or received between the electronic device **2401** and the external electronic device **2404** via the server **2408** coupled with the second network **2499**. Each of the electronic devices **2402** or **2404** may be a device of a same type as, or a different type, from the electronic device **2401**. According to an embodiment, all or some of operations to be executed at the electronic device **2401** may be executed at one or more of the external electronic devices **2402**, **2404**, or **2408**. For example, if the electronic device **2401** should perform a function or a service automatically, or in response to a request from a user or another device, the electronic device **2401**, instead of, or in addition to, executing the function or the service, may request the one or more external electronic devices to perform at least part of the function or the service. The one or more external electronic devices receiving the request may perform the at least part of the function or the service requested, or an additional function or an additional service related to the request, and transfer an outcome of the performing to the electronic device **2401**. The electronic device **2401** may provide the outcome, with or without further processing of the outcome, as at least part of a reply to the request. To that end, a cloud computing, distributed computing, mobile edge computing (MEC), or client-server computing technology may be used, for example. The electronic device **2401** may provide ultra low-latency services using, e.g., distributed computing or mobile edge computing. In another embodiment, the external electronic device **2404** may include an internet-of-things (IoT) device. The server **2408** may be an intelligent server using machine learning and/or a neural network. According to an embodiment, the external electronic device **2404** or the server **2408** may be included in the second network **2499**. The electronic device **2401** may be applied to intelligent services (e.g., smart home, smart city, smart car, or healthcare) based on 5G communication technology or IoT-related technology.

[0212] As described above, an electronic device (e.g., the electronic device **100**) may comprise a housing (e.g., the housing **101**). The housing may include a first housing part (e.g., the first housing part **110**), a second housing part (e.g., the second housing part **120**) rotatably coupled with respect to the first housing part, and a third housing part (e.g., the third housing part **130**) rotatably coupled with respect to the second housing part. The first housing part may be configured to be positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state. The electronic device may include a foldable display (e.g., the foldable display **140**) disposed to overlie the first housing part, the second housing part, and the third housing part. The first housing part may include a side wall (e.g., the side wall **611**) defining a portion of a periphery of the electronic device, and a protection member (e.g., the front frame portion **614**) disposed at an edge of the foldable display. The third housing part may include a side wall (e.g., the side wall **631**) parallel to the side wall of the first housing part, at least one camera disposed on a rear surface of the third housing part, at least one input member disposed on the side wall of the third housing part, and a buffer member (e.g., the damper **600** and the damper **601**) disposed on the side wall of the third housing part. The buffer member may include a first buffer member disposed at a first position of the side wall of the third housing part and a second buffer member disposed at a second position of the side wall of the third housing part. The first buffer member and the second buffer member may be configured to be protruded from the side wall of the third housing part.

[0213] The third housing part may include a protection member supported by the side wall of the third housing part and disposed at an edge of the foldable display. The electronic device may have a triangular prism shape when the third housing part is supported by the protection member of the first housing part according to the first housing part, the second housing part, and the third housing part, which are partially folded. The protection member of the third housing part may be spaced apart from the protection member of the first housing part by the buffer member contacted on the protection member of the first housing part, when the third housing part is supported by the protection member of the first housing part.

[0214] The at least one input member of the third housing part may include a button (e.g., the button **683**) protruded from the side wall of the third housing part. The buffer member may be more protruded from the side wall of the third housing part than the button.

[0215] The side wall of the third housing part may include a dented portion (e.g., the dented portion **800**). The button may be protruded from the dented portion of the side wall of the third housing part.

[0216] The portion of the side wall of the third housing part may correspond to a rounded corner portion (e.g., the rounded corner portion **696**) of the electronic device. The side wall of the third housing part may further include another portion (e.g., the portion **681**) corresponding to a planar portion of a lateral surface of a rounded cuboid. The buffer member may be protruded from the portion of the side wall of the third housing part in a direction of the other portion of the side wall of the third housing part.

[0217] The first housing part may include another side wall (e.g., the side wall **612**) and another protection member (e.g., the front frame portion **615**), defining a portion of the periphery of the electronic device. The other protection member may include a first portion (e.g., the first portion **1001**) supported by the other side wall of the first housing part, and a second portion (e.g., the second portion **1002**) extending from the first portion of the other protection member and covering the edge of the foldable display. The buffer member protruded from the portion of the side wall of the third housing part may contacted on the first portion of the other protection member of the first housing part, when the third housing part is positioned on a portion of the foldable display positioned above the first housing part, according to the second housing part partially folded with respect to the first housing part and the third housing part.

[0218] The buffer member may be formed from a rubber.

[0219] The buffer member may be formed from a urethane.

[0220] The buffer member may be formed from a silicon.

[0221] The side wall of the third housing part may include a groove portion (e.g., the groove portion **900**). The buffer member protruded from the portion of the side wall of the third housing part may include a portion positioned within the groove portion of the side wall of the third housing part.

[0222] As described above, an electronic device (e.g., the electronic device **100**) may comprise a housing (e.g., the housing **101**). The housing may include a first housing part (e.g., the first housing part **110**), a second housing part (e.g., the second housing part **120**) rotatably coupled with the first housing part, and a third housing part (e.g., the third housing part **130**) rotatably coupled with the second housing part. The first housing part may be configured to be positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state. The electronic device may comprise a foldable display (e.g., the foldable display **140**) disposed above the first housing part, the second housing part, and the third housing part. The first housing part may include a first side wall (e.g., the side wall **611**) defining a portion of a periphery of the electronic device, a second side wall (e.g., the side wall **612**) defining a portion of the periphery of the electronic device and perpendicular to the first side wall of the first housing part, a first protection member (e.g., the front frame portion **614**) supported by the first side wall of the first housing part and covering a portion of a periphery of the foldable display, and a second protection member (e.g., the front frame portion **615**). The second protection member may include a first portion (e.g., the first portion **1001**) supported by the second side wall of the first housing part, and a second portion (e.g., the second portion **1002**) extending from the first portion of the second protection member and covering a portion of the periphery of the foldable display. The third housing part may include a side wall (e.g., the side wall **631**) defining a portion of the periphery of the electronic device and parallel to the first side wall of the first housing part, a protection member (e.g., the front frame portion **634**) supported by the side wall of the third housing part and covering a portion of the periphery of the foldable display, and a buffer member (e.g., the damper **600**) protruded in a direction of the side wall of the third housing part. The buffer member may be contacted on the first portion of the second protection member of the first housing part, when the third housing part is positioned on a portion of the foldable display positioned above the first housing part, according to the second housing part partially folded with respect to the first housing part and the third housing part.

[0223] The buffer member may be protruded from a portion of the side wall of the third housing part.

[0224] The electronic device may have a triangular prism shape when the third housing part is positioned on the portion of the foldable display.

[0225] The portion of the side wall of the third housing part may correspond to a rounded corner portion of the electronic device. The side wall of the third housing part may include another portion corresponding to a planar portion of a lateral surface of a rounded cuboid. The buffer member may be protruded from the portion of the side wall of the third housing part in the other direction of the other portion of the side wall of the third housing part.

[0226] The protection member of the third housing part may be spaced apart from the first protection member of the first housing part by the buffer member contacted on the first protection member of the first housing part, when the third housing part is supported by the front frame portion of the first housing part according to the second housing part partially folded with respect to the first housing part and the third housing part.

[0227] The third housing part may include a button protruded from the side wall of the third housing part. The damper may be more protruded from the side wall of the third housing part than the button.

[0228] The side wall of the third housing part may include a dented portion. The button may be protruded from the dented portion of the side wall of the third housing part.

[0229] The buffer member may be formed from a rubber.

[0230] The buffer member may be formed from a urethane.

[0231] The buffer member may be formed from a silicon.

[0232] The third housing part may include a groove portion. The buffer member protruded from the portion of the side wall of the third housing part may include a portion positioned within the groove portion of the third housing part.

[0233] The electronic device according to various embodiments may be one of various types of electronic devices. The electronic devices may include, for example, a portable communication device (e.g., a smartphone), a computer device, a portable multimedia device, a portable medical device, a camera, a wearable device, or a home appliance. According to an embodiment of the disclosure, the electronic devices are not limited to those described above.

[0234] It should be appreciated that various embodiments of the present disclosure and the terms used therein are not intended to limit the technological features set forth herein to particular embodiments and include various changes, equivalents, or replacements for a corresponding embodiment. With regard to the description of the drawings, similar reference numerals may be used to refer to similar or related

elements. It is to be understood that a singular form of a noun corresponding to an item may include one or more of the things unless the relevant context clearly indicates otherwise. As used herein, each of such phrases as "A or B," "at least one of A and B," "at least one of A or B," "A, B, or C," "at least one of A, B, and C," and "at least one of A, B, or C," may include any one of or all possible combinations of the items enumerated together in a corresponding one of the phrases. As used herein, such terms as "1st" and "2nd," or "first" and "second" may be used to simply distinguish a corresponding component from another, and does not limit the components in other aspect (e.g., importance or order). It is to be understood that if an element (e.g., a first element) is referred to, with or without the term "operatively" or "communicatively", as "coupled with," or "connected with" another element (e.g., a second element), it means that the element may be coupled with the other element directly (e.g., wiredly), wirelessly, or via a third element.

[0235] It will be understood that the terms "includes," "comprises," "has," "having," "including," "comprising," and the like when used in this specification, specify the presence of stated features, figures, steps, operations, components, members, or combinations thereof, but do not preclude the presence or addition of one or more other features, figures, steps, operations, components, members, or combinations thereof. An expression that one component is "connected", "coupled", "supported", or "in contact" with another component includes a case in which the components are directly "connected", "coupled", "supported", or "in contact" with each other and a case in which the components are indirectly "connected", "coupled", "supported", or "in contact" with each other through a third component. It will also be understood that when one component is referred to as being "on" or "over" another component, it may be directly on the other component or intervening components may also be present.

[0236] As used in connection with various embodiments of the disclosure, the term "module" may include a unit implemented in hardware, software, or firmware, and may interchangeably be used with other terms, for example, "logic," "logic block," "part," or "circuitry". A module may be a single integral component, or a minimum unit or part thereof, adapted to perform one or more functions. For example, according to an embodiment, the module may be implemented in a form of an application-specific integrated circuit (ASIC).

[0237] Various embodiments as set forth herein may be implemented as software (e.g., the program **2440**) including one or more instructions that are stored in a storage medium (e.g., internal memory **2436** or external memory **2438**) that is readable by a machine (e.g., the electronic device **2401**). For example, a processor (e.g., the processor **2420**) of the machine (e.g., the electronic device **2401**) may invoke at least one of the one or more instructions stored in the storage medium, and execute it, with or without using one or more other components under the control of the processor. This allows the machine to be operated to perform at least one function according to the at least one instruction invoked. The one or more instructions may include a code generated by a complier or a code executable by an interpreter. The machine-readable storage medium may be provided in the form of a non-transitory storage medium. Wherein, the term "non-transitory" simply means that the storage medium is a tangible device, and does not include a signal (e.g., an electromagnetic wave), but this term does not differentiate between a case in which data is semi-permanently stored in the storage medium and a case in which the data is temporarily stored in the storage medium.

[0238] According to an embodiment, a method according to various embodiments of the disclosure may be included and provided in a computer program product. The computer program product may be traded as a product between a seller and a buyer. The computer program product may be distributed in the form of a machine-readable storage medium (e.g., compact disc read only memory (CD-ROM)), or be distributed (e.g., downloaded or uploaded) online via an application store (e.g., PlayStore™), or between two user devices (e.g., smart phones) directly. If distributed online, at least part of the computer program product may be temporarily generated or at least temporarily stored in the machine-readable storage medium, such as memory of the manufacturer's server, a server of the application store, or a relay server.

[0239] According to various embodiments, each component (e.g., a module or a program) of the above-described components may include a single entity or multiple entities, and some of the multiple entities may be separately disposed in different components. According to various embodiments, one or more of the above-described components may be omitted, or one or more other components may be added. Alternatively or additionally, a plurality of components (e.g., modules or programs) may be integrated into a single component. In such a case, according to various embodiments, the integrated component may still perform one or more functions of each of the plurality of components in the same or similar manner as they are performed by a corresponding one of the plurality of components before the integration. According to various embodiments, operations performed by the module, the program, or another component may be carried out sequentially, in parallel, repeatedly, or heuristically, or one or more of the operations may be executed in a different order or omitted, or one or more other operations may be added.

[0240] The above-described embodiments are merely specific examples to describe technical content according to the embodiments of the disclosure and help the understanding of the embodiments of the disclosure, not intended to limit the scope of the embodiments of the disclosure. Accordingly, the scope of various embodiments of the disclosure should be interpreted as encompassing all modifications or variations derived based on the technical spirit of various embodiments of the disclosure in addition to the embodiments disclosed herein.

What is claimed is:

1. An electronic device comprising:

a housing comprising:

a first housing part,

a second housing part rotatably coupled to the first housing part, and

a third housing part rotatably coupled to the second housing part,

wherein the first housing part is positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state; and

a foldable display disposed above the first housing part, the second housing part, and the third housing part;

wherein the first housing part comprises:
a side wall defining a portion of a periphery of the electronic device, and
a protection member covering a portion of a periphery of the foldable display, and
wherein the third housing part comprises:
a side wall, defining a portion of the periphery of the electronic device, parallel to the side wall of the first housing part,
a protection member covering a portion of the periphery of the foldable display, and
a buffer member protruding from a portion of the side wall of the third housing part.

2. The electronic device of claim **1**, wherein, when the third housing part is supported by the protection member of the first housing part, the protection member of the third housing part is spaced apart from the protection member of the first housing part by the buffer member contacted on the protection member of the first housing part.

3. The electronic device of claim **2**, wherein the housing has a triangular prism shape when the third housing part is supported by the protection member of the first housing part.

4. The electronic device of claim **2**, wherein the third housing part further comprises a button protruding from the side wall of the third housing part, and
wherein the buffer member is protruding further from the side wall of the third housing part than the button.

5. The electronic device of claim **4**, wherein the side wall of the third housing part further comprises a dented portion, and
wherein the button protrudes from the dented portion of the side wall of the third housing part.

6. The electronic device of claim **2**, wherein the portion of the side wall of the third housing part comprises a rounded corner portion of the electronic device,
wherein the side wall of the third housing part further includes another portion corresponding to a planar portion of a lateral surface of a rounded cuboid, and
wherein the buffer member is protruded from the portion of the side wall of the third housing part in a direction of the other portion of the side wall of the third housing part.

7. The electronic device of claim **6**, wherein the first housing part further comprises:
another side wall, defining a portion of the periphery of the electronic device; and
another protection member including:
a first portion supported by the other side wall of the first housing part, and
a second portion, extending from the first portion of the other protection member, covering a portion of the periphery of the foldable display, and
wherein, when the third housing part is positioned on a portion of the foldable display positioned above the first housing part in accordance with the second housing part partially folded with respect to both the first housing part and the third housing part, the buffer member, protruded from the portion of the side wall of the third housing part, is contacted on the first portion of the other protection member of the first housing part.

8. The electronic device of claim **7**, wherein, when the third housing part is positioned on a portion of the foldable display positioned above the first housing part in accordance with the second housing part partially folded with respect to both the first housing part and the third housing part, the buffer member, protruded from the portion of the side wall of the third housing part, is spaced apart from the second portion of the other protection member of the first housing part.

9. The electronic device of claim **7**, wherein the other protection member of the first housing part is substantially perpendicular to the protection member of the first housing part.

10. The electronic device of claim **1**, wherein the buffer member comprises a rubber.

11. The electronic device of claim **1**, wherein the buffer member comprises a urethane.

12. The electronic device of claim **1**, wherein the buffer member comprises a silicon.

13. The electronic device of claim **1**, wherein the side wall of the third housing part further comprises a groove portion, and
wherein a portion of the buffer member, protruded from the portion of the side wall of the third housing part, is in the groove portion of the side wall of the third housing part.

14. The electronic device of claim **1**, wherein the protection member of the first housing part is on the side wall of the first housing part.

15. The electronic device of claim **1**, wherein the protection member of the third housing part is on the side wall of the third housing part.

16. An electronic device comprising:
a housing comprising:
a first housing part,
a second housing part rotatably coupled to the first housing part, and
a third housing part rotatably coupled to the second housing part, wherein the first housing part is positioned between the second housing part and the third housing part when the electronic device is in a multi-folded state; and
a foldable display disposed above the first housing part, the second housing part, and the third housing part,
wherein the first housing part comprises:
a first side wall defining a portion of a periphery of the electronic device;
a second side wall, defining a portion of the periphery of the electronic device, perpendicular to the first side wall of the first housing part;
a first protection member, supported by the first side wall of the first housing part, covering a portion of a periphery of the foldable display; and
a second protection member including:
a first portion supported by the second side wall of the first housing part, and
a second portion, extending from the first portion of the second protection member, covering a portion of the periphery of the foldable display,
wherein the third housing part comprises:
a side wall, defining a portion of the periphery of the electronic device, parallel to the first side wall of the first housing part,
a protection member, supported by the side wall of the third housing part, covering a portion of the periphery of the foldable display, and
a buffer member protruded in a direction of the side wall of the third housing part, and

wherein, when the third housing part is positioned on a portion of the foldable display disposed above the first housing part in accordance with the second housing part partially folded with respect to both the first housing part and the third housing part, the buffer member is contacted on the first portion of the second protection member of the first housing part.

17. The electronic device of claim **16**, wherein, when the third housing part is supported by the first protection member of the first housing part in accordance with the second housing part partially folded with respect to both the first housing part and the third housing part, the protection member of the third housing part is spaced apart from the first protection member of the first housing part by the buffer member contacted on the first protection member of the first housing part.

18. The electronic device of claim **17**, wherein the third housing part further comprises a button protruding from the side wall of the third housing part, and

wherein the buffer member protrudes further from the side wall of the third housing part than the button.

19. The electronic device of claim **18**, wherein the side wall of the third housing part further comprises a dented portion, and

wherein the button is protruded from the dented portion of the side wall of the third housing part.

20. The electronic device of claim **16**, wherein the buffer member comprises a rubber, a urethane, and/or a silicon.

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