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Takahashi et al.

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(54) **TELEVISION RECEIVER AND ELECTRONIC DEVICE**

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H04N 5/655	(2006.01)
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G06F 1/16	(2006.01)

(52) **U.S. Cl.**

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(58) **Field of Classification Search**

CPC H04N 5/64; H04N 5/645
USPC 348/836; 361/752
See application file for complete search history.

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(57) **ABSTRACT**

According to at least one embodiment, a television receiver includes: a display; a casing comprising an opening, the casing being configured house the display; a board configured to be housed in the casing; a connector configured to be mounted on the board and exposed from the opening; an elastic member between the connector and the casing, the elastic member being configured to touch the connector; a cover configured to be at least partially positioned at a side of the connector opposite to the elastic member and cover a part of the connector; and a restriction portion configured to be positioned at the side of the connector opposite to the elastic member and restrict movement of the connector.

11 Claims, 11 Drawing Sheets

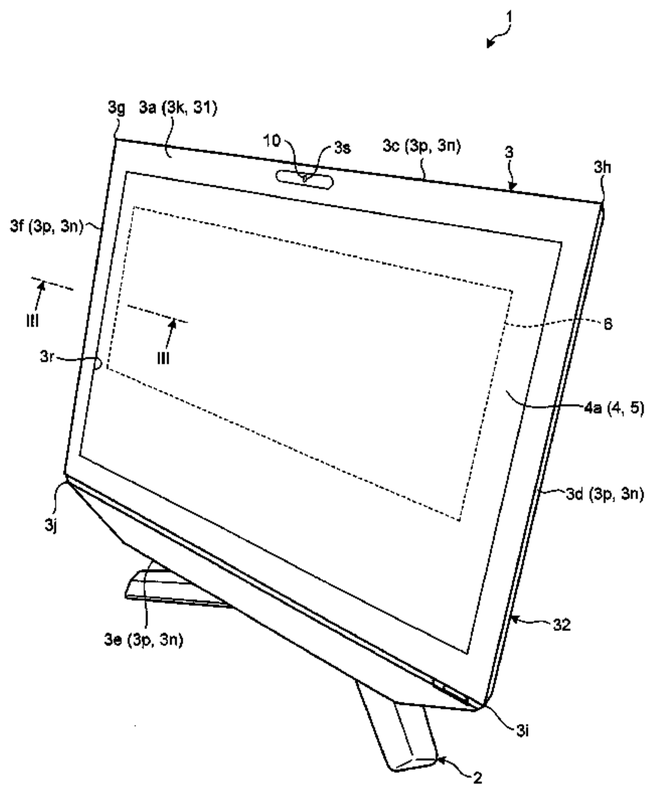
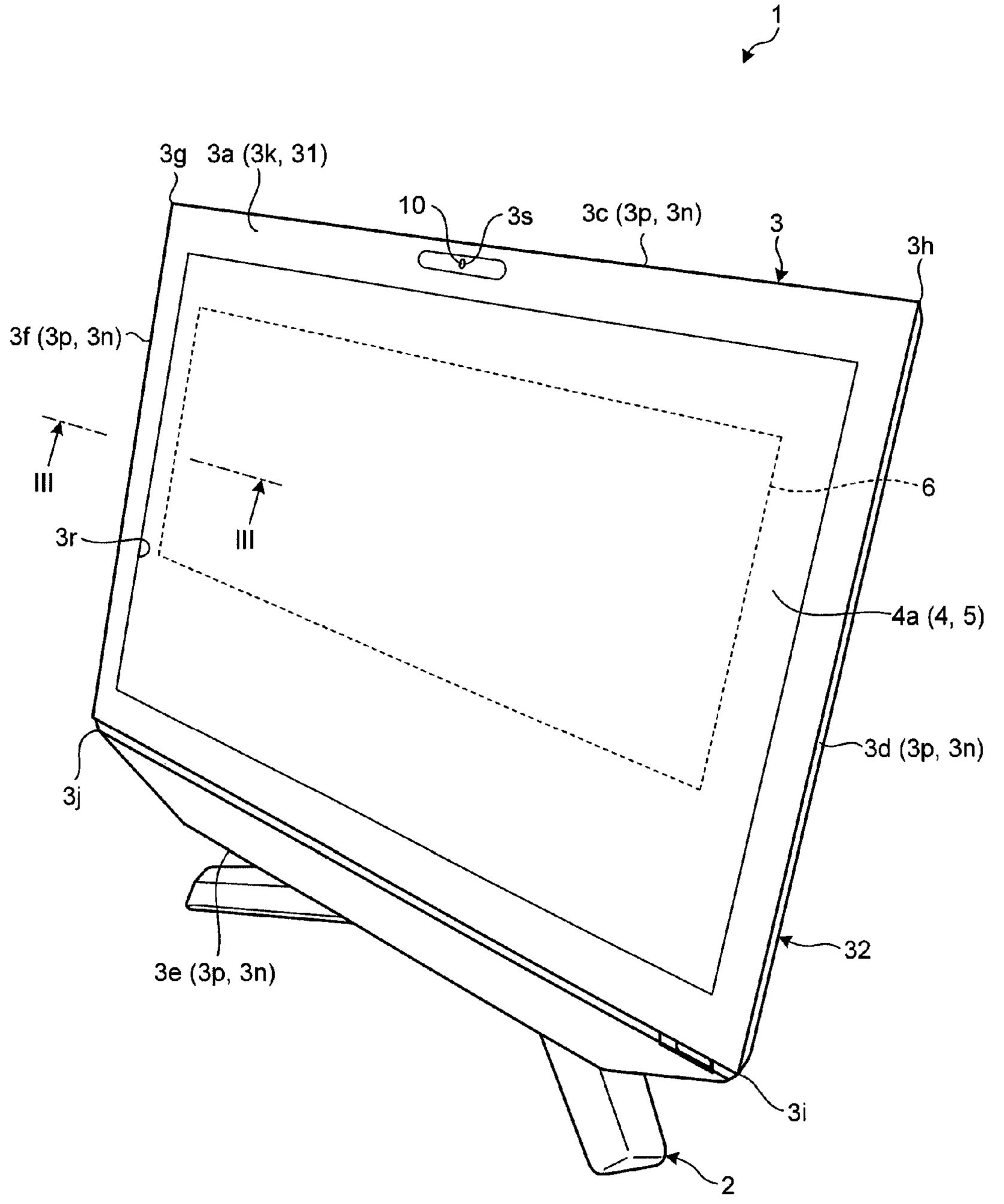


FIG.1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3g
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10
3s
3c (3p, 3n)
3
3h
3f (3p, 3n)
III
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3r
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4a (4, 5)
3d (3p, 3n)
3j
3e (3p, 3n)
32
3i
2

FIG.2

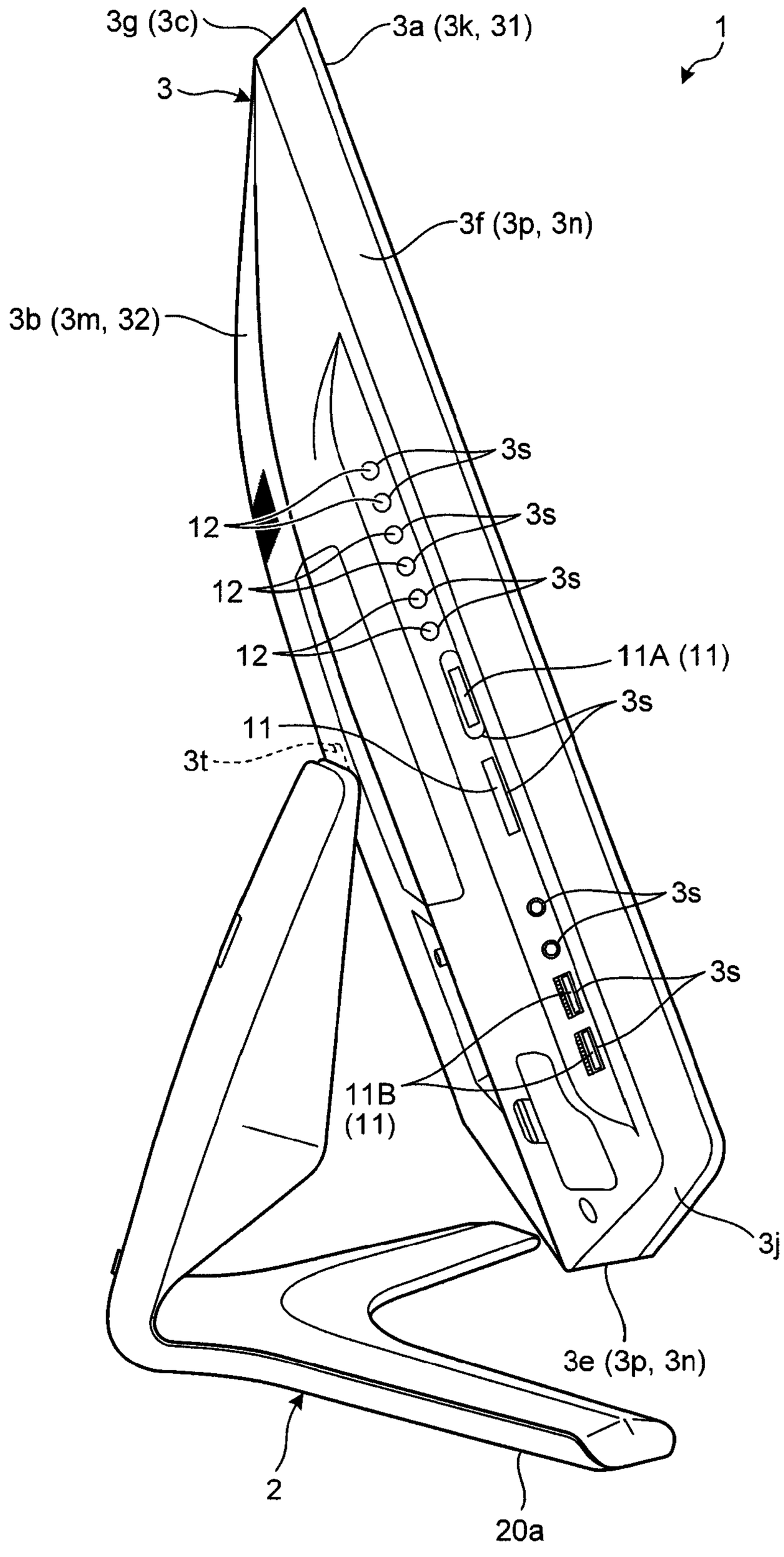

3g (3c)
3a (3k, 31)
1
3
3f (3p, 3n)
3b (3m, 32)
3s
12
3s
12
3s
12
11A (11)
3s
11
3t
3s
3s
11B
(11)
3j
3e (3p, 3n)
2
20a

FIG.3

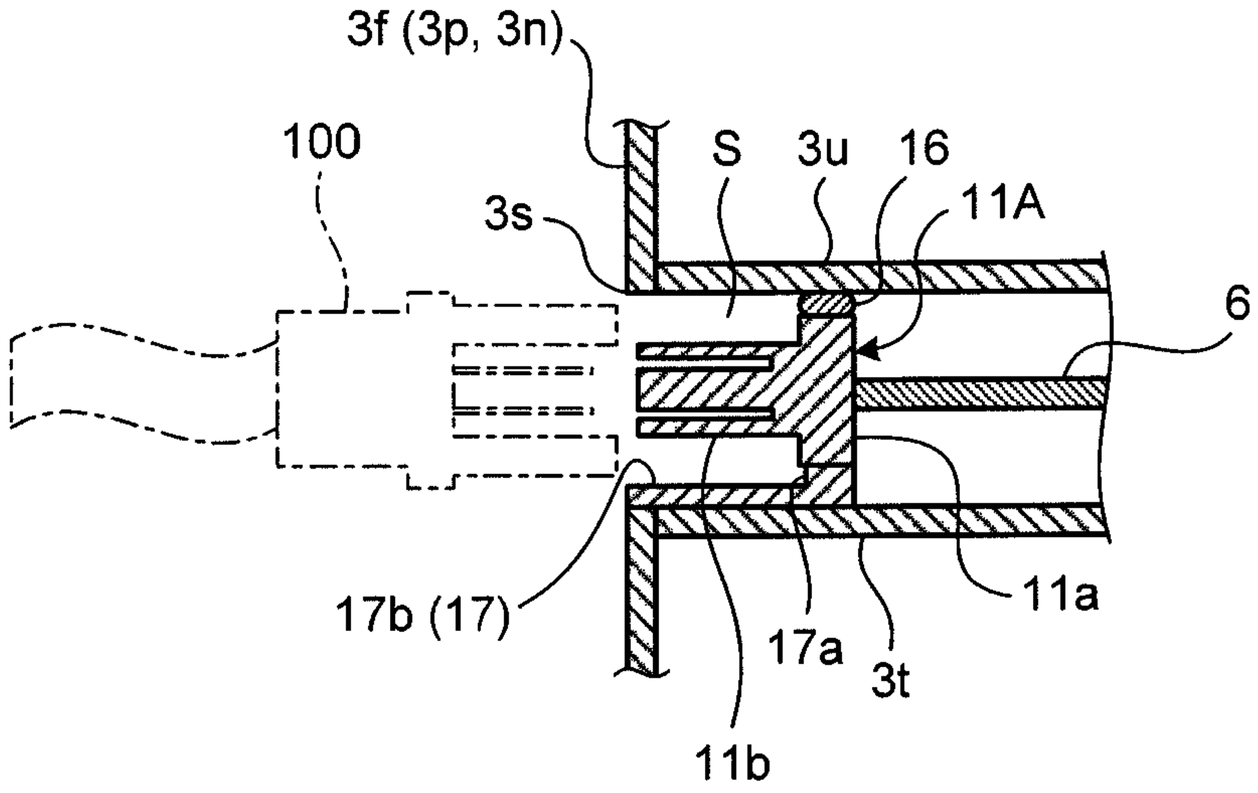

3f (3p, 3n)
100
S
3u
16
11A
3s
6
17b (17)
17a
3t
11a
11b

FIG.4

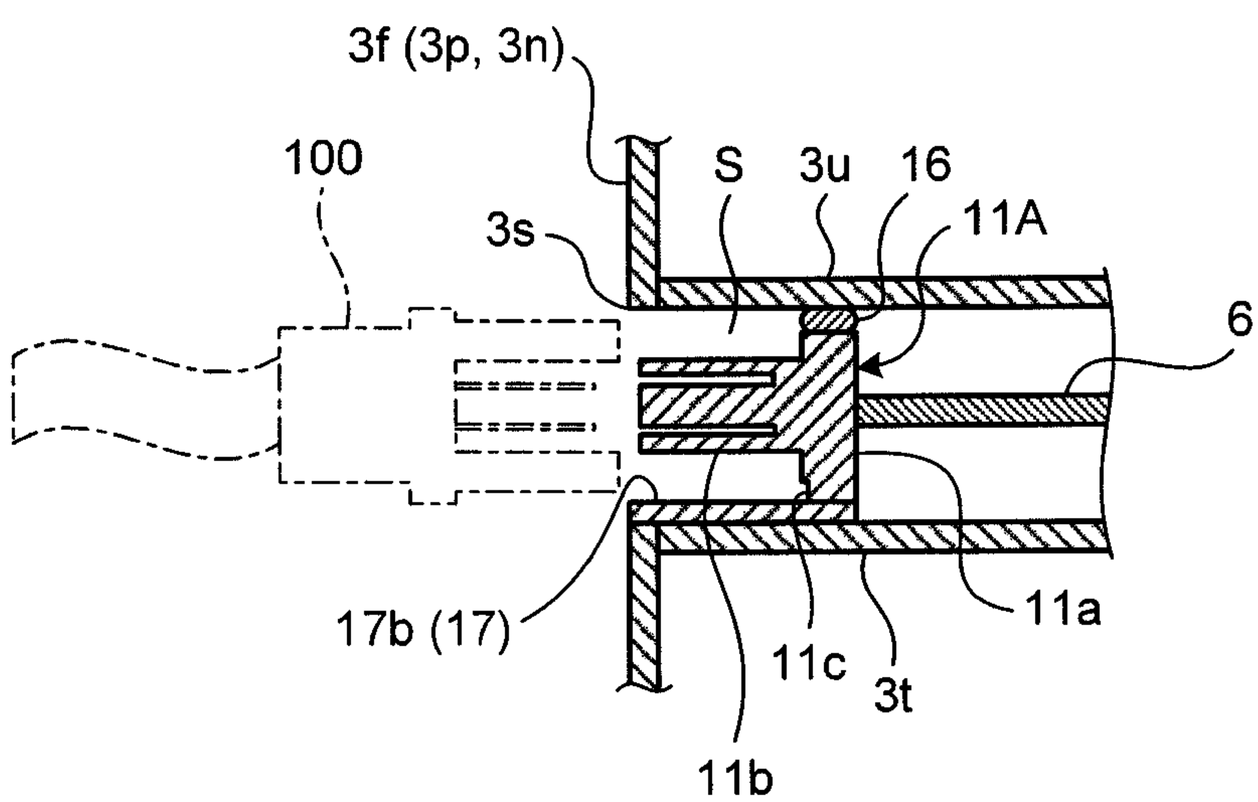

3f (3p, 3n)
100
S
3u
16
11A
3s
6
17b (17)
11c
3t
11a
11b

FIG.5

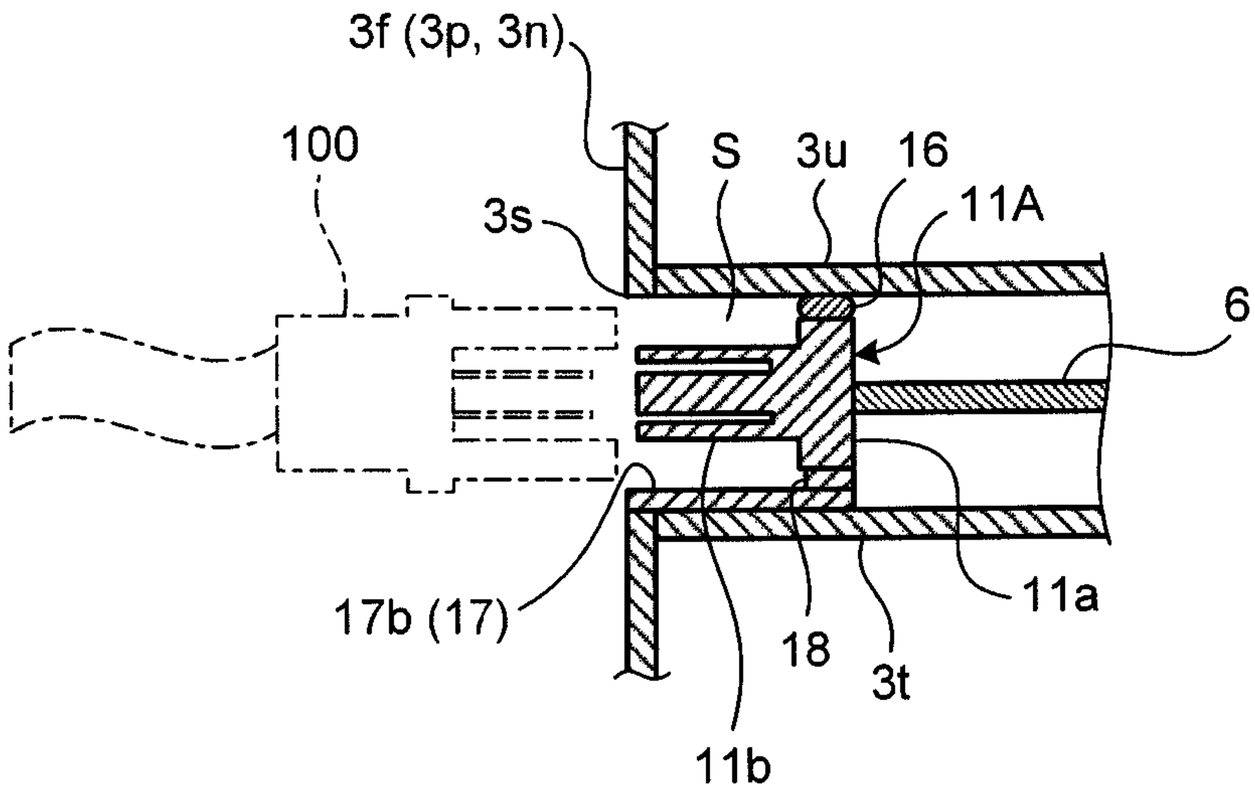


FIG.6

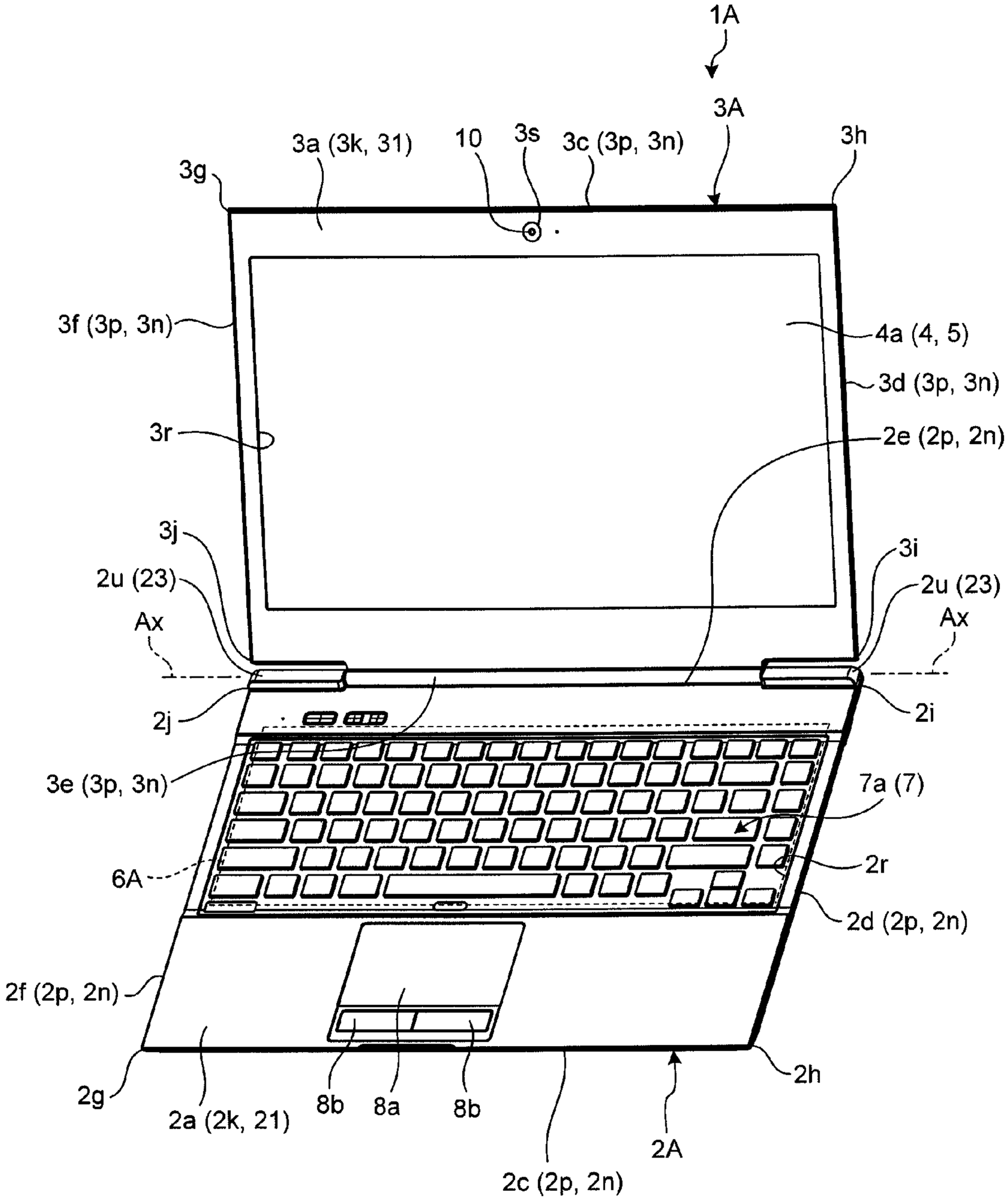

1A
3A
3a (3k, 31)
10
3s
3c (3p, 3n)
3h
3g
3f (3p, 3n)
4a (4, 5)
3d (3p, 3n)
3r
2e (2p, 2n)
3j
3i
2u (23)
2u (23)
Ax
Ax
2j
2i
3e (3p, 3n)
7a (7)
6A
2r
2d (2p, 2n)
2f (2p, 2n)
2h
2g
2a (2k, 21)
8b
8a
8b
2A
2c (2p, 2n)

FIG.7

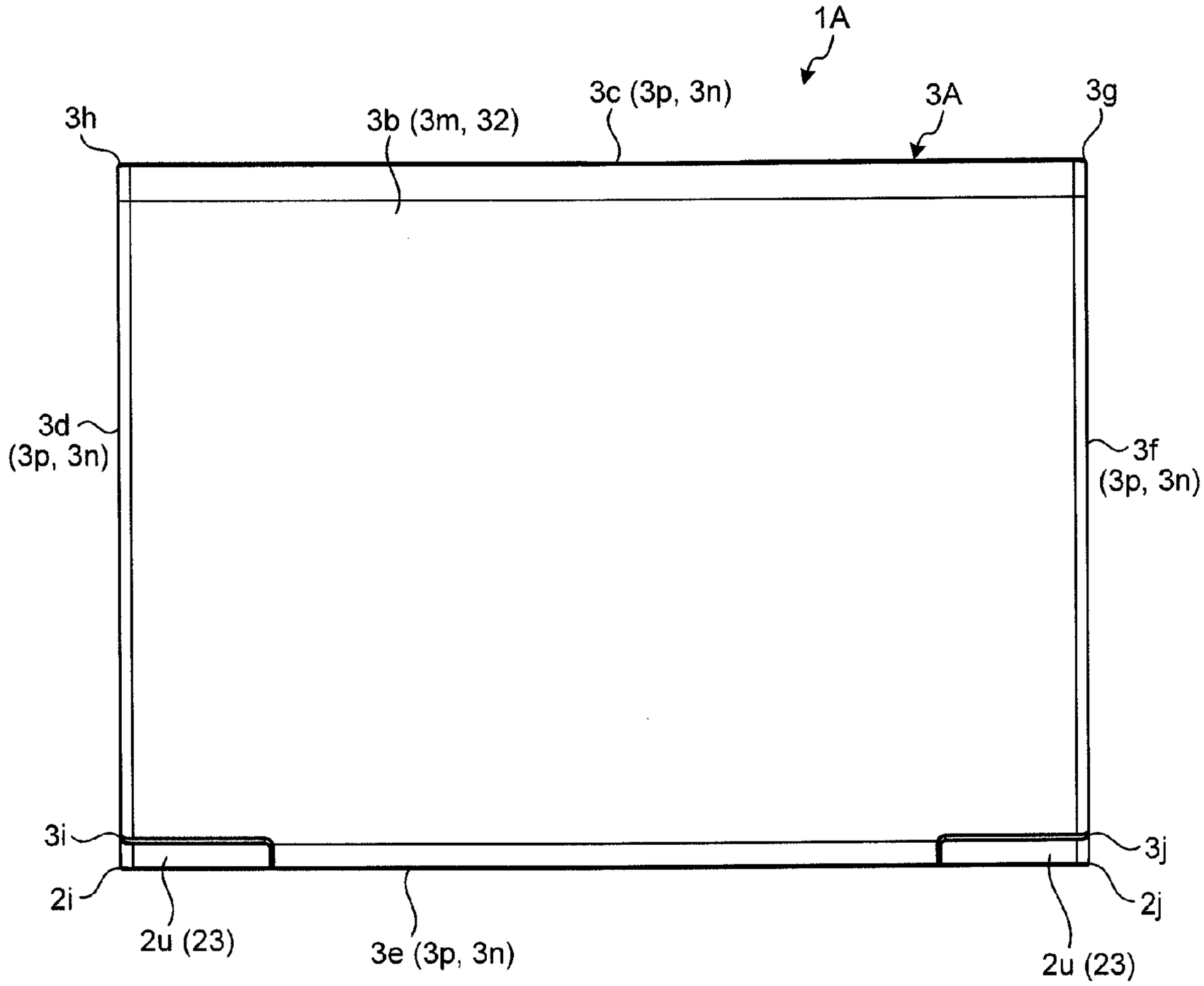

1A
3h
3b (3m, 32)
3c (3p, 3n)
3A
3g
3d
(3p, 3n)
3f
(3p, 3n)
3i
3j
2i
2j
2u (23)
3e (3p, 3n)
2u (23)

FIG.8

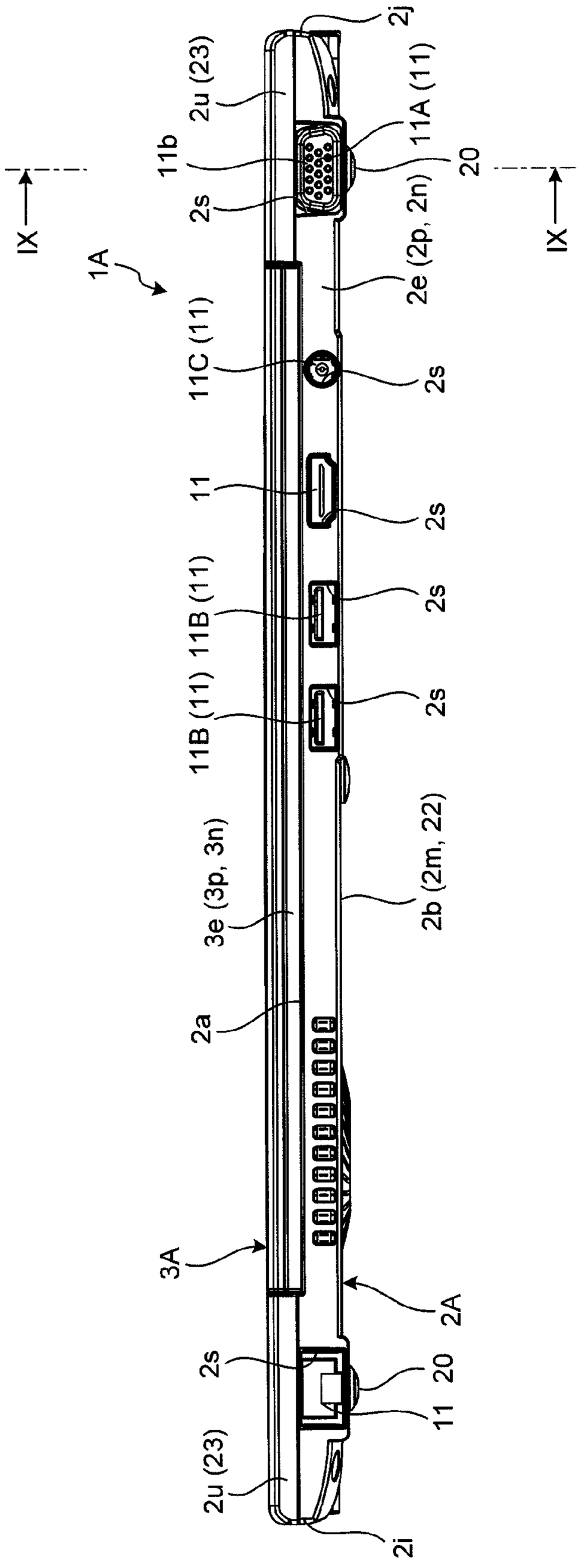

2j
2u (23)
11A (11)
11b
20
2s
IX
IX
1A
2e (2p, 2n)
11C (11)
2s
11
2s
11B (11)
11B
2s
11B (11)
2s
3e (3p, 3n)
2b (2m, 22)
2a
3A
2A
2s
20
11
2u (23)
2i

FIG.9

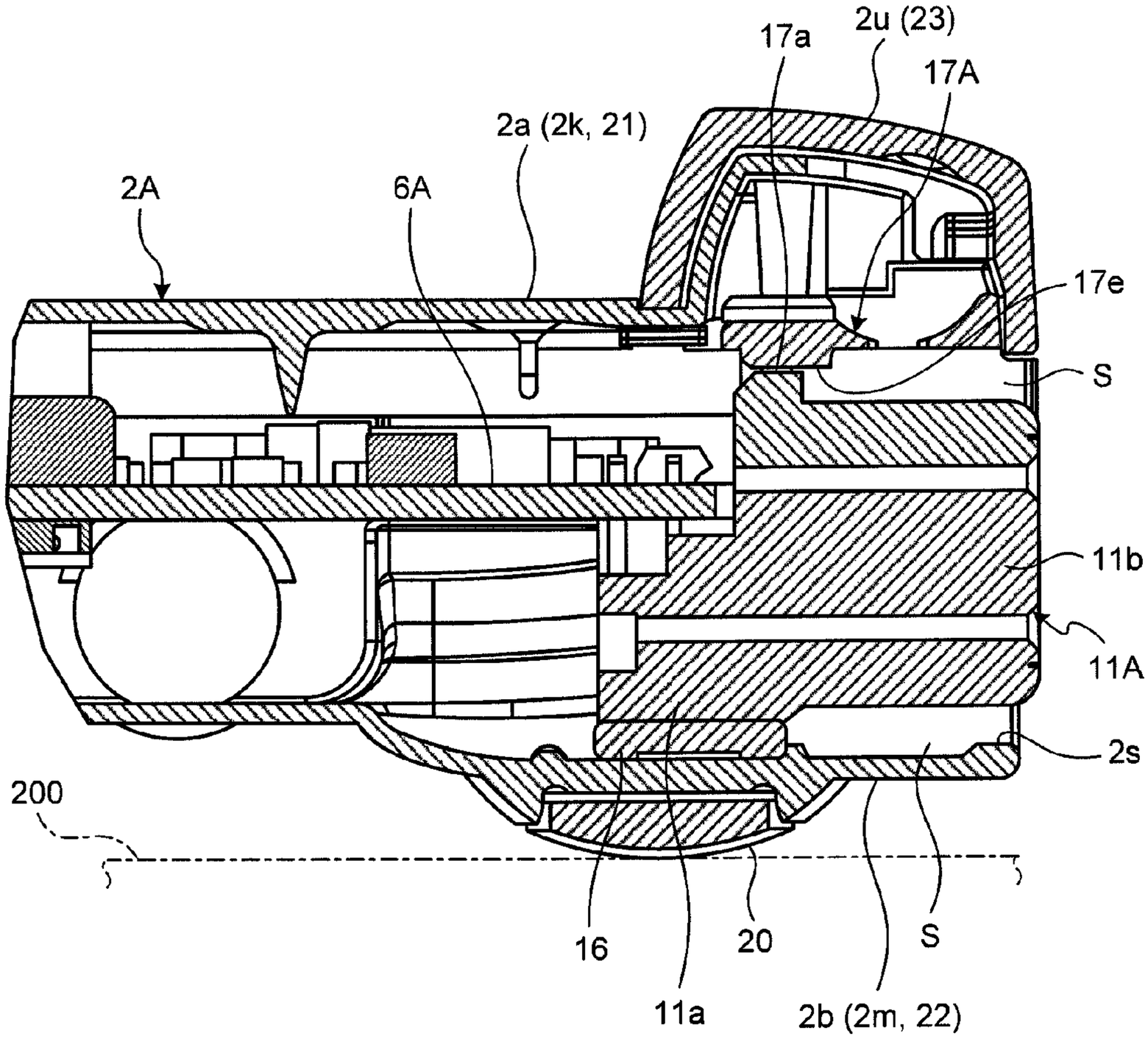


FIG.10

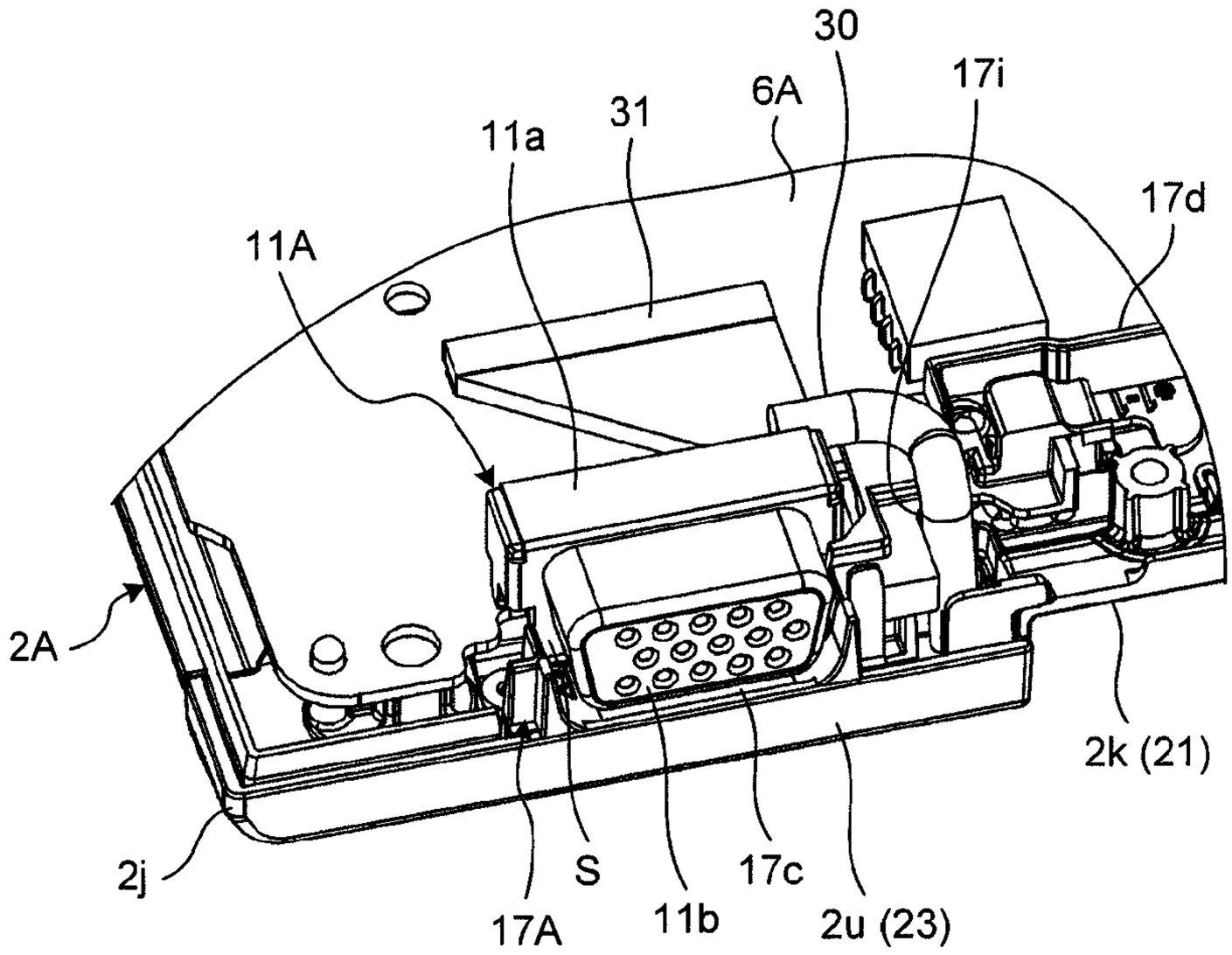

30
17i
6A
31
11a
17d
11A
2A
2k (21)
2j
S
17c
17A
11b
2u (23)

FIG.11

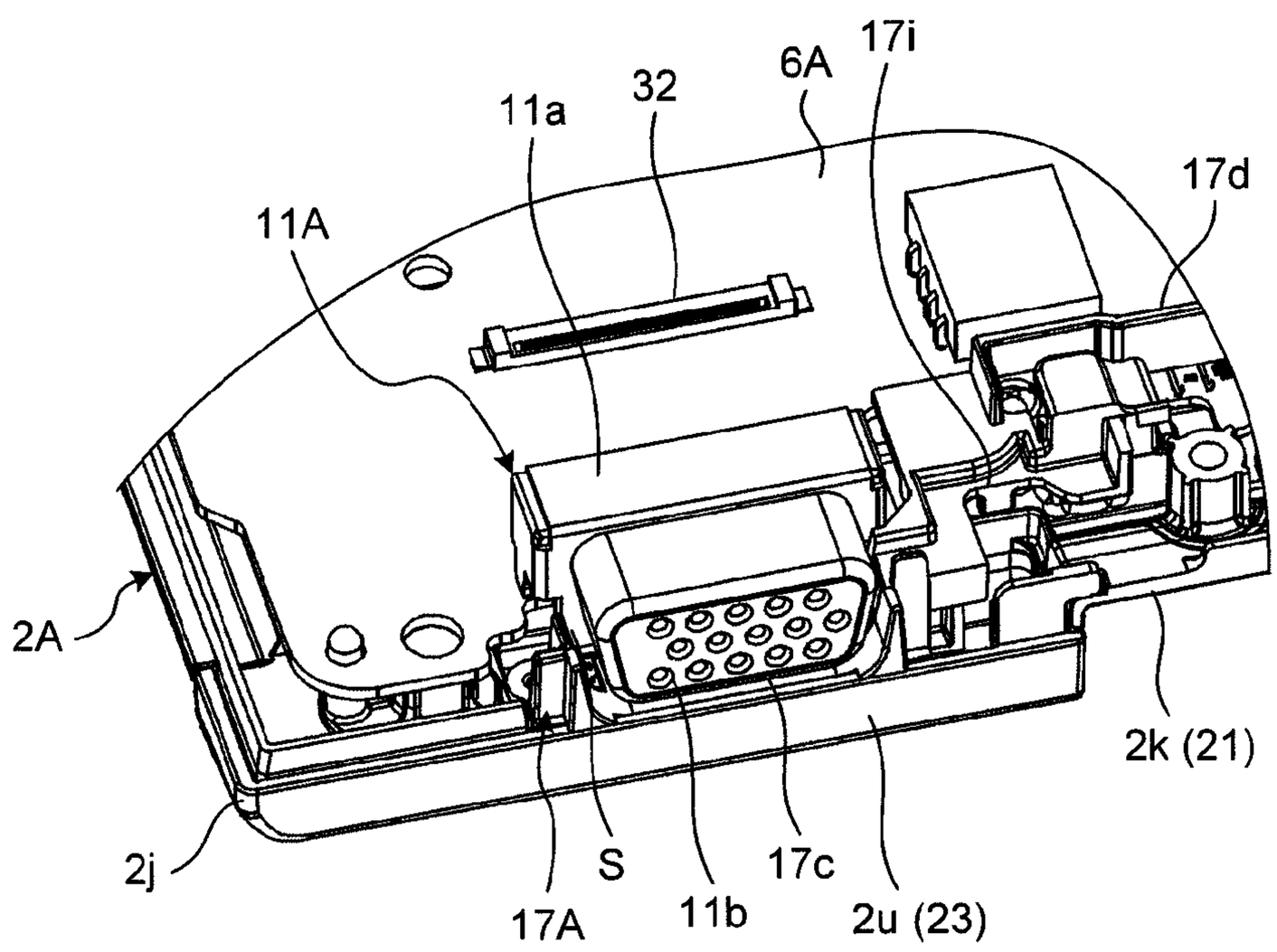

17i
6A
32
11a
17d
11A
2A
2k (21)
2j
S
17c
17A
11b
2u (23)

FIG.12

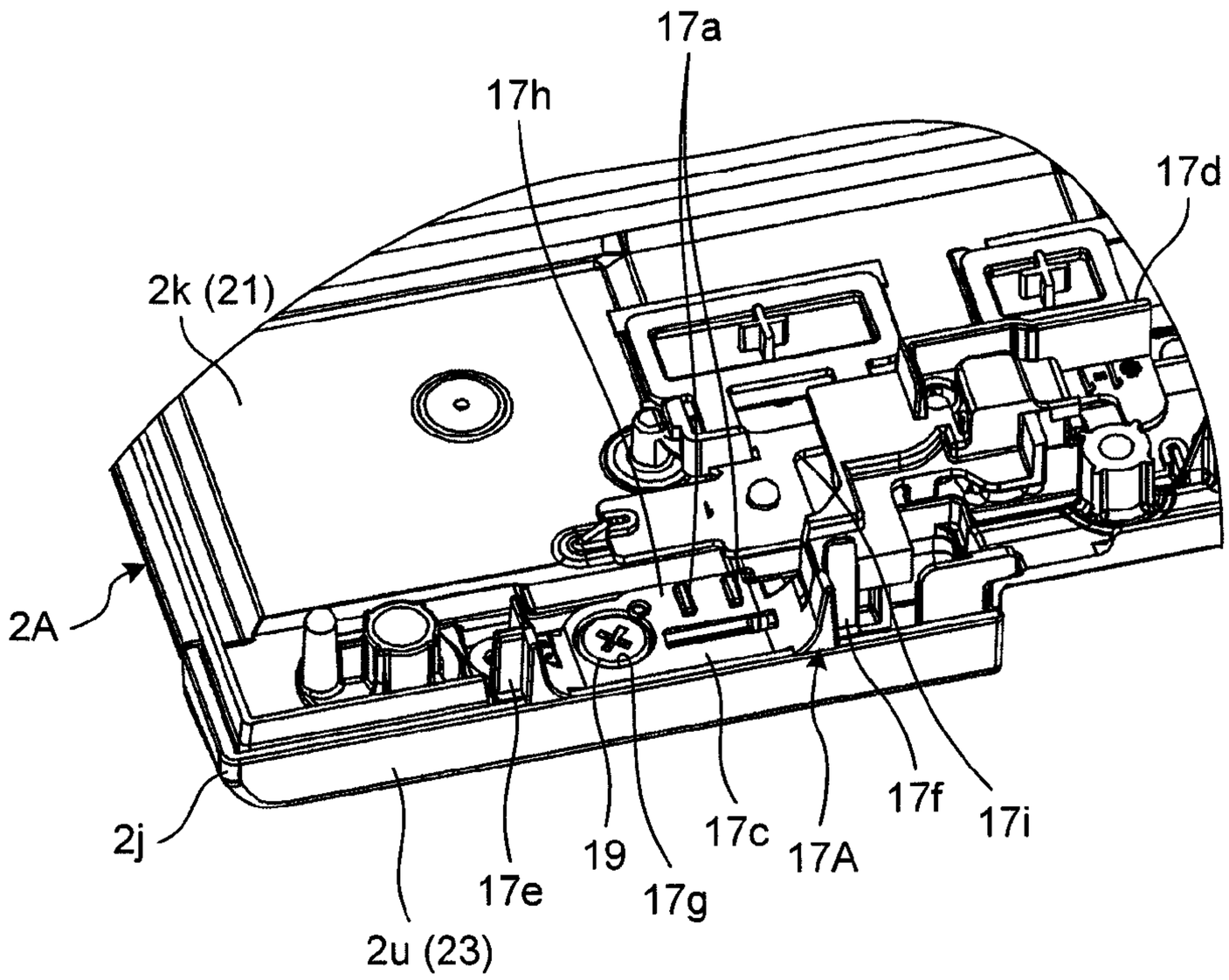

17a
17h
17d
2k (21)
2A
2j
2u (23)
17e
19
17g
17c
17A
17f
17i

FIG.13

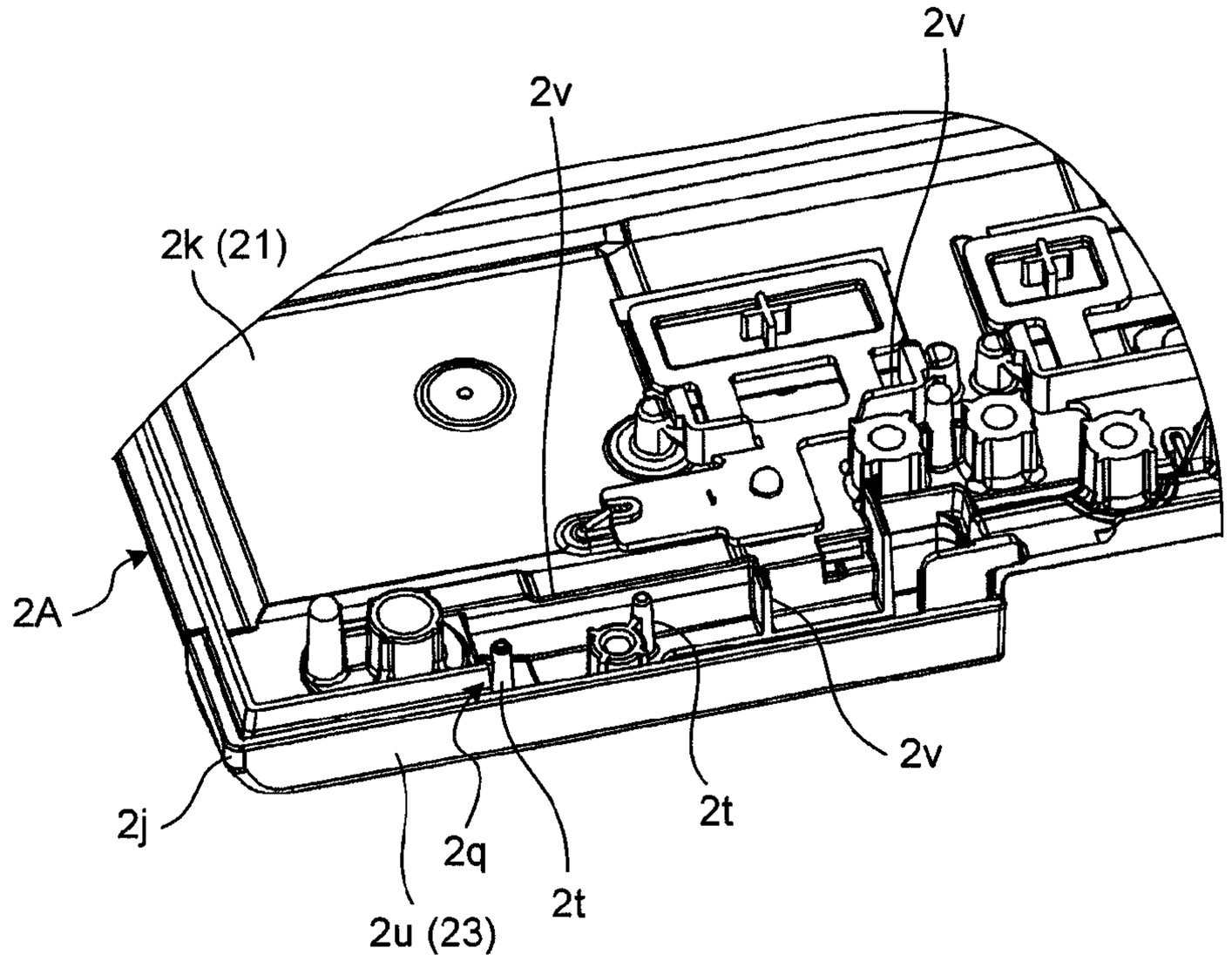

2v
2v
2k (21)
2A
2j
2u (23)
2q
2t
2t
2v

FIG.14

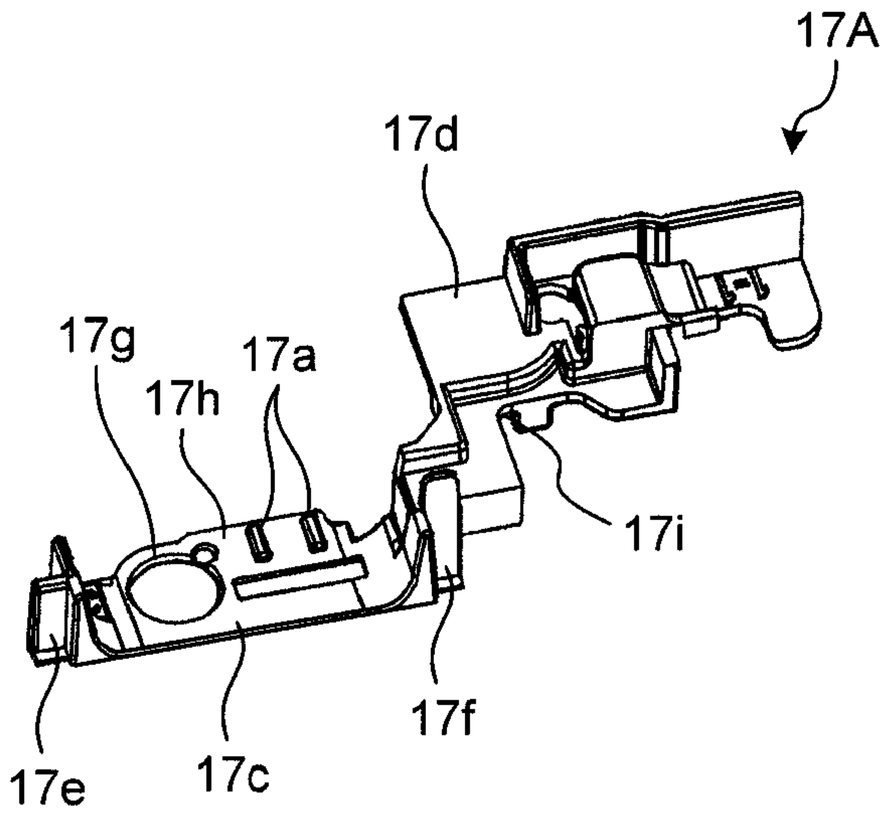
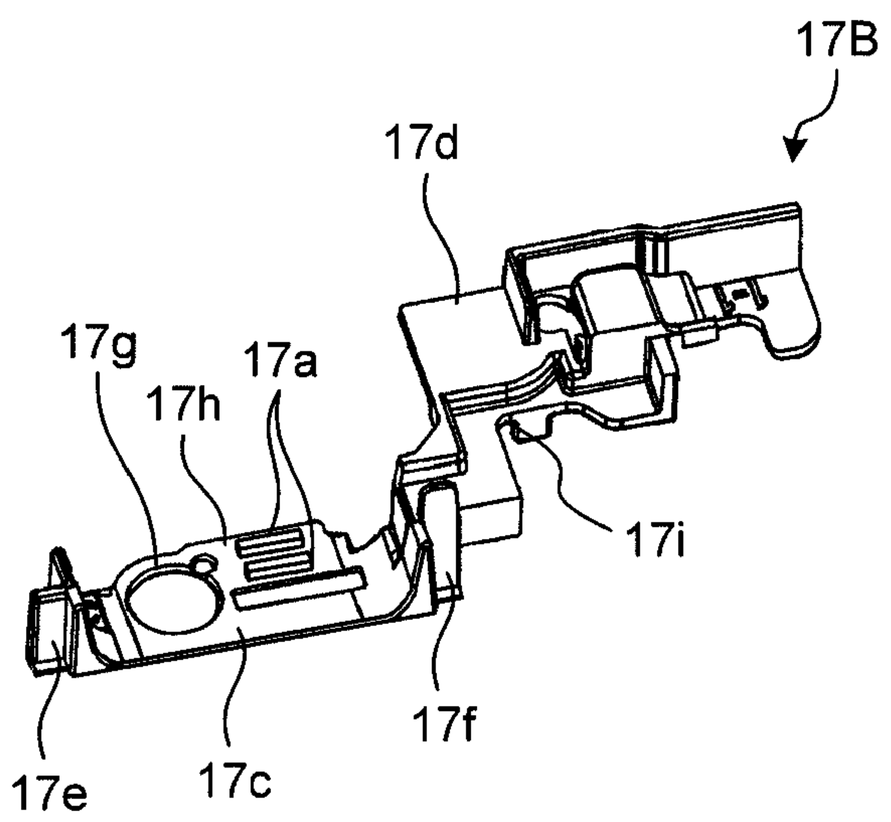

17A
17d
17g
17h
17a
17i
17f
17e
17c

FIG.15


17B
17d
17g
17h
17a
17i
17f
17e
17c

TELEVISION RECEIVER AND ELECTRONIC DEVICE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is based upon and claims the benefit of priority from Japanese Patent Application No. 2012-100272, filed on Apr. 25, 2012, the entire contents of which are incorporated herein by reference.

FIELD

Embodiments described herein relate generally to a television receiver and an electronic device.

BACKGROUND

Conventionally, there has been known an electronic device such that a connector and a casing are electrically connected with each other by means of an elastic body provided between the connector and the casing to establish a ground for the connector.

However, in the electronic device such as a conventional television receiver, the connector is pressed by the elastic body and hence, there exists a possibility that the position of the connector is displaced.

BRIEF DESCRIPTION OF THE DRAWINGS

A general architecture that implements the various features of the invention will now be described with reference to the drawings. The drawings and the associated descriptions are provided to illustrate embodiments of the invention and not to limit the scope of the invention.

FIG. **1** is an exemplary perspective view illustrating an example of a television receiver according to a first embodiment as viewed from the front side of the television receiver;

FIG. **2** is an exemplary perspective view illustrating an example of the television receiver in the first embodiment as viewed from the lateral side of the television receiver;

FIG. **3** is an exemplary cross-sectional view taken along a line in FIG. **1**;

FIG. **4** is an exemplary cross-sectional view illustrating a part of an example of a television receiver according to a first modification of the first embodiment;

FIG. **5** is an exemplary cross-sectional view illustrating a part of an example of a television receiver according to a second modification of the first embodiment;

FIG. **6** is an exemplary perspective view illustrating an example of a television receiver according to a second embodiment in an open state;

FIG. **7** is an exemplary plan view illustrating an example of the electronic device in the second embodiment in a folded state;

FIG. **8** is an exemplary side view illustrating an example of the electronic device in the second embodiment in the folded state;

FIG. **9** is an exemplary cross-sectional view taken along a line IX-IX in FIG. **8**;

FIG. **10** is an exemplary perspective view illustrating a part of an example of the electronic device in the second embodiment;

FIG. **11** is an exemplary perspective view illustrating a part of an example of the electronic device in the second embodiment and an exemplary view illustrating a state that a harness is removed from the electronic device in a state illustrated in FIG. **10**;

FIG. **12** is an exemplary perspective view illustrating a part of an example of the electronic device in the second embodiment and an exemplary view illustrating a state that a board is removed from the electronic device in a state illustrated in FIG. **11**;

FIG. **13** is an exemplary perspective view illustrating a part of an example of the electronic device in the second embodiment and an exemplary view illustrating a state that a connector cap is removed from the electronic device in a state illustrated in FIG. **12**;

FIG. **14** is an exemplary perspective view illustrating the connector cap of an example of the electronic device in the second embodiment; and

FIG. **15** is an exemplary perspective view illustrating a connector cap of an example of an electronic device according to a modification of the second embodiment.

DETAILED DESCRIPTION

In general, according to one embodiment, A television receiver comprises: a display; a casing comprising an opening, the casing being configured to house the display; a board configured to be housed in the casing; a connector configured to be mounted on the board and exposed from the opening; an elastic member between the connector and the casing, the elastic member being configured to touch the connector; a cover configured to be at least partially positioned at a side of the connector opposite to the elastic member and cover a part of the connector; and a restriction portion configured to be positioned at the side of the connector opposite to the elastic member and restrict movement of the connector.

A plurality of exemplary embodiments and modifications that will be explained hereinafter comprise parts having identical functions. These parts having identical functions are given the same numerals and their repeated explanations are omitted.

In each of the following embodiments, while a case that an electronic device is constituted as a television receiver or a so-called notebook type personal computer is exemplified, an electronic device according to the present embodiment is not limited thereto. The electronic device in the present embodiment can be, for example, constituted as an electronic device comprising connectors, such as a smart television system, a mobile phone, a video display device, or a video phone.

First Embodiment

In the present embodiment, as an example illustrated in FIGS. **1** and **2**, a television receiver **1** comprises a support **2** and a casing **3**. To be more specific, the casing **3** (the first casing, the first part, the first component) houses at least a part of a display **4**. The support **2** (the stand, the base, the support base, the second casing, the second part, the other part, the other component) supports the casing **3**. The support **2** comprises an area **20***a* (a bottom wall, a wall, an area, a part, a rubber foot, a foot) that faces, when the support **2** is mounted on an external mounting surface (a surface, a horizontal surface), the external mounting surface in an opposed manner.

Furthermore, in the present embodiment, as an example, the support **2** supports the casing **3** by way of a hinge portion (a connecting portion, a joint portion, a rotatably supporting portion, a hinge mechanism, a connecting mechanism, a joint mechanism, a rotatably supporting mechanism) in a rotatable manner. That is, the hinge portion connects (joins) the support

2 and the casing 3 in a rotatable manner. In the present embodiment, as an example, the hinge portion changes an angle of a screen 4*a* in the vertical direction. That is, the hinge portion is capable of adjusting a tilting position. Here, the support 2 can support the casing 3 so that the casing can be rotated (pivoted, swiveled, for example) in other directions.

In the present embodiment, as an example illustrated in FIG. 1, the casing 3 of the television receiver 1 is formed in a quadrangular shape (a rectangular shape, as an example in the present embodiment) as viewed in a front view and a rear view. Furthermore, the casing 3 is, as an example illustrated in FIG. 2, formed in a flat rectangular parallelepiped shape with a small thickness in the front-back direction. The casing 3 comprises a surface 3*a* (an anterior face, a front face, a first surface, a first surface portion) and a surface 3*b* (a rear face, a back face, a second surface, a second surface portion) opposite to the surface 3*a*. The surface 3*a* and the surface 3*b* are arranged substantially parallel to each other. Furthermore, the casing 3 comprises, as illustrated in FIG. 1, four end portions 3*c* to 3*f* (side portions, edge portions) and four corner portions 3*g* to 3*j* (convex portions, bent portions, end portions). Each of the end portions 3*c* and 3*e* is an example of a width side portion. Each of the end portions 3*d* and 3*f* is an example of a length side portion.

The casing 3 comprises a wall portion 3*k* (a first portion, a plate, a frame, an anterior wall portion, a front wall portion, a top wall portion) comprising the surface 3*a* and a wall portion 3*m* (a second portion, a plate, a rear wall portion, a back wall portion, a bottom wall portion, see FIG. 2) comprising the surface 3*b*. The wall portions 3*k* and 3*m* are formed in a quadrangular shape (a rectangular shape, as an example in the present embodiment). Furthermore, the casing 3 comprises four wall portions 3*n* (third portions, plates, side wall portions, end wall portions, erected wall portions, connecting portions) comprising surfaces 3*p* (side surfaces, peripheral surfaces, third surfaces) each of which extends between the wall portion 3*k* and the wall portion 3*m*. Here, the wall portion 3*k* is, as an example, provided with an opening 3*r* formed in a quadrangular shape. Accordingly, the wall portion 3*k* is formed in a quadrangular shape and in a frame shape.

Furthermore, the casing 3 can be constituted of a plurality of parts (separated bodies) combined with each other. In the present embodiment, the casing 3 comprises, as an example, a first casing member 31 (a first portion, a front side member, a mask, a mask portion, a cover, a front cover, a cover portion, a first region) comprising at least the wall portion 3*k* and a second casing member 32 (a second portion, a rear side member, a base, a base portion, a bottom, a bottom portion, a cover, a rear cover, a cover portion, a second region) comprising at least the wall portion 3*m*. The wall portions 3*n* are comprised in at least any one of the first casing member 31 and the second casing member 32 (the second casing member 32, for example). Furthermore, the casing 3 can comprise, in addition to the first casing member 31 and the second casing member 32, a third casing member (a third portion, an intermediate portion, a spacer member, a barrier member, a wall member, an interjacent member, an inner plate, a middle plate, a middle frame, a third region, not illustrated in the drawings), a fourth casing member (a fourth portion, an intermediate portion, a spacer member, a barrier member, a wall member, an interjacent member, a cover, a shield, a fourth region, not illustrated in the drawings), or other members that are positioned therebetween.

The casing 3 can be made of metallic, synthetic-resin, or other material. The first casing member 31 and the second casing member 32 can be made of a material being comparatively low in rigidity (a material being lower in rigidity than that of the third casing member or the fourth casing member; that is, a synthetic-resin material, for example). Here, wall portions such as ribs (protruding portions, protruding wall portions, not illustrated in the drawings) can be provided on sides of the first casing member 31 and the second casing member 32, the sides facing inside the casing 3. The wall portions easily increase the rigidity of the casing 3.

In the present embodiment, as an example illustrated in FIG. 2, the surface 3*b*, the surface 3*p*, or other portions of the casing 3 can be provided with connectors 11, operation modules 12, or the like. Examples of the connectors 11 include a connector 11A for data communication, a universal serial bus (USB) connector 11B, a connector for a power cable, a card connector, and a connector for an earphone or a microphone. Examples of the operation modules 12 include push buttons, push switches, slide switches, pointing devices, and dials. Furthermore, as illustrated in FIG. 1, the surface 3*a* can be provided with a camera module 10 (a camera, an image pickup device). The connectors 11, the operation modules 12, and the camera module 10, for example, are exposed from openings 3*s* provided in the wall portions 3*k*, 3*m*, and 3*n*.

In the present embodiment, as an example illustrated in FIG. 1, the screen 4*a* positioned at the surface 3*a* side of the display 4 (the display part, the display unit, the display panel) is exposed toward the front side (outside) of the casing 3 through the opening 3*r*. A user can view the screen 4*a* through the opening 3*r* from the front side of the casing 3. The display 4 is formed in a quadrangular shape (a rectangular shape, as an example in the present embodiment) as viewed in a front view. Furthermore, the display 4 is formed in a flat rectangular parallelepiped shape with a small thickness in the front-back direction. The display 4 is, for example, constituted of a liquid crystal display (LCD), an organic electro-luminescent display (OELD), or the like.

In the present embodiment, as an example, the display 4 provides an input operation panel 5 (a touch panel, a touch sensor, or an operation panel, as an example) on the front side (the face side, the wall portion 3*k* side) thereof. The input operation panel 5 is formed in a transparent flat rectangular parallelepiped shape with a comparatively small thickness and covers the screen 4*a*. An operator (a user, for example) performs, for example, operations of touching, pushing, or rubbing the input operation panel 5 by using a finger or a tool (a stylus or the like, not illustrated in the drawings), or operations of moving the finger or the stylus in the vicinity of the input operation panel 5 thus performing input processing. Furthermore, light emitted from the screen 4*a* of the display 4 passes through the input operation panel 5 and goes out from the opening 3*r* of the wall portion 3*k* toward the front side of the casing 3. The input operation panel 5 is an example of an input module.

In the present embodiment, as an example illustrated in FIG. 1, the casing 3 houses therein one or more boards 6 (a circuit board, a control board, a main board, an electric component, a first electric component) on the rear side of the display 4 (on the reverse side, the back side, or the wall portion 3*m* side of the display 4, on a side opposite to the display 4). The board 6 is provided parallel to the display 4. The board 6 is provided in a state that the board 6 is spaced apart from the wall portions 3*k*, 3*m*, and 3*n*, for example; that is, in a state that a space (a clearance) is formed between the board 6 and the wall portions 3*k*, 3*m*, and 3*n*, for example.

In the present embodiment, as an example, the board 6 can, for example, mount thereon a plurality of parts (not illustrated in the drawings) such as a central processing unit (CPU), a graphics controller, a power circuit component, a platform controller hub (PCH), a memory slot connector, an LCD

connector, an input/output (I/O) connector, a power supply coil, an element, or a connector. The board **6** mounts the connector **11**A for data communication thereon. Furthermore, a control circuit can, for example, comprise a video signal processing circuit, a tuner, a high-definition multi media interface (HDMI) signal processing circuit, an audio video (AV) input terminal, a remote control signal receiving module, a control module, a selector, an onscreen display interface, a storage (a read only memory (ROM), a random access memory (RAM), a hard disk drive (HDD), or a solid state drive (SSD), for example), and an audio signal processing circuit. The control circuit controls the output of videos (moving pictures, still pictures, for example) on the screen **4***a* of the display **4**, the output of sounds by a speaker (not illustrated in the drawings), the emission of light from a light emitting diode (LED, not illustrated in the drawings), for example. The display **4**, the speaker, and the LED, are examples of an output module.

Furthermore, in the present embodiment, as an example illustrated in FIG. **3**, the connector **11**A is arranged between a wall portion **3***t* (a first wall portion) and a wall portion **3***u* (a second wall portion) of the casing **3** and exposed from the opening **3***s*. The wall portions **3***t* and **3***u* are, for example, provided in an extending manner from the inner surface of the wall portion **3***n* toward the inside of the casing **3**. The wall portions **3***t* and **3***u* are arranged so that the wall portions **3***t* and **3***u* overlaps with each other in the front-back direction. The connector **11**A comprises a base portion **11***a* and an attachment portion **11***b*. The base portion **11***a* is, as an example, formed in a substantially rectangular parallelepiped shape. The base portion **11***a* is housed in the inside of the casing **3**. The attachment portion **11***b* extends from the base portion **11***a* toward the outside of the casing **3**. The attachment portion **11***b* extends from the base portion **11***a* toward the opening **3***s*. In the connector **11**A, an external connector **100** is attached to the attachment portion **11***b*. A space S for inserting the external connector **100** is formed around the attachment portion **11***b*.

In between the connector **11**A and the wall portion **3***u* of the casing **3**, an elastic member **16** (an elastic part, a gasket) is positioned. The elastic member **16** has elasticity. The elastic member **16** is, as an example, adhered (fixed) to the wall portion **3***u* by bonding, for example. The elastic member **16** abuts on (touches) the base portion **11***a* of the connector **11**A to elastically support the connector **11**A. Furthermore, the elastic member **16** is made of a conductive material. The elastic member **16** connects the connector **11**A and the wall portion **3***u* electrically to establish a ground for the connector **11**A.

Furthermore, a connector cap **17** (a cover, a part, a cap) is provided to the side of the connector **11**A opposite to the elastic member **16**. The connector cap **17** constitutes a part of the casing **3**. At least a part of the connector cap **17** is positioned at the side of the connector **11**A opposite to the elastic member **16** and covers a part of the connector **11**A. The connector cap **17** is provided to the casing **3**. The connector cap **17** exposes from the opening **3***s*. The connector cap **17** is fixed to the wall portion **3***t* at an inside position of the opening **3***s*. The connector cap **17** decreases a clearance between the external connector **100** attached to the connector **11**A and the casing **3**. The connector cap **17** is formed in a substantially plate-like shape. The connector cap **17** is provided with a convex portion **17***a* (a restriction portion, a projecting portion, a protruding portion, an abutting portion). That is, the convex portion **17***a* is provided to the casing **3**. The convex portion **17***a* protrudes from a surface **17***b* on the connector **11**A side of the connector cap **17** toward the base portion **11***a* of the connector **11**A. The convex portion **17***a* is integrally formed with the connector cap **17**. The convex portion **17***a* is positioned at the side of the connector **11**A opposite to the elastic member **16**. The convex portion **17***a* restricts the movement of the connector **11**A. To be more specific, the convex portion **17***a* abuts on the side of the base portion **11***a* of the connector **11**A opposite to the elastic member **16**. The convex portion **17***a* abuts on the connector **11**A (the base portion **11***a*) to restrict the movement of the connector **11**A. The base portion **11***a* of the connector **11**A is sandwiched between the convex portion **17***a* and the elastic member **16**. The convex portion **17***a* and the connector cap **17** can be, as an example, formed of a resin material. Furthermore, the convex portion **17***a* and the connector cap **17** can be, as an example, formed of a conductive metallic material. Due to such a constitution, the convex portion **17***a* and the connector cap **17** can establish a ground for the connector **11**A. The material of the convex portion **17***a* and the connector cap **17** are higher in Young's modulus than the material of the elastic member **16**. As an example, the convex portion **17***a* is rigid. Here, although the example that the convex portion **17***a* is provided in a state that the convex portion **17***a* abuts on the connector **11**A is explained, the present embodiment is not limited thereto. As another example, the convex portion **17***a* is provided in a state that the convex portion **17***a* is spaced apart from the connector **11**A. For example, when vibrations or an impact is applied to the casing **3**, the convex portion **17***a* may be brought into contact with the connector **11**A moved to prevent the connector **11**A from being moved further.

As explained heretofore, in the present embodiment, the elastic member **16** is positioned between the connector **11**A and the casing **3** and abuts on the connector **11**A. The convex portion **17***a* is positioned at the side of the connector **11**A opposite to the elastic member **16** so as to abut on the connector **11**A thus restricting the movement of the connector **11**A. Therefore, the movement of the connector **11**A elastically supported on the elastic member **16** is restricted by the convex portion **17***a* that abuts on the connector **11**A thus preventing the connector **11**A from being displaced.

Here, when the displacement of the connector **11**A is increased, there exists a possibility that it becomes difficult to sufficiently ensure the space S into which the external connector **100** is inserted. However, in the present embodiment, the convex portion **17***a* restricts the displacement of the connector **11**A thus sufficiently ensuring the space S into which the external connector **100** is inserted around the attachment portion **11***b* of the connector **11**A. Consequently, according to the present embodiment, it is possible to attach the external connector **100** to the connector **11**A successfully.

Furthermore, if the displacement of the connector **11**A becomes larger, the load acting on the board **6** on which the connector **11**A is mounted becomes heavier. In the present embodiment, the convex portion **17***a* restricts the displacement of the connector **11**A thus preventing the load applied to the board **6** by the connector **11**A from being increased. Accordingly, it is possible to prevent the board **6** from being deformed (inclined).

In the present embodiment, the convex portion **17***a* restricts the movement of the connector **11**A, and a contact pressure between the connector **11**A and the elastic member **16** is increased thus improving conductive efficiency between the connector **11**A and the elastic member **16**.

Furthermore, in the present embodiment, the convex portion **17***a* as a restriction portion is provided to the connector cap **17**, and it is unnecessary to provide a part only for the restriction portion thus suppressing the increase of the number of parts of the television receiver.

Here, in the present embodiment, the example that the connector **11**A is sandwiched between the elastic member **16** and the convex portion **17***a* (the restriction portion) is explained. However, a part sandwiched between the elastic member **16** and the convex portion **17***a* (the restriction portion) is not limited to the connector **11**A. For example, as a part sandwiched between the elastic member **16** and the convex portion **17***a* (the restriction portion), a speaker, a microphone, or a camera may also be adopted.

Next, a first modification of the present embodiment will be explained in conjunction with FIG. **4**. In the present modification, a restriction portion is not provided to the connector cap **17** but provided to the connector **11**A. As an example, a convex portion **11***c* as a restriction portion is provided to the outer surface of the base portion **11***a*. The convex portion **11***c* abuts on the connector cap **17** of the casing **3** to restrict the movement of the connector **11**A.

Next, a second modification of the present embodiment will be explained in conjunction with FIG. **5**. In the present modification, a restriction part **18** (a spacer) as the restriction portion is provided as a part other than the connector cap **17** and the connector **11**A. The restriction part **18** is, as an example, formed in a plate-like shape. The restriction part **18** abuts, as an example, on the connector cap **17** of the casing **3** and the connector **11**A. The restriction part **18** may be, as an example, fixed to at least one of the connector cap **17** and the connector **11**A. Furthermore, the restriction part **18** may be, as an example, supported by being sandwiched between the connector cap **17** and the connector **11**A.

Second Embodiment

In the present embodiment, as an example, an electronic device **1**A is provided with a first casing **3**A and a second casing **2**A. To be more specific, the first casing **3**A (the first part) houses at least one portion of a display **4**. The second casing **2**A houses a board **6**A. The second casing **2**A is provided with a keyboard **7** (an input operation module, a first input operation module, an input reception module, an input module), a pointing device **8***a* (an input operation module, a second input operation module, an input reception module, an input module), and click buttons **8***b* (input operation modules, third input operation modules, input reception modules, input modules), for example.

The first casing **3**A and the second casing **2**A are connected with each other in a rotatable manner by means of a hinge part (a connection part, a joining part, a rotatably supporting part, a hinge mechanism, a connection mechanism, a joining mechanism, a rotatably supporting mechanism). The first casing **3**A and the second casing **2**A are connected with each other in a manner such that the first casing **3**A and the second casing **2**A are rotatable relative to each other within a range between at least an open state illustrated in FIG. **6** and a folded state illustrated in FIG. **7**. In the present embodiment, as an example, the hinge part connects the first casing **3**A and the second casing **2**A in a manner such that the first casing **3**A and the second casing **2**A are rotatable relative to each other about a rotational axis Ax. The screen **4***a* of the display **4** is exposed from an opening **3***r* provided to the surface **3***a* (the anterior face, the front face, the first surface, the first surface portion) of the first casing **3**A. Furthermore, the keyboard **7**, the pointing device **8***a*, and the click buttons **8***b*, for example, are exposed on a surface **2***a* (the top surface, the front face, the first surface, the first surface portion) of the second casing **2**A. In the folded state, the surface **3***a* of the first casing **3**A and the surface **2***a* of the second casing **2**A are overlapped with each other, and the screen **4***a*, the keyboard **7**, the pointing device **8***a*, and the click buttons **8***b*, for example, are hidden by the first casing **3**A and the second casing **2**A. In the open state, the surface **3***a* of the first casing **3**A and the surface **2***a* of the second casing **2**A are exposed, and the screen **4***a*, the keyboard **7**, the pointing device **8***a*, and the click buttons **8***b*, for example, become usable (viewable or operational).

In the present embodiment, the first casing **3**A is, as an example illustrated in FIGS. **6** and **7**, formed in a quadrangular shape (rectangular shape, as an example in the present embodiment) as viewed in a front view and in a rear view. In the present embodiment, the first casing **3**A is, as an example illustrated in FIG. **8**, formed in a flat rectangular parallelepiped shape with a small thickness in the front-back direction. The first casing **3**A comprises the surface **3***a* (the anterior face, the front face, the first surface, the first surface portion) and the surface **3***b* (a back surface, a rear face, a second surface, a second surface portion) opposite to the surface **3***a*. The surface **3***a* and the surface **3***b* are arranged substantially parallel to each other. Furthermore, the first casing **3**A comprises, as illustrated in FIG. **6**, four end portions **3***c* to **3***f* (side portions, edge portions) and four corner portions **3***g* to **3***j* (convex portions, bent portions, end portions). Each of the end portions **3***c* and **3***e* is an example of a width side portion. Each of the end portions **3***d* and **3***f* is an example of a length side portion.

Furthermore, the first casing **3**A comprises the wall portion **3***k* (a first portion, a plate, a frame, an anterior wall portion, a front wall portion, a top wall portion) comprising the surface **3***a* and the wall portion **3***m* (a second portion, a plate, a rear wall portion, a back wall portion, a bottom wall portion) comprising the surface **3***b*. The wall portions **3***k* and **3***m* are formed in a quadrangular shape (a rectangular shape, as an example in the present embodiment). Furthermore, the first casing **3**A comprises four wall portions **3***n* (third portions, plates, side wall portions, end wall portions, erected wall portions, connecting portions) comprising surfaces **3***p* (side surfaces, peripheral surfaces, third surfaces) each of which extends between the wall portion **3***k* and the wall portion **3***m*. Here, the wall portion **3***k* is, as an example, provided with the opening **3***r* formed in a quadrangular shape. Accordingly, the wall portion **3***k* is formed in a quadrangular shape and in a frame shape.

In addition, the first casing **3**A can be constituted of a plurality of parts (separated bodies) combined with each other. In the present embodiment, the first casing **3**A comprises, as an example, the first casing member **31** (a first portion, a front side member, a mask, a mask portion, a cover, a front cover, a cover portion, a first region) comprising at least the wall portions **3***k* and the second casing member **32** (a second portion, a rear side member, a base, a base portion, a bottom, a bottom portion, a cover, a rear cover, a cover portion, a second region) comprising at least the wall portions **3***m*. The wall portions **3***n* are comprised in at least any one of the first casing member **31** and the second casing member **32** (the second casing member **32**, for example). Furthermore, the first casing **3**A can comprise, in addition to the first casing member **31** and the second casing member **32**, a third casing member (a third portion, an intermediate portion, a spacer member, a barrier member, a wall member, an interjacent member, an inner plate, a middle plate, a middle frame, a third region, not illustrated in the drawings), a fourth casing member (a fourth portion, an intermediate portion, a spacer member, a barrier member, a wall member, an interjacent member, a cover, a shield, a fourth region, not illustrated in the drawings), or other members that are positioned therebetween.

The first casing **3**A can be made of metallic, synthetic-resin, or other material. The first casing member **31** and the

second casing member **32** can be made of a material being comparatively low in rigidity (a material being lower in rigidity than that of the third casing member or the fourth casing member; that is, a synthetic-resin material, for example). Here, wall portions such as ribs (protruding portions, protruding wall portions, not illustrated in the drawings) can be provided to surfaces of the first casing member **31** and the second casing member **32**, the surfaces facing inside the first casing **3**A. The wall portions easily increase the rigidity of the first casing **3**A.

In the present embodiment, as an example illustrated in FIG. **6**, the surface **3***a* of the first casing **3**A can be provided with the camera module **10** (a camera, an image pickup device). The camera module **10**, for example, is exposed through the opening **3***s* provided to the wall portion **3***k* of the first casing **3**A. Here, the surface **3***p* of the first casing **3**A can be provided with connectors or operation modules.

In the present embodiment, as an example illustrated in FIG. **6**, the screen **4***a* positioned at the surface **3***a* side of the display **4** (the display part, the display, the display panel) is exposed toward the front side (outside) of the first casing **3**A through the opening **3***r*. A user can view the screen **4***a* through the opening **3***r* from the front side of the first casing **3**A. The display **4** is formed in a quadrangular shape (a rectangular shape, as an example in the present embodiment) as viewed in a front view. Furthermore, the display **4** is formed in a flat rectangular parallelepiped shape with a small thickness in the front-back direction. The display **4** is, for example, constituted of a liquid crystal display (LCD), an organic electroluminescent display (OELD), or the like.

In the present embodiment, as an example, the display **4** provides an input operation panel **5** (a touch panel, a touch sensor, or an operation panel, as an example) to the front side (the anterior side, the wall portion **3***k* side) thereof. The input operation panel **5** is formed in a transparent flat rectangular parallelepiped shape with a comparatively small thickness and covers the screen **4***a*. An operator (a user, for example) performs, for example, operations of touching, pushing, or rubbing the input operation panel **5** by using a finger or a tool (a stylus or the like, not illustrated in the drawings), or operations of moving the finger or the stylus in the vicinity of the input operation panel **5** thus performing input processing. Furthermore, light emitted from the screen **4***a* of the display **4** passes through the input operation panel **5** and goes out from the opening **3***r* toward the front side (outside) of the first casing **3**A. The input operation panel **5** is an example of an input module.

In the present embodiment, the second casing **2**A is, as an example illustrated in FIGS. **6** and **7**, formed in a quadrangular shape (rectangular shape, as an example in the present embodiment) as viewed in a front view and in a rear view. In the present embodiment, the second casing **2**A is, as an example illustrated in FIG. **8**, formed in a flat rectangular parallelepiped shape with a small thickness in the front-back direction. The second casing **2**A comprises the surface **2***a* (the top surface, the front face, the first surface, the first surface portion) and a surface **2***b* (a bottom surface, a rear face, a second surface, a second surface portion) opposite to the surface **2***a*. The surface **2***a* and the surface **2***b* are arranged substantially parallel to each other. Furthermore, the second casing **2**A comprises, as illustrated in FIG. **6**, four end portions **2***c* to **2***f* (side portions, edge portions) and four corner portions **2***g* to **2***j* (convex portions, bent portions, end portions) as viewed in a front view. Each of the end portions **2***c* and **2***e* is an example of a width side portion. Each of the end portions **2***d* and **2***f* is an example of a length side portion.

The second casing **2**A comprises a wall portion **2***k* (a first portion, a plate, a frame, an anterior wall portion, a front wall portion, a top wall portion) comprising the surface **2***a* and a wall portion **2***m* (a second portion, a plate, a rear wall portion, a back wall portion, a bottom wall portion, see FIG. **8**) comprising the surface **2***b*. The wall portions **2***k* and **2***m* are formed in a quadrangular shape (a rectangular shape, as an example in the present embodiment). Furthermore, the second casing **2**A comprises four wall portions **2***n* (third portions, plates, side wall portions, end wall portions, erected wall portions, connecting portions) comprising surfaces **2***p* (side surfaces, peripheral surfaces, third surfaces) each of which extends between the wall portion **2***k* and the wall portion **2***m*. Here, the wall portion **2***k* is, as an example, provided with an opening **2***r* formed in a quadrangular shape. Accordingly, the wall portion **2***k* is formed in a quadrangular shape and in a frame shape.

In addition, the second casing **2**A can be constituted of a plurality of parts (separated bodies) combined with each other. In the present embodiment, the second casing **2**A comprises, as an example, a first casing member **21** (a first portion, a front side member, a mask, a mask portion, a cover, a front cover, a cover portion, a first region, see FIG. **6**) comprising at least the wall portion **2***k* and a second casing member **22** (a second portion, a rear side member, a base, a base portion, a bottom, a bottom portion, a cover, a rear cover, a cover portion, a second region, see FIG. **8**) comprising at least the wall portion **2***m*. The wall portions **2***n* are comprised in at least any one of the first casing member **21** and the second casing member **22** (the second casing member **22**, for example). Furthermore, the second casing **2**A can comprise, in addition to the first casing member **21** and the second casing member **22**, a third casing member (a third portion, an intermediate portion, a spacer member, a barrier member, a wall member, an interjacent member, an inner plate, a middle plate, a middle frame, a third region, not illustrated in the drawings), a fourth casing member (a fourth portion, an intermediate portion, a spacer member, a barrier member, a wall member, an interjacent member, a cover, a shield, a fourth region, not illustrated in the drawings), or other members that are positioned therebetween.

The second casing **2**A can be made of metallic, synthetic-resin, or other material. The first casing member **21** and the second casing member **22** can be made of a material being comparatively low in rigidity (a material being lower in rigidity than that of the third casing member or the fourth casing member; that is, a synthetic-resin material, for example). Here, wall portions such as ribs (protruding portions, protruding wall portions, not illustrated in the drawings) can be provided to surfaces of the first casing member **21** and the second casing member **22**, the surfaces facing inside the second casing **2**A. The wall portions easily increase the rigidity of the second casing **2**A.

The wall portion **2***m* of the second casing **2**A is provided with supports **20** (foot portions, feet, rubber members) supporting the second casing **2**A. Each of the supports **20** is, as an example, provided to each of the four corner portions **2***g* to **2***j*. The supports **20** protrude from the surface **2***b*. The support **20** is, as an example, constituted of an elastic member made of rubber or other material. The supports **20** are placed on an external placing surface **200** (FIG. **9**). The supports **20** support the second casing **2**A in a state that the supports **20** are placed on the external placing surface **200** (FIG. **9**).

In the present embodiment, as an example illustrated in FIG. **8**, the surface **2***p* or other portions of the second casing **2**A can be provided with connectors **11** or the like. Examples of the connectors **11** include the connector **11**A for data

communication, the universal serial bus (USB) connector **11**B, a connector **11**C for a power cable, a card connector, and a connector for an earphone or a microphone. The connectors **11** are exposed through openings provided to the wall portion **2***n* of the second casing **2**A. Here, the surface **2***a* of the second casing **2**A can be provided with connectors or operation modules.

Furthermore, in the present embodiment, as an example illustrated in FIG. **6**, an operation panel **7***a* (a face, a top face) of the keyboard **7** is exposed toward the front side (outside) of the second casing **2**A through the opening **2***r*. On the surface **2***a*, the keyboard **7** is positioned at a side close to the end portion **2***e*, and the pointing device **8***a* and the click buttons **8***b* are arranged on a side close to the end portion **2***c* opposite to the end portion **2***e*. The end portion **2***e* is positioned at a back side of the surface **2***a* in the horizontal depth direction (the front-back direction) and the end portion **2***c* is positioned at a near side of the surface **2***a* in the same direction as above.

In the present embodiment, as an example illustrated in FIG. **6**, the second casing **2**A houses therein one or more boards **6**A (a circuit board, a control board, a main board, an electric component, a first electric component) on the rear side (the back side, the behind side, the wall portion **2***m* side, a side opposite to the operation panel **7***a*) of the keyboard **7**. The board **6**A is provided parallel to the keyboard **7**. The board **6**A is provided in a state that the board **6**A is spaced apart from the wall portions **2***k*, **2***m*, and **2***n*, for example; that is, in a state that a space (a clearance) is formed between the board **6**A and the wall portions **2***k*, **2***m*, and **2***n*, for example.

In the present embodiment, as an example, the board **6**A can, for example, mount thereon a plurality of parts (not illustrated in the drawings) such as a central processing unit (CPU), a graphics controller, a power circuit component, a platform controller hub (PCH), a memory slot connector, an LCD connector, an input/output (I/O) connector, a power supply coil, an element, or a connector. The board **6** mounts a connector **11**A for data communication thereon. Furthermore, a control circuit can, for example, comprise a video signal processing circuit, a tuner, a high-definition multi media interface (HDMI) signal processing module, an audio video (AV) input terminal, a remote control signal receiving module, a control module, a selector, an onscreen display interface, a storage (a read only memory (ROM), a random access memory (RAM), a hard disk drive (HDD), or a solid state drive (SSD), for example), an audio signal processing circuit, for example. The control circuit controls the output of videos (moving pictures, still pictures, for example) on the screen **4***a* of the display **4**, the output of sounds by a speaker (not illustrated in the drawings), the emission of light from a light emitting diode (LED, not illustrated in the drawings), for example. The display **4**, the speaker, and the LED, are examples of an output module.

Furthermore, in the present embodiment, as an example illustrated in FIGS. **6** and **7**, the end portion **2***e* of the second casing **2**A provides protruding portions **2***u* protruding from the surface **2***a* in the thickness direction on the both ends thereof in the longitudinal direction. In the present embodiment, as an example illustrated in FIGS. **7** and **8**, each of the protruding portions **2***u* houses a part of the hinge part (apart on the second casing **2**A side) therein. In the present embodiment, as an example illustrated in FIG. **8**, the connector **11**A that is larger in height (thickness) than the other connectors **11** is provided corresponding to the protruding portion. In the present embodiment, as an example, the protruding portion **2***u* provides therein the hinge part adjacent to the connector **11**. Furthermore, as illustrated in FIG. **8**, the protruding portion **2***u* provides therein a hinge cap **23** adjacent to the connector **11**. Therefore, as an example, the height (thickness) of the electronic apparatus **1**A at a portion to which the connector **11** being large in height (thickness) is provided is easily reduced compared with a case that the wall portion of the second casing **2**A is provided between the connector **11** and the hinge part or between the connector **11** and the hinge cap **23**. Furthermore, the protruding portion **2***u* in which the hinge part is housed is covered with the hinge cap **23** (the cover, the cap, the cover part, the cover, the fifth casing member) other than the first casing member **21** and the second casing member **22** thus easily separating, as an example, a process for assembling (attaching, handling) the first casing member **21** or the second casing member **22** from a process for assembling (attaching, handling) parts around the hinge part (the hinge part, the connector **11**A, and a harness, for example). Therefore, as an example, time and efforts for manufacturing thereof can be easily reduced. Furthermore, as an example, the surface (outer surface) of the hinge cap **23** is decorated by a treatment, such that the hinge cap **23** is, for example, coated with a metallic coating material, different from that applied to the other portions (the general portions, the first casing members **21** and **31**, the second casing members **22** and **32**, for example) thus giving an accent to the external appearance of the electronic apparatus **1**A.

As an example illustrated in FIG. **9**, the connector **11**A is arranged between the wall portion **2***m* (the first wall portion) and the wall portion **2***k* (the second wall portion) of the second casing **2**A, and exposed from the opening **2***s*. The connector **11**A comprises, as illustrated in FIGS. **9** to **11**, the base portion **11***a* and the attachment portion **11***b* in the same manner as the case of the first embodiment. The base portion **11***a* is, as an example, formed in a substantially rectangular parallelepiped shape. The base portion **11***a* is housed in the inside of the casing **3**. The attachment portion **11***b* projects from the base portion **11***a* toward the outside of the second casing **2**A. The attachment portion **11***b* extends from the base portion **11***a* toward the opening **2***s*. In the connector **11**A, an external connector **100** (see FIG. **5**) is attached to the attachment portion **11***b*. The space S for inserting the external connector **100** is formed around the attachment portion **11***b*.

In between the connector **11**A and the wall portion **2***m*, an elastic member **16** (an elastic part, a gasket, FIG. **9**) is positioned. The elastic member **16** has elasticity. The elastic member **16** is, as an example, adhered (fixed) to the wall portion **2***m* by bonding, for example. The elastic member **16** abuts on the base portion **11***a* of the connector **11**A to elastically support the connector **11**A. Furthermore, the elastic member **16** is made of a conductive material. The elastic member **16** connects the connector **11**A and the wall portion **2***m* electrically to establish a ground for the connector **11**A.

Furthermore, a connector cap **17**A (a cover, a part, a cap) is provided to the side of the connector **11**A opposite to the elastic member **16**. The connector cap **17**A constitutes a part of the second casing **2**A. At least a part of the connector cap **17**A is positioned at the side of the connector **11**A opposite to the elastic member **16** and covers a part of the connector **11**A. The connector cap **17**A is provided to the second casing **2**A. The connector cap **17** is exposed from the opening **2***s*. The connector cap **17**A is fixed to the wall portion **2***k*. The connector cap **17**A is, as an example, fixed to a support **2***q* (FIG. **13**) provided to the wall portion **2***k*. The support **2***q* provides thereto a plurality of pins **2***t* and ribs **2***v*. The connector cap **17**A decreases a clearance between the external connector **100** attached to the connector **11**A and the hinge cap **23**.

The connector cap **17**A comprises, as illustrated in FIGS. **12** and **14**, a base portion **17***c* (a portion, a first portion) overlapped with the connector **11**A and an projecting portion

17*d* (a portion m, a second portion) projecting from the base portion **17***c*. The base portion **17***c* comprises a pair of end portions **17***e* and **17***f*. The end portions **17***e* and **17***f* are fixed to the wall portion **2***k* by bonding or fastening. The base portion **17***c* is provided with an opening **17***g* (FIG. **14**) into which a fastener **19** (a screw, FIG. **12**) is inserted.

The connector cap **17**A is, as illustrated in FIG. **14**, provided with convex portions **17***a* (a restriction portion, a projecting portion, a protruding portion, an abutting portion). That is, the convex portions **17***a* are provided to the second casing **2**A. There are two convex portions **17***a* provided between a pair of the end portions **17***e* and **17***f*. The convex portion **17***a* is formed in a substantially rectangular parallelepiped shape. The convex portion **17***a* is provided in an extending manner along the direction substantially orthogonal to the direction of connecting the end portions **17***e* and **17***f*. The convex portions **17***a* protrude from a surface **17***h* on the connector **11**A side of the base portion **17***c* of the connector cap **17**A toward the base portion **11***a* of the connector **11**A. The convex portions **17***a* are integrally formed with the connector cap **17**. The convex portions **17***a* are positioned at the side of the connector **11**A opposite to the elastic member **16**. The convex portions **17***a* restrict the movement of the connector **11**A. To be more specific, the convex portions **17***a* abut on the side of the base portion **11***a* of the connector **11**A opposite to the elastic member **16**. The convex portions **17***a* abut on the connector **11**A (the base portion **11***a*) so as to restrict the movement of the connector **11**A. The base portion **11***a* of the connector **11**A is sandwiched between the convex portions **17***a* and the elastic member **16**. The convex portions **17***a* and the connector cap **17**A can be, as an example, made of resin material. Furthermore, the convex portions **17***a* and the connector cap **17**A can be, as an example, made of conductive metallic material. Due to such a constitution, the convex portions **17***a* and the connector cap **17**A can establish a ground for the connector **11**A. The material of the convex portion **17***a* and the connector cap **17**A are higher in Young's modulus than that of the elastic member **16**. As an example, the convex portion **17***a* is rigid. Here, the positional relationship between the connector cap **17**A and the elastic member **16** may be made in reverse to that illustrated in FIG. **9**.

In the present embodiment, as an example illustrated in FIGS. **10** and **14**, the connector cap **17** is provided with a guide portion **17***i* that guides (supports) a harness **30** (wiring, FIG. **10**). The guide portion **17***i* is, as an example, provided to the projecting portion **17***d*. The end portion of the harness **30** is provided with a connector **31** (FIG. **10**). The connector **31** is inserted into a connector **32** (FIG. **11**) mounted on the board **6**A. The harness **30** connects, for example, the board **6**A (the electric parts, the circuits) in the casing **3** and electric parts (a display, a speaker, and a camera, for example). Furthermore, the connector cap **17** also functions as a cover for covering a part of the harness **30**.

Furthermore, in the present embodiment, as an example illustrated in FIGS. **8** and **9**, the connector **11**A is located at a position such that the connector **11**A is overlapped with the support **20** (the support **20** at the corner portion **2***j*) above the support **20** (the support **20** at the corner portion **2***j*) when the support **20** (the support **20** at the corner portion **2***j*) is placed on the external placing surface **200**. In the present embodiment, the convex portion **17***a* is, as illustrated in FIG. **9**, located at a position such that the convex portion **17***a* is overlapped with the support **20** (the support **20** at the corner portion **2***j*) above the support **20** (the support **20** at the corner portion **2***j*) when the support **20** (the support **20** at the corner portion **2***j*) is placed on the external placing surface **200**. Due to such a constitution, at least a part of a load applied to the support **20** is applied to the wall portion **2***k* via the elastic member **16**, the connector **11**A, and the convex portion **17***a*, for example, thus preventing the load being applied to the board **6**A.

As explained heretofore, in the present embodiment, the elastic member **16** is positioned between the connector **11**A and the second casing **2**A and abuts on the connector **11**A. The convex portion **17***a* is positioned at the side of the connector **11**A opposite to the elastic member **16** and abuts on the connector **11**A thus restricting the movement of the connector **11**A. Therefore, the convex portion **17***a* abutting on the connector **11** restricts the movement of the connector **11**A elastically supported by the elastic member **16** thus preventing the connector **11**A from being displaced.

Next, a modification of the present embodiment will be explained in conjunction with FIG. **15**. In a connector cap **17**B of the present modification, the convex portion **17***a* is provided in an extending manner along the direction of connecting the end portions **17***e* and **17***f*. Due to such a constitution, it is possible to improve flexural rigidity provided between the end portions **17***e* and **17***f*.

As explained heretofore, according to the above-mentioned respective embodiments, it is possible to prevent the connector **11**A from being displaced.

Moreover, the various modules of the systems described herein can be implemented as software applications, hardware and/or software modules, or components on one or more computers, such as servers. While the various modules are illustrated separately, they may share some or all of the same underlying logic or code.

While certain embodiments have been described, these embodiments have been presented by way of example only, and are not intended to limit the scope of the inventions. Indeed, the novel embodiments described herein may be embodied in a variety of other forms; furthermore, various omissions, substitutions and changes in the form of the embodiments described herein may be made without departing from the spirit of the inventions. The accompanying claims and their equivalents are intended to cover such forms or modifications as would fall within the scope and spirit of the inventions.

What is claimed is:

1. An electronic device comprising:

a casing comprising an opening;

a board configured to be housed in the casing;

a connector configured to be mounted on the board and exposed from the opening;

an elastic member between the connector and the casing, the elastic member including a portion touching the connector without overlapping the board in the thickness direction of the board;

a cover configured to be at least partially positioned at a side of the connector opposite to the elastic member and cover a part of the connector; and

a restriction portion configured to be positioned at the side of the connector opposite to the elastic member, overlap the portion in the thickness direction of the board through the connector and restrict movement of the connector.

2. The electronic device of claim **1**,

wherein the restriction portion is on, at, or near the cover and is configured to touch the connector to restrict the movement of the connector.

3. The electronic device of claim **2**,

wherein the cover is configured to be exposed from the opening, and the restriction portion comprises a convex portion.

4. The electronic device of claim 1,
wherein the connector comprises a base portion and an attachment portion projecting from the base portion toward the outside of the casing, the attachment portion being configured to be attached to an external connector, the elastic member is configured to touch the base portion, and the restriction portion is configured to touch a side of the base portion opposite to the elastic member.
5. The electronic device of claim 1,
wherein the restriction portion comprises a convex portion on, at, or near the connector and is configured to touch the cover to restrict the movement of the connector.
6. The electronic device of claim 5,
wherein the connector comprises a base portion and an attachment portion projecting from the base portion toward the outside of the casing, the attachment portion being configured to be attached to an external connector, and the restriction portion is provided to the base portion and is configured to touch the cover to restrict the movement of the connector.
7. The electronic device of claim 1, further comprising:
a support configured to be on, at, or near the casing and placed on an external placing surface, wherein the connector is located at a position such that the connector is overlapped with the support above the support when the support is placed on the external placing surface.
8. The electronic device of claim 7,
wherein the restriction portion is located at a position such that the restriction portion is overlapped with the support above the support when the support is placed on the external placing surface.
9. The electronic device of claim 1,
wherein the restriction portion has a conductivity.
10. An electronic device comprising:
a casing comprising an opening;
a board configured to be housed in the casing;
a connector configured to be mounted on the board and exposed from the opening;
an elastic member between the connector and the casing, the elastic member being configured to touch the connector;
a cover configured to be at least partially positioned at a side of the connector opposite to the elastic member and cover a part of the connector;
a restriction part configured to be positioned at the side of the connector opposite to the elastic member and restrict movement of the connector; and
a guide configured to support a harness and be provided the restriction portion.
11. An electronic device comprising:
a casing comprising an opening;
a board configured to be housed in the casing;
a connector configured to be mounted on the board and exposed from the opening;
an elastic member between the connector and the casing, the elastic member being configured to touch the connector;
a cover configured to be at least partially positioned at a side of the connector opposite to the elastic member and cover a part of the connector;
a restriction portion configured to be positioned at the side of the connector opposite to the elastic member and restrict movement of the connector; and
a support configured to be on, at, or near the casing and placed on an external placing surface, wherein
the connector is located at a position such that the connector is overlapped with the support above the support when the support is placed on the external placing surface and
the restriction portion is located at a position such that the restriction portion is overlapped with the support above the support when the support is placed on the external placing surface.

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