

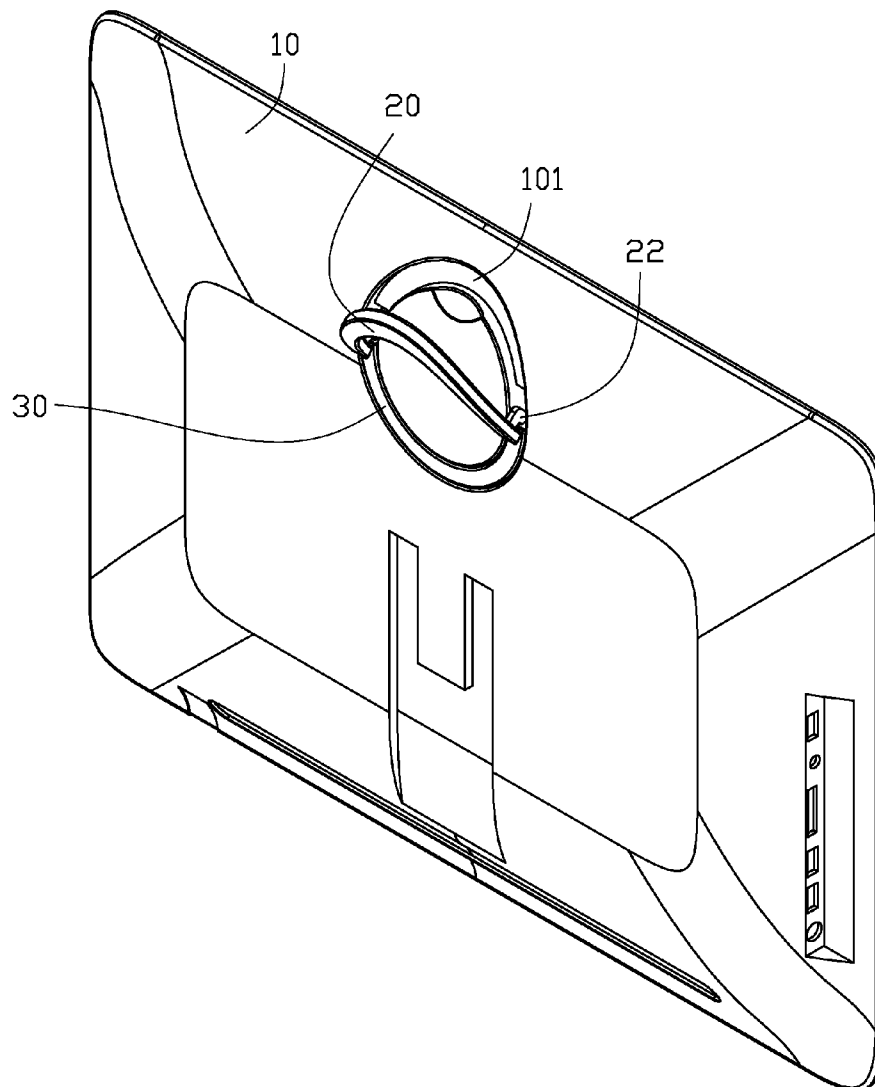


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**XIAO et al.**(10) **Pub. No.: US 2015/0035304 A1**(43) **Pub. Date: Feb. 5, 2015**(54) **ALL-IN-ONE DEVICE****Publication Classification**(71) Applicants: **HONG FU JIN PRECISION  
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New Taipei (TW)(57) **ABSTRACT**(21) Appl. No.: **14/449,527**(22) Filed: **Aug. 1, 2014**(30) **Foreign Application Priority Data**

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An all-in-one device includes a rear panel, a mounting member, and handle. The mounting member is secured to the rear panel. The handle includes an actuating pole and two rotating arms located on the actuating pole. The two rotating arms are respectively connected to two opposite ends of the mounting member. The actuating pole abuts the rear panel and is rotatable away from the rear panel.



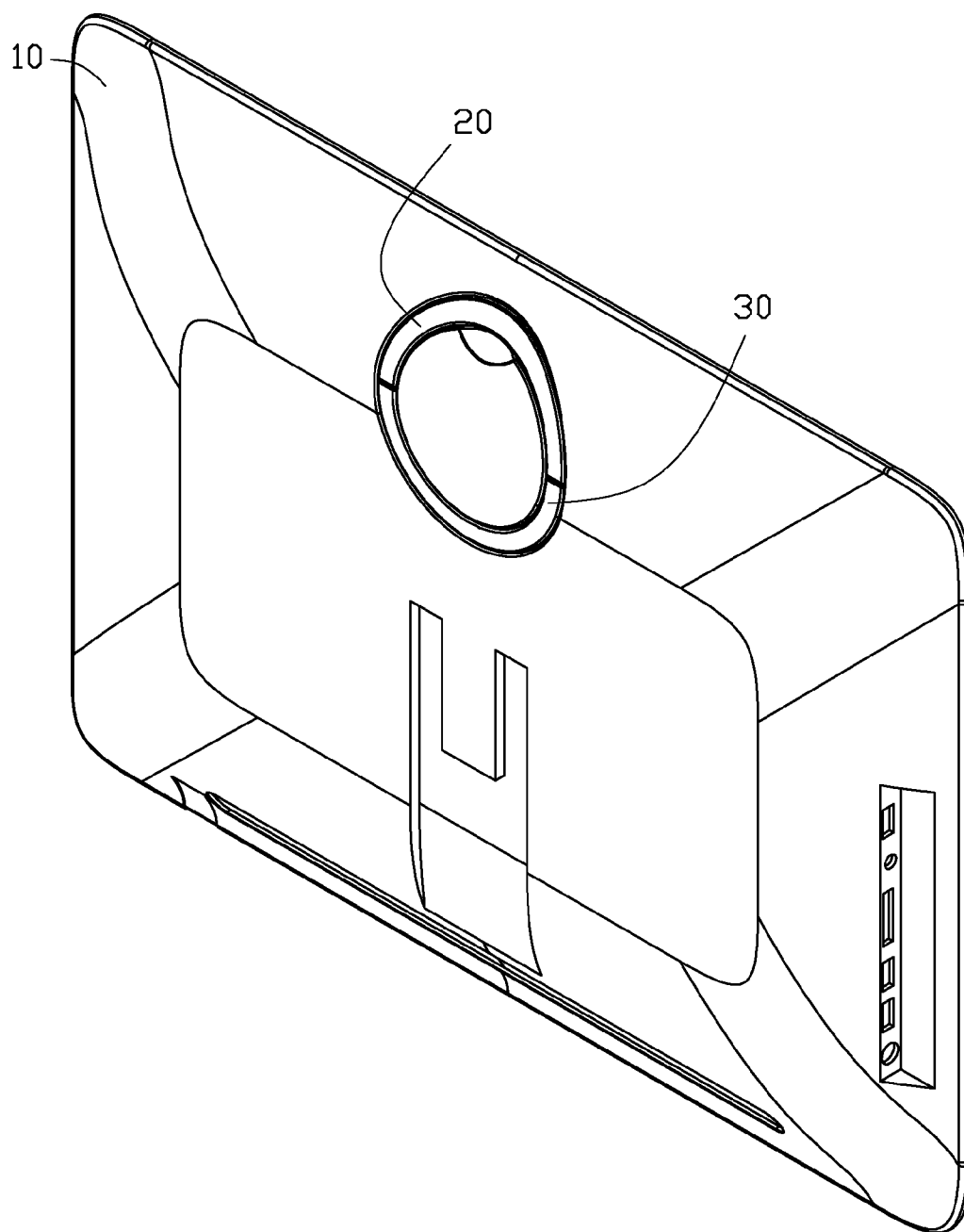


FIG. 1

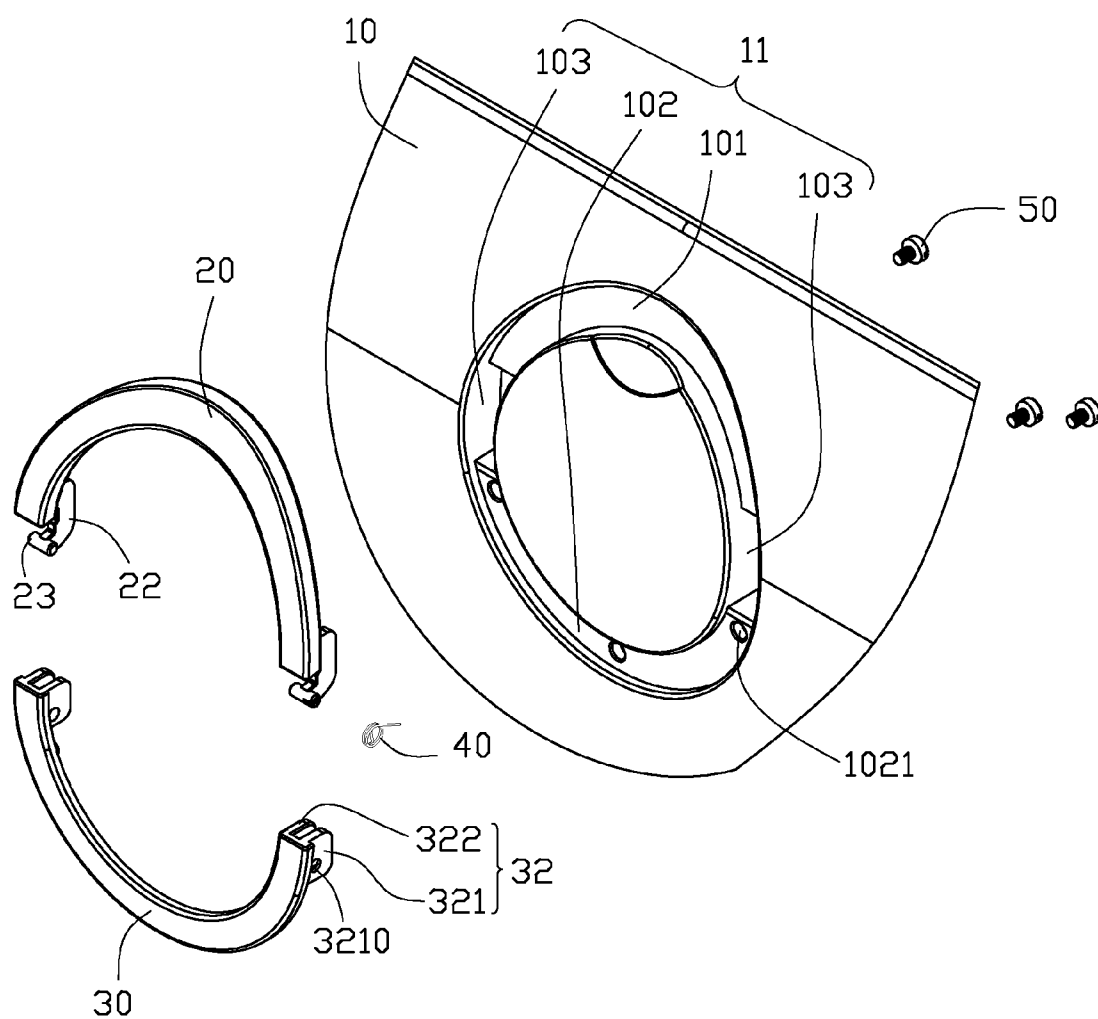


FIG. 2

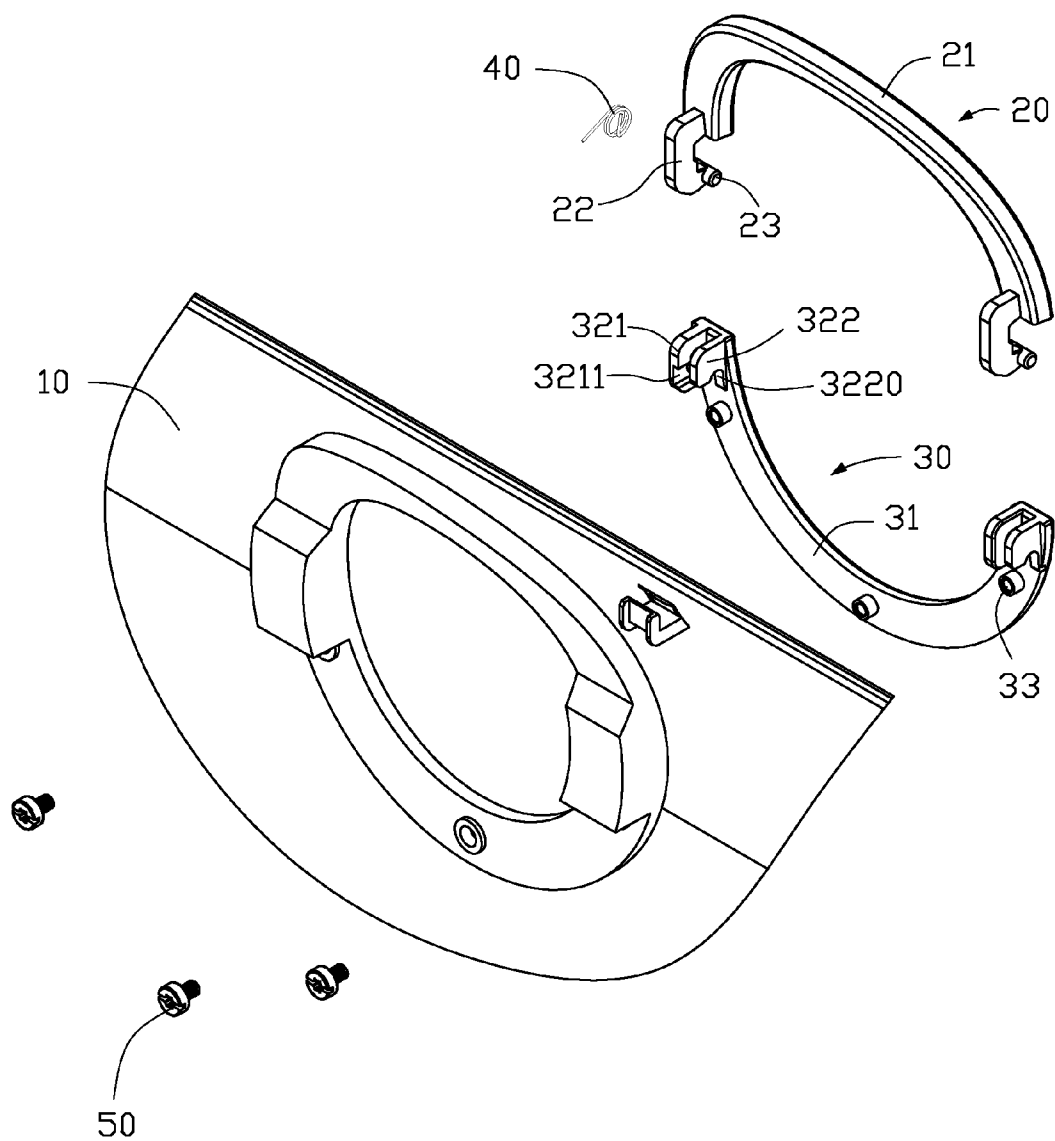


FIG. 3

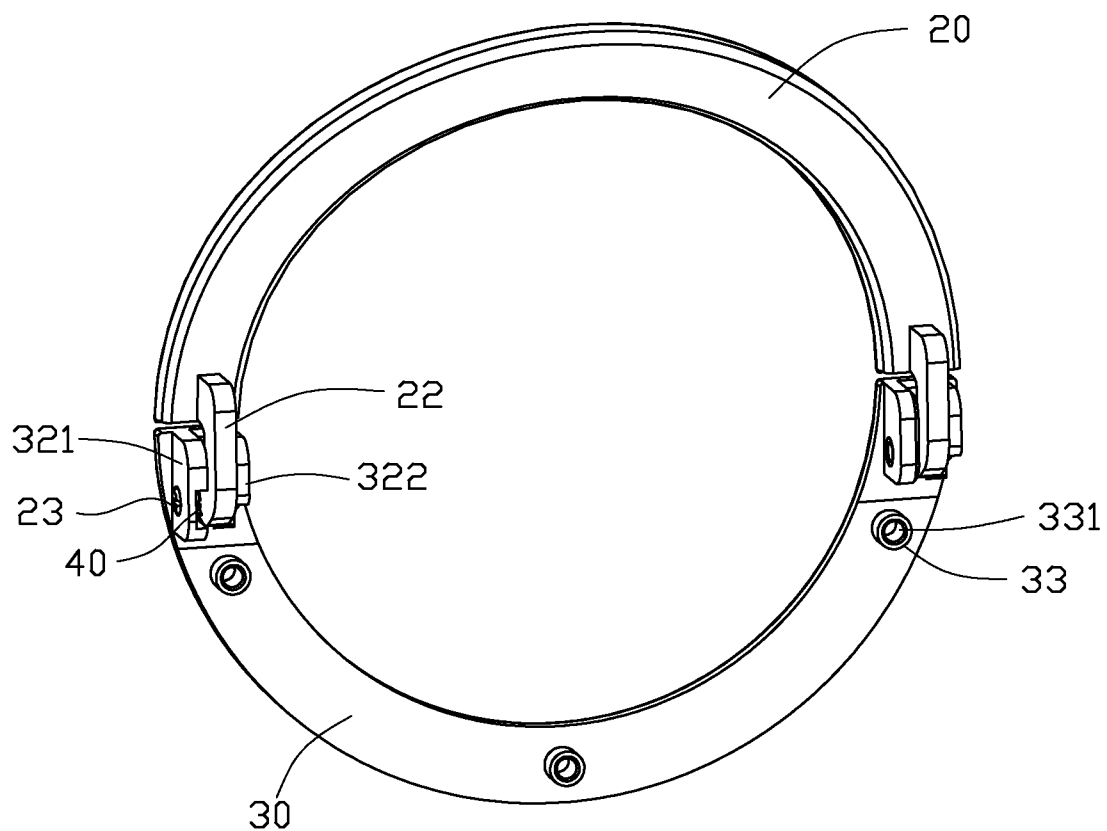


FIG. 4

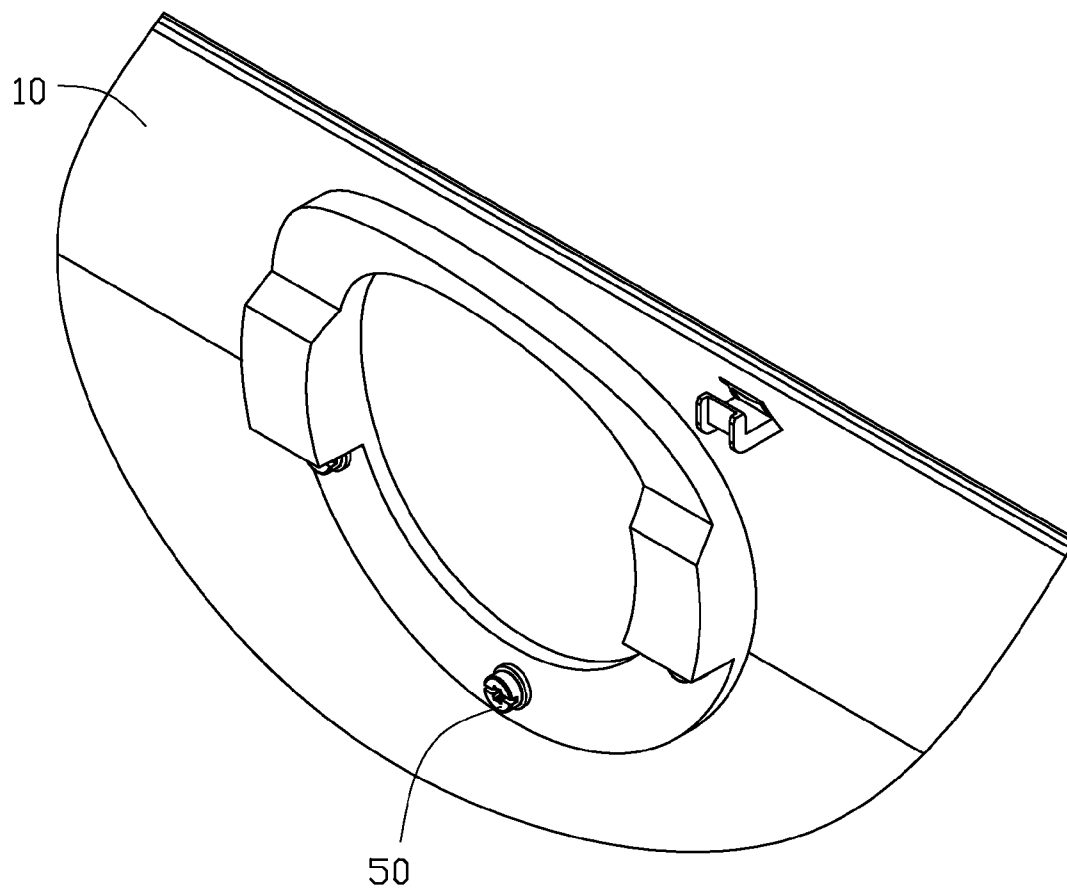


FIG. 5

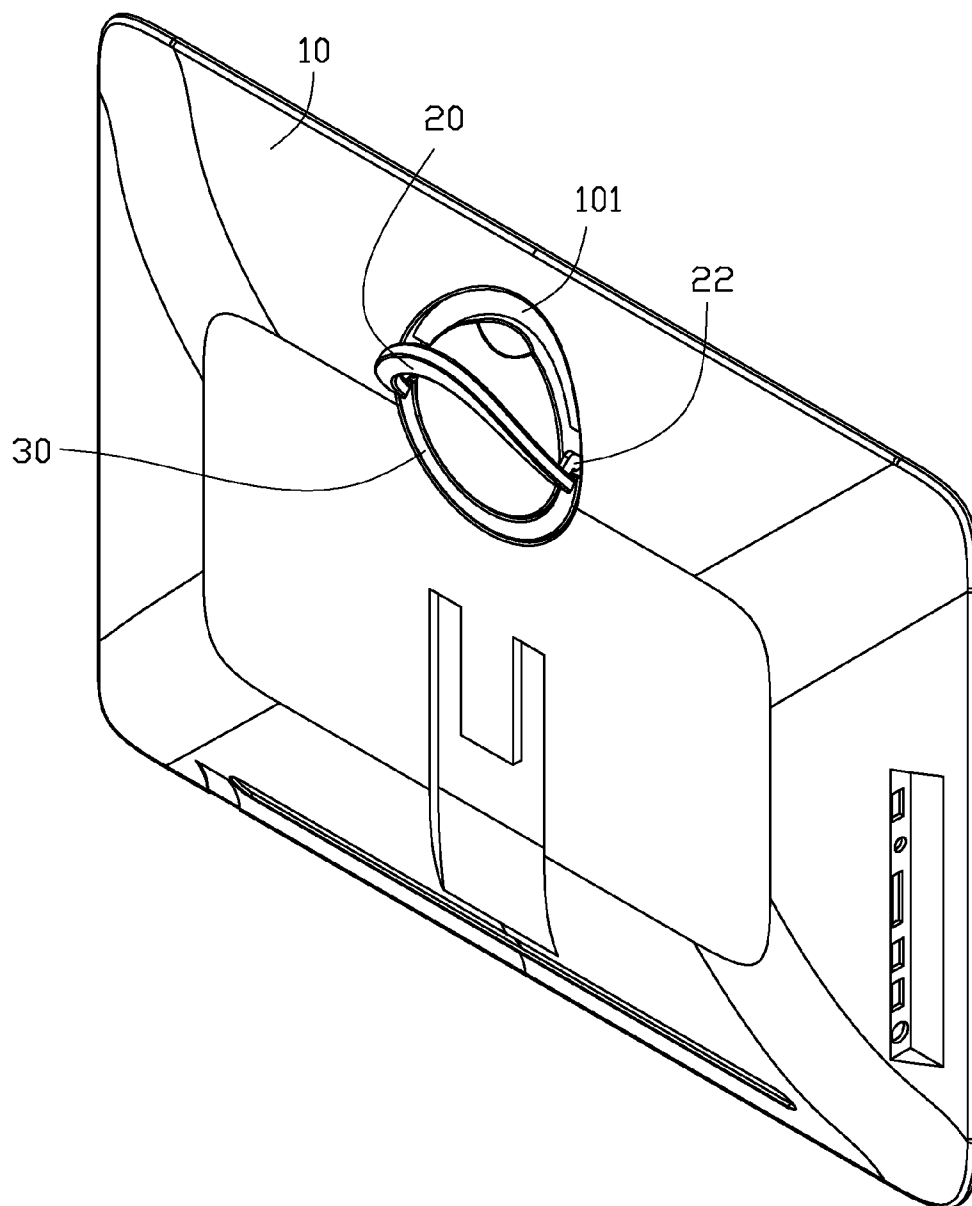


FIG. 6

## ALL-IN-ONE DEVICE

### RELATED APPLICATIONS

[0001] This application claims priority to China Patent Application No. 201310333247.0 filed on Aug. 2, 2013 in the China Intellectual Property Office, the contents of which are hereby incorporated by reference.

### FIELD

[0002] The present disclosure relates to all-in-one devices.

### BACKGROUND

[0003] An all-in-one device is widely used. However, a handle is needed to assist in carrying the all-in-one device

### BRIEF DESCRIPTION OF THE DRAWINGS

[0004] Many aspects of the embodiments can be better understood with reference to the following drawings. The components in the drawings are not necessarily drawn to scale, the emphasis instead being placed upon clearly illustrating the principles of the embodiments. Moreover, in the drawings, like reference numerals designate corresponding parts throughout the several views.

[0005] FIG. 1 is an isometric view of an all-in-one device in accordance with an embodiment, the all-in-one device comprising a rear panel, a mounting member, and a handle, and the handle is in a first position.

[0006] FIG. 2 is an exploded, isometric view of the rear panel, the mounting member and the handle of FIG. 1, but the rear panel is cutaway.

[0007] FIG. 3 is similar to FIG. 2, but is the exploded view from a different perspective.

[0008] FIG. 4 is an assembled view of the mounting member and the handle of FIG. 2.

[0009] FIG. 5 is an exploded view of the rear panel, the mounting member and the handle of FIG. 3.

[0010] FIG. 6 is an assembled view of the rear panel, the mounting member and the handle of FIG. 2, and the handle is located in a second position.

### DETAILED DESCRIPTION

[0011] The disclosure is illustrated by way of example and not by way of limitation in the figures of the accompanying drawings in which like references indicate similar elements. It should be noted that references to “an” or “one” embodiment in this disclosure are not necessarily to the same embodiment, and such references mean at least one.

[0012] FIG. 1 illustrates an all-in-one device in accordance with an embodiment. The all-in-one device includes a rear panel 10, a handle 20, a mounting member 30, and a resilient member 40. In one embodiment, the rear panel 10 can be applied to a tablet computer or all-in-one device, and the resilient member 40 can be a torsion spring.

[0013] FIGS. 2-4 show that, the handle 20 includes an actuating pole 21 and two rotating arms 22. The rotating arms 22 can be located on opposite ends of the actuating pole 21. In at least one embodiment, the actuating pole 21 can be substantially semicircular shape, and each of the two rotating arms 22 can be substantially U-shaped. A rotating shaft 23 can be located on a distal end of each of the two rotating arms 22. Each of the two rotating shafts 23 has an axis. The axis of

one of the two rotating shafts 23 can coincide with the axis of another of the two rotating shafts 23.

[0014] The mounting member 30 can include a mounting pole 31 and two mounting portions 32. The mounting pole 31 has a same shape as the actuating pole 21. The two mounting portions 32 can be arranged at two opposite ends of the mounting pole 31, and each of the two mounting portions 32 can include an installation tab 321 and a resisting tab 322 opposite to the installation tab 321. A distance between the installation tab 321 and the resisting tab 322 can be slightly greater than the thickness of each of the two rotating arms 22. The installation tab 321 can define a pivot hole 3210 corresponding to the rotating shaft 23, and a latching slot 3211 can be defined in the installation tab 321 and can communicate with the pivot hole 3210. The resisting tab 322 can define a latching cutout 3220 in the bottom portion of the resisting tab 322. The pivot hole 3210 and the latching cutout 3220 can be on a same line, substantially perpendicular to the resisting tab 322. Three mounting posts 33 can protrude from the mounting pole 31, and each of the mounting posts 33 can define a mounting hole 331. A plurality of inner threads (not shown) can be located on inner wall of the mounting hole 331.

[0015] FIG. 2 illustrates that the rear panel 10 defines a receiving slot 11, and the receiving slot 11 has a same shape as the handle 20 and the mounting member 30. The receiving slot 11 includes a first portion 101, a second portion 102, and two third portions 103. Each of the two third portions 103 is in communication with the first portion 101 and the second portion 102. The second portion 102 can define three through holes 1021 corresponding to the three mounting posts 33.

[0016] FIG. 4 illustrates that in assembly of the handle 20 to the mounting member 30, the resilient member 40 can be sleeved on one rotating shaft 23. One end of the rotating shaft 23 can be engaged in the pivot hole 3210, and another end of the rotating shaft 23 can be received in the latching cutout 3220. The resilient member 40 can be accommodated in the latching slot 3211. Each of the two rotating arms 22 can engage between each of the two installation portions 32. The handle 20 can be rotatably secured to the mounting member 30.

[0017] FIGS. 5 and 6 illustrate that in assembly of the handle 20 and the mounting member 30 to the rear panel 10, the handle 20 can be received in the first portion 101. The three mounting posts 33 can be respectively inserted into the three through holes 1021, the mounting member 30 can be received in the second portion 102. The two rotating arms 22 can be respectively received in the two third portions 103. Three screws 50 can be respectively locked into the mounting holes 331 of the three mounting posts 33. The mounting member 30 can be installed on the rear panel 10, and the actuating portion 21 can be located in a first position where the actuating portion 21 can be received in the first portion 101.

[0018] FIGS. 6 illustrates that when the handle 20 in use, the actuating portion 21 can be rotated along a first direction far from the rear panel 10. The resilient member 40 can be resiliently deformed. The actuating portion 21 can be located in a second position where the actuating portion 21 can be disengaged from the first portion 101.

[0019] When releasing the handle 20, the resilient member 40 resiliently rebounds to rotate the actuating portion 21 along a second direction opposite to the first direction to be received in the first portion 101.



[0020] It is to be understood, however, that even though numerous characteristics and advantages have been set forth in the foregoing description of embodiments, together with details of the structures and functions of the embodiments, the disclosure is illustrative only and changes may be made in detail, especially in the matters of shape, size, and arrangement of parts within the principles of the disclosure to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. An all-in-one device, comprising:  
a rear panel;  
a mounting member secured to the rear panel; and  
a handle comprising an actuating pole and two rotating arms located on the actuating pole, the two rotating arms being respectively connected to two opposite ends of the mounting member,  
wherein the actuating pole abuts the rear panel and is rotatable away from the rear panel.
2. The all-in-one device of claim 1 further comprising a resilient member, wherein the resilient member is engaged with one of the two rotating arms and located between the mounting member and the one of the two rotating arms, and the actuating pole is rotatable towards the rear panel driven by the resilient member.
3. The all-in-one device of claim 2, wherein the mounting member comprises two mounting portions, each of the two mounting portions comprises an installation tab and a resisting tab opposite to the installation tab, and each of the two rotating arms is engaged between the installation tab and the resisting tab.
4. The all-in-one device of claim 3, wherein a rotating shaft is located on each of the two rotating arms, the installation arm defines a pivot hole, the resisting tab defines a latching cutout, and a first end of the rotating shaft is engaged in the pivot hole, and a second end of the rotating shaft is received in the latching cutout.
5. The all-in-one device of claim 4, wherein the installation tab further defines a latching slot in communication with the pivot hole, and the resilient member is sleeved on the rotating shaft of one of the two rotating arms and engaged in the latching slot.
6. The all-in-one device of claim 4, wherein a thickness of each of the two rotating arms is slightly smaller than a distance between the installation tab and the resisting tab.
7. The all-in-one device of claim 3, wherein the mounting member further comprises a mounting pole, the two mounting portions are located on opposite ends of the mounting pole, and the installation tab and the resisting tab are perpendicularly connected to the mounting pole.
8. The all-in-one device of claim 6, wherein the mounting pole and the actuating pole are both semicircular in shape.
9. The all-in-one device of claim 1, wherein the rear panel defines a receiving slot, the mounting member is received in the receiving slot, and the actuating pole is received in the

receiving slot and is rotatable away from the rear panel to disengage from the receiving slot.

10. The all-in-one device of claim 9, wherein the receiving slot is substantially circular in shape.

11. An all-in-one device comprising:

- a rear panel defining a receiving slot;
- a mounting member received in the receiving slot and secured to the rear panel; and
- a handle comprising an actuating pole and two rotating arms located on the actuating pole, the two rotating arms being respectively connected to two opposite ends of the mounting member,

wherein the actuating pole is rotatable relative to the rear panel between a first position and a second position; in the first position, the actuating pole is received in the receiving slot; and in the second position, the actuating pole is disengaged from the receiving slot.

12. The all-in-one device of claim 11 further comprising a resilient member, wherein the resilient member is sleeved on one of the two rotating arms and located between the mounting member and the one of the two rotating arms, and the actuating pole is rotated from the second position to the first position driven by the resilient member.

13. The all-in-one device of claim 12, wherein the mounting member comprises two mounting portions, each of the two mounting portions comprises an installation tab and a resisting tab opposite to the installation tab, and each of the two rotating arms is engaged between the installation tab and the resisting tab.

14. The all-in-one device of claim 13, wherein a rotating shaft is located on each of the two rotating arms, the installation arm defines a pivot hole, the resisting tab defines a latching cutout, and a first end of the rotating shaft is engaged in the pivot hole, and a second end of the rotating shaft is received in the latching cutout.

15. The all-in-one device of claim 14, wherein the installation tab further defines a latching slot in communication with the pivot hole, and the resilient member is sleeved on the rotating shaft of one of the two rotating arms and engaged in the latching slot.

16. The all-in-one device of claim 14, wherein a thickness of each of the two rotating arms is slightly smaller than a distance between the installation tab and the resisting tab.

17. The all-in-one device of claim 13, wherein the mounting member further comprises a mounting pole, the two mounting portions are located on opposite ends of the mounting pole, and the installation tab and the resisting tab are perpendicularly connected to the mounting pole.

18. The all-in-one device of claim 16, wherein the mounting pole and the actuating pole are both semicircular in shape.

19. The all-in-one device of claim 14, wherein the rotating shafts are coaxial.

20. The all-in-one device of claim 11, wherein the receiving slot is substantially circular in shape.

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