



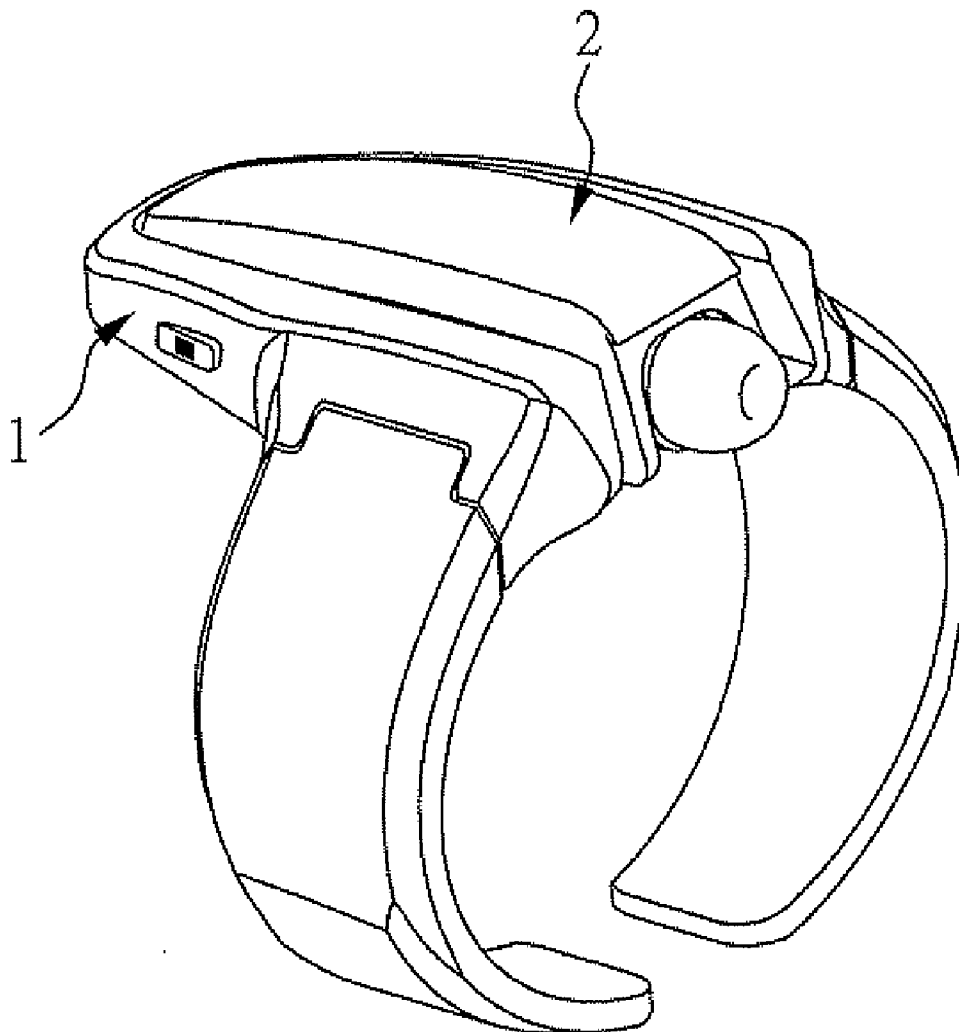
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(19) **United States**(12) **Patent Application Publication**
YOUNG et al.(10) **Pub. No.: US 2015/0076201 A1**(43) **Pub. Date: Mar. 19, 2015**(54) **WRISTBAND CONTAINER FOR AN
EARPIECE****Publication Classification**(71) Applicant: **Kuo-Ping Yang**, Taipei (TW)(72) Inventors: **Neo Bob Chih-Yung YOUNG**, Taipei (TW); **Tzu-Chien TZENG**, Taipei (TW); **Po-Yen LI**, Taipei (TW); **Kuo-Ping YANG**, Taipei (TW); **Pao-Chuan TORNG**, Taipei (TW); **Isabel CARNEIRO HATTA**, Taipei (TW); **Kuan-Li CHAO**, Taipei (TW)(51) **Int. Cl.****A45C 11/00** (2006.01)**A45F 5/00** (2006.01)(52) **U.S. Cl.**CPC .. **A45C 11/00** (2013.01); **A45F 5/00** (2013.01)USPC **224/576**; **224/219**(21) Appl. No.: **14/166,388**(22) Filed: **Jan. 28, 2014**(30) **Foreign Application Priority Data**

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(57) **ABSTRACT**

A wristband container for an earpiece is worn on a user's wrist. It is used for containing an earpiece. The wristband container for an earpiece includes a container main body, a first band, and a second band. The first band and the second band are connected to the container main body to form a circular space for the user's wrist. The first band and the second band are used to fix the wristband container for an earpiece on the user's wrist. The container main body has a containing space to contain an earpiece.



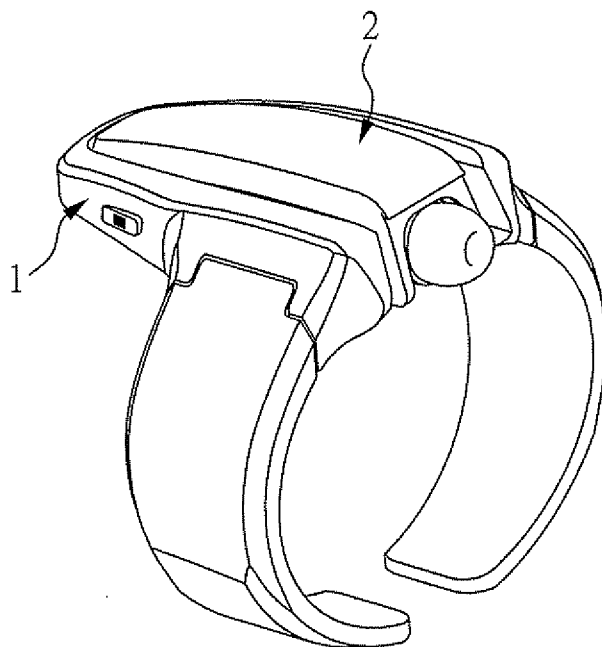


FIG. 1

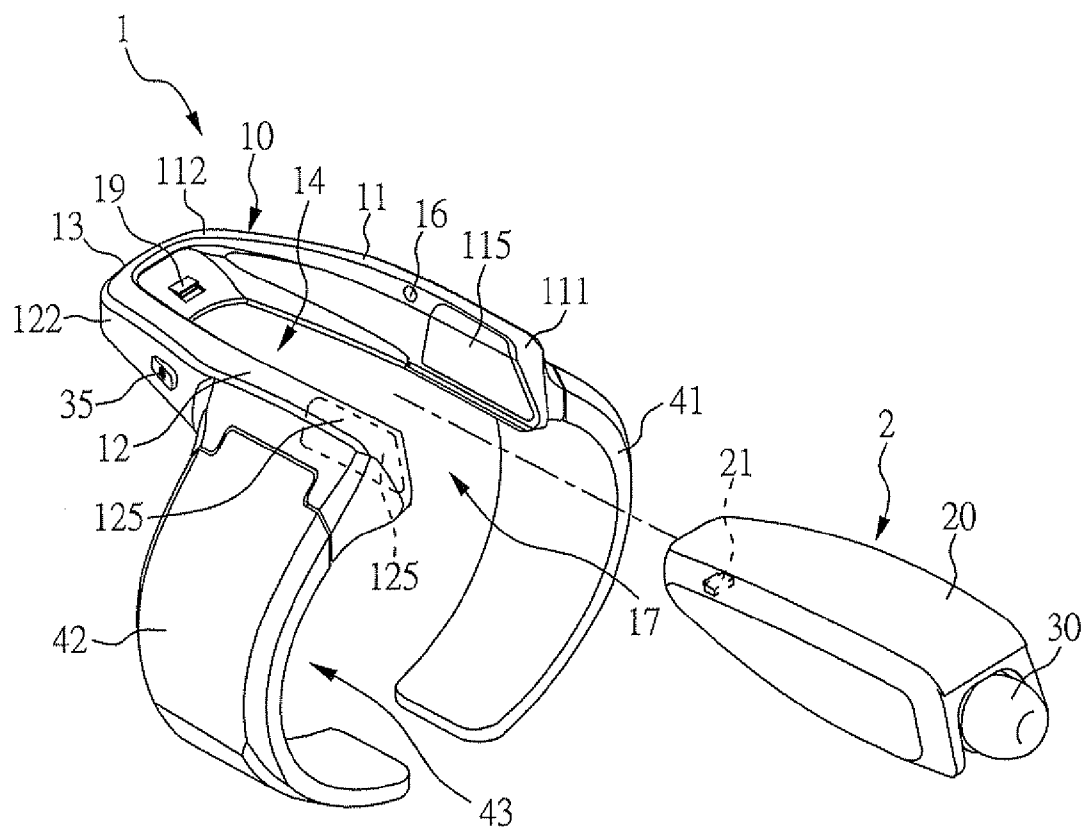


FIG. 2

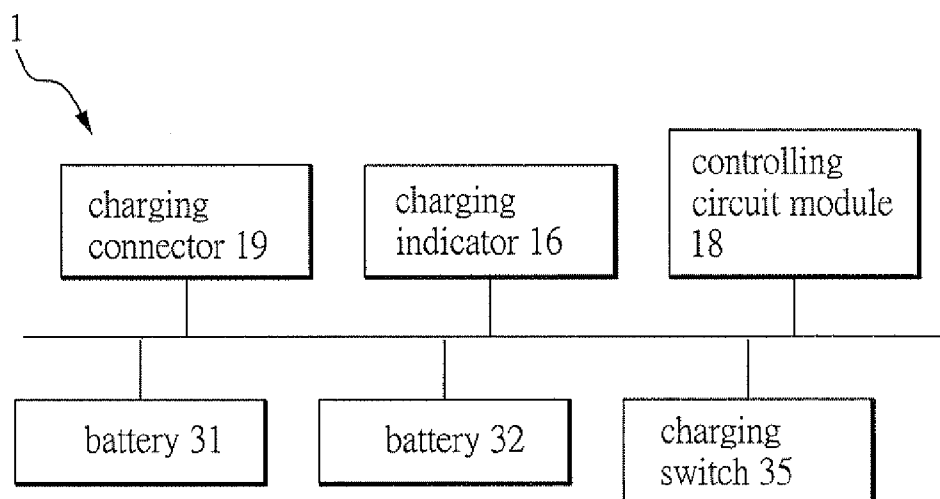


FIG. 4

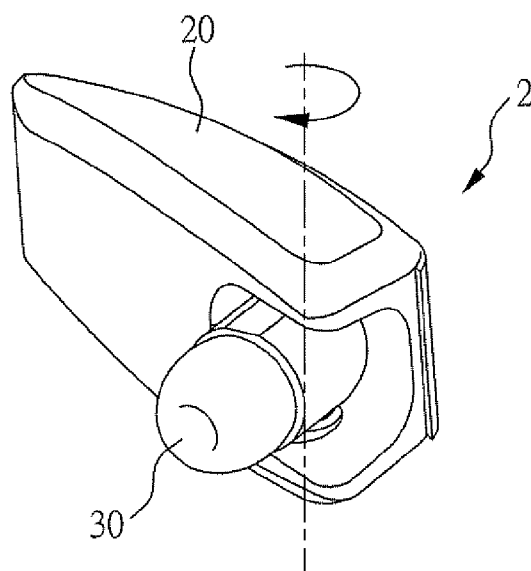


FIG. 5

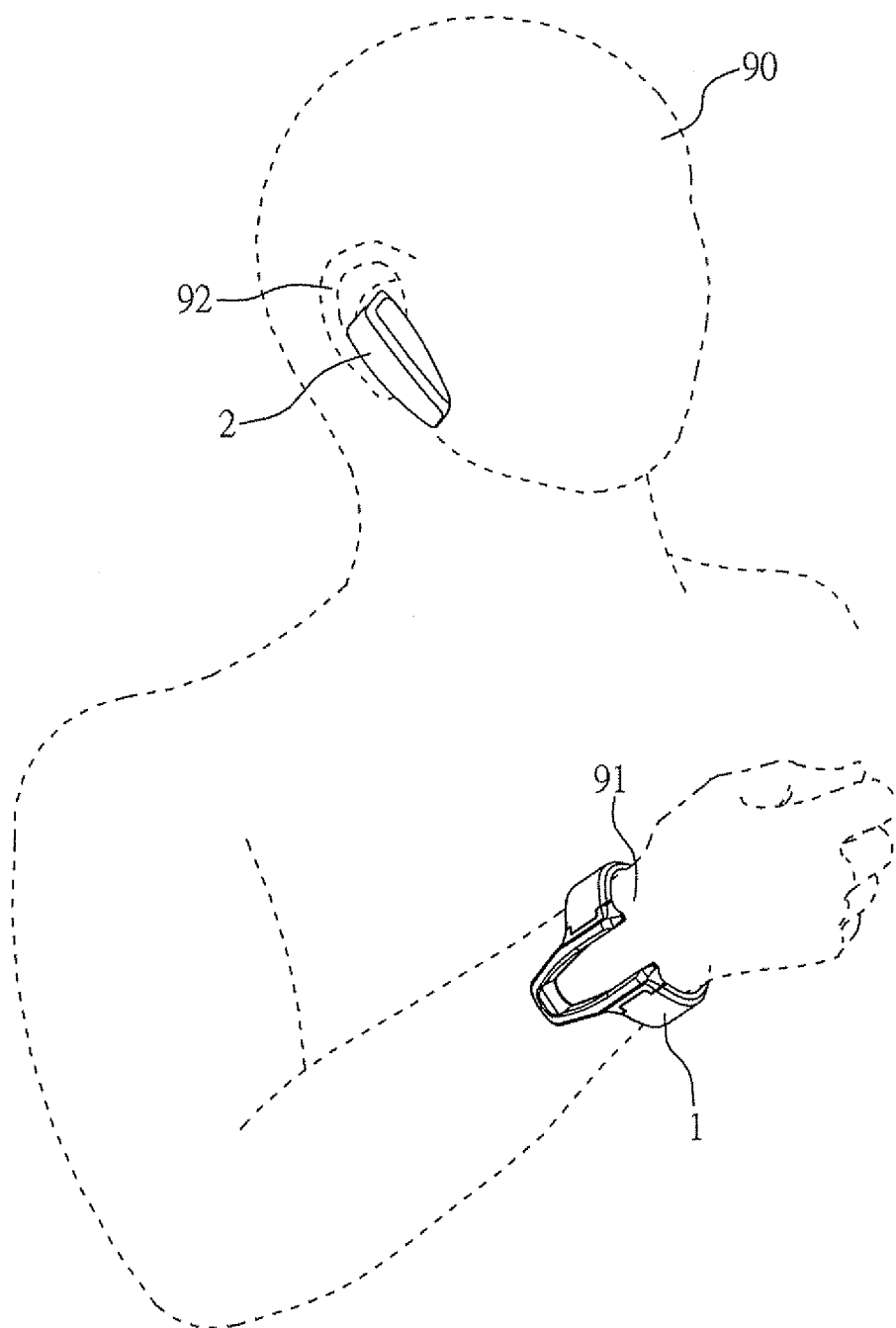


FIG. 6

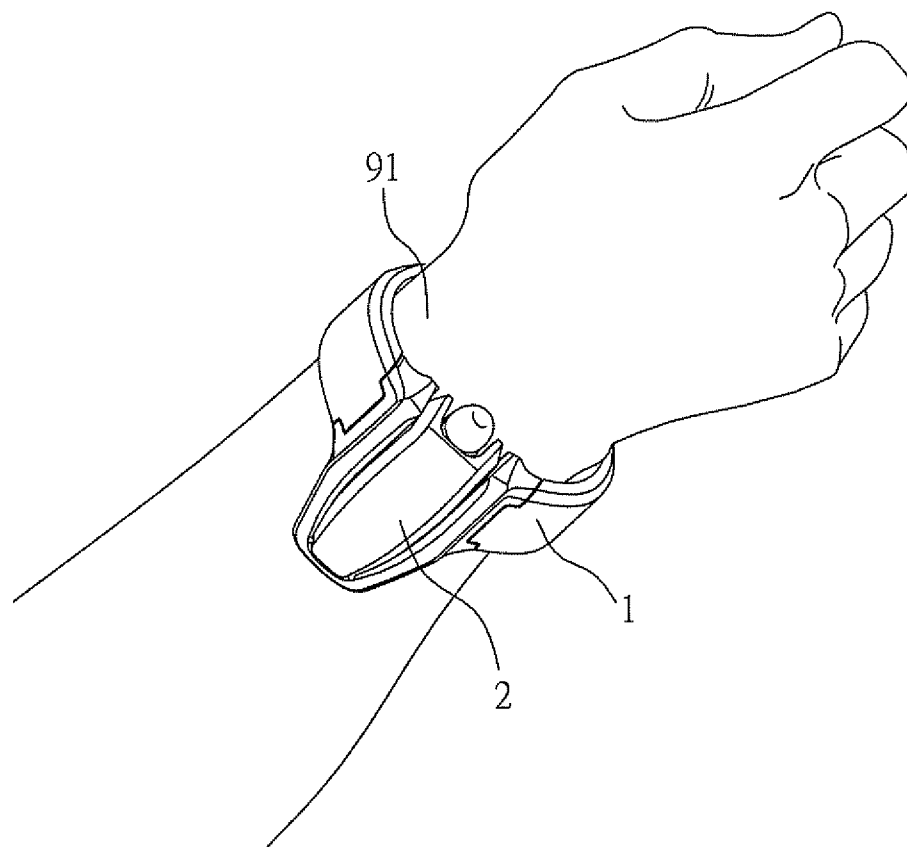


FIG. 7

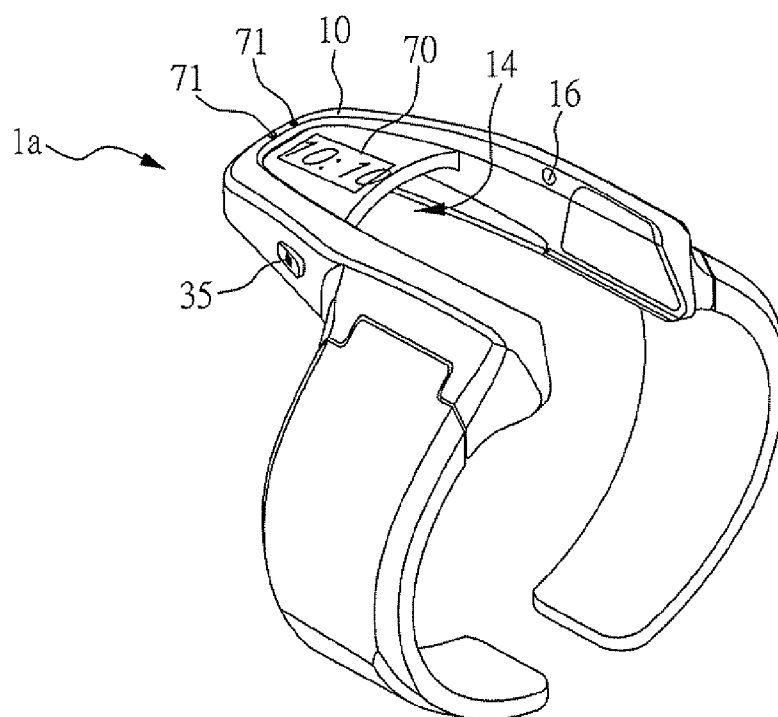


FIG. 8

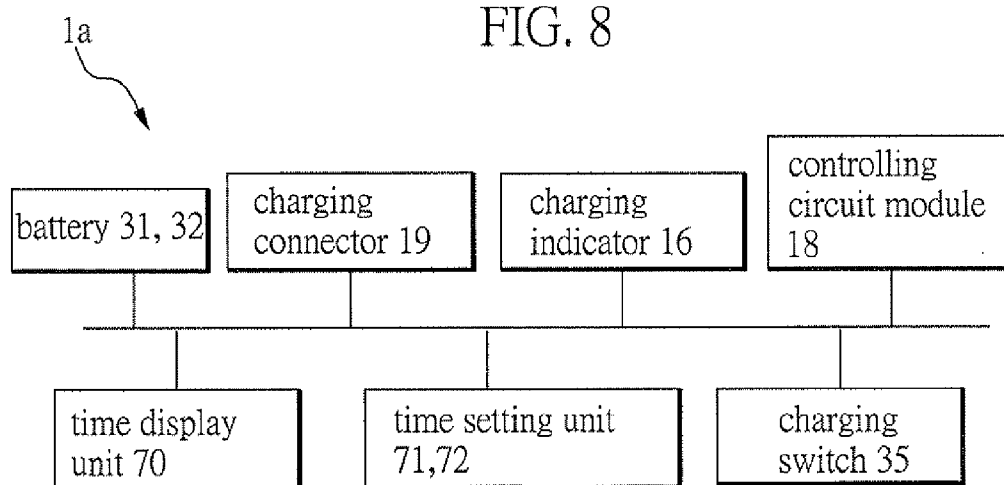


FIG. 9

WRISTBAND CONTAINER FOR AN EARPIECE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a containing device for containing an earpiece.

[0003] 2. Description of the Related Art

[0004] The earpiece is a very common device. Since the cell phone became ubiquitous, the wireless earpiece (such as a Bluetooth earpiece, commonly referred to as a Bluetooth headset) has increased in popularity. When the Bluetooth earpiece is not used, there is not a convenient place for placing the Bluetooth earpiece. If the Bluetooth earpiece is placed in a bag, it is hard for the user to find and make use of the earpiece. If the Bluetooth earpiece is placed in a pocket, the shape and volume of the Bluetooth earpiece may cause discomfort to the user, and most users will be reluctant to put a Bluetooth earpiece into a pocket because of concerns that the earpiece could be damaged or soiled.

[0005] In addition, the battery of a Bluetooth earpiece does not hold a very large charge; as a result, the battery is rapidly and easily exhausted. There is a need to develop a device to minimize the abovementioned disadvantages of the Bluetooth earpiece.

SUMMARY OF THE INVENTION

[0006] It is an object of the present invention to provide a device for containing an earpiece.

[0007] It is another object of the present invention to provide a device for providing power to an earpiece.

[0008] To achieve the abovementioned object, the wristband container for an earpiece of the present invention is used for being worn on a wrist of a user and for containing an earpiece. The wristband container for an earpiece includes a container main body, a first band, and a second band. The first band and the second band are connected to the container main body to form a circular space. The circular space is used for allowing the wrist through, and the first band and the second band are used for fixing the container on the wrist. In addition, the container main body includes a containing space for containing the earpiece.

[0009] According to one embodiment of the present invention, the wristband container for an earpiece further includes at least one battery and a charging connector such that the wristband container for an earpiece can function as a charger for the earpiece.

[0010] According to one embodiment of the present invention, the wristband container for an earpiece further includes a time display unit, allowing the wristband container for an earpiece to be used as a wristwatch.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 illustrates a schematic drawing of the wristband container for an earpiece combined with the earpiece of the present invention.

[0012] FIG. 2 illustrates a schematic drawing of the wristband container for an earpiece separated from the earpiece of the present invention.

[0013] FIG. 3 illustrates an exploded perspective view of the wristband container for an earpiece of the present invention.

[0014] FIG. 4 illustrates a circuit diagram of the wristband container for an earpiece of the present invention.

[0015] FIG. 5 illustrates a schematic drawing of the earpiece of the present invention.

[0016] FIG. 6 illustrates a schematic drawing of a user using the earpiece.

[0017] FIG. 7 illustrates a schematic drawing of the earpiece and the wristband container for an earpiece of the present invention in the combined state and worn on the wrist of a user.

[0018] FIG. 8 illustrates a schematic drawing of the wristband container for an earpiece in another embodiment of the present invention.

[0019] FIG. 9 illustrates a circuit diagram of the wristband container for an earpiece in another embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0020] These and other objects and advantages of the present invention will become apparent from the following description of the accompanying drawings, which disclose several embodiments of the present invention. It is to be understood that the drawings are to be used for purposes of illustration only, and not as a definition of the invention.

[0021] Please refer to FIG. 1 to FIG. 3. The wristband container for an earpiece 1 of the present invention may contain an earpiece 2; the earpiece 2 can be a Bluetooth earpiece.

[0022] The wristband container for an earpiece 1 includes a container main body 10, a first band 41, and a second band 42. In the present embodiment, the container main body 10 includes a first side body 11, a second side body 12, and a connector 13. The first side body 11 includes a first side body front end 111 and a first side body back end 112. The second side body 12 includes a second side body front end 121 and a second side body back end 122. The connector 13 is connected to the first side body back end 112 and the second side body back end 122 such that the first side body 11, the second side body 12, and the connector 13 form a containing space 14.

[0023] Basically, the containing space 14 is used for coordinating the shape of the earpiece 2. The first side body front end 111 and the second side body front end 121 form an open end 17, allowing the earpiece 2 to be plugged in from the open end 17 such that it is in the combined state shown in FIG. 1.

[0024] In the present embodiment, the first band 41 and the second band 42 are respectively connected to the first side body front end 111 and the second side body front end 121 to form a circular space 43. The circular space 43 is used for allowing the wrist 91 through, and the first band 41 and the second band 42 are used for fixing the wristband container for an earpiece 1 on the wrist 91, as shown in FIG. 6.

[0025] In addition to containing an earpiece 2, in the present embodiment, the wristband container for an earpiece 1 can also be a charger, allowing the earpiece 2 to be charged when the earpiece 2 and the wristband container for an earpiece 1 are combined. In the present embodiment, the first side body front end 111 and the second side body front end 121 respectively contain batteries 31, 32 (the amount is at least one, and in the preferred embodiment, the battery is a rechargeable battery). The first cover 115 and the second cover 125 are respectively located on the first side body front end 111 and the second side body front end 121, allowing the

user to replace the batteries 31, 32. A charging connector 19 (such as a mini USB male connector) is located on the connector 13, and the earpiece 2 has a corresponding earpiece connector 21 (such as a mini USB female connector). When the earpiece 2 is plugged into containing space 14 from the open end 17, the earpiece connector 21 of the earpiece 2 can connect to the charging connector 19. In addition, the charging connector 19 can also connect to an external power supply (not shown in the figure), and the external power supply can charge the batteries 31, 32 via the charging connector 19. Since the wireless charging technology is increasingly common, the charging connector 19 may be unnecessary, and it can be replaced by a wireless charging module.

[0026] A charging indicator 16 and a charging switch 35 can be set on the wristband container for an earpiece 1, as shown in FIG. 4; the charging indicator 16, the charging connector 19, the batteries 31, 32, the charging switch 35, and a controlling circuit module 18 (such as a simple control chip) are electrically connected to each other. The charging switch 35 is used for controlling the charging of the earpiece 2. The charging indicator 16 is used for indicating information such as “charging”, “charging completed”, or “batteries 31, 32 are out of power”; the charging indicator 16 can be an LED light of different colors, an LED display, or a small buzzer to convey information on the charging status to the user. Since the object of the present invention is not to improve the technology of the charger, and the charger is already disclosed in the prior art, there is no need for further description.

[0027] As shown in FIG. 1, when the earpiece 2 is located in the wristband container for an earpiece 1, the earpiece plug 30 can be placed flat. When the user needs to use the earpiece 2, as shown in FIG. 5, the earpiece plug 30 can be bent. As shown in FIG. 6, which illustrates a user 90 using the earpiece 2, the earpiece 2 is worn on the ear 92, and the wristband container for an earpiece 1 is worn on the wrist 91. When the user 90 does not use the earpiece 2, the earpiece 2 can be placed in the wristband container for the earpiece 1 to be charged or not to be charged.

[0028] Please refer to FIG. 8–FIG. 9, which illustrate another embodiment of the present invention, the wristband container for an earpiece 1a. The difference between the present and the abovementioned embodiment is that the wristband container for an earpiece 1a further includes a time display unit 70. In the preferred embodiment, the time display unit 70 is a thin display unit, such as electronic paper. In the present embodiment, the time display unit 70 is located above the container main body 10 and above the containing space 14, allowing the wristband container for an earpiece 1a to be used as a wristwatch.

[0029] When the earpiece is located in the wristband container for an earpiece 1a, the time display unit 70 is located above the container main body 10 such that the user can see the time; if the time display unit 70 is made of electronic paper, the time display unit 70 can also be located anywhere, such as on the first band 41 or on the second band 42. FIG. 9 and FIG. 4 are almost the same; the difference is that the wristband container for an earpiece 1a further includes a time display unit 70. The controlling circuit module 18 of the wristband container for an earpiece 1a must have the function of controlling the time (for example, the controlling circuit module 18 can be a controlling chip of a common electronic wristwatch). In addition, the time display unit 70 can be a touch screen; if the time display unit 70 is not a touch screen,

the time setting unit 71, 72 can be set on the container main body 10 for the user 90 to adjust the time.

[0030] It is noted that the above-mentioned embodiments are only for illustration. It is intended that the present invention cover modifications and variations of this invention provided they fall within the scope of the following claims and their equivalents. Therefore, it will be apparent to those skilled in the art that various modifications and variations can be made to the structure of the present invention without departing from the scope or spirit of the invention.

What is claimed is:

1. A wristband container for an earpiece, used for being worn on a wrist of a user and containing an earpiece, the wristband container for an earpiece comprising:

a container main body, comprising a containing space, for containing the earpiece;

a first band; and

a second band, wherein the first band and the second band are connected to the container main body to form a circular space, the circular space is used for allowing the wrist through, and the first band and the second band are used for fixing the wristband container for an earpiece on the wrist.

2. The wristband container for an earpiece as claimed in claim 1, further comprising at least one battery for providing power to the earpiece.

3. The wristband container for an earpiece as claimed in claim 2, further comprising a charging connector.

4. The wristband container for an earpiece as claimed in claim 3, wherein the container main body further comprises a first side body and a second side body, the first band and the second band being respectively connected to the first side body and the second side body.

5. The wristband container for an earpiece as claimed in claim 4, further comprising a connector, wherein the first side body comprises a first side body front end and a first side body back end, the second side body comprises a second side body front end and a second side body back end, and the connector is connected to the first side body back end and the second side body back end such that the first side body, the second side body, and the connector form a containing space.

6. The wristband container for an earpiece as claimed in claim 5, wherein the charging connector is located on the connector.

7. The wristband container for an earpiece as claimed in claim 6, wherein the first side body front end and the second side body front end form an open end.

8. The wristband container for an earpiece as claimed in claim 7, wherein the first band and the second band are respectively connected to the first side body front end and the second side body front end.

9. The wristband container for an earpiece as claimed in claim 8, wherein the at least one battery is located on the first side body front end or on the second side body front end.

10. The wristband container for an earpiece as claimed in claim 1, wherein the wristband container for an earpiece further comprises a time display unit.

11. The wristband container for an earpiece as claimed in claim 2, wherein the wristband container for an earpiece further comprises a time display unit.

12. The wristband container for an earpiece as claimed in claim 3, wherein the wristband container for an earpiece further comprises a time display unit.

13. The wristband container for an earpiece as claimed in claim 4, wherein the wristband container for an earpiece further comprises a time display unit.

14. The wristband container for an earpiece as claimed in claim 5, wherein the wristband container for an earpiece further comprises a time display unit.

15. The wristband container for an earpiece as claimed in claim 6, wherein the wristband container for an earpiece further comprises a time display unit.

16. The wristband container for an earpiece as claimed in claim 7, wherein the wristband container for an earpiece further comprises a time display unit.

17. The wristband container for an earpiece as claimed in claim 8, wherein the wristband container for an earpiece further comprises a time display unit.

18. The wristband container for an earpiece as claimed in claim 9, wherein the wristband container for an earpiece further comprises a time display unit.

19. The wristband container for an earpiece as claimed in claim 10, wherein the time display unit is located above the containing space.

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