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A MOBILE AIR CONDITIONER****Publication Classification**(51) **Int. Cl.**
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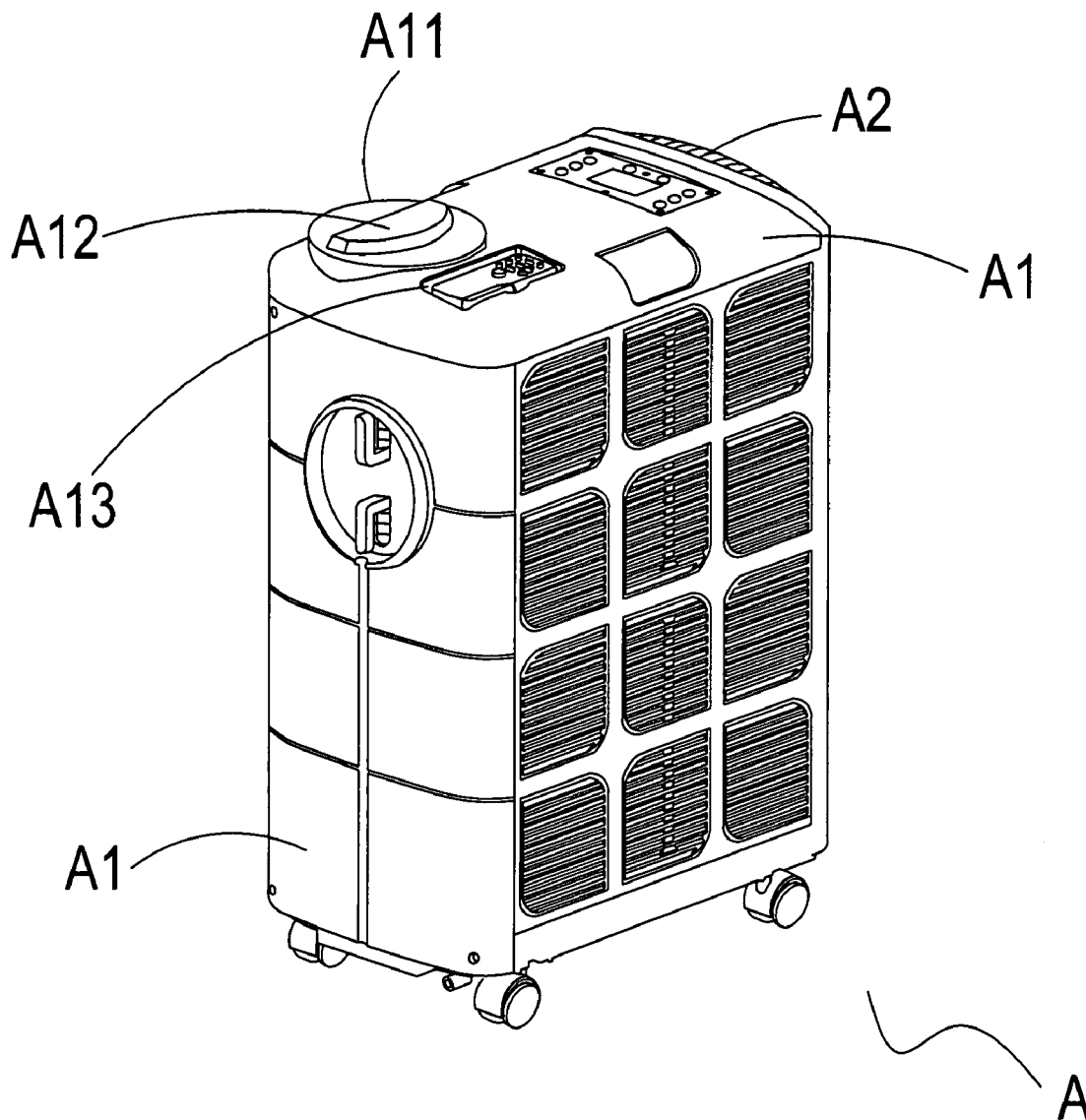
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(52) **U.S. Cl.** **454/367**(57) **ABSTRACT**(76) **Inventor: Mao-Tsai Ku, Hsinchu City (TW)**

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A hiding structure of a vent pipe for a mobile air conditioner is composed of a housing, a cold air outlet for blowing the cold air into a room, and a hot air outlet for expelling the hot air out of the room. The hot air outlet is disposed with an extractable vent pipe which is collected in the housing of the mobile air conditioner, the housing is disposed with a connector opening from which the vent pipe can be extended, and the connector opening is disposed with a vent pipe cap. As the extractable vent pipe is used by the present invention, a volume of the mobile air conditioner is decreased, and convenience in moving is increased.



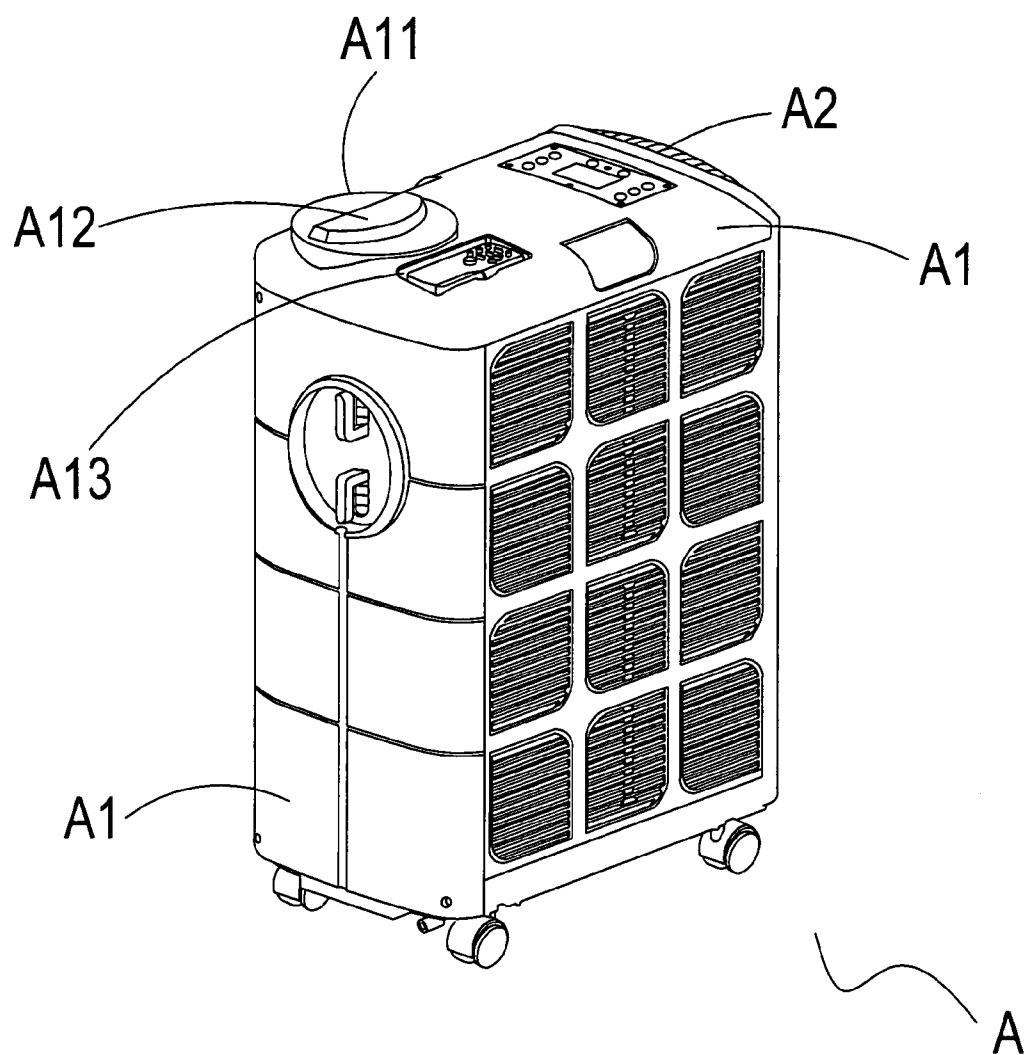


Fig. 1

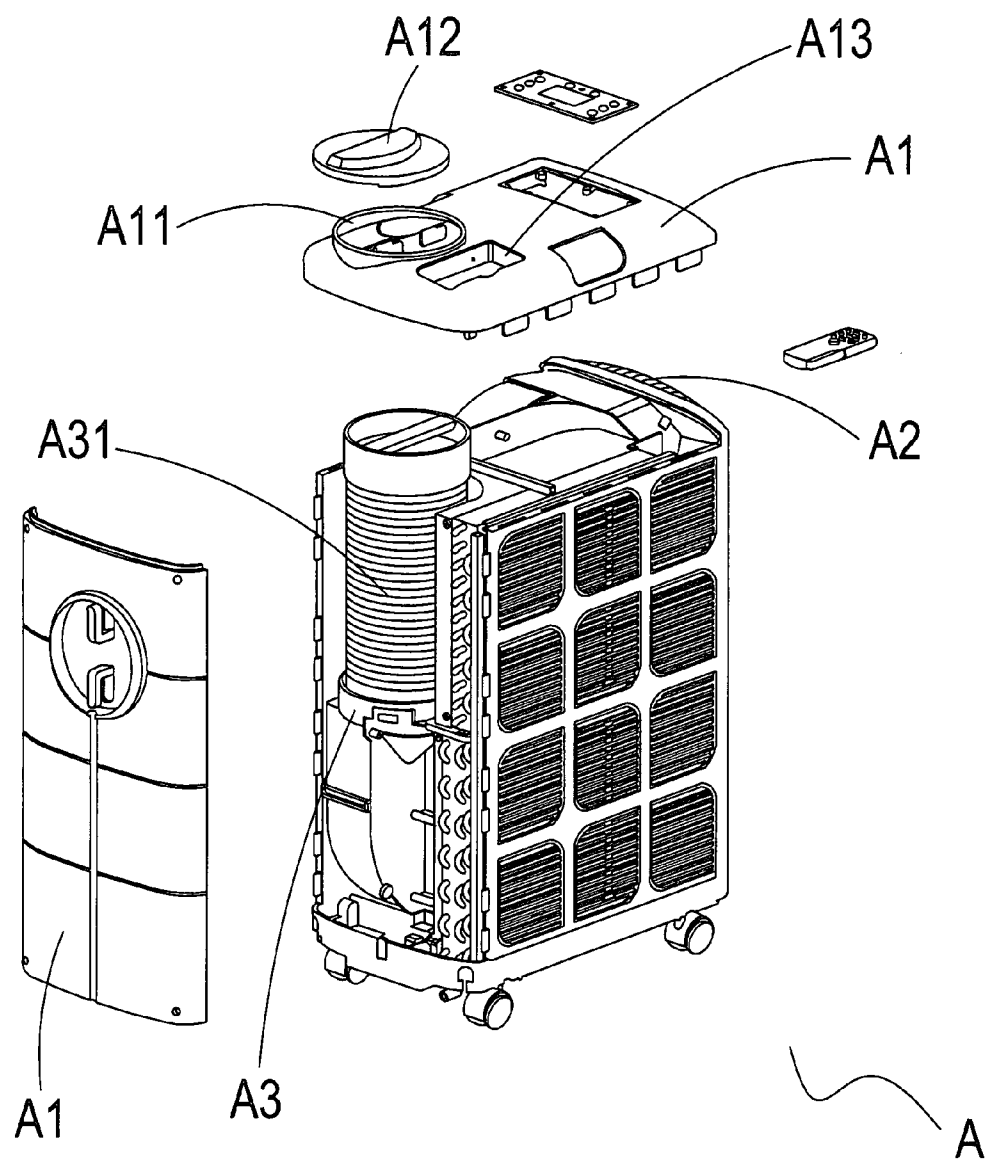


Fig. 2

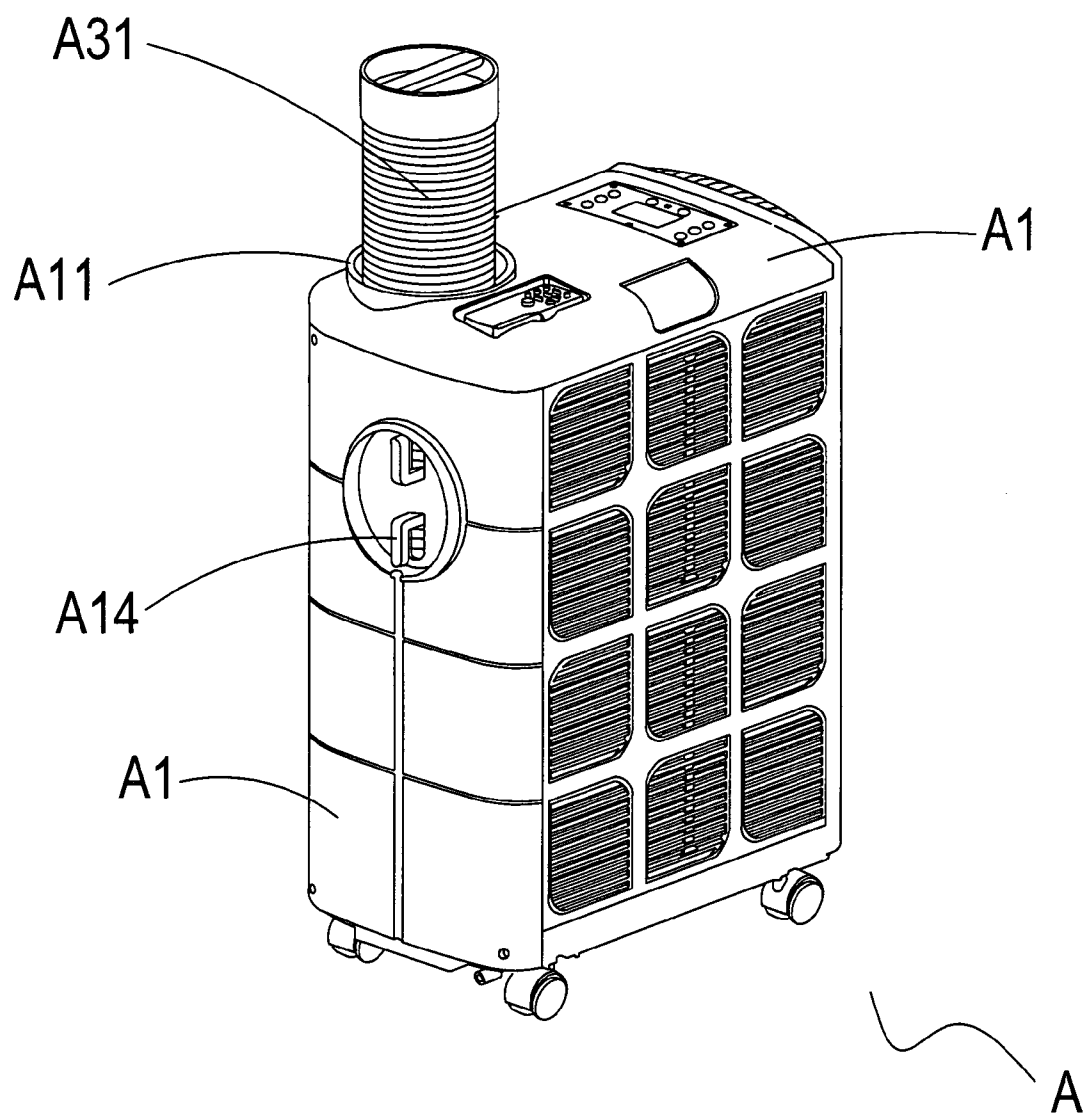


Fig. 3

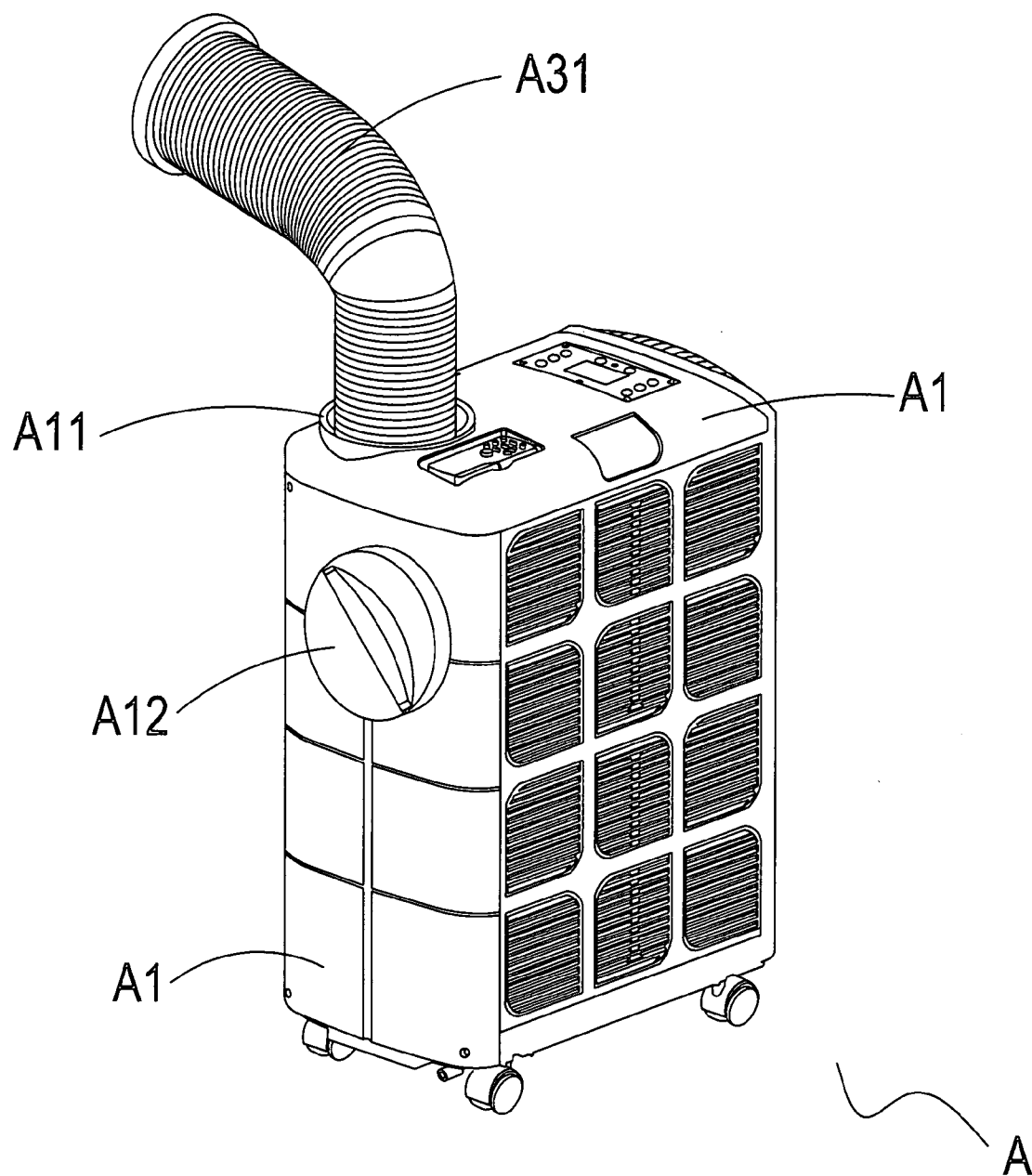


Fig. 4

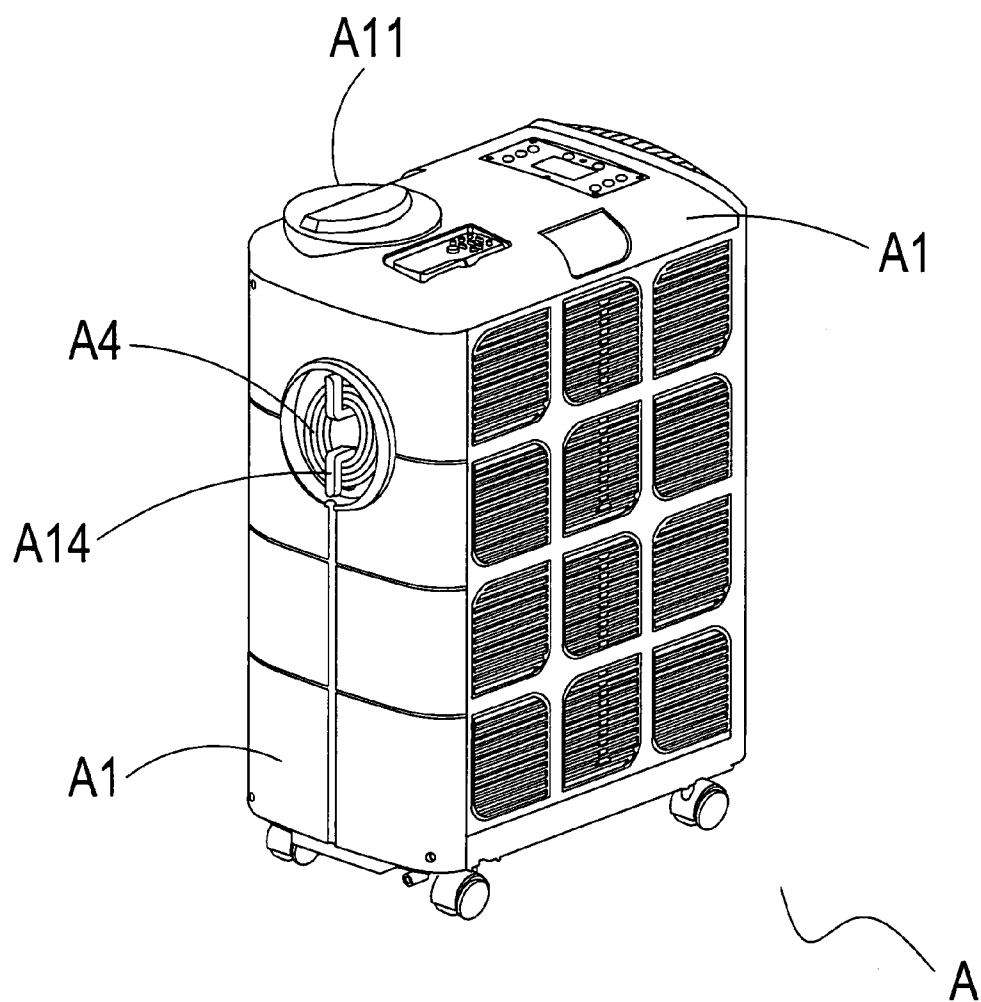


Fig. 5

HIDING STRUCTURE OF A VENT PIPE FOR A MOBILE AIR CONDITIONER

BACKGROUND OF THE INVENTION

[0001] a) Field of the Invention

[0002] The present invention relates to an extractable vent pipe, and more particularly to a hiding structure of a vent pipe for a mobile air conditioner which does not take up a space and can be moved easily.

[0003] b) Description of the Prior Art

[0004] It is known that an air conditioner has been used widely in an existing society. The air conditioner can be divided into a split type air conditioner and a window type air conditioner. The window type air conditioner is usually installed at a window or a hole on a wall, with a side of the window type air conditioner being provided with a cold air outlet for blowing the cold air into a room, and the other side being provided with a hot air outlet for expelling the hot air out of the room.

[0005] The split type air conditioner includes an indoor machine and an outdoor machine, the indoor machine is located indoors and is provided with a cold air outlet for blowing the cold air into a room to reduce temperature in the room, whereas the outdoor machine is located outdoors, at a place with good ventilation, and is provided with a hot air outlet for venting the hot air out of the room to expel heat in the room.

[0006] However, both the window type air conditioner and the split type air conditioner are large in volume and heavy in weight, and are usually fixed on a wall. For a space which is used often, such as a temporary conference room, as the air conditioner is not used frequently, installing the air conditioner will indirectly cause a waste of resource. Therefore, there are vendors who have developed a kind of mobile air conditioner, below which is installed with wheels so that the air conditioner can freely move when needed, and above which is installed with the cold air outlet and the hot air outlet, with the cold air outlet directly blowing the cold air into the room, and the hot air outlet being connected to a vent pipe which faces toward a window for expelling the hot air out of the room.

[0007] Yet, upon using the aforementioned conventional mobile air conditioner, following problems and shortcomings really exist to need improvement.

[0008] The conventional mobile air conditioner is provided with the cold air outlet and the hot air outlet, and the hot air outlet is connected to the vent pipe for expelling the hot air out of the room. As the vent pipe is huge in volume, when the mobile air conditioner needs to be moved, the vent pipe should be removed first that the mobile air conditioner can be moved conveniently. Next, the vent pipe is reinstalled when the mobile air conditioner has been moved to the other place. Therefore, frequent disassembly and installation will induce a lot of inconvenience, and when the mobile air conditioner needs to be collected, another space will be required to collect the vent pipe.

[0009] Accordingly, how to eliminate the aforementioned problems and shortcomings is a technical issue to be solved by the present inventor and related vendors.

SUMMARY OF THE INVENTION

[0010] The primary object of the present invention is to provide a hiding structure of a vent pipe for a mobile air

conditioner, which includes a housing, a cold air outlet, and a hot air outlet. The hot air outlet is provided with an extractable vent pipe, and the housing is provided with a corresponding connector opening which is disposed with a vent pipe cap. The extractable vent pipe can be collected and hidden in the housing of the mobile air conditioner, in order to save space and to increase convenience in moving upon moving the mobile air conditioner.

[0011] To enable a further understanding of the said objectives and the technological methods of the invention herein, the brief description of the drawings below is followed by the detailed description of the preferred embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 shows a perspective view of a preferred embodiment of the present invention.

[0013] FIG. 2 shows an exploded view of a preferred embodiment of the present invention.

[0014] FIG. 3 shows a schematic view of an implementation of a preferred embodiment of the present invention.

[0015] FIG. 4 shows a second schematic view of an implementation of a preferred embodiment of the present invention.

[0016] FIG. 5 shows a perspective view of another preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] Referring to FIG. 1 and FIG. 2, it shows a perspective view and an exploded view of a preferred embodiment of the present invention. As shown in the drawings, a mobile air conditioner A of the present invention comprises a housing A1, a cold air outlet A2, and a hot air outlet A3. The housing A1 encloses the mobile air conditioner A, the cold air outlet A2 is used to blow the cold air into a room, and the hot air outlet A3 is used to expel the hot air out of the room. The hot air outlet A3 is connected to a vent pipe A31 which is extractable, and the housing A1 is disposed with a corresponding connector opening A11 on which is provided with a vent pipe cap A12 for closing the connector opening A11 upon collecting the vent pipe A31. In addition, the housing A1 is also provided with a groove A13 for emplacing a remote controller.

[0018] Referring to FIG. 3 and FIG. 4, it shows a first and a second schematic view of an implementation of a preferred embodiment of the present invention. As shown in the drawings, the vent pipe A31 of the mobile air conditioner A is extended out of the connector opening A11 installed on the housing A1, and can be freely bended upon request after being extended. In addition, the vent pipe cap A12 can be emplaced into a wire collection part A14.

[0019] Referring to FIG. 5, it shows a perspective view of another preferred embodiment of the present invention. As shown in the drawing, a power cable A4 of the mobile air conditioner A can be folded and collected in the wire collection part A14 to save space.

[0020] Accordingly, a key factor of technology that the prior art can be improved by the hiding structure of a vent pipe for a mobile air conditioner, according to the present invention, lies in that the vent pipe A31 is configured to be extractable and bendable, and can be extracted and collected into the housing A1 of the mobile air conditioner A, allowing the

mobile air conditioner to be diminished, thereby saving space and increasing convenience in moving.

[0021] It is of course to be understood that the embodiments described herein is merely illustrative of the principles of the invention and that a wide variety of modifications thereto may be effected by persons skilled in the art without departing from the spirit and scope of the invention as set forth in the following claims.

What is claimed is:

1. A hiding structure of a vent pipe for a mobile air conditioner, comprising a housing, a cold air outlet for blowing the cold air into a room, and a hot air outlet for expelling the hot air out of the room; the hot air outlet being provided with a vent pipe which is freely extractable and is collected in the housing of the mobile air conditioner, and the housing being provided with a corresponding connector opening.

2. The hiding structure of a vent pipe for a mobile air conditioner, according to claim 1, wherein the connector opening is provided with a vent pipe cap to close the connector opening when collecting the vent pipe.

3. The hiding structure of a vent pipe for a mobile air conditioner, according to claim 1, wherein the housing is further provided with a groove for emplacing a remote controller.

4. The hiding structure of a vent pipe for a mobile air conditioner, according to claim 1, wherein the vent pipe is freely bended upon request, after being extended.

5. The hiding structure of a vent pipe for a mobile air conditioner, according to claim 2, wherein the housing is provided with a wire collection part for folding and collecting a power cable of the mobile air conditioner, as well as for emplacing the vent pipe cap.

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