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(54) **ENTERTAINMENT SYSTEM AND PORTABLE DISPLAY APPARATUS THEREOF**

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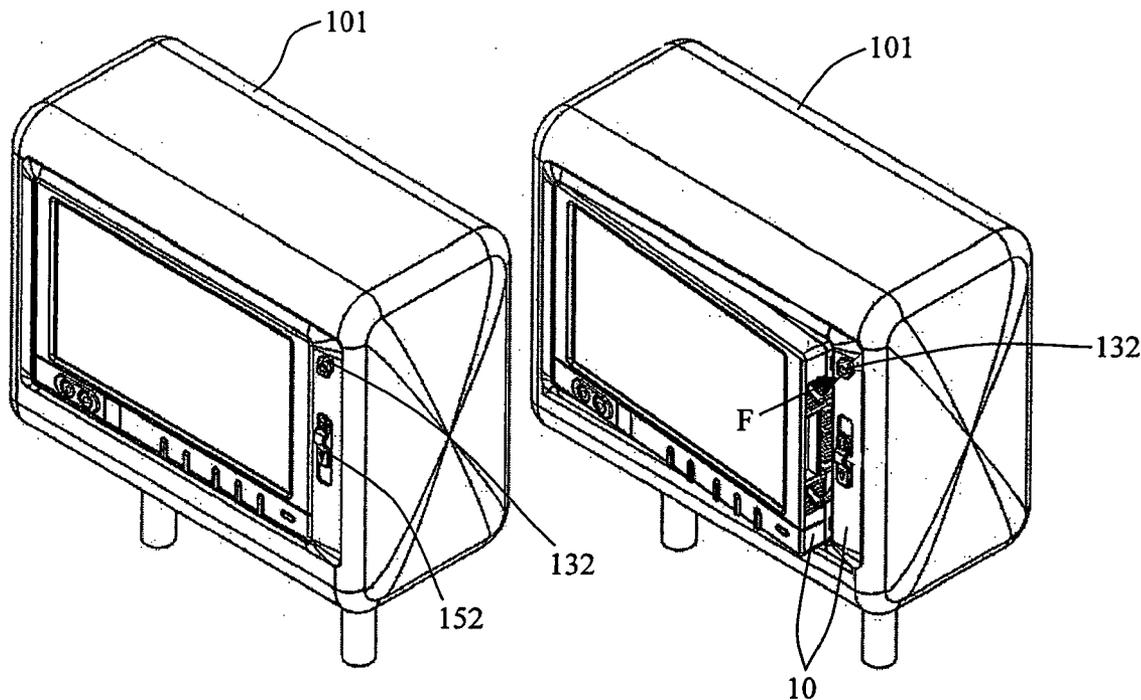
(57) **ABSTRACT**

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An entertainment system and a portable display apparatus thereof are provided. The entertainment system includes a media center having data and an access point connected to the media center, and the portable display apparatus wirelessly accesses the data via the access point and has an engaging device for engaging a target object therewith.

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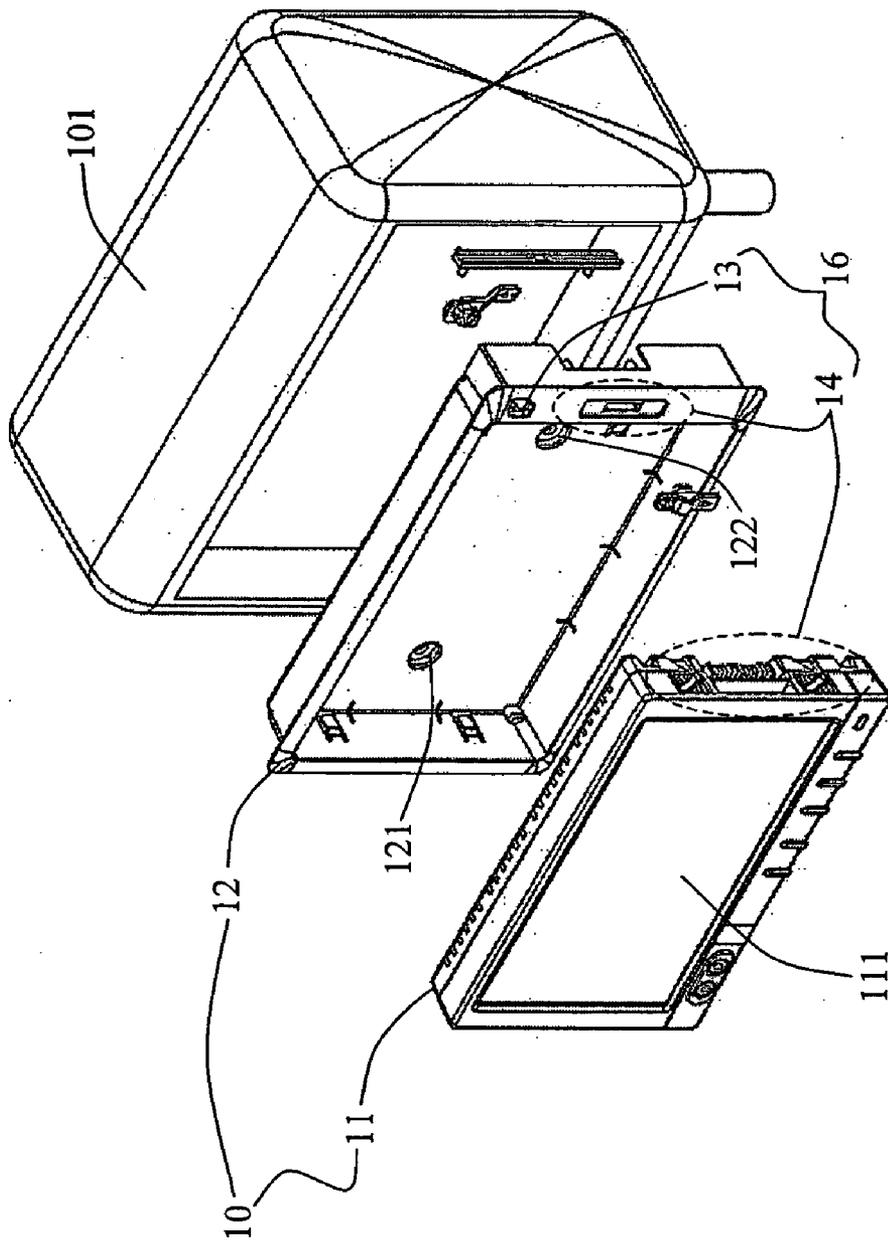


Fig. 1

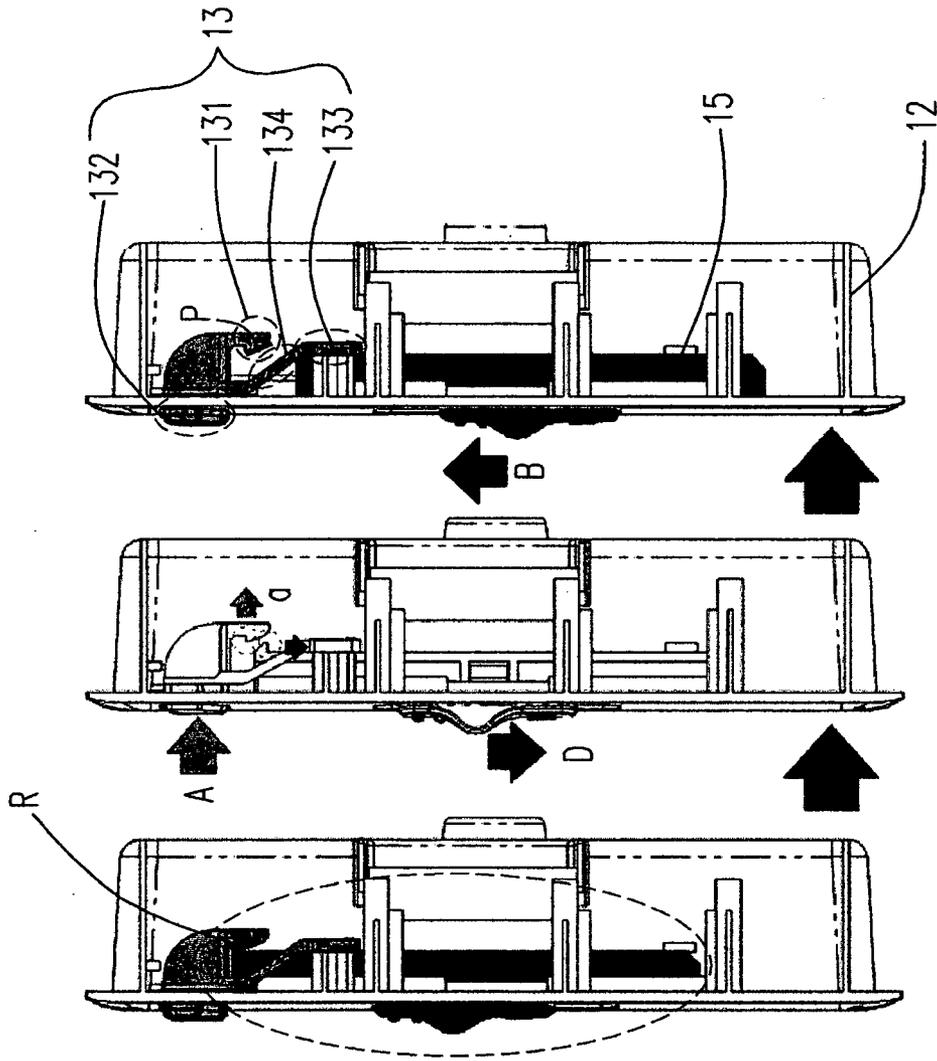


Fig. 2(c)

Fig. 2(b)

Fig. 2(a)

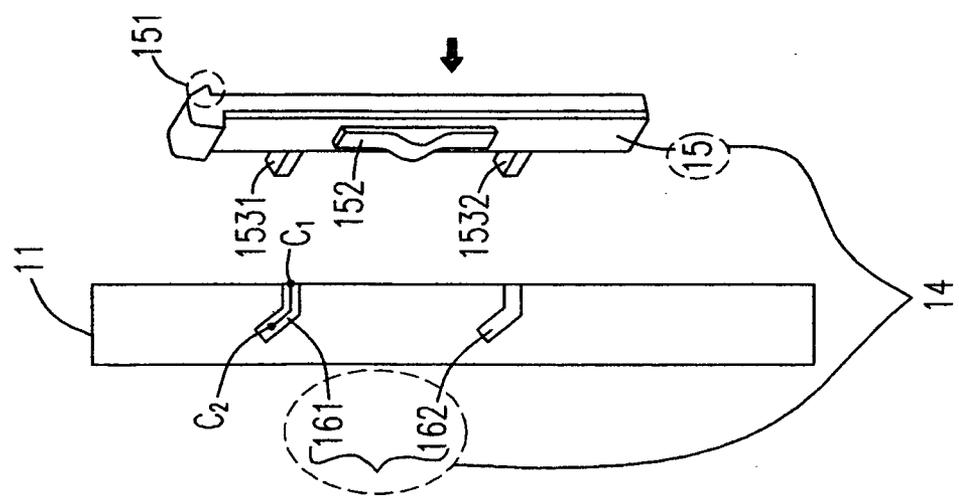


Fig. 2(d)

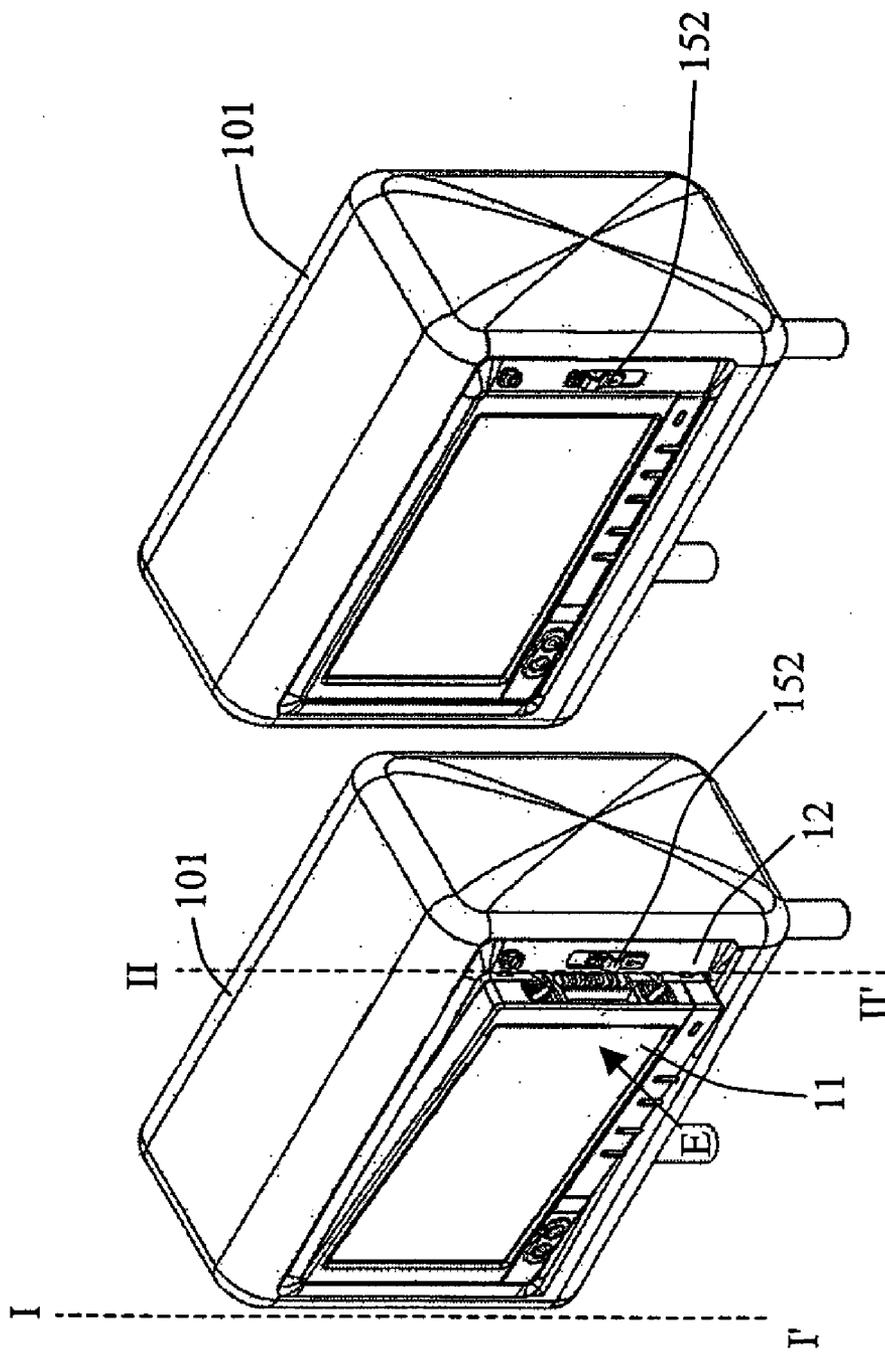


Fig. 3(a)

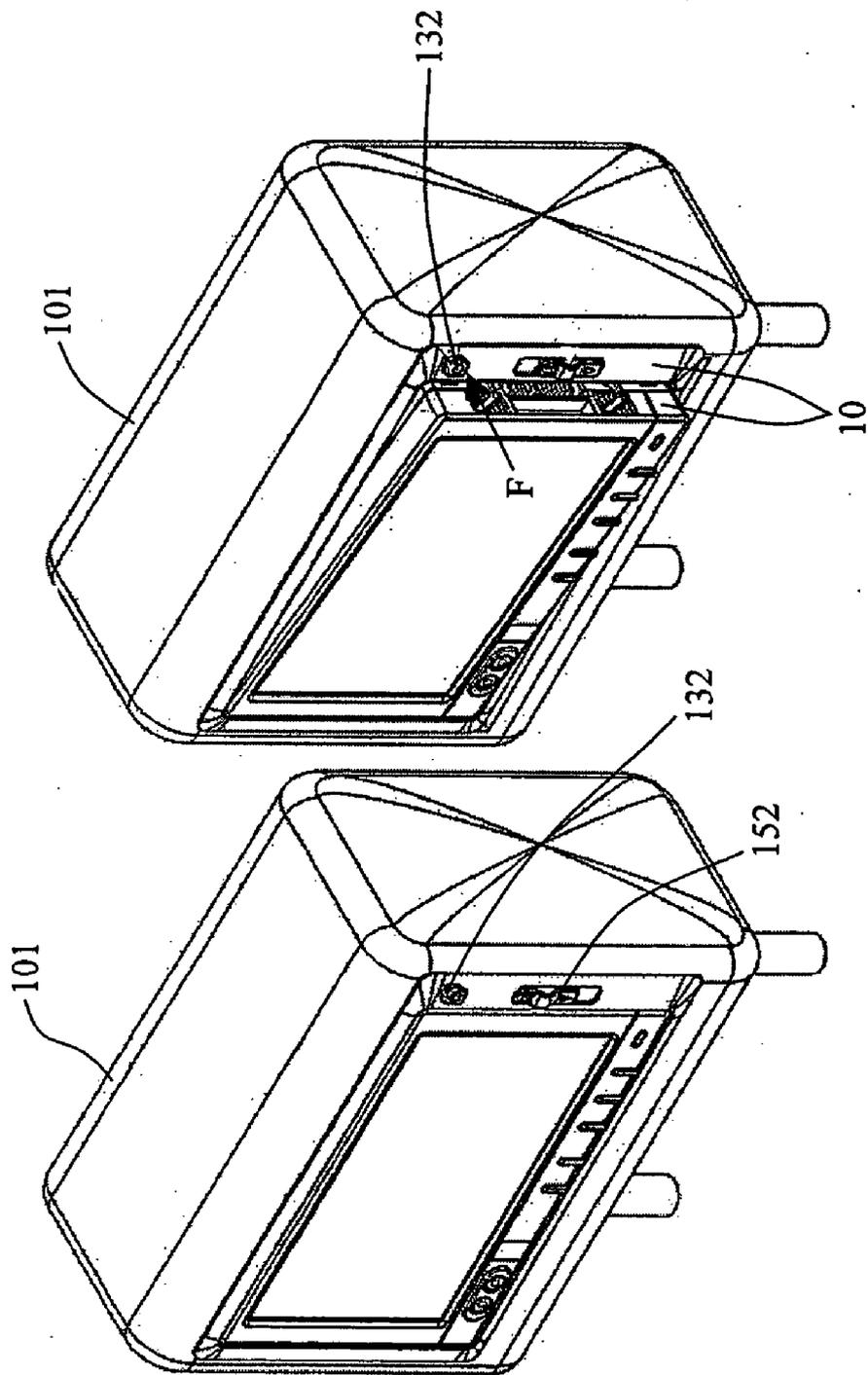


Fig. 3 (b)

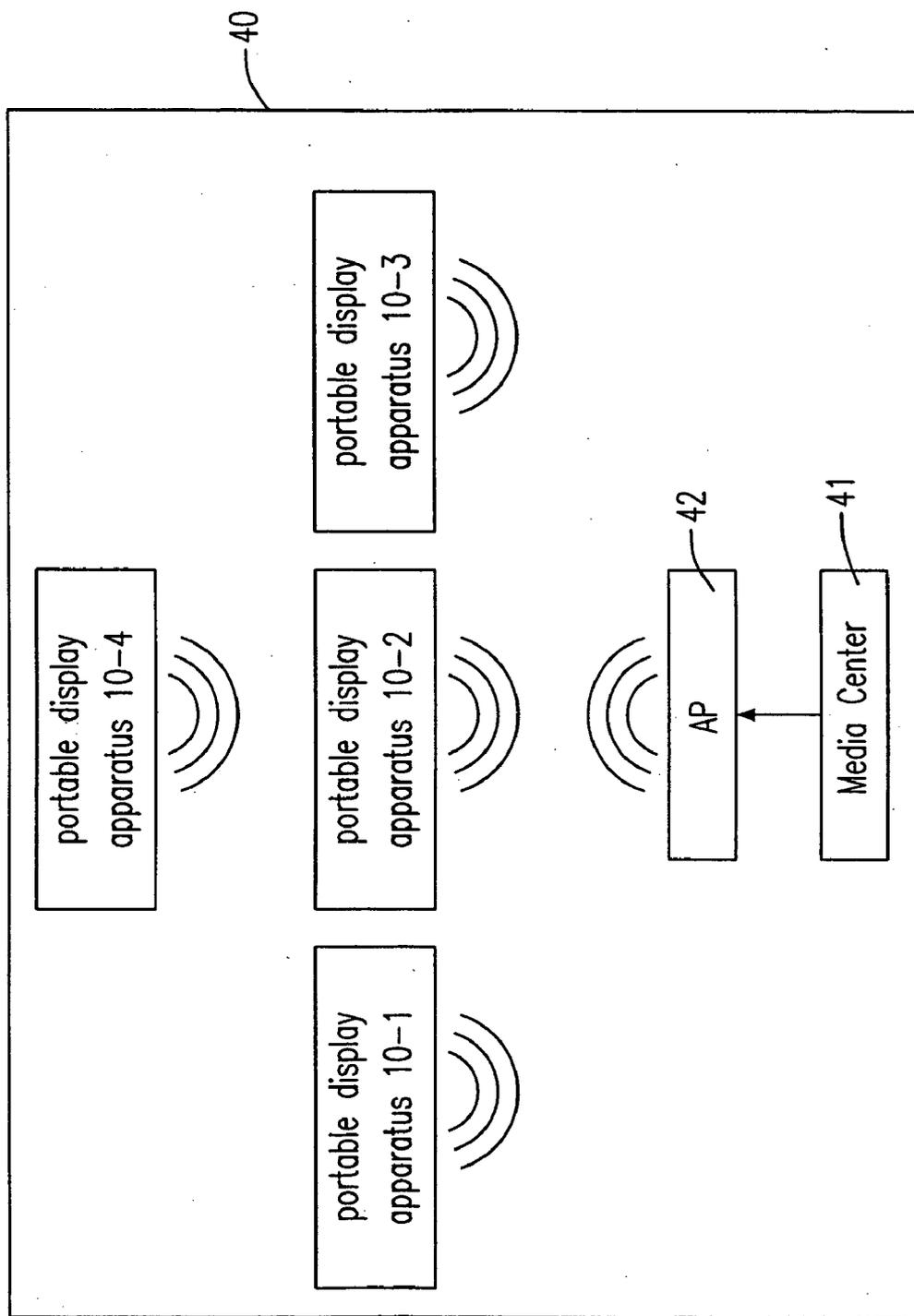


Fig. 4

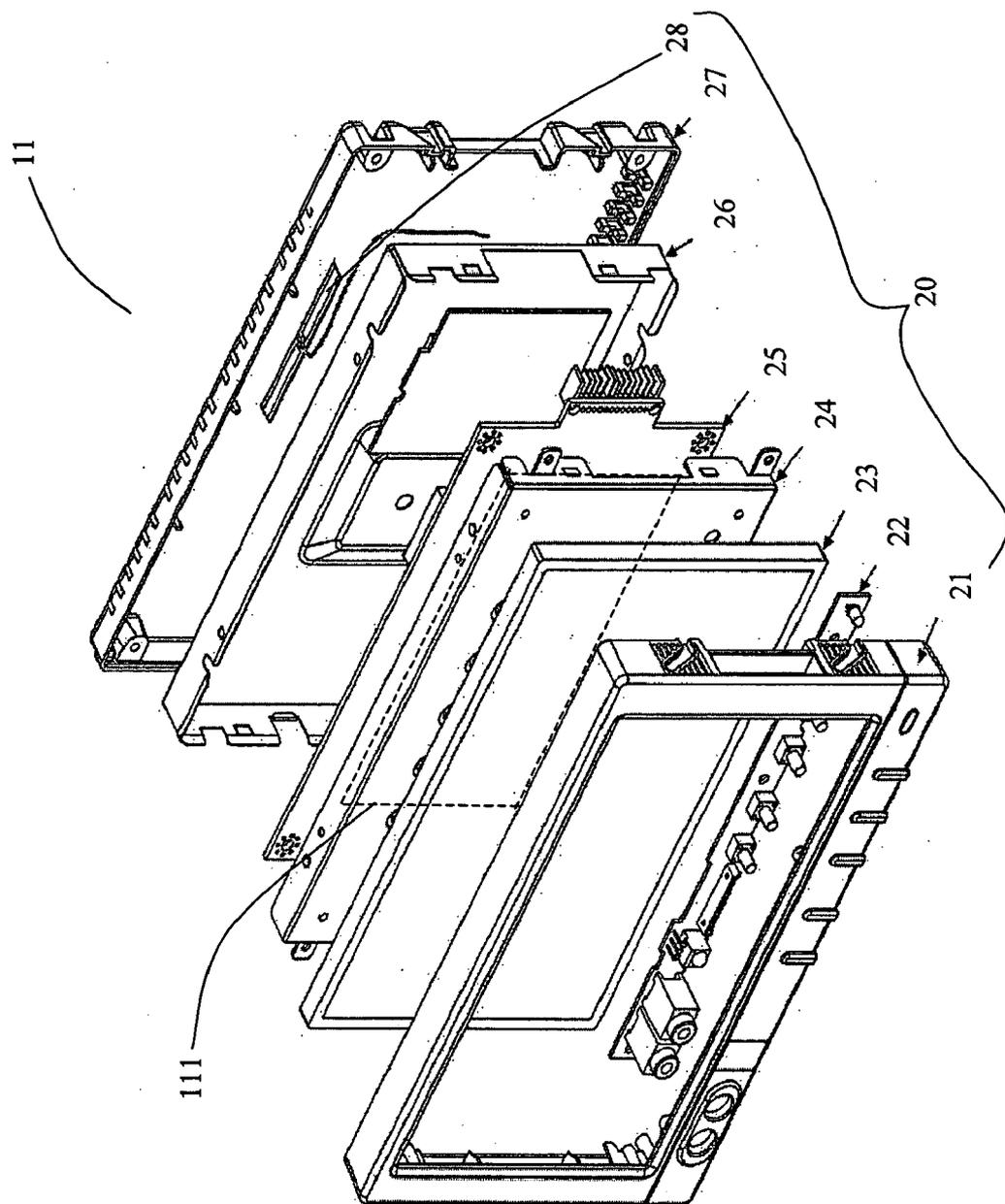


Fig. 5

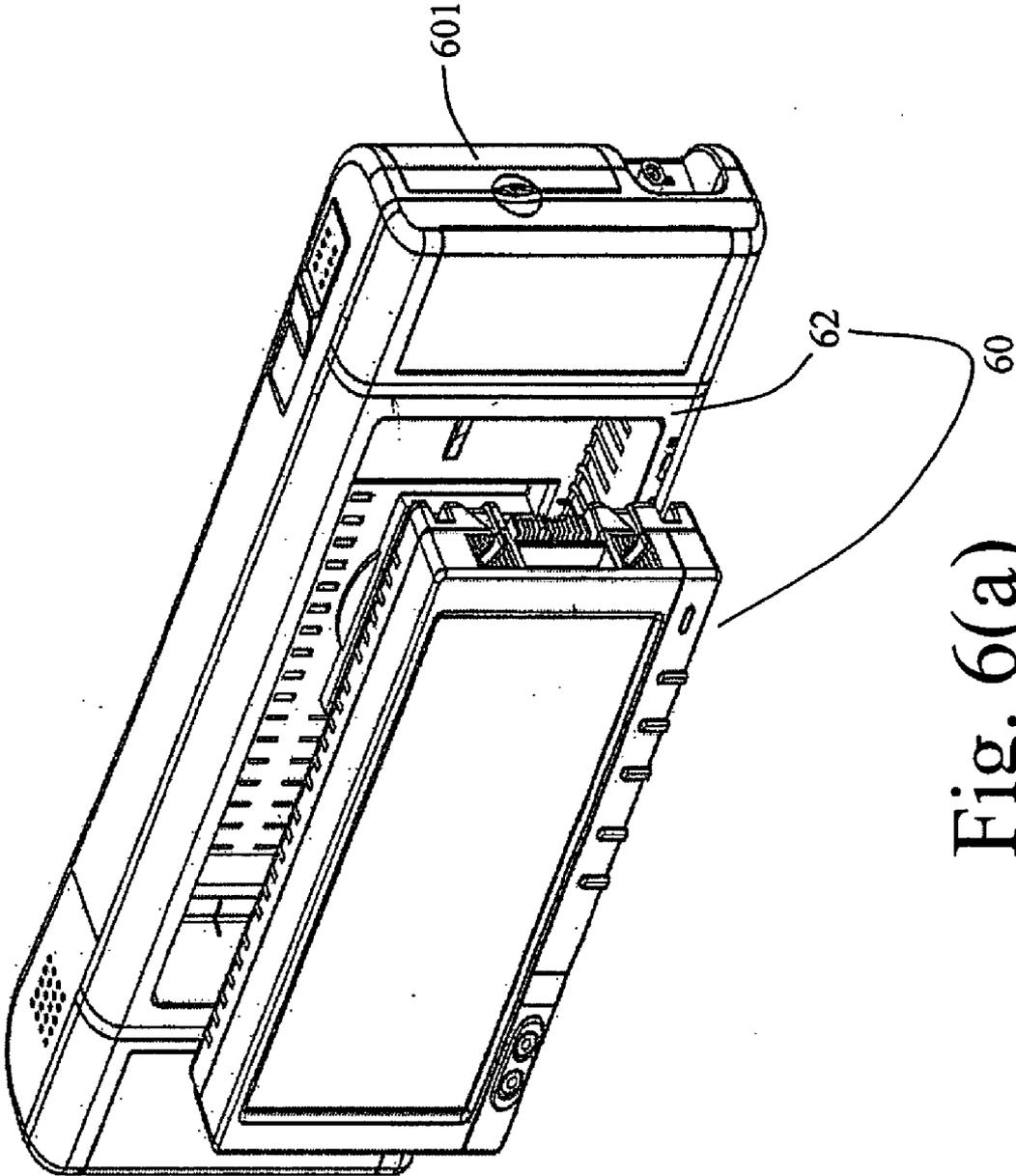


Fig. 6(a)

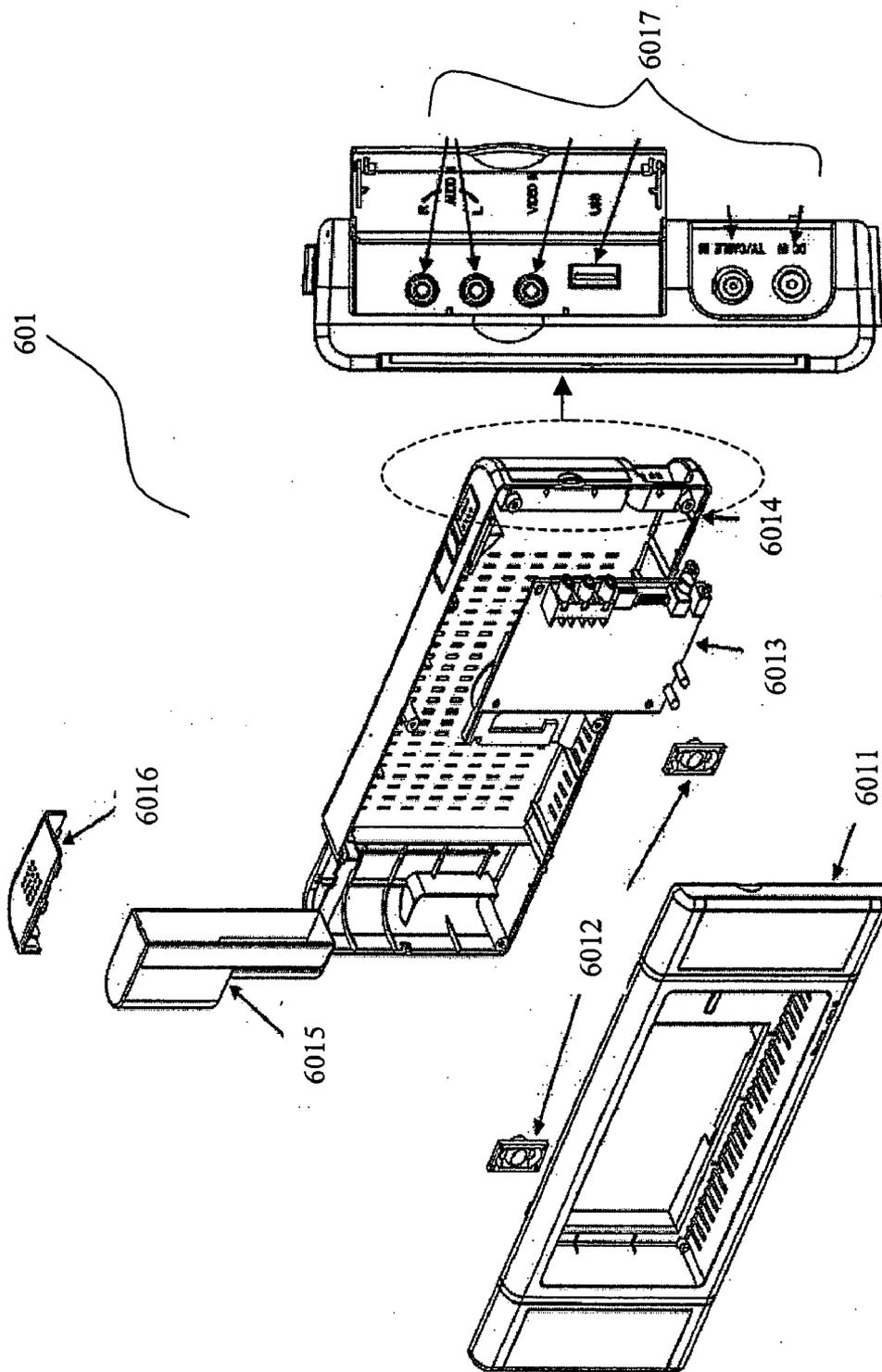


Fig. 6(b)

ENTERTAINMENT SYSTEM AND PORTABLE DISPLAY APPARATUS THEREOF

FIELD OF THE INVENTION

[0001] The present invention relates to an entertainment system and a portable display apparatus thereof, and more particular to a wireless entertainment system and a portable display apparatus thereof.

BACKGROUND OF THE INVENTION

[0002] The used display apparatus of an entertainment system currently is usually immobilized thereon by screwing and thus, it is not easy to separate/detach the display apparatus and the entertainment system therefrom. For example, the conventional liquid crystal display (LCD) apparatus on a headrest of a vehicle is not easy to be separated from the headrest, since it is usually fixed to the headrest in the vehicle. Besides, the immobilized liquid crystal display (LCD) apparatus always risk being stolen since it is left in the vehicle without anybody therein. In addition, since it is not easy to separate the immobilized liquid crystal display (LCD) apparatus from the headrest, the mechanical design of the conventional immobilized liquid crystal display (LCD) apparatus also suffers the inconvenience problems while being repaired or maintained. Furthermore, for a long-term consideration, if the liquid crystal display (LCD) apparatus is not easily detachable or is not portable (since it can't be separated from the headrest), it is inconvenient to upgrade the vehicle liquid crystal display (LCD) apparatus in compliance with the application requirements.

[0003] Furthermore, since the immobilized display apparatus is fixed to either a specified position or a specified object, it is not considered as a multiple usage device. For example, on one hand the immobilized display apparatus is unable to be incorporated desirably with other devices, such as a desktop computer or an expandable device, and on the other the immobilized display apparatus is unable to be carried everywhere desirably and easily. Take the prevailing entertainment system and the display apparatus thereof of a motorcar as an instance, except for having the above-mentioned defects regarding safety, repair, maintenance and upgrade for the system, and having the inconveniences derived from its un-portability, this kind of entertainment system and the display apparatus thereof also lack the following essential benefits.

[0004] With the improvement of living standard and the changes of lifestyle, it is no longer to restrict the entertainment system to an indoor restricted system. The prevailing point of view is to apply the entertainment system in multiple ways and at various places. The motorcar with an entertainment system is a dominant example, and this kind of motorcar is no longer being considered for transportation only. Actually the motorcar with an entertainment system is a multiple function vehicle. For satisfying the above-mentioned desire, the present vehicles are equipped with various media devices. Hence, an entertainment system being suitable for both indoors and outdoors are desired.

[0005] At present, the video-NTSC/PAL signal is wire transmitted to the liquid crystal display (LCD) apparatus by the operation of a media center system having a video compact disc (VCD) player or a digital video disc (DVD)

player equipped for the vehicles so as to play the media data on one or more liquid crystal displays. Since the immobilized display apparatus uses lots of wiring for communicating with the player, it is not simple and easy to be repaired or set up.

[0006] The mentioned wired entertainment system further has the other drawbacks. Although the wired entertainment system may have a plurality of liquid crystal display (LCD) apparatus respectively for several users, all of the liquid crystal display (LCD) apparatus still plays the same media data at the same time. That means all of the liquid crystal display (LCD) apparatus works synchronously while the wired entertainment system executes comments, such as forward, backward, paragraph selection, pause, play, stop etc. . . . Hence, at the same time, the wired entertainment system is controlled by only one of the users and the rest just only passively watch the program.

[0007] The wired connection between each device of the present entertainment system make the entertainment system lack capability of diversifying the application of each device therein and combing each device therein with the other apparatus, especially in the case of the immobilized display apparatus of the entertainment system. As mentioned above, if it is not easy to remove the display apparatus from the entertainment system or the display apparatus is not portable to other places, it would be not easy to upgrade the entertainment system and the display apparatus, or to be integrated with other devices or techniques, such as a wireless local area network (WLAN) or a media player. According, under the scheme of the conventional entertainment system, the user could not arbitrarily control the media data playing, such as a song or a movie even though the user has his own personal display apparatus. In addition, the user could not enjoy the media data by the display apparatus of the conventional entertainment system at any places one's like. Moreover, one could not use the immobilized display apparatus by combining it with the other expandable apparatuses for the purpose of high-potency usage.

[0008] In view of aforesaid discussion, to provide an entertainment system for diverse applications and a portable display apparatus for portable usage is an industrial subject at present. In addition, for consideration of the prevalence of display apparatus of an entertainment system for applying in various places such as a moving vehicle, a suitable portable display apparatus for moving vehicles is also desired. Therefore, an entertainment system and a portable display apparatus thereof considering the safety, the simplified maintenance and upgrade, and the detachability and portability are provided in the present invention.

SUMMARY OF THE INVENTION

[0009] In accordance with a first aspect of the present invention, an entertainment system is provided. The entertainment system includes a media center having data, an access point connected to the media center, and a portable display apparatus wirelessly accessing the data via the access point, and having an engaging device for engaging a target object therewith.

[0010] Preferably, the media center is a media server having the data to be wirelessly accessed via the access point.

[0011] Preferably, the media center includes a storing device for storing video/audio data.

[0012] Preferably, the entertainment system includes a securing element mounted on the target object for engaging the portable display apparatus with the target object.

[0013] Preferably, the target object is one of a headrest and a portable media dock.

[0014] Preferably, the portable media dock includes a connecting terminal.

[0015] Preferably, the engaging device includes a securing element and an engaging element.

[0016] Preferably, the securing element includes a first protruding portion, a pressing portion protruding from a surface of the target object, a fastening portion connected to the target object, and a resilient portion respectively connected to the fastening portion, the pressing portion and the first protruding portion for resiliently connecting the first protruding portion and the pressing portion to the fastening portion, thereby the first protruding portion and the pressing portion moving in a first direction relative to the fastening portion.

[0017] Preferably, the portable display apparatus has an engaging surface and the engaging element includes a trench formed on the engaging surface, and a controlling element mounted on the target object and includes a second protruding portion, and a third protruding portion, wherein a first engagement of the portable display apparatus and the target object is controlled by a movement of the second protruding portion along the trench, and the portable display apparatus is fastened to the target object by the controlling element with a second engagement of the first protruding portion and the third protruding portion.

[0018] Preferably, the controlling element further includes a manual driving portion protruding from a surface of the portable display apparatus for manually controlling a movement of the controlling element in a second direction.

[0019] Preferably, the trench is an inclined trench for the second protruding portion moving therein so as to control the first engagement of the portable display apparatus and the target object.

[0020] Preferably, the first protruding portion has a first inclined surface and the third protruding portion has a second inclined surface for the third protruding portion moving along the inclined surfaces while the controlling element moves in the second direction.

[0021] Preferably, the portable display apparatus further includes a liquid crystal display, and a media player.

[0022] Preferably, the media player further includes a panel front cover, a control button board, an analog/digital panel, a digital media receiver, a liquid crystal display driving board, a panel rear cover, and a wireless antenna for wirelessly accessing digital media data via the access point so as to broadcast the data.

[0023] Preferably, the media player further includes a re-chargeable battery system.

[0024] Preferably, the media player comprises a video decoder wirelessly broadcasting the data, and having a format being one selected from a group consisting of a DivX, a Video, a WMA, an MP3, a JPEG an MPEG-1/2/4 and an AVI formats.

[0025] In accordance with a second aspect of the present invention, a portable display apparatus having a display device and a housing is provided. The portable display apparatus includes an engaging element providing an engagement of the display device and a housing, and a securing element for securing the engagement.

[0026] Preferably, the housing is engaged with a target object.

[0027] Preferably, the target object is a headrest or a portable media dock.

[0028] Preferably, the display device includes a liquid crystal display and a media player.

[0029] Preferably, the securing element includes a first protruding portion, a pressing portion protruding from a surface of the housing, a fastening portion connected to the housing, and a resilient portion respectively connected to the fastening portion, the pressing portion and the first protruding portion for resiliently connecting the first protruding portion and the pressing portion to the fastening portion, thereby the first protruding portion and the pressing portion moving in a first direction relative to the fastening portion.

[0030] Preferably, the display device has an engaging surface and the engaging element includes a trench formed on the engaging surface; and a controlling element mounted on the target object and includes a second protruding portion, and a third protruding portion, wherein a first engagement of the display device and the housing is controlled by a movement of the second protruding portion along the trench, and the display device is fastened to the housing by the controlling element with a second engagement of the first protruding portion and the third protruding portion.

[0031] Preferably, the controlling element further includes a manual driving portion protruding from a surface of the housing for manually controlling a movement of the controlling element in a second direction.

[0032] Preferably, the trench is an inclined trench for facilitating the second protruding portion to move along the trench.

[0033] Preferably, the first protruding portion has a first inclined surface and the third protruding portion has a second inclined surface for facilitating the third protruding portion to move along the inclined surfaces while the controlling element moves in the second direction.

[0034] The above contents and the advantages of the present invention will become more readily apparent to those ordinarily skilled in the art after reviewing the following detailed descriptions and accompanying drawings, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

[0035] **FIG. 1** is an exploded view of a portable display apparatus according to a first embodiment of the present invention;

[0036] **FIGS. 2(a)-2(d)** are schematic views showing the securing element and the engaging element of the portable display apparatus according to the first embodiment of the present invention;

[0037] FIG. 3(a) is a diagram schematically showing the engagement of the portable display apparatus and the headrest according to the first preferred embodiment of the present invention;

[0038] FIG. 3(b) is a diagram schematically showing the disengagement of the portable display apparatus from the headrest according to the first preferred embodiment of the present invention;

[0039] FIG. 4 is a schematic view of an entertainment system having the portable display apparatus according to a second embodiment of the present invention;

[0040] FIG. 5 is a schematic view of a media player combined with the portable display apparatus according to the second preferred embodiment of the present invention;

[0041] FIG. 6(a) is a schematic diagram of the portable display apparatus combined with an entertainment system according to the second preferred embodiment of the present invention; and

[0042] FIG. 6(b) is a schematic diagram of the media dock combined with an entertainment system according to the second preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0043] The present invention will now be described more specifically with reference to the following embodiments. It is to be noted that the following descriptions of preferred embodiments of this invention are presented herein for purpose of illustration and description only; it is not intended to be exhaustive or to be limited to the precise form disclosed.

[0044] Please refer to FIG. 1, which is an exploded diagram of the portable display apparatus according to a first preferred embodiment of the present invention. As shown in FIG. 1, the portable display apparatus 10 includes the display device 11, the housing 12, and the engaging device 16 including the securing element 13 and the engaging element 14. The display device 11 provided as an interface of television program or media data. In addition, the display device 11 includes a liquid crystal display 111. The display device 11 engages with the housing 12 by the engaging element 14 and the securing element 13 for further ensuring an engagement of the display device 11 and the housing 12. Hence, with the two engagements respectively of the securing element 13 and of the engaging element 14, a double engagement between the display device 11 and the housing 12 is achieved. The housing 12 further includes two lock holes 121 and 122 for engaging the housing 12 with the vehicle headrest 101. Thereby, the portable display apparatus 10 is fixed to the vehicle headrest 101. Via the electrical terminals of power supply and signal source, which equipped on the vehicle headrest 101 and connect with the pins of the housing 12, the power or signal is transmitted to the display device 11.

[0045] In this embodiment of the present invention, the housing 12 having the securing element 13 thereon is provided individually as shown in FIG. 1 or integrated with the headrest 101. In addition, the securing element 13 and the engaging element 14 are configured for engaging but not restricted to the configuration as shown in FIG. 1, for example they could be configured in reverse.

[0046] Please refer to FIGS. 2(a)-2(d), which are detailed schematic diagram of the securing element and the engaging element according to the first preferred embodiment of the present invention. In this embodiment, the display device 11 is engaged with the housing 12 first by the engaging element 14, and the securing element 13 is used to further secure the mentioned engagement so as to doubly engage the display device 11 with the housing 12. With reference to FIGS. 2(a)-2(d), the doubly engagement achieved by the engaging element 14 and the securing element 13 will be further explained below.

[0047] Please refer to FIG. 2(c) schematically showing the securing element 13. The securing element 13 includes the first protruding portion 131, the pressing portion 132, the fastening portion 133, and the resilient portion 134. The first protruding portion 131 has the first inclined surface P. The pressing portion 132 protrudes from the surface of the housing 12. The fastening portion 133 connects to the housing 12. The resilient portion 134 connects among to the fastening portion 133, the pressing portion 132 and the first protruding portion 131 for resiliently connecting the first protruding portion 131 and the pressing portion 132 to the fastening portion 133. Thereby, if a user presses the first protruding portion 131 in the direction A (as shown in FIG. 2(b)), the first protruding portion 131 and the pressing portion 132 will be actuated to move relatively to the fastening portion 133, i.e. to move in the direction a.

[0048] Please further refer to FIG. 2(d), which is a diagram showing the first engagement between the display device 11 and the housing 12 achieved by the engaging element 14. The engaging element 14 includes the controlling element 15 mounted on the housing 12 and two inclined trenches 161 and 162 formed on the engaging surface of the display device 11. It should be noted that the controlling element 15 and the two inclined trenches 161 and 162 are able to be configured in reverse. That is to say, the controlling element 15 and the two inclined trenches 161 and 162 are respectively mounted on the engaging surface of the display device 11 and the housing 12.

[0049] Please refer to FIGS. 2(a)-2(c) for schematically showing the features and the movements of the controlling element 15 according to the first embodiment of the present invention. The controlling element 15 includes the second protruding portions 1531 and 1532, a manual driving portion 152 and the third protruding portion 151. The manual driving portion 152 protrudes from a surface of the housing 12, and thereby the movement of the controlling element 15 is manually controllable. The third protruding portion 151 has a second inclined surface R. The design of the second inclined surface R and the inclined surface P facilitates the third protruding portion 151 to move along the inclined surfaces while the controlling element 15 is moved.

[0050] While the user pushes the controlling element 15 to a position as shown in FIG. 2(c), the two second protruding portions 1531 and 1532 are located at a position corresponding to the position C1 of the two inclined trenches 161 and 162. While a user pushes the manual driving portion 152 in a direction B, the controlling element 15 would be moved in the direction B and its position would be shifted from the position shown in FIG. 2(c) to the other position shown in FIG. 2(b). During the mentioned movement of the controlling element 15, the two second protruding portions 1531

and 1532 respectively moves along the two inclined trenches 161 and 162 from the position C1 to the other position C2. Since the trenches 161 and 162 are inclined-constructed, it is easier and more efficient for the user to actuate the movement of the two second protruding portions 1531 and 1532 therealong.

[0051] Please refer to FIG. 2(c) to 2(a) in turn for further understanding how the engaging element 14 and the securing element 13 according to the first embodiment of the present invention work together to provide the double engagement effect. As mentioned above, the design of the second inclined surface R and the inclined surface P facilitates the third protruding portion 151 to move along the inclined surfaces while the controlling element 15 is pushed. Hence, while the manual driving portion 152 is pushed in the direction B, the controlling element 15 would be moved in the direction B and its position would be shifted from the position shown in FIG. 2(c) to the other position shown in FIG. 2(b). During the process, force in the direction A is applied on the first protruding portion 131 via the third protruding portion 151, and hence the third protruding portion 151 is located at an "engaged" position with (as shown in FIG. 2(a)). The "engaged" position of third protruding portion 151 is ensured by the first protruding portion 131 on account of their structural design. That is to say, while the first engagement of the display device 11 and the housing 12 is achieved by the engaging element 14, the securing element 13 further prevent the controlling element 15 from moving in the D direction, so as to ensure the engagement of the display device 11 and the housing 12. Hence, the double engagement effect is performed.

[0052] Please refer to FIGS. 2(a)-2(c) in turn for further understanding how to relieve the above-mentioned double engagement. For separating the display device 11 from the housing 12, the pressing portion 132 is pressed in the direction A first, so that the first protruding portion 131 would be moved in the direction A with respect to the fastening portion 133 accordingly. Hence the engagement of the third protruding portion 151 and the first protruding portion 131 would be relieved and the controlling element 15 would be movable in the direction D. Hence, the movement of the two second protruding portions 1531 and 1532 along the two inclined trenches 161 and 162 from a position C2 to the other position C1 is actuated so as to separate the display device 11 from the housing 12.

[0053] Please further refer to FIG. 3(a), which is a diagram showing the engagement of the portable display apparatus 10 and the headrest 101 according to the first preferred embodiment of the preset invention. As mentioned above, the housing 12 is fixed to the headrest 101 by screwing, or alternatively the housing 12 with the elements thereof is integrated with the headrest 101. The display device 11 is inserted into the housing 12 at the side I-I', and at the meanwhile, the manual driving portion 152 is located at the position as shown in FIG. 2(c). Then, the display device 11 is pushed at the side II-II' in the direction E for being inserted into the housing 12. Then, the manual driving portion 152 is pressed to move to the position as shown in FIG. 2(a), and is further secured by the above-mentioned securing element 13.

[0054] Please further refer to FIG. 3(b), which is a diagram showing the disengagement of the portable display apparatus 10 from the headrest 101 according to the first preferred embodiment of the preset invention. Also, the housing 12 is fixed to the headrest 101 by screwing, or alternatively the housing 12 with the elements thereof are integrated with the headrest 101. The pressing portion 132 is pressed in the direction F and thus the manual driving portion 152 is moved from the position as shown in FIG. 2(a) to the position as shown in FIG. 2(c) so as to separate the display device 11 from the housing 12. Afterward, the display device 11 is pushed out and separated from the headrest 101.

[0055] In addition, please refer to FIG. 4, an entertainment system having the portable display apparatus according to the second embodiment of the present invention is provided. In this embodiment, the entertainment system 40 includes the media center 41, the access point 42 and the four portable display apparatus 10-1~10-4. The media center 41 has the storing device (not shown) for storing video/audio data. The access point 42 is an access point of a Wireless Local Area Network (WLAN), and in addition to all elements of the mentioned portable display apparatus 10 of the first embodiment, each of the portable display apparatus 10-1~10-4 has a media player (not shown and would be discussed later). Respectively, the portable display apparatus 10-1~10-4 could wirelessly accessing the video/audio data stored in the media center 41 via the access point 42 desirably and the data to be displayed is wirelessly transmitted via 802.11 interfaces. The portable display apparatus 10-1~10-4 are detachable and portable, and hence, in the case of the entertainment system 40 equipped in a vehicle, the use of the portable displays apparatus 10-1~10-4 is not limited therein. That means, besides working in the vehicle, each of the portable displays apparatus 10-1~10-4 also allow the user to play the video/audio data at every location within the range of the Wireless Local Area Network. In addition, the entertainment system 40 equipped in a vehicle is wirelessly upgradeable and the data therein is exchangeable with a housing computer in the garage or the neighboring, for example.

[0056] Please refer to FIG. 5, which schematically showing the structure of the media player of FIG. 4. Each of the portable display apparatus 10-1~10-4 includes the media player 20 in addition to the liquid crystal display 111. The media player 20 includes the panel front cover 21, the control button board 22, the analog/digital panel 23, the anterior part of the digital media receiver 24, the liquid crystal display driving board 25, the posterior part of the digital media receiver 26, the panel rear cover 27 and the wireless antenna 28. In the design, the liquid crystal display 111 is combined with the media player 20, wherein the media player 20 is programmed with a decoding device. Hence, the portable display apparatus 10-1~10-4 also support the broadcast of the data with the format of DivX, Video, WMA, MP3, JPEG, MPEG-1/2/4 or AVI.

[0057] Furthermore, the entertainment system is able to be incorporated with other device, such as the media dockdock for function upgrading. As shown in FIG. 6(a), which is a diagram showing the portable display apparatus of the entertainment system 40 of the second embodiment. In this case, the components included in the portable display apparatus 60 are similar to those of the portable display apparatus 10 shown in FIG. 1 and are not repeatedly illustrated. The only difference exists in that the housing 62 of the

portable display apparatus 60 is fasten to or is integrated with the media dockdock 601 instead of the headrest 101 shown in FIG. 1.

[0058] Please further refer to FIG. 6(b), which is a diagram schematically showing the media dockdock 601 of FIG. 6(a). The media dockdock 601 includes the front cover 6011, the amplifier 6012, the television frequency modulator 6013, the rear cover 6014, the battery 6015, the battery cover 6016 and plural of connecting terminals 6017, such as an Audio/Video tune terminal or a USB terminal, wherein the rear cover 6014 has a power supply plug and the battery 6015 is used for recharging the portable display apparatus 60. In the case, the portable display apparatus 60 of the entertainment system 40 is able to be separated from the headrest (not shown) and then combined with the media dock 601, so as to be carried to various places for a better audio/video performance. Hence, the usage efficiency of entertainment system 40 is highly increased. Furthermore, since the connecting terminals 6017 are provided in the media dock 601, the portable display apparatus 60 is capable of playing the other data inputting from the terminal. Hence, the usage efficiency of the portable display apparatus 60 is also highly increased.

[0059] In view of the foresaid discussions, the present invention does provide an entertainment system and a portable display apparatus thereof which overcome all the drawbacks of the conventional immobilized entertainment system and display apparatus thereof. The provided entertainment system and a portable display apparatus have an increased usage efficiency, and the upgrade, maintenance and incorporation with the other devices thereof are more simplified. Besides, the double engagement achieved in the entertainment system and the portable display apparatus thereof according to the present invention also solves the faults of the prior arts without increasing the cost. Hence, the present invention does have the novelties, progressiveness, and the utilities.

[0060] While the invention has been described in terms of what is presently considered to be the most practical and embodiment, it is to be understood that the invention needs not be limited to the disclosed embodiments. On the contrary, it is intended to cover various modifications and similar arrangements included within the spirit and scope of the appended claims which are to be accorded with the broadest interpretation so as to encompass all such modifications and similar structures.

What is claimed is:

1. An entertainment system, comprising:
 - a media center having data;
 - an access point connected to said media center; and
 - a portable display apparatus wirelessly accessing said data via said access point, and having an engaging device for engaging a target object therewith.
2. The entertainment system as claimed in claim 1, wherein said media center is a media server having said data to be wirelessly accessed via said access point.
3. The entertainment system as claimed in claim 1, wherein said media center comprises a storing device for storing video/audio data.
4. The entertainment system as claimed in claim 1, comprising a securing element mounted on said target object for engaging said portable display apparatus with said target object.

5. The entertainment system as claimed in claim 1, wherein said target object is one of a headrest and a portable media dock.

6. The entertainment system as claimed in claim 5, wherein said portable media dock comprises a connecting terminal.

7. The entertainment system as claimed in claim 1, wherein said engaging device comprises a securing element and an engaging element.

8. The entertainment system as claimed in claim 7, wherein said securing element comprises:

- a first protruding portion;
- a pressing portion protruding from a surface of said target object;
- a fastening portion connected to said target object; and
- a resilient portion respectively connected to said fastening portion, said pressing portion and said first protruding portion for resiliently connecting said first protruding portion and said pressing portion to said fastening portion, thereby said first protruding portion and said pressing portion moving in a first direction relative to said fastening portion.

9. The entertainment system as claimed in claim 8, wherein said portable display apparatus has an engaging surface and said engaging element comprises a trench formed on said engaging surface; and a controlling element mounted on said target object and comprising:

- a second protruding portion; and
- a third protruding portion,

wherein a first engagement of said portable display apparatus and said target object is controlled by a movement of said second protruding portion along said trench, and said portable display apparatus is fastened to said target object by said controlling element with a second engagement of said first protruding portion and said third protruding portion.

10. The entertainment system as claimed in claim 9, wherein said controlling element further comprises:

- a manual driving portion protruding from a surface of said portable display apparatus for manually controlling a movement of said controlling element in a second direction.

11. The entertainment system as claimed in claim 9, wherein said trench is an inclined trench for said second protruding portion moving therein so as to control said first engagement of said portable display apparatus and said target object.

12. The entertainment system as claimed in claim 9, wherein said first protruding portion has a first inclined surface and said third protruding portion has a second inclined surface for said third protruding portion moving along said inclined surfaces while said controlling element moves in said second direction.

13. The entertainment system as claimed in claim 1, wherein said portable display apparatus further comprises:

- a liquid crystal display; and
- a media player.

14. The entertainment system as claimed in claim 13, wherein said media player further comprises:

- a panel front cover;
- a control button board;
- an analog/digital panel;
- a digital media receiver;
- a liquid crystal display driving board;
- a panel rear cover; and
- a wireless antenna for wirelessly accessing digital media data via said access point so as to broadcast said data.

15. The entertainment system as claimed in claim 13, wherein said media player further comprises a re-chargeable battery system.

16. The entertainment system as claimed in claim 13, wherein said media player comprises a video decoder wirelessly broadcasting said data, and having a format being one selected from a group consisting of a DivX, a Video, a WMA, an MP3, a JPEG, an MPEG-1/2/4 and an AVI formats.

17. A portable display apparatus having a display device and a housing, comprising:

- an engaging element providing an engagement of said display device and said housing; and
- a securing element for securing said engagement.

18. The portable display apparatus as claimed in claim 17, wherein said housing is engaged with a target object.

19. The portable display apparatus as claimed in claim 18, wherein said target object is one of a headrest and a portable media dock.

20. The portable display apparatus as claimed in claim 17, wherein said display device comprises a liquid crystal display and a media player

21. The portable display apparatus as claimed in claim 17, wherein said securing element comprises:

- a first protruding portion;
- a pressing portion protruding from a surface of said housing;

a fastening portion connected to said housing; and

a resilient portion respectively connected to said fastening portion, said pressing portion and said first protruding portion for resiliently connecting said first protruding portion and said pressing portion to said fastening portion, thereby said first protruding portion and said pressing portion moving in a first direction relative to said fastening portion.

22. The portable display apparatus as claimed in claim 21, wherein said display device has an engaging surface and said engaging element comprises a trench formed on said engaging surface; and a controlling element mounted on said housing and comprising:

- a second protruding portion; and
- a third protruding portion,

wherein a first engagement of said display device and said housing is controlled by a movement of said second protruding portion along said trench, and said display device is fastened to said housing by said controlling element with a second engagement of said first protruding portion and said third protruding portion.

23. The portable display apparatus as claimed in claim 22, wherein said controlling element further comprises:

a manual driving portion protruding from a surface of said housing for manually controlling a movement of said controlling element in a second direction.

24. The portable display apparatus as claimed in claim 22, wherein said trench is an inclined trench for facilitating said second protruding portion to move along said trench.

25. The portable display apparatus as claimed in claim 22, wherein said first protruding portion has a first inclined surface and said third protruding portion has a second inclined surface for facilitating said third protruding portion to move along said inclined surfaces while said controlling element moves in said second direction.

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