



US 20080109955A1

(19) **United States**

(12) **Patent Application Publication**  
**Lin**

(10) **Pub. No.: US 2008/0109955 A1**

(43) **Pub. Date: May 15, 2008**

(54) **PARTITION FOR BATHROOM STALLS**

(30) **Foreign Application Priority Data**

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Nov. 9, 2006 (TW) ..... 095219802

**Publication Classification**

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(51) **Int. Cl.**  
**A47K 17/00** (2006.01)

(52) **U.S. Cl.** ..... 4/607; 4/614

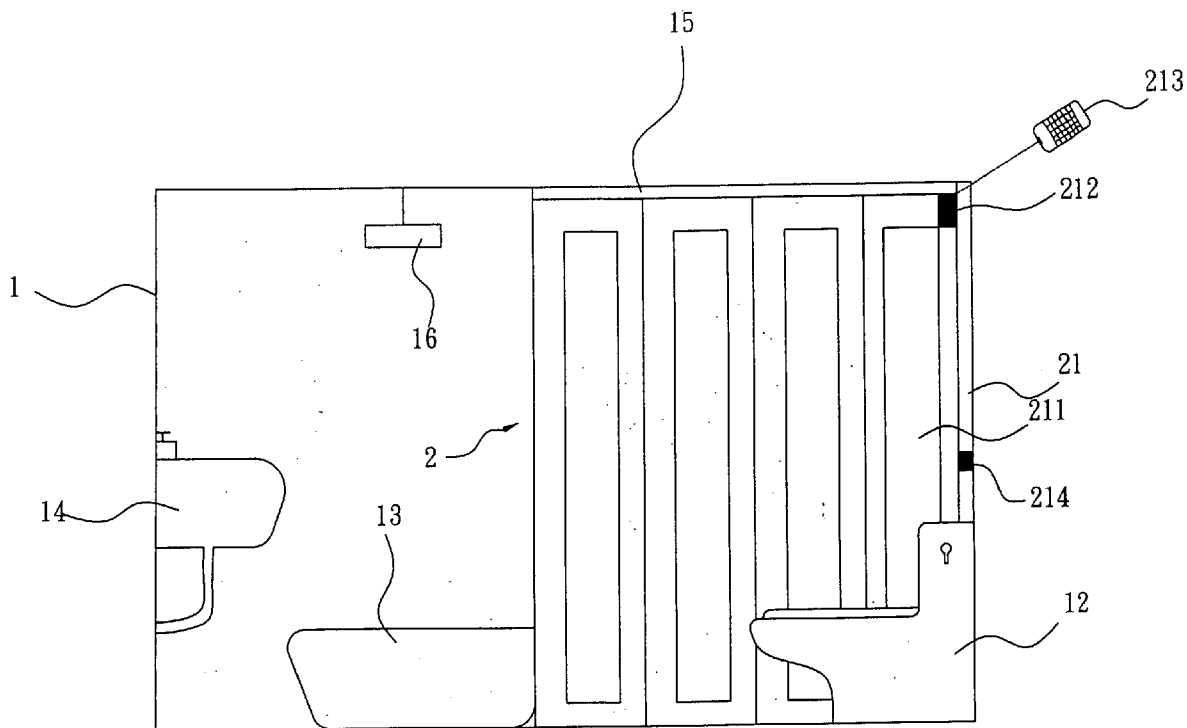
(57) **ABSTRACT**

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A bathroom has a partition to separate a bath area from a stool device. It becomes possible that a person uses the stool device and at the same time another person takes a bath in the same room. The partition can become opaque so that an image can be shown on it to change the scene of the bathroom. The partition can also be packed at a side to obtain a wider area in the bathroom.

(21) Appl. No.: **11/647,157**

(22) Filed: **Dec. 29, 2006**



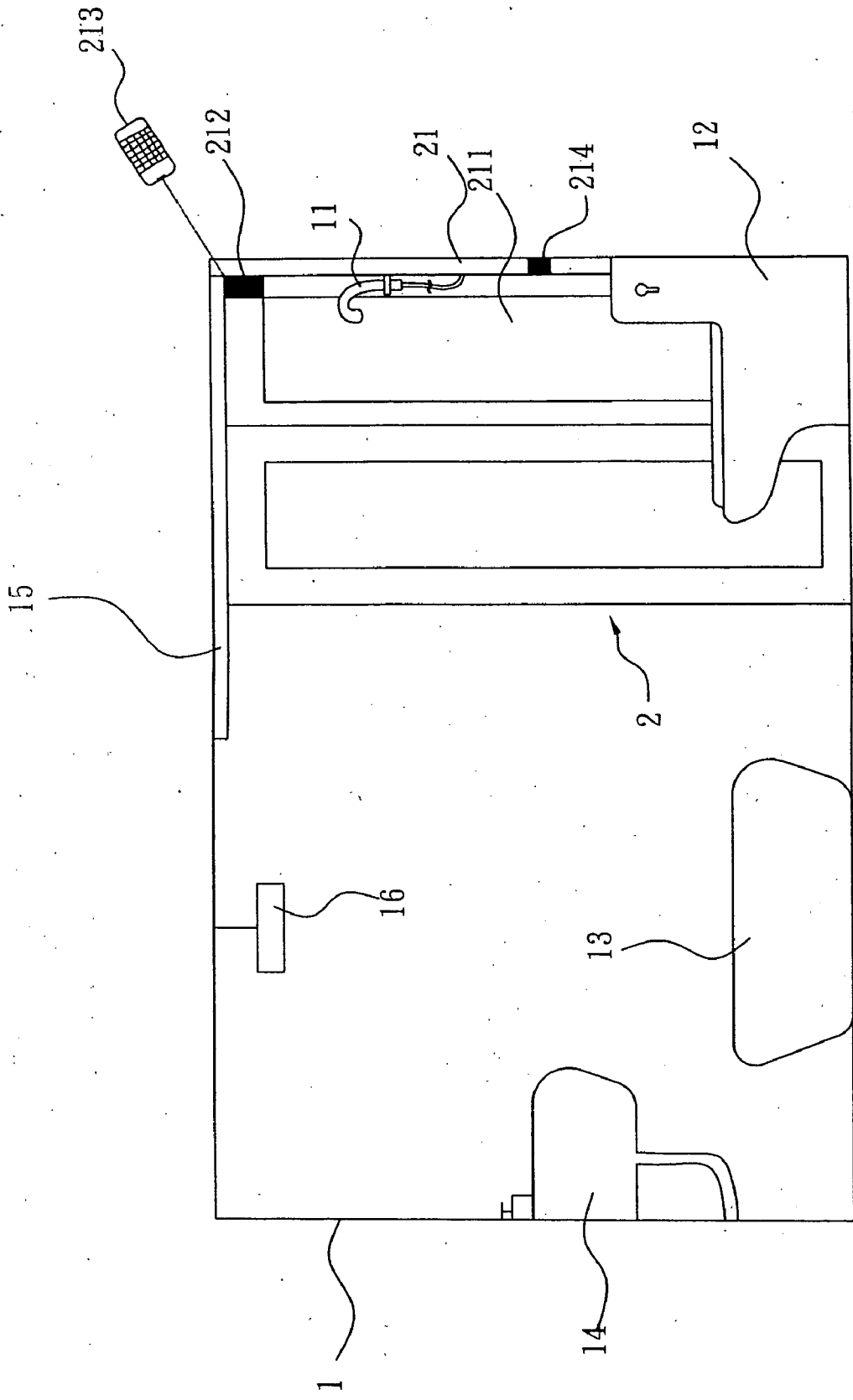


FIG. 1

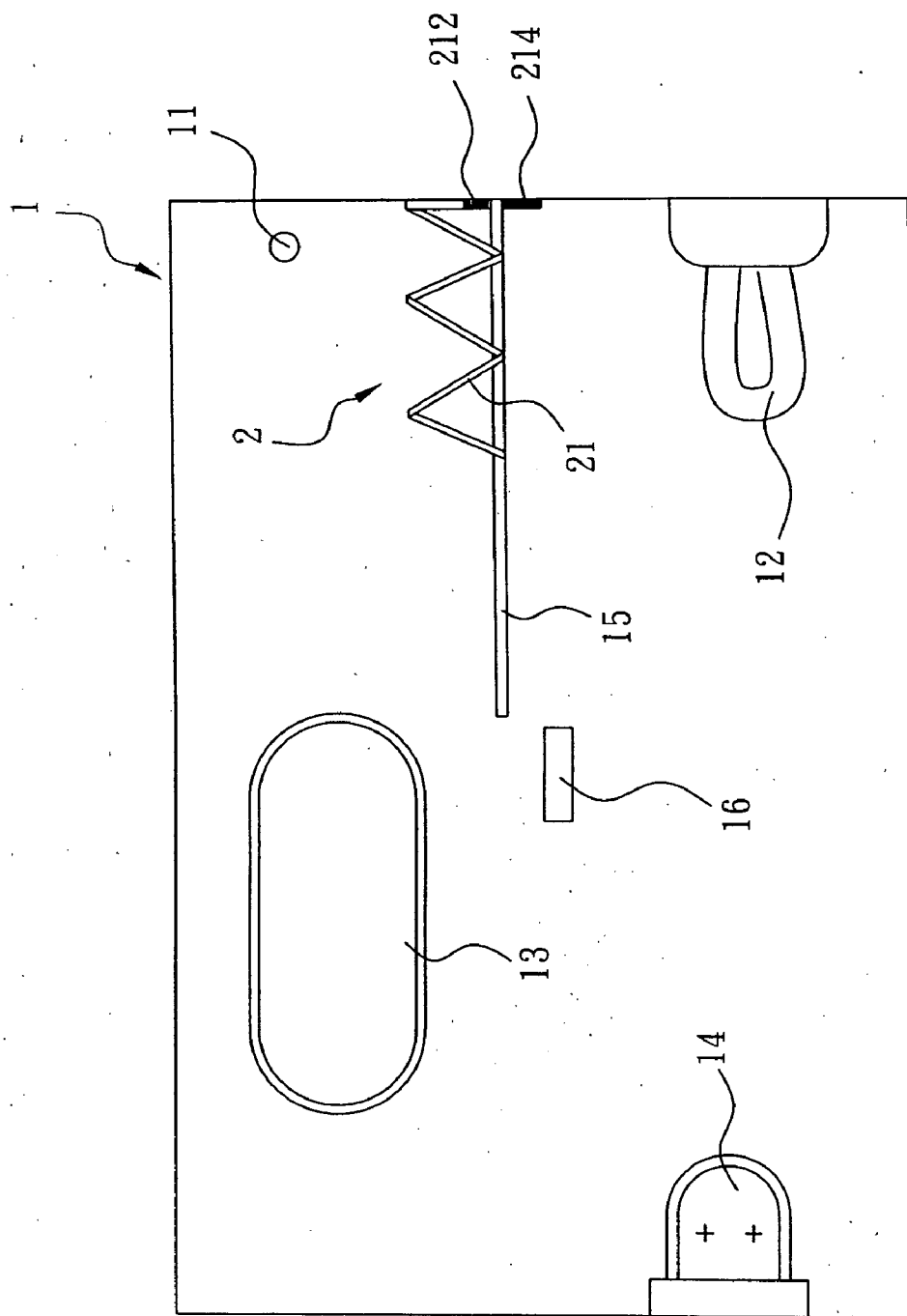


FIG. 2

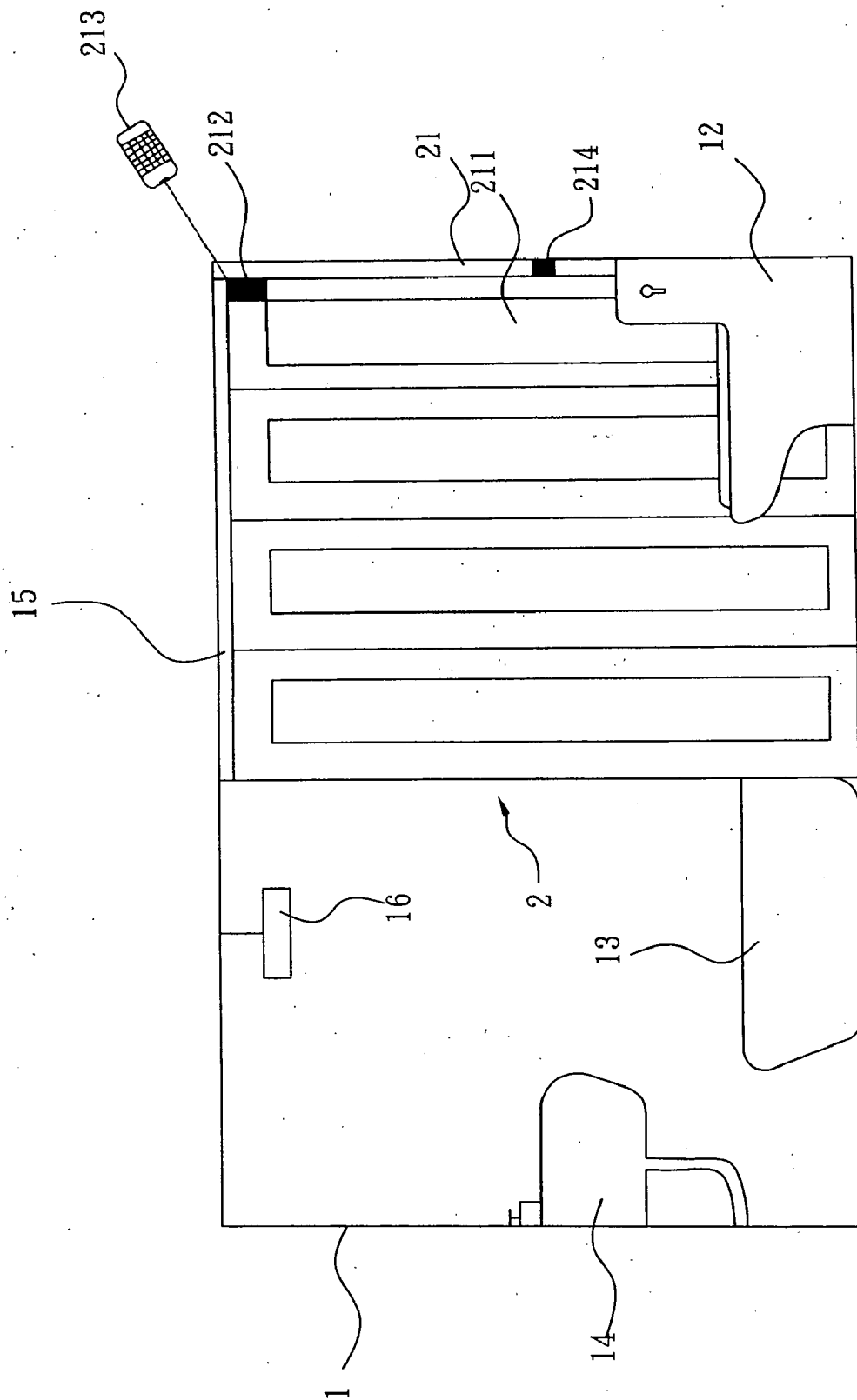


FIG. 3

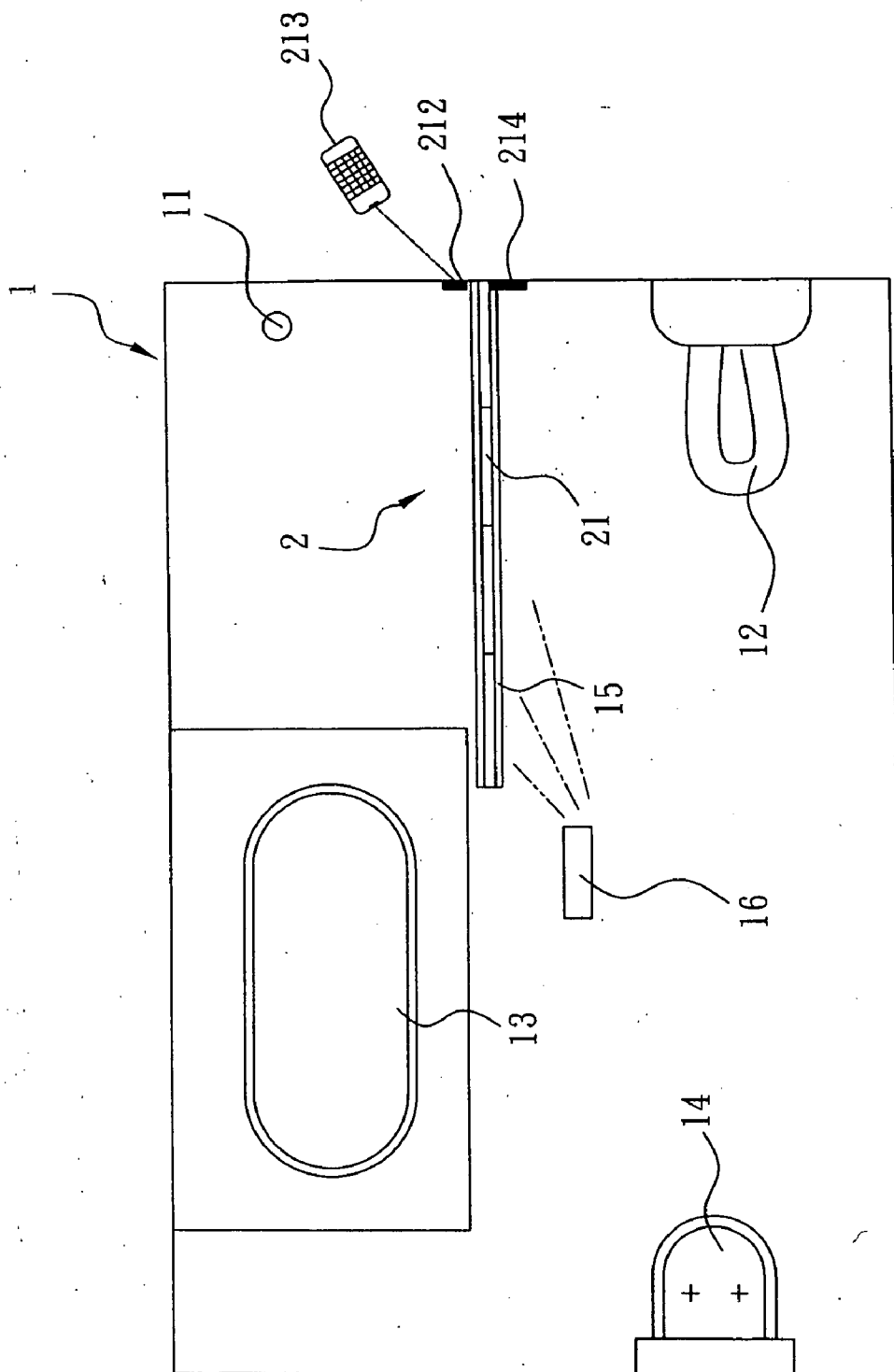


FIG. 4

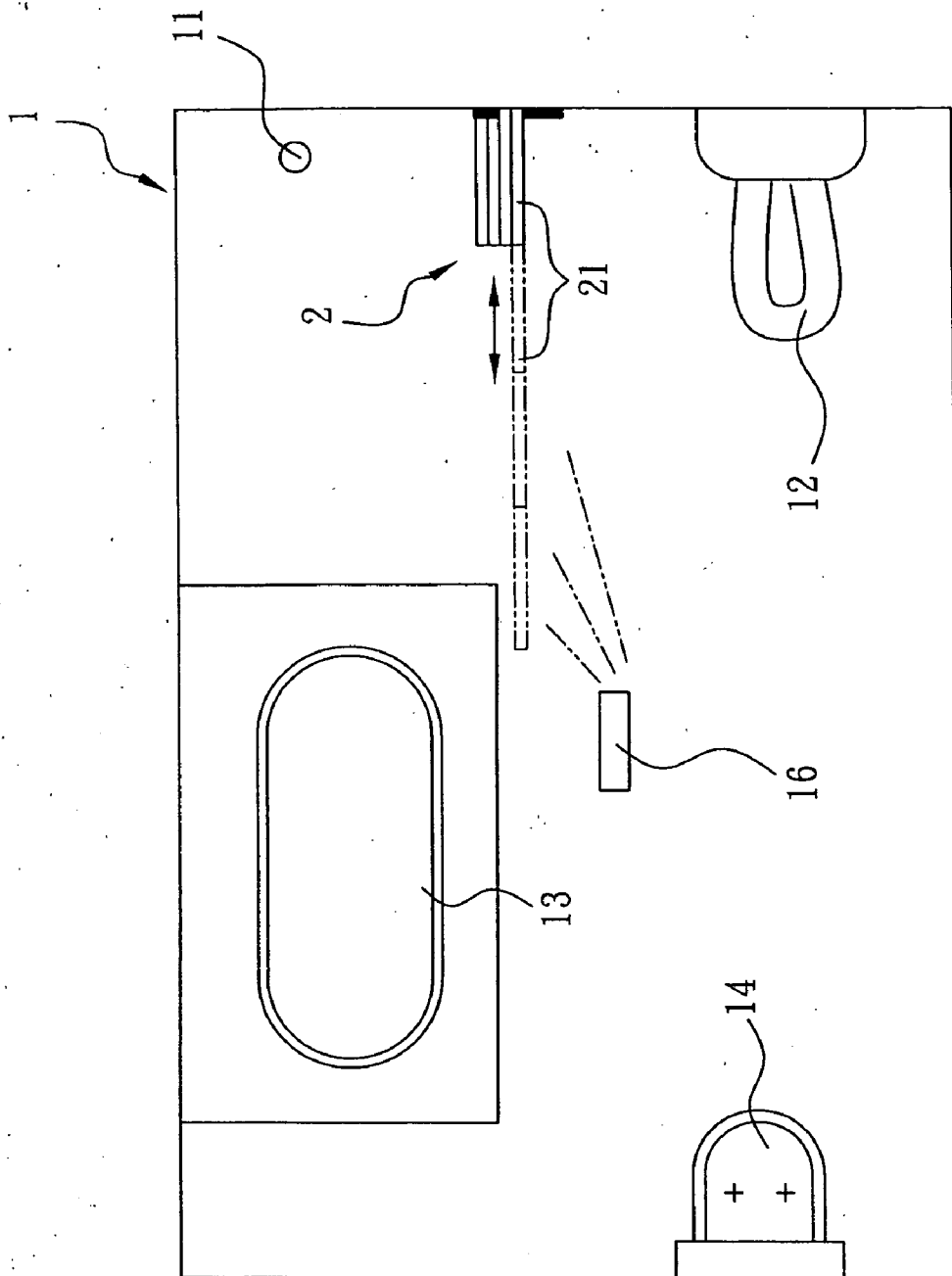


FIG. 5

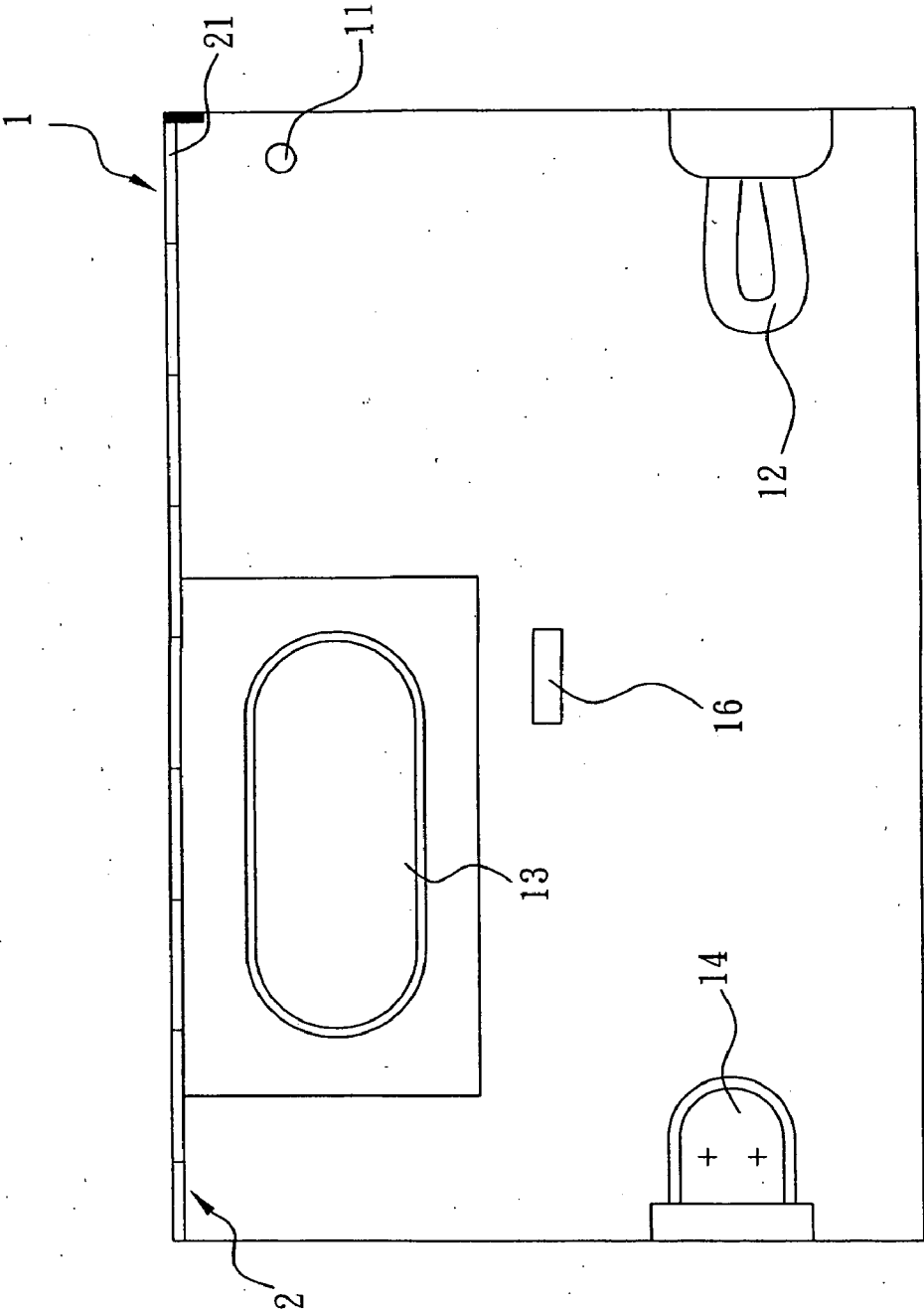


FIG. 6

**PARTITION FOR BATHROOM STALLS**

**FIELD OF THE INVENTION**

[0001] The present invention relates to a partition; more particularly, relates to freely partitioning a bathroom into stalls and obtaining changeable views by using a partition unit.

**DESCRIPTION OF THE RELATED ARTS**

[0002] A general bathroom has a bath unit, a stool unit, a bathtub and a hand-washing basin with no partition in between. So, when somebody is taking a bath in the bath room, the stool unit is available to nobody else. And after the bath, the ground in the bath room is all wet.

[0003] A bath curtain can be used in this case. Yet water is still spattered or leaked. So a separator with a door is invented to hold water from spattering or leaking out. Although water is actually a voided from spattering or leaking out the installation is not easy that a specialist is in need. And the separator is fixed firmly and takes room while it is not easy to change the design of the bathroom.

[0004] Moreover, no matter it is a bath curtain or a separator, it is transparent or just semi-transparent that the bath unit and the stool unit is not in a sense totally separated. So it is not possible that a person utilizes the stool unit and at the same time another person takes a bath in the same bathroom. Hence, the prior arts does not fulfill users' requests on actual use.

**SUMMARY OF THE INVENTION**

[0005] The main purpose of the present invention is to freely partition a bathroom into stalls and obtain changeable views by using a partition unit.

[0006] To achieve the above purpose, the present invention is a partition for bathroom stalls, comprising a room space having a bath unit and a stool unit; and a partition unit movably set between the bath unit and the stool unit, where the partition unit comprises planks and the plank has a glass layer of a polymer dispersed liquid crystal (PDLC) film. Accordingly, a novel partition for bathroom stalls is obtained.

**BRIEF DESCRIPTIONS OF THE DRAWINGS**

[0007] The present invention will be better understood from the following detailed description of the preferred embodiment according to the present invention, taken in conjunction with the accompanying drawings, in which

[0008] FIG. 1 is the side view showing the preferred embodiment according to the present invention;

[0009] FIG. 2 is the top-down view;

[0010] FIG. 3 is the side view showing the first state of use;

[0011] FIG. 4 is the top-down view of the first state of use;

[0012] FIG. 5 is the side view showing the second state of use; and

[0013] FIG. 6 is the side view showing the third state of use.

**DESCRIPTION OF THE PREFERRED EMBODIMENT**

[0014] The following description of the preferred embodiment is provided to understand the features and the structures of the present invention.

[0015] Please refer to FIG. 1 and FIG. 2, which are a side view and a top-down view showing a preferred embodiment

according to the present invention. As shown in the figures, the present invention is a partition for bathroom stalls, comprising a room space 1 and a partition unit 2 where a bathroom is freely partitioned into stalls and has changeable views by using the partition unit 2.

[0016] The room space 1 has a bath unit 11, a stool unit 12, a bathtub unit 13 and a hand-washing basin, where a slideway 15 and an overhead projector 16 are set on a ceiling of the room space 1.

[0017] The partition unit 2 is movably set in the slideway 15 of the room space 1 and is located between the bath unit 11 and the stool unit 12. The partition unit 2 comprises a plurality of planks 21 which are serially connected and are foldable. The plank 21 has a glass layer 211 of a polymer dispersed liquid crystal (PDLC) film. The glass layer 211 has a phase-changing controller 212 which is a wireless remote controller 213 or a wire switch 214. And the partition unit 2 is corresponding to the overhead projector 16 on the ceiling of the room space 1. Thus, a novel partition for bathroom stalls is obtained.

[0018] Please refer to FIG. 3 and FIG. 4 which are a side view and a top-down view showing the first state of use. As shown in the figures, a partition unit 2 is pulled to form a wall of planks 21 along a slideway 15 on a ceiling of a room space 1. Thus, a bath unit 11 and a stool unit 12 in the room space 1 is separated apart by the partition unit 2. Then a remote controller 213 or a switch 214 is used to control a phase-changing controller 212 for changing a phase of the glass layer 211 to make the glass layer 211 become opaque for separating the bath unit 11 and the stool unit. Consequently, wet area and dry area in a bathroom is separated; and, stalls are obtained by freely partitioning the bath room with the partition unit 2.

[0019] An overhead projector 16 on the ceiling of the room space 1 is used to project a scene or an image on the opaque glass layer 211 of the partition unit 2 so that views on the planks 21 is freely changed with the scene or the image on the glass layer 211. And, when a wider area in the room space 1 is required, the planks 21 of the partition unit 2 are folded at a side of the room space 1 to obtain a wider area.

[0020] Please refer to FIG. 5, which is a side view showing a second state of use. As shown in the figure, planks 21a of a partition unit 2a are piled up at a side of a room space 1 to obtain a wider area.

[0021] Please refer to FIG. 6, which is a side view showing a third state of use. As shown in the figure, planks 21b of a partition unit 2b is deposed on at least one wall of a room space 1 to obtain a novel view.

[0022] To sum up, the present invention is a partition for bathroom stalls, where a bathroom is freely partitioned into stalls and has changeable views by using a partition unit.

[0023] The preferred embodiment herein disclosed is not intended to unnecessarily limit the scope of the invention. Therefore, simple modifications or variations belonging to the equivalent of the scope of the claims and the instructions disclosed herein for a patent are all within the scope of the present invention.

What is claimed is:

- 1. A partition for bathroom stalls, comprising
  - a room space, said room space having a bath unit and a stool unit;
  - a partition unit, said partition unit being movably located between said bath unit and said stool-unit, said partition



unit comprising a plurality of planks, said plank having a glass layer of a polymer dispersed liquid crystal (PDLC) film.

2. The partition according to claim 1, wherein a slideway for said partition unit is deposited on a ceiling of said room space.
3. The partition according to claim 1 wherein an overhead projector corresponding to said partition unit is deposited on a ceiling of said room space.
4. The partition according to claim 1, wherein said planks are serially connected; and wherein said planks are foldable.

5. The partition according to claim 4, wherein said planks are piled up.
6. The partition according to claim 4, wherein said partition unit is deposited on at least one wall of said room space.
7. The partition according to claim 1, wherein said glass layer has a phase-changing controller.
8. The partition according to claim 7, wherein said phase-changing controller is a wireless remote controller.
9. The partition according to claim 7, wherein said phase-changing controller is a wire switch.

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