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(19) **United States**(12) **Patent Application Publication**  
**Schimmel et al.**(10) **Pub. No.: US 2007/0294964 A1**(43) **Pub. Date: Dec. 27, 2007**(54) **VARIABLE GROUND PLAN MOBILE  
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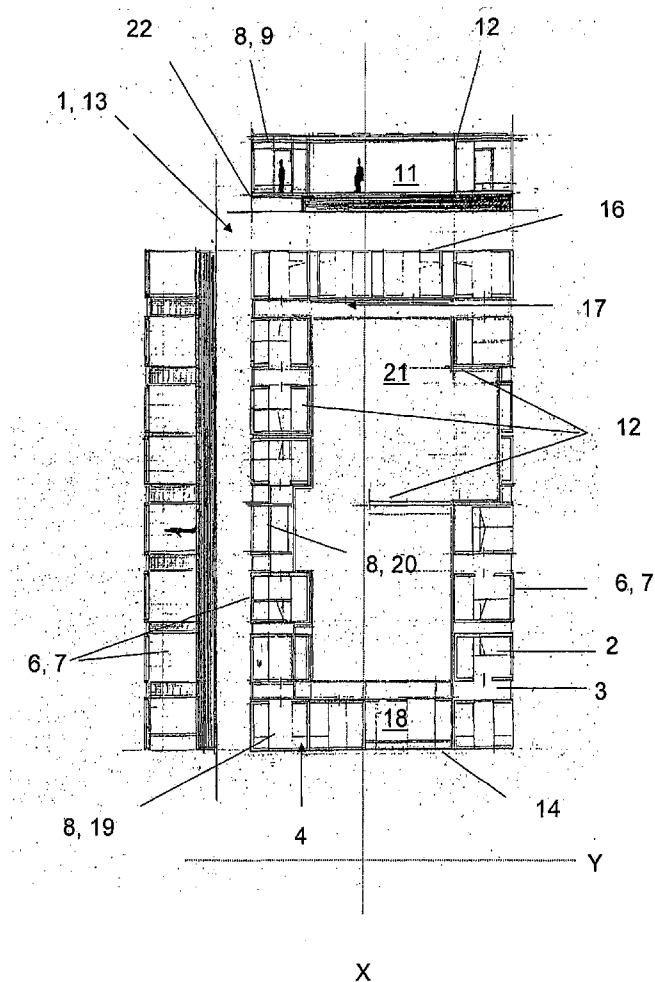
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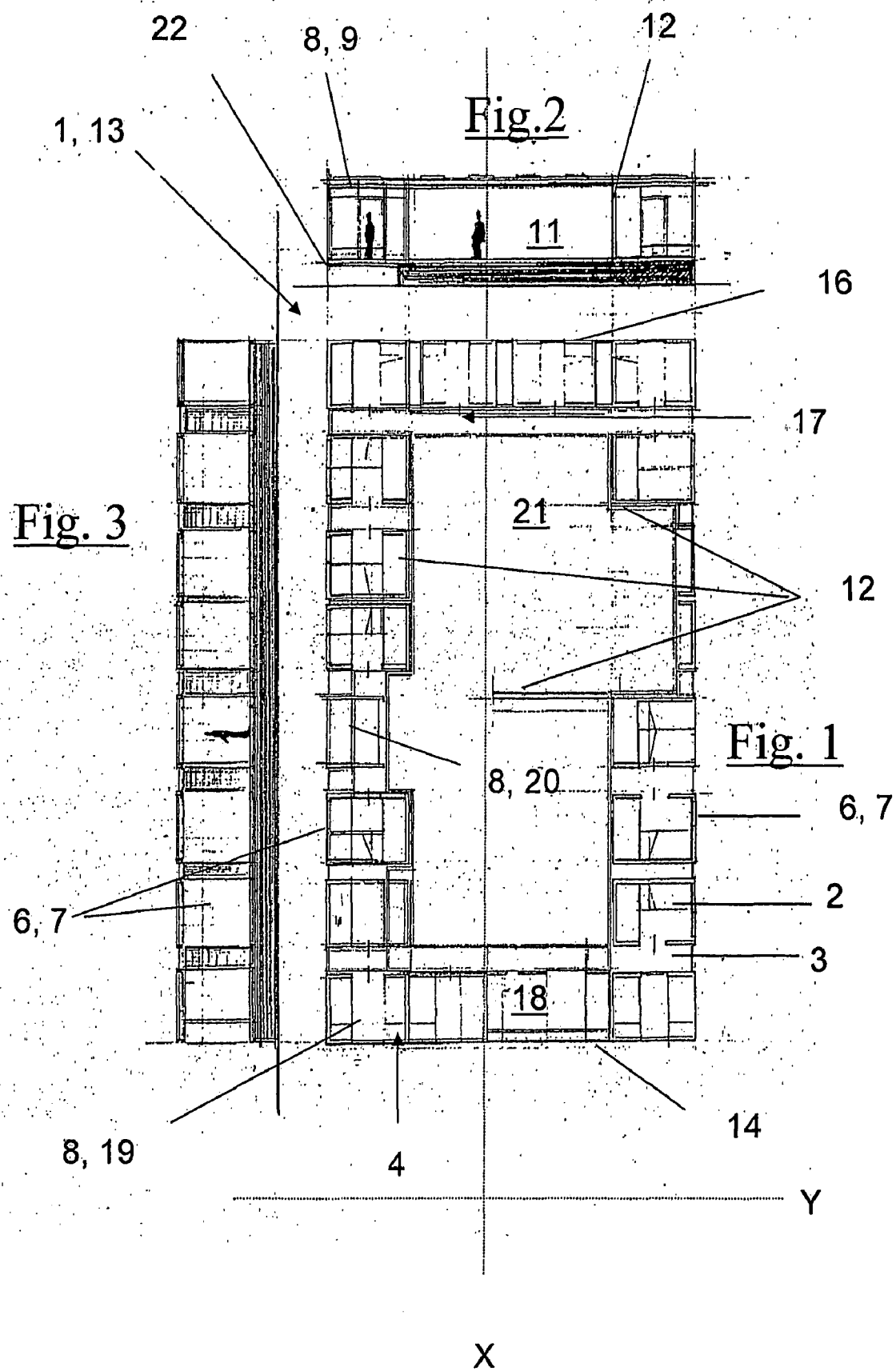
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**E04B 1/348** (2006.01)(52) **U.S. Cl.** ..... **52/143**(57) **ABSTRACT**

A mobile pavilion having containers arranged next to each other when viewed in a longitudinal direction of the pavilion. The individual containers are placed at a certain distance from each other when viewed in the longitudinal direction of the pavilion so that an intermediate space is formed. The containers have spaces at least in opposite end regions thereof, wherein a free space is arranged between the end regions. At least lateral walls delimiting the spaces are mountable at a variable distance with respect to the end surface in the longitudinal direction of the pavilion so that the mobile pavilion forms a variable ground plan transit space.





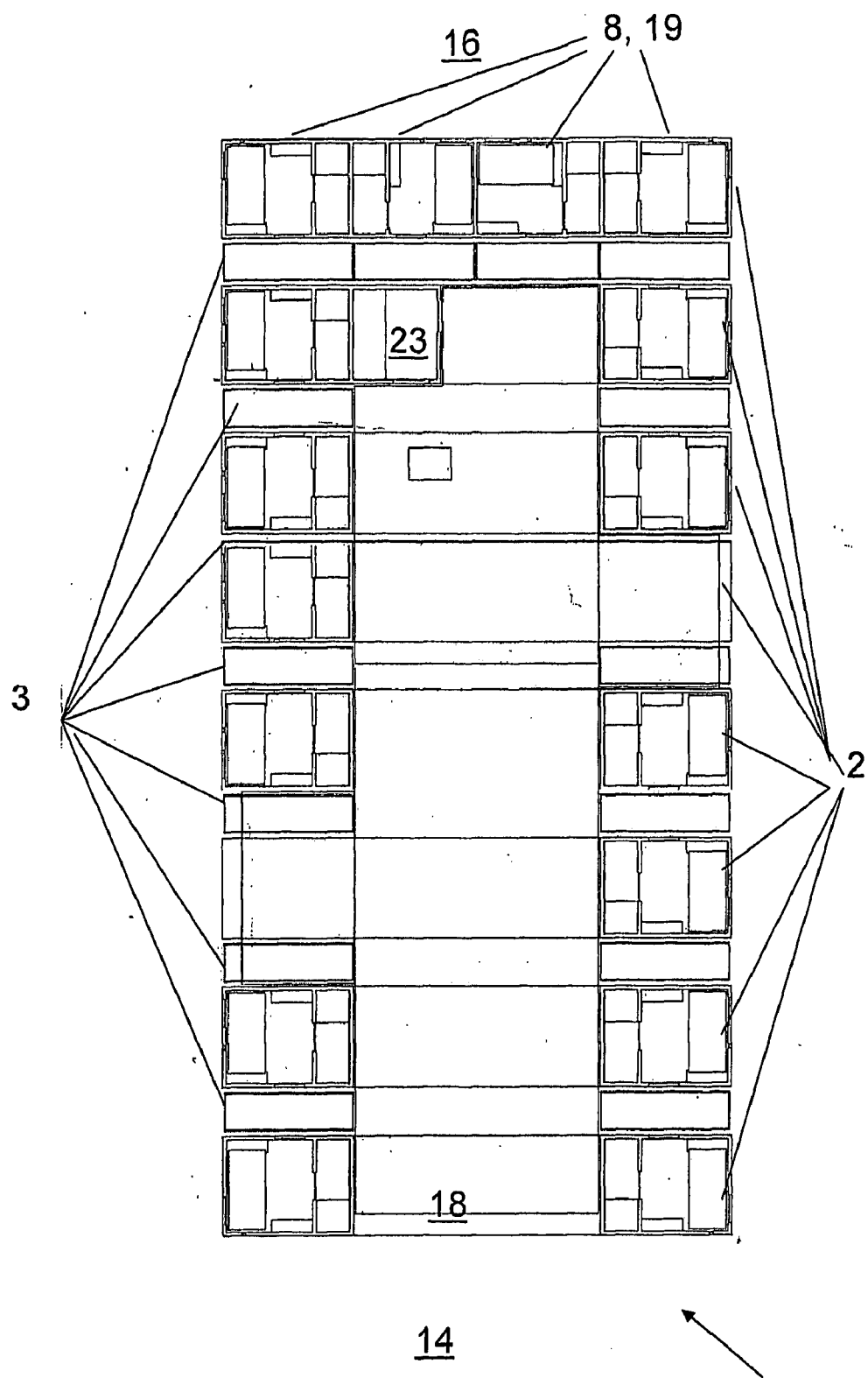


Fig. 4

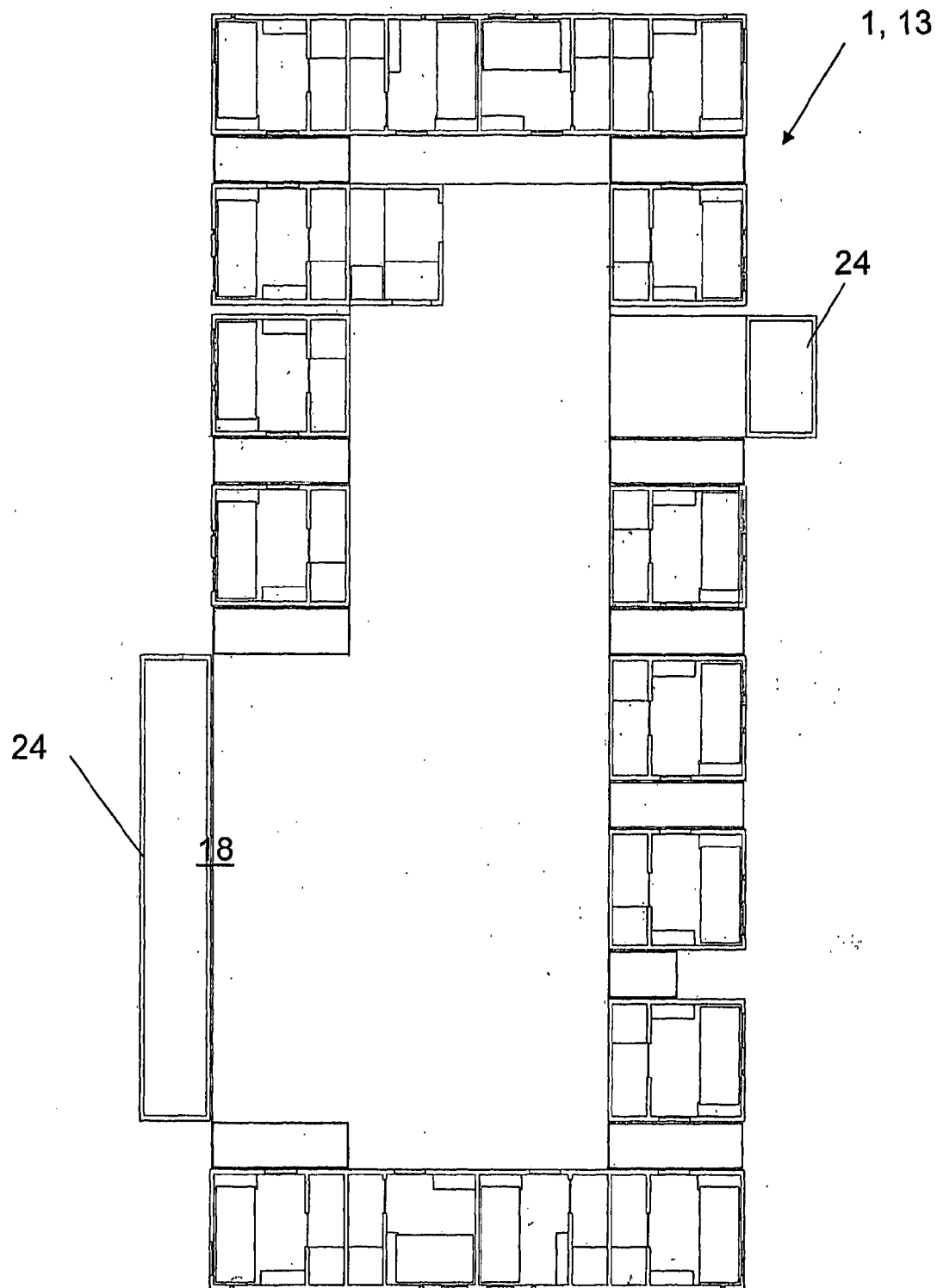


Fig. 5

**VARIABLE GROUND PLAN MOBILE PAVILION****BACKGROUND OF THE INVENTION****[0001] 1. Field of the Invention**

**[0002]** This invention relates to a mobile pavilion with containers arranged next to one another in a longitudinal direction of the pavilion, and the individual containers are spaced apart from one another in the longitudinal direction of the pavilion to form an intermediate space.

**[0003] 2. Discussion of Related Art**

**[0004]** German Utility Model G 87 04 301.7 relates to a construction set for a mobile building having at least two approximately box-shaped containers, each with a floor, a roof, and side walls. When positioned for use, the containers are arranged with open sides facing each other. The containers have a sealing device that detachably bridges a gap between the open sides of the containers. The sealing device has at least one board-shaped profile extending approximately over an entire length of the open side, with a pivoting flap attached in articulating fashion to the at least one longitudinal side of this board-shaped profile. A pivot axis of the pivoting flap extends along one profile edge.

**[0005]** This construction set is intended to effectively seal gaps between adjacent containers forming a mobile building.

**[0006]** German Patent Reference DE G 94 08 284.7 relates to a transportable pavilion having a profile frame that is self-supporting. The profile frame is formed as an open box with a floor assembly, four columns at the corners, and a roof assembly. A hydraulic actuator is integrated into the profile frame, with four hydraulic cylinders respectively situated in four corner columns of the frame. The floor assembly is suitable for transport on vehicles equipped in accordance with DIN 70014, a swap body system.

**[0007]** European Patent Reference EP 0 866 187A1 discloses a mobile building, in particular for display, presentation, or information purposes. The mobile building has transport dimensions permissible for road transport and can be enlarged on site, at least in width and height to utilization dimensions that are a multiple of the transport dimensions and used in a stationary fashion. As a transport unit, the building is equipped with onboard, functionally integrated enlarging components and drive units for the enlarging components. The building has a self-supporting base skeleton with a floor frame at ends of which vertical portal frames are guided by auxiliary portal frames coupled to one another in the longitudinal direction of the building by at least one longitudinal support and which can be lifted in a telescoping fashion by at least one lifting apparatus. At least one longitudinal support is attached to pivoting booms extending approximately perpendicular, which can be pivoted upward around a common longitudinal axis of the building.

**[0008]** A main disadvantage of the known mobile building is that it is only suitable for one intended use.

**SUMMARY OF THE INVENTION**

**[0009]** One object of this invention is to improve a mobile pavilion of the type mentioned above so that it can be used for a wide variety of purposes. In particular, the mobile pavilion should be suitable not only for temporary storage, but also have and include flexibility and mobility.

**[0010]** This object is attained according to this invention with containers having spaces at least in their respective opposite end regions, a free space is situated between the end regions. At least delimiting walls of the spaces can be mounted a variable distance apart from the end surface in the longitudinal direction of the pavilion so that the mobile pavilion forms a transit space with a variable ground plan.

**[0011]** With this invention, it is beneficial if the respective containers are transportable because the containers have running gear that can be switched into a stationary position when the container is in position for use.

**[0012]** To make the intermediate space passable on foot, the intermediate space is suitably embodied so that it can be closed on its floor and roof sides and also at its ends. So that the mobile building can be self-sufficient in relation to its surroundings, the mobile building can have a central utilities connection point that is preferably situated at one end in the longitudinal direction of the pavilion.

**[0013]** According to this invention, the spaces can have stationary walls at the ends in the transverse direction of the pavilion and, toward the open space, the spaces can have walls that can be mounted in mobile fashion. The walls at the ends can also be foldable so that the spaces can be enlarged beyond their end surfaces.

**[0014]** The spaces are accessible from the open space. The spaces suitably have through openings, at least in relation to an adjoining intermediate space. This makes it possible for a user or occupant of the mobile pavilion to enter the space from the open space via the intermediate space.

**[0015]** Preferably, the containers have a length of approximately 13 m in the transverse direction of the pavilion. It is also conceivable, however, for the containers to have a length of approximately 23 m in the transverse direction of the pavilion.

**[0016]** The spaces are advantageously outfitted as rooms with a bed and bath. Each room preferably occupies 25% of the area of the respective container in the transverse direction of the pavilion. The spaces with variable ground plans can, however, also function as rooms equipped with a kitchen or the like. In this instance, it is possible for the mobile wall to be completely detached and for furnishings, such as a bed, a bath, or kitchen fixtures to be completely removed so that the open space is enlarged at least to one end surface of the container.

**[0017]** A number of containers are provided in order to form the transit space. In one embodiment, eight containers are placed with their respective long sides next to one another. In relation to the longitudinal direction of the mobile pavilion, the long sides of the containers form its span in the transverse direction of the pavilion. The short sides of the respective containers together form the respective end surfaces in the longitudinal direction of the pavilion.

**[0018]** Consequently, the open spaces of the containers situated next to one another advantageously form a central hall.

**[0019]** The mobile pavilion can be easily set up and disassembled at any desired location. When disassembled, the respective containers can be easily transported by moving them with suitable towing vehicles. The containers can be transported to the desired set-up location by any transport mode, such as rail or ship. The mobile pavilion can be set up on a floor. It is also conceivable, however, for the mobile pavilion to be attached to a suitable hanging device so that

the mobile pavilion with its assembled containers can be set up at the desired location in suspended and gliding fashion. The mobile pavilion according to this invention should permit researchers and scientists to work on a subject required for their specialty, to exchange ideas with one another, and to present the results to the public. The dialogue with visitors is expressly desired and permits the sharing of impulses, ideas, and wishes. The crucial topic for the research team in this context is communication. The concept of communication is reflected in the pavilion itself because the pavilion makes it possible for the research to be carried out in closer contact with visitors and society. This also includes a nonverbal communication occurring, for example, via aesthetic criteria. This includes, for example, a location change and the accompanying, different relationship of the pavilion to the locations in which it stands, glides, or hangs, as well as the impression of its function, theme, and capacities.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0020] Other advantageous embodiments of this invention are disclosed in the specification and the claims, and in view of the following drawings, wherein:

[0021] FIG. 1 is a top view of a transit space, according to one embodiment of this invention;

[0022] FIG. 2 is a cross-section taken through the transit space from FIG. 1;

[0023] FIG. 3 is a side view of the transit space from FIG. 1;

[0024] FIG. 4 is a top view of a transit space, according to one embodiment of this invention; and

[0025] FIG. 5 is a top view of a third embodiment of a transit space, according to this invention.

#### DETAILED DESCRIPTION OF THE INVENTION

[0026] Parts that remain the same in the different figures have the same reference numerals and thus are only described once.

[0027] FIG. 1 shows a mobile pavilion 1 with containers 2 situated next to one another in a longitudinal direction X-X of the pavilion 1. The individual containers 2 are spaced apart from one another in the longitudinal direction X-X of the pavilion 1, so as to form an intermediate space 3.

[0028] In the embodiment shown, the mobile pavilion 1 comprises eight containers 2. The respective containers 2 are arranged with their long sides 4 next to and spaced apart from each other so that the long sides 4 of the respective containers 2 are oriented in the transverse direction Y-Y of the pavilion 1. The short sides 6 of the containers are oriented in the longitudinal direction of the pavilion 1. The short sides 6 of the containers 2 constitute or form the opposite side surfaces 7. The containers have spaces 8 at least at their respective opposite end surfaces 7. Between end regions 9, there is an open space 11 and at least boundary walls 12 of the spaces 8 can be mounted at variable distances from the side surface 7 in the longitudinal direction X-X of the pavilion 1 so that the mobile pavilion 1 constitutes or forms a transit space 13 with a variable ground plan. In the embodiment shown in FIG. 1, the transit space 13 can be entered from an entrance side 14. The entrance side 14 comprises a long side 4 of a single container 2.

[0029] A central utilities connection point 17 of the container is provided on a utilities connection side 16 opposite from the entrance side 14 in the longitudinal direction X-X. The central utilities connection point 17 permits the mobile pavilion 1 to be self-sufficient in relation to its surroundings.

[0030] The entrance side 14 has an entry region bordered by two boundary walls 12. One of the boundary walls 12 is situated approximately in the center of the container 2 whereas another boundary wall 12 simultaneously delimits a space 8. In the exemplary embodiment shown, the central boundary wall 12 also simultaneously serves as a boundary wall for another space 8.

[0031] The entrance side 14 thus includes the entry region 18 and three spaces 8. The spaces 8 in the entrance side 14 are embodied as rooms 19 equipped with a bed and a bath.

[0032] The container 2 adjacent to the entrance side 14 has two spaces 8. The spaces 8 of the container 2 adjacent to the entrance side 14 are likewise outfitted identically to the room 19.

[0033] Viewed in a continuing sequence in the longitudinal direction X-X of the pavilion 1, the boundary walls 12 can be mounted in a variable fashion. Approximately in the middle of the mobile pavilion 1, therefore, a boundary wall 12 is positioned and offset from an end surface 7, in this case producing a space 8 that can be equipped, for example, as a kitchen 20. In addition, viewed in the transverse direction of the pavilion, a boundary wall 12 is likewise situated approximately in the middle of the pavilion 1 or the transit space 13.

[0034] Between the respective spaces 8 of the respective containers 2 is situated or positioned the open space 11, which in the embodiment of the transit space 13 depicted, constitutes or forms a hall 21 through the containers 2 situated next to one another.

[0035] The intermediate space 3 between the respective adjacent containers 2 can be closed along the floor and ceiling as well as at the ends, making the intermediate space 3 passable on foot. The intermediate space 3 is naturally closed continuously along the floor and the ceiling in the transverse direction of the mobile pavilion 1, which is also useful for accessing the spaces 8 situated at the ends.

[0036] FIG. 2 shows a cross-section taken through the transit space 13 according to this invention. It is clear from FIG. 2 that the transit space 13 comprises containers 2 that are suitable for transport by towing machines. For this reason, an end region of the respective containers is equipped with running gear, which is hidden in the embodiment shown in FIG. 2. In an end region opposite from the end region with the running gear, a floor 22 is spaced apart from the surface on which the container is resting so that a towing machine can easily be maneuvered into place underneath the floor 22. It is thus possible for each individual container 2 to be transported to the desired location by a separate towing machine and for the containers 2 to be set up once again at the desired location, for example according to an embodiment shown in FIG. 1. It is preferable for the floor 22 to be even over the entire area of the pavilion 1.

[0037] In the embodiment shown, the containers 2 have a length of approximately 13 m. In their capacity as rooms 19, each of the spaces 8 in the embodiment shown occupies approximately 25% of the overall area of the container 2, viewed in the transverse direction Y-Y of the pavilion 1.

[0038] The spaces 8 equipped as kitchens 20 can be slightly smaller than the rooms 19.

[0039] FIG. 4 shows a second embodiment of the transit space 13 according to this invention. By contrast with FIG. 1, the entrance side 14 has only one space 8 in each of the end regions. The utilities connection side 16 opposite from the entrance side 14 contains four spaces 8 in the transverse direction in a last container 2 in the longitudinal direction X-X of the pavilion 1. Spaced apart from the last container 2 in the longitudinal direction X-X of the pavilion 1 in the direction toward the entrance side, a separate space element 23 is provided. The separate space element 23 is embodied so that it enlarges the original space 8 that the separate space element 23 adjoins.

[0040] In a third embodiment of the transit space 13, as shown in FIG. 5, the entry region 18 is moved to an end surface 7 of the mobile pavilion 1. In one embodiment, by contrast with other embodiments, the end surface 7 of the respective containers is foldable so that a kind of platform or balcony is embodied in some sections in the longitudinal direction X-X of the pavilion 1. The platform 24 can also be attached to the pavilion 1, extending continuously in the longitudinal direction X-X.

[0041] This produces a transit space 13 with a variable ground plan. The transit space 13 comprises the containers 2 situated next to one another, with respective intermediate spaces 3 that can be closed along the floor and ceiling as well as at the ends.

[0042] The ground plans shown in FIGS. 1 through 5 are not the only embodiments and configurations of the transit space 13. The respective components of the transit space 13 can also be adapted to the respective events for which they will be used and can be freely embodied. The spaces 8 are also not limited to the embodiments described but can likewise be freely embodied.

1. A mobile pavilion with individual containers (2) situated next to each other in a longitudinal direction (X-X) of the pavilion (1) in which the individual containers (2) are spaced apart from one another in the longitudinal direction (X-X) of the pavilion (1) so as to form an intermediate space (3), the mobile pavilion comprising: the containers (2) having spaces (8) at least in opposite end regions; between the end regions (9) an open space (11) being provided; and at least boundary walls (12) of the spaces (8) mountable spaced variably apart from the end surface (7) in the longitudinal direction (X-X) of the pavilion (1) so that the pavilion (1) is mobile and comprises a transit space (13) with a variable ground plan.

2. The mobile pavilion as recited in claim 1, wherein the respective containers (2) are transportable and the containers (2) have running gear that can be switched into a stationary position when the container (2) is in a position for use.

3. The mobile pavilion as recited in claim 2, wherein the intermediate space (3) is closable along a floor and a ceiling as well as at ends, making the intermediate space (3) passable.

4. The mobile pavilion as recited in claim 3, wherein a central utilities connection point (17) is situated at one end in the longitudinal direction (X-X) of the pavilion (1).

5. The mobile pavilion as recited in claim 4, wherein the spaces have fixed walls at the ends in a transverse direction (Y-Y) of the pavilion (1) and the spaces (8) have freely mountable boundary walls (12) on a side oriented toward at least one of the open space (11) and the intermediate space (3).

6. The mobile pavilion as recited in claim 5, wherein the spaces (8) have through openings at least on the side oriented toward an adjacent intermediate space (3).

7. The mobile pavilion as recited in claim 6, wherein the containers (2) have a length of 13 m in the transverse direction (Y-Y) of the pavilion (1).

8. The mobile pavilion as recited in claim 7, wherein the spaces (8) are embodied as rooms (19) equipped with a bed and a bath.

9. The mobile pavilion as recited in claim 8, wherein each of the spaces (8) occupies an area of about 25% of another area of the respective container (2) in the transverse direction of the pavilion (1).

10. The mobile pavilion as recited in claim 7, wherein the spaces (8) are embodied as rooms equipped with a kitchen.

11. The mobile pavilion as recited in claim 10, wherein the containers (2) situated next to one another form a central hall (21) with open spaces (13).

12. The mobile pavilion as recited in claim 1, wherein the intermediate space (3) is closable along a floor and a ceiling as well as at ends, making the intermediate space (3) passable.

13. The mobile pavilion as recited in claim 1, wherein a central utilities connection point (17) is situated at one end in the longitudinal direction (X-X) of the pavilion (1).

14. The mobile pavilion as recited in claim 1, wherein the spaces have fixed walls at the ends in a transverse direction (Y-Y) of the pavilion (1) and the spaces (8) have freely mountable boundary walls (12) on a side oriented toward at least one of the open space (11) and the intermediate space (3).

15. The mobile pavilion as recited in claim 1, wherein the spaces (8) have through openings at least on the side oriented toward an adjacent intermediate space (3).

16. The mobile pavilion as recited in claim 1, wherein the containers (2) have a length of 13 m in a transverse direction (Y-Y) of the pavilion (1).

17. The mobile pavilion as recited in claim 1, wherein the spaces (8) are embodied as rooms (19) equipped with a bed and a bath.

18. The mobile pavilion as recited in claim 1, wherein each of the spaces (8) occupies an area of about 25% of another area of the respective container (2) in a transverse direction of the pavilion (1).

19. The mobile pavilion as recited in claim 1, wherein the spaces (8) are embodied as rooms equipped with a kitchen.

20. The mobile pavilion as recited in claim 1, wherein the containers (2) situated next to one another form a central hall (21) with open spaces (13).

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