shape when viewed from vertically above is used. The block 11 is provided with four holes 18t that are arranged in the longitudinal direction of the block 11 to penetrate vertically. The holes 18t are provided at positions so that a distance between adjacent holes 18t is twice a distance from an end portion to a hole 18t nearest to the end portion, in the longitudinal direction of the block 11, and at positions so that a distance from each hole 18t to one end is equal to a distance from the hole 18t to the other end, in the transverse direction of the block 11. Note that in the present embodiment, each hole 18t is configured so that an opening portion of the hole 18t is provided at the bottom of a recessed portion (not illustrated) provided in the block 11, and a part of the joining member 16 is prevented from protruding vertically upward upon fixing the joining member 16.

[0025] The floating block 12a is a member that is provided vertically below the block 11 to generate buoyancy. As illustrated in FIG. 2(b), the floating block 12a has a box shape having the rectangular shape when viewed from vertically above. Note that similarly to the block 11, the floating block 12a is configured so that one of the orthogonal sides has a length four times the length of the other of the orthogonal sides, when viewed from vertically above, while the floating block 12a has a larger vertical thickness unlike the block 11. Similarly to the block 11, the floating block 12a is also provided with four holes 18a that are arranged in the longitudinal direction of the floating block 12a to penetrate vertically. The holes 18a are provided at positions so that a distance between adjacent holes 18a is twice a distance from an end portion to a hole 18a nearest to the end portion, in the longitudinal direction of the floating block 12a, and at positions so

that a distance from each hole 18a to one end is equal to a distance from the hole 18a to the other end, in the transverse direction of the floating block 12a.

[0026] In the present embodiment, the floating block 12a uses concrete as a material, and therefore the floating block 12a is configured to be hollowed inside to obtain buoyancy. More specifically, each of a top surface positioned vertically above and a bottom surface positioned vertically below is provided with a through-hole to be the hole 18a, four side surfaces are provided between the top surface and the bottom surface in the vertical direction, and the floating block 12a having a box-shaped closed space is formed. Note that FIG. 2(d) is a perspective view illustrating an internal structure of the floating block 12a with the top surface omitted. Therefore, the floating block 12a has a structure in which the structure illustrated in FIG. 2(d) is provided with the top surface which is not illustrated. Furthermore, in the present embodiment, the floating block 12a is provided with three inner walls 13 extending transversely to form four air chambers. In addition, the floating block 12a further includes a pipe 19a connected to each through-hole provided in the top surface and each through-hole provided in the bottom surface. Therefore, a hollow portion of the floating block 12a (the air chambers of the floating block 12a) is formed into a completely closed space, preventing entrance of water into the floating block 12a (the air chambers of the floating block 12a) through the through-holes provided in the top surface and the bottom surface. Furthermore, the pipe 19a also functions as a reinforcing member capable of transmitting part of a load received on the top surface to the bottom surface. This configuration makes it possible for the top surface and the bottom

surface to receive the load applied to the top surface, and therefore, the plate thickness of the top surface can be reduced as compared with a configuration without the pipe 19a, and the floating block 12a can be reduced in weight. Note that the floating block 12a may be constituted by horizontally connecting four box bodies having substantially the same size and structure.

[0027] Furthermore, the floating block 12b is a member that is provided vertically below the block 11 to generate buoyancy. As illustrated in FIG. 2(c), the floating block 12b has a box shape having the rectangular shape when viewed from vertically above. Note that the floating block 12b is configured so that one of the orthogonal sides has a length twice the length of the other of the orthogonal sides, when viewed from vertically above, and the floating block 12b has a vertical thickness equal to the thickness of the floating block 12a. The floating block 12b is provided with two holes 18b that are arranged in the longitudinal direction of the floating block 12b to penetrate vertically. The holes 18b are provided at positions so that a distance between the holes 18b is twice a distance from an end portion to a hole 18b nearest to the end portion, in the longitudinal direction of the floating block 12b, and at positions so that a distance from each hole 18b to one end is equal to a distance from the hole 18b to the other end, in the transverse direction of the floating block 12b.

[0028] In the present embodiment, the floating block 12b uses concrete as a material, and therefore the floating block 12b is configured to be hollowed inside to obtain buoyancy. More specifically, each of a top surface positioned vertically above and a bottom surface positioned vertically below is provided with a through-hole to be the

hole 18, four side surfaces are provided between the top surface and the bottom surface in the vertical direction, and the floating block 12b having a box-shaped closed space is formed. Note that FIG. 2(e) is a perspective view illustrating an internal structure of the floating block 12b with the top surface omitted. Therefore, the floating block 12b has a structure in which the structure illustrated in FIG. 2(e) is provided with the top surface which is not illustrated. Furthermore, in the present embodiment, the floating block 12b is provided with one inner wall 13 extending transversely to form two air chambers. The floating block 12b further includes a pipe 19b connected to each through-hole provided in the top surface and each through-hole provided in the bottom surface. Therefore, a hollow portion of the floating block 12b (the air chambers of the floating block 12b) is formed into a completely closed space, preventing entrance of water into the floating block 12b (the air chambers of the floating block 12b) through the through-holes provided in the top surface and the bottom surface. The pipe 19b also functions as a reinforcing member capable of transmitting part of a load received on the top surface to the bottom surface. This configuration makes it possible for the top surface and the bottom surface to receive the load applied to the top surface, and therefore, the plate thickness of the top surface can be reduced as compared with a configuration without the pipe 19b, and the floating block 12b can be reduced in weight. Note that the floating block 12b may be constituted by horizontally connecting two box bodies having substantially the same size and structure.

[0029] Note that each of the floating blocks 12a and 12b according to the present embodiment have the hollow portion. Injecting ballast such as water into the hollow

make portions where sides extending transversely are opposed separate in a direction orthogonal to the one direction, when viewed from vertically above. In this configuration, as the finishing member constituting the vertically upper surface of the floating structure 10, a block having an aspect ratio of 1 : 2, in addition to the block 11 having an aspect ratio of 1 : 4, when viewed from vertically above is preferably used to form the first layer similarly to the third and subsequent odd layers. The block having an aspect ratio of 1 : 2 also includes a concrete flat plate, and is provided with two holes that are arranged in the longitudinal direction of the block to penetrate vertically. The holes are provided at positions so that a distance between the holes is twice a distance from an end portion to a hole nearest to the end portion, in the longitudinal direction of the block, and at positions so that a distance from each hole to one end is equal to a distance from the hole to the other end, in the transverse direction of the block.

[0034] Note that, this configuration uses the blocks 11 and the floating blocks 12b having an aspect ratio of 1 : 4 and the finishing blocks and the floating blocks 12a having an aspect ratio of 1 : 2, all of which have the same transverse length. Therefore, in each layer, the number of the blocks 11 and the like or the floating blocks 12a and 12b arranged along the sides thereof extending transversely, that is, the number of rows is preferably an even, that is, a multiple of 2.

[0035] <Modifications>

In the above embodiments, the block 11 including the concrete flat plate has been used as the finishing member forming a vertically upper surface layer of the floating structure 10, but the present invention is not limited to

[0043] In addition, in the above embodiments, an impermeable material as a material constituting the floating blocks 12a and 12b is used to prevent entrance of water into the floating blocks 12a and 12b and generate buoyancy. However, the present invention is not limited to this configuration. The floating blocks 12a and 12b may be configured not to have the hollow portion inside the floating blocks 12a and 12b as long as the buoyancy can be maintained. Therefore, for example, instead of providing the hollow portions inside the floating blocks 12a and 12b, a structure internally including foamed plastic (expanded polystyrene) may be adopted. In this configuration, the problem of entry of water into the floating blocks 12a and 12b does not caused, and thus, a permeable material can be adapted, the pipes 19a and 19b each connected to the through-hole provided in the top surface and the through-hole provided in the bottom surface are not required to be provided, and further, when concrete or the like is used as the material of the floating blocks 12a and 12b, the foamed plastic itself functions as the mold, facilitating formation of the floating blocks 12a and 12b.

[0044] In addition, in the present embodiment, the joining member 16 is configured to be fixed to the block 11 with the bolts or the like inserted into the holes 30 provided at the four corners of the movement restriction portion 26, but the present invention is not limited to this configuration. For example, as illustrated in FIG. 5, the joining member 16 may be configured to include the movement restriction portion 26 having the plate shape, at one end of the inserted portion 28 extending in the vertical direction, similarly to the above embodiment, and further a hook portion 32 that engages with the block when inserted into the block, at the other end portion of the

of the container to mount the container to the support portion 50a. After the container is mounted to the support portion 50a, the lever 50d is operated to rotate the retaining portion 50c by 90°. Therefore, fixing the container by the fastening device 50 is completed. Providing the fastening device 50 at the movement restriction portion 26 of the joining member 16 in this way, the loaded object T such as the container is allowed to be readily fixed to the floating structure 10.

[0050] In a state where the container is fixed with the fastening device 50, the protrusion 50b penetrates the elongated hole of the container, thus, making it possible to restrict horizontal movement of the container and rotation of the container about the vertical axis. A longitudinal length of the retaining portion 50c is longer than a transverse length of an elongated hole portion of the container. Therefore, the rotation of the retaining portion 50c makes it possible to prevent removal of the elongated hole portion of the container from the protrusion 50b at the retaining portion 50c and further restrict vertical movement of the container. Note that in this configuration, the joining member 16 can be provided with the retaining configuration for the floating blocks 12a and 12b and the block 11 to further stabilize the container.

[0051] Furthermore, in the above embodiment, an example of the floating structure 10 on which the container is mounted as the loaded object T (mounted object) has been described (FIG. 1(a)), but a plurality of containers T1 may be mounted as the loaded objects T as illustrated in FIG. 7(a). Furthermore, the floating structure 10 of the present invention is used to, but is not limited to, mount the container. For example, a solar panel T2 may be mounted on the floating structure 10 (FIG. 7(b)), a