CLAIMS

1. A caisson block construction method, the method comprising:

manufacturing a plurality of bottom caisson blocks having a plurality of first unit compartments disposed consecutively in a horizontal direction, each of the first unit compartments being classified into a first unit compartment for rubble and having an open upper part and a closed lower part and a first unit compartment for concrete, wherein an upper part of the first unit compartment for concrete is open;

manufacturing a plurality of upper caisson blocks having a plurality of second unit compartments, each of the second unit compartments being disposed consecutively in the horizontal direction and having open upper and open lower parts;

forming a bottom caisson block structure by installing the plurality of bottom caisson blocks side by side in the horizontal direction;

installing the plurality of upper caisson blocks above the installed bottom caisson blocks, by installing the upper caisson blocks such that each of the upper caisson blocks is horizontally offset from the bottom caisson block or the upper caisson block which is installed below the upper caisson block to be installed, and each of the second unit compartments of the upper caisson block is disposed directly above the first unit compartment of the bottom caisson block or the second unit compartment of the upper caisson block which is installed below the upper caisson block to be installed;

filling with rubble the second unit compartment of the

upper caisson block positioned above the first unit compartment for rubble and exposed upward, so that the rubble fills vertically from the first unit compartment for rubble to the second unit compartment of the upper caisson block exposed upward, after the upper caisson blocks are installed;

inserting a vertical reinforcing bar module after the upper caisson blocks are installed, by inserting the vertical reinforcing bar module being which is formed vertically and covered by a waterproof membrane on lower and side parts thereof into the upper part of the second unit compartment of the upper caisson block, which is positioned above the first unit compartment for concrete and exposed upward, so that the vertical reinforcing bar module is positioned inside the first unit compartment for concrete and at least one second unit compartment disposed consecutively; and

forming a vertical concrete column for joining by casting concrete into the upper part of the second unit compartment in which the vertical reinforcing bar module is inserted, so that the vertical concrete column for joining is formed consecutively along the first unit compartment for concrete and at least one second unit compartment disposed consecutively.

2. The method of claim 1, wherein the first unit compartment for concrete of the bottom caisson block has an open lower part.

3. The method of claim 1, wherein the installing the upper caisson blocks further comprises:

preparing an installation guide member, the installation guide member including an installation guide pole provided with a guide body having a cross-sectional shape corresponding to the second unit compartment and extended in the vertical

direction, a cap formed on an upper part of the guide body and having a stopping step protruding from a rim of the cap, and an insertion guide part formed on a lower part and having a cross-sectional area decreasing gradually along a downward direction;

after the installation guide pole is inserted in the second unit compartment of the upper caisson block subject to be installed and the upper caisson block subject to be installed is lifted, placing the upper caisson block subject to be installed on the bottom caisson block or the upper caisson block which is installed below the upper caisson block subject to be installed, by inserting the insertion guide part of the installation guide pole into the first unit compartment of the bottom caisson block or the second unit compartment of the upper caisson block which is installed below the upper caisson block subject to be installed, so that the second unit compartment of the upper caisson block subject to be installed is positioned directly above the first unit compartment of the bottom caisson block or the second unit compartment of the upper caisson block which is installed below the upper caisson block subject to be installed, with being guided by the installation guide pole; and

after the upper caisson block subject to be installed is placed, separating and recovering the installation guide member from the upper caisson block subject to be installed,

wherein the placing the upper caisson block and the separating and recovering the installation guide member are repeated a plurality of times.

4. The method of claim 3,

wherein the installation guide member includes a plurality of installation guide poles and a horizontal spacer from which the plurality of installation guide poles are

suspended while maintaining horizontal spacing therebetween, and

a center-to-center length of the first unit compartments for concrete adjacent to each other in the bottom caisson block is twice a length from a side surface of the bottom caisson block to a center of the first unit compartment for concrete horizontally adjacent to the side surface of the bottom caisson block.