CLAIMS

What is claimed is:

1. A device for one or more toy blocks (1), the device comprising a plurality of main unit bodies (1) each having a same structure, a same shape and a same volume, wherein: each of the plurality of main unit bodies (1) is a tetradecahedron having six square surfaces (8) and eight regular hexagon surfaces (9), the six square surfaces (8) are averagely divided into three groups,two square surfaces (8) in a group of the three groups are parallel, the eight regular hexagon surfaces (9) are averagely divided into four groups, two regular hexagon surfaces (9) in a group of the four groups are parallel, more than two main unit bodies (1) are mutually spliced or fixedly connected to constitute a group, or a combination thereof, a column head (3) is located on at least one of square surfaces (8) on each of main unit bodies, a slot (2) is located on another square surface (8) which is located on the same axis as the column head (3), column heads of each of two main unit bodies are mutually coordinated with the slot (2), or the column heads (3) of each of two groups of main unit bodies (1) are mutually coordinated with the slot (2), and a component comprising two or more main unit bodies (1) in the same group through connection and fixation is a combined body, and wherein the column head (3) comprises a square column (18), a frustum (19) and a cylinder (20) through connection, the square column (18) is vertically connected with the square surface (8), the square column (18) is connected with the cylinder (20) through the frustum (19), the side length of the square column (18) is greater than the diameter of the cylinder (20); small particle double-row four combined body (21) are installed in the periphery of the frustum (19), the small-particle double-row four-combined body (21) comprises four small main unit bodies which are connected in two lines and two rows, the small main unit bodies

have the same shape and structure as those of the main unit bodies (1), and the dimension of the small main unit bodies is one-half of that of the main unit bodies (1), and a square hole (10) enclosed by four main unit bodies are coordinated with the frustum (19), and the diameter of the cylinder (20) is equal to the diameter of the column head of the small unit bodies.

2. The device of claim 1, wherein more than four main unit bodies (1) of the plurality of main unit bodies (1) are connected into a group, a locating slot (6) is enclosed by a central portion where every four main unit bodies (1) of the plurality of main unit bodies are mutually connected, a square hole (10) is located in a center of the locating slot (6), and the square hole (10) is coordinated with any square surface (8) of a main unit body of the plurality of main unit bodies (1) such that the device extends along a horizontal or longitudinal direction.

3. The device of claim 2, wherein one or more first main unit bodies (1) of the plurality of main unit bodies (1) are locked and coordinated with one or more second main unit bodies of the plurality of main unit bodies (1) through one or more third main unit bodies of the plurality of main unit bodies(1), the one or more first main unit bodies are coordinated with a locating slot (6) of the one or more second main unit bodies (1) , a direction of column heads (3) of the one or more first main unit bodies (1) is vertical to or parallel with a direction of the column heads (3) of the one or more second main unit bodies (1), and the one or more third main unit bodies (1) is spliced and coordinated with a slot (2) through column heads (3) so that the one or more second main unit bodies (1) and the one or more third main unit bodies (1) are respectively coordinated with the one or more first main unit bodies (1) to lock the one or more first main unit bodies (1) .

4. The device of claim 3, wherein one or more fourth main unit bodies of the plurality of main unit bodies (1) are spliced and coordinated with a slot (2) through column heads (3), the one or more fourth main unit bodies (1) and one or more third main unit bodies (1) are respectively positioned on both sides of the one or more first main unit bodies (1), and the one or more third main unit bodies (1), the one or more fourth main unit bodies (1) and the one or more second main unit bodies (1) are jointly coordinated with the one or more first main unit bodies(1) to lock the one or more first main unit bodies (1).

5. The device of claim 4, wherein both the first one or more main unit bodies (1) and the second one or more main unit bodies (1) are double-row six-combined bodies comprising six main unit bodies (1), the third one or more main unit bodies (1) are single-row two-combined body comprising two main unit bodies (1), two main unit bodies (1) in the first one or more main unit body (1) are coordinated with two locating slots (6) of the second one or more main unit bodies (1), the third one or more main unit bodies (1) are spliced and coordinated with the second one or more main unit bodies, the second one or more main unit bodies and the third one or more main unit bodies(1) lock the first one or more main unit bodies (1), and a direction of column heads (3) of the first one or more main unit bodies (1) is vertical to a direction of column heads(3) of the second one or more main unit bodies(1).

6. The device as in any one of claims 1 to 4, wherein a distance between square surfaces (8) in a same group of main unit bodies (1) of the plurality of main unit bodies is about 8 millimeter (mm), 16 mm, 24 mm or 32 mm.

7. The device as in any one of claims 1 to 4, wherein an accessory column head (7) is provided on the main unit bodies (1) the plurality of main unit bodies, and the square surface (8) where the accessory column head (7) is positioned is vertical to the square surface (8) where the column heads (3) are positioned.

8. The device as in any one of claims 1 to 4, wherein the slot (2) is a gradual shrinkage hole with wider outside and narrower inside.

9. A device for one or more toy blocks (1), the device comprising a plurality of main unit bodies (1) each having a same structure, a same shape and a same volume, wherein each of the plurality of main unit bodies (1) is a tetradecahedron having six square surfaces (8) and eight regular hexagon surfaces (9), the six square surfaces (8) are averagely divided into three groups, two square surfaces (8) in a group of the three groups are parallel, the eight regular hexagon surfaces (9) are averagely divided into four groups, two regular hexagon surfaces (9) in a group of the four groups are parallel, more than two main unit bodies (1) are mutually spliced or fixedly connected to constitute a group, or a combination thereof, a column head (3) is located on at least one of square surfaces (8) on each of main unit bodies, a slot (2) is located on another square surface (8) which is located on the same axis as the column head (3), column heads of each of two main unit bodies are mutually coordinated with the slot (2), or the column heads (2) of each of two groups of main unit bodies (1) are mutually coordinated with the slot (2), and a component comprising two or more main unit bodies (1) in the same group through connection and fixation is a combined body, and wherein a connecting shaft (14) is located on one side of the main unit bodies (1), the axial line of the connecting shaft (14) is vertical to the axial line of the column head (3), a

sphere (15) is provided on one side of the connecting shaft (14), a jack (16)is provided on the sphere(15), both the jack (6) and the slot (2) are arranged on a same side,the spool of the connecting shaft (14) respectively passes through the center of the sphere (15) and the center of the main unit bodies (1), and the connecting shaft (14), the sphere (15) and the main unit bodies (1) are mutually connected to constitute a shaft (17), a diameter of the sphere (15) is less than or equal to the inscribed circle diameter of the main unit bodies (1).

10. The device of claim 9, wherein at least two spheres (15) and two main unit bodies (1) of the plurality of main unit bodies are located on the shaft (17), adjacent two spheres (15) are connected through a connecting shaft (14), two adjacent main unit bodies(1) are connected through the corresponding square surface (8), the spheres (15) and main unit bodies (1) on a same shaft (17) have collinear center; at least two combined bodies are mounted on the shaft (17), and at least two combined bodies are connected and fixed into a complex, and a square hole (10) formed between two combined bodies is coordinated with the connecting shaft (14) between two spheres (15) such that the complex rotates with the shaft (17) as axis while stop sliding along the length direction of the shaft (17).

11. A method for locking and connecting the device of claim 1, the method comprising: locking and connecting a third double-row four-combined body (26) and an other combined body by: coordinating a locating slot (6) of the third double-row four-combined body (26) with one main unit body of the plurality of main unit bodies (1) on the other combined body, respectively coordinating and connecting a second single-row two-combined body (24) and a third single-row two-combined body (25) with the third double-row

four-combined body (26) through column heads and slots, wherein the second single-row two-combined body(24) and the third single-row two-combined body (25) are arranged side by side on both sides of the second combined body, and the second single-row two-combined body (24), the third single-row two-combined body (25) and the third double-row four-combined body (26) seize the second combined body, and installing the first single-row two-combined body (22) on the second single-row two-combined body (24)and the third single-row two-combined body (25), where the first single-row two-combined body (22) are respectively spliced with the main unit bodies on the same side of the second single-row two-combined body (24) and the third single-row two-combined body (25).