Claims

What is claimed is:

1. A handle adjustment mechanism (30), characterized in that the handle adjustment mechanism (30) comprises:

at least one stand (32) installed on a frame (10) of a child crib (100), a positioning structure (33) being on the at least one stand (32); and

an engaging structure (31) coupled to a handle (20) of the child crib (100) and configured to engage with or disengage from the positioning structure (33) for adjusting a position of the handle (20) relative to the at least one stand (32) to position the handle (20) at different heights along the at least one stand (32),

wherein the engaging structure (31) is engaged with the positioning structure (33) by a cooperation between a protrusion and a recess structure,

wherein the engaging structure (31) comprises the recess structure, and the positioning structure (33) comprises the protrusion,

wherein the positioning structure (33) comprises an upper rib (331), the protrusion extends from a bottom portion of the upper rib (331), and the recess structure is a notch (352) on the engaging structure (31),

wherein the engaging structure (31) comprises at least one interlocking component (36) and at least one movable component (37), a first end of the at least one interlocking component (36) is configured to engage with the positioning structure (33), a second end of the at least one interlocking component (36) is connected to the at least one movable component (37), and the at least one movable component (37) is moved to drive the at least one interlocking component (36) to engage with the positioning structure (33).

2. The handle adjustment mechanism (30) of claim 1, characterized in that the engaging structure (31) comprises at least one connecting base (35) disposed on at least one end of the handle (20), the notch (352) is on the at least one connecting base (35), and the at least one connecting base (35) is disposed on the at least one stand (32) in a height-adjustable manner.

3. The handle adjustment mechanism (30) of claim 1, characterized in that the at least one interlocking component (36) is slidable between a first position and a second position, the at least one interlocking component (36) engages with the positioning structure (33) when the at least one interlocking component (36) is located at the first position, and the at least one interlocking component (36) disengages from the positioning structure (33) when the at least one interlocking component (36) is located at the second position.

4. The handle adjustment mechanism (30) of claim 3, characterized in that the handle adjustment mechanism (30) further comprises a resilient component (39) for driving the at least one interlocking component (36) to slide to the first position.

5. The handle adjustment mechanism (30) of claim 3, characterized in that a hole (361) is on the at least one interlocking component (36), and the handle adjustment mechanism (30) further comprises at least one pin slidably disposed in the hole (361).

6. The handle adjustment mechanism (30) of claim 1, characterized in that an inclined surface (363) and a limiting portion are on the first end of the at least one interlocking component (36), the inclined surface (363) is configured to cooperate with the positioning structure (33) to drive the at least one interlocking component (36), and the limiting portion (364) is configured to restrict movement of the at least one interlocking component (36).

7. The handle adjustment mechanism (30) of claim 6, characterized in that the inclined surface (363) is inclined upwardly.

8. The handle adjustment mechanism (30) of claim 1, characterized in that the engaging structure (31) further comprises at least one operator (38) for driving the at least one movable component (37) when the at least one operator (38) is operated.

9. The handle adjustment mechanism (30) of claim 8, characterized in that the handle adjustment mechanism (30) further comprises a base (34) on the handle (20), the at least one operator (38) is disposed on the base (34).

10. The handle adjustment mechanism (30) of claim 9, characterized in that the base (34) comprises at least one guiding slot (341) extending horizontally, the at least one operator (38) comprises at least one driving slot (381), a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is disposed inside the at least one driving slot (381) and the at least one guiding slot (341), and the second end of the at least one movable component (37) is moved horizontally and inwardly by a cooperation between the second end of the at least one movable component (37), the at least one driving slot (381), and the at least one guiding slot (341) when the at least one operator (38) slides.

11. The handle adjustment mechanism (30) of claim 9, characterized in that the handle (20) comprises at least one guiding slot (341) extending horizontally, the at least one operator (38) comprises at least one driving slot (381), a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is disposed inside the at least one driving slot (381) and the at least one guiding slot (341), and the second end of the at least one movable component (37) is moved horizontally and inwardly by a cooperation between the second end of the at least one movable component (37), the at least one driving slot (381) and the at least one guiding slot (341) when the at least one operator (38) rotates.

12. The handle adjustment mechanism (30) of claim 8, characterized in that the handle adjustment mechanism (30) further comprises a base (34) and at least one slider (50), the base (34) is on the handle (20), the at least one slider (50) is disposed on the base (34), the at least one operator (38) is rotatably disposed on the base (34) for driving the at least one slider (50) to slide, a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is connected to the at least one slider (50), and the at least one operator (38) rotates to drive the at least one slider (50) to slide for driving the second end of the at least one movable component (37) to move inwardly.

13. The handle adjustment mechanism (30) of claim 8, characterized in that the handle adjustment mechanism (30) further comprises a base (34) and at least one gear (60), the base (34) is on the handle (20), the at least one gear (60) is disposed on the base (34), the at least one operator (38) is disposed on the base (34) for driving the at least one gear (60) to rotate, the at least one gear (60) comprises a connector (62), a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is coupled to the connector (62), and the at least one operator (38) is operated to drive the at least one gear (60) to rotate for driving the second end of the at least one movable component (37) to move inwardly.

14. The handle adjustment mechanism (30) of claim 13, characterized in that the at least one gear (60) comprise two gears (60) meshed with each other.

15. A child crib (100) comprising:
a frame (10);
a handle (20); and

a handle adjustment mechanism (30) for installing the handle (20) on the frame (10) in a height-adjustable manner, the handle adjustment mechanism (30) comprising:

at least one stand (32) installed on the frame (10), a positioning structure (33) being on the at least one stand (32); and

an engaging structure (31) coupled to the handle (20) and configured to engage with or disengage from the positioning structure (33) for adjusting a position of the handle (20) relative to the at least one stand (32) to position the handle (20) at different heights along the at least one stand (32),

wherein the engaging structure (31) comprises a recess structure, the positioning structure (33) comprises a protrusion, and the engaging structure (31) is engaged with the positioning structure (33) by a cooperation between the protrusion and the recess structure,

wherein the positioning structure (33) comprises an upper rib (331), the protrusion extends from a bottom portion of the upper rib (331), and the recess structure is a notch on the engaging structure (31),

wherein the engaging structure (31) comprises at least one interlocking component (36) and at least one movable component (37), a first end of the at least one interlocking component (36) is configured to engage with the positioning structure (33), a second end of the at least one interlocking component (36) is connected to the at least one movable component (37), and the at least one movable component (37) is moved to drive the at least one interlocking component (36) to engage with the positioning structure (33).

16. The child crib (100) of claim 15, characterized in that, the engaging structure (31) comprises at least one connecting base (35) disposed on at least one end of the handle (20), the notch is on the at least one connecting base (35), and the at least one connecting base (35) is disposed on the at least one stand (32) in a height-adjustable manner.

17. The child crib (100) of claim 15, characterized in that the at least one interlocking component (36) is slidable between a first position and a second position, the at least one interlocking component (36) engages with the positioning structure (33) when the at least one interlocking component (36) is located at the first position, and the at least one interlocking component (36) disengages from the positioning structure (33) when the at least one interlocking component (36) is located at the second position.

18. The child crib (100) of claim 17, characterized in that a hole (361) is on the at least one interlocking component (36), and the handle adjustment mechanism (30) further comprises at least one pin slidably disposed in the hole (361).

19. The child crib (100) of claim 15, characterized in that an inclined surface (363) and a limiting portion (364) are on the first end of the at least one interlocking component (36), the inclined surface (363) is inclined upwardly and configured to cooperate with the positioning structure (33) to drive the at least one interlocking component (36), and the limiting portion (364) is configured to restrict movement of the at least one interlocking component (36).

20. The child crib (100) of claim 15, characterized in that the engaging structure (31) further comprises at least one operator (38) for driving the at least one movable component (37) when the at least one operator (38) is operated.

21. The child crib (100) of claim 15, characterized in that the handle adjustment mechanism (30) further comprises a base (34) on the handle (20), the at least one operator (38) is disposed on the base (34).

22. The child crib (100) of claim 21, characterized in that the base (34) comprises at least one guiding slot (341) extending horizontally, the at least one operator (38) comprises at least one driving slot (381), a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is disposed inside the at least one driving slot (381 ) and the at least one guiding slot (341 ), and the second end of the at least one movable component (37) is moved horizontally and inwardly by a cooperation between the second end of the at least one movable component (37), the at least one driving slot (381) and the at least one guiding slot (341) when the at least one operator (38) slides.

23. The child crib (100) of claim 21, characterized in that the handle (20) comprises at least one guiding slot (341) extending horizontally, the at least one operator (38) comprises at least one driving slot (381), a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is disposed inside the at least one driving slot (381 ) and the at least one guiding slot (341 ), and the second end of the at least one movable component (37) is moved horizontally and inwardly by a cooperation between the second end of the at least one movable component (37), the at least one driving slot (381) and the at least one guiding slot (341 ) when the at least one operator (38) rotates.

24. The child crib (100) of claim 20, characterized in that the handle adjustment mechanism (30) further comprises a base (34) and at least one slider (50), the base (34) is on the handle (20), the at least one slider (50) is disposed on the base (34), the at least one operator (38) is rotatably disposed on the base (34) for driving the at least one slider (50) to slide, a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is connected to the at least one slider (50), and the at least one operator (38) rotates to drive the at least one slider (50) to slide for driving the second end of the at least one movable component (37) to move inwardly.

25. The child crib (100) of claim 20, characterized in that the handle adjustment mechanism (30) further comprises a base (34) and at least one gear (60), the base (34) is on the handle (20), the at least one gear (60) is disposed on the base (34), the at least one operator (38) is disposed on the base (34) for driving the at least one gear (60) to rotate, the at least one gear (60) comprises a connector (62), a first end of the at least one movable component (37) is connected to the at least one interlocking component (36), a second end of the at least one movable component (37) is coupled to the connector (62), and the at least one operator (38) is operated to drive the at least one gear (60) to rotate for driving the second end of the at least one movable component (37) to move inwardly.

26. The child crib (100) of claim 25, characterized in that the at least one gear (60) comprise two gears (60) meshed with each other.