HIGHCHAIR WITH ADJUSTABLE TRAY AND SEAT HEIGHT

BACKGROUND

[0001] Highchairs for infants and children typically include a seat supported above the floor and a tray attached to the seat upon which food and drink for the child can be placed. Oftentimes, the tray is removable from the seat for easy cleaning. Additionally, the tray can be adjusted with respect to the seat. These tray adjustment mechanisms, however, can be improved to be more intuitive and user friendly. Also, the height of the seat with respect to the ground can also be adjusted. These seat – height adjustment mechanisms can also be improved to be more intuitive and user friendly.

SUMMARY

[0002] According to an embodiment, Aa highchair than can overcome at least one of the aforementioned shortcomings includes a seat assembly, a tray connected with the seat assembly, a leg assembly connected with the seat assembly, and an adjustment mechanism. The seat assembly includes a rear support surface and a lower support surface for supporting an infant or child. The leg assembly is configured to support the seat assembly above a floor surface. The adjustment mechanism can be for adjusting the tray with respect to the seat assembly or the seat assembly with respect to the leg assembly.

[0003] Such an adjustment mechanism can include a button, a linkage, a cable, and a locking member. The button pivotally connects with the tray or the seat assembly. The linkage includes a first end and a second end, and the first end of the linkage is pivotally connected with the button. The cable also includes a first end and a second end, and the first end of the cable is connected with the second end of the linkage. The locking member connects with the second end of the cable and releasably couples with the seat assembly or the leg assembly. The locking member is moveable between a locked position, in which the locking member engages the seat assembly or the leg assembly, and unlocked position, in which the locking member is disengaged from the seat assembly or the leg assembly. Pivotal movement of the button about a button

pivot axis results in pivotal movement of the linkage about a linkage pivot axis, which is spaced from the button pivot axis. Pivotal movement of the button about the button pivot axis also results in translational movement at the second end of the linkage, which results in movement of the cable in an unlocking direction. Movement of the cable in the unlocking direction results in movement of the locking member toward the unlocked position.

[0003a] According to a first aspect, there is provided a high chair comprising: a seat assembly including a rear support surface and a lower support surface; a tray connected with the seat assembly; a leg assembly connected with the seat assembly, the leg assembly being configured to support the seat assembly above a floor surface; a button pivotally connected with the tray or the seat assembly; a linkage including a first end and a second end, the first end of the linkage being pivotally connected with the button, wherein pivotal movement of the button about a button pivot axis results in pivotal movement of the linkage about a linkage pivot axis, which is spaced from the button pivot axis; a cable including a first end and a second end, the first end of the cable being connected with the second end of the linkage, wherein pivotal movement of the button about the button pivot axis results in translational movement at the second end of the linkage, which results in movement of the cable in an unlocking direction; a locking member connected with the second end of the cable and releasably coupled with the seat assembly or the leg assembly, the locking member being moveable between a locked position where the locking member engages the seat assembly or the leg assembly and an unlocked position where the locking member is disengaged from the seat assembly or the leg assembly, wherein movement of the cable in the unlocking direction results in movement the locking member toward the unlocked position.

[0003b] According to a second aspect, there is provided A high chair comprising: a seat assembly including a rear support surface and a lower support surface; a tray connected with the seat assembly; a button pivotally connected with the tray; a linkage including a first end and a second end, the first end of the linkage being pivotally connected with the button, wherein upward pivotal movement of the button about a button pivot axis results in pivotal movement of the linkage about a linkage pivot axis; a cable including a first end and a second end, the first end of the cable being connected

with the second end of the linkage, wherein the upward pivotal movement of the button about the button pivot axis results in translational movement at the second end of the linkage toward a forward edge of the tray, which results in movement of the cable in an unlocking direction; a locking member connected with the second end of the cable and releasably coupled with the seat assembly, the locking member being moveable between a locked position where the locking member engages the seat assembly and an unlocked position where the locking member is disengaged from the seat assembly, wherein movement of the cable in the unlocking direction results in movement the locking member toward the unlocked position.

[0003c] According to a third aspect, there is provided a high chair comprising: a seat assembly including a rear support surface and a lower support surface; a leg assembly connected with the seat assembly, the leg assembly being configured to support the seat assembly above a floor surface; a button pivotally connected with the seat assembly; a linkage including a first end and a second end, the first end of the linkage being pivotally connected with the button, wherein pivotal movement of the button about a button pivot axis results in pivotal movement of the linkage about a linkage pivot axis; a cable including a first end and a second end, the first end of the cable being connected with the second end of the linkage, wherein pivotal movement of the button about the button pivot axis results in translational movement at the second end of the linkage, which results in movement of the cable in an unlocking direction; a locking member connected with the second end of the cable and releasably coupled with the leg assembly, the locking member being moveable between a locked position where the locking member engages the leg assembly and an unlocked position where the locking member is disengaged from the leg assembly, wherein movement of the cable in the unlocking direction results in movement the locking member toward the unlocked position.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] FIG. 1 is a front perspective view of a highchair.

[0005] FIG. 2 is a front perspective view of the highchair depicted in FIG. 1 with a tray of the highchair removed from a remainder of the highchair.

[0006] FIG. 3 is a perspective view of a lower side of the tray of the highchair depicted in FIG. 1.

[0007] FIG. 4 is a cross-sectional view taken generally along line 4-4 in FIG. 2.

[0008] FIG. 5 is a perspective view of a lower side of the tray with a bottom piece of the tray removed to show internal components of the tray.

[0009] FIG. 6 is a perspective view of an upper side of the tray with a top piece of the tray removed to show the internal components.

[0010] FIG. 7 is a perspective view of a carriage of the highchair depicted in FIG. 1.

[0011] FIG. 8 is a perspective view of the carriage depicted in FIG. 7 with a left inner carriage member piece and a right outer carriage member piece removed from the carriage to show the internal components of the carriage.

[0012] FIG. 9 is a cross-sectional view taken generally along line 9-9 in FIG. 7.

[0013] FIG. 10 is a rear perspective view of the high chair depicted in FIG. 1.

DETAILED DESCRIPTION

[0014] FIG. 1 depicts a highchair 10 including a seat assembly 12, a tray 14 connected with the seat assembly 12, and a leg assembly 16 connected with the seat assembly 12. As illustrated, the seat assembly 12 includes a carriage 18 and a seat 20. The highchair 10 also includes at least one adjustment mechanism, which will be described in more detail below, for adjusting the tray 14 with respect to the seat