

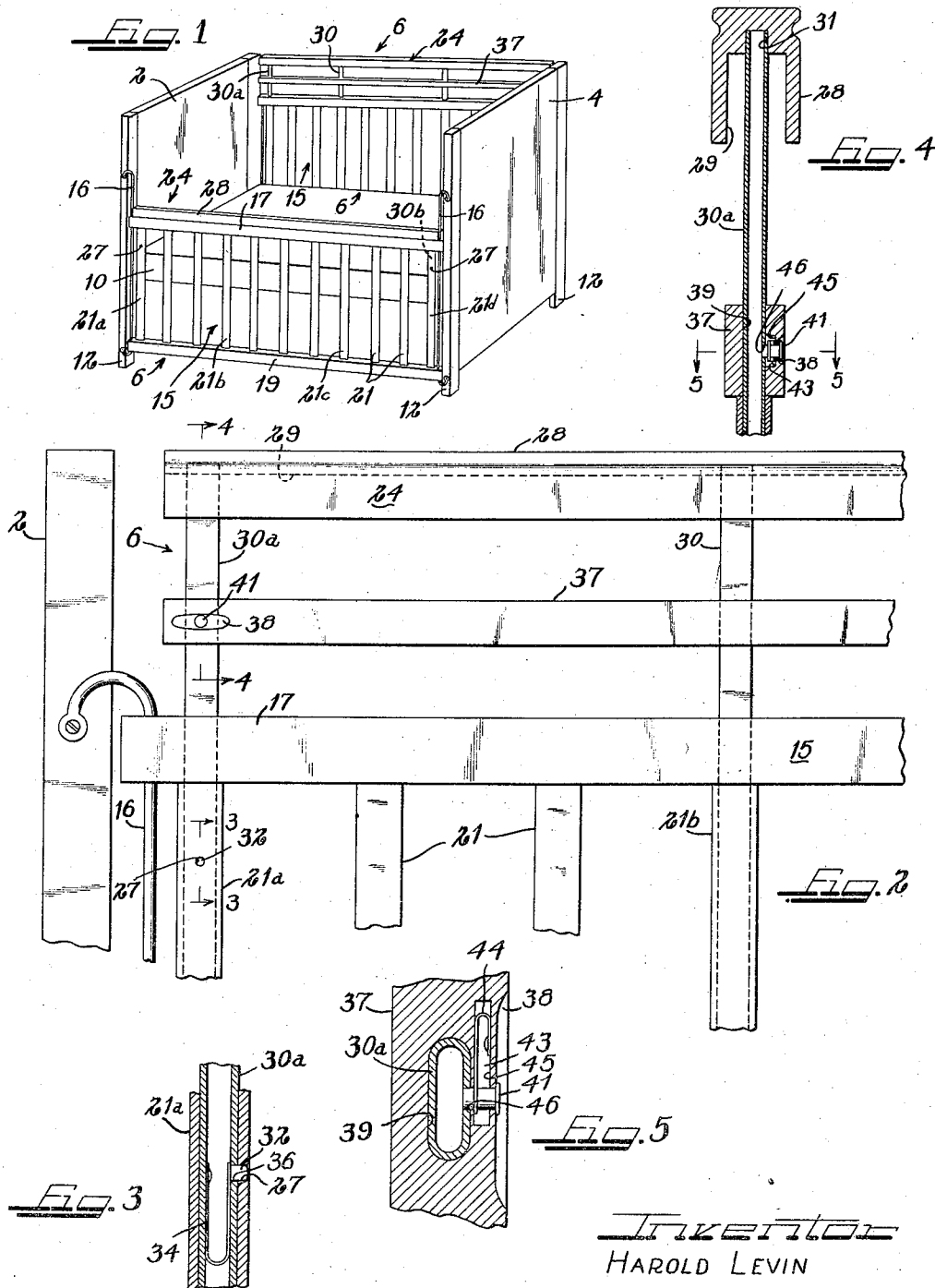
Sept. 30, 1958

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2,853,719

ADJUSTABLE CRIB SIDE

Filed Nov. 3, 1954



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1

2,853,719

ADJUSTABLE CRIB SIDE

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Application November 3, 1954, Serial No. 466,566

2 Claims. (Cl. 5—100)

The present invention relates to baby cribs having sides which are adjustable in elevation. When these crib sides are lowered, a person may reach into the crib and remove a child therefrom with relative ease. The difficulty with the adjustable crib sides heretofore used is that the tops of the crib sides in their raised positions were sometimes too low to prevent an agile child from climbing over the side and falling to the floor, resulting often in permanent or serious injury to the child. The problem cannot be solved by simply making the crib sides higher since there would be insufficient space between the bottoms of the raised sides and the floor to lower the crib sides the necessary distance to permit the average adult to place a child into or remove the child from the crib with relative ease.

It is therefore another object of the invention to provide a simple, economical and easily adjustable crib side which in its uppermost position is sufficiently high to prevent babies or young children up to as much as four or five years old from climbing over the same, and which may be easily lowered to a position where the child may be placed into or removed from the bed with ease.

Another object of the invention is to provide such an adjustable side crib which in a lowered position resembles a crib side heretofore used, and which in its extended position is substantially higher than the average crib side. An ancillary object of the invention is to provide an adjustable crib side which is so constructed as to prevent a child from wedging his head in the openings therein in either the extended or collapsed position thereof.

Still another object of the invention is to provide an adjustable crib side of the above type which may be substituted for a crib side in the type of crib heretofore used without requiring any modification of the rest of the crib.

In accordance with the preferred form of the present invention, the adjustable crib side includes a vertically adjustable lower section which is similar in size and appearance to the conventional crib sides now used, and which carries a hand rail which is adjustable vertically with respect to the bottom side section. In its uppermost position, the hand rail is sufficiently high to prevent a young child from climbing over the side when the lower side section is also raised into its uppermost position. An adjustable cross piece is fixable in position between the top of the bottom side section and the hand rail of the upper side section, and acts as a barrier to prevent a child from placing his or her head between the hand rail and lower side section. When the upper side section is in its lowered position, the cross piece is received within an opening or recess in the bottom of the upper cross rail so that the upper cross rail may be lowered into a position where it rests on the top of the lower section. The construction of the adjustable side is such that it may be readily substituted for an adjustable crib side of the type heretofore used.

Other features, objects and advantages of the invention will become apparent upon making reference to the specification to follow taken in conjunction with the

2

drawings showing an exemplary embodiment of the invention.

In the drawings:

Fig. 1 is a perspective view of a crib incorporating the adjustable crib side of the present invention, and shows one of the adjustable crib sides in its lower position and the opposite adjustable crib side in its raised position;

Fig. 2 is an enlarged front view of a portion of one of the adjustable sides of the crib of Fig. 1 in its elevated position;

Fig. 3 is a section through a portion of the crib side taken along section line 3—3 in Fig. 2;

Fig. 4 is a sectional view through another portion of the collapsed adjustable crib side, taken along section line 4—4 in Fig. 2; and

Fig. 5 is a sectional view taken along section line 5—5 in Fig. 4.

Reference should now be made to the drawings where like reference numerals indicate similar elements throughout.

The crib structure there shown includes a head board 2 and a foot board 4 both of a height substantially greater than those heretofore used in cribs. The sides of the crib are formed by crib side assemblies generally indicated by the reference numerals 6—6 and are supported for vertical adjustment in a manner to be described. A mattress 10 is supported in any suitable manner between the crib sides and, as is conventional, may be supported at a number of different elevations by suitable means (not shown). The entire crib structure is supported on legs 12 attached to the head board and foot board.

In accordance with the present invention, each crib side assembly includes a main frame portion 15 which is similar in size and appearance to the conventional crib side. It thus has an upper cross rail 17, a lower cross rail 19, and a series of spaced vertical members 21 which are spaced apart a sufficiently small distance to prevent a baby from wedging his or her head therebetween. The main side frames 15—15 are supported for vertical sliding movement on vertical rods 16—16 in a well known manner, and may thus assume a lower position where the bottom rails 19—19 are close to the floor and the upper rails 17—17 are at an elevation which permit the average adult to place a child in or remove a child from the crib with relative ease, even when the mattress 10 is in its lowermost position.

The main crib side frames 15—15 are raiseable into an upper position on the vertical rods 16—16 (see the rear crib side of Fig. 1 and the side of Fig. 2) where its top rail is spaced from the top of the head board and foot board of the crib. Any suitable means may be utilized for holding the crib frames 15—15 in their upper positions on these rods.

Each crib side frame 15—15 carries an auxiliary upper side section 24 which telescopes into and is vertically adjustable with respect to the main side frame or section 15. When the upper and lower side sections 24 and 15 are in their raised positions, the top of the upper section 24 is approximately flush with the top of the unusually high foot board and head board, which may be two and one-half to three feet from the top of the mattress 10. (The top of the lower side section 15 may be about one and three-quarters feet from the top of the mattress 10.) Then, an average sized child of even four years old cannot climb over the sides from inside the crib. When both side sections 15 and 24 are in their lowered positions (see front crib side of Fig. 1) the child may be easily removed from the crib.

Referring now also to Figs. 2 through 5, each auxiliary upper side section 24 includes a horizontally extending

hand rail 28 which has a recess or slot 29 formed in its lower face, which recess extends the length of the hand rail. Four horizontally spaced, vertical rods 30 depend from the open bottom of each longitudinal recess 29. The tops of these rods are received within similarly shaped recesses 31 formed in each hand rail and opening onto the top of the longitudinal hand rail slots 29. The rods 30 are spaced from the side defining walls of the hand rail slot 29 for reasons to be explained. The rods may be secured within the holes 31 by gluing or by screws passing through the hand rail and through the top portion of the rods 30. At least the outermost rods 30a and 30b are hollow or tubular. Supported within these outermost tubular rods are respective locking nibs 32 which are mounted upon resilient arms 34 secured to the inner walls of the hollow rods 30a and 30b respectively. The resilient arms 34 urge the nibs 32 through a hole 36 formed in the walls of these rods.

The support rods 30 telescope within the respective hollow vertical members 21a, 21b, 21c and 21d of the lower crib side sections 15. The nibs 32 provide means for locking the upper side sections 24 in their upper position as they pass through holes 27 in the sides of the outermost vertical members 21a and 21c of the lower side sections. The nibs 32 are urged by their spring arms into the holes 27. By depressing the nibs 32 into the tubular rods 30a and 30b, the upper crib side sections 24 may be lowered.

Slidably disposed on the vertical rods 30 of each upper side section is a barrier cross bar 37. The support rods 30 extend through suitably shaped vertical holes 39 formed in the cross bars 37. Each cross bar 37 is sized and shaped to fit completely within the hand rail recess 29 when the associated hand rail is lowered to a position where its flat bottom face rests on the flat upper face of the lower side section cross rail 17. In this manner, the cross bars 37 do not increase the overall height of the crib side when they are in their lowered position.

Means are provided for locking each cross bar 37 into a position intermediate the associated hand rail 28 and the rail 17 beneath it when the upper side section is in its raised position. This means includes respective headed pins 41—41 supported in the outermost tubular rods 30a and 30b of each upper side section. The heads of these pins are received within elongated, horizontal recesses or grooves 38—38 formed in the outer faces of the barrier cross bars opposite the tubular rods 30a and 30b. An internal recess 43 is formed opposite each groove 38. A resilient arm 44 at one end is secured to an inner wall 45 of the cross bar and is secured at the other end to the associated pin 41 and it urges the shank of the pin into the vertical cross bar hole 39. When the cross bars 37—37 are raised midway between the rails 28—28 and 15—15, the shanks of the pins 41—41 enter holes 46—46 in the associated rods 30a and 30b and so lock the cross bars in position. The spaces between the cross bar 37 and the hand rail 28 and between the cross bar and the rail 17 beneath it are then sufficiently small to prevent a young child from wedging its head therebetween. The cross bars are released from this position by inserting fingers in the grooves 38—38 and pulling the pin heads outward to retract the pin shanks from the rod holes 46—46.

Thus, to lower a crib side into a position where a child may be easily removed from the crib, the pins 41—41 are removed from the holes 46—46 in the manner above described, and the cross bar 37 is lowered into a position where it rests on the top of the upper cross rail 17 of the associated lower side section 15. Then, the nibs 32—32 are pressed rearwardly simultaneously whereupon the weight of the upper side section 24 causes the side section to drop into a position where the bottom face of the hand rail rests on the top of the upper rail 17 of the lower side section. As previously stated, in this position the cross bar 37 is nestled within the slot 29. Then, the lowered side section 15 is bodily lowered as in the

conventional crib side to further lower the elevation of the crib side assembly.

It should be noted that when a child is sufficiently young that the upper auxiliary side section 24 need not be used to prevent the child from climbing over the sides, the upper side sections may be retained in their lowered position where they are unnoticed.

Further, the construction of the adjustable crib side is such that the entire side assembly may be substituted for a crib side of a conventional type crib without requiring any substantial modification of the crib structure.

Although the present invention has a particular utility in cribs, certain aspects thereof may be used in such other types of baby furniture as play pens, etc.

It should be understood that numerous modifications may be made of the preferred embodiment of the invention above described without deviating from the broader aspects of the invention.

I claim:

1. In a baby crib, a crib side assembly vertically slidably movable to a lowered position for providing ready access to a baby in the crib and to a raised position for preventing the baby from climbing thereover, comprising, a lower crib side section having a horizontal top rail and being slidably mounted for vertical movement to a lowered position where the bottom thereof is near the floor level and the top rail thereof permits ready access to the baby in the crib and to a raised position where it is releasably locked, an upper auxiliary crib side section vertically slidably mounted on the lower crib side section for up and down movement with respect thereto, said upper auxiliary crib side section including a rail disposed above the top rail of the lower crib side section and spaced apart vertically depending slide members for vertically slidably mounting and guiding the upper crib side section on the lower crib side section, and releasable locking means on the vertically depending slide members of the upper auxiliary crib side section and on the lower crib side section for releasably locking the upper auxiliary crib side section in raised position where its rail is spaced above the top rail of the lower crib side section and for allowing the upper auxiliary crib side section to be lowered to a position where its rail is adjacent the top rail of the lower crib side section, the rail of the upper auxiliary crib side section being at an elevation above the crib mattress to prevent the baby in the crib climbing thereover when the lower crib side section and the upper auxiliary crib side section are locked in their raised positions, and the rail of the upper auxiliary crib side section being sufficiently low with respect to the mattress to provide ready access to the baby in the crib when the lower crib side section and the upper auxiliary crib side section are both slidably lowered to their lowered positions, a horizontal cross bar vertically slidably mounted on the vertically depending slide members of the upper auxiliary crib side section between the rail thereof and the top rail of the lower crib side section, and releasable locking means on the vertically depending slide members of the upper auxiliary crib side section and the cross bar for locking the cross bar in an intermediate position between the top rail of the lower crib side section and the rail of the upper auxiliary crib side section when the latter side section is raised.

2. In a baby crib, a crib side assembly vertically slidably movable to a lowered position for providing ready access to a baby in the crib and to a raised position for preventing the baby from climbing thereover, comprising, a lower crib side section having a horizontal top rail and being slidably mounted for vertical movement to a lowered position where the bottom thereof is near the floor level and the top rail thereof permits ready access to the baby in the crib and to a raised position where it is releasably locked, an upper auxiliary crib side section vertically slidably mounted on the lower crib side section for up and down movement with respect thereto, said

5

upper auxiliary crib side section including a rail disposed above the top rail of the lower crib side section, and spaced apart vertically depending slide members for vertically slidably mounting and guiding the upper crib side section on the lower crib side section, and releasable locking means on the vertically depending slide members of the upper auxiliary crib side section and on the lower crib side section for releasably locking the upper auxiliary crib side section in raised position where its rail is spaced above the top rail of the lower crib side section and for allowing the upper auxiliary crib side section to be lowered to a position where its rail is adjacent the top rail of the lower crib side section, the rail of the upper auxiliary crib side section being at an elevation above the crib mattress to prevent the baby in the crib climbing thereover when the lower crib side section and the upper auxiliary crib side section are locked in their raised positions, and the rail of the upper auxiliary crib side section being sufficiently low with respect to the mattress to provide ready access to the baby in the crib when the lower crib side section and the upper auxiliary crib side section are both slidably lowered to their lowered positions, a horizontal cross bar vertically slidably mounted on the vertically depending slide members of the upper auxiliary crib side section between the rail thereof and the top rail

6

of the lower crib slide section, and releasable locking means on the vertically depending slide members of the upper auxiliary crib side section and the cross bar for locking the cross bar in an intermediate position between the top rail of the lower crib side section and the rail of the upper auxiliary crib side section when the latter side section is raised, one of the rails of the crib side sections being recessed to receive the cross bar when the upper auxiliary crib side section is lowered to its lowered position with respect to the lower crib side section for concealing the cross bar.

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