Aug. 29, 1944. E. E. MERRETT 2,357,218

CRIB CONSTRUCTION

Filed Jan. 19, 1942 2 Sheets-Sheet 1

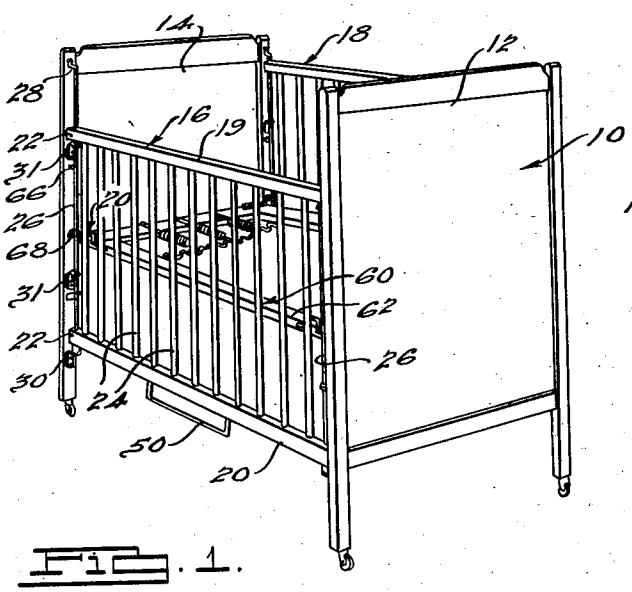
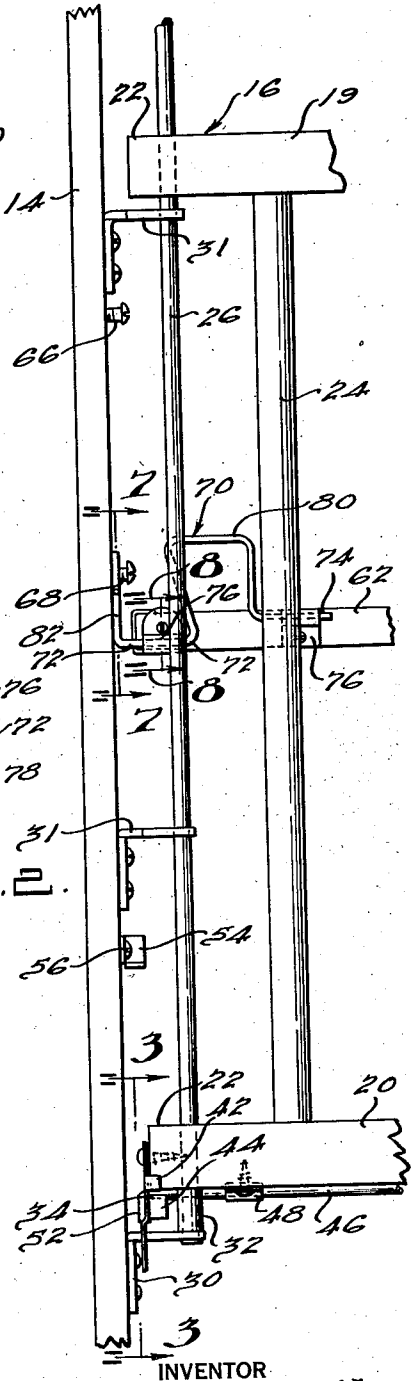


FIG. 1.



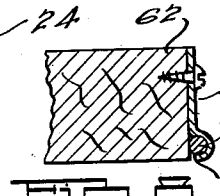


FIG. 3.

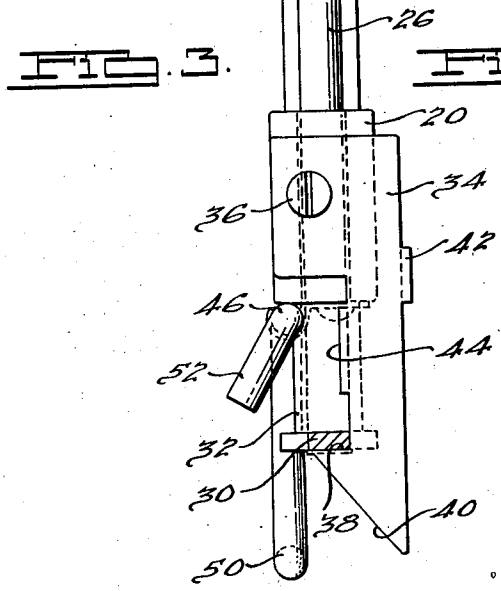


FIG. 2.

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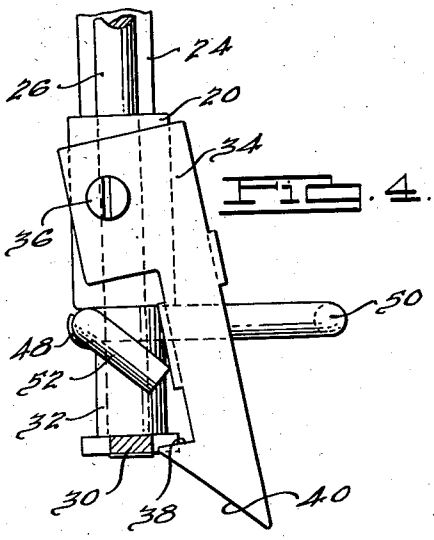


FIG. 4.

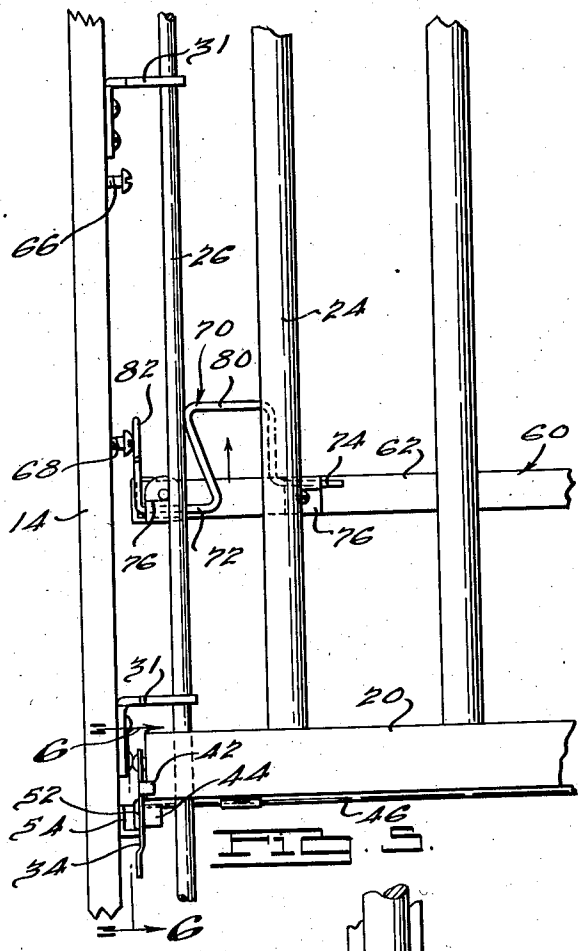


FIG. 5.

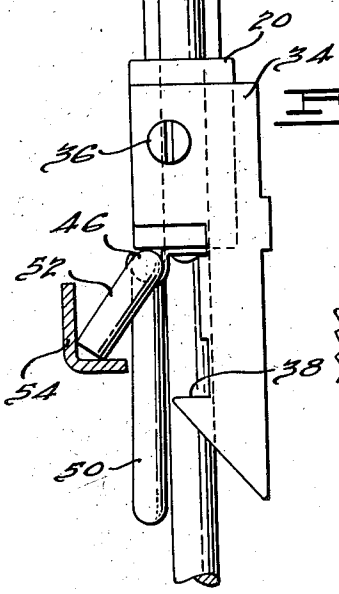


FIG. 6.

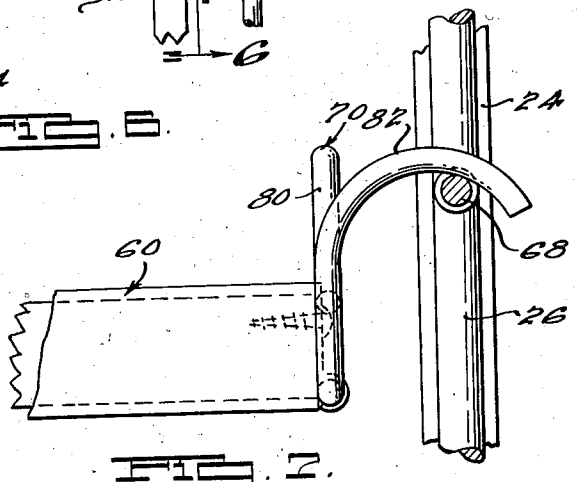


FIG. 7.

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UNITED STATES PATENT OFFICE

2,357,218

CRIB CONSTRUCTION

Earle E. Merrett, Manitowoc, Wis., assignor to Hamilton Manufacturing Company, Two Rivers, Wis., a corporation of Wisconsin

Application January 19, 1942, Serial No. 427,317

2 Claims. (Cl. 5—93)

The present invention relates to children's furniture, and particularly relates to improvements in children's beds or infants' cribs.

One of the primary objects of the present invention is to provide improvements in the support for the spring mattress support whereby such spring may be supported in one of a plurality of vertical positions in a simplified manner.

Other objects of the invention will become apparent from the following specification, the drawings relating thereto and from the claims hereinafter set forth.

In the drawings, in which like numerals are used to designate like parts in the several views throughout:

Figure 1 is a perspective view of a child's bed or crib embodying features of the present invention;

Fig. 2 is an enlarged, partial side elevational view of one end of the crib, illustrating the manner in which the spring is attached to the crib ends and the manner in which one of the side gates is mounted for vertical up and down movement;

Fig. 3 is an enlarged cross-sectional view taken substantially along the line 3—3 of Figure 2;

Fig. 4 is a view similar to Figure 3, showing the parts in another position;

Fig. 5 is a view similar to Figure 2, showing the parts in another position;

Fig. 6 is an enlarged cross-sectional view taken substantially along the line 6—6 of Figure 5;

Fig. 7 is an enlarged cross-sectional view taken substantially along the line 7—7 of Figure 2; and

Fig. 8 is an enlarged cross-sectional view taken substantially along the line 8—8 of Figure 2.

Referring to the drawings, an embodiment of the present invention is illustrated in connection with a conventional type of child's bed or crib generally indicated at 10. Such crib 10 includes end members 12 and 14 having ground engaging legs which form the ends of the crib. Side members 16 and 18 are disposed between the end members 12 and 14 and are connected thereto. In the embodiment of the invention illustrated, both of the side members or side gates 16 and 18 are shown as mounted for up and down movement; but it is to be understood that one side could be fixed, leaving only one of the sides movable, if desired. The ends and side members are formed of wood in the embodiment illustrated, but it is to be understood that they could be made of metal, or other material, within the scope of the present invention.

The side gates 16 and 18 are identical to each other, so that a description of one and a description of the manner in which that one is connected to the end members 12 and 14 will be sufficient for an understanding of the manner in which both are connected.

The side gate 16 includes upper and lower substantially parallel members 19 and 20 having end portions 22 adjacent the ends 12 and 14. Vertical members 24 are preferably interposed between and connected to the end members 19 and 20 at spaced points therealong to provide an open-work side.

In order to mount the side gate 16 for up and down movement relative to the ends 12 and 14 and relative to the spring supporting surface, slide posts 26 in the form of rods are fixed to the ends 12 and 14 in the plane of the end gate 16. The rods 26 are bent at right angles adjacent the upper ends 28 thereof and then upwardly, and the ends 28 are screwed to the end members 12 or 14 through suitable apertures provided in the upwardly projecting portions of the ends 28.

The major portion of each rod 26 is spaced from its adjacent end, and the lower end thereof extends through an opening in a bracket 30, which is fixed to the end 12 or 14 adjacent the lower end thereof and which has a substantially horizontal portion which lies in the path of movement of the gate 16. Similar brackets 31 are fixed to the ends 12 and 14 at vertically spaced points through which the rods 16 pass to brace the rods and serve as limit stops for the gate 16.

Resilient bumper elements 32 are disposed on the horizontal portions of the stops 30. Such elements 32 may be in the form of tubular rubber elements, so that they are compressible and resilient, and they are disposed in the path of movement of the gate 16 and are adapted to be engaged by the lower member 20 when it is in its lower position. The bumpers serve to take up the shock of dropping the gate, and also serve to assist in holding the gate in its lower position in a manner that will be described hereinafter.

The gate 16 carries with it latches 34, which are pivotally attached to the ends 22 of the lower member 20 by means of screws 36. Each of such latches 34 is formed with a recess adjacent the lower end thereof forming a spear-shaped latch having a horizontal latching surface 38 and a tapered surface 40. An inbent tab 42 is formed on the outer edge the latch 34 so as to limit the inner pivotal movement thereof, and another inturned tab 44 is formed on the inner edge of the latch recess and is adapted to be engaged by a releasing means to release the latch, as will be pointed out in detail hereinafter.

When the gate 16 is dropped, it will be seen that the lower horizontal bar 20 abuts against the compressible stops 32. The latches 34 are of such a length relative to the lengths of the elements 32 that as the gate approaches its lower position the sloping surface 40 strikes the horizontal portion of the bracket 30 to pivot the latch outwardly. In order for the horizontal latching

surface 38 to drop under the horizontal portions of the brackets 30, the elements 32 are compressed slightly. Thus, when the latches assume the position shown in Figure 3, the resilient elements 32 are compressed and resiliently urge the gate upwardly to a slight extent. This secures the gate against accidental displacement and also reduces rattle.

In order to release the latches 34 from the engagement shown in Figure 3, a means is provided by which the latches at both ends of the gates may be released simultaneously. Such means includes a rod member 46 which is fixed to the underside of the member 20 by means of strap members 48. The rod 46 is free to be turned within the strap members 48. Such rod 46 is provided with a U-shaped projection 50 at the midportion thereof, which is the portion adapted to be engaged to turn the rod 46. The ends of rod 46 are turned inwardly, as indicated at 52. Due to the relative position of the intermediate offset portion 50 and the inturned ends 52 and the relative sizes thereof, the tendency of the offset portion 50 to drop down will turn the ends 52 inwardly. When the gate is down, such portions will assume the positions shown in Figure 3.

By raising the intermediate portion 50 outwardly, either by hand or foot, whichever may be the more convenient, it will be seen that the bent ends 52 are turned from the position shown in Figure 3 to the position shown in Figure 4. As such ends 52 are turned outwardly, they engage the tabs 44 of both of the latch elements 34 to force the latch elements outwardly and out of engagement with the bracket 30. The gate may then be raised to its upper position.

In order to hold the gate in its upper position, outwardly facing angle members 54 are fixed to the inner sides of the ends 12 and 14 at the proper heights, by suitable screws 56. As the gate is raised, the rod 46 assumes the position shown in Figure 6, so that the bent ends 52 engage the angle members 54. The projections seat within the corners of the angle member 54, as shown in Figure 6, and the vertical walls of the angle member 54 are of such height that the projecting ends cannot be moved out of engagement therewith and are prevented from such movement by limit stops formed by the ends 28 of the guide rod or the stops 31. To lower the gate, the intermediate portion 50 is pulled outwardly, so that the ends 52 are free of engagement with the stops 54.

The spring mattress support, which is generally indicated at 60, is disposed within the sides 16 and 18 and between the ends 12 and 14. Such spring may be of the structure disclosed in the copending application of Guido F. Berger, Serial No. 424,439, filed December 26, 1941, or may assume other forms. The spring 60 comprises a generally rectangular outer frame having side members 62. Means are provided for mounting the spring 62 to the ends 12 and 14 at one of a plurality of vertical positions. Such means include screws 66 and 68 which are screwed into the ends 12 and 14 adjacent the corners thereof, the four corner screws 66 being at one level and the four corner screws 68 being at a lower level. The spring 60 may be releasably connected with either of the sets of four screws 66 or 68. When connected to the screws 66, the spring will be at its upper level, where at certain times it is more convenient; and, when connected to the screws 68, the spring is at its lower level, where at times this is more convenient and better.

The means for releasably connecting the spring 60 to the screws 66 or 68 include hook members 70 which are mounted to the sides 62 of the spring 60 adjacent the corners thereof for pivotal and longitudinal movement with respect thereto. Each of such members 70 is in the form of a wire or rod bent to provide substantially horizontal portions 72 and 74, which are connected to the sides 62 by means of clamps or straps 76 having bent portions providing tunnels 78 through which the portions 72 and 74 are slidably and pivotally received. The member 70 is provided with an intermediate, offset gripping portion 80 which may be conveniently grasped to engage or disengage the hook members 70 with the supporting elements 66 or 68. The members 70 are provided with transverse hook portions 82, which are adapted to hook over the shanks of the screws 66 and 68 between the heads of the screws and the ends 12 and 14. When the hooks are engaged, the heads of the screws will prevent accidental disengagement of the hooks from the screws 66 or 68.

It is a simple operation to move the spring from one level to the other. The hooks are shown engaged with the screws 68 in Figure 2, and are shown disengaged in Figure 5. This is accomplished merely by grasping the portions 80, moving the hooked members 70 slightly longitudinally and pivoting them slightly to free them of the screw heads, and then moving them to a position over the other screws and shifting them longitudinally with a slightly pivotal movement to engage the other screws.

What is claimed is:

1. In a bed, a pair of end members, side members connecting said end members, a mattress support, and means selectively connecting said support to said end members at one of a plurality of vertical positions, said means including vertically spaced supporting elements fixed to said end members adjacent the corners thereof and having heads spaced from said end members, and longitudinally slidable members mounted on said mattress support adjacent the corners thereof, said slidable members having hooked portions disposed in planes normal to the direction of sliding movement; so that said hooked portions are releasably engageable with certain of said elements to selectively support said mattress support at various heights, said movable members having upwardly extending hand gripping portions which extend above said mattress support.

2. In a bed, a pair of end members, side members connecting said end members, a mattress support, and means selectively connecting said support to said end members at one of a plurality of vertical positions, said means including vertically-spaced supporting elements fixed to said end members adjacent the corners thereof and having heads spaced from said end members, and longitudinally slidable rod members mounted on said mattress support adjacent the corners thereof, said rod members each being formed with a hooked portion disposed in a plane normal to the direction of sliding movement so that said hooked portions are releasably engageable with certain of said elements to selectively support said mattress support at various heights, said rod members being formed with loop portions extending upwardly above said mattress support to provide hand grips, and means on opposite sides of said loop portions slidably connecting said rod members to said mattress support.

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