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Boucher et al.

[11] **3,896,513**

[45] **July 29, 1975**

[54] **FOLDABLE INFANT'S CRIB**

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[73] Assignee: **Hedstrom Co.,** Bedford, Pa.

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[21] Appl. No.: **502,794**

[52] **U.S. Cl.** ..... **5/99 R;** 5/100

[51] **Int. Cl.²** **A47C 29/00;** A47D 7/02

[58] **Field of Search** ..... 5/99 R, 99 B, 99 C, 100

[56] **References Cited**

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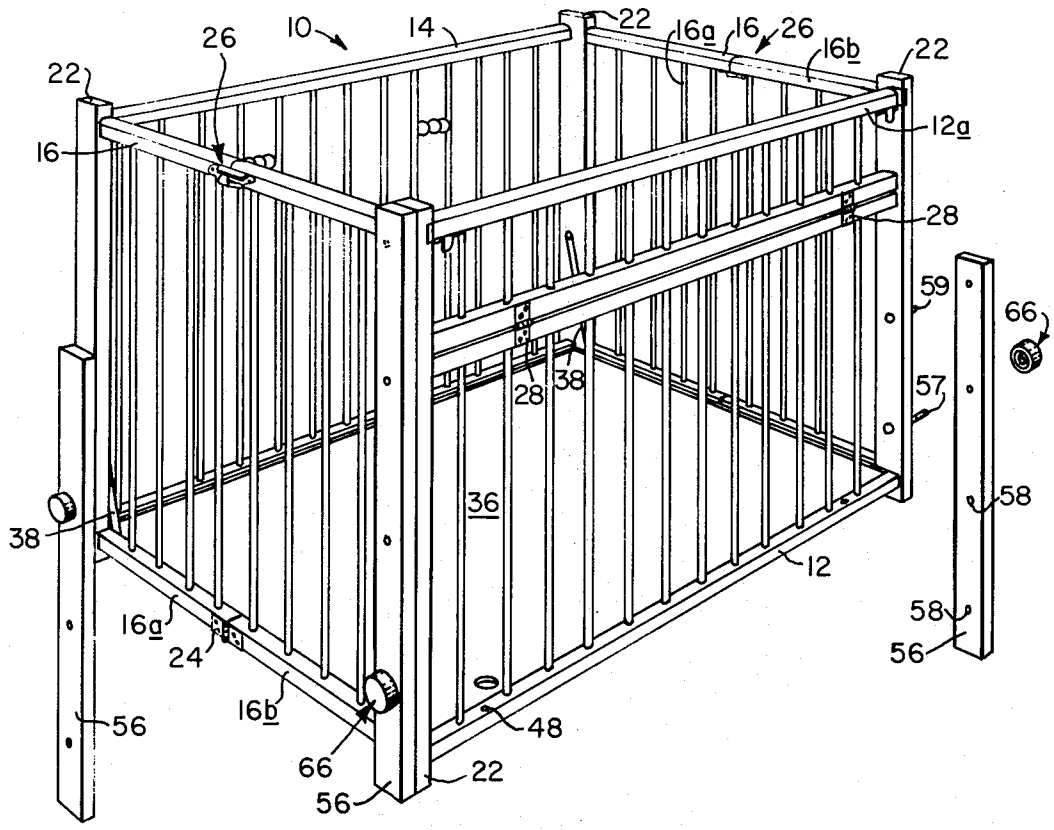
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Primary Examiner—Robert L. Wolfe
Assistant Examiner—Andrew M. Calvert
Attorney, Agent, or Firm—Cesari and McKenna

[57] **ABSTRACT**

A foldable infant's crib is fitted with special end gate locks, leg locks, drop gate locks, and a special floor support to insure that the crib will not be folded or collapsed inadvertently and eliminates all possibility of the unit being used as a dressing table with the drop gate lowered.

17 Claims, 14 Drawing Figures



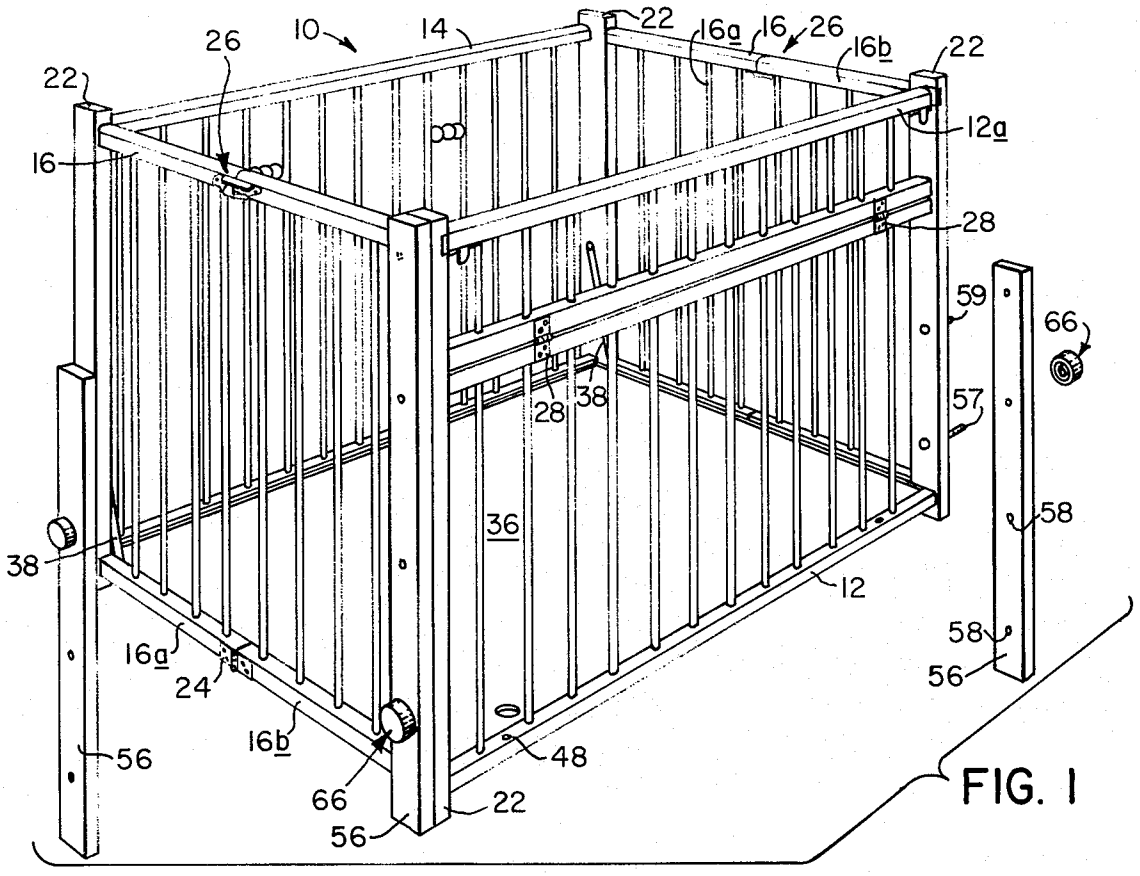

10
14
22
16a
16
26
16b
12a
28
59
66
57
58
36
38
12
24
48
56

FIG. 1

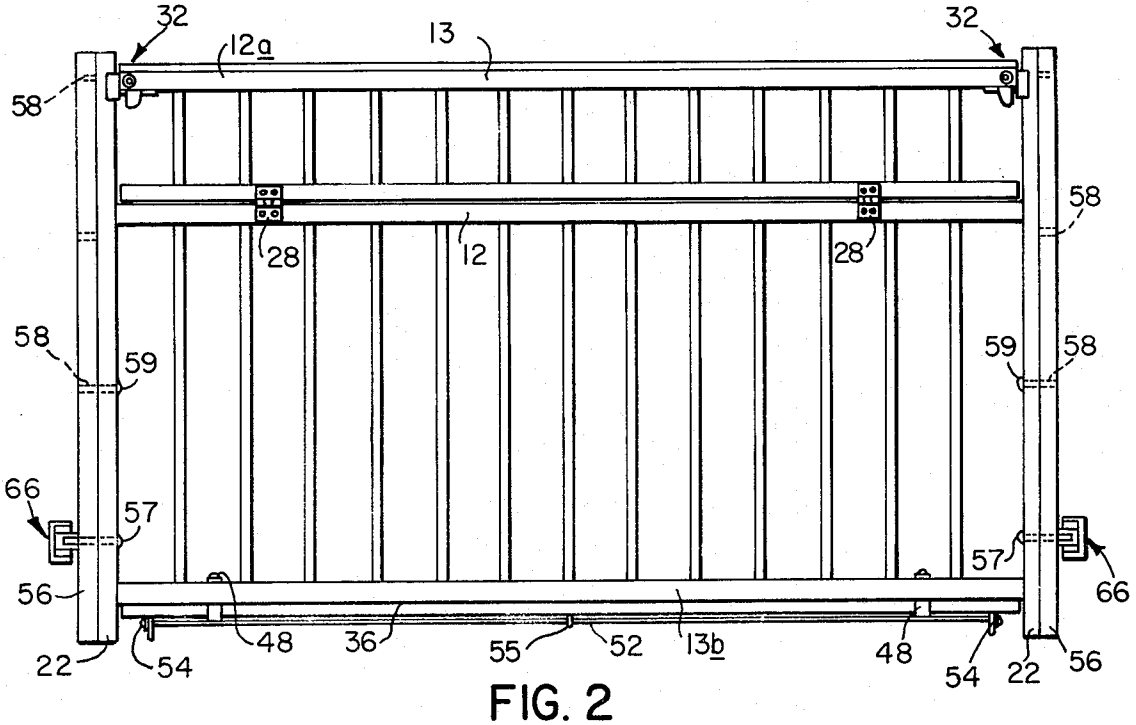

32
12a
13
58
28
12
59
57
66
48
36
55
52
13b
54
22
56

FIG. 2

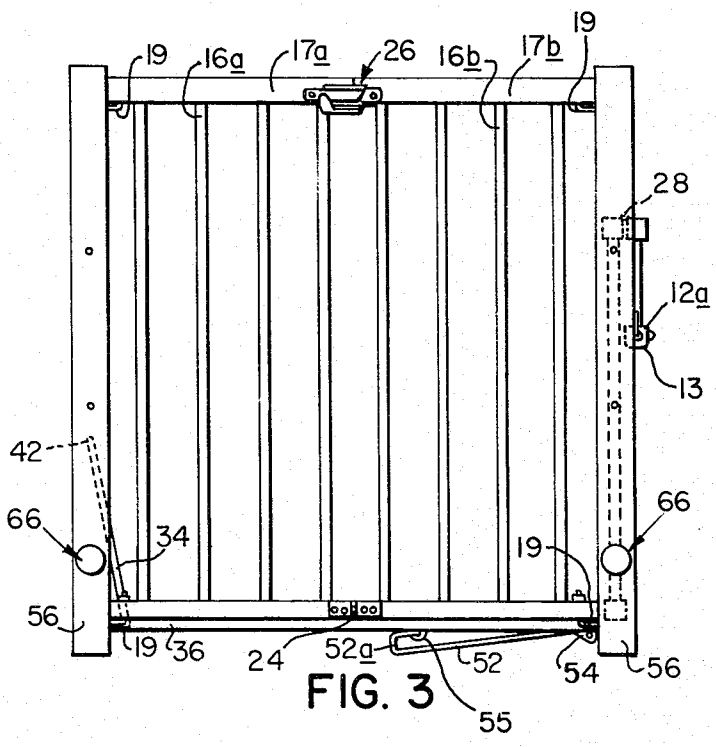


FIG. 3

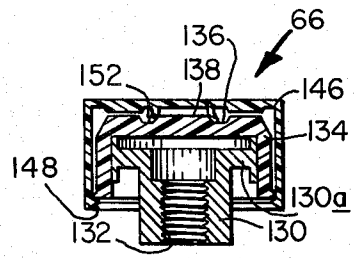


FIG. 4

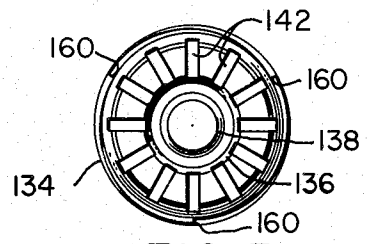


FIG. 5

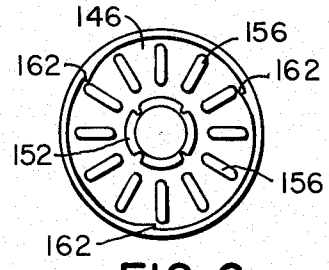


FIG. 6

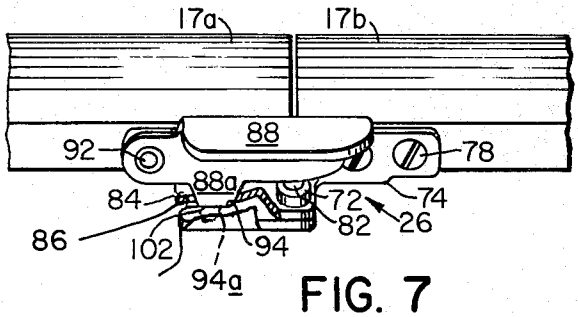


FIG. 7

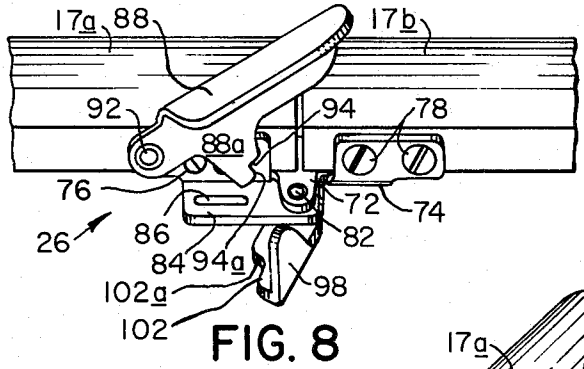


FIG. 8

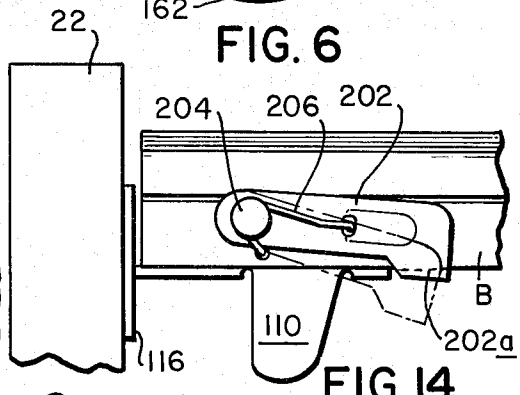


FIG. 14

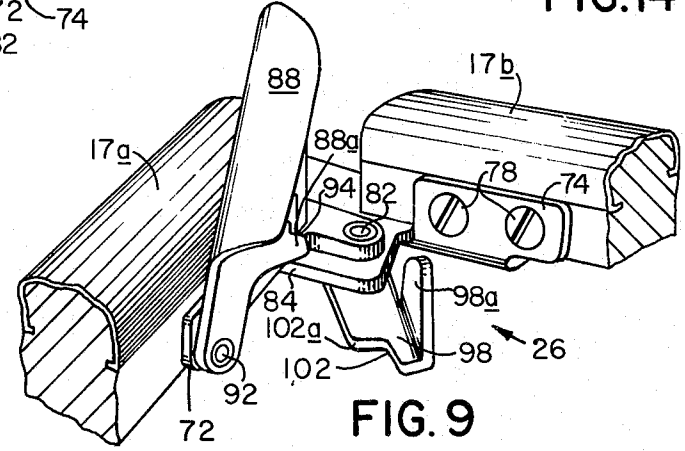


FIG. 9

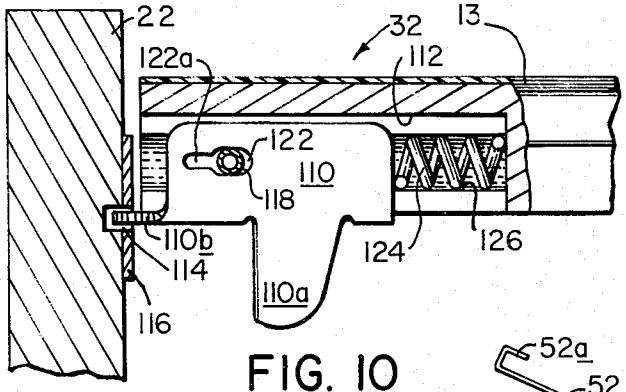


FIG. 10

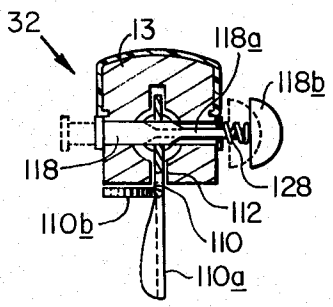


FIG. 11

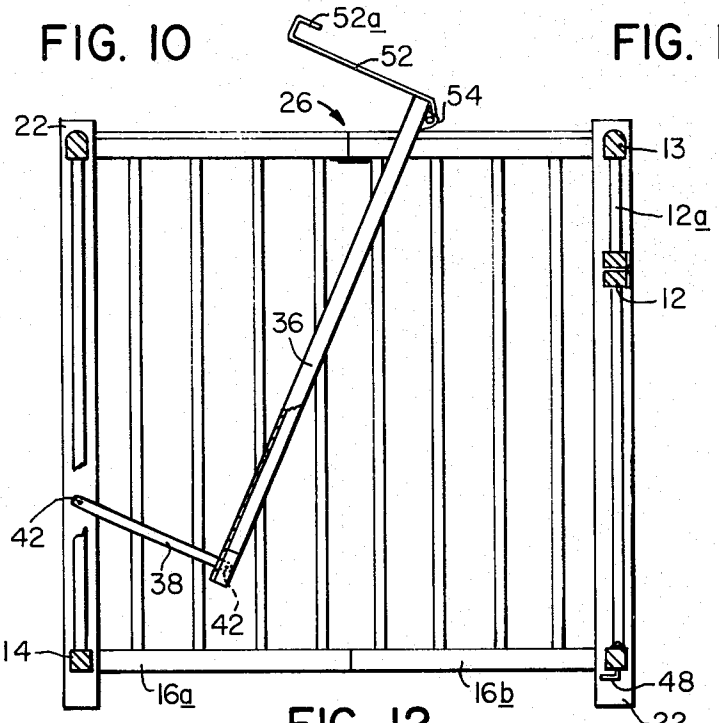


FIG. 12

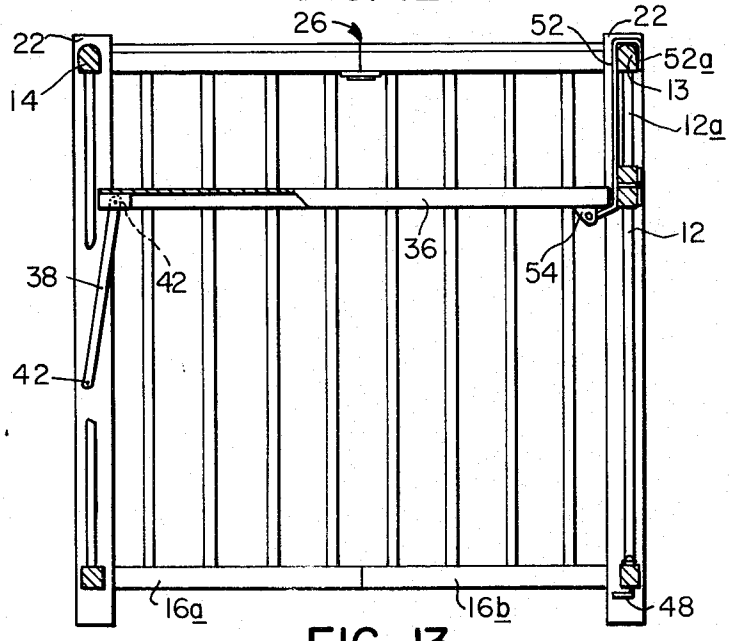


FIG. 13

FOLDABLE INFANT'S CRIB

BACKGROUND OF THE INVENTION

This invention relates to a foldable, height-adjustable infant's crib. It relates more particularly to fittings for such a crib which render it safer to use and less prone to being folded or collapsed accidentally by the parent or child when in use.

The usual collapsible crib has a hinged floor panel which can be raised, and inwardly folding end gates which permit the front and rear gates of the crib to be drawn together so that the crib collapses into a relatively flat package which can be stored in a minimum amount of space.

Each crib end gate comprises two hinged together sections and the end gate lock is built into a hinge between these sections. When the two sections of an end gate are in a common plane, a latch pivoted to one gate section drops into a slot in a keeper attached to the other gate section, thereby locking the two sections in that common plane. Sometimes, however, the latch becomes disengaged from the keeper when the child shakes the crib or the child may intentionally release the latch so that the end gate folds inward, creating a pinch point at the hinged joint between the end gate sections. If the child in the crib should inadvertently place his fingers between these hinged sections, and lean or push outward against the end gate, his fingers may become trapped and squeezed between the two sections causing pain and possible injury.

Also if the end gate becomes unlocked, undue stress is placed on the various crib rails and fittings when the crib is shaken, thereby shortening its useful life.

A similar situation confronts cribs having a drop gate in the front gate. The drop gate is an upper section of the front gate which is hinged to the lower part of the gate, so that it can be swung down to lower the effective height of the front of the crib. This permits easier access by an adult to a child within the crib.

The drop gate is customarily locked in its upper position by spring-loaded pull buttons mounted in the crib corner posts and projecting into openings in the opposite ends of the drop-gate. In some cases, even a young child in the crib can munipulate the pull buttons and unlock the gate and climb out of the crib, without permission. To prevent this the parent may resort to tying the drop gate in its closed position so that the child cannot climb out of the crib. This is a very unsatisfactory solution to the problem, since it makes it difficult for the parent to lower the gate when that becomes desirable.

Also, some cribs with a drop gate also have a floor panel which can be swung up to an upper horizontal position near the top of the crib so that the parent can change or otherwise tend to an infant without having to bend dow. The floor panel of such cribs is usually maintained in this raised position by a hinge at the rear of the crib and by lugs which project out from the front of the floor panel and engage the front gate of the crib just below the drop gate. With the floor panel in the raised position, if the drop gate should be unlocked inadvertently and lowered, there would be nothing to prevent the child from rolling out of the crib and falling onto the floor.

The height adjustment of these prior cribs can also be upset by the inadvertent or intentional release of one

or more of the fittings controlling the height adjustment of the crib legs, causing the crib to become unstable.

All of these factors constitute potential hazards which should be eliminated to protect children using the cribs.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the present invention to provide a foldable, height-adjustable crib which is less prone to being inadvertently folded or collapsed.

Another object of the invention is to provide a safer crib of the type having a drop gate and an elevated floor panel.

Still another object is to provide a crib having a minimum number of pinch points.

A further object of the invention is to provide an infant's crib of this type which satisfies all of the current U.S. government safety regulations relating to juvenile furniture.

Still another object of the invention is to provide a crib which cannot be used as a changer with its floor panel in the elevated position while its drop gate is down.

Other objects will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the following detailed description, and the scope of the invention will be indicated in the claims.

Generally, the subject crib has the usual front and rear gates connected by hinged sectional end gates to form a rectangular enclosure. The front gate has a hinged drop gate and the bottom of the enclosure is closed off by the usual hinged floor panel. Posts at the four corners of the crib support extensible legs so that the crib can be positioned at various elevations above the floor.

Each crib end gate is maintained in its fully open position by a special double-acting end gate lock. Each end gate lock comprises a latch hinged to one end gate section and a slotted keeper hinged to the other end gate section, the latch dropping into the slot when the end gate is fully open in much the same manner as a conventional end gate lock. In addition, however, a second latch is hinged to the keeper so that it can pivot in a horizontal plane just below the keeper. The second latch can be swung under the keeper so that it engages a portion of the first latch projecting through the keeper so that the first latch cannot be retracted from the slot to release the end gate. In order to fold the end gate then, the second latch just be swung outward to release the first latch and then the first latch must be swung upwards away from the keeper. Thus, two distinctly different motions are required to unlock each end gate. Consequently, the chances are small of the gate becoming unlocked because of movements of the crib or bacause of the unintentional activities of the child in the crib. So too, the chances of the child's fingers being pinched in the joints between the end gate sections are correspondingly small.

The drop gate of the subject crib is locked in its upward position by a pair of retractable, spring-loaded latches slidably mounted in the top rail of the end gate at the opposite ends thereof. When the gate is in its raised position, the latches are biased into a pair of keepers formed in the corner posts opposite the

latches. In addition, a pair of spring-loaded push button locks are mounted in the opposite ends of the same rail adjacent the latches. When each latch is in its fully extended position, it is retained there by the associated push button lock. In order to lower the drop gate, again two distinct actions must be performed to release each end of the gate. First, the push button lock must be depressed, then the sliding latch must be retracted from its keeper. Here also, then, the chances of the drop gate being lowered inadvertently are kept to a minimum.

The hinged floor panel in the present crib is similar to the ones in prior cribs except for the fitting used to maintain the panel in its elevated position when the crib functions as a changer. Instead of the usual lugs to support the front edge of the floor panel, the crib has a special bail hinged to the front edge of the floor panel which can be swung up and engaged over the top rail of the drop gate to maintain the floor panel in a horizontal plane near the top of the crib. Unless the drop gate is in its raised or closed position, the crib cannot be used as a changer with the floor panel in this elevated position. Conversely, as long as the floor panel is in its elevated position, the drop gate cannot be lowered. Consequently, this interlock between the floor panel and the drop gate should eliminate any possibility of an infant rolling out of the crib when the parent's attention is distracted momentarily.

A double lock is likewise provided on each of the four extensible crib legs to prevent inadvertent release of the leg locks.

All of the aforesaid features make the present crib quite safe and the crib should satisfy all present U.S. government safety regulations relating to cribs. Yet since these additional fittings which bring about these advantages are for the most part constructed of simple stamped metal and plastic parts, they should not appreciably increase the overall cost of making the crib.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description, taken in connection with the accompanying drawings in which:

FIG. 1 is an exploded perspective view of a crib made in accordance with the present invention with its legs shown in various positions of adjustment;

FIG. 2 is a view in side elevation thereof with all legs raised;

FIG. 3 is an end view thereof, showing the drop gate in its open position;

FIG. 4 is a sectional view of part of a leg lock on the FIG. 1 crib;

FIGS. 5 and 6 are plan views showing the two main components of the FIG. 4 part in greater detail;

FIG. 7 is a fragmentary perspective view of an end gate lock on the FIG. 1 crib, the lock being shown in its fully locked position;

FIG. 8 is a similar view of the lock in its unlocked position;

FIG. 9 is a similar view of the lock in its unlocked position viewed from behind;

FIG. 10 is a fragmentary view with parts in section of a drop gate lock on the FIG. 1 crib;

FIG. 11 is a transverse sectional view of the end gate lock;

FIG. 12 is a sectional view of the crib showing its floor panel in a partially raised position;

FIG. 13 is a similar view of the crib showing its floor panel locked in its elevated position for changing an infant; and

FIG. 14 is a fragmentary view of another drop gate lock embodiment.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIG. 1 of the drawings, the subject crib shown generally **10** is a generally rectangular enclosure consisting of a front gate **12**, a rear gate **14** and a pair of identical end gates **16**, all connected together by vertical corner posts **22**.

Each end gate **16** consists of a pair of sections **16*a*** and **16*b*** whose upper and lower ends are connected by hinges **19** (FIG. 3) to the adjacent corner post **22**. These sections are connected together at their lower ends by a conventional hinge **24** and at their upper ends by a special hinge and lock fixture shown generally **26** which will be described in more detail later.

As best seen in FIGS. **1** and **2**, the upper portion **12*a*** of the front gate **12** constitutes a drop gate. The drop gate is hinged to the lower part of the front gate by hinges **28**. The drop gate can be swung down to a lower position shown in FIG. **3**, or swung to an upper position illustrated in FIG. **2**. The gate is maintained in this upper position by means of special end gate locks shown generally at **32**, mounted in the ends of gate **22*a***, which locks secure those ends to the corner posts **22** at the front of the crib.

Referring now to FIGS. **1**, **3**, **12** and **13**, the crib is provided with a generally rectangular floor panel **36**. A pair of relatively long straps **38** are pivotally connected by wood screws **42** to the opposite side edges of panel **36** near the rear edge thereof and to the corner posts **22** at the rear of the crib. The connections to the corner posts are made approximately one third of the way up thereon, and the lengths of the straps **38** are such that they support the rear edge of the panel **36** when the panel is in its lower horizontal position illustrated in FIGS. **1** and **3**, with the front edge of the floor panel being supported by a pair of lugs **48** secured to the lower rail of the front gate and projecting under the floor panel.

Floor panel **36** can also be swung up on straps **38** so that it assumes an upper horizontal position best seen in FIG. **13**. In this case, the front edge of the panel is supported by means of a generally U-shaped bail **52** pivotally connected to the opposite ends of that edge by brackets **54**. The bail has a web portion **52*a*** which hooks over the top of drop gate **12*a*** to maintain the floor panel **36** in the upper horizontal plane.

The floor panel can only be secured in this position when the drop gate **12*a*** is locked in its raised position. Furthermore, when the panel is suspended in its upper position shown in FIG. **13**, the drop gate cannot be opened because the weight of the floor panel and any child thereon tends to bias the gate to its raised or closed position. In other words, the weight of the floor panel acting through the bail **52** exerts a torque on the gate which tends to swing it inwards. However, the extent to which the gate can swing inward is limited by the hinges **28** and the two hinged together rails as well as by the end gate locks **32**. When the bail is not being used to support the floor panel, it swings down and nests against the underside of that panel as best seen in FIGS. **2** and **3**. A hook **55** secured to the underside of

the floor panel near its center as shown in those figures, can be engaged under the bail web 52*a* to lock the bail in this position.

Referring again to FIGS. 1 and 2, crib 10 has the usual extensible legs 56 adjustably connected lengthwise to the four corner posts 22. More particularly, a threaded bolt 57 projects out from each corner post 22 near the lower end thereof, and also a pin 59 projects out from each post 22 at a point spaced above bolt 57. The bolt 57 is somewhat longer than the thickness of leg 56. However, the pin 59 is somewhat less than the thickness of that leg. A series of positioning holes are spaced along each leg 56 and the spacing between these holes corresponds to the spacing between bolt 57 and pin 59. All but the top hole in each leg 58 extend through the leg. The bolt 57 and pin 59 can be inserted into any adjacent pair of holes in leg 56 to assure a two point connection between the leg and corner post. Following this, a lock nut indicated generally at 66 is turned down onto each bolt 57 on the far side of leg 56 to securely anchor the leg to the corner post. As shown in FIG. 1, each leg 56 can be positioned to place the floor panel 36 almost on the floor or at selected heights above the floor. The lock nuts 66 are all specially designed so that they cannot inadvertently be loosened by a child in the crib.

Turning now to FIGS. 7 to 9, each end gate lock 26 comprises two hinge sections 72 and 74. Section 72 is connected to the upper rail 17*a* of each end gate section 16*a* by wood screws 76 (FIG. 8) and section 74 is secured to the upper rail 17*b* of end gate section 16*b* by wood screws 78. The two lock sections are, in turn, connected by a pivot 82. These hinge sections are generally similar to those found on conventional crib end gate locks, so a detailed description of them is not needed here. Suffice it to say that section 74 includes a tab 84 which extends out horizontally and has a slot 86 extending parallel to the rail 17*b*.

A latch 88 is connected by a pivot 92 to lock section 72 and it is arranged to swing vertically about that pivot. Latch 88 includes a relatively long nose 88*a* projecting downward which is arranged to engage in slot 86 when the rails 17*a* and 17*b*of the two end gate sections are aligned as shown in FIGS. 7 and 8. In this sense the latch is similar to those found on conventional end gate locks. However, the nose 88*a* is usually long so that it projects an appreciable distance below tab 84. Moreover, a notch 94 is formed near its end on the edge thereof facing pivot 82 so that when latch 88 is engaged in slot 86 as shown in FIG. 7, the lower edge 94*a* of the notch is vertically oriented.

A second latch 98 is connected by pivot 82 to tab 84. Latch 98 is more or less rectangular and lies generally in a horizontal plane. However, it has an accessible upstanding ear 98*a* which facilitates manipulating the latch.

A notch 102 is formed in the corner of latch 98 opposite raised ear 98*a*. The innermost edge 102*a* of the notch is oriented so that when the latches 88 and 98 are both in their locked positions shown in FIG. 7, the notch edge 102*a* bears against and is perpendicular to the notch edges 94*a* on latch 88.

In order to lift up latch 88 to release the end gate, its nose 88*a* must swing along on an arc which moves it closer to pivot 82. Thus as long as latch 98 is in its locked position shown in FIG. 7, its edge 102*a* prevents movement of nose 88*a* in that direction. Consequently, the latch 88 cannot be raised to release the end gate. Rather, the parent must first pull out latch 98 and then lift up latch 88 in two distinct motions in order to unlock the end gate. This being the case, there is little liklihood of the end gate lock being opened accidentally if the crib is jostled by a child in the crib.

Refer now to FIGS. 10 and 11 which show the drop gate lock 32 in greater detail. Each lock comprises a generally rectangular plate 110 which is arranged to slide horizontally in a vertical slot 112 formed in the end of drop gate upper rail 13. The plate includes a depending ear 110*a* which projects through the bottom of the slot and extends below the rail to function as a trigger which can be engaged by a parent's finger to actuate the lock.

Plate 110 also includes an integral nose 110*b* which projects from the main body of the plate toward the adjacent corner post 22. This nose 110*b* is arranged to engage in a slot 114 of a striker plate 116 secured to the corner post directly opposite the nose. The plate 110 is retained within slot 112 by a pin 118 which extends transversely through the rail 13 and also through a horizontal slot 122 in plate 110. When the plate is positioned in its slot so that the pin 118 is at one end of slot 112, the nose 110*b* is retracted under rail 13. On the other hand, when the pin occupies a position at the other end of slot 122, the nose 110*b* projects an appreciable distance beyond the end of rail 13*c*. The plate is biased toward the latter position by a spring 124, situated in a bore 126 in the portion of slot 112 behind plate 110, the spring being compressed between the plate 110 and the inner end of the bore.

When the drop gate 12*a* is raised to its upper position shown in FIG. 12, the nose 110*b* engages the side edge of the plate 116. The edge of the nose facing the plate is beveled so that the engagement between that edge and the striker plate causes the plate 110 to retract into its slot 112 in opposition to the spring bias. When the nose 110*b* is brought directly opposite slot 114 in the plate, it snaps into the slot, securely locking the end of the drop gate.

Still referring to FIGS. 10 and 11, means are provided for insuring that the end gate lock 32 cannot be opened inadvertently by a child in the crib. More particularly, the portion of the slot 122 on the side of pin 118 facing end post 22 is reduced in width as shown at 112*a* in FIG. 10. Also as best seen in FIG. 11, the pin 118 is longer than the rail 13 is wide and it has a reduced diameter shaft portion 118*a* located on the near side of plate 110 as viewed in FIG. 10. Furthermore, that end of the pin terminates in a button 118*b* located well outbound of rail 13. A coil spring 128 is compressed between the inside face of button 118*b* and the side of the drop gate rail 13.

As long as pin 118 is held in its fully retracted position by spring 128, as shown in solid lines in FIG. 11, the relatively large diameter poition of pin 118 is positioned opposite the narrow slot portion 112*a*, so that the plate 110 cannot be retracted to release the end gate. However, when the parent depresses button 118*b*, the narrow shank portion 118*a* of pin 118 is brought opposite slot portion 122*a* as seen in dotted lines in FIG. 11. Now the plate 110 can be slid horizontally to retract the nose 110*b* from striker plate 116 and release the drop gate.

Here again then, two distinctly different motions are required in order to unlock each end of the drop gate.

Consequently, there is little liklihood of the gate being opened accidentally or by an infant in the crib.

Turning now to FIGS. **4** to **6**, even the extensible legs **56** of subject crib are locked in place by special safety knobs **66** so that they cannot be loosened accidentally. More particularly, each knob **66** must be depressed and at the same time turned in order to remove the knob from its threaded bolt **57** (FIG. **1**). Again, then two distinctly different physical motions are required in order to loosen the knob.

Each knob **66** includes a generally cylindrical metal nut **130** having a threaded bore **132** which can be turned down onto bolt **57** (FIG. **1**). A flange **130***a* at the upper end of the nut is secured within a cup-shaped member **134** made of plastic or other inexpensive rigid material. As best seen in FIG. **5**, the top face of the member **134** is formed with a relatively small circular groove **136** near its center and the inside wall **138** of the groove is beveled. Further, an array of raised radial ribs **142** extend from groove **136** almost to the periphery of the member.

Member **134** has an overlying cap **146.** Cap **146** is slightly larger in diameter than member **134** and it has a lip **148** extending all around its rim which engages under member **134** to hold the cap on the member, while allowing relative rotation between the two. The inside bottom wall of the cap is formed with a raised circular sectioned fin **152.** Each fin section is flexible and resilient and deformable radially outward. The diameter of the fin is such that when the cap **156** is placed on member **134,** the edge of fin **152** is situated at the top of the beveled groove wall **138.** The inside wall of cap **146** is also provided with an aray of raised radial ribs **156** extending between fin **152** and the perimeter of the cap. When the cap is installed on member **134** as shown in FIG. **4,** the fin **152** spaces the ribs **156** on cap **146** above ribs **142** on the underlying member so that when the cap is rotated relative to member **134** no torque is transmitted to the member and its nut **130.** On the other hand, when the top of the cap is depressed as it is turned, the sections of fin **152** will be pressed against the beveled groove edge **138** and splay outward. This permits the cap to approach member **134** so that the ribs **142** can interfit with ribs **156.**

Now when cap **146** is turned, torque is transmitted via member **134** to nut **130.** Thus, both a pressing and turning motion are required in order to effectively turn each nut **130.**

In some cases, for convenience, it may be desirable to arrange the knobs **66** so that the cap **146** has to be depressed only when the knob is being loosened, not when it is being tightened down on the bolt **57** (FIG. **1**). This is accomplished by providing teeth **160** on the outside of the side wall of member **134** and teeth **162** on the inside of the side wall of the cap **146.** When the knob is fully assembled, these teeth are shaped and arranged to engage one another when the cap **146** is turned in a clockwise direction as would be the case if one were tightening the knob, but to ride over one another when the cap is turned in the opposite direction. Thus, even though the top wall of cap **146** is not depressed when it is being turned clockwise, the engagement of the teeth **160** and **162** suffices to transmit torque to nut **130.** On the other hand, when the cap **146** is turned counterclockwise to loosen the knob, there is no torque transmitted by these teeth and, consequently, no movement of nut **130.** Rather, in order to loosen the nut, one has to depress the top face of cap **146** while turning the cap as described above.

FIG. **14** shows a modified drop gate lock. It is the same in all respects as the one in FIGS. **10** and **11,** except for the mode of locking plate **110.** Movable pin **118** is replaced by an L-shaped latch **202** pivoted on a stationary pin **204.** The latch's short leg **202***a* extends downward under rail **13** and a coil spring **206** biases that leg against the underside of that rail as shown in solid lines. Thus, it prevents plate **110** from being retracted. However, when the latch **202** is moved to its dotted line position out of the way of the plate, the place can be retracted.

It will be seen from the foregoing, then, that the provision of the above fittings on an otherwise conventional crib should minimize the incidence of accidents due to pinch points as well as inadvertent release of locks controlling the position of the drop gate, end gates and legs. Furthermore, the inclusion of these fittings enables the crib to satisfy all of the current governmental safety regulations pertaining to cribs.

We claim:

1. A folding infant's crib of the type having front and rear gates and foldable end gates pivotally connected to form a generally rectangular enclosure and a floor panel hinged to the bottom of the enclosure, the improvement comprising a double acting end gate lock for locking each of the end gates in its unfolded position, said lock including a pair of hinged-together lock sections, one lock section having a laterally extending tab and means defining a slot in said tab, said slot extending in a direction generally parallel to the end gate section to which it is attached, a latch pivoted to the other lock section adjacent to the pivot between the two sections, said latch being swingable vertically, a relatively long nose projecting from the latch, said nose being arranged to engage in the slot when the latch is swung down toward the tab with the end gate in its unfolded position, said nose having a portion which projects below the tab, and means for removably engaging the portion of the nose extending below the tab so that the first latch cannot be retracted from the slot.

2. The crib defined in claim **1** wherein the engaging means comprise a second latch swingably connected to one of the first and second lock sections for movement in a generally horizontal plane, said second latch being swingable toward the first latch so that a portion thereof engages the nose portion of the first latch extending below the tab.

3. The crib defined in claim **2** wherein the nose portion extending below the tab and the portion of the second latch which engages said nose portion have nutually perpendicular surfaces which engage one another.

4. The crib defined in claim **1** wherein the engaging means are hinged at the common hinge between the first and second lock sections.

5. The crib defined in claim **1** and further including a drop gate hinged to the crib front gate at the top thereof, said drop gate being arranged to swing between an upper position wherein it is generally coplanar with the front gate and a lower position wherein it hangs down outside the front gate, means for locking the drop gate in its upper position and wherein the hinge means connecting the floor panel to the bottom of the enclosure comprise a pair of relatively long straps connected between the bottom of the enclosure and one edge of the floor panel, said panel being swing-

able about said straps so that the panel can be raised up to a generally horizontal plane near the top of the enclosure, and means swingably connected to the floor panel at the edge thereof opposite the straps for engaging the drop gate when that is in its upper position so that the floor panel can only be maintained in its elevated position when the drop gate is in its upper position.

6. The crib defined in claim **5** wherein the engaging means comprise a bail swingably connected to the underside of the floor panel and whose web portion is arranged to hook over the top of the drop gate.

7. The crib defined in claim **5** wherein the means for locking the drop gate comprise a fixture retractably mounted in at least one end of the drop gate near the top thereof, a keeper mounted on the crib corner post opposite the fixture, said fixture having a portion which projects out beyond the drop gate and engages the keeper when the drop gate is in its upper position, means for biasing the fixture toward the keeper, and means for locking the fixture in engagement with the keeper.

8. The crib defined in claim **1** and further including legs positioned at the four corners of the enclosure each said leg having a series of positioning holes therein for receiving a bolt, a bolt projecting out from each of the four corners of the enclosure through one of the openings in the associated leg, a nut screwed down on each of the bolts to clamp the associated leg to the enclosure, each said nut including a cap engaged over the nut so that it can both be rotated relative to the nut and be moved axially through a small distance relative to the nut, means for biasing the cap axially in one direction relative to the nut, and co-acting means on the nut and cap which interfit with one another when the cap is moved in the opposite direction axially relative to the nut so that torque is transmitted from the cap to the nut only when the cap is moved axially in said opposite direction.

9. The crib defined in claim **8** and further including second co-acting means on the nut and cap which interfit with one another only when the cap is rotated in the clock-wise direction.

10. A folding infant's crib of the type having front and rear gates and foldable end gates pivotally connected to form a generally rectangular enclosure and a floor panel hinged to the bottom of the enclosure, the improvement comprising a drop gate hinged to the crib front gate at the top thereof, said drop gate being arranged to swing between an upper position where it is generally coplanar with the front gate and a lower position where it hangs down outside the front gate, means for locking the drop gate in its upper position, and wherein the hinge means connecting the floor panel to the bottom of the enclosure comprise a pair of relatively long straps connected between the bottom of the enclosure and one edge of the floor panel, said panel being swingable about said straps so that the panel can be raised up to a generally horizontal plane near the top of the enclosure, and means swingably connected to the floor panel at the edge thereof opposite the straps for engaging over the drop gate when that is in its upper position so that the floor panel can only be maintained in its elevated position when the drop gate is in its upper position.

11. The crib defined in claim **10** wherein the engaging means comprise a bail swingably connected to the underside of the floor panel and whose web portion is arranged to engage the drop gate.

12. The crib defined in claim **10** wherein the means for locking the drop gate comprise a fixture retractably mounted in at least one end of the drop gate near the top thereof, a keeper mounted on the crip corner post opposite the fixture, said fixture having a portion which projects out beyond the drop gate and engages the keeper when the drop gate is in its upper position, means for biasing the fixture toward the keeper, and means for locking the fixture in engagement with the keeper.

13. The crib defined in claim **12** wherein the fixture locking means comprise a pin mounted in the end of the drop gate, said pin extending through a generally horizontal slot in the fixture, said pin having a necked-down portion and being movable axially in the end gate, the width of the slot varying along its length so that the fixture cannot be retracted unless the pin is shifted axially so as to bring its necked-down portion opposite the slot in the fixture.

14. The crib defined in claim **13** and further including a double-acting end gate lock locking each of said end gates in its unfolded position, each said lock including a pair of lock sections connected to the end gate sections, a first latch pivotally to one lock section so that it can be swung against and engage the other lock section, a second latch pivotally connected to the other lock section so that it can be swung against and engage the first latch to prevent the first latch from being disengaged from the second lock section.

15. A folding infant's crib of the type having front and rear gates and foldable end gates pivotally connected to form a generally rectangular enclosure and a floor panel hinged to the bottom of the enclosure, the improvement comprising an adjustable leg secured to each corner of the enclosure, the securement including a threaded bolt projecting out from each enclosure corner through the associated leg, a nut for turning down on the bolt to clamp the leg to the enclosure, a cap engaged over the nut, means for connecting the cap to the nut so that it is rotatable relative thereto, the connection between the cap and the nut also permitting an appreciable amount of axial movement between the cap and the nut, means for biasing the cap in one direction axially relative to the nut, co-acting means on the cap and nut which interfit with one another when the cap is moved axially in the opposite direction relative to the nut so that torque is transmitted from the cap to the nut only when the cap is moved in said opposite direction.

16. The crib defined in claim **15** and further including second co-acting means on the cap and nut which interfit only when the cap is rotated clockwise relative to the nut so that the nut can be tightened down on the associated bolt without having to be shifted axially in said other direction.

17. The crib defined in claim **12** wherein the fixture locking means comprise a pin mounted in the end of the drop gate, said pin extending through a generally horizontal slot in the fixture, a latch pivotally mounted on the pin, said latch having a leg and being swingable from a first position placing its leg under the gate end in the path of the fixture to a second position spacing its leg away from the gate end out of the way of the fixture and a spring biasing the latch to said first position.

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