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Bryant

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[54] **SAFETY TOE TRIP FOR CRIB DROP SIDES**

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[52] **U.S. Cl.** **5/100,** 5/11

[51] **Int. Cl.** **A47d 9/00**

[58] **Field of Search** 5/13, 11, 100, 331

[56] **References Cited**

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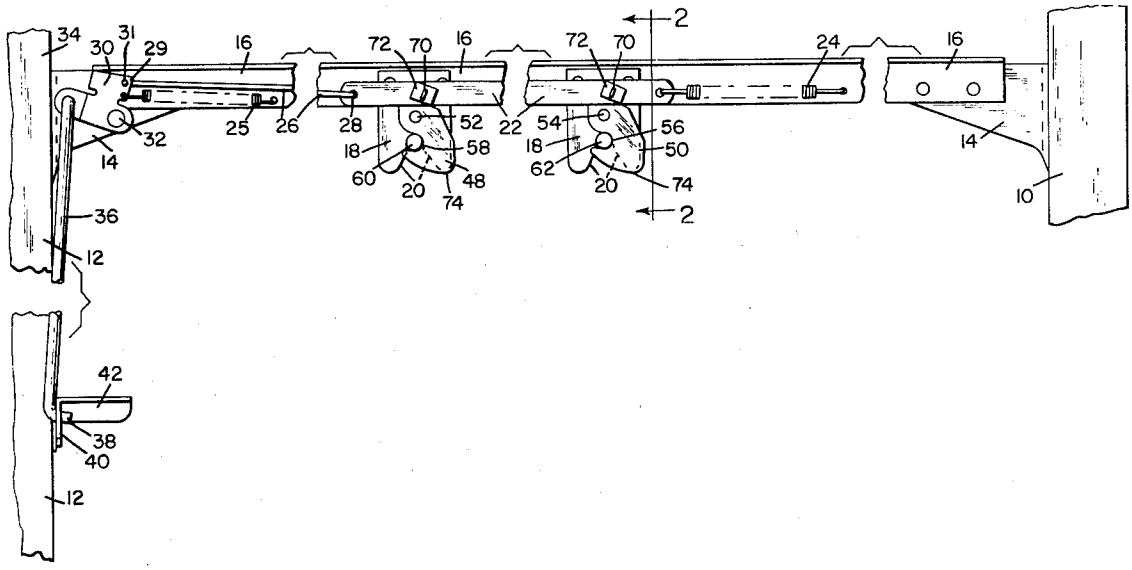
Primary Examiner—Casmir A. Nunberg

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[57] **ABSTRACT**

A safety crip drop side having a safety latch held by resilient means requiring a certain number of pounds of pressure on a foot pedal to release it. The foot pedal is located at an end of the crib out of the reach of the occupant and being of a nature which is not susceptible to accidental operation by an animal, or another infant.

9 Claims, 4 Drawing Figures



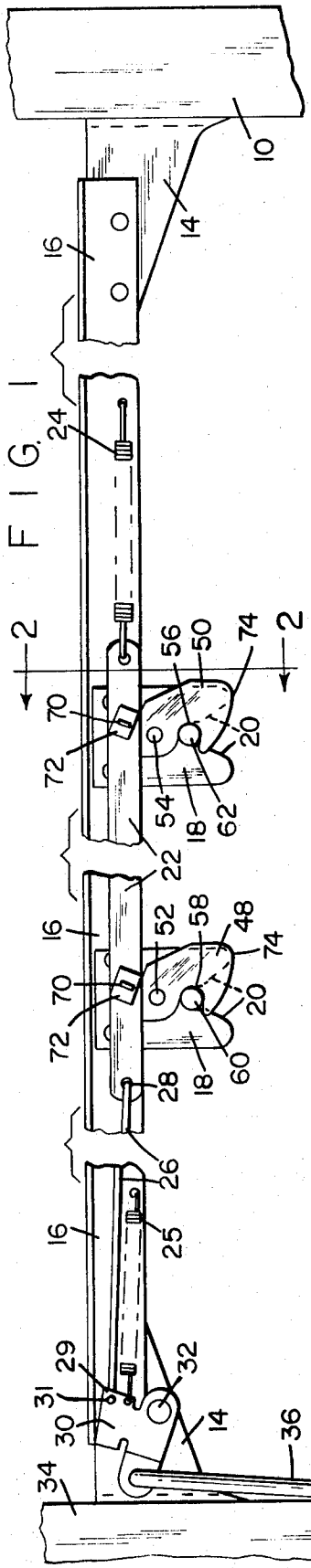


FIG. 1

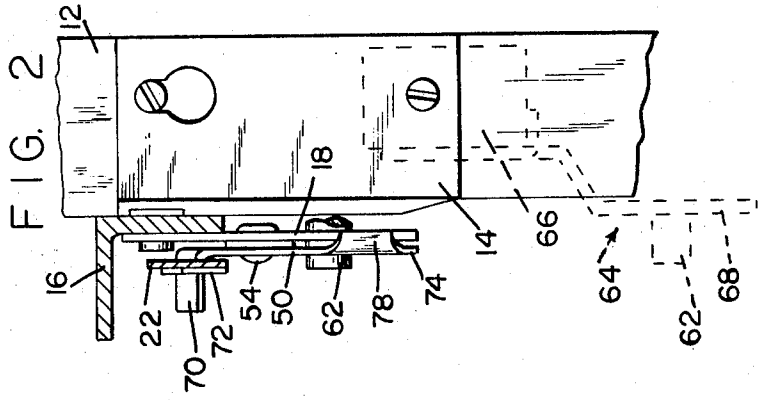


FIG. 2

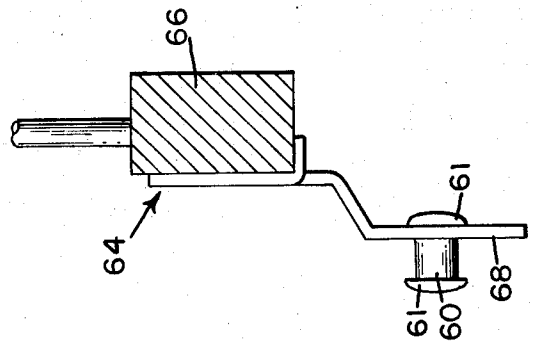


FIG. 3

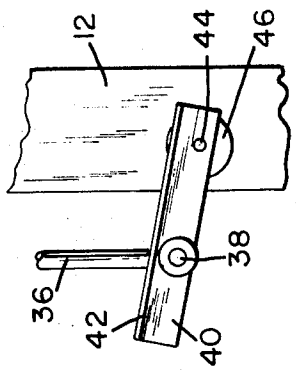


FIG. 4

SAFETY TOE TRIP FOR CRIB DROP SIDES

BACKGROUND OF THE INVENTION

Crib drop sides have been made for many years with different kinds of trip locks which are actuated to allow the crib sides to drop to a lower location. In the past it has been a consideration not only to provide for ease of operation of these trip locks but also cost has been important. Recently however greater safety has become the prime consideration so that the trip lock will not be accidentally operated as by an animal or by another infant or even accidentally by the nurse or mother. One of the suggestions for providing for such safety is to require a certain amount of pressure to be utilized before the trip can be actuated, it being believed that a required pressure of 10 or 11 pounds will prevent operation accidentally because of the effort involved in operating the latch; and it is the object of the present invention to provide such a device with a foot pedal located at one end of the crib only and having resilient strength applied thereto in the nature required so that the pedal cannot be operated accidentally.

SUMMARY OF THE INVENTION

A more or less conventional crib has a stabilizer bar which runs across the front of the crib from one corner post to the other. A pair of guides are secured thereto and each guide has a pivoted latch thereon. A rod or bar is connected to a bell crank by a sliding connection and the bell crank in turn is operated by a pedal at one end of the crib preferably pivotally mounted on a corner post. The latches are pivoted to the rod or bar and swing between latching and releasing positions relative to gate shoes on the crib drop side. Light resilient means is provided to resist motion of the rod in one direction, and heavy resilient means restricts the bell crank against actuation by the pedal, so that the latches will not release unless the required amount of pressure is applied to the pedal.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view in elevation illustrating the rear side of the stabilizer bar showing the present invention;

FIG. 2 is an enlarged section on line 2—2 in FIG. 1;

FIG. 3 illustrates a gate shoe; and

FIG. 4 shows a detail of the pedal construction.

PREFERRED EMBODIMENT OF THE INVENTION

Referring to FIG. 1 the reference numerals **10** and **12** indicate crib corner posts at the opposite ends of the crib. A pair of brackets **14, 14** are mounted on the inside facing aspects of these corner posts and on and between them is riveted an angle iron stabilizer bar **16.** The construction to be described is applied to the inner aspects of the vertical flange of the angle iron by a pair of attached flat guides **18, 18** provided with inverted V-notches **20, 20.**

A bar **22** is located at the inside aspects of the guides **18, 18** and a light spring **24** is attached to one end of this bar, the other end of the spring being attached to the vertical flange of the angle iron. At the opposite end of the bar **22** there is attached a rod **26** by the simple means of applying a bend or hook to an aperture as at **28.** The other end of the rod **26** is similarly applied to a flange **29** on a bell crank **30** by a bend **31** in rod **26.** The bell crank **30** is pivoted to bracket **14** at **32,**

and arm **34** of the bell crank is connected to a vertical rod **36** having an inturned end **38** at its lower end.

The inturned end **38** of rod **36** is entered into the flange **40** of a pedal **42,** the pedal **42** being located in a generally horizontal relationship and extends inwardly with relation to the corner post **12** as by a pivot **44** and washer **46** as shown in FIG. **3.**

The rod **26** can move to the left in FIG. **1,** relative to bell crank **30** but it cannot move to the right when the bend **31** abuts the flange **28.** Therefore heavy spring **25** connected to the arm **30** of the bell crank has no effect on the bar **22** but relatively strongly resists depression of the pedal **42.**

A pair of like latches indicated at **48** and **50** are pivotally mounted as at **52** and **54** respectively on the respective guides **18.** Each hook is provided with a bight as at **56, 58** and being pivotally mounted as at **52, 54** in order to latch the rods **60, 62** on a pair of gate shoes **64,** see FIG. **3.** Each gate shoe **64** comprises a flat plate mounted on the lower rail **66** of the drop side and has a bent portion **68** extending forwardly and having fixed thereto the respective pin **60** or **62** in position to enter and drop from the V-shaped notches **20** in the guides **18.** The latches are pivotally connected with respect to bar **22** by bent out flanges **70** rockably mounted in holes in the bar, and are held assembled by fasteners **72.** When the pedal is stepped on and the rod **26** and bar **22** consequently move to the left, the latches swing to the right releasing the pins **60** and **62** and allowing the crib drop side to drop.

The light spring **24** acts to move the latches clockwisely to latching position, and little force is needed to accomplish this per se; but to move the pedal down to unlatch the latches requires a greater force, e.g., 18 pounds pull, due to heavy spring **25.** When the drop side is raised, the pins **60, 62** strike cam edges **74** on the latches and move them counterclockwisely so that the pins are trapped in the bights **56** and **58,** due to the pressure of light spring **24,** which may have about e.g., a 4 pound pull. A flange **78** on each catch stops the clockwise motion of the catches when the drop side is down.

The heads **61** on the ends of pins **60** and **62** prevent the drop side from disengaging from the lock and accidentally causing the drop side to fall.

I claim:

1. A safety latch construction for a crib having a drop side, said crib including a stabilizer bar,

a movable latch on the stabilizer bar and means to be latched thereby on the drop side, resilient means associated with said latch and tending to maintain the same in latching condition with respect to said means,

and a foot pedal, said foot pedal having an operative connection with respect to said latch to move it to release said means, and a second resilient means for said foot pedal tending to maintain the same in a position wherein the latch is in its latching position, said second resilient means being isolated fron the latch, wherein the connection between the movable latch and the pedal comprises an elongated longitudinally movable bar and a pivoted connection between the bar and the pedal.

2. The safety latch construction of claim **1** wherein the second resilient means is relatively strong with respect to the first named resilient means.

3. The safety latch construction of claim 1 wherein said connection is slidable, the second named resilient means having no effect on said bar and therefore no effect on the latch.

4. The safety latch construction of claim 1 wherein said pedal is located at one end of the stabilizer bar.

5. The safety latch construction of claim 4 wherein said crib includes a corner post, said pedal being pivotally mounted on said corner post and extending inwardly thereof with respect to the crib.

6. The safety latch construction of claim 1 wherein the latch is pivoted, and a pivot connection between the latch and the bar, the pivot connection being offset with respect to the pivot for the latch.

7. The safety latch construction of claim 6 wherein said latch includes a bight for the reception of the means to be latched on the drop side.

8. The safety latch construction of claim 1 including a guide on the stabilizer, means pivoting the latch to the guide, the guide including a downwardly open V-shaped notch, and said latch having a cam surface thereon at the lower edge thereof, said means to be latched upon rising of the drop side engaging said cam edge moving the latch aside, the first named resilient means causing said latch to snap in under said means to be latched in the V-notch.

9. A safety latch for a crib having a drop side, said crib including a pair of corner posts and a stabilizer bar secured between the two corner posts,

a reciprocal bar on the stabilizer bar, a spring to restrain motion of the bar in one direction at one end of said bar, a latch pivoted to the stabilizer bar and to the reciprocal bar on offset axes, the latch having a bight,

a bell crank at the opposite end of said bar connected with respect to said bar, a pedal attached to a leg of the bell crank, said lever being pivotally mounted on one of said corner posts and effective to draw the bar against the action of the spring when depressed, through the bell crank,

a gate shoe on the drop side, said gate shoe having means thereon for engagement and latching by the bight of said latch when the drop side is raised whereby the drop side is latched in its uppermost position, depression of said pedal drawing said reciprocal bar against the action of the spring and moving the latch to release the gate shoe means and allow the drop side to descend.

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