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[54] **DOUBLE LOCKING GATE SHOE AND TRIP FOR CRIB DROP SIDES**

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

[51] **Int. Cl.**[2] **A47D 9/00**

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

[56] **References Cited**

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[57] **ABSTRACT**

A double locking gate shoe and trip for the drop side of a crib comprising a pivoted manually operable trip mounted on the stabilizer bar of the crib, in combination with at least one cooperating gate shoe mounted on the lower rail of the drop side and including an inclined cam edge and beneath the same a right angled slot for the double locking reception of a portion of the trip therein when the drop side is raised to its uppermost position.

2 Claims, 3 Drawing Figures

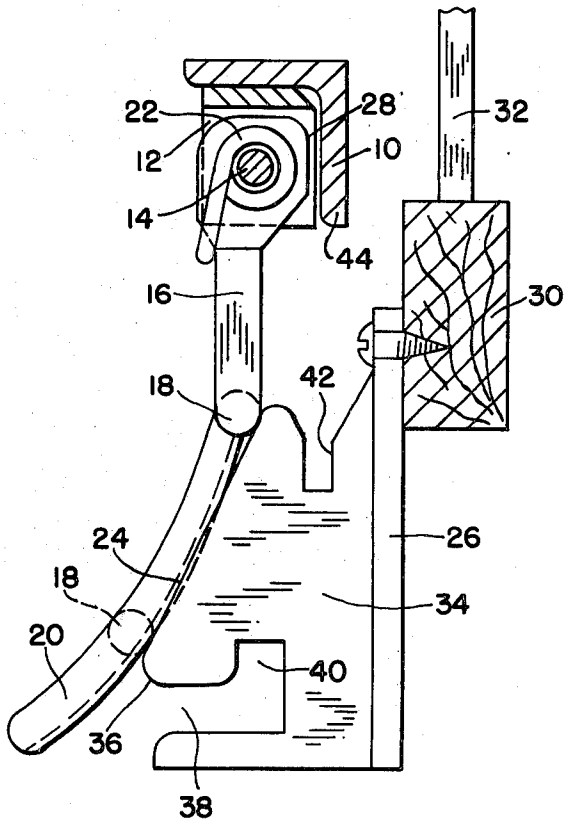


FIG. 1

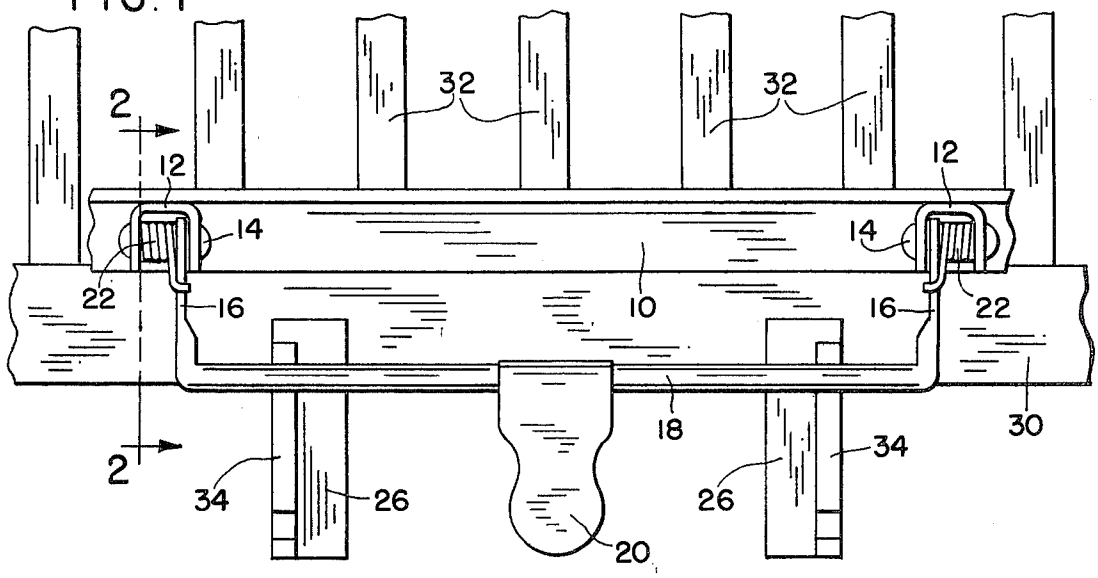


FIG. 2

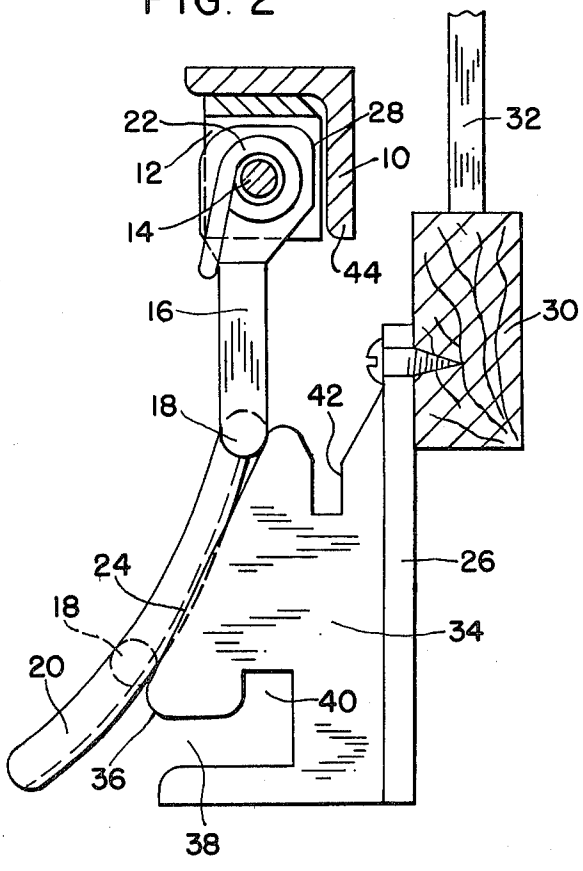
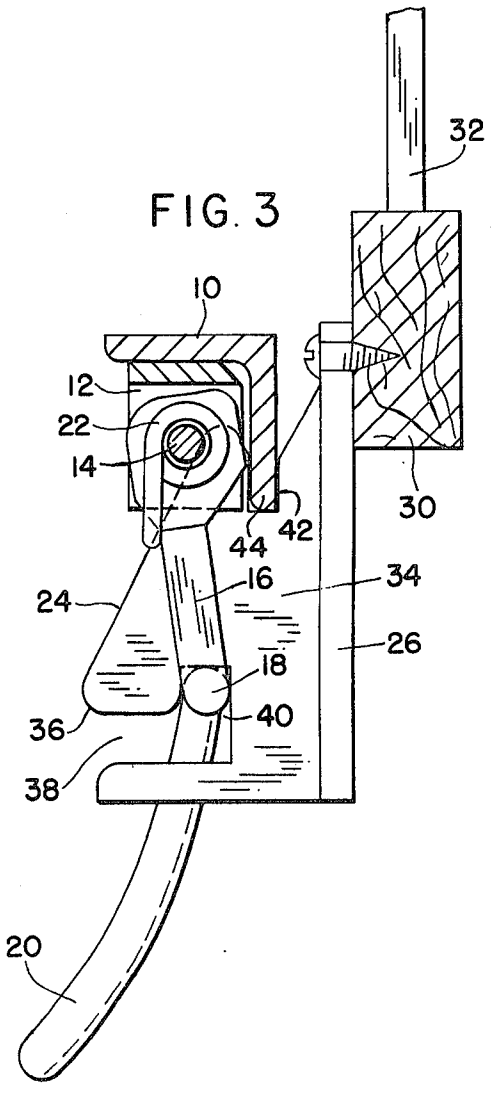


FIG. 3



DOUBLE LOCKING GATE SHOE AND TRIP FOR CRIB DROP SIDES

BACKGROUND OF THE INVENTION

There have been many suggestions and constructions provided for additional safety of crib drop sides in their uppermost locked position and many of these suggestions reside in the idea of providing a double motion device rather than a single motion device as in the prior art for the release of such drop sides. In cases such as the present where a knee or leg operated trip is utilized it is desired to prevent accidental unlocking and consequent dropping of the crib drop side merely upon pressure being applied as in the past to the trip, so that it may not be accidentally actuated as for instance by an animal or other child, etc., and in the present case means is provided whereby it is necessary to lift the drop side slightly manually and at the same time press upon the trip in order to dislodge the same from its double locked position with respect to the gate shoe.

SUMMARY OF THE INVENTION

A pivoted trip is mounted on the stabilizer bar of a crib, this trip having a spring normally urging the same in a forward direction i.e., toward locking position and being manually movable toward the rear to release it. On the lower rail of the crib drop side there is provided at least one and preferably two gate shoes each of which has a rearwardly extending vertical flange for engagement by the trip, the flange having a downwardly and rearwardly inclined edge for camming the trip toward the rear when the drop side is raised, and at the lower terminal end of the inclined edge there is provided a horizontal forwardly and then vertically upwardly directed slot. The result is that when the drop side is raised, the trip is cammed toward the rear by said inclined edge until it reaches the horizontally forwardly extending slot, whereupon the trip spring causes the trip to enter said slot in a forward direction relative to the drop side; and then when the drop side is released by the user it drops slightly so that the trip is located at the upper end of the vertical part of the slot.

Therefore when it is desired to release the drop side it is necessary to raise it slightly so that the trip is then in the horizontal part of the slot, whereupon a simultaneous pressure against the trip toward the rear against the action of the spring releases the trip from the gate shoe and then the cirb drop side is enabled to descend.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view in rear elevation illustrating the invention;

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

FIG. 3 is a view similar to FIG. 2 showing the parts in their double locked position.

PREFERRED EMDODIMENT OF THE INVENTION

The present invention may be applied to any crib which has a drop side, but in the present case the crib is provided with a stabilizer bar in the form of an angle iron indicated at **10** and this extends from one end of the crib to the other usually between the corner posts. At the rear surface of this angle iron there is provided a U-shaped bracket generally indicated at **12**, there being two of these brackets in spaced relation as shown in FIG. **1**. Each bracket is provided with a trip pivot

wire, or pin **14, 14** upon which is pivotally mounted the end pieces **16, 16** of the trip **18**. The trip **18** may be provided with an actuator **20** which is rigidly secured thereto in the depending position shown.

There is also a spring **22** located in any position desired but preferably within one of the brackets **12** urging the trip **18** away from the observer in FIG. **1** and to the right or in a counterclockwise direction in FIGS. **2** and **3**. Appropriate means are provided for preventing the trip from moving any further in a counterclockwise direction than is necessary to engage the inclined cam edge **24** on gate shoe **26** to be described, and this ordinarily takes the form of surfaces **28** or the like which abut the side of the angle iron stabilizer bar **10** or bracket **12.**

The lower rail of the drop side is indicated at **30** and it has the usual spindles or the like **32, 32** and on the rear surface thereof there is provided at least one gate shoe **26** although there are preferably a pair of these as indicated in FIG. **1.**

The inclined cam edge **24** forms the rearward edge of a flange or the like **34** forming a part of the gate shoe. This flange also is provided at the lower terminus of the inclined edge **24,** as at **36,** with a horizontal forwardly directed slot **38** terminating in an upwardly extending vertical slot **40.**

FIG. **2** illustrates the crib drop side as being raised from its lowermost position, not shown. The trip **18** strikes the top end of the inclined edge **24** thus being moved to the rear, see the dotted line showing of the trip in FIG. **2.** When the point **36** is reached, the spring **22** causes the trip **18** to enter slot **38** and move to the inner end thereof, whereupon the operator releases the drop side which can drop slightly and the trip **18** then moves into the FIG. **3** position to the trip lock in the recess **40.**

It will now be clear that if it is desired to drop the drop side from the FIG. **3** position it is necessary to manually raise the drop side slightly to release trip **18** from slot **40** placing it in slot **38,** whereupon a simultaneous rearward pressure on trip **18** as for instance through the extension **20,** moves the trip out of slot **38** and free of the gate shoe, whereupon the drop side is free to fall. This action can only take place upon the actuation of the double lock mechanism as above described, so it is not possible to merely press the extension **20,** see FIG. **3,** as the trip will not unlock from the gate shoe until and unless the drop side is raised sufficiently to clear trip **18** with respect to slot **40.**

The flange **34** may have a top opening vertical slot **42** to accommodate and edge **44** on the angle iron **10** to guide to relative parts into the FIG. **3** position.

I claim:

1. A double locking gate shoe and trip for the drop side of a crib having a stabilizer bar and a drop side adjacent thereto, a pivotable trip on the stabilizer bar and a spring urging the trip in a direction toward the drop side,

a gate shoe on the drop side, said gate shoe including a rearwardly extending flange having an inclined edge thereon, said inclined edge extending downwardly to the rear, toward the trip, an opening at the lower end of said inclined edge, said opening extending forwardly and then upwardly,

and a portion on said trip being urged into said opening by the spring, said trip portion entering the upright part of the opening upon manual release of the drop side and consequent drop by gravity

thereof, whereby it is necessary to raise the drop side slightly and to provide a simultaneous rearward presure on the trip to retract it from the gate shoe,

wherein the spring maintains the trip in the path of the inclined edge of the flange when the drop side is being raised, the inclined edge acting like a cam and pressing the trip gradually rearwardly against the action of the spring.

2. The gate shoe and trip of claim **1** including a vertical slot in the flange at the top edge thereof, said slot receiving a vertical portion of the stabilizer bar.

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