L. A. SAFFORD.

CHILD'S CRIB AND THE LIKE.

APPLICATION FILED OCT. 14, 1916.

1,275,762.

Patented Aug. 13, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

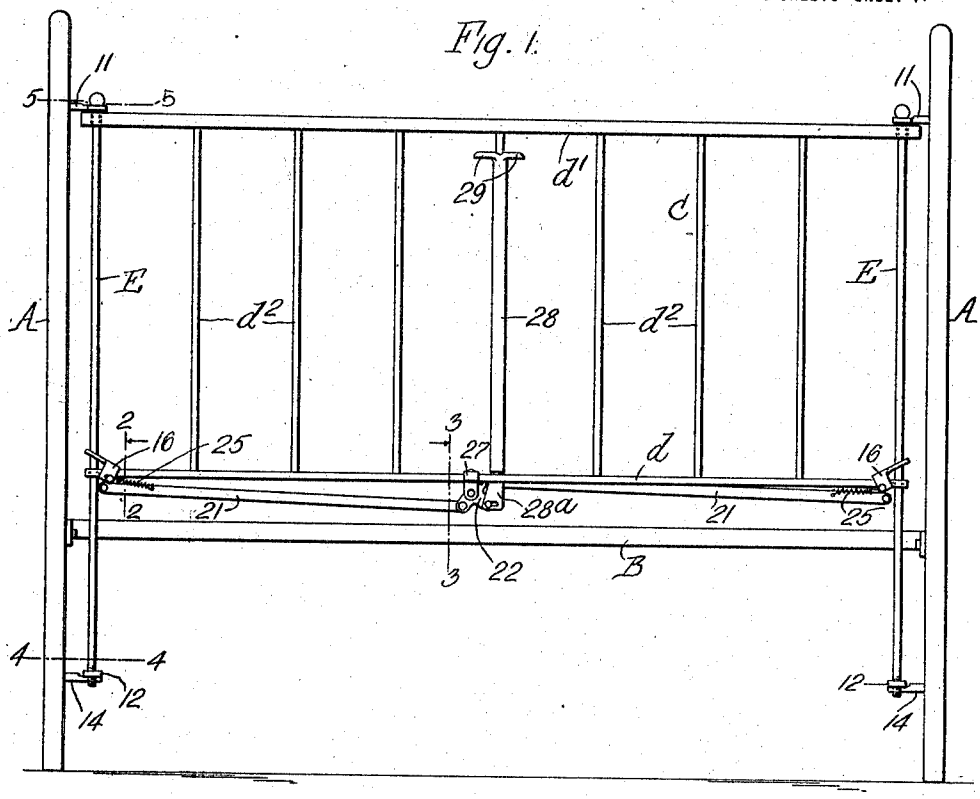
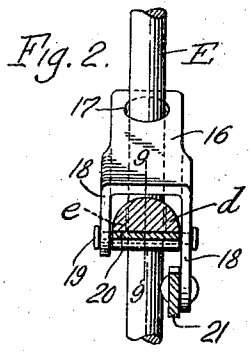


Fig. 2.



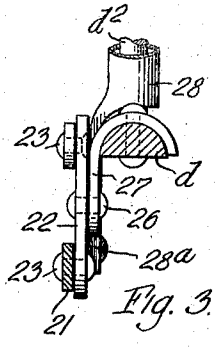


Fig. 3.

Fig. 4.

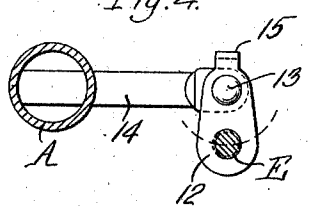
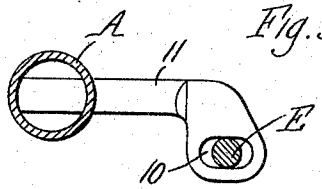


Fig. 5.



Inventor.

Lewis A. Safford.

By Wilhelmus Parker

Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

L. A. SAFFORD.

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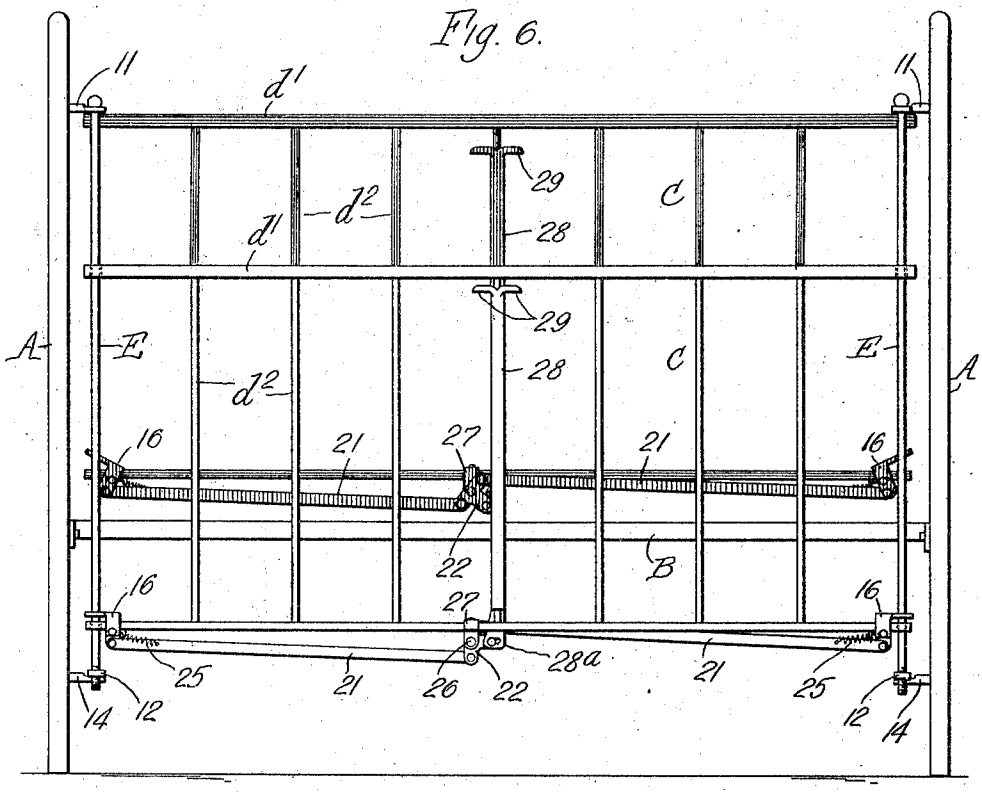
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2 SHEETS—SHEET 2.

Fig. 6.



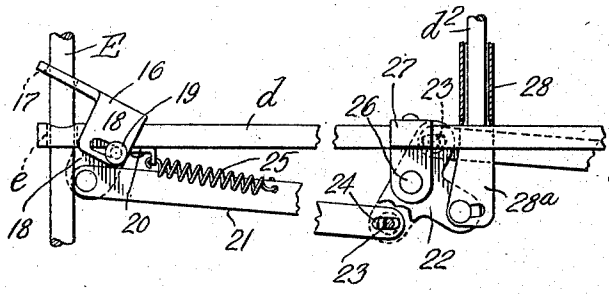
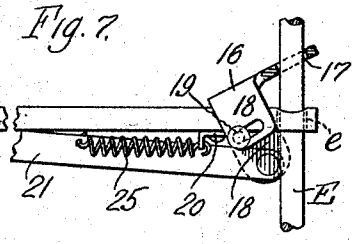


Fig. 7.



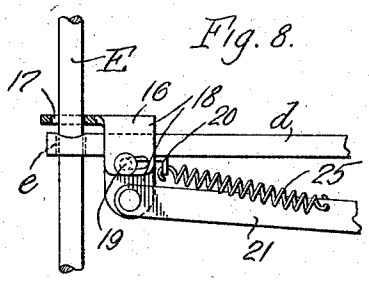


Fig. 8.

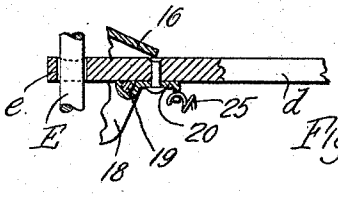


Fig. 9.

Inventor.
Lewis A. Safford,
by Wilkelm & Parker.
Attorneys.

UNITED STATES PATENT OFFICE.

LEWIS A. SAFFORD, OF BUFFALO, NEW YORK, ASSIGNOR TO BARCALO MFG. CO., OF BUFFALO, NEW YORK.

CHILD'S CRIB AND THE LIKE.

1,275,762. Specification of Letters Patent. Patented Aug. 13, 1918.

Application filed October 14, 1916. Serial No. 125,576.

To all whom it may concern:

Be it known that I, LEWIS A. SAFFORD, citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented a new and useful Improvement in Children's Cribs and the like, of which the following is a specification.

This invention relates to improvements in children's cribs of that kind which have vertically sliding sides or side railings adapted to be lowered from their normal elevated position to facilitate placing a child in and taking it from the crib, and particularly to such cribs in which the sliding sides are provided at their ends with clutches or holding devices which coöperate with the guides for the sliding sides for holding the sides up in the positions to which they may be raised.

One object of this invention is to provide means of practical and desirable construction whereby the clutches or holding devices at the opposite ends of the sliding side can be readily operated by one hand, thus enabling a person holding a child in one arm to readily raise and secure or release and lower the side of the crib with the other hand. Other objects of the invention are to produce a holding or securing mechanism of this sort which is of such construction that it can be applied to the crib at small expense and with the minimum amount of fitting or adjusting of the parts, but will be reliable in operation and will at the same time be convenient for operation and not be cumbersome or unsightly in appearance; and also to attach the guide rods for the sliding sides to the crib frame, by simple and convenient means which will permit the guide rods to shift relatively to the frame to adapt themselves to differences or inaccuracies in the cribs incident to manufacture.

In the accompanying drawings:

Figure 1 is a side elevation of a crib embodying the invention.

Fig. 2 is an enlarged transverse sectional elevation on line 2—2, Fig. 1, showing one of the side holding clutches.

Fig. 3 is an enlarged, transverse, sectional elevation on line 3—3, Fig. 1.

Fig. 4 is a sectional plan view, enlarged, on line 4—4, Fig. 1.

Fig. 5 is a sectional plan view, enlarged, on line 5—5, Fig. 1.

Fig. 6 is a side elevation of the crib showing the near side partially lowered with the securing means in position to permit the movement of the side.

Fig. 7 is an enlarged side elevation, partly in section, of the securing mechanism.

Fig. 8 is an enlarged side elevation, partly in section, of one of the clutches and adjacent parts.

Fig. 9 is a longitudinal sectional elevation on a reduced scale on line 9—9, Fig. 2.

A represents the end frames of a child's crib or bed, which frames are connected by a bottom frame B or by horizontal side rails in any usual or suitable manner, and C C are the vertically sliding sides or side railings of the crib. A metal crib is shown in the drawings in which each of the sides C C consists of lower and upper horizonal rails d d' connected by spaced vertical rods d^2 and is arranged to slide up and down on vertical guide rods E secured on the end frames and passing through guide holes or eyes e at the ends of the upper and lower rails of the side frame. The lower rail d of each side preferably consists of a rod of substantially semi-circular cross section, as clearly shown in Figs. 2 and 3. The construction as thus far described is common in metal cribs except that the guide rods E are preferably secured to the end frames of the crib in a novel manner as follows:—

Each guide rod passes through a horizontal, elongated slot 10, Fig. 5, in a bracket 11 which is secured rigidly in any suitable manner to the upper portion of the adjacent end frame and the lower end of the guide rod, which is screw-threaded, is screwed into a hole in a plate or arm 12 which is suitably pivoted at 13 to swing horizontally on a stationary bracket 14 fixed in any suitable manner to the lower portion of the end frame. The pivoted arm 12 is preferably provided at its inner end with a downturned stop or lug 15 adapted to strike the supporting bracket 14 to limit the extent to which the arm can swing on the bracket. By this construction the guide rods are supported so that they can shift somewhat toward and from the end frames as may be necessary by reason of the location of the guide holes or eyes on the sliding sides and the position of the securing clutches hereinafter described. The guide rods are thus capable of adapting

themselves to inaccuracies in the manufacture of the crib and obviate the necessity for a nice and accurate fitting or adjustment of the parts and thus materially reduce the labor and expense in the manufacture of the crib without interfering with the correct action of the parts. The guide rod would have the necessary play if its lower end were loosely confined in a slot in the lower bracket, as in the case of the upper bracket, but this would necessitate a separate nut or part on the lower end of the rod for securing it in its brackets and a separate nut or securing device is undesirable as it is apt to work off and be lost. The guide rod can be screwed into the pivoted arm 12 as readily as screwing a nut on the rod and there are no detached parts to work loose or become misplaced.

16 represents holding devices or clutches arranged at the end portions of the lower rails *d* of the sliding sides and slidably engaging the guide rods E which they are adapted to grip for holding the sides C when raised. Each of the clutches shown consists of a plate or lever which extends lengthwise above and is mounted on the bottom rail so as to swing toward and from the rail to different angular relations to the adjacent guide rod and is provided with a hole 17 through which the guide rod passes. The hole is of such shape and size as to allow the lever to slip on the guide rod and permit the side to be either raised or lowered when the lever is swung in one position, for instance to the horizontal position shown in Fig. 8, and to cause the lever to frictionally grip the guide rod and prevent the side from sliding downwardly thereon when the lever is in an inclined position as shown in Figs. 1 and 7. The clutch lever preferably consists of a plate bent to provide depending side legs 18 which straddle the rail *d* and are connected thereto by a pivot pin or rivet 19 which extends through elongated slots in the legs 18. The pivot pin or rivet 19 is preferably secured on the flat underside of the rail *d* by a securing plate 20 riveted or otherwise fastened on the rail and having a bent portion forming a seat for the pin, see Fig. 9. The two clutch levers at the opposite ends of each side C are connected below their pivots to the outer ends of rods 21 which extend toward the center of the side and are connected at their inner ends to the opposite arms of an operating lever 22 which is pivotally mounted on the lower portion of the sliding side about midway between its ends. The rods 21 are preferably connected to the lever 22 by rivets 23 passing through elongated slots 24, see Fig. 7, in the arms of the lever 22 so as to permit a limited movement of the lever 22 independently of the rods 21 and clutch levers 16. The clutch levers are normally held yieldingly in the inclined position shown in Figs. 1 and 7, in which they grip the guide rods E and hold the side from downward movement by springs 25 preferably connected to the connecting rods 21 and to the securing plates 20. If the side is raised the clutch levers will yield, permitting such movement so that it is not necessary to actuate the clutches for raising the side. The slotted or lost motion connections between the operating lever 22 and connecting rods enables sufficient movement of the clutches independently of each other and the operating lever to insure the proper holding action of both clutches notwithstanding such differences in the positions or adjustments of the clutches as might arise from inaccuracies in the manufacture or assembling of the parts. The operating lever 22 is pivotally mounted on the sliding side preferably by a rivet 26 connecting it to a plate or bracket 27 which is riveted or otherwise suitably secured on the lower rail *d* and depends therefrom at the inner side of the rail.

28 represents an actuating handle or rod connected to the lever 22 for actuating the same to operate the clutches. The handle or rod preferably consists of a tube or sleeve arranged to slide vertically on one of the upright rods d^2 of the sliding side located adjacent to the lever 22. The tube 28 is provided at its lower end with an offset leg or part 28^a which depends at the inner side of the lower rail *d* and is connected to an arm of the lever 22 for swinging the same. The lever 22 is connected to the leg 28^a by a rivet and slot or other connection permitting the necessary play between the parts required by the different lines in which the parts move. The upper end of the actuating tube 28 is provided with a hand grip or finger pieces 29 conveniently formed by splitting the upper end of the tube and bending the parts thereof horizontally outwardly in opposite directions. The tube 28 can be readily actuated by grasping the finger pieces at its upper end and raising the tube to swing the lever 22 and operate the clutches. This construction locates the actuating handle for the clutches in a convenient position, and makes the same inconspicuous and no additional parts are required for supporting and guiding the actuating handle.

I claim as my invention:—

1. In a crib, the combination of a side composed of upper and lower longitudinal rails and upright connecting rods, guides on which the side is arranged to slide up and down, holding devices movably mounted at the end portions of said side and arranged to engage said guides for holding the side from downward movement at different desired elevations, and a one-hand

operating mechanism for said holding devices arranged between the ends of the side and comprising a tubular actuating rod surrounding and adapted to slide vertically on one of said vertical rods between said upper and lower longitudinal rails, and operative connections between said actuating rod and said holding devices.

2. In a crib, the combination of a side, guides on which the side is arranged to slide up and down, holding devices at the end portions of said side coöperating with said guides for holding the side from downward movement, and a one-hand operating mechanism for said holding devices comprising an actuating rod mounted to slide vertically on the side between the ends thereof, a lever pivoted on the lower portion of the side and connected to the lower end of said actuating rod, and connecting rods extending from said lever to said holding devices.

3. In a crib, the combination of a side composed of longitudinal rails and upright connecting rods, guides on which the side is arranged to slide up and down, holding devices at the end portions of said side cooperating with said guides for holding the side from downward movement, and a one-hand operating mechanism for said holding devices comprising an actuating rod mounted exteriorly on one of said upright rods to slide vertically on the side between the ends thereof, a lever pivoted on the side and connected to said actuating rod, and connecting rods connected to said holding devices and having loose pin and slot connections with said lever.

4. In a crib, the combination of a side, guide rods adjacent the ends of the side on which the side is arranged to slide up and down, friction clutches mounted on the end portions of said side and coöperating with said guide rods to frictionally hold the side in different positions of adjustment, each of said clutches comprising a lever having a hole through which the adjacent guide rod passes and arranged to swing relative to the guide rod to frictionally grip and release the same, and a one-hand operating mechanism for said clutches comprising a lever pivoted on the side between its ends, connections between said lever and said clutches permitting limited movement of said lever independently of the clutches, and an actuating device for said lever.

5. In a crib, the combination of a stationary frame, a side, guide rods on which said side is arranged to slide, and a plate to which each guide rod is secured and which is pivoted to said frames to swing substantially lengthwise of the crib to permit the guide rod to shift relatively to the frame in a substantially longitudinal direction.

Witness my hand this 11th day of October, 1916.

LEWIS A. SAFFORD.

Witnesses:
CHARLES VELLONE,
A. W. KIRTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."