Sept. 21, 1954 R. F. DE FRANK 2,689,355

ELECTRIC CRIB ROCKER

Filed May 21, 1953

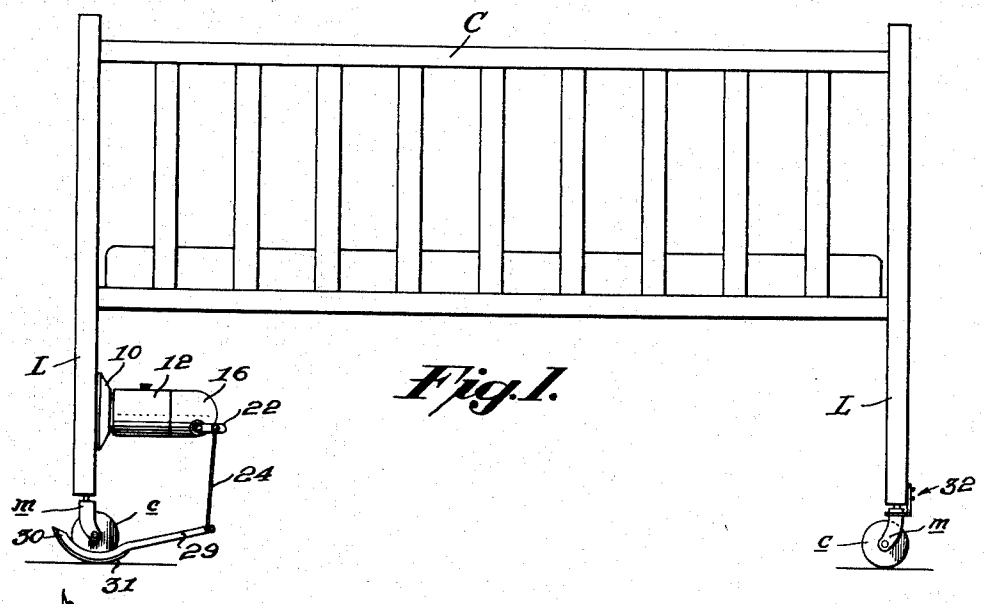

Fig. 1.

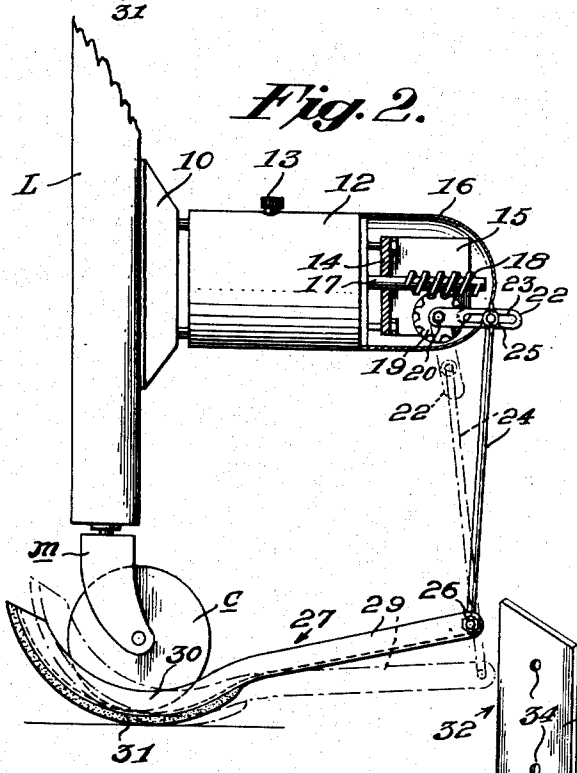

Fig. 2.

Fig. 4.

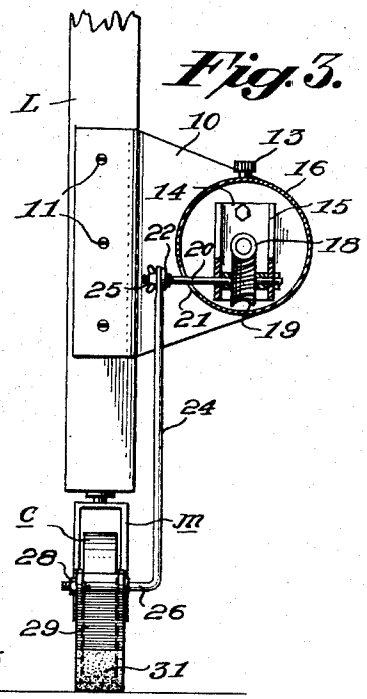

Fig. 3.

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Patented Sept. 21, 1954

2,689,355

UNITED STATES PATENT OFFICE

2,689,355

ELECTRIC CRIB ROCKER

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Application May 21, 1953, Serial No. 356,460

4 Claims. (Cl. 5—109)

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This invention relates to a crib reciprocating device, and is a continuation in part of my pending application Serial No. 299,874, filed July 19, 1952.

The invention is more particularly concerned with a novel device adapted for connection with a leg of a child's crib for effecting reciprocatory movement thereof on its casters.

It is well known by parents that an infant or child requires several naps each day. It is also known that more or less effort on the part of a parent is required to induce the child to submit to its duty of going to sleep.

It is further well known that a child after having been placed in its crib will go to sleep more quickly if a reciprocatory or to and fro movement is imparted to the crib.

While the required attention to a child in inducing it to go to sleep varies considerably with different children, and in any case may require but little time for each nap period, nevertheless, the overall time required for reciprocatory movement of the crib each twenty-four hours is considerable and may in fact be more than the average parent has to spare considering the many other household duties, as well as a certain amount of rest required by all parents.

It is accordingly a primary object of this invention to provide a novel device which is capable of being readily connected to the crib and which will effect the required to and fro movement thereof without any attention of the parent whatsoever.

Other objects and advantages of the invention will become apparent in the course of the following detailed description, taken in connection with the accompanying drawing, wherein—

Fig. 1 is a side elevational view of a child's crib showing the application of the invention thereto.

Fig. 2 is an elevational view of the lower end portion of one leg of the crib with its associated caster on a substantially enlarged scale and showing the invention in elevational and vertical sectional view.

Fig. 3 is an elevational view as observed from the right of Fig. 2 with certain portions in vertical section.

Fig. 4 is a perspective view of a bracket included in the invention.

Referring now in detail to the drawing, a standard form of crib is designated as C and which includes four legs L with cooperating casters *c* which are rotatably supported in swivel mountings *m* as in well known practice.

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The present invention includes a means attachable to one leg L for effecting to and fro movement of the crib and a means attachable to each of the other three legs L for restraining the caster mountings *m* against swivel movement whereby the crib will be movable lengthwise thereof only.

The first means comprises a bracket 10 which is attachable to one leg L as by means of a plurality of screws 11. Suitably supported by the bracket 10 is an electric motor 12 having a switch control button 13 (the lead-in wires not being shown).

Suitably supported on the free end of motor 12 is a suitable channel member including a base 14 and opposite side walls 15. A removable cap 16 is practically engaged with the free end of the motor housing in surrounding relation to the channel member.

The motor shaft 17 is journaled in the said base 14 and projects between the side walls 15 where it is provided with a worm 18 which is in driving engagement with a worm gear 19 fixed on a shaft 20 extending transversely of said side walls 15 and suitably journaled therein.

The cap 16 is provided with an aperture 21 through which the shaft 20 projects to a point externally thereof. Suitably fixed to the free end of shaft 20 is one end of an arm 22 which is provided with an elongated slot 23.

A link 24 has one end thereof adjustably secured in said slot 23 as by means of a suitable bolt and thumb nut 25 and the opposite end of the link includes a portion 26 extending at right angles to the major portion of the link.

The link portion 26 extends through the opposite side walls of an elongated channel member 27 adjacent one end thereof and is secured therein by a nut 28. The said member 27 includes a lever arm 29 and an arcuate caster engageable portion 30 which is provided with a friction pad 31.

The means engageable with each of the other three legs L is indicated at 32 and comprises a rectangular plate 33 provided with screw receiving apertures 34 whereby same is capable of being readily secured to a leg as indicated in Fig. 1.

The means 32 further comprises a pair of legs 35 for engagement with opposite side walls of a respective caster mounting *m*.

In the use of the improved structure, the crib reciprocating means is secured to one leg L and one of the members 32 is secured to each of the other three legs for preventing swivel movement of the respective caster mountings *m*.

The motor 12 is then set into operation which

results in rotation of shaft **20** and a corresponding rotation of the arm **22**.

In the rotation of arm **22**, the link **24** will be given a combined rotary and reciprocatory movement as can be visualized from the dot-and-dash position in Fig. 2.

This movement of link **24** will cause member **27** to rock on its friction pad **31** and since the caster *c* is seated in the channel of the member, it will gravitate to the lowest point of the arcuate portion **30** with a resulting to-and-fro movement to the crib.

While I have disclosed my invention in accordance with a single specific structural embodiment thereof, such is to be considered as illustrative only, and not restrictive, the scope of the invention being defined in the sub-joined claims.

What I claim and desire to secure by U. S. Letters Patent is:

1. Structure for imparting to-and-fro movement to a child's crib in which each of the four legs thereof is provided with a caster rotatably supported on a horizontal axis in a mounting rotatable about a vertical axis of the leg; comprising a plate attached to each of three of said legs, a pair of laterally spaced arms projecting at right angles to said plate and disposed at opposite sides of a respective mounting for preventing rotation thereof about said vertical axis, and means secured to the fourth leg operable to impart to-and-fro movement to the crib, on its casters.

2. Structure for imparting to-and-fro movement to a child's crib in which each of the four legs thereof is provided with a caster rotatably supported on a horizontal axis in a mounting

rotatable about a vertical axis of the leg; comprising means attached to each of three of said legs for restraining the respective mountings against rotation about said vertical axis, an elongated member having a channel therein receiving the peripheral portion of the fourth leg caster, a friction pad on the said member engageable with the floor for preventing relative sliding movement between the said member and floor, a motor secured to said fourth leg, and connections operatively associated with said motor and said member for rocking said member on said pad, whereby the crib is given a to-and-fro movement on its casters.

3. The structure according to claim 2, wherein said connections comprise a worm on the shaft of said motor, a worm gear driven by said worm, a shaft projecting from said gear, an arm having one end thereof secured to said shaft, and a link having opposite ends thereof pivotally connected to said arm and said member.

4. The structure according to claim 3, wherein one end of said link is adjustably connected to said arm.

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