MECHANISM FOR ROCKING CRADLES, CHAIRS AND THE LIKE

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The present invention relates to means for imparting a rocking or oscillating motion. More particularly, the present invention is concerned with electrically operated means for effecting a smooth rocking motion.

The soothing effects of rocking are beneficial to young and old and are being advocated more and more by doctors. As used hereinafter, the term “rocking” refers to a movement which is similar to that used from time immemorial by a mother in lulling a baby to sleep. This movement has for a long time been duplicated in cradles and rocking chairs. Rocking motion in these is physically supplied. To avoid fatigue, mechanical means have long been sought in order to derive such motion without effort. The indicated mechanical means which have already been suggested have assumed many forms. In one, the means have entailed guiding the end of a cradle through a circular path. Another mechanism has consisted in movably mounting a cradle on a platform and transferring motion to the cradle by means of a pinion or of an eccentric. Even though the above-outlined suggestions were offered to the art long ago, the complexity and cost of manufacture, the mechanical unreliability of these mechanisms all precluded their widespread distribution and use.

Accordingly, the present invention has for its main object to provide a novel rocking mechanism which will be simple and inexpensive to manufacture, efficient and durable in service and a general improvement in the art so as to encourage widespread distribution and use thereof.

As used herein, the object of this invention is the provision of a novel drive mechanism for effecting rocking motion.

The invention has for a further object a mounting whereby the rotating motion of a cam may be translated into a rocking motion for a chair, bassinet or a cradle.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter described, and of which the scope of application will be indicated in the following claim.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of the invention.

FIGURE 1 is a perspective view of the invention shown in use;
FIGURE 2 is a side view of the same device; and
FIGURE 3 is a sectional view on the line 3—3 of FIGURE 1.

Referring now more particularly to the drawing, an example of the invention is shown wherein 10 generally designates a rocking chair, bassinet, cradle or whatever it is necessary to rock, and having platform or seat 11. Four legs of equal length, 12, 14, 16 and 18 connect 11 to the rocking mechanism proper. Of these, legs 16 and 18 are secured to pivoted member 20, while legs 12 and 14 are secured to similarly pivoted member 22. In one embodiment of the present invention, pivoted members 20 and 22 each were made of 1 inch by 6 inch boards.

As shown on FIGURES 1 and 2, member 20 is pivoted on a similar board 24 by means of bolt 28, while member 22 is pivoted on base board 26 by means of bolt 30. As shown on FIGURES 1 and 3, an electric motor 32 is mounted on member 20 by means of brackets 34 and its drive or power shaft passes through 20. A suitable cord 38 having plug 40 connects the motor to an electrical outlet. Attached to the extremity of power shaft 36 is a cam 42 fitting in a generally elongated slot or race 44, suitably lined with a wear resistant material (not shown) provided therewith in base member 24.

For most applications of the present invention, a motor rated at 45 watts will provide all the necessary power to operate the device.

Consideration of the dotted lines in FIGURE 2 will readily indicate the mode of operation of the present device. As shown, circular motion of cam 42 will cause the pivoted members to alternately tip to the left and then tip to the right and so on, while the base members remain stationary.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

In a rocking chair, cradle or the like, having a pair of front legs and a pair of rear legs, a rocking structure comprising a pair of laterally spaced opposed stationary base members having floor engaging surfaces along the full length of each thereof, a pair of movable support members, each secured to the lower ends of a front and rear leg of each pair, and in horizontal alignment, each support member disposed adjacent an inside face of a base member, and coextensive therewith, means substantially at the center of each support member pivotally connecting the same to its associated base member, an electric motor mounted at the rear end of one support member and on the inside face thereof, a power shaft on said motor extending through an opening in said one support member, an elongated slot in the base member adjacent to said one support member having upper and lower straight parallel sides defining a raceway with which said shaft projects, and a cam disc positioned in said slot having its periphery in rolling engagement with said parallel sides of said raceway and eccentrically mounted on the projecting end of said power shaft, whereby rotation of said cam disc will impart up and down swinging movement of said one support member about its pivotal connection to effect the desired rocking action of said chair, cradle, or the like.

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