

1

2,972,152

ROCKING DEVICE FOR BASSINET

Dudley J. Vincent, 709 N. 14th St., Enid, Okla.

Filed Apr. 8, 1958, Ser. No. 727,209

9 Claims. (Cl. 5—109)

This invention relates to a rocking device for bassinets 15 wherein a pendulum is utilized in a framework for supporting and rocking the bassinet and the motor to drive the pendulum is mounted at the lower end thereof.

An object of the invention is to provide a bassinet rocking device that is light in weight, easily moved, highly stable yet quiet in operation and economical to manufacture and maintain.

Another object of the invention is to provide a pendulum type of mounting for the bassinet mounted at the top of the pendulum which is counterbalanced by a motor 25 mounted at the end of the pendulum.

A further object of the invention is to provide a pendulum type of rocker for a bassinet wherein the pendulum is so mounted in the framework that it has a limited safe swing to safeguard against excessive swing.

Yet a further object of the invention is to provide a pendulum type of bassinet rocker that is easily disassembled for packing and shipment without necessitating a bulky package and still is easily and quickly assembled.

Still further objects and the entire scope of applicability of the present invention will become apparent from the detailed description given hereinafter. It should be understood, however, that the detailed description and specific example is given by way of illustration only, and while indicating preferred embodiment of the invention, is not given by way of limitation, since various changes and modifications within the spirit and scope of the invention will become apparent to those skilled in the art from this detailed description.

For a more complete understanding of the invention, reference is had to the drawings and the following description in which:

Fig. 1 is a perspective view of the bassinet rocker with bassinet mounted thereon;

Fig. 2 is an end view of the bassinet rocker on an enlarged scale;

Fig. 3 is a sectional view along line 3—3 of Fig. 2 on a still enlarged scale;

Fig. 4 is a sectional view along line 4—4 of Fig. 2 at the scale of Fig. 3; and

Fig. 5 is an enlarged fragmentary view of the mounting of the spacer tube and the rod in the base frame structure.

The bassinet rocker is generally indicated at 10. A base frame 11 is made up of a pair of spaced apart U-shaped tubular members 12, each of which has a relatively long horizontally extending bight portion 12a with depending legs 12b and 12c that receive swivel casters 13 making the bassinet rocker very stable from tipping and yet easily movable. The members 12 are held spaced apart by tubular cross members 14 extending between the bight portions 12a and by threaded end tie rods 15 passing axially within the cross members 14 and extending at each threaded end thereof through apertures 12d in members 12 where they are secured by cap nuts 16 70 screwed onto the threaded ends.

A pair of spaced apart upright U-shaped tubular mem-

2

bers 17 are secured adjacent the ends of their depending legs 17a to the cross members 14. The lower ends of the legs 17a have a large aperture 17b and a small aperture 17c extending in alignment and transversely there- 5 through to receive respectively the adjacent end of cross bar 14 and the tie rod 15 which holds the parts in a rigidly assembled manner.

A pendulum member generally indicated at 18 is received between the uprights 17 and comprises a pair of spaced apart tubular legs 19 and a transversely extending motor mounting plate 20 secured at each end thereof to the lower ends of the legs. Each leg 19 is formed with a flattened end and adjacent the upper ends thereof just below the flattened upper end is an aperture 19a to receive the pivotal mounting as will hereinafter be explained. The motor mounting plate 20 has depending skirt portions 20a extending along the sides thereof and has struck up portions 20b at each end that are secured by rivets 21 to the flattened lower ends of legs 19. Plate 20 is apertured to receive the vertically extending drive shaft of the motor M which is mounted below the plate 20 between the skirts 20b by suitable screws 22 and rubber grommets 22a to eliminate arm vibration and to provide silent operation.

Pendulum 18 is pivotally supported on a pivot tube 23 which extends through an aperture 19a in the upper end of each leg 19. Suitable set screws 24 are received in threaded apertures in the upper ends of legs 19 to hold each leg 19 in adjusted position on pivot tube 23. A pivot rod 25, threaded at each end, is received by the pivot tube 23. The threaded ends of the pivot rod 25 are received in the apertures 17b in the uprights 17 and a lock nut 26 is received on the inside face of each upright 17 while a cap nut 27 is received over the outer ends. Thus, the pivot tube 23 freely pivots on the tightly secured rod 25.

Transversely extending and secured to the upper flattened ends of the legs 19 of the pendulum 18 are angle pieces 28 as by rivets 29. A bassinet receiving platform generally indicated at 30 is secured to the horizontally extending flanges 28a of the angle pieces 28 by screws 31 and wing nuts 32, thus making it readily detachable for packing and shipping.

Platform 30 is of aluminum as is the tubing in the construction. The platform 30 has downturned ends 30a and upturned sides 30b. The sides 30b have secured thereto adjacent their ends quick detachable bassinet hold-downs made up of resilient cords or wires 33 that have a hook 34 secured thereto which fastens to the edge of a bassinet B mountable on platform 30.

The motor mounting plate 20 positioning and the length of the legs 19 of the pendulum 18 is such that the pendulum is limited in its swing to each side by the motor mounting plate 20 striking against the cross members 14 55 to either side thereof. Thus, should the motor drive linkage, as will hereinafter be described, become detached, the platform 30 carrying the bassinet B will be limited as a safety measure in its amount of rock to either side.

In Figures 3 and 4 there is best shown the drive linkage from the motor M which is mounted at the base of pendulum 18. A crank arm 34 is mounted on the motor drive shaft 35 extending up above the plate 20. The crank arm 34 has a pin 34a extending upwardly therefrom. A link assembly 36 has mounted in each end a ball bearing universal swivel assembly 37. One of the assemblies 37 is received over the pin 34a and suitably secured by a cotter pin passed through the pin 34a. The other end of link 36 is pivotally attached to the adjacent cross bar 14 in a pivotal manner by the assembly 37 receiving an L-shaped fitting 38 threaded on end 38a and secured to the cross member 14 by bifurcated strap 39. Lock nuts 38b received on the threaded end of the

3

L-shaped fitting secure the fitting to the strap and hold the strap tightly positioned on cross member 14. It will be noted that the link assembly 36 extends generally in the direction of swing of the pendulum 18.

As a protection over the linkage assembly 36, there is easily removably mounted thereover a protective cover 40 having depending skirts 40a that have U-shaped open apertures 40b extending into their lower edges so that the cover may be easily snapped onto and removed from the cross pieces 14.

Electrical power supply and control for the motor M will now be described. A power cord 41 with plug 41a is shown best in Figures 1 and 2. The two wire cord 41 is received in one of the upright legs 17 through a suitable protective grommet. A switch 42 is mounted in leg 17 towards the upper end thereof and serves to turn the motor on and off. From the switch 42 the cord leads on out the top of the upright 17 to the adjacent pendulum leg 19, down that leg and through the motor mounting plate 20 to the motor M. At each entrance and exit of the cable through a tube or the plate there is provided rubber grommets to protect the cable.

The bassinet rocker construction herein disclosed provides a lightweight, highly stable, yet easily movable rocker. The motor M and its mounting at the bottom of the pendulum assembly affords a motivating means eliminating the necessity of an outside and exposed connecting arm leading to the platform mounting for the bassinet. A low power motor may be utilized by this type of mounting and there is by this arrangement of pendulum and motor less of a strain or force acting on the motor as contrasted with a motor that has a stationary mounting in rocking devices. This positioning of the motor M at the end of the pendulum eliminates the overburden on the motor as contrasted with a stationary mounting. The motor as here mounted acts at the end of the pendulum as a counterbalance to the bassinet mounted on the platform at the top of the pendulum above its pivotal axis.

The overall height of the rocker is about two feet and the base frame is about one foot wide, twenty-six inches in length and about eight inches above the floor at the horizontal portion thereof. The uprights 17 extend up from the base frame about fourteen inches and have their legs 17a spaced apart about nine inches. The aluminum tubing as utilized is easily formed into the curves for the legs of the base frame and the U-shaped upright side members 17.

In the operation there is no vibration, noise, or tendency for the rocker to roll. For shipment and disassembly, the bassinet platform 30 is easily removed and to conserve space, one of the cross-tie rods 15 in the base frame 11 is removed permitting the base frame members 12 to pivot about the other tie rod 15 to a position alongside the upright members 17. By means of the same features that permit the rocker to be easily partially taken apart for shipment, there is also afforded equal ease of assembly.

It is to be noted that the construction and arrangement of pendulum 18, its pivotal mounting, the mounting of motor M at the base of the pendulum and its linkage connection 36 provide an even swing of the pendulum at a uniform speed throughout its angle of swing in both directions and thereby uneven and jerky movements are eliminated. There is always a swing or rock of the bassinet mounting platform 30 and the bassinet which is even and rhythmic which enhances the characteristics of this rocking device.

I claim as my invention:

1. A bassinet rocker comprising in combination, a base, a pair of spaced apart upright members attached to and extending up from said base, a pendulum member extending downwardly between said upright members and pivotally supported proximal to its upper end by said uprights, bassinet supporting platform means attached to

4

the upper end of said pendulum member for rocking with the swing of said pendulum, motor means carried by the pendulum at the lower end thereof, said motor means having a crank arm thereon, and a link pivotally connected at one end to said base and at the other end pivotally connected to said crank arm and extending generally in the direction of the swing of said pendulum member, said crank arm having its pivot about which it rotates lying in a plane containing said pendulum member whereby a uniform rate of swing is imparted to said pendulum, said bassinet supporting platform means being attached to support a bassinet for lengthwise rocking thereof.

2. A bassinet rocker comprising in combination; a base frame having a pair of spaced apart similarly extending U-shaped members each having a horizontally extending bight portion and depending legs and a pair of spaced apart cross members connecting said bight portions; a pair of U-shaped upright members having the legs thereof extending downwardly and connected at their lower ends to the adjacently positioned horizontal bight portion of the U-shaped members of the base frame; a pendulum positioned between said upright members and comprising a pair of spaced apart leg members and a motor mounting plate connecting the lower ends of said leg members; pivot means connecting the upper ends of said pendulum to the upper ends of said upright members; a bassinet supporting platform attached to the upper end of the leg members of the pendulum; a motor attached to said motor mounting plate of the pendulum and having a crank arm; and a link pivotally connected at one end to one of said cross members of the base frame and at the other end pivotally connected to said crank arm and extending generally in the direction of the swing of said pendulum member proximal to the bottom end thereof, said bassinet supporting platform being attached to support a bassinet for lengthwise rocking thereof.

3. A bassinet rocker according to claim 2 wherein said base frame members, said U-shaped upright members and said spaced apart legs of said pendulum are tubular.

4. A bassinet rocker according to claim 2 including a cover plate means connected at each end to said cross members of the base frame and extending as a protective barrier over said link.

5. A bassinet rocker comprising in combination; a base frame having a pair of spaced apart similarly extending U-shaped members each having a horizontally extending bight portion and depending legs and a pair of spaced apart cross members connecting said bight portions; a pair of U-shaped upright members having the legs thereof extending downwardly and connected at their lower ends to the adjacently positioned horizontally bight portion of the U-shaped members of the base frame; a pendulum positioned between said upright members and comprising a pair of spaced apart leg members and a motor mounting plate connecting the lower ends of said leg members, said leg members extending at their lower ends so as to strike said cross members of the base frame when said pendulum is free to swing; pivot means connecting the upper ends of said pendulum to the upper ends of said upright members; a bassinet supporting platform attached to the upper end of the leg members of the pendulum; a motor attached to said motor mounting plate of the pendulum and having a crank arm; and link means connected at one end to one of said cross members of the base frame and at the other end pivotally connected to said crank arm and extending generally in the direction of the swing of said pendulum said crank arm having its pivot about which it rotates lying in a plane containing said pendulum whereby uniform rate of swing is imparted to said pendulum, said bassinet supporting platform being attached to support a bassinet for lengthwise rocking thereof.

6. A bassinet rocker according to claim 5 wherein said motor mounting plate has depending skirt portions and

5

said motor is mounted on the bottom of said mounting plate and between said depending skirt portions with the drive shaft of the motor extending up through an aperture formed in said mounting plate with the crank arm positioned above said mounting plate.

7. A bassinet rocker according to claim 6 including a cover plate means connected at each end to said cross members of the base frame and extending as a protective barrier over said link and crank arm.

8. A bassinet rocker comprising in combination; a base frame having a pair of spaced apart similarly extending tubular U-shaped members each having a horizontally extending bight portion and depending legs, casters connected to the lower ends of said depending legs, a pair of spaced apart tubular cross members extending between said bight portions and tie rods extending in said tubular cross members and connected at each end to said bight portions; a pair of U-shaped upright tubular members having the legs thereof extending downwardly where the proximal lower ends thereof are formed with transversely extending apertures to receive said cross members and said tie rods that secure the legs in abutting relation against said bight portions of said base frame U-shaped members; a pendulum positioned between said upright members and comprising a pair of spaced apart tubular leg members having the respective ends thereof flattened and transversely extending apertures therethrough at their upper ends below said flattened upper ends and a motor mounting plate having struck up portions at each end respectively attached to the flattened lower ends of said legs, an aperture therethrough for a motor drive shaft, said motor mounting plate having depending skirt portions; a pivot rod extending through said apertures at the upper ends of said pendulum legs and attached at each end to the upper ends of said upright members; a bassinet supporting platform having depending flanges that are attached to said upper flattened ends of said pendulum legs; a motor attached to the underneath side of said motor mounting plate between said skirt portions and having the drive shaft thereof extending up through said aperture in the motor mounting plate; a crank arm attached to the drive shaft of the motor above said motor mounting plate; link means connected at one end to one

6

of said cross members of the base frame and at the other end pivotally connected to said crank arm and extending generally in the direction of the swing of said pendulum member; said pendulum legs being of a length to position said motor mounting plate so as to limit the swing of said pendulum by said motor mounting plate striking said cross members of the base frame should said link means become detached; and a cover plate means connected at each end to said cross members of the base frame and extending as a protective barrier over said link and crank arm.

9. A bassinet rocker comprising in combination, a base, an upright support means attached to and extending up from said base, a pendulum member extending adjacent said upright support means and pivotally supported proximal to its upper end by said support means, bassinet supporting platform means attached to the upper end of said pendulum member for rocking with the swing of said pendulum, motor means carried by the pendulum at the lower end thereof, said motor means having a crank arm thereon, and a link pivotally connected at one end to said base and at the other end pivotally connected to said crank arm and extending generally in the direction of the swing of said pendulum member, said crank arm having its pivot about which it rotates lying in a plane containing said pendulum member whereby a uniform rate of swing is imparted to said pendulum, said bassinet supporting platform means being attached to support a bassinet for lengthwise rocking thereof.

References Cited in the file of this patent

UNITED STATES PATENTS

8,468	Knowles -----	Oct. 28, 1851
157,269	Cobb -----	Dec. 1, 1874
834,140	Kingsbury -----	Oct. 23, 1906
1,526,802	Matthews -----	Feb. 17, 1925
2,758,319	Fehrman -----	Aug. 14, 1956
2,776,658	Gibbon -----	Jan. 8, 1957
2,830,815	Hawes -----	Apr. 15, 1958

FOREIGN PATENTS

373,529	Italy -----	July 27, 1939
---------	-------------	---------------