Aug. 5, 1958 R. H. EYER 2,845,635

ELECTRIC GLIDER AND STABILIZER

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Fig. 1

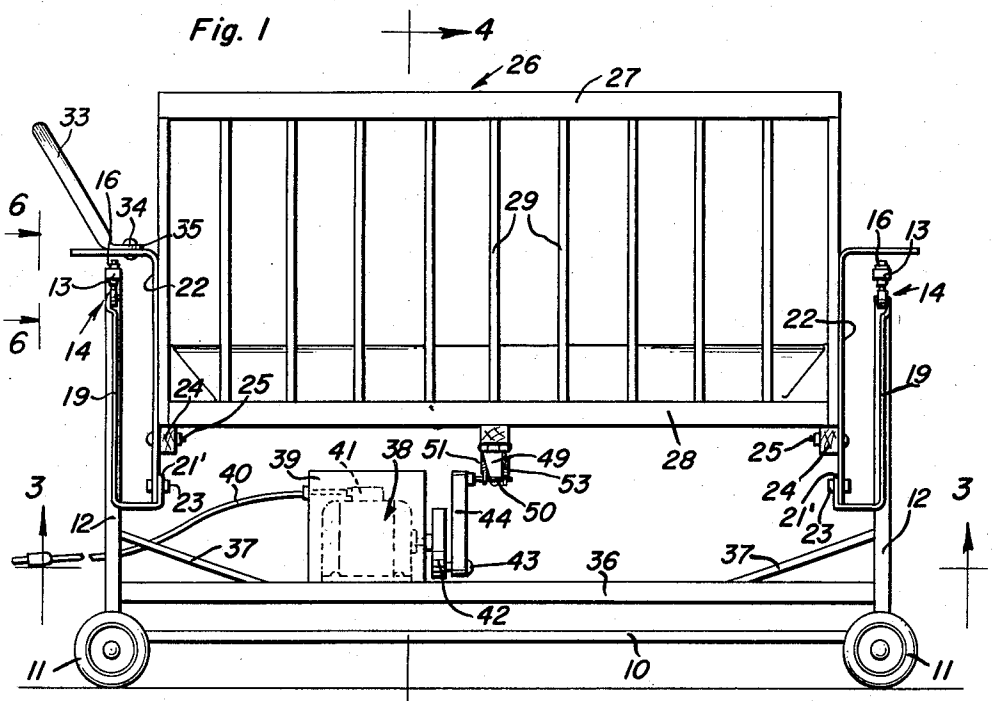
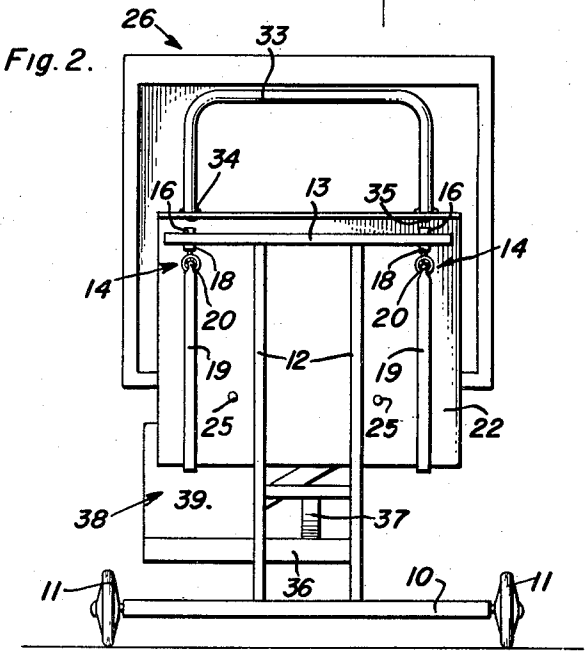


Fig. 2.



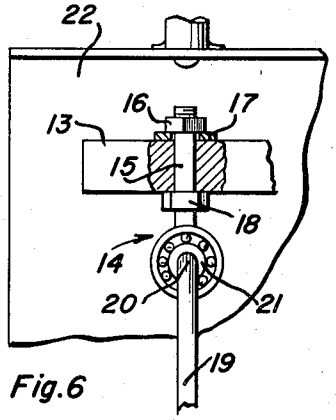


Fig.6

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Fig. 3

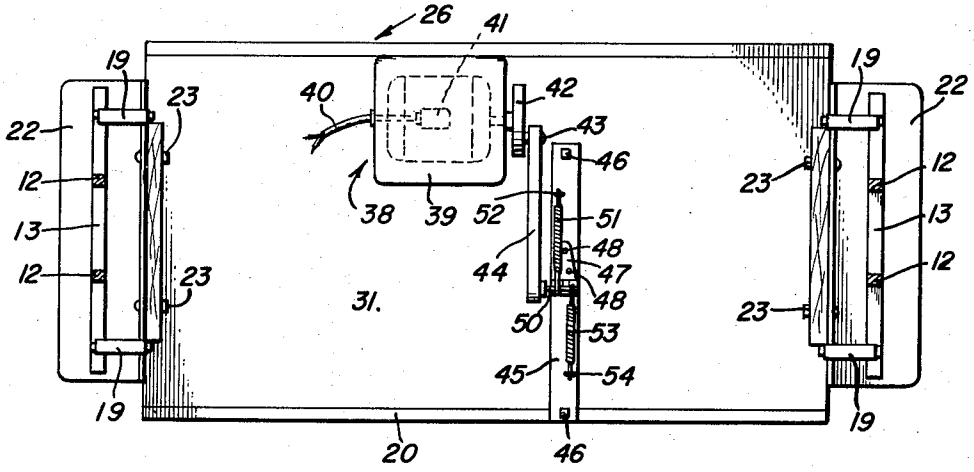


Fig. 4

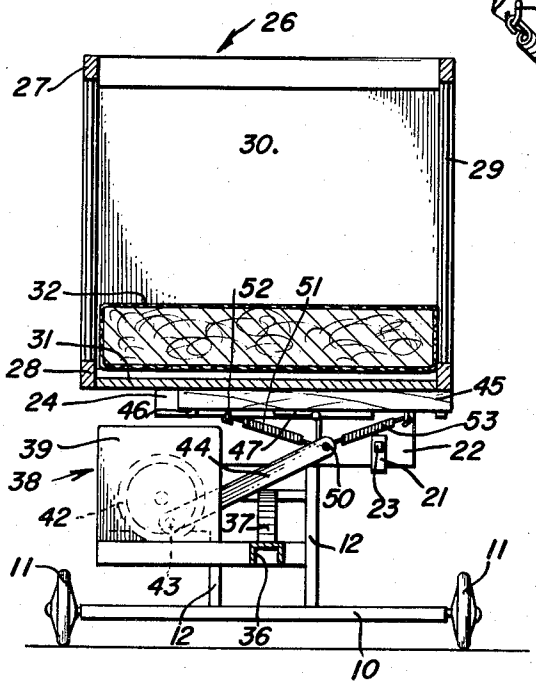
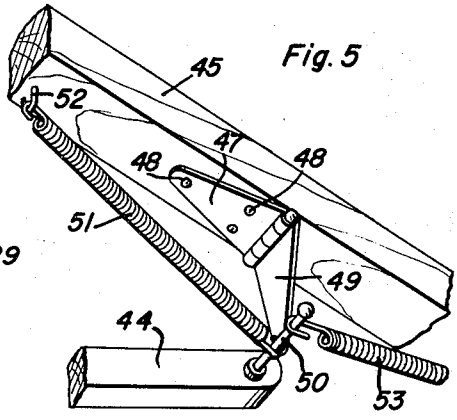


Fig. 5



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ELECTRIC GLIDER AND STABILIZER

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Application April 20, 1955, Serial No. 502,610

2 Claims. (Cl. 5—109)

This invention relates to mechanical gliders.

It is an object of the present invention to provide a power driven glider on which a crib is supported and to which reciprocating gliding movement will be imparted in an improved manner.

It is another object of the present invention to provide a glider which will cause the gliding movements to be smooth and free of jarring action so that the glider will smoothly and easily change its direction of motion without disturbing the person supported thereon in the crib.

It is still another object of the present invention to provide an electric glider and stabilizer of the above type wherein the stabilizer smoothes out the rough, irregular gliding action in a novel manner which, due to the arrangement of springs, pulls gently and glides perfectly to induce sleep readily in the infant.

It is still another object of the present invention to provide an electric glider and stabilizer of the above type which is entirely mobile, and wherein the speed of the gliding movement may be varied depending on the age of the infant sleeping in the crib.

Other objects of the invention are to provide an electric glider and stabilizer having the above objects which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which:

Figure 1 is a side elevational view of a preferred embodiment of the present invention;

Fig. 2 is an end elevational view thereof;

Fig. 3 is a horizontal sectional view thereof taken along the line 3—3 of Fig. 1;

Fig. 4 is a vertical sectional view thereof taken along the line 4—4 of Fig. 1;

Fig. 5 is an enlarged fragmentary perspective view of the controller forming a part of the invention; and

Fig. 6 is an enlarged fragmentary vertical sectional view taken along the line 6—6 of Fig. 1.

Referring now more in detail to the drawing, **10** represents an elongated rectangular base frame at the opposite ends of which are rotatably mounted the rubber tired wheels **11**, substantially as illustrated. A pair of longitudinally spaced vertical posts **12** are secured to opposite sides of the frame **10** and mount at their upper ends a transverse horizontal suporting bar **13**. A pair of ball bearing assemblies indicated generally at **14** (Fig.6) are secured to the undersurface of each of the supporting posts **13** by means of the integrally formed bolts **15** which extend upwardly through suitable openings provided in the post **13** and nuts **16**, a washer **17** being provided intermediate the post **13** and each of the nuts **16**. A lock nut **18** positioned on the bolts **15** engages the undersurface of the post **13**.

An L-shaped metal strap **19** is provided for each of the bearing assemblies **14**, being integrally formed at

the upper end with a hook shaped portion **20** which is supported through the inner race **21** of each of the ball bearing assemblies. Each of the L-shaped straps **19** is integrally formed with a vertically extending flange **21'** which serves to fixedly mount the lower edge of an L-shaped metal sheet or apron **22** by means of the nut and bolt assemblies **23**, the horizontal portions of the aprons **22** extending outwardly beyond the posts **13** in vertically spaced relationship thereto (Fig. 1). A transverse horizontal supporting end member **24** is secured to the inner face of each of the aprons **22** by means of a nut and bolt assembly **25**, the two supporting members **24** being parallel to one another in a substantially horizontal plane and serving to support thereon a crib indicated generally at **26**. Thus, the crib **26** is adapted for gliding movement in opposite directions.

The crib **26** includes the upper and lower frame members **27** and **28**, respectively, connected by the vertical bars **29** and the end panels **30**, a bottom wall **31** being secured within the lower frame **28** and supporting thereon the mattress **32**.

A handle **33** is secured to the top of one of the L-shaped aprons **22** by means of the rivets **34** and flange **35** integral therewith and serves to facilitate the rolling of the device from one room to another.

A support **36** extends between the posts **12**, being reinforced by the braces **37**, and supports thereon a motor indicated generally at **38** including a housing or casing **39** through which extends an insulated cord **40** adapted to be suitably connected to a source of household power by means of a male plug, not shown. A switch and rheostat **41** are provided for controlling the speed of the motor as well as the operation thereof. A timer, not shown, will also be included to automatically turn the motor on or off after a predetermined period. A flywheel **42** is keyed to the shaft of motor **38** and fixedly carries a pin **43** which pivotally mounts one end of a connecting rod **44**.

A controller is provided for connecting the connecting rod **44** to the crib **26** and includes a transverse horizontal member **45** secured to the undersurface of the crib by means of the nut and bolt assemblies **46**, the member **45** extending parallel to the connecting arm **44** alongside the latter. A hinge including a plate **47** secured to the member **45** by rivets or bolts **48** and a freely hanging plate **49** is mounted centrally of the member **45**. A pin **50** is welded to the plate **49** and rotatably mounts the other end of the connecting arm **44**. A coil spring **51** has one end thereof connected to the pin **50** and the other end thereof connected to the member **45** by means of an eye **52**. A complementary oppositely disposed coil spring **53** has one end thereof connected to the pin **50** while the other end thereof is similarly connected to the member **45** by means of an eye **54**, the tension of the springs **51** and **53** being equal.

In operation, the motor **38** will drive the flywheel **42** which will reciprocate the connecting rod **44** to impart a side to side gliding motion to the crib through the plate **49** and springs **51** and **53**, this gliding motion being controlled as regards speed by means of the rheostat **41** and terminating automatically at the end of a predetermined period by means of a timer connected in series with the motor **38**. The springs **51** and **53** permit the driving rod **44** to drive through a full stroke with flexibility, the springs acting together to retract and expand and to permit the crib to move flawlessly. The speed of the motor may be regulated through the rheostat **41** to ride from 20 to 48 glides per minute or complete movements back and forth. The stabilizer or controller smoothes out the motion of the crib under the action of the connecting rod **44** to eliminate the rough motion and irregu-

lar gliding action of the conventional gliders. The stabilizer with the springs **51** and **53** will pull the crib gently to permit perfect gliding action and to induce sleep readily on the part of the infant or occupant.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What I claim as new and desire to protect by Letters Patent of the United States is:

1. An electric glider comprising frame means including an elongated base frame, a crib, means for mounting said crib within said frame means for gliding action back and forth, mechanical actuating means for imparting gliding motion to said crib, and resilient stabilizer means for controlling the movement of said crib, said actuating means comprising an electric motor mounted on said base frame intermediate the ends thereof and having a motor shaft extending longitudinally of said base frame, a rotary member carried by said motor shaft and a connecting rod eccentrically connected at one end to said rotary member and at the other end to said stabilizer means, said stabilizer means comprising a transverse member secured to the under surface of said crib, a strap hinge having one plate thereof connected to said transverse member, the other plate of said hinge depending freely therefrom, a pin connecting said depending hinge plate to said connecting rod, and a pair of coil springs oppositely disposed and connected at one end to said pin, their other ends being connected to said transverse member, said springs supplying equal tension on opposite sides of said depending plate.

2. An electric glider comprising frame means including an elongated rectangular base frame, a crib, means for mounting said crib within said frame means for gliding action back and forth, electric motor means for imparting gliding motion to said crib, stabilizer means for controlling the movement of the crib, a support connecting the ends of said frame means below said crib, said electric motor means comprising an electric motor mounted on said support, a motor shaft extending longitudinally of the base frame, a flywheel keyed to said shaft, and a connecting rod pivotally connected at one end to said flywheel, the other end of said connecting rod being pivotally connected to said stabilizer means, said electric motor being mounted intermediate the ends of the elongated base frame and the stabilizer means being mounted intermediate the ends of the crib, said stabilizer means comprising a transverse member secured to the under surface of said crib, a strap hinge having one plate thereof connected to said transverse member, the other plate of said hinge depending freely therefrom, a pin connecting said depending hinge plate to said connecting rod, and a pair of coil springs oppositely disposed and connected at one end to said pin, their other ends being connected to said transverse member, said springs supplying equal tension on opposite sides of said depending plate.

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