

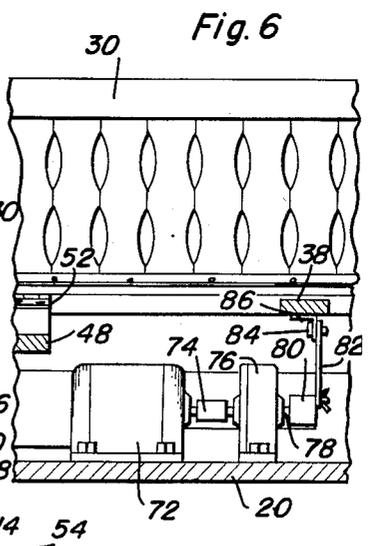
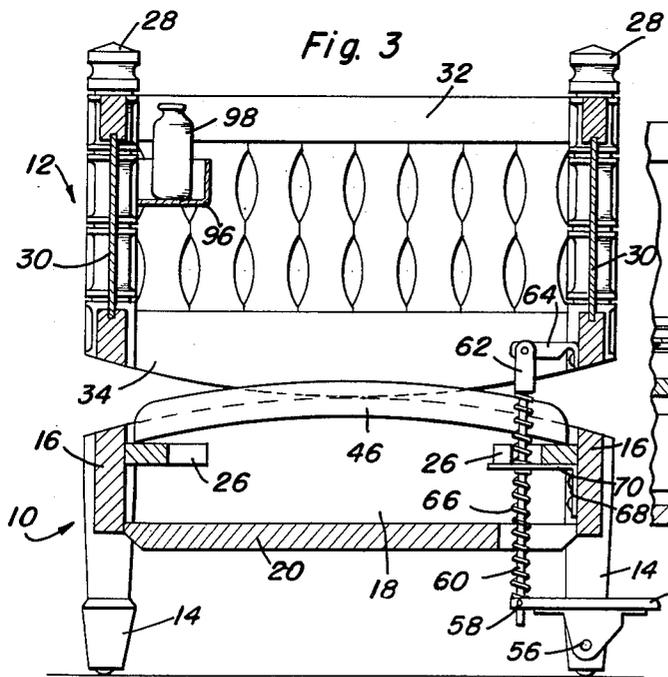
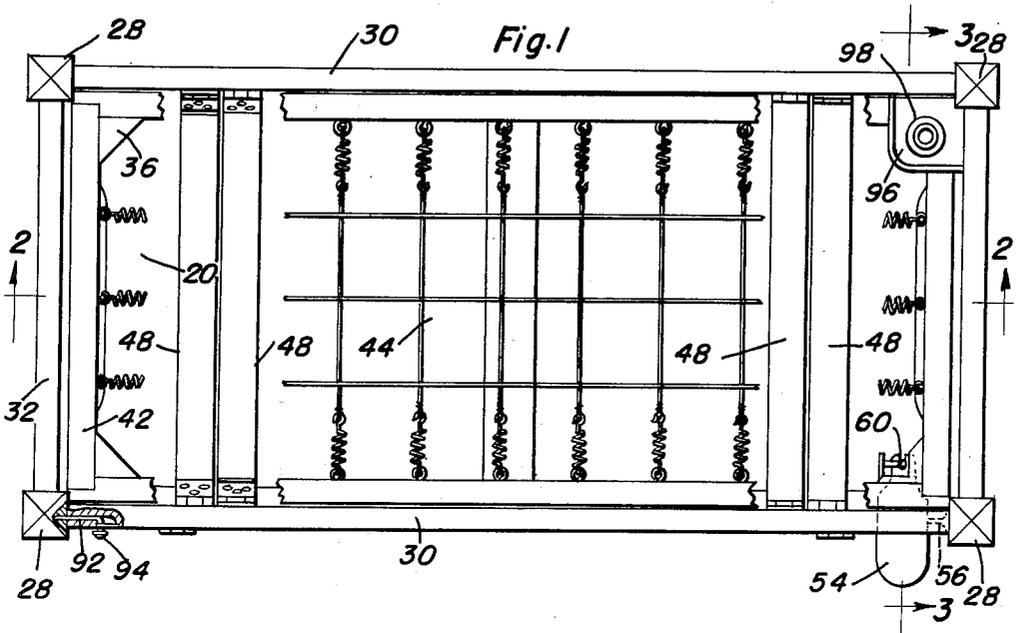
May 4, 1954

H. GOURLEY
AUTOMATIC CRADLE

2,677,135

Filed June 5, 1952

2 Sheets-Sheet 1



Hillman Gourley
INVENTOR.

BY *Alance W. O'Brien*
and Harvey S. Jackson
Attorneys

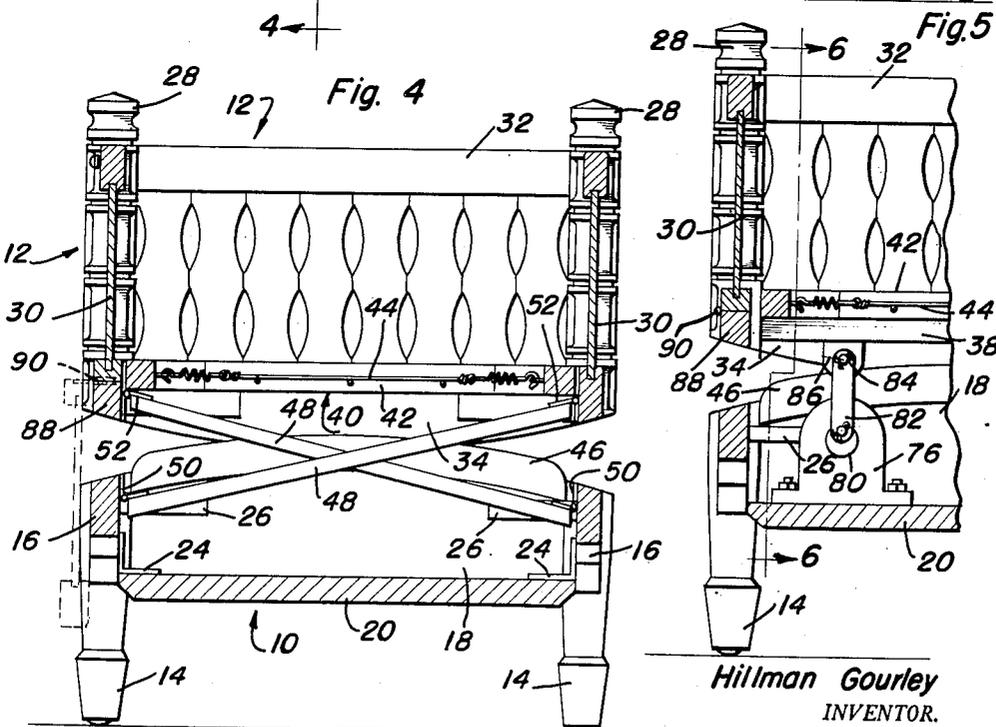
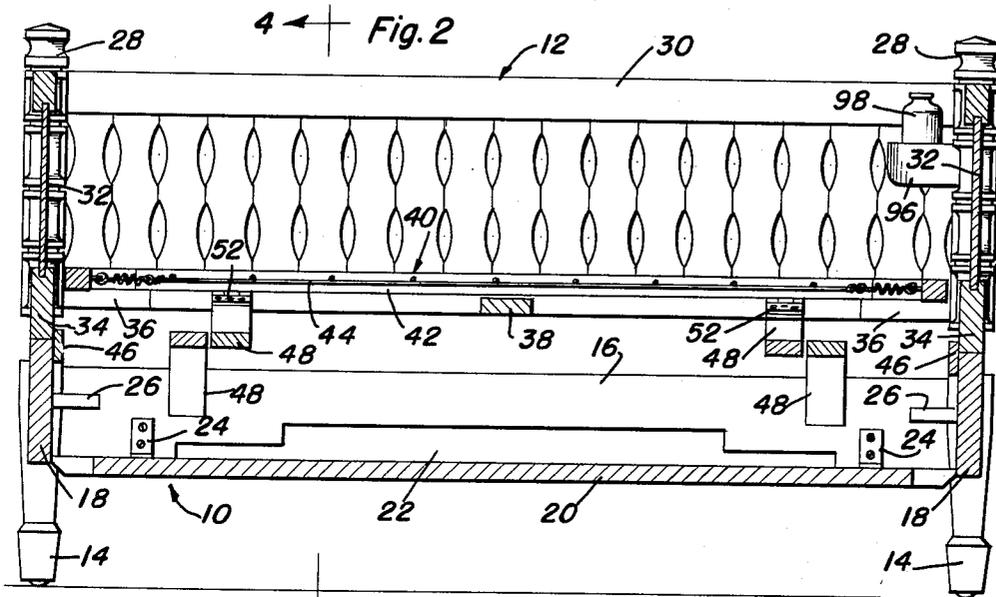
May 4, 1954

H. GOURLEY
AUTOMATIC CRADLE

2,677,135

Filed June 5, 1952

2 Sheets-Sheet 2



Hillman Gourley
INVENTOR.

BY *Almon A. O'Brien*
and Harvey E. Jackson
Attorneys

UNITED STATES PATENT OFFICE

2,677,135

AUTOMATIC CRADLE

Hillman Gourley, Laguna Beach, Calif.

Application June 5, 1952, Serial No. 291,868

2 Claims. (Cl. 5—109)

1

This invention relates in general to furniture, and more specifically to bedroom furniture in the form of a cradle.

The primary object of this invention is to provide an improved cradle adapted for use as a bed for a small child or a doll, said cradle having motion dampening means connecting a bed portion thereof to its associated base, said motion dampening means being in the form of a shock absorber and at the same time effectively restricting rocking of the bed portion by a child positioned therein.

Another object of this invention is to provide an improved cradle which includes a bed rockably mounted upon a base, said base having mounted thereon a motor driven eccentric which is connected to the bed for rocking the same whereby the rocking of the bed of the cradle is automatic.

Another object of this invention is to provide an improved cradle which includes a bed in which a child may be positioned, said bed having one side thereof movable to a position adjacent a supporting base for the bed whereby a mother may be able to care for a baby at night without having to get out of bed to do so.

A further object of this invention is to provide an improved cradle which includes a base having a bed rockably mounted thereon, said base being provided with an actuating treadle which is connected to the bed by a connecting link, said connecting link having mounted thereon an elongated coil spring which is fixedly connected to said base at an intermediate point thereof to form a combined shock absorber and locking means for said cradle.

With these objects definitely in view, this invention resides in certain novel features of construction, combination and arrangement of elements and portions as will be hereinafter described in detail in the specification, particularly pointed out in the appended claims, and illustrated in the accompanying drawings which form a material part of this application and in which:

Figure 1 is a top plan view of the cradle, which is the subject of this invention, portions of a spring of the bed of the cradle being omitted in order to clearly illustrate the arrangement of equalizer bars hingedly secured to and extending between said base and bed;

Figure 2 is a longitudinal vertical sectional view taken substantially upon the plane indicated by the section line 2—2 of Figure 1 and shows the general relationship of the base with respect to the bed;

2

Figure 3 is a transverse vertical sectional view taken substantially upon the plane indicated by the section line 3—3 of Figure 1 and shows the manner in which the bed is supported on the base for rocking movement with respect thereto, also shown is the construction and arrangement of foot operated actuating means for rocking the bed;

Figure 4 is a transverse vertical sectional view taken substantially upon the plane indicated by the section line 4—4 of Figure 2 and shows the manner in which transversely extending equalizer bars are hingedly connected to the base and bed between which they extend, shown in dotted lines is an alternative position of one side of the bed;

Figure 5 is a fragmentary transverse vertical sectional view showing the manner in which the motor driven actuating means for rocking the bed is mounted upon the base; and

Figure 6 is a fragmentary longitudinal vertical sectional view on a reduced scale taken substantially upon the plane indicated by the section line 6—6 of Figure 5 and shows the details of the motor driven actuating means.

Similar characters of reference designate similar or identical elements and portions throughout the specification and throughout the different views of the drawings.

Referring now to the drawings in detail, it will be seen that the cradle, which is the subject of this invention, includes a base, which is referred to in general by the reference numeral 10, and a bed, which is referred to in general by the reference numeral 12, supported on the base 10 for rocking movement. The base 10 includes four rectangularly orientated corner legs 14 which are connected together by longitudinally extending check rails 16 and transversely extending bed supports 18. The base 10 is braced by a flat shelf 20 extending transversely between the check rails 16 and longitudinally between the bed supports 18. As is best illustrated in Figures 2 and 4, the shelf 20 is connected to the check rails 16, which are provided with centrally located cut-outs 22 in their undersides, by angle brackets 24. The bed supports 18 are braced with respect to the check rails 16 by horizontal triangularly shaped gussets 26 positioned within the corners formed by the check rails 16 and the bed supports 18.

The bed 12 has the same general plan outline as the base 10 and includes rectangular orientated corner posts 28 which are connected together by longitudinally extending side rails 30 and transversely extending end rails 32. The side rails 30 and the end rails 32 may be of any construction

with the exception that the lowermost members 34 of the end rails 32 must be in the form of a transversely extending rocker. The side rails 30 are connected to their adjacent end rails 32 by horizontally disposed triangular gussets 36 which are secured in the corners between intersecting side rails 30 and end rails 32. The side rails 30 are also connected together by a transversely extending spring supporting slat 38 which is connected to the side rails 30 at their mid-points.

In order that a suitable support for a mattress may be provided, the bed 10 includes a horizontally disposed spring 40. The spring 40 includes a general rectangular frame 42 which is adapted to be disposed within the confines of the side rails 30 and end rails 32 and rest upon the gussets 36 and the spring supporting slat 38. The rectangular frame 42 supports an ordinary spring construction 44.

Referring now to Figures 2 and 3 in particular, it will be seen that the rockers 34 have convexly curved bottoms which are in engagement with convexly curved tops of the bed supports 18. The curving of both the rockers 34 and the bed supports 18 permits the bed to be rocked in a smooth even motion. In order that longitudinal movement of the bed 12 with respect to the base 10 is prevented and the rockers 34 maintained in longitudinal alignment with their respective bed supports 18, each of the bed supports 18 is provided on its inner side with an outwardly extending rocker guide 46 which engages the inner surface of its associated rocker 34 to prevent inward movement thereof.

In order that transversely sliding movement of the rockers 34 with respect to their associated bed supports 18 may be prevented, the bed 12 is connected to the base 10 by transversely extending diagonal equalizer bars 48. The equalizer bars 48 are mounted in pairs, one pair adjacent each end of the cradle, with the equalizer bars of each pair crossing and being closely adjacent each other. The equalizer bars 48 are connected at their lower ends to the inner surface of the check rails 16 by hinges 50, and at their upper ends to the inner surfaces of the lower portions of the side rails 30 by hinges 52. It will be noted that the equalizer bars 48 permit rocking of the bed 12 with respect to the base 10 and at the same time prevent sliding movement of the rockers 34 with respect to the bed supports 18.

In order that the bed 12 may be conveniently rocked with respect to the base 10, one of the legs 14 of the base 10 has pivotally connected thereto a foot actuated treadle 54. The foot actuated treadle 54 is connected to its associated leg 14 by a special pivot pin 56 and is adapted for pivoting movement thereabout. The inner end of the treadle 54 is pivotally connected by a pivot pin 58 to a vertically extending connecting link 60. The upper end of the connecting link 60 is bifurcated as at 62 and is pivotally connected to an L-shaped support 64 carried by one of the side rails 30 of the bed 12. It will be seen that as the treadle 54 has its other end moved downwardly by an operator's foot, the connecting link 60 is urged outwardly with the resultant rocking of the bed 12.

Mounted on the connecting link 60 and engaging the lower end of the bifurcated upper ends 62 of the connecting link 60 and the upper surface of the treadle 54 adjacent the pivot pin 58 is an elongated coil spring 66. Carried by the check rail 16 adjacent the treadle 54 is an L-

shaped bracket 68 which is provided with a horizontal flange 70, said horizontal flange 70 receiving said connecting link 60 for vertical movement in an elongated slot (not shown) extending there-through. It will be understood that the elongated slot of the L-shaped bracket 68 is of a width to permit free passage of the connecting link 60 but at the same time prevents vertical movement of an intermediate portion of the coil spring 66. Due to the fixing of the intermediate portion of the coil spring 66 against vertical movement any movement of the bed 12 with respect to the base 10 is dampened by the upper and lower portions of the coil spring 66. The dampening action of the coil spring 66 results in the even rocking of the bed 12 and at the same time provides an effective lock resisting the rocking of the bed 12 by a baby positioned therein.

Referring now to Figures 5 and 6 in particular, it will be seen that the shelf 20 has mounted thereon a conventional electric motor 72 which is connected by a coupling 74 to a speed reducer 76. The speed reducer 76 has mounted on its shaft 78 an eccentric drive 80 with the eccentric drive having connected thereto a crank arm 82. The upper end of the crank arm 82 is connected to a pivot pin 84 carried by an L-shaped mounting bracket 86 mounted on the underside of the strap 38. It will be understood that the L-shaped bracket 86 is mounted adjacent one end of the strap 38 whereby reciprocating motion thereof results in the rocking of the bed 12.

While the bed 12 has been illustrated and described as being provided with either a foot actuated operating means or a continuous automatic operating means driven by the motor 72, it will be understood that the bed 12 may be equally as well rocked by hand. However, regardless of what actuating means is utilized to rock the bed 12 with respect to the base 10, the dampening action of the coil spring 66 is the same and results in the smooth rocking of the bed 12. Also, the locking action of the coil spring 66 remains in effect upon the stoppage of any of the actuating means.

Referring now to Figures 1 and 4 in particular, it will be seen that one of the side rails 30 is separate from a longitudinally extending frame element 88 thereof and is hingedly secured to the same by a hinge 90. The one side rail 30 is maintained in its upright position by a sliding bolt 92 which engages with an associated corner post 28. The sliding bolt 92 is provided with an actuating knob 94 for moving the same longitudinally whereby the one side rail 30 is released from its associated corner post 28. The one side rail 30 may then be folded to a downwardly projected position as is best illustrated by dotted lines in Figure 4. This permits the cradle to be moved close to a conventional bed and the parents of a baby positioned in the cradle to attend to the baby without having to get out of bed.

Referring now to Figure 1 in particular, it will be seen that the intersection between the other of the side rails 30 and one of the end rails 32 is provided with a small shelf 96 formed in the corner thereof. The shelf 96 is illustrated as having seated thereon a baby's bottle 98 and is intended to provide a convenient place for storage of the same.

The operation of this device will be understood from the foregoing description of the details thereof, taken in connection with the above re-

5

cited objects and drawings. Further description would appear to be unnecessary.

While there is herein shown and described the preferred embodiment of the invention, it is nevertheless to be understood that minor and major changes and all improvements may be made therein without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

1. A cradle comprising a base, a bed, said bed having transverse rockers on the underside thereof, transversely extending convex bed supports on said base, actuating means for rocking said bed, said actuating means including a treadle pivotally mounted on said base, a connecting link pivotally connected at its lower end to said treadle and at its upper end to said bed, a guide bracket on said base above said treadle through which said link is reciprocally guided, resilient spring means operatively connected to said link and reacting against the upper and lower ends thereof, said bracket fixedly retaining an intermediate portion of said spring means, dampening rocking movement of said bed and resisting rocking movement of the bed in the absence of actuation of the treadle.

2. A cradle comprising a base, a bed, said bed having transverse rockers on the underside thereof, transversely extending convex bed supports on said base, actuating means for rocking said bed, said actuating means including a treadle pivotally mounted on said base, a connecting link

6

pivotally connected at its lower end to said treadle and at its upper end to said bed, a guide bracket on said base above said treadle through which said link is reciprocally guided, resilient spring means operatively connected to said link and reacting against the upper and lower ends thereof, said bracket fixedly retaining an intermediate portion of said spring means, dampening rocking movement of said bed and resisting rocking movement of the bed in the absence of actuation of the treadle, said bracket being provided with a slot through which said link reciprocally moves, said spring means comprising a coil spring surrounding said link and having an intermediate portion thereof abutting said bracket adjacent said slot.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
61,720	Cox -----	Feb. 5, 1867
169,253	Gazzam -----	Oct. 26, 1875
320,833	Anderson -----	June 23, 1885
348,809	Wicker -----	Sept. 7, 1886
779,704	Garver -----	Jan. 10, 1905
889,065	Temples -----	May 26, 1908
2,380,355	Worley -----	July 10, 1945

FOREIGN PATENTS

Number	Country	Date
435,563	France -----	Dec. 28, 1911