(No Model.)

G. S. BREWER.

CRADLE.

No. 430,616. Patented June 24, 1890.

Fig. 1.

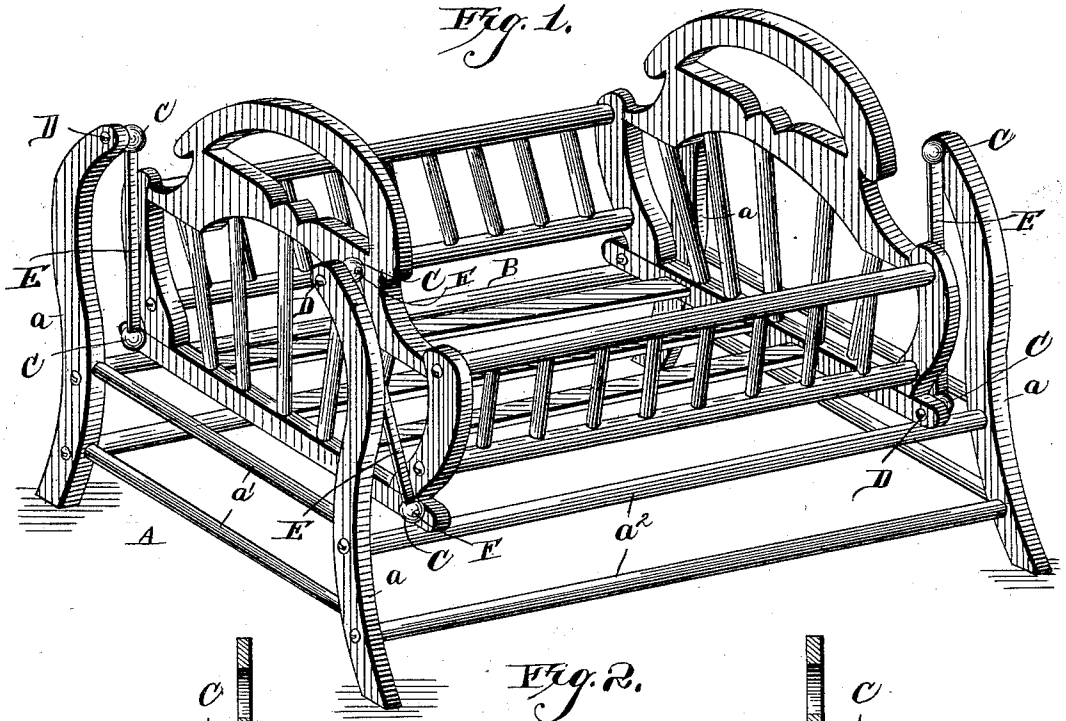


Fig. 2.

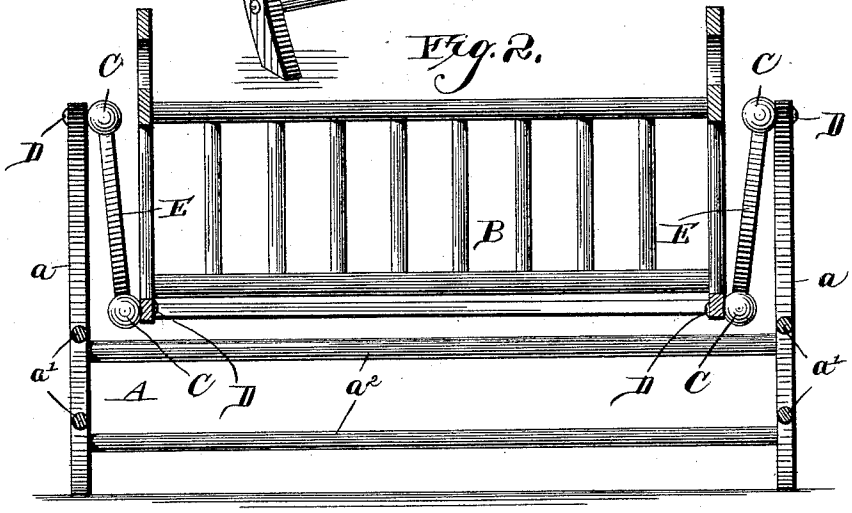
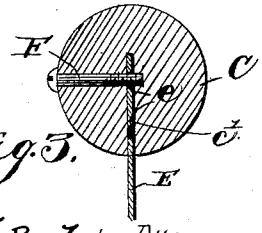


Fig. 3.



Witnesses.

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CRADLE.

SPECIFICATION forming part of Letters Patent No. 430,616, dated June 24, 1890.

Application filed May 29, 1889. Serial No. 312,576. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. BREWER, a citizen of the United States, residing at Athol, in the county of Worcester and State of Massachusetts, have invented a new and useful Cradle, of which the following is a specification.

The invention relates to improvements in cradles.

The object of the present invention is to produce a swinging cradle of simple and inexpensive construction in which there will be no pivots to cause friction and in which the vibrations of the cradle will continue in a horizontal plane for a long time without manifest exertion.

A further object of the invention is to provide a cradle which cannot be tipped sidewise when the child is getting in or out of the cradle.

With these ends in view the invention consists of a swinging cradle suspended at each end from a frame by two or more flat springs which have their upper ends secured to the cradle-frame and their lower ends secured to the bottom of the cradle, so as to form the sole support and connection between the cradle and its frame, whereby the cradle, after being once set in motion, will maintain the swinging motion for a much longer period than the ordinary cradle.

The invention further consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the accompanying drawings, Figure 1 is a perspective view of a cradle constructed in accordance with the invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a detail view of one of the knobs, illustrating the manner of securing the springs.

Referring to the accompanying drawings, A designates the supporting-frame, from which is suspended the cradle B, and which consists of four upright corner posts *a* and end and side rails *a'* and a^2, connecting the corner posts *a*. The upper ends of the corner posts *a* are provided upon their inner faces with knobs C. The knobs C are preferably constructed of wood, similar to the frame A, and are secured thereto by screws D, which pass through the posts *a* from the opposite side, and the said knobs are provided with vertical kerfs or recesses *c'*, which receive the upper ends of spring E, by means of which the cradle B is suspended from the frame A. The springs E are flat and have their ends provided with perforations *e*, through which pass screws F, whereby the springs E are securely fastened in the kerfs or recesses of the knobs C.

The cradle B is of any desirable construction, and is provided at its lower four corners with knobs C, similar to those already described, which receive the lower ends of the springs E, whereby the cradle is suspended from the supporting-frame A. The cradle being suspended by the flat springs E has no friction in its movements, and after being set in motion the springs E will cause it to continue vibrating for a long time, and they will permit no endwise motion to interfere with such vibrations, owing to their being flat and being set edgewise to the cradle, which, being hung from four points, maintains a horizontal position throughout all its movements.

From the foregoing it will readily be seen that cradles constructed in accordance with this invention are simple and inexpensive in construction, possess great durability, and will continue vibrating for a long time after being set in motion, even after the hand of the operator is removed from the cradle.

In practice it is preferable to use only four springs for each cradle, locating two at each end; but under certain circumstances six or eight springs may be used, three or four at each end, and in such case additional posts will have to be erected on the frame A to provide for this change of construction. A single spring at each end would not answer, as it would cause the cradle to tip sidewise, and besides the cradle would not be maintained in a true horizontal position while rocking. Two or more springs, however, at each end secures the desired evenness of movement, preventing tilting or jolting, and maintaining a noiseless easy motion without manifest exertion for a long time.

What I claim is—

1. As an improvement in cradles, the frame A, combined with the swinging cradle B, and

the long flat springs E, two or more at each end, having their upper ends secured rigidly to the frame and their lower ends secured rigidly to the bottom of the cradle, said springs being arranged edgewise to the latter and forming the sole support and connection between the cradle and its frame, whereby the cradle will be given a noiseless easy motion without friction, and the movement maintained for a long time, even after the hand of the operator has been removed, substantially as described.

2. As an improvement in cradles, the frame A, having knobs C, provided with recesses or kerfs, combined with the swinging cradle B, provided with similar knobs C, and the long flat springs E, two or more at each end, having their upper ends secured rigidly to the knobs of the frame and their lower ends secured rigidly to the knobs at the bottom of the cradle, said springs being arranged edgewise to the latter and forming the sole support and connection between the cradle and its frame, whereby the cradle will be given a noiseless easy motion without friction, and the movement maintained for a long time, even after the hand of the operator has been removed, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE S. BREWER.

Witnesses:
OTHELLO A. FAY,
WILLARD HAGER.