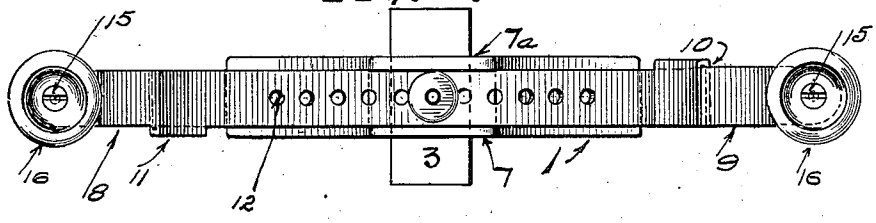
A. J. SMITH.

DEVICE FOR ROCKING CHILDREN'S CRADLES.

APPLICATION FILED JULY 19, 1912.

1,069,196. Patented Aug. 5, 1913.

FIG. 2.



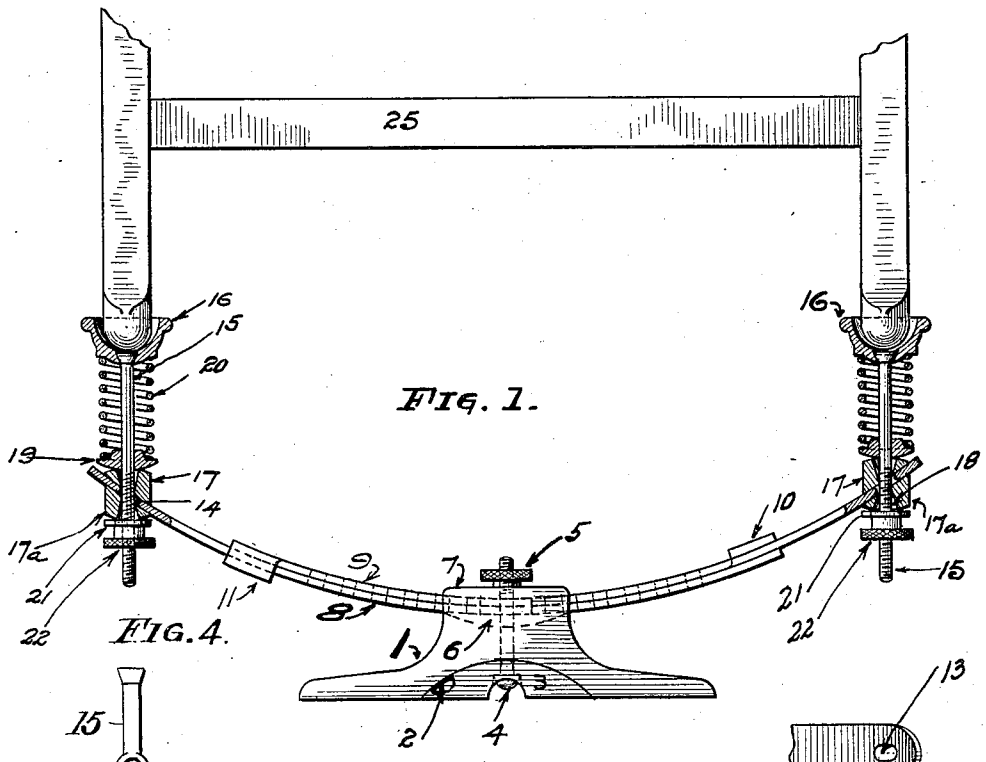


FIG. 1.

FIG. 4.

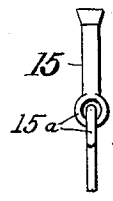


FIG. 3.

Witnesses:

A. M. Cooper

Wm. A. Wilson

Inventor:

Alfred Jay Smith,

By Michael J. Starr & Sons,

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALFRED JAY SMITH, OF CHICAGO, ILLINOIS.

DEVICE FOR ROCKING CHILDREN'S CRADLES.

1,069,196. Specification of Letters Patent. Patented Aug. 5, 1913.

Application filed July 19, 1912. Serial No. 710,428.

To all whom it may concern:

Be it known that I, ALFRED JAY SMITH, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Devices for Rocking Children's Cradles; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is the production of a neat, cheap, portable, and convenient device for rocking a child's cradle, and it consists, essentially, in the novel and peculiar combination of parts and details of construction as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already mentioned, Figure 1 is a side elevation of my device supporting one end of a child's cradle, Fig. 2 is a plan of the same, Fig. 3 is a plan of a fragment of one of the blade springs employed, and Fig. 4 is an elevation of a modification of one of the tension rods used.

The numeral 1 represents the supporting block of my device, the bottom surface of which has a concave cutout 2, into which fits a correspondingly shaped convex block 3, the lower surface of which is flush with the lower surface of said block 1. Passing perpendicularly through these blocks 1 and 3 is a carriage or similar bolt 4, which bolt has on its upper end a knurled nut 5. The upper surface of block 1 is concaved as at 6, which concaved portion has side walls 7 and 7^a. Between these walls are adapted to fit two flat, concaved blade springs 8 and 9, the former of which rests upon the edges of the concaved portion 6, as clearly seen in Fig. 1, and the latter of which lies flat upon the first named spring, the said springs over-lapping each other in a manner clearly understood. At the inner ends of these springs are formed overlapping bends 10 and 11, said bend 10 over-lapping and embracing the spring 9, and the bend 11 performing the same service for the spring 8, the object of which construction, in connection with the side walls 7 and 7^a of the supporting block 1, is to maintain a constant alinement of the said blade springs 8 and 9.

Throughout the major portion of their longitudinal length, along the center line thereof, and registering with each other, the springs 8 and 9 are provided with a series of round apertures 12, through one set of which apertures is adapted to be passed the bolt 4 hereinbefore mentioned, the nut 5 on said bolt serving to hold the springs in their proper position on the block 1. By sliding the blades or springs 8 and 9 inwardly or outwardly until the desired holes 12 are in register, the distance between the outer ends of said blade springs can be varied at will. By reason of the fact, that the spring 8 rests upon the outer edges only of the concaved portion 6 of the block 1, it will be apparent that by continued tightening of the nut 5, a greater bend or bow is imparted to the springs 8 and 9 and therefore a greater degree of elasticity created in them.

At the free ends of the springs 8 and 9 are produced oblong apertures 13, the edges of which are rounded as seen at 14, Fig. 1. Through these apertures are passed long bolts 15, the upper ends of which are fixed in the bottoms of cups 16. On either side of the said blades 8 and 9 and embracing the bolts 15, are cylindered collars 17 and 17^a, the interior apertures 18 of which are tapered, the faces, where resting upon the blades, beveled, so the axes of said apertures 18 are in planes perpendicular to the horizon. The exterior ends of these collars 17 and 17^a are rounded as seen in Fig. 1. Embracing the rods 15, and resting upon the rounded edges of the collars 17, are shouldered washers 19, which washers form the lower rests for helical springs 20, the upper ends of which bear against suitable shoulders of the cups 16 already referred to. Impinging upon the rounded portion of the collars 17^a are washers 21, and bearing against the face of these washers are knurled nuts 22, which nuts are adapted to be screwed up on the bolts 15. It will now be observed that by sufficiently tightening the nuts 22 and compressing the springs 20, it is possible to render the cup 16 in a rigid position. On the other hand, easing off on these nuts will make the said cups susceptible of a considerable amount of gyratory motion. Into these cups 15 are adapted to be freely and loosely received, as indicated in Fig. 1, the legs of any desired form or type of child's cradle 25.

It will be evident that by giving the cradle slight impulse a gyratory motion about the normal axes of springs 20 will be imparted to the cups 16 and said springs 20 and, also a vibratory action will be set up in the blades 8 and 9. The length and strength of these pulsations is directly governed by the force of the impulse given to the cradle, so that any desired degree of combined gyratory and vibratory motion may be given to the cradle in a manner readily comprehended.

In Fig. 4, I illustrate a modification of the bolts or rods 15. Where a large amount of gyratory motion about the perpendicular, normal, axes of the cups 16 is desired, so as to give a greater amount of horizontal sway to the crib or cradle, I make the rod 15 in two pieces, joining them together by welded eyes 15^a, producing an articulated rod, which will permit of a greater gyratory motion about the normal axes of cups 16 and springs 20 than would be possible with a solid rod.

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States:

1. A supporting block and a flat, bowed, free-ended, blade spring fixed to the upper face thereof, cups located at the outer ends of said spring, and means connecting said cups and spring, whereby a gyratory motion about the normal axes of said cups may be imparted to them.

2. A supporting block and a pair of overlapping, flat, bowed, free ended blade springs fixed to the upper face thereof, cups located at the outer ends of said springs, and means connecting said cups and springs, whereby a gyratory motion about the normal axes of said cups may be imparted to them.

3. A supporting block and a pair of overlapping, flat, bowed, free ended blade springs located on the upper face thereof, means there located to retain said springs in position and adapted to regulate the vertical vibrations of said springs, cups located at the outer ends of said springs, and means connecting said cups and springs, whereby a gyratory motion about the normal axes of said cups may be imparted to them.

4. A supporting block and a pair of overlapping, flat, bowed, free-ended blade springs located on the upper face thereof, means there located to retain said springs in position and adapted to regulate the vertical vibrations of said springs, cups located at the outer ends of said springs, means connecting said cups and springs, whereby a gyratory motion about the normal axes of said cups may be imparted to them, and means for maintaining constant alinement of said blade springs.

5. A supporting block having a concaved top surface and a flat, bowed, free-ended, blade spring resting on the outer edges of said concaved portion, means for fixing said spring in position, which means is adapted to regulate the amount of bow in said spring, cups located at the outer ends of said spring, and means connecting said cups and spring, whereby a gyratory motion about the normal axes of said cups may be imparted to them.

6. A supporting block having a concaved top surface and a pair of overlapping, flat, bowed, blade springs resting on the outer edges of said concaved portion, means for fixing said springs in position, which means is adapted to regulate the amount of bow in said springs, means for maintaining the longitudinal alinement of said springs, cups located at the outer ends of said springs, and means connecting said cups and springs, whereby a gyratory motion about the normal axes of said cups may be imparted to them.

7. A supporting block having a concaved top surface possessed of side walls and a pair of overlapping, flat, bowed, blade springs resting on the outer edges of said concaved portion, between said side walls, means for fixing said springs in position, which means is adapted to regulate the amount of bow in said springs, means on the inner ends of said springs to maintain alinement thereof, and cups on the outer ends of said springs.

8. A rocking device for a child's cradle comprising a supporting block, a pair of overlapping, concaved, flat blade springs resting upon the edges of a concaved portion in the top of said block, said concaved portion having normally a greater concavity than the concavity of said blade springs, means for adjustably attaching said springs to said block, and cups yieldingly fixed at the free ends of said springs.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ALFRED JAY SMITH.

In the presence of—
ALBERT C. HELD,
WILLIAM O. STARK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."