

P. FROEHLICH.
SELF ROCKING AND FANNING CRADLE.

No. 579,323.

Patented Mar. 23, 1897.

Fig. 1.

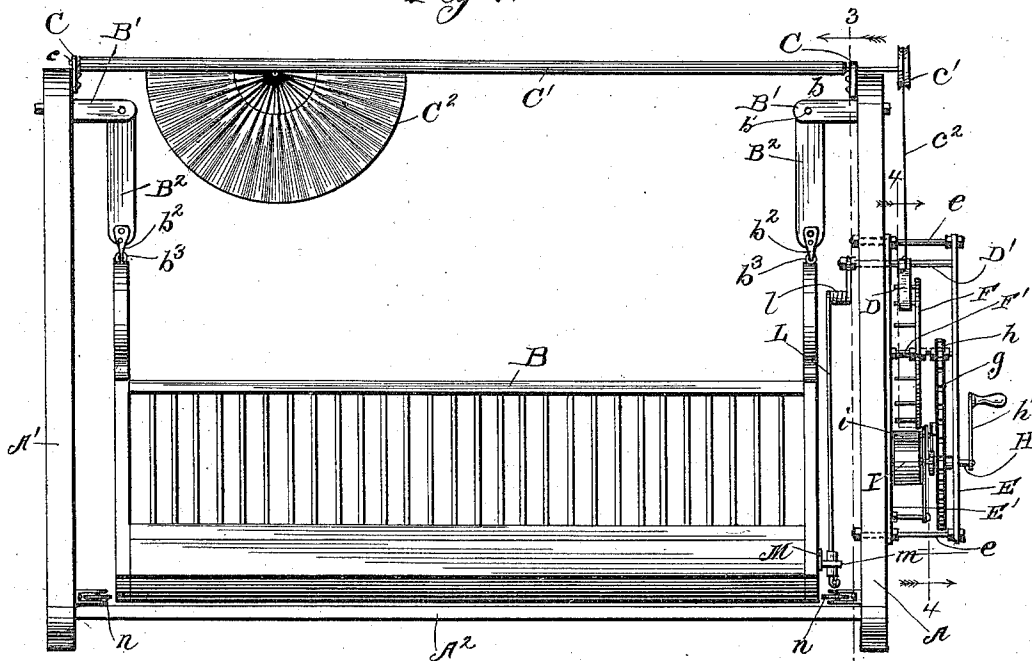


Fig. 2.

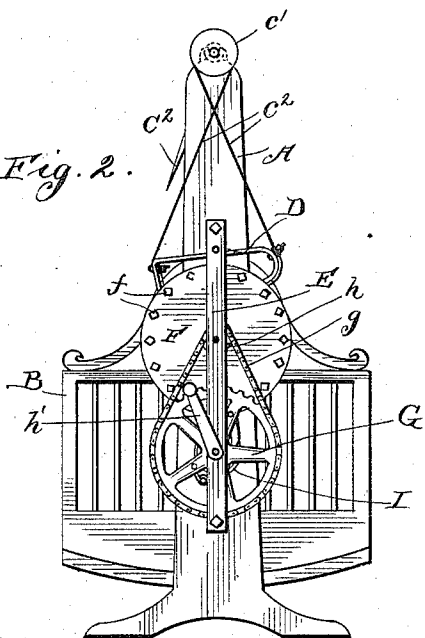
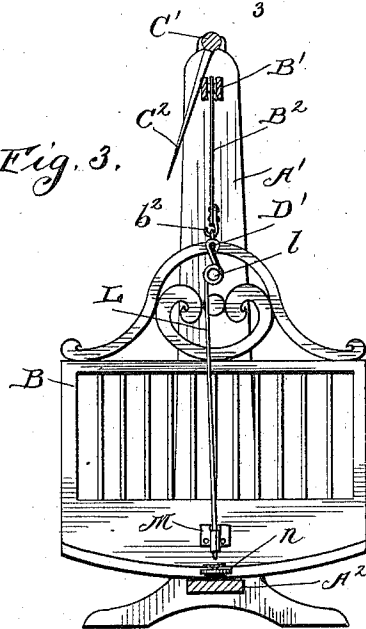


Fig. 3.



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Inventor:

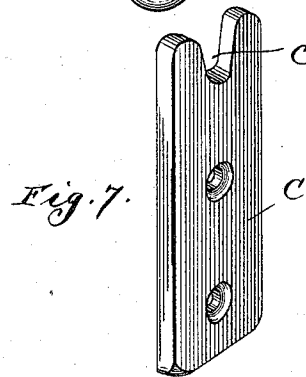
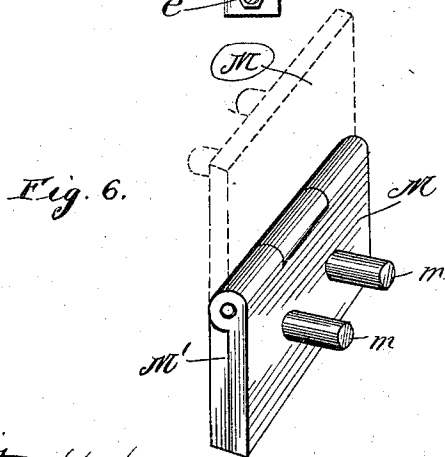
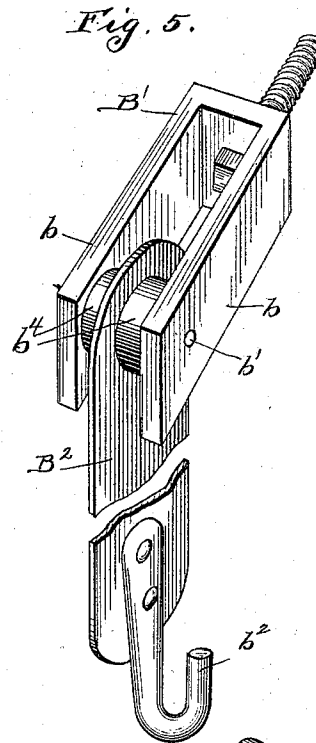
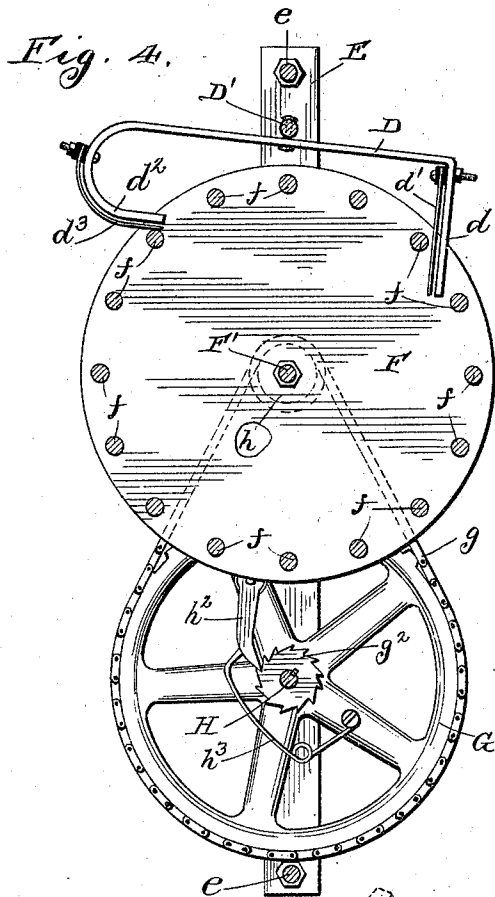
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By Chas. C. Killman, Atty.

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UNITED STATES PATENT OFFICE.

PETER FROEHLICH, OF CHICAGO, ILLINOIS.

SELF ROCKING AND FANNING CRADLE.

SPECIFICATION forming part of Letters Patent No. 579,323, dated March 23, 1897.

Application filed March 30, 1896. Serial No. 535,403. (No model.)

To all whom it may concern:

Be it known that I, PETER FROEHLICH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Self Rocking and Fanning Cradles, of which the following is a specification.

This invention relates to improvements in that class of cradles in which children or babies are placed and put to sleep; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The objects of my invention are, first, to provide a self-rocking cradle which shall be simple and inexpensive in construction, strong and durable, and effective in operation; second, such a cradle which shall have connected therewith a self-operating fan which may be operated either while the cradle is being rocked or when it is motionless, and, third, a self rocking and fanning cradle which by reason of the peculiar construction of its parts will be noiseless in operation and which can be continued for any length of time.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in side elevation of a cradle embodying my invention as it appears when ready for use. Fig. 2 is an end view in elevation, showing the operating mechanism mounted on the main frame. Fig. 3 is a view, partly in section and partly in elevation, taken on line 3 3 of Fig. 1. Fig. 4 is a similar view taken on line 4 4 of Fig. 1, showing a portion of the operating mechanism detached from the main or supporting frame. Fig. 5 is a detached perspective view, foreshortened, of one of the suspending-springs and its hanger for the cradle-body or crib. Fig. 6 is a perspective view of a hinged device used for connecting the crib or body to the spring-arm of the operating mechanism, showing it detached; and Fig. 7 is a perspective view of one of the bearing-plates for the shaft upon which the fan is mounted.

Similar letters refer to like parts throughout the different views of the drawings.

A A' represent the end pieces of the main or supporting frame, which are connected at their lower portions with a cross-piece A², and between which the crib or cradle-body B, made of any suitable size, form, and material, is suspended and rocks. To the upper portion of each of the end pieces of the main frame is secured a hanger B', which is formed with prongs b, which extend inwardly, as shown in Fig. 1, and is provided near the inner ends of said prongs with a pin or rivet b', which passes through an opening in the spring B³, having at its lower end a hook b² to engage a suitable ring b³ on each end of the upper part of the crib B or body. On the pin b' of each of the hangers B' and between the prongs b and the spring B³ are placed cushions b⁴, of rubber or other soft material, to prevent rattling or noise. Just above the hangers B' and on the upper part of each of the end pieces A and A' is secured a plate C, which is provided at its upper portion with an open slot or bearing c for the reception and retention of the rod or bar C', to which a fan C² may be secured in any suitable manner over the head portion of the crib or body.

On the end of the bar or rod C', adjacent to the end piece A, is located a grooved sheave or pulley c', over which passes a cord or like device c², which has its ends secured to the escapement-lever D, which is connected to a rocking shaft D', journaled in the end piece A and in the supports E and E' for the operating mechanism, which supports are secured to the end piece A by means of suitable bolts e at their top and bottom. The escapement-lever D is formed at one of its ends with an arm d, bent at substantially a right angle thereto, and has secured on its inner surface a spring d', which normally lies parallel with said arm and at a slight distance therefrom to contact with the pins f on the escapement-wheel F, which is journaled in the supports E and E' for the operating mechanism. The other end of the escapement-lever D is formed with a curved arm d², having on its outer surface a correspondingly-shaped spring d³ to contact with the pins f on the escapement-wheel. In the lower portion of the support-

ing-pieces E and E' is journaled a shaft H, on which is mounted a sprocket-wheel G, which is connected by means of a chain *g* with a sprocket-wheel *h* on the shaft F', on which the escapement-wheel F is mounted. The outer end of the shaft H is provided with a crank-handle *h'* for turning the same when it is desired to wind up or increase the tension of the spring I, which is secured at one of its ends on said shaft and at its other end to a suitable fastening *i* on the supports. On the inner end of the shaft D' is secured an arm L, which is preferably formed at its upper portion with a coil *l* to give additional elasticity to said arm, which is generally made of flexible material and engages with the bottom of the crib or body B, through the medium of the pins *m*, located on a plate M, which is hinged to a similar plate M', which is secured to the end of the crib or body, as is shown in Fig. 1 of the drawings. By thus hinging the plate M, having the pins *m*, it is obvious that the latter may be disengaged from the arm L by raising the said plate to the position indicated by dotted lines in Fig. 6 of the drawings. On the shaft H is secured a ratchet-wheel *g*², which engages a pawl *h*² on the wheel G, which pawl is held normally in contact with the ratchet by means of a spring *h*³ also secured to the sprocket-wheel. On the lower portion of each of the end pieces of the main or supporting frame is journaled in suitable bearings a roller *n*, which is adapted to prevent the longitudinal movement of the body or crib, and in case of such movement during the rocking thereof to lessen the friction, as is apparent.

From the foregoing and by reference to the drawings it will be seen and clearly understood that by turning the shaft H, by means of the crank-handle *h'*, the spring I will be wound thereon until a sufficient tension is acquired, and it will be prevented from unwinding too rapidly by reason of the pawl *h*² engaging the ratchet *g*² on said shaft. The spring thus wound will cause the shaft H to revolve, and with it the sprocket-wheel G, which, through the medium of its chain and the sprocket wheel or pinion *h*, will revolve the escapement-wheel F, which is provided, as before stated, with a number of pins *f*, near its periphery, with which the spring-protected arms *d* and *d*² of the escape-lever D alternately engage, and, through said lever and the shaft D' on which it is secured, impart to the cradle-body B, through the arm L, a rocking or oscillating motion, which may be continued for any desired length of time.

When it is desired to use the fanning attachment, a cord or belt *c*², attached at each of its ends to the lever D, may be passed over the pulley *c'* on the end of the rod C', which arrangement will cause said rod carrying the fan C² to rock in its bearings and to fan the child, as is obvious. The crib or body B, being suspended by means of the flexible pieces B², which are secured at their upper ends be-

tween the cushions *b*⁴ in the brackets, will swing back and forth in an easy and noiseless manner. It is also evident that by using the protecting-springs *d'* and *d*³ on the arms of the escape-lever D to contact with the pins on the escapement-wheel that a noiseless and cushioning effect is thereby attained.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the main frame, of a crib or body movably suspended thereon, a rocking shaft journaled in the frame, an escape-lever secured on said shaft and provided at its ends with spring-protected arms, an escapement-wheel journaled on the main frame, having pins to engage the arms of the escape-lever, a mechanism to revolve the escape-wheel located on the frame, and a connection secured at one of its ends to the rocking shaft and adapted to engage the crib or body at its other end, substantially as described.

2. The combination with the main frame, of a crib or body movably suspended thereon, a rocking shaft journaled in the frame, a shaft or rod carrying a fan located on the frame above the crib, an escape-lever secured on the rocking shaft and having at its ends spring-protected arms, an escape-wheel journaled on the main frame, and provided near its periphery with pins to engage the arms of the escape-lever, a mechanism on the main frame to turn the escape-wheel, a belt or its equivalent connecting the escape-lever, and the rod or shaft carrying the fan, and adapted to impart an oscillating motion thereto, and a connection secured at one of its ends to the rocking shaft, and adapted to engage the crib or body at its other end, substantially as described.

3. The combination of the escape-lever D, secured on a shaft, and having at its ends the arms *d*, and *d*², provided with the protecting-springs *d'* and *d*³, respectively, with an escape-wheel provided near its periphery with pins or projections to engage the arms of the escape-lever, and a mechanism to turn the escape-wheel, substantially as described.

4. The combination with the main frame, of a flexible piece secured to the upper part of each end of said frame, and provided with cushions in its bearings, the crib or body secured to the lower ends of said pieces, the plate M, hinged on one end of the crib or body, and having the pins *m*, a rocking shaft journaled in the main frame, a mechanism on the frame to rock said shaft, and the rod L, secured at one of its ends to the rocking shaft and adapted to engage the pins on the hinged plate M, at its other end, and having between its ends a coil or spring *l*, substantially as described.

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