

(No Model.)

M. C. SORRELL.
CRADLE.

No. 529,816.

Patented Nov. 27, 1894.

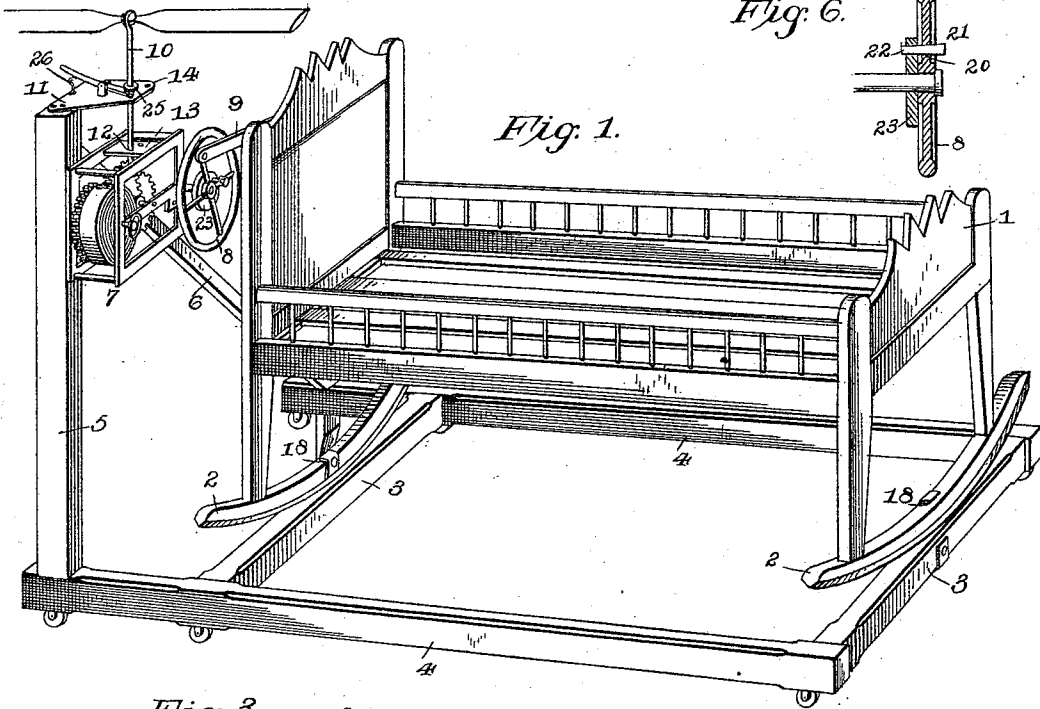


Fig. 6.

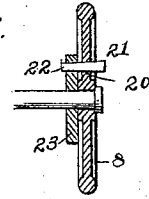


Fig. 1.

Fig. 3.

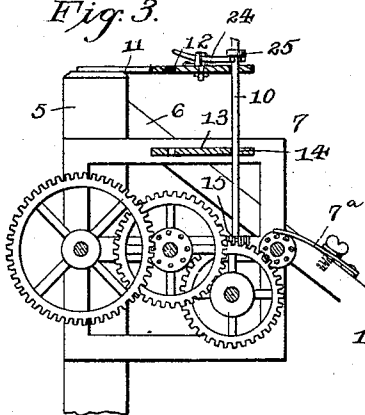


Fig. 2.

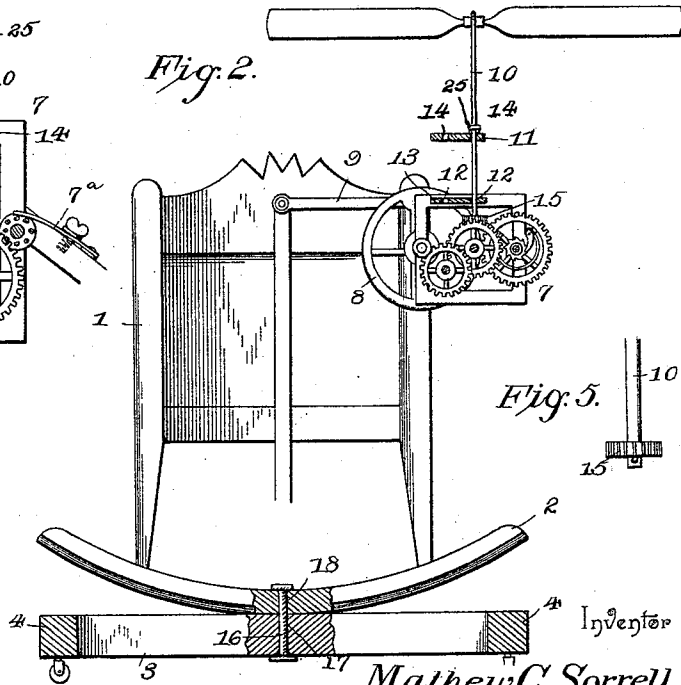


Fig. 5.

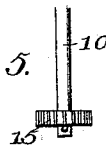
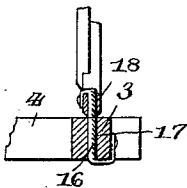


Fig. 4.



Witnesses

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By his Attorneys.

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UNITED STATES PATENT OFFICE.

MATHEW CANADA SORRELL, OF RALEIGH, NORTH CAROLINA.

CRADLE.

SPECIFICATION forming part of Letters Patent No. 529,816, dated November 27, 1894.

Application filed April 30, 1894. Serial No. 509,557. (No model.)

To all whom it may concern:

Be it known that I, MATHEW CANADA SORRELL, a citizen of the United States, residing at Raleigh, in the county of Wake and State of North Carolina, have invented a new and useful Cradle, of which the following is a specification.

The invention relates to improvements in cradles.

10 The object of the present invention is to improve the construction of cradles, and to provide means whereby the same may be gently rocked without any sudden jars.

15 The invention 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.

20 In the drawings: Figure 1 is a perspective view of a cradle constructed in accordance with this invention. Fig. 2 is a vertical sectional view. Fig. 3 is a detail sectional view of the spring motor. Fig. 4 is a similar view of one of the rockers and the adjacent portion 25 of the base. Fig. 5 is a detail view of the lower end of the fan shaft, illustrating the manner of detachably securing its pinion. Fig. 6 is a detail sectional view, illustrating the manner of keying the crank wheel to the disk.

30 Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a cradle, having its rockers 2 mounted on transverse end-bars 3, of the base 35 of a supporting frame. The base of the frame is rectangular and consists of the transverse end-bars and parallel side bars 4. At one end of the base the side bars are extended beyond the adjacent end bar, and rising from one of 40 the side bars is a vertical standard 5, which is supported by an inclined brace 6, extending from the projecting end of the other side bar upward to the top of the standard. On the standard is mounted a spring motor 7, which 45 has a crank-wheel 8 connected by a pitman 9 with the cradle, whereby the latter is rocked. The spring of the motor is wound in the usual manner, and is designed, in practice, to be arranged in a suitable casing which covers 50 the entire motor; and in order to govern the motor to regulate the speed or rapidity of rocking, an adjustable fan-carrying shaft 10

is provided. The shaft 10 is arranged vertically, and is adapted to be mounted in corresponding perforations of a guide-arm 11, and 55 perforations 12, of a cross-piece 13, of the motor frame. The perforations 14 of the guide-arm, and those 12 of the cross-piece are arranged with relation to the gear-wheels of the motor, in order that a pinion 15 at the lower 60 end of the vertical fan-carrying shaft may be made to mesh with different gear-wheels to regulate the rapidity of rotation of the fan-carrying shaft. The vertical shaft 10 is provided at its upper end with an opening 65 adapted to receive any desired fan, which is also an advantageous feature for the cradle. The pinion 15 of the shaft 10 is detachably keyed to the lower end thereof, to permit 70 ready adjustment. The motor is provided with a brake 7^a mounted on the inclined brace 6, and consisting of a spring having one end attached to the brace, and having its other end bearing upon one of the pinions of the motor, and an adjusting screw for regu- 75 lating the tension of the spring.

The rockers are retained in the proper position on the base by elastic connections, preferably consisting of elastic bands 16, arranged in vertical slots or openings 17 of the 80 end bars of the base, and secured at one end to one of the side faces of each end bar, and having the other ends attached to the rockers by, preferably, passing through perforations 18 thereof and secured by suitable fas- 85 tening devices, to the opposite faces of the rockers. By this construction simple and effective means are provided for retaining the rockers in proper position on the base, and these connections also assist the return 90 of the cradle at the end of each oscillation and form cushions to take up any jars or jerks which might result from an unprotected motor.

The cradle is adapted to be rocked without 95 the use of the fan, and the fan may be operated without rocking the cradle. The wheel 8 is loosely mounted on the shaft, and is rigidly connected therewith when it is desired to rock the cradle by a removable key 20 fit- 100 ting in an opening 21 of one of the spokes of the wheel, and engaging an opening 22 of a disk 23, fixed to the shaft. By removing the key the shaft will not cause a rotation of the

wheel 8, and the fan will be operated without rocking the cradle. A lever 24 is mounted on the guide arm 11. Its inner end is bifurcated, and engages a shoulder 25 of the shaft 10, the shoulder being formed by means of a groove, a collar or the like; and the lever is adapted to have its outer end depressed to lift the shaft to prevent the pinion 15 from meshing with the train of gears of the motor. A hook 26 is provided for engaging the outer end of the lever to hold the fan shaft elevated.

It will be seen that the cradle is simple and comparatively inexpensive in construction, and that it is adapted to be readily rocked at the desired speed without sudden jerks or jars. It will also be apparent that the cradle may be rocked without operating the fan, and that the fan may be used when the cradle is stationary.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is--

1. The combination of a supporting frame having a base, a motor mounted on the frame and having a train of gears, a cradle supported on the base and connected with the motor, and an adjustable fan-carrying shaft provided with a pinion adapted to mesh with a gear-wheel of the motor, substantially as described.

2. The combination of a frame provided with a base, a cradle mounted on the base, a motor supported by the frame and connected with the cradle and having a train of gears, a cross-bar provided with perforations, a guide-arm arranged above the cross-bar and having corresponding perforations, and a fan-carrying shaft adapted to fit in the said per-

forations and provided at its lower end with a pinion and capable of adjustment to cause the pinion to mesh with the desired gear-wheel whereby the speed of the cradle may be regulated, substantially as described.

3. The combination of a supporting frame having a base, a motor mounted on the frame and having a train of gears, a cradle supported on the base and connected with the motor, a fan shaft provided with a pinion adapted to mesh with a gear wheel of the motor, a lever fulcrumed between its ends and having its inner end engaging the shaft and adapted to have its outer end depressed to lift the shaft, and a fastening device for locking the outer portion of the lever when depressed, substantially as described.

4. The combination of a supporting frame having a base, a cradle supported on the base, a motor mounted on the frame and having a train of gears and having a drive shaft, a disk fixed to the shaft and provided with an opening, a crank wheel loosely mounted on the shaft and provided with an opening, a pitman connecting the crank wheel with the cradle, a key adapted to be arranged in said openings for locking the crank wheel rigid with the shaft, a vertically movable fan shaft provided at its lower end with a pinion meshing with one of the gear wheels of the motor, a lever engaging the fan shaft and adapted to raise the same, and means for holding the lever to maintain the fan shaft in an elevated position, substantially as described.

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

MATHEW CANADA SORRELL.

Witnesses:

W. M. SORRELL,

J. D. CREECH.