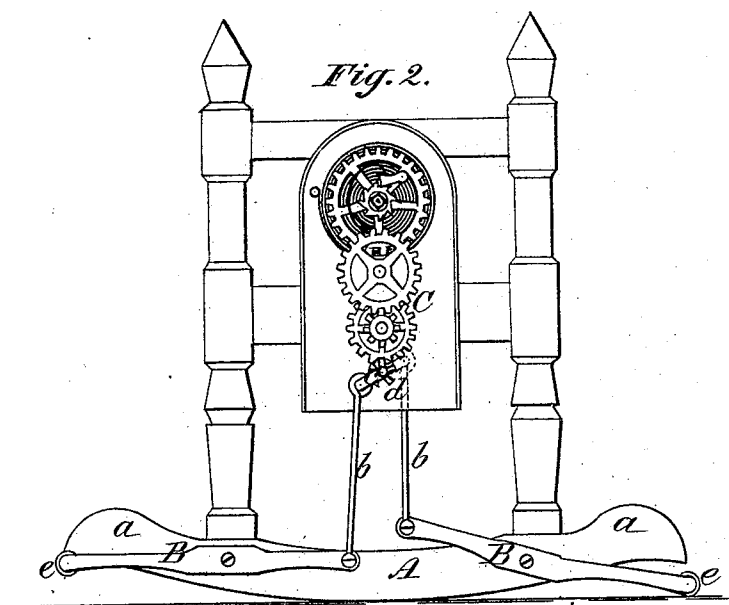
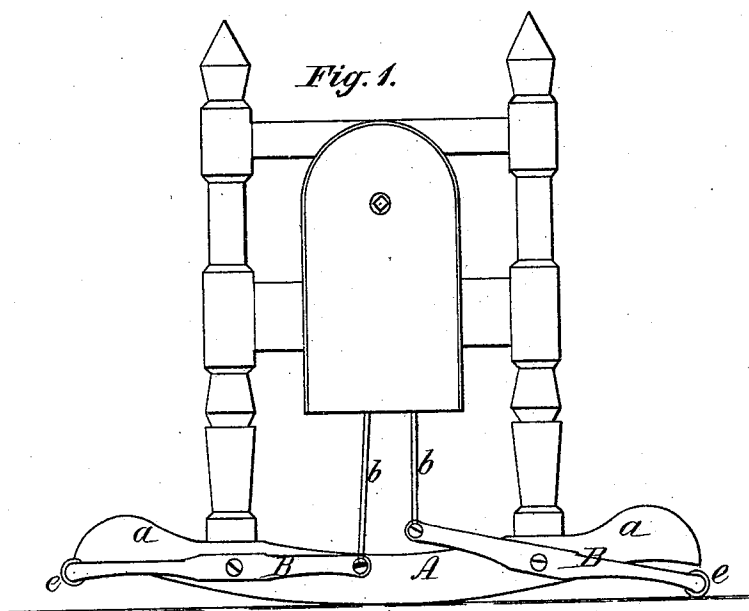


J. E. WILSON & R. McADAMS.

CRADLE.

No. 171,900.

Patented Jan. 4, 1876.



Witnesses:

Wm. Wagner,
J. A. Rutherford

Inventors:

James E. Wilson,
Rayford McAdams,
By *Johnson & Johnson,*
their Attys

UNITED STATES PATENT OFFICE.

JAMES E. WILSON AND RAYFORD McADAMS, OF MARSHFIELD, MISSOURI,
ASSIGNORS TO JAMES E. WILSON, OF SAME PLACE.

IMPROVEMENT IN CRADLES.

Specification forming part of Letters Patent No. 171,900, dated January 4, 1876; application filed
September 21, 1875.

To all whom it may concern:

Be it known that we, JAMES E. WILSON and RAYFORD McADAMS, of Marshfield, in the county of Webster and State of Missouri, have invented certain new and useful Improvements in Child's Rock Crib or Cradle; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

Our invention relates to cradles provided with walkers, propelled by a spring-motor device attached to the end of the cradle.

Such devices have hitherto consisted of a single pivoted arm of two prongs, which are operated alternately by an escapement or verge device, which receives motion from a clock-spring, and which operating upon the floor-arms, are alternately arrested by the verge, and thereby impart a rocking movement to the cradle.

In another plan vertical rods are employed in connection with a walking-beam, to which their upper ends are jointed, and which is operated by an arm, connected with and controlled by a crank put in motion by a clock-spring, so as to maintain the walking-rods in an unbroken contact with the floor.

Both these devices are constructed to operate near the center of motion, and therefore lose much of their leverage force.

We have improved these plans by having separate walking-levers, pivoted near the extremities of one of the rockers, so as to bring their free ends to operate upon the floor at the extremities of rocker, and combined with the inner ends of the levers, a double-cracked shaft, and the motor mechanism by means of separate connecting-rods, the advantage of which gives a much greater leverage to the walking-levers; and to cause them to act with a more perfect balance and keep the cradle to its place, the separate levers are pivoted in the middle of their length, and the movement of their connecting-rods being equal, the leverage-power is exerted at the ends of

the rocker, and just where it is required to produce the best effect in preserving a uniform movement of the cradle, and, by having a rolling purchase upon the floor, prevent the cradle from moving about.

In the accompanying drawings, Figure 1 represents an end elevation of a cradle embracing my rocking devices, and Fig. 2 a vertical section of the motor mechanism.

Pivoted upon projections *a* of the rockers *A* of the cradle are walkers or walking-levers *B*, which connect at their adjacent ends by connecting-rods *b* to the motor mechanism. The walkers and motor mechanism are only at one end of the cradle, preferably the foot, as the clicking of the cog-gearing is not then at all liable to disturb the sleeper. The connecting-rods *b* are bent, so as to pass each other freely, and to connect, at a suitable distance apart, each to its proper crank of a double-cracked shaft, *c*, which receives motion to drive these rods *b* from a small pinion, *d*, thereon, communicating with suitable clock mechanism *C*, set in motion by a spring.

This mechanism is inclosed within a suitable case, and is wound up by a key.

In the example shown one of the cranks and its connecting-rod is outside of the case; but it is obvious that both could be easily made to connect inside this casing, which is open at the bottom to permit of the movements of the rods. It may, however, have a closed bottom, with open ways for the rods.

In order to prevent the thumping sound which might be occasioned by the walkers *B*, we provide them, at the ends which touch the floor, with rubber or rubber-bound rollers *e*. These rubber rollers also add elasticity to the stroke of the walker.

The walkers *B*, with their rollers *e*, being set in motion by the mechanism described, strike first upon one side of the cradle, then upon the other, and, their contact being yielding, no harsh movement is effected and the balance is perfect. The cradle thus keeps its place, and does not move about, as do cradles whose rigid rockers receive a purchase from the floor, the rollers *e* preventing such harsh contact by their constant motion.

We claim—

1. The separate walking-levers B B, pivoted to the rocker in the middle of their length, to bring their free ends in contact with the floor at or near the ends of the rocker, and combined with the double crank-shaft *c* and the motor mechanism by the separate crank-rods *b b*, as and for the purpose set forth.

2. In a rocking cradle provided with pivoted walkers B, the combination, with such walkers, of rubber or rubber-bound rollers *e*,

whereby the cradle is kept in its place, as set forth.

In testimony that we claim the foregoing we have affixed our signatures in presence of two witnesses.

JAMES E. WILSON.
RAYFORD McADAMS.

Witnesses:

J. C. SELLERS,
C. E. TRIPLETT.