Aug. 13, 1963 D. M. SCHOEFFEL 3,100,638

BABY ROCKER

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Fig. 1.

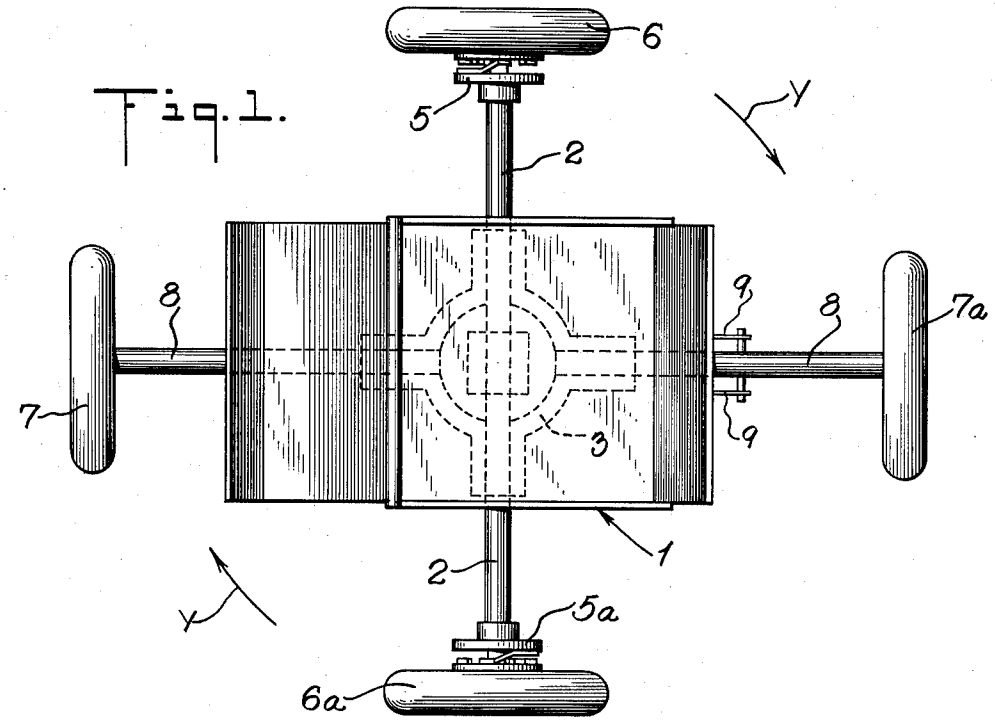
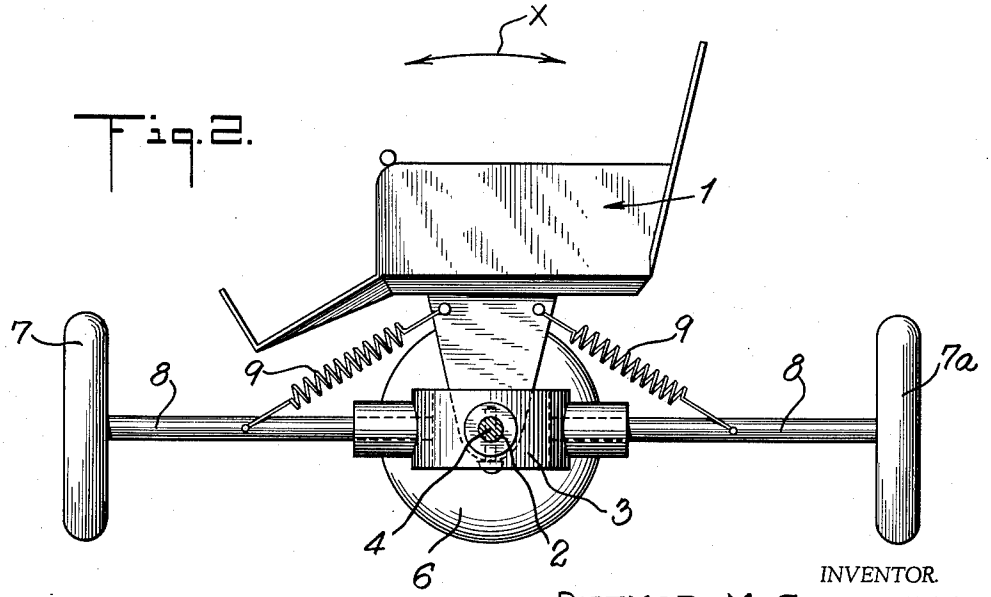


Fig. 2.



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BABY ROCKER

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The invention relates to baby rockers and in particular to those baby rockers which are caused to rotate under the urging of the rocking by the baby.

After babies reach the age of six months they start to rattle the sides of their cribs and to rock in their stollers or carriages. They appear to obtain considerable enjoyment both from the sounds produced and the exercise. Unfortunately, most of these devices in which a baby rocks are not designed for such strain and in a short time they develop structural weakness so that they cannot be used freely or have to be discarded. This misuse of baby furniture results in an atmosphere of nervous tension and contributes to the insecurity of the child itself.

While it is true that there are various devices available which permit a baby to rock as much as it pleases, they all appear to possess a common disadvantage. The motion of these prior art devices is generally limited to a single direction even though the chair or similar mechanism which is actuated by the toddler's impact, is spring suspended.

The present device, which I call Rock'n Roller, gives considerable security and pleasure to the child. Parents enjoy peace of mind since they known that the baby is safely and joyfully occupied. The Rock'n Roller satisfies the baby's natural drive for activities which produce motion while at the same time making him aware of the fact that his enjoyment depends on his physical efforts.

The seat of the Rock'n Roller, which may be a boat, car, horse, swan or any other suitable form, becomes accelerated in a to and fro motion due to the rocking of the baby. The device is mounted on four wheels, two of which are ratcheted. The back and forward movement of the chair causes these ratcheted wheels to produce rotation of the wheel base thereby giving the baby a constantly changing view of its surroundings.

Accordingly, it is an important object of the invention to provide a baby rocker which rotates under the urging of the rocking by the child.

This and other objects, advantages, uses and features will be apparent during the course of the following description when taken in connection with the accompanying drawings wherein:

FIGURE 1 is a top view of the device of the invention, and

FIGURE 2 is a side elevational view of the device of FIGURE 1 with one wheel, that facing the observer, removed.

In the drawings, wherein there is shown for the purpose of illustration, a preferred embodiment of the invention and wherein like numerals are used to designate like parts throughout the same, the numeral **1** designates the child's seat. The rocking motion of the chair is in the direction designated by the arrow X and the direction of rotation of the wheel base is shown by means of the arrows Y.

Chair **1** is directly linked to uninterrupted axle **2** which is mounted in housing **3** in a free bearing fit. The chair is permitted to tilt in a restricted angle around point **4**. Restriction is accomplished because of the fixed distance between chair **1** and housing **3** which results in a positive stop of both the forward and backward motion of chair **1**. The forward or backward motion of chair **1** in direction

X is transmitted to axle **2** because of the positive connection of the two elements.

This motion actuates ratchets **5** and **5***a* which are fastened to axle **2**. The mating portions of the ratchets **5** and **5***a* are mounted on wheels **6** and **6***a* which are in a loose bearing fit with axle **2**. It can be seen that the rocking of chair **1** upon being transmitted to axle **2** causes the ratchets **5** and **5***a* to transmit a rotational motion to wheels **6** or **6***a* depending on whether the chair is moved forward or backward. Due to the arrangement of the ratchets **5** and **5***a* the rotation in the direction Y is the same regardless of the direction of movement of the chair **1**. The velocity of the rotational motion is directly related to the velocity and angular motion of chair **1** in direction X.

Axle **8** is interrupted at housing **3** as shown in FIGURE 1. Wheels **7** and **7***a* are mounted on the ends of axle **8** in a loose bearing fit. They give sufficient support to intercept the forces developed by the swinging of chair **1** in directions X.

Tension springs **9** are fastened to chair **1** and axle **8** to keep the chair in a suspended neutral position in the approximate center of its possible motions.

While I have disclosed my invention in relation to a specific example and in a specific embodiment, I do not wish to be limited thereto, for obvious modifications will occur to those skilled in the art without departing from the spirit and scope of my invention.

Having thus described my invention, I claim:

1. A baby chair for operation in a circular path under force provided by an operator comprising
   - (*a*) a frame,
   - (*b*) an uninterrupted axle mounted within said frame and freely rotatable with respect thereto,
   - (*c*) an axle interrupted in the center thereof mounted to said frame,
   - (*d*) a first pair of wheels mounted at the ends of said interrupted axle,
   - (*e*) a seat mounted on said uninterrupted axle so as to be pivotally movable in a direction transverse to that of said uninterrupted axle and so as to apply rotational force thereto,
   - (*f*) a second pair of wheels mounted at the ends of said uninterrupted axle,
   - (g) rotation control means mounted between each of said second pair of wheels and said uninterrupted axle such that the rotation of said second pair of wheels is unidirectional regardless of the direction of the rotational force applied to said uninterrupted axle,
   - (*h*) means for limiting the pivotal movement of said seat.

2. A baby chair as described in claim 1 wherein said wheels are spaced apart by 90°.

3. A baby chair as described in claim 1 wherein said means for limiting the pivotal movement of said seat comprises a pair of springs mounted between said seat and said frame.

4. A baby chair as described in claim 1 wherein said rotation control means comprises a pair of ratchets.

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