Feb. 13, 1951 D. W. BOOTH 2,541,955

ROLLING ROCKING CHAIR

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Fig. 1.

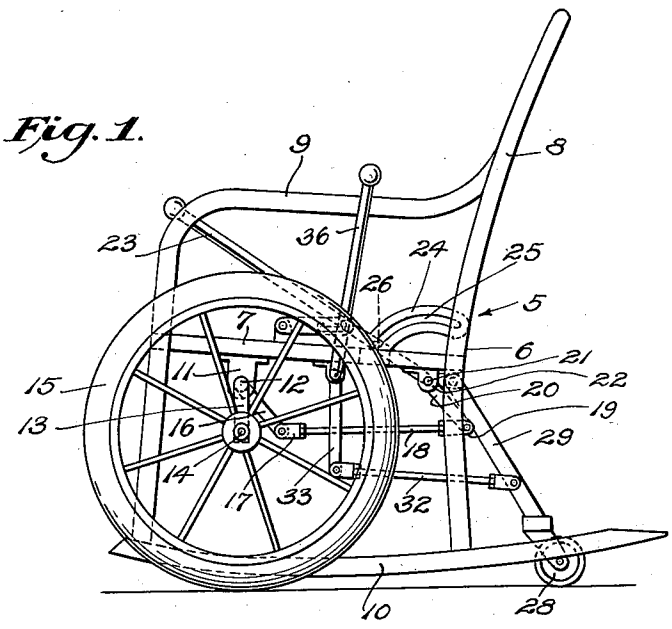
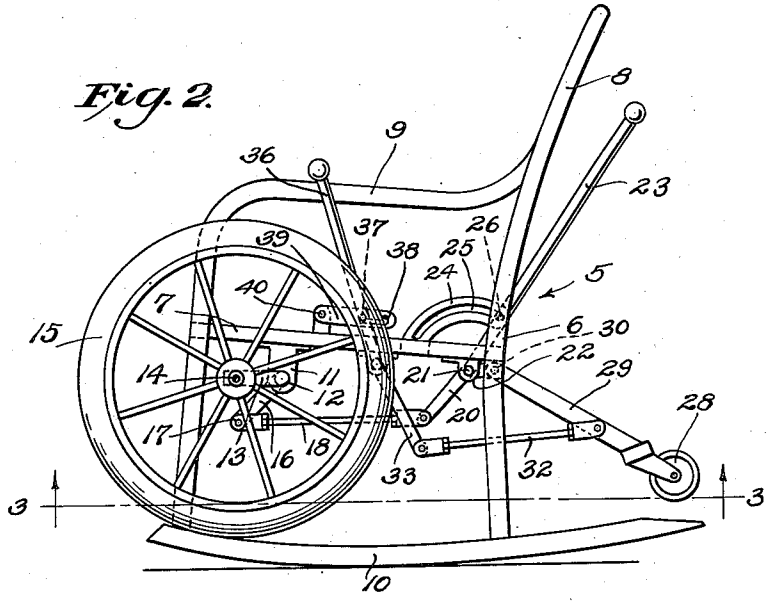



Fig. 2.




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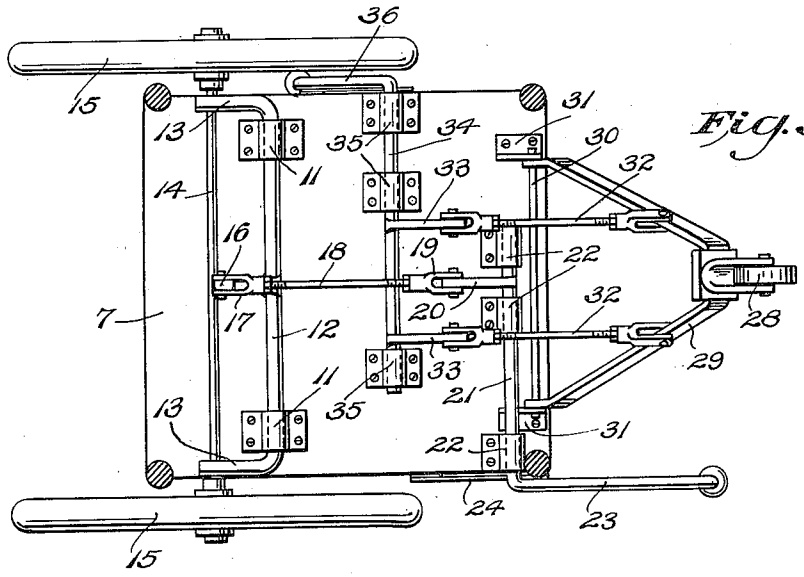



Fig. 3.

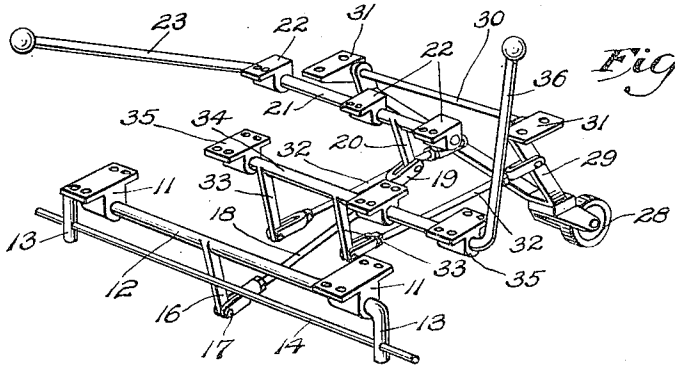



Fig. 4.

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## ROLLING ROCKING CHAIR

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3 Claims. (Cl. 155—73)

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This invention relates to invalids' rolling chairs, and is particularly concerned with a rolling chair which may be employed as a rocker when so desired.

The ordinary invalid's chair is so constructed that while it may be readily wheeled from one location to another, yet when stationary, the same partakes of the nature of a straight chair. Many persons using such chairs for prolonged periods of time would find relief and greater comfort if the same could be rocked after the manner of an ordinary rocking chair, avoiding the tedium and nervous fatigue of prolonged sitting without physical activity. While various constructions have been proposed for producing such a dual purpose rolling chair, the same have been so imperfect from a mechanical or design standpoint that they have not received public acceptance.

The present invention, therefore, aims to provide a chair of this nature which is characterized by its mechanical simplicity and ease of operation in adapting the same for service either as a rolling chair of as a rocking chair.

Another object of the invention is to provide a rocker type rolling chair with an improved lever-actuated means for raising and lowering the front and rear wheels of the chair between active and inactive positions, the said lever means being under the control of the chair occupant.

For a further understanding of the invention, reference is to be had to the following description and the accompanying drawings, wherein:

Fig. 1 is a side elevational view of a rocker type rolling chair formed in accordance with the present invention, the wheels of the chair being shown in their lowered or active positions;

Fig. 2 is a similar view disclosing the wheels in their elevated or inactive positions;

Fig. 3 is a horizontal sectional view taken through the chair on the plane indicated by the line 3—3 of Fig. 2;

Fig. 4 is a detail perspective view of the wheel-operating mechanism.

Referring more particularly to the drawings, the numeral 5 designates a rocking chair of any suitable configuration, the same being formed to provide a frame 6 having a seat 7, back 8, arm rests 9 and curved bottom runners 10.

To render the chair portable, the lower surface of the seat 7 has secured thereto a pair of bearing brackets 11 for the reception of a crank axle 12. The ends of the axle are angularly bent as at 13 to form arms, and the outer or lower ends of these arms receive a rod 14, the ends of

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said rod constituting studs for rotatably receiving rubber tired floor-engaging wheels 15.

As shown in Fig. 1, when the wheels are actively positioned, elevating the runners 10 of the chair above the floor surface, the arms 13 of the crank axle are substantially vertically positioned, and when the wheels are raised, as in Fig. 2, the arms extend forwardly and substantially horizontally. To actuate the crank axle, the latter is provided centrally of its length with a depending arm 16. To the lower end of this arm, there is pivotally connected as at 17, the forward bifurcated end of a rod 18. The rear bifurcated end 19 of said rod is pivotally connected with the lower end of a crank arm 20 formed with and depending from a rearwardly positioned rock shaft 21, this shaft being journaled for rocking movement in bearing brackets 22 attached to the under part of the seat 7. One end of the rock shaft 21 carries an operating lever 23, which is disposed at one side of the chair where it may be conveniently reached and actuated.

It will be seen that by rocking the lever 23, motion is imparted to the axle-carrying crank shaft 12, thereby providing for the raising and lowering of the wheels 15 at will. The frame of the chair may be provided with a quadrant 24 which is formed with an arcuate slot 25 for the reception of a guiding pin or detent 26 provided on the lever 23. The pin or detent frictionally engages the walls of the slot 25, holding the wheels in their fixed positions of adjustment.

The chair is provided at its rear with a third, stabilizing caster wheel 28. This wheel is carried by a pivoted substantially triangular frame 29, the upper end of this frame being pivotally mounted on a shaft 30 which is supported by brackets 31 carried by the bottom of the chair seat 7. To raise the caster wheel when the chair is to be used as a rocker, there is connected to the frame 29 a pair of rods 32 having yoke-shaped ends. The forward ends of the rods 32 are pivotally connected with the lower ends of a pair of crank arms 33 which depend from an intermediate rock shaft 34, the latter being journaled for rocking movement in bearing brackets 35, attached to the under surface of the chair seat 7. The rock shaft on the other side of the chair, as regards the lever 23, is provided with an actuating extension 36. The latter is formed with a pin or detent 37 which is positioned in a slot 38 having notched ends, the said slot being formed in a link 39 which is pivotally mounted as at 40 on the chair frame, the link serving to positively retain the caster-carrying frame 29

in either its elevated or lowered position, as shown in Figs. 1 and 2.

In view of the foregoing, it will be seen that the present invention provides a simple, practicable and efficient chair for use by invalids, or others, in which is combined the functions of both a rolling chair and a rocking chair. The transition between the two stages of use may be effected quickly and easily, either by the chair occupant or by an attendant. The mechanism is positive, retains its adjustments and is not likely to become out of order or require unusual attention.

While I have described what I consider to be a preferred embodiment of my invention, nevertheless, it will be understood that the same is subject to certain mechanical modification without departing from the spirit and scope of the invention, as the latter has been defined in the following claims.

I claim:

1. Convertible chair construction, comprising a rocking chair having substantially arcuate floor-engaging members and a seat connected with said members, a pair of main floor-engaging wheels, a crank axle turnably supported on the bottom of the seat of said chair and having said wheels rotatably mounted on the opposite ends thereof, a manually operated rock shaft journaled on the bottom of said chair seat in spaced relation from said axle, said rock shaft being provided with a depending crank arm, a link uniting the crank arm of said rock shaft with a corresponding arm positioned intermediately on said axle, a swinging frame pivotally mounted at its upper end on the bottom of said chair seat in depending relation thereto, a single floor-engaging wheel carried by the outer and lower end of said frame, and manually operated lever means for moving said frame between positions bringing the wheel carried thereby into and out of floor engagement.

2. Convertible chair construction of the character set forth, comprising a rocking chair embodying a frame, rocker runners and a seat carried by the frame, an axle turnably mounted on the bottom of said chair seat, said axle being provided at the ends thereof with crank extensions carrying outwardly directed studs, a pair of forwardly located floor-engaging wheels rotatably mounted on said studs, a crank arm provided intermediately on said axle, a rock shaft journaled on the bottom of said chair seat in spaced relation from said axle, a crank arm on said rock shaft, a link uniting the crank arm of the rock shaft with that of said axle, a manually operated lever arranged at the side of said chair for imparting oscillatory movement to said rock shaft, whereby to raise and lower said wheels and said chair, a swinging frame pivotally mounted on the bottom of said chair seat adjacent to the rear thereof, a floor-engaging wheel of smaller diameter than said first-named wheels carried by the outer end of said frame, a manually operated lever pivotally mounted on said chair seat on the opposite side of the chair as regards said first-named lever, and means actuated by said second lever for imparting swinging movement to said frame and the wheel carried thereby.



3. Convertible chair construction of the character set forth, comprising a rocking chair embodying a frame, rocker runners and a seat carried by the frame, an axle turnably mounted on the bottom of said chair seat, said axle being provided at the ends thereof with crank extensions carrying outwardly directed studs, a pair of forwardly located floor-engaging wheels rotatably mounted on said studs, a crank arm provided intermediately on said axle, a rock shaft journaled on the bottom of said chair seat in spaced relation from said axle, a crank arm on said rock shaft, a link uniting the crank arm of the rock shaft with that of said axle, a manually operated lever arranged at the side of said chair for imparting oscillatory movement to said rock shaft, whereby to raise or lower said wheels and said chair, a swinging frame pivotally mounted on the bottom of said chair seat adjacent to the rear thereof, a floor-engaging wheel of smaller diameter than said first-named wheels carried by the outer end of said frame, a manually operated lever pivotally mounted on said chair seat on the opposite side of the chair as regards said first-named lever, means actuated by said second lever for imparting swinging movement to said frame and the wheel carried thereby, and means for locking said second-named lever in its frame-elevating position.

DWIGHT W. BOOTH.


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