April 12, 1949. R. C. SEFTON ET AL 2,467,236

EXERCISER ROCKING DEVICE

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Fig. 1.

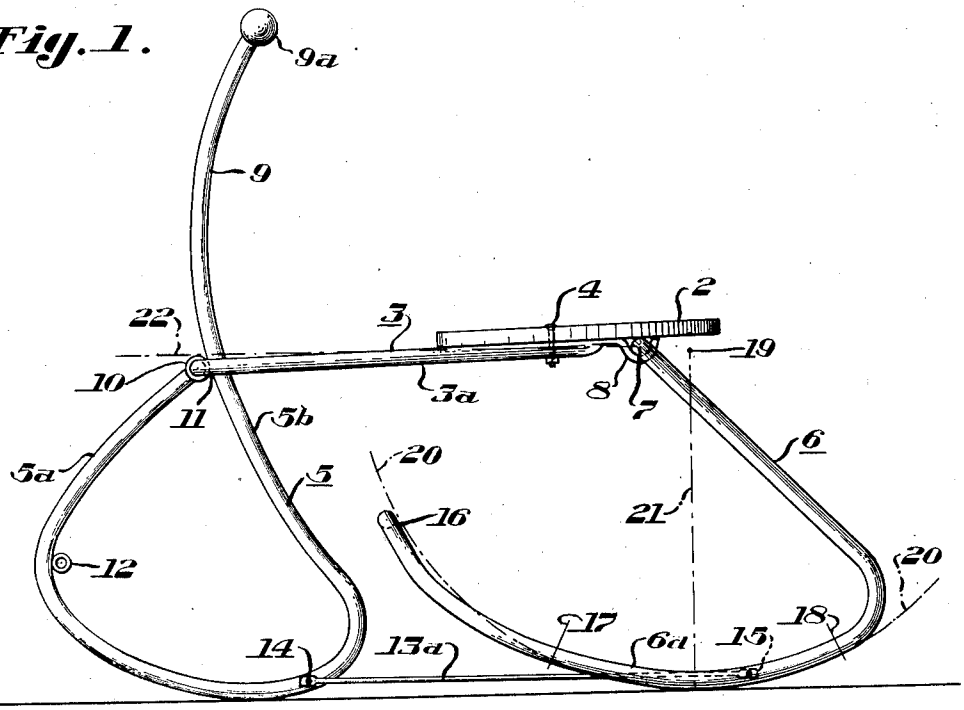
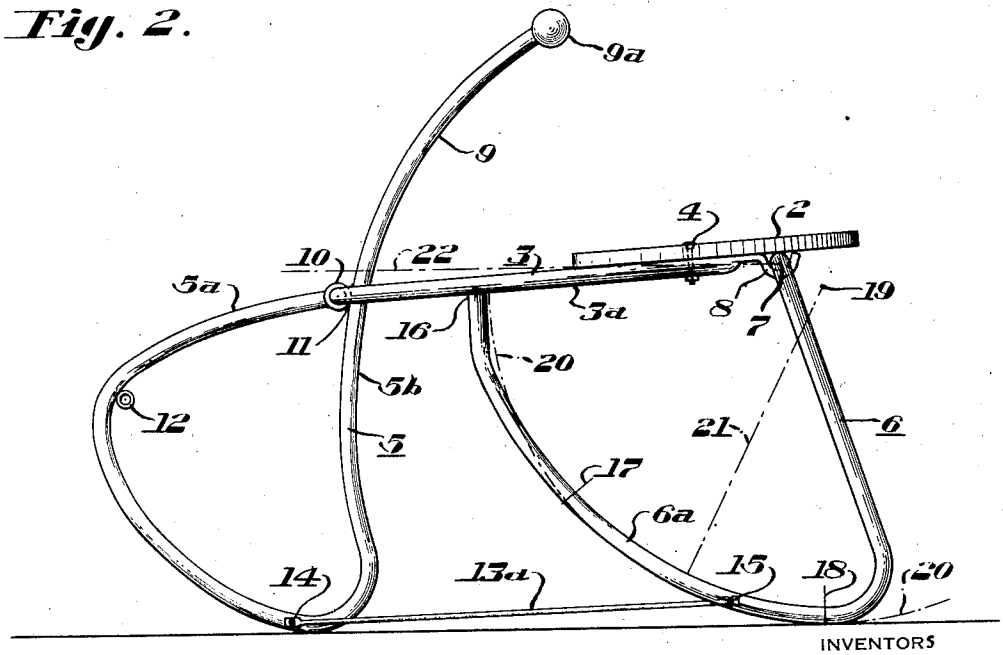


Fig. 2.



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Fig. 3.

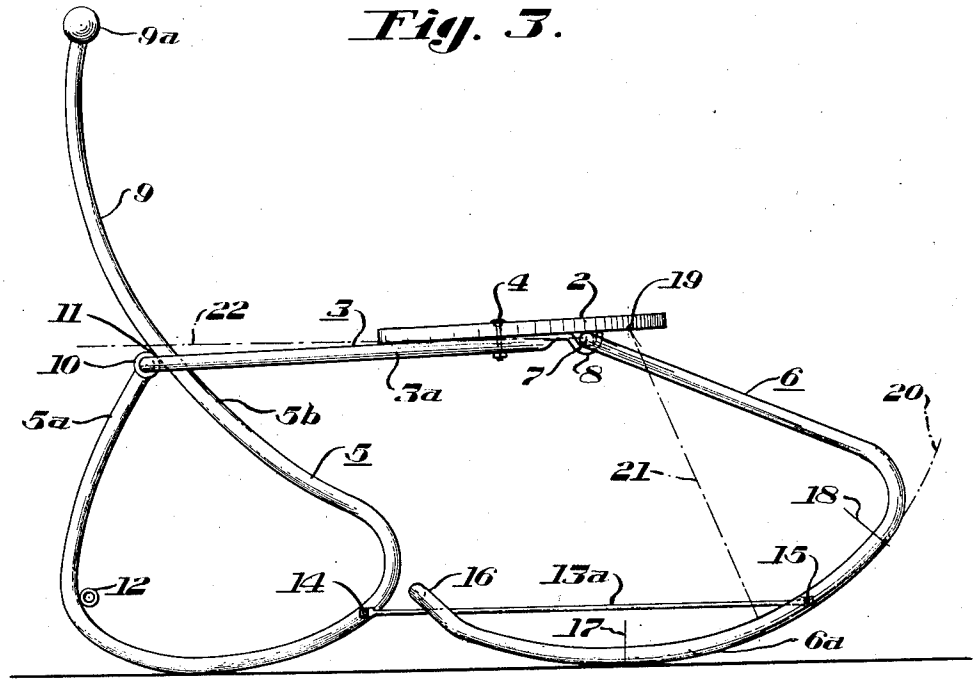
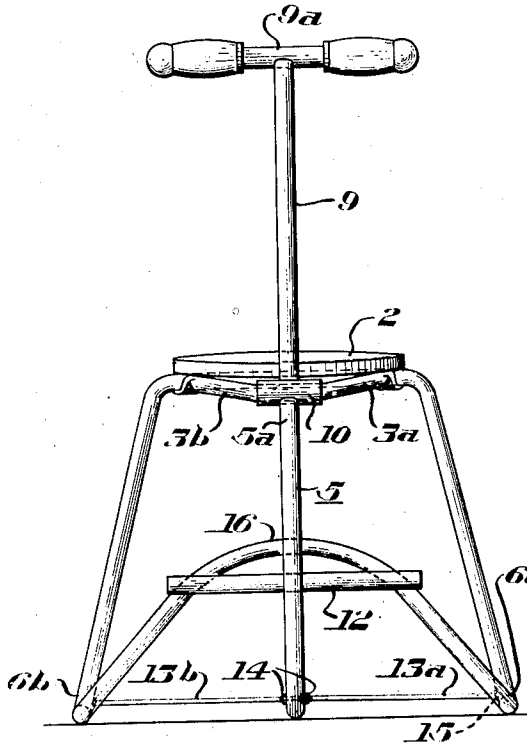


Fig. 4.



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EXERCISER ROCKING DEVICE

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4 Claims. (Cl. 272—52)

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This invention relates to an exerciser rocking device primarily intended for children but adapted for use by adults if made of sufficiently rugged construction and adequate size.

An object of the invention is to provide a rocking device which is simple in construction, inexpensive and in which the rider's weight is always so positioned that there is little likelihood of the device tipping over backwards.

In the accompanying drawings which illustrate a preferred embodiment of our invention,

Figures 1, 2 and 3 are side elevations of the device in different positions, Figure 1 representing the neutral position, Figure 2 the backward position, and Figure 3 the forward position; and

Figure 4 is a front elevation of the rocking device in the neutral position of Figure 1.

Referring more particularly to the accompanying drawings, the rocking device is preferably made of metal tubing such as steel or aluminum tubing. A seat 2 is supported on a tubular frame 3 and fastened to the frame by two screws 4. The frame is made by bending a metal tube so as to provide two rearwardly diverging legs 3a and 3b connected at their front ends. The frame 3 is supported on a front rocker 5 and a rear double rocker 6 having two rocker legs 6a and 6b. The entire double rocker 6 is preferably made out of a single piece of tubing. The rear rocker is pivoted to the frame 3 as indicated by the reference numeral 7 by bending the rear portions of the legs 3a and 3b into hooks 8 which receive the top portion of the rocker.

The front rocker 5 is preferably made of a single piece of tubing forming both the rocker portion proper and an arm 9 which extends above the frame and is provided with a handle 9a. A T 10 is integrally connected to the upper end of the portion 5a of the front rocker and this T receives the front portion of the frame 3 and acts as a front bearing or pivot for the frame and front rocker. The upper portion 5b of the front rocker is welded as indicated by the reference numeral 11 or is otherwise connected to the T 10. A foot rest 12 is rigidly connected to the front leg 5a of the front rocker. Two tie rods 13a and 13b are pivotally connected adjacent their front ends to the front rocker as indicated by the reference numeral 14 and are pivotally connected adjacent their rear ends to the rear rocker as indicated by the reference numeral 15.

The front portions of the two rear rocker legs 6a and 6b form a loop 16 which straddles the tie rods 13a and 13b and lies between the tie rods and the frame 3. By reference to Figure 3, it will be

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seen that when the rocking device is in its most forward position, the loop 16 contacts with the tie rods and prevents further forward rocking movement of the device. When the rocking device is in its most backward position, as shown in Figure 2, the loop 16 contacts with the underside of the frame 3, thereby preventing further backward rocking movement of the device.

An important feature of the invention is the location of the rear rocker pivot 7 with respect to the center of the circle of which the rear locker legs 6a and 6b form an arc. The portion of each rear rocker leg which contacts with the ground is the rocker portion between the lines 17 and 18. This bearing portion of the rocker is substantially arcuate, the center of its circle being indicated by the reference numeral 19. The circle of which the rocker portion 17—18 forms an arc is designated by the reference numeral 20 and the radius of this circle by the reference numeral 21. It will be seen that in the neutral position shown in Figure 1, the backward position shown in Figure 2 and the forward position shown in Figure 3, the pivot point 7 of the rear rocker 6 is located forwardly of the center 19 of the circle 20 of which the rocker portion 17—18 forms an arc. Thus when the rocking device is in any of its positions and weight is applied to the seat, as by a rider sitting thereon, the applied weight tends to rock the device forwardly. The pivot 10 of the front rocker lies in a horizontal plane which is lower than the pivots 7, as can be seen by reference to the horizontal line 22. Thus when the seat 2 moves forwardly, it also moves downwardly to a certain extent and when it moves rearwardly it moves upwardly. Accordingly, in rocking the device backwardly by pulling on the handle 9a the rider has to lift a portion of his weight, thereby utilizing the rocking device as an exerciser.

It will be noted by reference to Figure 2, which shows the device in its most rearward position, that due to the location of the pivot 7 forwardly of the center point 19, the pivot 7 never reaches a point rearward of the center 19 and accordingly any tendency of the rider to fall off backwardly is prevented.

The invention is not limited to the preferred embodiment but may be otherwise embodied within the scope of the following claims.

We claim:

1. An exerciser rocking device comprising a frame, a seat supported on the frame, a front rocker pivoted to the frame adjacent the forward end of the frame and having an arm integral with

the front rocker and extending above the frame, a foot rest on the front rocker, a rear double rocker having two rocker legs spaced apart transversely of the device and pivoted to the frame adjacent the rear end of the frame, the pivots of the rear rocker legs being in alinement transversely of the device, the bearing portion of each rear rocker leg being substantially arcuate, each pivot being located forwardly of the center of the circle of which the bearing portion of the rocker legs form an arc, and tie rods pivoted adjacent their front ends to the lower part of the front rocker and adjacent their rear ends to the lower part of the rear rockers.

2. An exerciser rocking device comprising a frame, a seat supported on the frame, a front rocker pivoted to the frame adjacent the forward end of the frame and having an arm integral with the front rocker and extending above the frame, a foot rest on the front rocker, a rear double rocker having two rocker legs spaced apart transversely of the device and pivoted to the frame adjacent the rear end of the frame, the pivots of the rear rocker legs being in alinement transversely of the device, the bearing portion of each rear rocker leg being substantially arcuate, each pivot being located forwardly of the center of the circle of which the bearing portions of the rocker legs form an arc, tie rods pivoted adjacent their front ends to the lower part of the front rocker and adjacent their rear ends to the lower part of the rear rockers, the front portions of the two rocker legs of the rear double rocker forming a loop which straddles the tie rods, lies between the tie rods and the frame, and acts in conjunction with the tie rods and frame to limit respectively the forward and rearward rocking movement of the device.

3. An exerciser rocking device comprising a frame, a seat supported on the frame, a front rocker pivoted to the frame adjacent the forward end of the frame and having an arm integral with the front rocker and extending above the frame, a foot rest on the front rocker, a rear double rocker having two rocker legs spaced apart transversely of the device and pivoted to the frame adjacent the rear end of the frame, the pivots of the rear rocker legs being in alinement transversely of the device, each pivot being located forwardly of the center of the circle of which the bearing portions of the rocker legs form an arc, tie rods pivoted adjacent their front ends to the lower part of the

front rocker and adjacent their rear ends to the lower part of the rear rockers, the front portions of the two rocker legs of the rear double rocker forming a loop which straddles the tie rods, lies between the tie rods and the frame, and acts in conjunction with the tie rods and frame to limit respectively the forward and rearward rocking movement of the device, the pivot of the front rocker being located, in all positions of the device, in a lower horizontal plane than the pivots of the rear rocker legs.

4. An exerciser rocking device comprising a frame made of tubular metal and having two legs connected at their forward ends and diverging rearwardly, a seat supported on the frame, a front rocker, made of tubular metal, pivoted to the frame adjacent the forward end of the frame and having an arm integral with the front rocker and extending above the frame, a foot rest on the front rocker, a rear double rocker, made of tubular metal, having two rocker legs spaced apart transversely of the device and pivoted to the frame adjacent the rear end of the frame, the pivots of the rear rocker legs being in alinement transversely of the device, each pivot being located forwardly of the center of the circle of which the bearing portions of the rocker legs form an arc, tie rods pivoted adjacent their front ends to the lower part of the front rocker and adjacent their rear ends to the lower part of the rear rockers, the front portions of the two rocker legs of the rear double rocker forming a loop which straddles the tie rods, lies between the tie rods and the frame, and acts in conjunction with the tie rods and frame to limit respectively the forward and rearward rocking movement of the device, the pivot of the front rocker being located, in all positions of the device, in a lower horizontal plane than the pivots of the rear rocker legs.

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