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AMBULATORY ROCKING DEVICE

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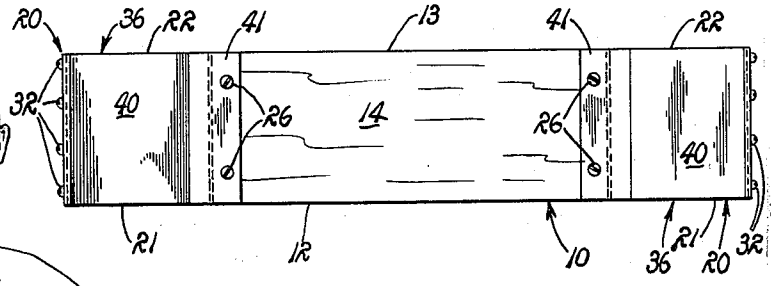


FIG. 2.

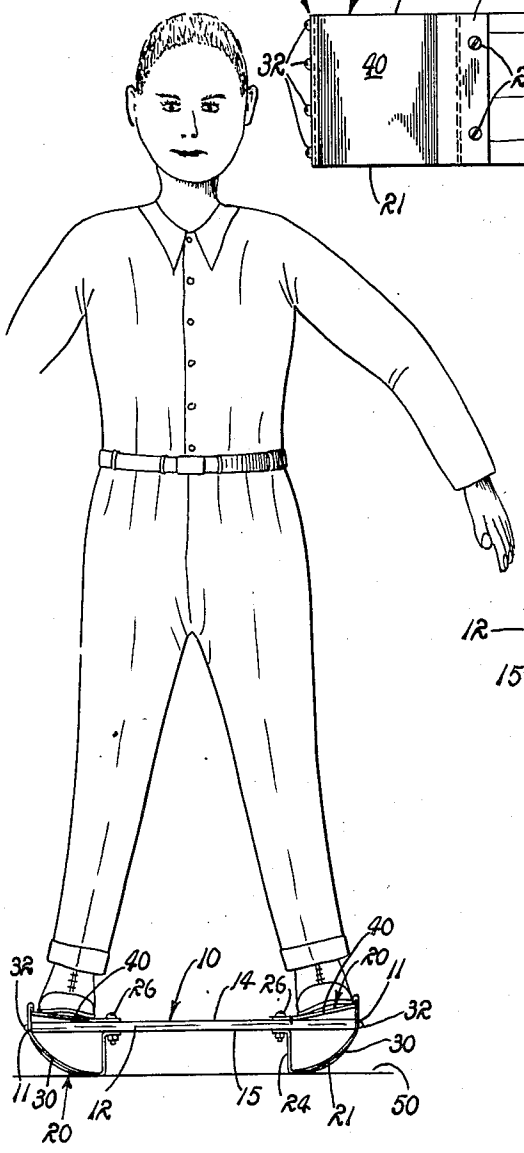


FIG. 1.

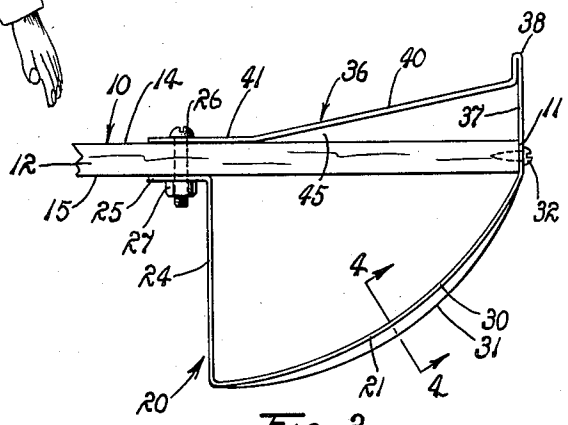


FIG. 3.

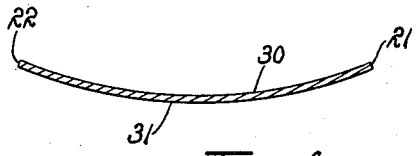


FIG. 4.

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AMBULATORY ROCKING DEVICE

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8 Claims. (Cl. 272—70)

The present invention relates to an ambulatory rocking device intended for amusement and exercising purposes and adapted to support the body of a user for rocking movement from side to side while maintaining a position, traveling forwardly or rearwardly, turning, or accomplishing other maneuvers, all by controlled shifting of the user's body weight.

The recognition of the dependence of good health on regular exercise, preferably coupled with mental recreation, has led to increased attention to physical culture and the values of active play for adults and children. Improved health and physical appearance, increased muscle tone, and enhanced gracefulness and coordination are usual results of proper exercise.

Children run and play and engage in sports activity to an extent usually adequate for body development. Particularly for those adults who are engaged in sedentary occupations, however, it is desirable to participate in purposeful exercise unless some form of play exercise appeals to the individual. As a purposeful exercise, calisthenics are frequently performed.

Children and adults frequently utilize various auxiliary devices during periods of exercise in order to relieve the boredom of simply moving the arms and legs about and, in many cases, to concentrate on the development of certain muscles and body parts. Although perhaps unconsciously, when children stand with their feet apart on a board balanced on a rock or other object and cause the board to teeter from side to side, they are in effect exercising their leg muscles and improving their poise, coordination and body balance. Gymnasiums are usually equipped with leg exercising apparatus designed and manufactured to accomplish some of these desirable results. Other devices which are available and are generally classified as toys, such as hula hoops, enable the user to exercise and develop various muscles of the body while at the same time deriving considerable pleasure and amusement from the device. The essence of the present invention resides in the provision of a device adapted for both amusement and exercise of children and adults and which enables the user to rock forwardly and rearwardly and from side to side thereby to exercise the legs in particular and to enable the user to achieve improved coordination and balance. In order properly to employ and derive the greatest benefit from the device, a certain degree of proficiency borne of practice is required. Thus the device tests and serves as a challenge to the skill of the user so as to enhance the amusement and pleasure attending its use.

Accordingly, it is an object of the present invention to provide a novel ambulatory rocking device.

Another object is to provide a rocking device especially adapted for amusement and exercise.

Another object is to provide a device intended to afford users thereof training in balance and body coordination.

Another object is to provide a device of the type described which is adapted for rocking movement from side to side, forwardly and rearwardly, or combinations of

these movements, incident to corresponding shifting of the weight of the body on the device.

Another object is to provide such a device on which a person using the same can walk with a rocking movement.

Another object is to provide a rocker construction which facilitates control of rocking or walking movements.

These, together with other objects, will become more fully apparent upon reference to the following description and accompanying drawing.

In the drawing:

Fig. 1 is a front elevation of a rocking device embodying the principles of the present invention and showing a user in operating position.

Fig. 2 is a somewhat enlarged top plan view of the rocking device.

Fig. 3 is a fragmentary somewhat enlarged front elevation of an end portion of the rocking device.

Fig. 4 is a fragmentary transverse section taken on line 4—4 of Fig. 3.

Referring more particularly to the drawing, an ambulatory rocking device embodying the principles of the subject invention is illustrated in use in Fig. 1 and includes an elongated substantially rectangular platform or girder 10 having opposite side edges 11, a front edge 12, a rear edge 13, and upper and lower edges 14 and 15. As will subsequently be apparent, the platform is essentially a rigid spacing member and may be of various configurations. The designation of front and rear edges is for purposes of descriptive convenience and is not intended to limit orientation of the platform. It will be readily apparent as the description proceeds that either edge 12 or 13 could with corresponding propriety be designated as the front or rear edge of the platform.

A pair of shoes 20 of rigid sheet material is provided for supporting the platform 10 at opposite side edges 11 thereof. The shoes have front and rear edges 21 and 22 which lie in planes respectively containing the front and rear edges 12 and 13 of the platform. Stated otherwise, the shoes are of the same width as the platform in the embodiment shown. The shoes include longitudinally spaced parallel mounting or spacing flanges 24 having tabs 25 rigidly connected by bolts 26 and nuts 27 to the platform in uniformly inwardly spaced relation to the side edges thereof. The mounting flanges are rigidly downwardly extended in right-angular relation to the platform. The mounting flanges are flat, of substantially the same length, and terminate in straight lower edges. The shoes also include arcuate rockers or rocking plates 30 having downwardly convex surfaces 31 substantially in the form of a quadrant of a circle and integrally outwardly upwardly curved from the lower edges of their respective mounting flanges. The rockers 30 have the same cylindrical radius and are concentric to individual axes spaced inwardly from the side edges of the platform in parallel spaced relation to each other. The rockers have upper sides connected by means of screws 32 to the side edges of the platform. Thus, it will be evident that the rockers are upwardly outwardly curved transversely of the platform. It is also to be noted, and especially in Figs. 3 and 4, that the surfaces 31 of the rockers are longitudinally outwardly convexly curved between the front and rear edges thereof; the lower edges of the mounting flanges are not curved however. The rockers also have the same longitudinal curvature but the radii of curvature in this instance is substantially greater than the radius of transverse curvature of each rocker.

Foot rests 36 are mounted on the platform 10 adjacent to the opposite side edges 11 thereof and include side flanges or ledges 37 rigidly connected to the side edges of the platform and upwardly extended therefrom in substantially right-angular relation to the upper surface 14. The side flanges are preferably integral with the sides

of the rockers 30 so as to form upward extensions of the rockers. The side flanges terminate in upper edges 38 and are reversely bent downwardly from said side edges. The foot rests also include flat foot plates 40 integrally connected to the side flanges in downwardly spaced relation to the upper edges thereof and downwardly inwardly extended toward the platform. The foot plates have inner tabs 41 flush against the platform on the opposite side thereof from the tabs 25 and connected to the platform by means of the bolts 26 and nuts 27. The angle, indicated at 45, between each foot plate and the platform disposed toward its respectively adjacent side flange is preferably approximately twenty-two and one-half degrees.

Operation

The operation of the described embodiment of the subject invention is believed to be readily apparent and is briefly summarized at this point.

The device is supported on the floor or the ground 50 with lower edges of the mounting flanges 24 in ground engagement. Because of the described construction of the shoes 20, the platform 10 is supported in substantially horizontal position by the lower edges of the mounting flanges.

In order to use the device for rocking purposes, the user steps on the platform 10 between the foot plates 40. This does not result in forward and rearward or side to side rocking of the device because the weight is concentrated centrally of the platform and because such weight is supported on the straight lower edges of the mounting flanges. The user then moves his feet uniformly outwardly of the platform onto the foot plates preferably positioning the heel against the rear edge 13 of the platform and the foot plates, and positioning the side edge of the foot against the side flanges 37. As long as the weight on each foot is uniformly distributed, the horizontal attitude of the platform 10 is maintained. Commercial embodiments of the subject invention are preferably designed so that as a user stands on the device with his feet against the foot plates, his legs are substantially normal to the plates.

By shifting the weight of the body from one foot to the other, it will be evident that the platform 10 can be rocked from side to side on the rockers 30. During these movements, the side flanges 37 prevent the feet from slipping laterally off from the foot plates 40. The normal or average range of rocking is approximately forty-five degrees measured from the neutral horizontal position of the platform to the maximum laterally tilted position on either side. This is, of course, determined by the curvature of the rockers 30 and the dimensions of the device as well as the ability of the user. The forty-five degrees noted corresponds to the preferred commercial embodiments of the device. Thus, when the platform is midway between its range of movement, the foot plate 40 on which the weight is concentrated is substantially horizontal. Accordingly, the described angularity of twenty-two and one-half degrees between the foot plates and the platform allows for a maximum amount of control of tilting action.

Concurrently with side to side tilting, the platform 10 can be tilted forwardly and rearwardly simply by shifting the body forwardly and rearwardly on the platform, as will be evident. Still further, while keeping the legs substantially stiff and by combined action of lateral shifting of body weight and forward movement of opposite sides of the platform, the user can ambulate or walk along on the device. More specifically, the side of the platform on which the weight is relieved is shoved forwardly by the foot of the user so as to pivot the platform on the shoes 20 on which the weight is concentrated. By alternately shifting and pivoting, the described walking can be performed.

From the foregoing it will be evident that a highly amusing device adapted for both pleasure and exercise has been provided. Inasmuch as the device is designed for effecting lateral and forward and rearward rocking, it is especially helpful in developing body balance of users thereof. The rocking device is simple and economical to construct and can readily be enjoyed after a certain amount of practice.

Although the invention has been herein shown and described in what is conceived to be the most practical and preferred embodiment, it is recognized that departures may be made therefrom within the scope of the invention, which is not to be limited to the details disclosed herein but is to be accorded the full scope of the claims so as to embrace any and all equivalent devices and apparatus.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An elongated body supporting device having opposite sides and being adapted to be tilted from side to side in a substantially vertical plane disposed longitudinally of the device incident to shifting of the body weight from one side of the device to the other comprising a pair of laterally spaced shoes disposed substantially in said vertical plane having downwardly disposed convex ground engaging rockers, upwardly disposed foot rests individually connected to the shoes, and means rigidly interconnecting the shoes and foot rests in predetermined spaced relation, said means including an elongated platform having opposite side edges, the shoes being connected to the platform adjacent to said side edges, and the rockers being curved downwardly inwardly from the side edges toward the center of the platform and terminating in lower edges disposed transversely of the platform and longitudinally spaced with respect to each other.

2. The body supporting device of claim 1 wherein the shoes have front and rear edges, and wherein the rockers are convexly downwardly curved between the front and rear edges of the shoes to provide for forward and rearward rocking of the device incident to corresponding shifting of sufficient body weight on the device.

3. An elongated body supporting device having opposite sides and being adapted to be tilted from side to side in a substantially vertical plane disposed longitudinally of the device incident to shifting of the body weight from one side of the device to the other comprising a pair of laterally spaced shoes disposed substantially in said vertical plane having downwardly disposed convex ground engaging rockers, upwardly disposed foot rests individually connected to the shoes, and means rigidly interconnecting the shoes and foot rests in predetermined spaced relation, said foot rests being divergently outwardly upwardly extended toward opposite sides of the device.

4. An ambulatory rocking device comprising a pair of shoes each including a rocking surface, approximately in the form of a quadrant of a cylinder, of the same cylindrical radius and each being longitudinally convex about a radius appreciably greater than the cylindrical radius; means rigidly interconnecting the shoes in fixed spaced relation with the axes of the cylindrical rocking surfaces in substantially parallel relation, and said surfaces extended from spaced positions in corresponding spaced relation to the interconnecting means and thence oppositely arcuately outwardly to positions in a plane common to the interconnecting means; and foot rests mounted on the interconnecting means above each of the shoes, said rests being in individual planes correspondingly outwardly diverging from the interconnecting means.

5. A body supporting amusement device comprising an elongated platform having opposite side edges and upper and lower surfaces; shoes supporting the platform adjacent to opposite side edges thereof including longitudinally spaced substantially parallel flat flanges of uniform length and rigidly connected to the lower sur-

face of the platform in uniformly inwardly spaced relation to the side edges thereof and downwardly extended therefrom, and further including downwardly disposed convex rockers upwardly outwardly extended longitudinally of the plates from their respective flanges and connected to the side edges of the platform thereby to enable rocking of the platform from side to side incident to corresponding shifting in weight of the body supported on the platform; and foot rests mounted adjacent to opposite side edges of the platform individually above the shoes including side flanges connected to the side edges of the platform and extended rigidly upwardly therefrom, and flat foot plates connected to their respective side flanges, inwardly extended from the flanges, and connected to the platform.

6. An ambulatory rocker comprising a substantially rigid girder having opposite ends, and a pair of corresponding shoes mounted on opposite ends of the girder, each shoe being of substantially rigid sheet material and consisting of a spacer portion rigidly connected to the girder in spaced relation to an adjacent end portion thereof, extended substantially right-angularly from the girder a distance substantially equal to the spacing of said spacer from the adjacent end portion of the girder, a convex portion continuous with the spacer portion extended arcuately from the spacer portion and secured to the adjacent end of the girder, a ledge portion continuous with the convex portion extended to the side of the girder opposite from the spacer, and a foot rest portion continuous with the ledge portion extended therefrom inwardly from the end of the girder and secured to the girder in spaced relation to said adjacent end thereof, the foot rest portions of the shoes inwardly converging with the girder from their respective end portions thereof and being in substantially 135° angular relation.

7. A rocking device comprising an elongated platform

having opposite side edges, front and rear edges, and upper and lower surfaces; shoes supporting the platform at opposite sides thereof having front and rear edges respectively in planes also containing the front and rear edges of the platform, including longitudinally spaced substantially parallel flat flanges of uniform length rigidly connected to the lower surface of the platform in uniformly inwardly spaced relation to the side edges thereof and downwardly extended therefrom, and further including downwardly disposed convex rockers upwardly outwardly extended longitudinally of the plates from their respective flanges and connected to the side edges of the platform, the rockers being also curved transversely of the plates between said front and rear edges thereby to enable rocking of the platform from side to side and forwardly and rearwardly thereof incident to corresponding shifting in weight of a body supported on the platform; and foot rests mounted on opposite sides of the platform individually above the rockers including side flanges connected to the side edges of the platform and extended rigidly upwardly therefrom and having upper edges, and flat foot plates connected to their respective side flanges downwardly of the upper edges thereof and downwardly angularly inwardly extended from the flanges and connected to the platform.

8. The amusement device of claim 7 wherein the angle between each foot plate and the platform disposed toward its respectively adjacent side flange is approximately twenty-two and one-half degrees.

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