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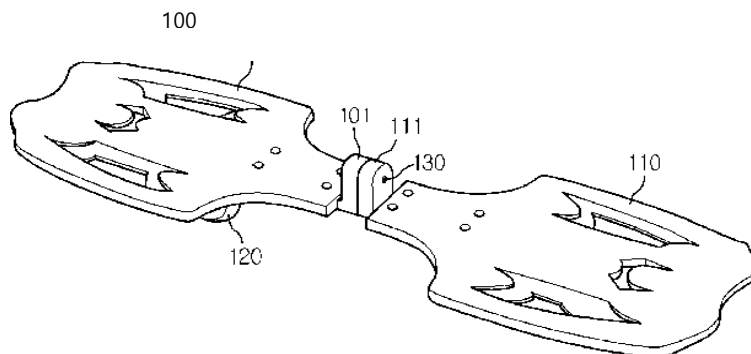
(54) Skateboard

(57) Abstract

The present disclosure relates to a skateboard, and an object of the present disclosure is to provide a skateboard which can travel smoothly in a stable posture effortlessly, and also, can make a U-turn with a short radius of curvature, by placing a rotation center shaft of footrests on an upper portion higher than a center axis of the footrests in a longitudinal direction.

The skateboard of the present disclosure includes a front footrest 100, a rear footrest 110 connected to the front footrest to be relatively rotatable, and two directional casters 120 installed on bottom surfaces of the front footrest and the rear footrest, respectively. A front flange 101 and a rear flange 111 sequentially protrude upward from opposite ends of the front footrest and the rear footrest in close contact with each other. Upper ends of the front flange and the rear flange are connected by a rotation shaft 130 to be relatively rotatable, and the rotation shaft 130 which is a center of rotation of the footrests is installed higher than a center axis C of the footrests in a longitudinal direction by a predetermined height.

Representative Figure - Fig 2



Claim 1

A skateboard comprising a front footrest 100, a rear footrest 110 connected to the front footrest to be relatively rotatable, and two directional casters 120 installed on bottom surfaces of the front footrest and the rear footrest, respectively,

wherein a front flange 101 and a rear flange 111 sequentially protrude upward from opposite ends of the front footrest and the rear footrest in close contact with each other,

wherein upper ends of the front flange and the rear flange are connected by a rotation shaft 130 to be relatively rotatable, and the rotation shaft 130 which is a center of rotation of the footrests is installed higher than a center axis C of the footrests in a longitudinal direction by a predetermined height.

Claim 2

The skateboard of claim 1,

wherein the rotation shaft 130 is installed through two bearings 140 which are installed in the front flange 101 and the rear flange 111, respectively.

Claim 3

The skateboard of claim 1 or 2,

wherein an arc rotation restriction groove 102 is formed on any one or both of a lower end of the front flange 101 and a lower end of the rear flange 111, and a rotation restriction pin 150 is inserted into the rotation restriction groove to make the front footrest and the rear footrest engage with each other.

Specification

Detailed Descriptions of the Invention

Object of the Invention

Technical field to which the invention belongs and Background art of the field

The present invention relates to a skateboard, and more particularly, to a skateboard which can travel smoothly in a stable posture effortlessly, and also, can make a U-turn with a short radius of curvature, by placing a rotation center shaft of footrests on an upper portion higher than a center axis of the footrests in a longitudinal direction.

In general, a skateboard is leisure sport equipment that has wheels installed on lower portions of a plate-shaped footrest, on which a user puts both feet as shown in FIG. 1, and allows a user to perform various maneuvers by putting two feet on the footrest and obtaining propulsion by moving in a zigzag pattern with one foot, or by putting one foot on the board and

obtaining propulsion by pushing off the ground with the other foot.

However, since such a skateboard obtains propulsion by a rider's body motion or an inclined surface, there is a limit to getting continuous and smooth mobility and much force may be required for a body motion for obtaining propulsion, and it may be difficult to make speed thrill.

Considering disadvantages of the skateboard, a skateboard which can easily obtain propulsion and can make speed thrill has been suggested.

An example of such a skateboard is disclosed in Korean Patent Registration Number 420911. As shown in FIG. 1, the skateboard includes a front footrest, a rear footrest, two directional casters installed on bottom surfaces of the front footrest and the rear footrest, respectively, and a twist pipe connecting the front footrest and the rear footrest. The twist pipe is formed by installing leaf springs in two pipes installed on bottom surfaces of the front footrest and the rear footrest, respectively, and connecting the leaf springs. Korean Patent Laid-Open Publication No. 2006-128798 discloses that a front footrest and a rear footrest of a skateboard are connected by a torsion bar. In addition, there is disclosed a skateboard in which a front footrest and a rear footrest are connected by a torsion bar to be aligned with a center axis thereof in a longitudinal direction.

For example, when a user puts the left foot on the front footrest and puts the right foot on the rear footrest and rolls the footrests from side to side with reference to the center axis of the front footrest and the rear footrest in the longitudinal direction, the leaf springs embedded in the twist pipe are elastically deformed due to relative twist movement of the two pipes and are restored to the original state, so that direction is changed or propulsion is generated and the skateboard may travel.

However, in the related-art skateboard described above, the rotation center axis of the footrests, that is, the center shaft of the twist pipe, and the center axis of the footrests in the longitudinal direction are very close to each other, and accordingly, a radius of rotation of the footrests rotating with reference to the center shaft of the twist pipes is small. To this end, a user should frequently roll the footrests from side to side in order to obtain propulsion, and direction changing is repeated swiftly. Accordingly, it is difficult for the user to ride the skateboard smoothly and to have speed thrill, and for example, the radius of curvature increases when the user makes a U turn, and it may be difficult to make a U turn on a narrow road. These disadvantages may be intensified when the front footrest and the rear footrest of the skateboard are connected by a torsion bar to be aligned with the center axis thereof in the longitudinal direction. In addition, since elastic members such as the twist pipe or torsion bar are rapidly restored after being deformed, there may be a problem that it is difficult to maintain balance on the skateboard.

The present disclosure has been developed by considering the above-described problems of the related-art skateboards, and an object of the present disclosure is to provide a skateboard which can travel smoothly in a stable posture effortlessly, and also, can make a U-turn with a short radius of curvature, by placing a rotation center shaft of footrests on an upper portion higher than a center axis of the footrests in a longitudinal direction.

Construction and Operation of the Invention

To achieve the above-described object, a skateboard includes a front footrest, a rear footrest connected to the front footrest to be relatively rotatable, and two directional casters installed on bottom surfaces of the front footrest and the rear footrest, respectively, wherein a front flange and a rear flange sequentially protrude upward from opposite ends of the front footrest and the rear footrest in close contact with each other, wherein upper ends of the front flange and the rear flange are connected by a rotation shaft to be relatively rotatable.

According to the present disclosure, the rotation shaft may be installed through two bearings which are installed in the front flange and the rear flange, respectively.

In addition, an arc rotation restriction groove may be formed on any one or both of a lower end of the front flange and a lower end of the rear flange, and a rotation restriction pin may be inserted into the rotation restriction groove to make the front flange and the rear flange engage with each other.

Features and advantages of the present disclosure are more clarified by the following detailed descriptions based on the attached drawings. Prior to this, terms or words used in the specification and the claims should be interpreted as meanings and concepts conforming to the technical concept of the present disclosure, based on the principle that inventors can define concepts of terms appropriately in order to explain their invention in the best way.

FIGS. 2 to 4 illustrate a skateboard according to embodiment 1 of the present disclosure.

The skateboard of the present embodiment includes a front footrest 100, a rear footrest 110, and two directional casters 120 which are installed on bottom surfaces of the front footrest 100 and the rear footrest 110, respectively.

The front footrest 100 and the rear footrest 110 are connected with each other to be relatively rotatable within a predetermined angle range.

That is, a front flange 101 and a rear flange 111 sequentially protrude upward from opposite ends of the front footrest 100 and the rear footrest 110 in close contact with each other. The flanges 101, 111 may be integrally formed with the footrests 100, 110, and also, may be fixed by a fastening means, for example.

In addition, upper ends of the front flange 101 and the rear flange 111 are connected with each other by a rotation shaft 130 to be relatively rotatable as shown in FIGS. 2 and 5.

Accordingly, since the rotation shaft 130 which is a center of rotation of the front footrest 100 and the rear footrest 110 is spaced far apart from a center axis (C) (see FIG. 4) of the footrest 100, 110 in a longitudinal direction, and is positioned higher than the center axis, the radius of rotation of the footrests 100, 110 may increase, and accordingly, a user may easily obtain propulsion of the skateboard without having to push the footrests 100, 110 frequently, and also, may smoothly change direction, and may make a U turn with a short radius of curvature when making a U turn. In addition, in the present disclosure, the footrests 100, 110 are not connected through an elastic member, and are connected with each other by the rotation shaft 130, so that a user can easily maintain balance on the skateboard by pushing the footrests 100, 110 from side to side.

FIGS. 6 and 7 illustrate a skateboard according to embodiment 2 of the present disclosure.

The skateboard of the present embodiment is the same as the configuration of embodiment 1 described above, except that the rotation shaft 130 is installed through two bearings 140 installed in the front flange 101 and the rear flange 111, respectively.

Accordingly, in the case of the skateboard of the present embodiment, when the footrests 100, 110 are rotated, the bearings 140 are rotated with reference to the rotation shaft 130. Accordingly, the footrest 100, 110 may be smoothly rotated, and also, the footrest 100, 110 may be prevented from wearing down by the rotation shaft 130.

FIGS. 8 and 9 illustrate a skateboard according to embodiment 3 of the present disclosure.

The skateboard of the present embodiment is formed based on the skateboard of embodiment 1 described above, wherein an arc rotation restriction groove 102 is formed on any one or both of a lower end of the front flange 101 and a lower end of the rear flange 111 and a rotation restriction pin 150 is inserted into the rotation restriction groove 102 to make the front flange 101 and the rear flange 111 engage with each other, and safety is secured by restricting a rotation angle of the footrests 100, 110. The other configuration is the same as the configuration of embodiment 1.

When the rotation restriction grooves 102 are formed on both of the front flange 101 and the rear flange 111 in the skateboard of the present embodiment as shown in FIG. 8, both ends of the rotation restriction pin 150 are inserted into the rotation restriction grooves 102 on both sides, and accordingly, when the footrests 100, 110 are rotated, the rotation restriction grooves 102 are rotated while sliding on the rotation restriction pin 150, and accordingly, the rotation angle of the footrests 100, 110 may be restricted by an angle being two times larger than an angle of the rotation restriction pin



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