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L. D. BOSTICK
SKATE BOARD PROVIDED WITH LONGITUDINALLY
ADJUSTABLE WHEEL CARRIAGE UNITS
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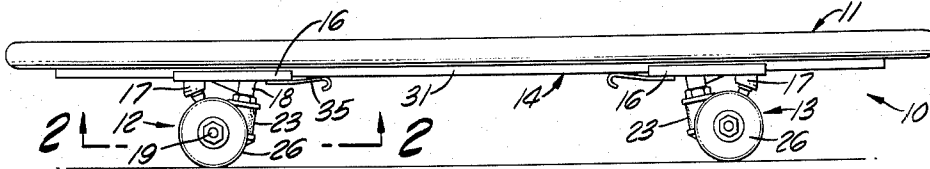


FIG. 1.

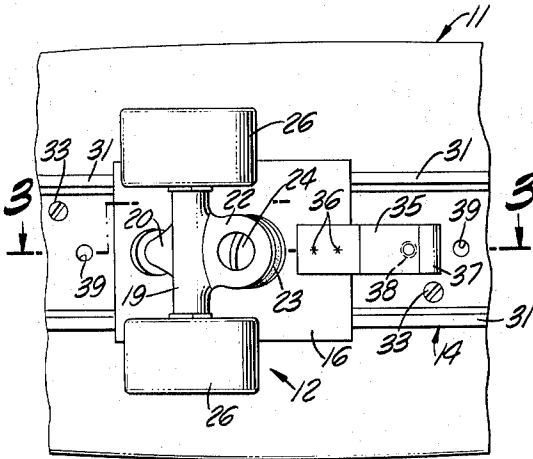


FIG. 2.

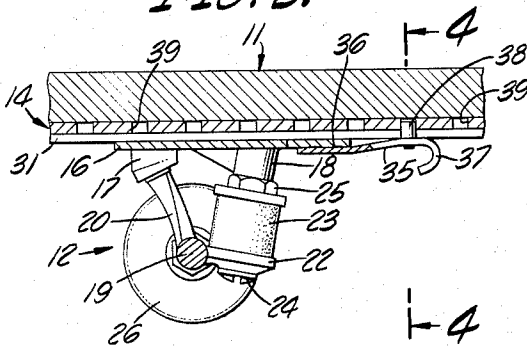


FIG. 3.

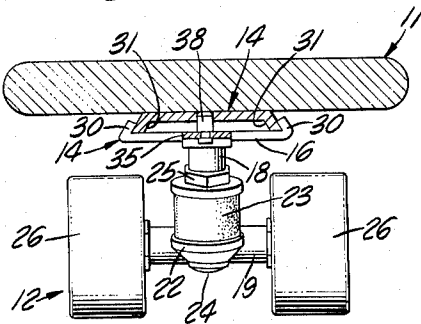


FIG. 4.

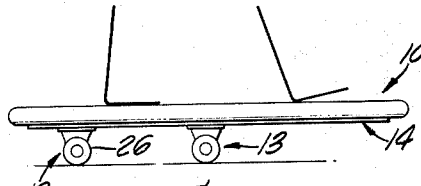


FIG. 5.

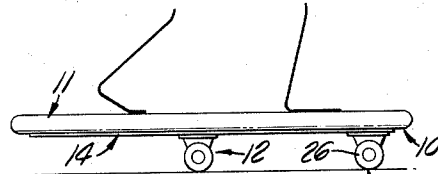


FIG. 6.

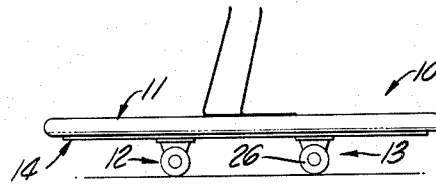


FIG. 7.

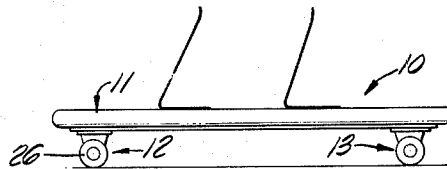


FIG. 8.

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SKATE BOARD PROVIDED WITH LONGITUDINALLY ADJUSTABLE WHEEL CARRIAGE UNITS

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1 Claim. (Cl. 280—87.04)

This invention relates to amusement devices and more particularly to an improved and versatile skate board for supporting a passenger in an upright position while coasting and featuring unique means for varying its operating characteristics and the skill required to manipulate the device while underway.

A variety of skate board constructions have been in general use in coasting downgrade. Design changes made in recent years have increased the versatility of these devices and they have become attractive for use by adults as well as children. As heretofore made, such boards embody a rigid long main body and a pair of carriage units immovably secured to the underside of the board crosswise of its opposite ends.

By the present invention there is provided an improved and far more versatile skate board having an unusually wide range of operating characteristics and modes of use made available through the simple expedient of varying the length of the wheel base as well as the position of this wheel base relative to the opposite ends of the board. By use of this expedient the wheel base may be made very short or very long and the wheel base proper may be shifted in either direction with respect to the midlength of the board. Each of the wide variety of wheel bases and positions imparts its own distinctive operating characteristics to the board and varies the skill required of the user. In some positions of the wheels the board is relatively easy to control while in others a very considerable amount of manipulative skill and dexterity is required. In some positions the board is relatively easy to steer along a complex path of travel whereas in others the board is more difficult to handle and requires greater dexterity and skill.

Accordingly, it is the primary object of the present invention to provide an improved skate board for use by a single passenger and featuring a versatile and readily adjusted wheel base.

Another object of the invention is the provision of a skate board having a pair of carriage units adjustable to different selected positions relative to one another and to the opposite ends of the board.

Another object of the invention is the provision of a skate board having carriage units provided with simple means operable without need for tools to lock the carriage unit in any of a number of positions lengthwise of the board.

These and other more specific objects will appear upon reading the following specification and claim and upon considering in connection therewith the attached drawing to which they relate.

Referring now to the drawing in which a preferred embodiment of the invention;

FIGURE 1 is a side elevational view of a preferred embodiment of the invention;

FIGURE 2 is a fragmentary bottom plan view on an enlarged scale taken from the plane generally indicated by line 2—2 on FIGURE 1;

FIGURE 3 is a cross-sectional view taken along the broken line 3—3 on FIGURE 2;

FIGURE 4 is a cross-sectional view along line 4—4 on FIGURE 3; and

FIGURES 5 to 8 are side elevational views of the invention device showing the wheels in different adjusted

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positions and indicating diagrammatically suitable riding positions for the user.

Referring initially more particularly to FIGURE 1, there is shown one preferred embodiment of the invention designated generally 10. This skate board has a long, relatively narrow, flat, rigid main body 11 supported from its underside by a pair of similar carriage units 12, 13. Each carriage unit is normally rigidly secured to the underside of the board by suitable means such as the trackway means 14.

Referring now to FIGURES 2, 3 and 4, it is pointed out that each carriage unit includes a rigid base 16 having a pair of bosses 17, 18 projecting downwardly therefrom and spaced apart along its longitudinal center line. An axle unit 19 includes a strut 20 having its upper end loosely socketed in boss 17 in accordance with conventional practice. Projecting forwardly from the axle unit is a bracket 22 seating a resilient rubber spool 23. A cap screw 24 extends loosely through the center opening in bracket 22 and through spool 23 into threaded engagement with boss 18. A lock nut 25 serves to lock the screw in a desired assembly position such that axle 19 has limited freedom to tilt and twist relative to bosses 17 and 18. Suitably secured to the outer ends of axle 19 are a pair of broad wheels 26. It will be understood that the construction of the two similar carriage unit assemblies may vary over a wide range and that the construction herein illustrated and described is merely one of several conventional constructions and, in and of itself, forms no part of the present invention.

As is best shown in FIGURE 4, the longitudinal lateral edges 30, 30 of each carriage unit base 16 are turned and inwardly bent into close sliding and gripping engagement with the complementally shaped flanges 31 of the trackway member 14. This trackway member is securely anchored along the longitudinal center line of the skate board in any suitable manner, such as by screws 33.

The means for locking the carriage units selectively in any of a large number of adjusted positions may take various forms. The means illustrated here by way of example comprises a leaf spring 35 having one end spot welded, riveted or otherwise secured to base 16 as indicated at 36 (FIGURE 3). Rigidly mounted on the upturned outer end 37 of this spring is a detent pin 38 normally seated in one of the openings 39 spaced along the center of trackway 14. As will be readily recognized, detent spring 35 may be sprung outwardly to disengage the detent 38 from openings 39 while adjusting the carriage units to a different adjusted position along the trackway. Once in a desired position the spring is released to seat the detent in underlying opening 39.

Referring to FIGURES 5 to 8, it will be seen that the carriage units can be adjusted to many different positions to provide short, long or intermediate sized wheel bases. Additionally these wheel bases can be adjusted to different positions in either direction from the midpoint of the board. FIGURE 5 shows the device adjusted to provide a relatively short wheel base underlying the rear half of the board; FIGURE 6 shows a somewhat longer wheel base located at the forward end of the board; FIGURE 7 shows a very short wheel base underlying the midlength of the board, whereas FIGURE 8 shows a very long wheel base.

When the wheels are adjusted as shown in FIGURE 5 the user would normally place his left foot between the two carriage units and place the heel or toe of his extended right foot against the extended forward end of the board. Pressure would then be applied by this extended foot to apply pressure either to the right or the left of the leading end to guide the path of travel.

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A quite different mode of use is represented in FIGURE 6 wherein the weight of the rider is normally carried on one foot positioned well forward of the other foot. The latter is then pressed against the rear end of the board similarly to that just described and guides the device as it proceeds along the desired path.

When the wheels are adjusted as shown in FIGURE 7, considerable skill by the passenger is called for and many users tend to keep both feet planted firmly in the general center of the board in slightly offset relation and to rely upon changes in the movement of the body to guide the board.

The FIGURE 8 adjustment on the other hand requires little action by the user other than to maintain his balance, the board tending to travel in a straight line. This adjustment is one frequently used by novices.

In connection with the foregoing, it will be understood that the design and arrangement of the two conventional carriage units is such that the direction of sidewise tilt of the board causes the wheel axles to twist in opposite directions about a generally vertical axis passing through their midlengths. Thus, if the rider tilts to the right, the forward axle twists slightly clockwise whereas the rear axle twists slightly counterclockwise. The amount of twist determines the radius of the arc along which the board will travel. It will also be apparent that if the carriage units are closely spaced lengthwise of the board, the radius of the arcuate path of travel will be appreciably less than when the wheels are widely spaced apart, it being assumed that the degree of sidewise tilt is the same.

While the particular skate board herein shown and disclosed in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, it is to be understood that it is merely illustrative of the presently preferred embodiment of the invention and that no limitations are intended to the details of construction or design herein shown other than as defined in the appended claim.

Claim:

A skate board device for use in carrying a passenger

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along a guided path of a desired configuration while coasting thereon in a standing position and using varying foot pressure applied selectively to the top of said device to steer the same, said device having a long flat body supported close to the ground on a pair of independent carriage units having limited freedom to change positions relative to one another in response to variations in the rider's foot pressure, and securing means including manually operated means for varying the positions of said carriage units relative to one another and relative to the opposite ends of said body thereby to vary the length of the wheel base between said units and the position of said wheel base relative to the ends of said body, said means for varying the positions of said carriage units comprising rigid trackway means fixedly secured to the underside of said body, said carriage units and said trackway means having complementally shaped flange means extending parallel to the longitudinal center of said body and slidable relative to one another, and cooperating notch and detent means carried by said carriage units and trackway means, respectively, operable to lock said carriage units releasably in different selected positions along said trackway means.

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