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[72] Inventor **Richard Lawrence Stevenson**
1516 1/2 Amherst Ave., West Los Angeles,
Calif. 90025

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Primary Examiner—Leo Friaglia
Attorney—Elliott & Pastoriza

[54] **SKATEBOARD WITH INCLINED FOOT-
DEPRESSIBLE LEVER**
13 Claims, 5 Drawing Figs.

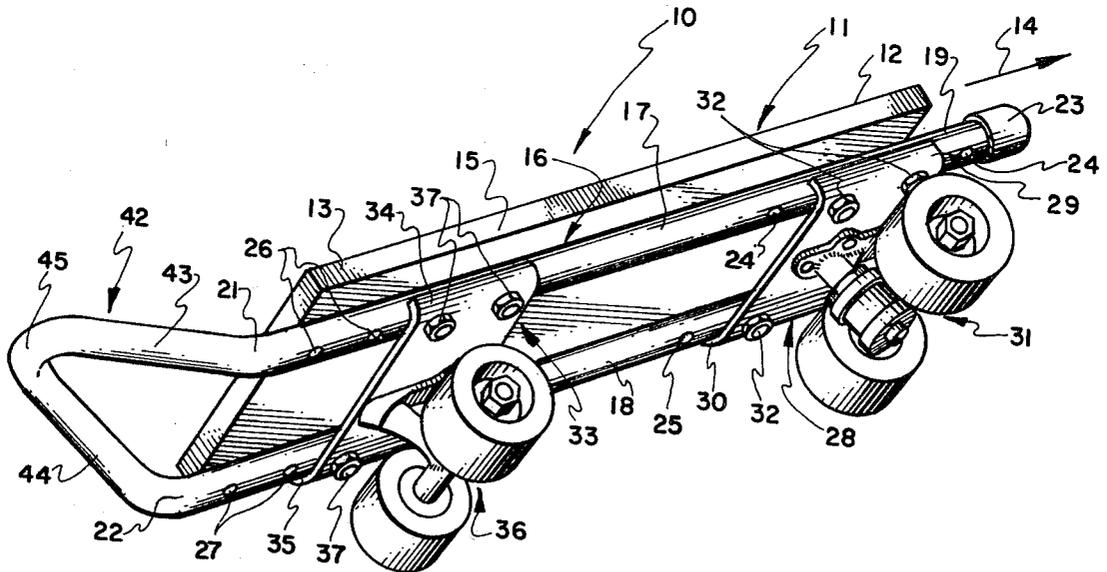
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[50] Field of Search 280/87.04,
87.04 (A); Des 34/15 (26)

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ABSTRACT: The rear end section of a skateboard mounts an inclined lever that is sloped upwardly and rearwardly from the skateboard. In order to practice otherwise difficult spinning or pivoting maneuvers such as wheelies with much improved balance and safety, a person places his rear foot upon and depresses the lever to tilt the skateboard upwardly into a position for the desired maneuver.



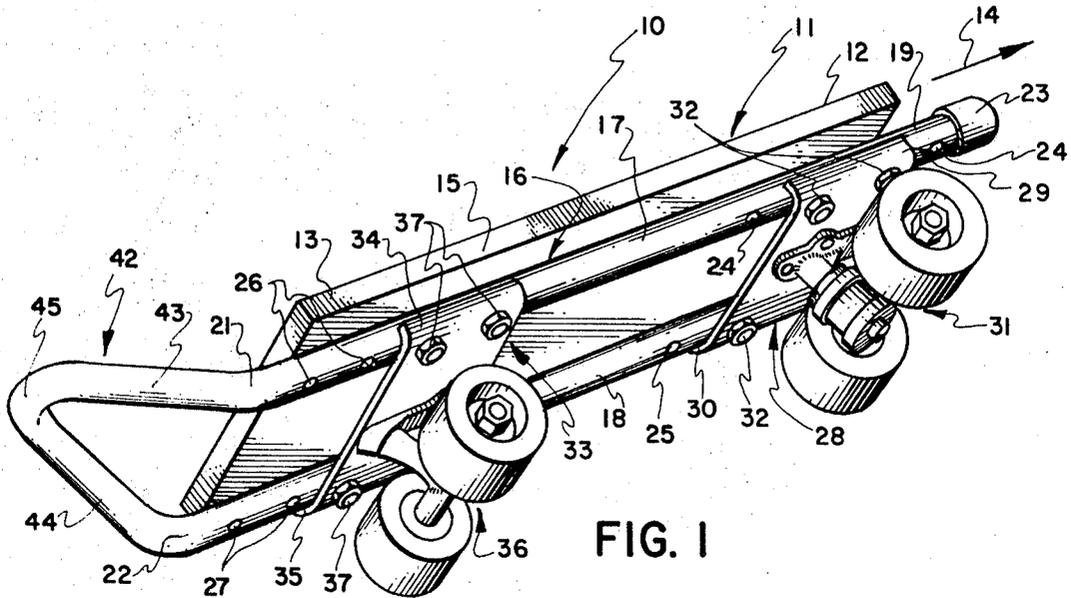


FIG. 1

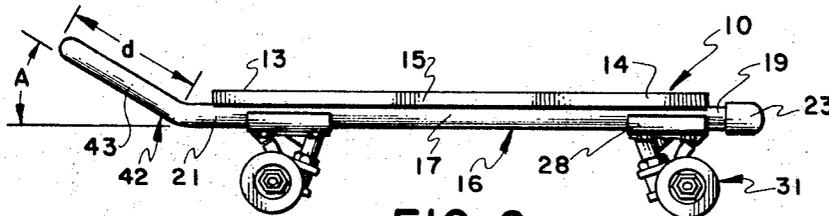


FIG. 2

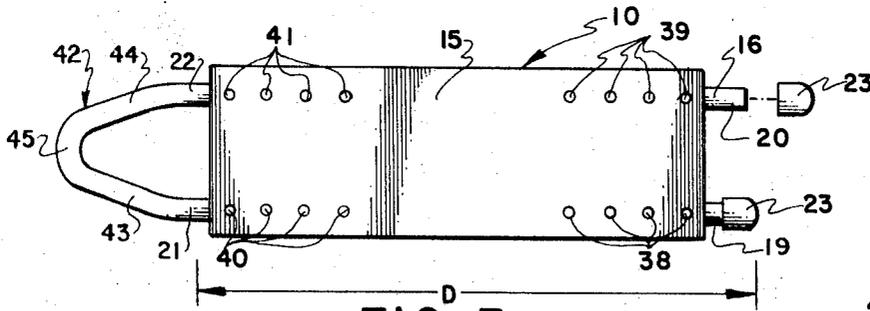


FIG. 3

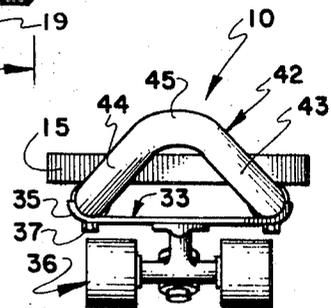


FIG. 4

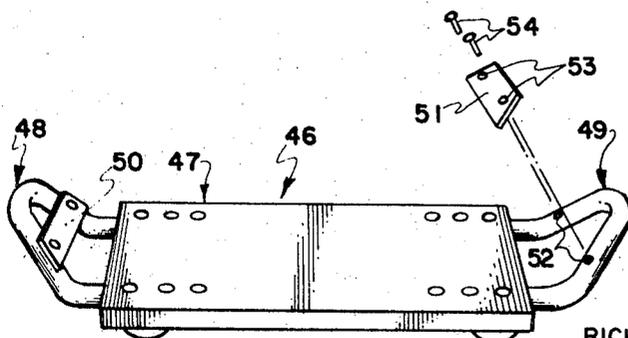


FIG. 5

INVENTOR:
RICHARD LAWRENCE STEVENSON

BY

Elliott & Pastoriza
ATTORNEYS

SKATEBOARD WITH INCLINED FOOT-DEPRESSIBLE LEVER

BACKGROUND OF THE INVENTION

The present invention relates to skateboards and more specifically to a skateboard with an inclined lever that is conveniently positioned for a person to depress with one foot in order to facilitate spinning the skateboard through a wheelie maneuver or the like.

Skateboarding is regarded by many people as an ideal sport for developing agility, maneuverability, control, balance and coordination. Conventional skateboards have an elongated plank or board sized for supporting a person in a standing position and sets of fore and aft wheels secured beneath the board. The rear set of wheels is positioned inwardly from the skateboard trailing or rearward edge to constitute a rear overhand section of the board.

As imaginative people gradually created different acrobatic styles and competition became increasingly popular, the risk to a person of losing his balance and tumbling from the skateboard became increasingly more serious. Inexperienced people trying to accelerate the development of their skills in spinning through wheelies or the like would not infrequently topple from the skateboard and become injured. Consequently some parents discouraged their children from operating skateboards since skateboards became regarded by these parents as hazardous and a threat to physical well-being.

Two basic situations make conventional skateboards more dangerous than they ought to be. As shall be explained these two conditions result from the fact that the rear overhang section of the board is both too long and is aligned in coplanar relationship with the rest of the board. The overhang section must be sufficiently long to enable a skateboarder to rest his foot upon the overhang section in order to press it downwardly to tilt the skateboard. With the skateboard tilted the person is then capable of attempting to spin around through a wheelie maneuver or the like while using the rear wheels as a fulcrum. Unfortunately, the necessary length of the overhang section often causes it to bump or scrape on the ground when the skateboard is tilted through only a slight angle relative to the ground. As a result the person is often tossed off the skateboard.

The other basic potential danger confronting people arises when a person, attempting to practice a wheelie, shifts his weight to his rear foot. As the skateboard is increasingly tilted the person's balance becomes more difficult to maintain since his rear foot must maintain a firm purchase on an ever-increasing sharp incline. A point is often reached, before the overhang section scrapes against the ground, when the rear foot unavoidably slips or slides off the skateboard with the adverse result that the person loses his balance and is toppled from the skateboard.

As shall be fully described this invention is aimed at overcoming the above mentioned skateboard dangers and providing a skateboard that will enable a person to quickly and safely acquire skateboarding skills.

BRIEF SUMMARY OF THE INVENTION

Briefly state this invention comprehends a skateboard constructed to assist a person in developing and enhancing balance and athletic skills with an accompanying much diminished risk of tumbling from the skateboard and becoming injured.

The skateboard is characterized by an elongated platform for supporting a person in a standing position, the platform having a forward end section, a rearward end section and a longitudinal center line. Sets of wheels are coupled to and positioned beneath both the forward end section and rearward end section of the elongated platform. A foot-depressible lever is coupled to the end section of the platform and is oriented so its plane slopes upwardly and rearwardly from the plane of the elongated platform.

To alter the skateboard from its normal traveling position and prepare it for a wheelie or spinning maneuver for example, the person shifts his weight rearwardly and depresses the lever in order to lift the platform upwardly until it assumes the desired optimum tilt.

In a preferred embodiment of this invention the platform is characterized by a tubular frame with two laterally spaced side runners and an elongated board that rests upon and is secured to the runners. The lever is a generally U-shaped tube whose tubular ends are coupled to corresponding rearward ends of the runners. The arms of the U-shaped tube may converge rearwardly and carry a pad that spans across the tubular arms and can be used to support a person's foot. An optimum angle defined by the planes of the platform and lever is between 20° and 50°.

The two sets of wheels are mounted to corresponding wheel plates which in turn are adjustably coupled to forward and rearward portions of the runners. The plates may be shifted longitudinally of the platform and repositioned to accommodate the special personal style of the skateboarder.

BRIEF DESCRIPTION OF THE DRAWINGS

The numerous benefits and unique aspects of the present invention will be fully understood when the following detailed description is studied in conjunction with the drawings in which:

FIG. 1 is a perspective view of the skateboard, showing the inclined foot-depressible lever coupled to the rear section of the skateboard and how the wheels are adjustably mounted to the platform;

FIG. 2 is a side view of the skateboard;

FIG. 3 is a top plan view of the skateboard;

FIG. 4 is a rear end view of the skateboard; and

FIG. 5 is a partially exploded perspective view of another embodiment of this invention, showing dual foot-depressible levers coupled to the rearward and forward end sections of the skateboard.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now primarily to FIG. 1 and also to FIGS. 2, 3 and 4 a skateboard 10 is shown that is constructed with a flat elongated platform 11 characterized by a forward end section 12 and a rearward end section 13. A person travelling on a skateboard 10 under normal circumstances would move in the general direction indicated by arrow 14. Platform 11 is constituted by an elongated rectangular board 15, which may be constructed from five plies of suitable laminated material, and a tubular frame 16 which may be constructed from chrome-plated steel tubing.

The tubular frame 16 includes a pair of parallel and laterally spaced runners 17 and 18 having forward ends 19 and 20 and rearward ends 21 and 22 respectively. The forward runner ends 19 and 20 are covered with caps or glides 23 which serve as bumpers and, alternatively, may receive the ends of a suitable bumper bar (not shown). Forward segments of runners 17 and 18 are formed therethrough with vertically extending securement holes 24 and 25. In a similar manner rearward segments of runners 17 and 18 are formed with vertically extending holes 26 and 27.

Spanning across and spaced from the underside of the board 15 is a forward wheel plate 28 with upwardly curved or curled ends 29 and 30. Curled ends 29 and 30 are contoured to snugly fit around corresponding portions of runners 17 and 18. Wheel plate 28 centrally mounts a set of wheels 31 and its curled ends 29 and 30 are formed with securement holes (not shown) for receiving lock bolts 32. Bridging across the under-surface of board 15 is a similarly constructed rearward wheel plate 33 with upwardly curved ends 34 and 35 that are contoured to fit around corresponding sections of runners 17 and 18. Rearward wheel plate 33 centrally mounts a set of wheels 36 that are tandemly aligned in back of set of wheels 31.

Wheel plate 33 is held firmly against tubular frame 16 by lock bolts 37.

In contrast with the arrangement described above conventional wheel assemblies are usually secured directly to the board or plank by wood screws or the like, that have a tendency to tear away from the board material after a fairly short time of rigorous skateboard use. Board 15 is coupled to sets of wheels 31 and 36 indirectly through intermediate wheel plates 28 and 33 which arrangement effects a much more durable, balanced and safe condition.

In order to accommodate the style of a particular person wheels 31 and 36 can be easily adjusted to different positions along the longitudinal axis of platform 11. To permit adjustment of the wheels marginal edges of the board, referring to FIG. 3, are formed with securement holes 38, 39, 40 and 41 that register with the runner securement holes 24, 25, 26 and 27 respectively as shown in FIG. 1. Thus, with regard to the wheel position shown in FIG. 1, rearward wheels 36 can be easily shifted backwardly by loosening and relocating lock bolts 37, and, forward wheels 31 can be shifted either forwardly or backwardly by loosening and relocating lock bolts 32.

An inclined foot-depressible lever 42 is secured to the rearward end section 13 of platform 11. In this preferred embodiment lever 42 is shown as a generally U-shaped tube characterized by a pair of arms 43 and 44 that converge rearwardly and terminate at and merge with a cross piece 45. The inner ends of arms 43 and 44 are rigidly coupled to the rearward runner ends 21 and 22 respectively. For construction convenience the tubular frame 16 and lever 42 are integrally formed from a single bent or shaped tubular segment.

Referring to FIG. 2 the intersection angle A defined by the planes of platform 11 and lever 42 is preferably between 20° and 50°, although any upwardly inclined acute angle from platform 11 is regarded as within the scope of this invention. In contrast with conventional skateboards, a person with his rear foot resting upon lever 42; (1) can tilt skateboard 10 by exerting less pressure, (2) is able to maintain superior balance, and (3) can negotiate wheelie or other spinning maneuvers with assurance that lever 42 is not likely to scrape or strike the ground.

Referring to FIGS. 2 and 3 the end-to-end length of lever 42 is between 10 percent and 35 percent of the overall end-to-end length D of platform 11. This relative size of lever 42 will furnish proper balance and an adequate area for supporting the rear foot of a person.

Referring now to FIG. 5 an embodiment of this invention is shown wherein a skateboard 46 has a platform 47 and dual or double inclined foot-depressible levers 48 and 49 extending from both the forward end section and rearward end section of platform 47. Skateboard 46 is essentially symmetrical so that a person is capable of straddling the skateboard with his feet resting simultaneously upon levers 48 and 49. This construction would be desired when a person contemplated a cakewalk maneuver characterized alternately swinging opposing ends of a skateboard 46 through slight arcs in order to progressively move in a given direction.

A pair of covers or pads 50 and 51 are bridged across and coupled to levers 48 and 49. As indicated by pad 51 which is exploded away from lever 49, pad 51 may be secured to lever 49 by registering lever bolt holes 52 with pad bolt holes 53 and then inserting and tightening bolts 54.

OPERATION

Keeping the above construction in mind it can be understood how many of the previously described advantages of conventional skateboards are overcome or substantially eliminated by the present invention.

A person may initially carry skateboard 10 to a level area of concrete pavement such as a sidewalk or a driveway by looping his hand around the inclined foot-depressible lever 42 and grasping the cross piece 45. The forward set of wheels 41 and

rearward set of wheels 36 are then adjusted to desired locations along the longitudinal center line of platform 11.

To start the skateboard moving forwardly in direction 14 the person places either foot on the rearward platform section 13 and pushes off with the other foot. In order to spin or pirouette through a wheelie maneuver the person's rear foot is positioned on inclined lever 42 and downward pressure is exerted to depress lever 42 and tilt platform 11 to the desired attitude.

Since lever 42 is tilted preferably at an angle between 20° and 50° from the plane of platform 11 the person need not fear that lever 42, unlike overhang sections of conventional skateboards, will scrape or bump against the ground. Moreover, the person's rear foot is comfortably set upon lever 42 and is unlikely to slip off skateboard 10.

As a result beginner can quickly learn to perform wheelies with confidence and assurance that his physical well-being is safeguarded by the construction of skateboard 10.

From the foregoing it will be evident that the present invention has provided a skateboard with an inclined foot-depressible lever in which all of the various advantages are fully realized.

I claim:

1. A sport maneuvering device comprising:

a. an elongated platform for supporting a person, the platform having a forward end section and a rearward end section;

b. wheels coupled to and beneath the platform; and

c. an inclined foot-depressible lever coupled to the rearward end section of the platform, the lever being oriented so its plane slopes upwardly and rearwardly from the platform wherein a person positioned with one foot on the platform and the other foot resting on the lever may tilt the platform to a desired position by depressing the lever.

2. The structure according to claim 1, wherein an intersection angle defined by the planes of the platform and lever is between 20° and 50°.

3. The structure according to claim 1, wherein the lever has a pair of side edges that converge in a rearward direction.

4. The structure according to claim 1, including a second inclined foot-depressible lever coupled to the forward end section of the platform, the second lever being oriented so its plane slopes upwardly and forwardly from the plane of the platform.

5. The structure according to claim 1, wherein:

the platform includes a tubular frame with two laterally spaced side runners, and, an elongated board secured to the runners; and,

the lever is a generally U-shaped tube connected at its ends to corresponding rearward ends of the runners.

6. The structure according to claim 5, including a pad aligned across and coupled to the U-shaped tube for supporting a person's foot.

7. The structure according to claim 1, wherein the end-to-end length of the lever is between 10 and 35 percent of the end-to-end length of the platform.

8. A skateboard comprising:

a. an elongated platform for supporting a person, the platform having a forward end section, a rearward end section and a longitudinal center line;

b. a first set of wheels coupled to and positioned beneath the platform forward end section;

c. a second set of wheels coupled to and positioned beneath the platform rearward end section; and

d. an inclined foot-depressible lever coupled to the platform rearward end section, the lever being oriented so its plane slopes upwardly and rearwardly from the plane of the platform wherein a person positioned with one foot on the platform and the other foot resting on the lever may tilt the platform to a desired position by depressing the lever.

9. The structure according to claim 8, wherein;

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the elongated platform includes a tubular frame with two laterally spaced side runners, and a flat elongated rectangular board secured to the runners; and, the lever is a generally U-shaped tube connected at its ends to corresponding rearward ends of the runners.

10. The structure according to claim 9, including: a first wheel plate that mounts the first set of wheels and has opposing sides coupled to forward sections of the runners; and, a second wheel plate that mounts the second set of wheels and has opposing sides coupled to rearward sections of

the runners.

11. The structure according to claim 10, including adjustment means for selectively adjusting at least one wheel plate along the platform longitudinal center line.

5 12. The structure according to claim 11, wherein an intersection angle defined by the planes of the board and lever is between 20° and 50°.

10 13. The structure according to claim 12, wherein the end-to-end length of the lever is between 10 and 35 percent of the end-to-end length of the platform.

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