

[54] WALKING-ROLLERSKATE DEVICE

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280/11.2

[51] Int. Cl. A63c 17/20

[58] Field of Search 280/11.2, 11.21, 11.19;
272/70; 188/82.77

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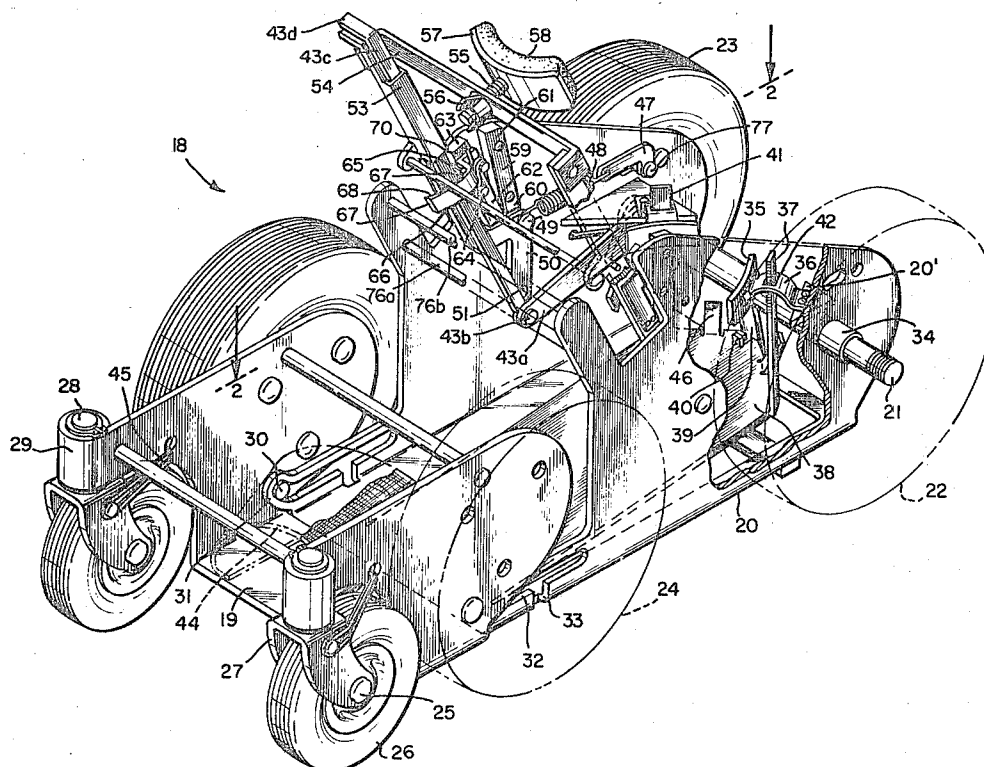
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Assistant Examiner—David M. Mitchell

[57] ABSTRACT

There is provided a forward platform and a rearward platform on which the shoe of the foot is supportable and attachable thereto with the forward and rearward platforms being attached to one another by a hinge structure, the rearward platform portion including a pair of spaced-apart wheels one on either side of the rearward platform's rearward portion, and two separate sets of wheels and axes therefor mounted on the forward platform, one set on the rearward portion of the forward platform and the other set on the forward portion of the forward platform, the forward wheels being mounted on a support structure, the rearward platform including braking elements and a lever mechanism for activating and deactivating the brakes, and an additional lever mechanism for clamping onto the foot the rearward platform portion, at least the rearward wheels of the forward platform portion including a ratchet mechanism whereby the wheels are solely forwardly rotatable.

10 Claims, 17 Drawing Figures



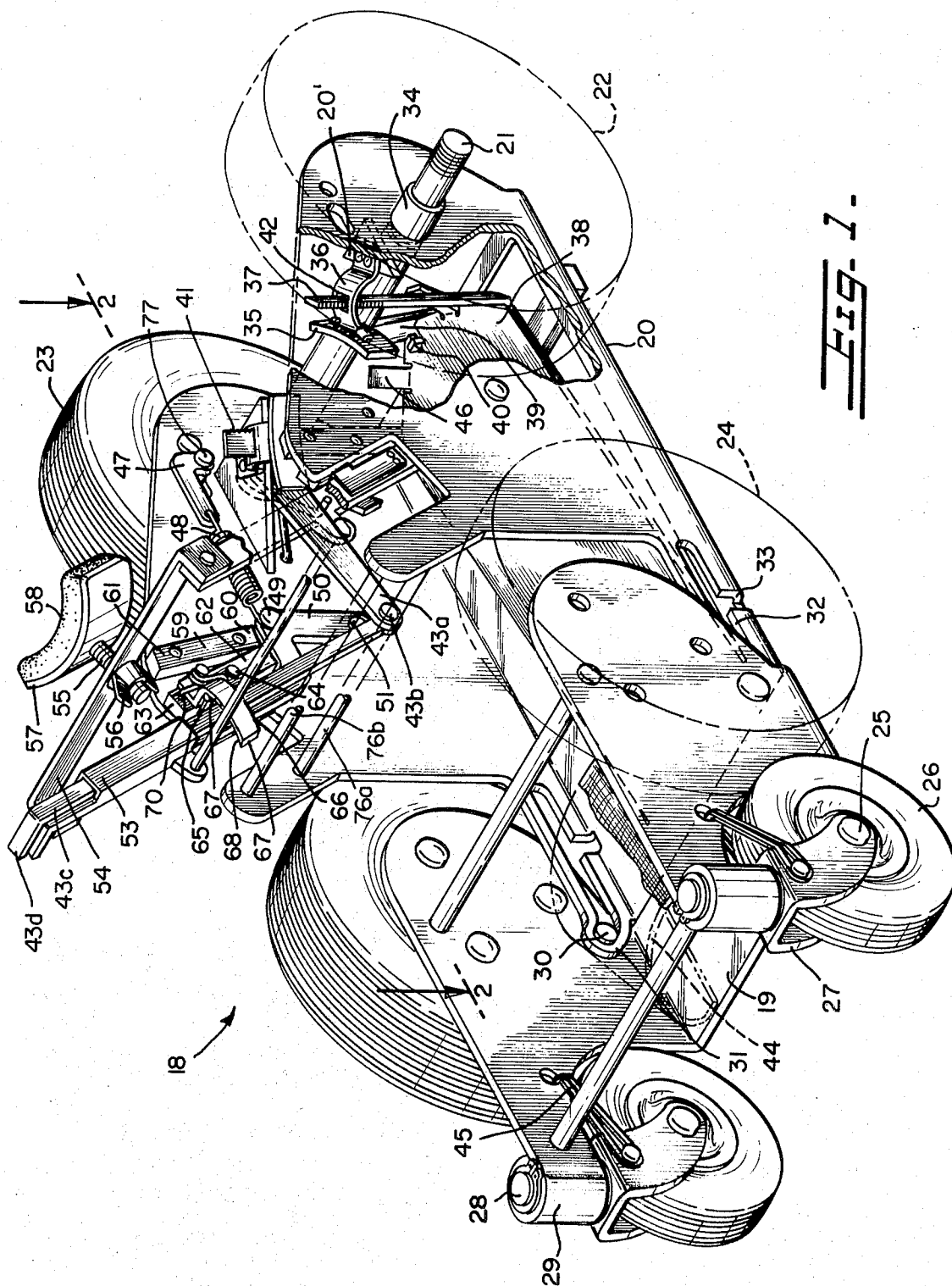


Fig. 1.

Fig. 3.

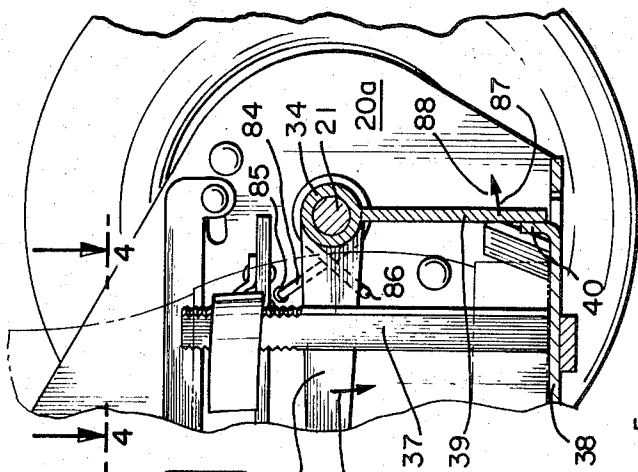
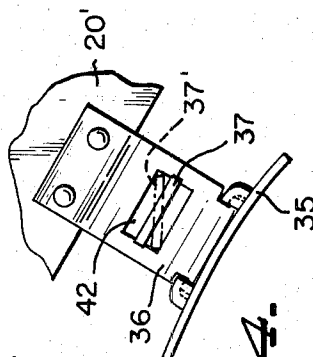


Fig. 4.

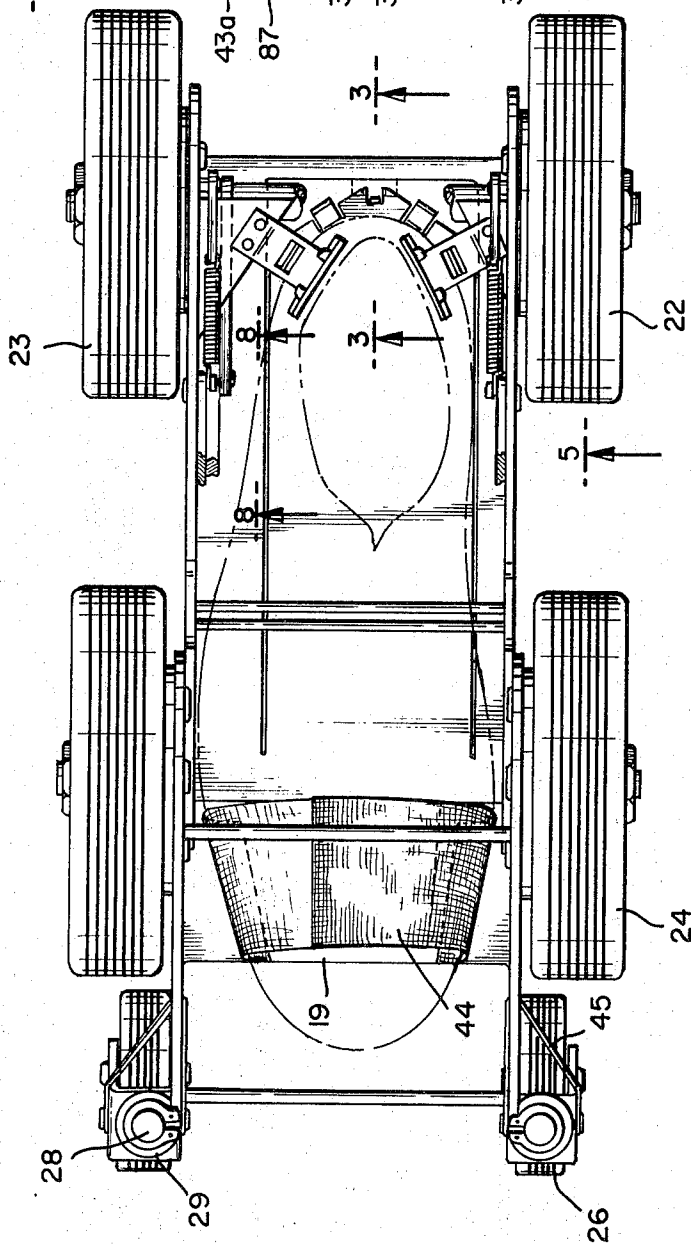


Fig. 2.

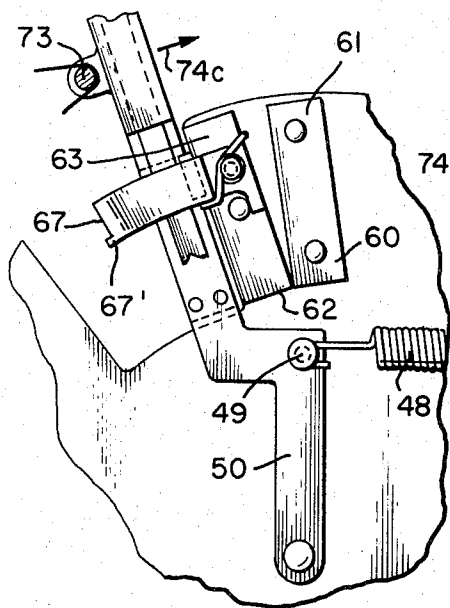


Fig. 8.

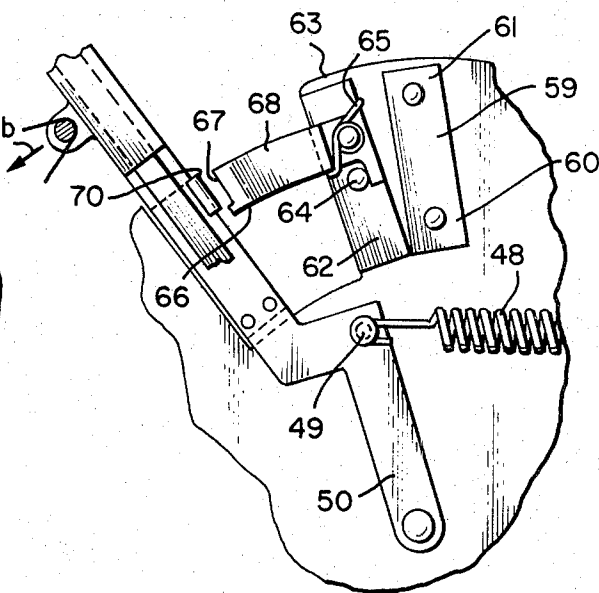


Fig. 9.

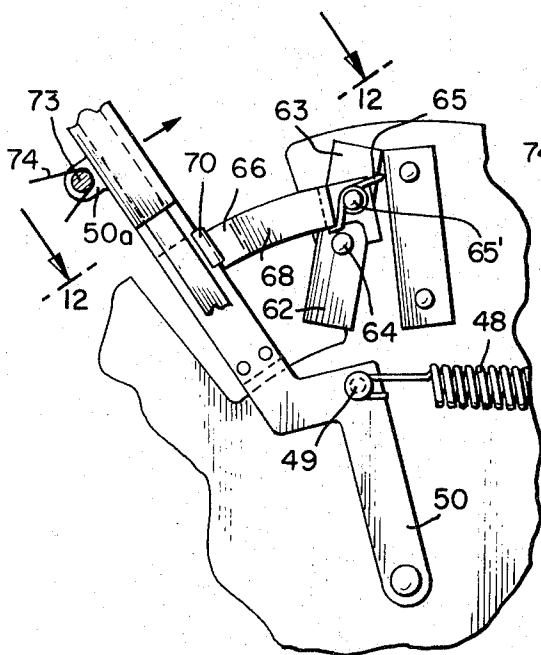


Fig. 10.

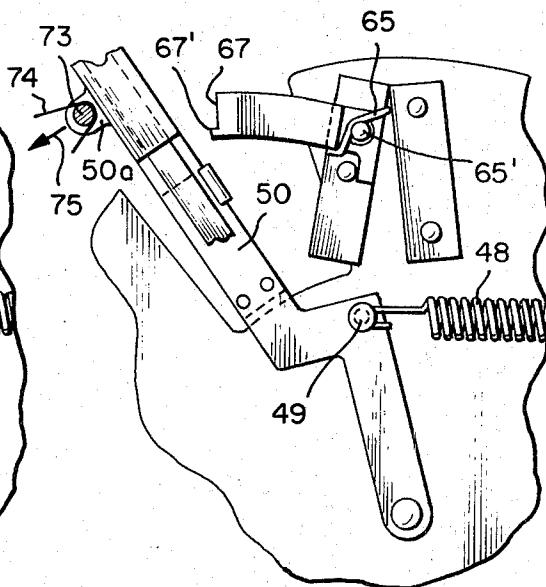


Fig. 11.

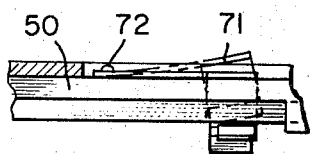


Fig. 13.

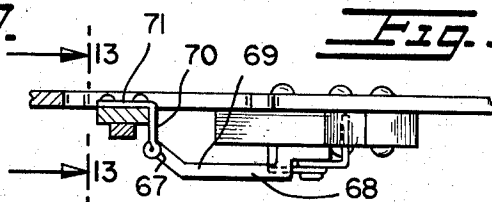


Fig. 12.

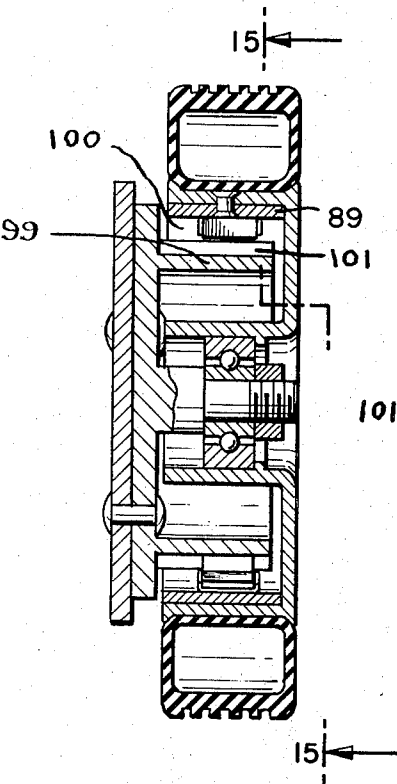


Fig. 14.

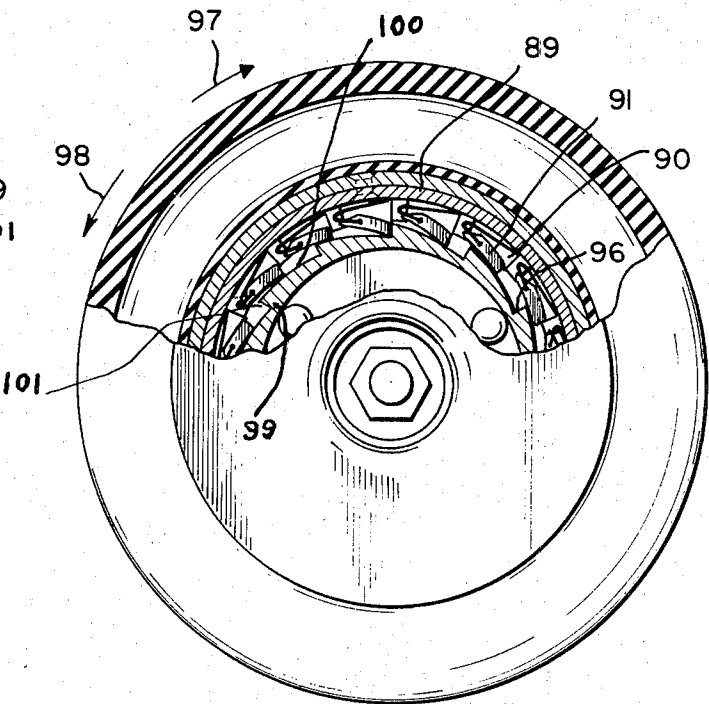


Fig. 15.

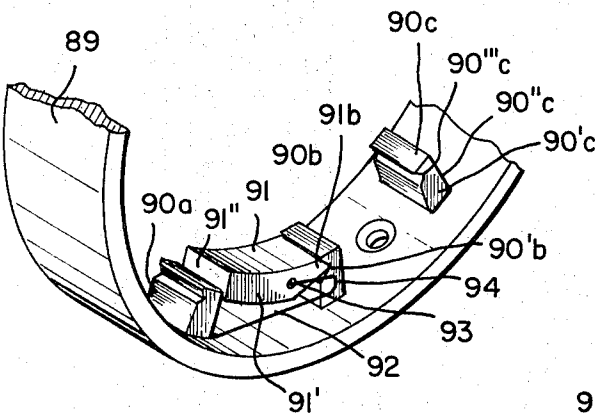


Fig. 16.

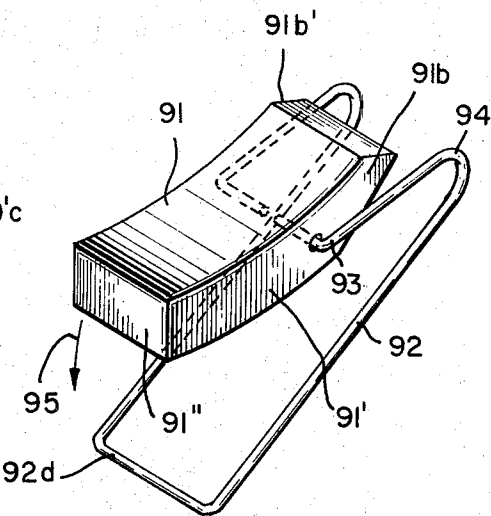


Fig. 17.

WALKING-ROLLERSKATE DEVICE

The invention relates to a rollerskate which is utilizable for a safer and more convenient skating and walking as shall be described hereafter.

BACKGROUND TO THE INVENTION

Prior to the present invention for many, many years there have been no significant nor substantial developments in the nature and mechanism and advantages associated with rollerskates, in so far as providing a skate device which may be utilized for purposes and utilities other than mere amusement. Also, even for purposes of amusement, presently available skates are hazardous to stand on even by an experienced skater when adverse circumstances exist causing such person to lose his balance or equilibrium as well as the fact that to utilize presently available skates there is the requirement that the skater master the technique of moving feet and legs in other than natural positions and motions, particularly when there is the aspect of slowing down or braking from a high speed to a low speed or from any speed to a complete stop. Also for present skates, it is literally impossible to easily change direction without special twisting of the ankles or legs in order to redirect all wheels, as well as it being literally impossible to do other roll along each skate rather than pick-up and put-down one foot over the other in a normal walking motion, while placing the entire weight (when walking) on the sole skate supporting body weight while the other skate foot is picked-up in a stepping motion, such being impossible with currently available skates without the concurrent substantial risk of falling, particularly with the inexperienced skater and/or older person, thus with presently available skates such attempts at walking involving substantial danger of injuring oneself.

SUMMARY OF THE INVENTION

Accordingly objects of the present invention include the obtaining of structures and advantages overcoming the problems and difficulties of the type discussed above.

Additional objects include the obtaining of new and desirable advantages not heretofore available with prior-available and/or conventional rollerskates.

Other objects become apparent from the preceding and following disclosure.

One or more objects of the invention are obtained by the invention as defined herein.

Broadly the invention includes a rollerskate having a flexible arch provided preferably by a suitable hinge element between a forward and rearward platform, with the forward platform being supported on two spaced-apart wheels in order to provide a stable platform independent of the rearward platform wheels may be stably stepped upon or weight stably borne upon without the possibility of titering in balance on merely a single axis, the front platform having at least two separate axis with one or more wheels mounted thereon with one of the axes forwardly and the other rearwardly on the front platform, with one of the forward or rearward axes having two spaced-apart-laterally from one-another wheels such that there is provided a platform support which is diagrammatically either a rectangular four-point support or a triangular three-point support, preferably there being a four-point support by two front wheels and two back wheels mounted on the forward platform such that two wheels are on one side and two on the

other side of the platform, relatively speaking, for added stability, and preferably the forwardly most wheels being distantly spaced from the rearward most wheels of the forward platform with preferably the rearward wheels of the forward platform being located slightly behind the ball of the foot slightly spaced in front of the arch of the foot when the foot (in the shoe or boot) is properly placed and secured in the skate, such that the weight placed thereon is fully supportable securely about centrally of the platform or at least between the respective forward and rearward axels or axes of the respective forwardly located wheels and the respective rearwardly located wheels of the forward platform. The forward wheels preferably include additionally support means that are for each wheel laterally pivotable, mounted on a substantially upright or vertical axis whereby the direction of the forward platform during skating may be easily changed by a mere pointing of the toe when the weight is on the forward portion. In order for the skate to be a walking skate, not only is there provided the bendable or pivotable portion between the forward and rearward platforms in the vicinity of the forward points of the arch immediately adjacent to the front sole of the shoe but additionally the rearward wheels of the forward portion include a ratchet mechanism providing for a revolving of the wheels thereof in a forward rolling direction but preventing the reverse roll of the wheels which might prevent the skate from rolling backwardly, at least this ratchet mechanism being in a preferred embodiment of the invention. Additionally, the rearward portion of the skate includes its own wheel mechanism which is made up of either a single wheel about centrally located typically behind the mounting position for the heel of the shoe, or alternatively and preferably the rearwardly wheel mechanism which supports the rearward upwardly pivotable platform including space-apart wheels one on each of opposite sides of the rearward platform more or less in the manner of a conventional skate, except that a main and preferred feature of the present invention is the maintaining of a low center of gravity merely slightly above the normal ground-walking level, this being made possible by having the platforms—forward and rearward platforms, both hung or slung low between the respective supporting wheels. Preferably there is included a braking mechanism associated with the wheels of the rearward portion and/or the rearward wheels of the forward platform portion, but preferably at least the rearward wheels of the rearward platform being inclusive of the braking mechanism which is preferably activatable by motion of the ankles and/or legs, but also being manually activatable by the hand with typically a cord mechanism that leads up to the pocket or wrist or to a hook-attachment for the clothes of the skater. In another preferred embodiment of the present invention, there is provided a convenient skate clamping mechanism such that the difficulty of putting on and taking-off the skate is substantially eliminated, there being provided a lever mechanism such as a rearwardly extending tongue as a part of preferably the rearward platform portion such that upon stepping down and into the skate, the shoe or boot heel presses downwardly on the distal end of the tongue portion in order to pull inwardly the clamping vise-like securing pads or other clamp structure on opposite sides of the shoe or boot in order to bind the shoe or boot therebetween while the toe is suitably locked or secured within pref-

erably a slip-in loop enclosure, thereby each of the forward and rearward platforms are separately secured to the shoe or boot. It of course is within the scope of the invention to merely have the shoe mechanism fixedly a part of the rearward and/or forward platform(s) and for the forward sets of wheels and/or the rearward set(s) of wheels to be merely mounted on a more or less conventional shoe or boot which shoe or boot would replace the above-described platform both forwardly and aftly, where a person merely mounts the entire shoe or boot on the foot, the skate elements of the present invention merely being a part of the shoe or boot itself. As a part of the clamp-on mechanism there is also provided a release mechanism of suitable sort, such that when the rearward platform of the skate is locked upon the heel portion of the shoe or rearward sides of the shoe, the clamping mechanism may be conveniently released by a predetermined release device which may be merely manually operable by the hand or operable by a special motion of the knees or ankles or the like. For the braking mechanism, there is preferably included a lever mechanism that is by applying pressure thereon by the bending of the knees activatable to varying degrees but in a preferred embodiment when a predetermined degree of activation takes place the braking mechanism becomes locked in a braking state, and the braking mechanism in the braked state may be either released by a manual mechanism operable by the hand but and preferably is releasable by virtue of a special bending of the knees and/or ankles in the same nature as the action necessary to originally apply the brakes except that upon the second of consecutive motions (the first being to apply the brakes) to a certain predetermined number of degrees, the lock mechanism is thereupon released.

THE FIGURES

FIG. 1 illustrates in perspective view a typical and preferred embodiment of the present walking-skate of the invention.

FIG. 2 illustrates in elevation plan with partial cut-away of an upper part of the leverable mechanism, a view of the embodiment of FIG. 1.

FIG. 3 illustrates an in-part view of the clamp-on grasping mechanism of the present invention as viewed along line 3—3 of FIG. 2.

FIG. 4 illustrates an in-part view of the clamp-on grasping structure illustrated in FIG. 3 as taken along line 4—4 thereof.

FIG. 5 illustrates a side cross-sectional view of a typical wheel and braking mechanism of the present invention, as shown in an in-part view taken from the embodiment of FIG. 1.

FIG. 6 illustrates another cross-sectional forward view of wheel and axle mechanism and braking mechanism of the FIG. 5 illustration as taken along the line 6—6 thereof.

FIG. 7 illustrates a diagrammatic side view of an embodiment such as that of FIG. 1 when in use, showing the rearward platform in an upwardly pivoted flexed state relative to the forward platform as would typically appear during a walking motion of a person walking with the walking-skate of the present invention; this position also typifies a possible forward-propelling action.

FIGS. 8 through 11 illustrate the braking and brake-release lever mechanism and principle involved therein in the present invention in side view.

FIG. 12 illustrates the lever mechanism as viewed along line 12—12 in FIG. 10.

FIG. 13 illustrates the lever mechanism as viewed along line 13—13 in FIG. 12.

FIGS. 14 through 17 illustrate the ratchet wheel mechanism of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

In greater detail, as viewed in one or more of FIGS. 1, 2, and 3 in particular, there is provided a pair of skates one for the left foot and one for the right foot, but one being merely the mirror image of the other and consequently there being herein illustrated solely a single skate, the illustrated skate being for the right foot of a skater as seen in elevation plan view in FIG. 2. There is provided a forward platform 19 and a rearward platform 20, the rearward platform having an axle (axis) 21 on which is mountable and mounted a wheel 23 and wheel 22 one on one side and the other on the other opposite side of the rear of the rearward platform, and on a rearward portion of the forward platform there being mounted on each of opposite sides thereof a wheel 24 on an appropriate axel mechanism mounted on the forward platform, and at a forward end of the forward platform portion there being an axel 25 having wheel 26 revolvably mounted thereon on the support structure 27 which is mounted on an upright vertical axis 28 on the forward end of the forward platform, for lateral horizontal swinging motion of the respective wheels 26 which are each spring-based to an aft following position behind the axis 28 by a spring 45. The axis 28 is mounted revolvably in the channel portion structure 29 of the forward platform 19. The rearward platform 20 is pivotably connected to the forward platform 19 by pin 30 mounted fixedly onto the forward platform structure 19, with the pin 30 slidably mounted within a closed-end slot structure 31 slidably mounted within a closed-end slot structure 31 slidably through which the key may be slid to separate the forward platform from the rearward platform, but the forward and rearward platforms being slidable one into the other by virtue of the key 30 being axially slidable through the slot space 32 to a rearward end of the closed rear end of the slot structure, and/or the rearward portion when not on the skater's shoe being pivotable upwardly to a folding position while concurrently sliding the platforms together whereby the skate may be compacted and carried within a very small carrying space. The pressure of the long shoe or boot serves to hold the two platforms in the distended state when the skate is being worn, and although not shown there is easily provided inserts in each of the opposite sides of the skate slot structures filler inserts in order to shorten the length of the slot space, the insert being inserted in the forward most portion of the slot space in order to shorten the overall skate length for a shorter-lengthed foot or shoe.

Mounted revolvably around the axis 21 is a cylinder 34 activatable by the turning thereof of the biased member 39 which catches or releases the end of the distal portion of the tongue 38.

Also near the rearward portion of the rear platform are the clamping shields 35 mounted on the distal end of the flexible structure extension 36 which is itself fixedly mounted on the rearward platform, and has therein a hole 42 through which the securing member 37 is adjustably fixedly attached thereto extending

downwardly to the rearward platform tongue 38 distal end thereof. Accordingly, upon the pressing downwardly of the tongue distal end 38, the distal end of the flexible member 36 and accordingly the clamping shields 35 are pulled downwardly and inwardly against a shoe opposite sides thereof which heel thereof is pressing downwardly upon the tongue 38. By virtue of member 39 being biased forwardly and mounted on the cylindrical member 34 with its lower end being biased forwardly against the rearward portion of the tongue 38, upon the downward pressing of the tongue sufficiently, there will occur a slipping of the tongue under the end of the forwardly biased catch member 39 so that it locks over the tongue against the stop 40. It should be noted that for manual adjustment so that the clamps clamp more tightly or less tightly, that the member 37 may be twisted sideways so that the teeth on its one or more opposite edges may be disengaged from the narrow hole structure 36 of the extended portion 42, slipping it upwardly or downwardly therein before turning it back to the engaging position where it does not slip. In order to revolve the lever cylinder 34, the lever 43a portion must be moved in a circumscribing direction relative to the cylinder 34, as activated by other portions of the lever 43a through a pivot pin 43b and an axis 43c and handle thereof 43d. By pressing downwardly on the handle 43d, the member 42 in an upwardly and outwardly spring-biasing direction pulls up the tongue as the tongue 38 is released by the retracting of the lever arm 39 rearwardly as the lever tube 34 is turned on which lever arm 39 is mounted. The forward toe portion of a shoe or boot is securable within the loop or tunnel or slip-over portion or structure 44 shown in phantom in FIG. 1 but shown in regular lines in FIG. 2. As heretofore noted, the swingarms of the front wheels are biased in a rearwardly direction by spring elements 45. On the rear portion of the tongue 38 is the stop members 46 to prevent the heel from settling too far rearwardly on the tongue 38 and for assisting the heel in sliding into place properly and forwardly on the inclined surface of the members 46. The brake lever 47 is attached to a continuing lever ring 48 through which the brake is activatable but which spring 48 prevents excessive braking force to be compensated for to prevent breaking of the brake or levers activatable thereof, the opposite end of the spring 48 being attached to a key 49 on a lever 50 pivotably mounted on key 51 onto the rearward platform structure 20, and extending upwardly and including the enclosing tunnel structure 53 through which the lever structure 43c is inserted slidably and the structure 43c continuing on upwardly to a handle structure 43d, the structure 53 continuing on upwardly to form the cross-bar 54, mounted thereon there being the through-shaft 55 with its nut 56 and the support 57 and its cushion 58 against which the leg might press. As a part of the braking mechanism for the locking of the brake in the braking state is the fixedly non-pivotably mounted magnet member 59 having opposite magnetic ends 60 and 61, and the pivoted member 62 mounted on the platform vertical structure 20 having an upper pivoting end 63, being pivoted on a pivot pin 64 and having mounted thereon pivotably a member 68 spring-biased upwardly by a spring 65 and having a terminal portion of the member 68 at about 66 with a slightly concave end-face 67 and a concave curvature portion 69 of the arm 68 against which concave curved portion of 68 extend-

ing axially along the curved portion is a spring-biased pressing catch-member 70 pressing against the arm 68 concave surface 67, when the member 70 snaps into position at the end of the arm 68. The portion of the catch key 70 represents the distal end of an arm on which it is mounted or a continuation thereof 71, mounted at its proximal end by a brad 72 fixedly onto the lever portion 50. Extending from the lever portion 50 is a projection 50a on which is mounted a bar 73 around which is threaded a line 74 which line 74 upon being tightened serves to pull the lever 50 in a direction 75. The line 74 is secured typically to bar 76a which extends between opposite upright projections of the rearward platform 20, and around the bar 73 and then around the bar 76b which also is mounted on the upward extension of the platform 20. Upon pulling of the line 74 in direction 74a, the brake mechanism is moved in direction 74b the same as if pressure were applied to the cushion member 58. The line 74 serves as a manual hand-cord typically anchored to a persons pocket or wrist, as noted above in the Summary of the Invention.

When the line 74 is pulled in direction 74a or pressure is applied to the cushion 58, the lever portion 50 as for example viewed in FIG. 7 moves forward in the direction 74b in order to move the brake pin 77 forwardly within the slot 78. In FIG. 5, the pin 77 is shown in regular lines as the movable part of the cam 81 which when the brake lever is moved in direction 74b causes the pin 77 to move in direction 77a against the biasing tension of spring 83, the cam being mounted on a central annular portion 80 which revolves around an axis central portion. Corresponding to the pin 77 is a fixed pin 79 securing the distal or opposite end of the cam 81 fixedly onto a platform structure of the rearward platform such that upon moving of the cam pin 77 in direction 77a, the cam 81 is flexedly bent outwardly to press against the brake shoe 82. FIG. 6 illustrates the same elements and slots and the like in cross-section as taken along the lines 6-6 of FIG. 1, the FIG. 5 being a cross-section as taken along line 5-5 of FIG. 2. In order to understand more fully the operation of the brake lock mechanism of FIGS. 8 through 13, reference should now be made to those Figures. In the beginning state it is seen that the portion 62 is pressed against the portion 60 as well as being magnetically attached thereto, it being noted that optionally for improved operation the pivoted lever having opposite ends 62 and 63 may be also a magnet of bar type with the unlike ends mated with opposite polarity of ends of the magnetic bar 59 — north and south ends mated for opposing bars. The portion 62 is pressed into the illustrated position and state by virtue of the lever 50 pressing against the portion 62. When the lever 50 moves in direction 42b, the element 70 slides along the concave face 69 and eventually snaps into the concave portion 67 when the lever 50 is pressed far enough outwardly by pressure on cushion 58, and the tensioning action of the spring 48 serves to hold, and the brake spring 83 serves to hold lever 50 and the key element 70 firmly against the concave portion 67 of member 68, which torque against the member 68's end 67 casuses the upper portion 63 to pivot rearwardly against the portion 61 of magnet 59 which also magnetically holds the portion 62 magnetically in contact with portion 60. Upon a next consecutive motion against the locked lever 50 in a direction 74b, the element 68 is (when pressure is thereby released) snapped upwardly away from the key 70 by vir-

tue of the spring 67 biasing the arm 68 in an upward direction around pivot point 65'. With the bar end 65 in contact with the magnetic bar end 61 at the time that the arm 68 snaps upwardly there is thereby provided space beneath the portion 66 by which the key 70 may move beneath the portion 68 when the lever 50 moves in the direction 74c, and as it (lever 50) is pulled all the way back to the initial position by the spring 48, and by the spring within the brake — spring 83 connected to the cam, the portion 62 of the bar in the pivoted state becomes pressed downwardly by the advancing lever 50 in order to pivot the end 63 away from the magnetic attraction and held state of portion 61, whereby the extension 68 is simultaneously brought downwardly into a position in alignment with the key 70 such that upon the next consecutive initiation of the lever 50 in direction 74b, the key 70 will again snap into the concave portion 67 if the lever 50 is pressed outwardly far enough. Note that to release the brake, the pressure in direction 74b must also be sufficient to carry the lever in direction 74b sufficiently to release pressure on the arm 68 end portion 67 thereby allowing the non-pressured arm 68 to snap upwardly out of holding alignment with the key 70. It is understood that the normal braking does not always bring about the locking of the brake lever but that only upon a wide range of pivoting of the brake lever to strongly apply the brakes does the brake lever move far enough for the key 70 to become locked into the concave face portion 67 of arm 68. In FIG. 5 there is shown a cross-section disclosing the wheel itself in cross-section with the purpose of the Figure being to illustrate the cam arrangement having the point 77 and a fixed point 79 of the cam 81 which becomes pressed against the brake shoe 82 upon activation of the brake lever 50. It should be noted that the cam is bilateral in nature to thereby exert pressure evenly on both of opposite sides of the inner surface of the brake shoe to thereby prevent one-sided cam pressure. With reference to FIG. 3, there are shown the brake lever 47 and its locking pin 77 movable within the slot 78 as well as there being shown in enlarged view more plainly the lever arm 43a and the axle 21 and the tubular lever 34 and the lever arm lock 39 in a locked state against the stop 40 over the tongue 38, and also the spring-biasing state of spring 84 locked within the or anchored within the hole 85 of the platform vertical structure 20a and with the biasing end of the spring end 86 pressing upwardly against the lever 43a in order to hold the lever portion 39 snugly against the stop 40 until such time as the motion 87 brings about motion 88.

FIG. 4 better illustrates the structure and appearance of the member 36 and the shield 35 mounted on the adjustable member 37 shown in the adjusting position as 37'. The member 36 is mounted on upper structure 20 of the rearward platform 20. FIG. 2 illustrates various parts already previously discussed.

FIGS. 14, and 15, each illustrate the ratchet mechanism of one or more of the wheels of the present invention, at least the rearward wheels preferably of the forward platform, but also preferably the wheels of the rearward platform. Particular reference may be made to the FIGS. 15, 16, and 17 for ease of understanding of the mechanism of the particular preferred ratchet device of the present invention, there being shown an inside cross-sectional view of the wheel in partial cut-away and the ratchets being shown in side view. In

FIGS. 16 and 17 there is shown an enlarged in-part view showing the enlarged view of the spring thereof and suspended thereby ratchet lever in place on an inner curved surface of the wheel or wheel rim. In particular, there is illustrated in FIG. 15 and also in FIG. 14 but better seen in FIG. 15, the inner rim 89, the projection therefrom 90 shown as 90a, 90b, and 90c, and the spring portion 92 seated between the consecutive projections 90 with preferably the bent portions 94 of opposing spaced-apart arms of the spring vise-clamping therebetween the member 90 against the opposite side faces thereof faces 90'c and 90'''c while the flat portion 92a of the spring is seated on the rim surface against the next consecutive projection 90. The pressure of the bent portions 94 serves to both hold the spring in position but also to hold the portions 93 away from binding-pressure against opposite faces 91' of pivoted ratchet lever 91 whereby the lever 91 may freely pivot at point 90'b. Extending from the fixed portion of the non-pivotal axle structure is the fixed member 99 of annular shape having an outer surface 100 of consecutive inclined planes with steps 101 or tooth elements as shown for thereby permitting the end portion of the lever 91 slide over unobstructedly the smooth portions 100 against which the spring arms 93 bias the lever 91 which consecutively is biased into the stepped recessed portions as the wheel is revolved, but such that the inwardly-biased end portion 91'' becomes immovably engaged with the stop surface 96 whenever wheel forces attempt to move the wheel in reverse direction 97, the wheel thereby being revolvable solely in direction 98. As the wheel revolves forwardly at or above a predetermined rate of revolving speed, inertia of the levers 91 by centrifugal action cause the levers 91 to overcome the inwardly biasing action of spring-arm 93 to prevent the ratchet friction and clicking noise.

The slip-over structure 44 may be replaced advantageously by an adjustable strap, such as preferably two opposing straps having opposing locking surfaces such as velcro loops and velcro hooks.

It is to be understood that it is within the scope of the present invention to make such modifications and variations and substitution of equivalents as might be apparent to a person of ordinary skill in this field of art.

I claim:

1. A walking-skate device comprising in combination: a platform means divided into fore and aft portions; and a hinge means pivotably connecting the fore portion to the aft portion including rear wheel means mounted revolvably and supportedly on a rearward portion of the aft portion; each of fore-portion rearward and forward wheel means mounted respectively at rearward and forward portions of the fore portion supportedly and revolvably thereon, at least one of the fore-portion forward and rearward wheel means being pivotable about an upright axis; including toe-shoe-structure-securing means for retaining the fore portion onto a toe-shoe structure; and a rearward securing means for securing the rearward platform portion to a rearward portion of a shoe structure.

2. A walking skate device of claim 1, in which the forward wheel means of the fore portion include a substantially upright axis element and a wheel support structure horizontally pivotable around the upright axis mounted pivotably on the upright axis; and the rearward wheel means of the fore portion including at least

one wheel rotatably pivotable in one rotatable direction and non-rotatable in an opposite direction in the nature of a ratchet gear, the rotatable direction being forwardly permissible of forward rolling of the platform means.

3. A walking skate device of claim 2, in which at least one of the fore portion's rearward and forward wheel means includes two laterally spaced wheels on about aligned axes, one on one side of the fore portion and the other on the other side of the fore portion; and in which at least one of the fore-portion rearward wheel means and the aft-portion rear wheel means includes braking means for breaking a rotatable wheel, including a wheel and axis therefor.

4. A walking skate device of claim 3, in which the wheel support structure of the fore-portion forward wheel means is shaped and mounted on said upright axis such that the support structure for the forward wheel swings laterally outwardly from the upright axis, and including biasing means biasing the swung-out wheel support structure of the forward wheel in a rearwardly aligned position rearward of the upright axis.

5. A walking-skate device of claim 4, in which said rearward securing portion includes vise-like clamping elements a lever means including a lever as a part of said aft portion which lever means is interconnected to the clamping element such that when the lever is pressed downwardly, as during a downwardly pressing of a shoe heel, the clamping elements are moved towards one another from opposite sides of the upright sides of a rear portion of a shoe structure in a vise-like grasping action, and locking means lockable of the lever means in a grasping state and release means unlockable of the lever means from its grasping state.

6. A walking-skate device of claim 5, in which the ratchet-gear fore-portion rearward wheel one-way rotation mechanism includes a plurality of pivotably suspended lock-keys mounted on an inner circumference of a wheel rotatable structure, including the wheel rotatable structure, and additionally including radially outwardly extending teeth positioned around an inner fixed wheel structure such that ends of the keys are lockable thereagainst whenever the wheel structure tends to rotate in a reverse-direction that would move the platform means rearwardly, said suspendedly mounted keys being mounted such that a predetermined rate of revolutions of the wheel rotatable structure serves by centrifugal momentum-force to suspend the keys' ends in respective positions spaced away from the locking projections such that forward rotation at or above said predetermined rate of revolutions serves to prevent wear, noise and friction of the keys against the projections.

7. A walking-skate device of claim 6, in which said braking means includes a lever element having mounted on an upper end thereof at its distal end, a handle portion upon which a first forward pressure thereagainst when there is at least a predetermined pressure and movement of the brake lever locks the brake lever in a braking state, and including a catch-lock structure mounted on at least one of said fore and aft portions lockable of the brake lever when said predetermined braking pressure is reached or exceeded, and additionally including a release-lock structure releasable of the locked brake lever upon a next consecutive braking pressure application upon the braking lever, said release-lock structure also being mounted on one of said fore and aft portions.

8. A walking-skate device of claim 7, in which said brake means includes a tubular lever and a wheel axis mounted coaxially therein, and includes a cam mounted circumscribingly around the tubular lever fixedly mounted on the tubular lever with one end of the cam fixedly mounted on structure of the platform means such that upon rotation of the tubular lever, the circumscribing cam portion is arced radially outwardly as toward a brake drum, and including a brake drum mounted within the revolvable wheel means opposite the circumscribing cam portion such that an arced cam portion frictionally engages the brake drum.

9. A walking-skate device of claim 8, in which each of the aft portion's rear wheel means, the fore portion's rearward wheel means, and the fore portion's forward wheel means includes two laterally spaced-apart wheels on about aligned axes, one on one side of the platform means and the other on the other side of the platform means, the rearward securing lever means being a rearwardly extending tongue portion and the lock means thereof including a spring-biased key biased against the tongue's distal end such that upon sufficient downward pressure upon the tongue's distal end, the tongue's distal end slips beyond and catches under a distal end of the spring-biased key thereby such as to lock the tongue in the depressed state, and the vise-like clamping elements being opposingly mounted facing each other on opposite edges of the aft portion onto a distal end of the tongue such that upon depressing the tongue's distal end the clamps are pulled downwardly and inwardly laterally toward one-another.

10. A walking-skate device of claim 1, in which said fore and aft portions are mounted below axis levels of the wheel means of the fore and aft portions respectively such that the platform means is slung low with a resulting low center of gravity.

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