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CONVERTIBLE ROLLER SKATE AND SKI

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2 Sheets-Sheet 1

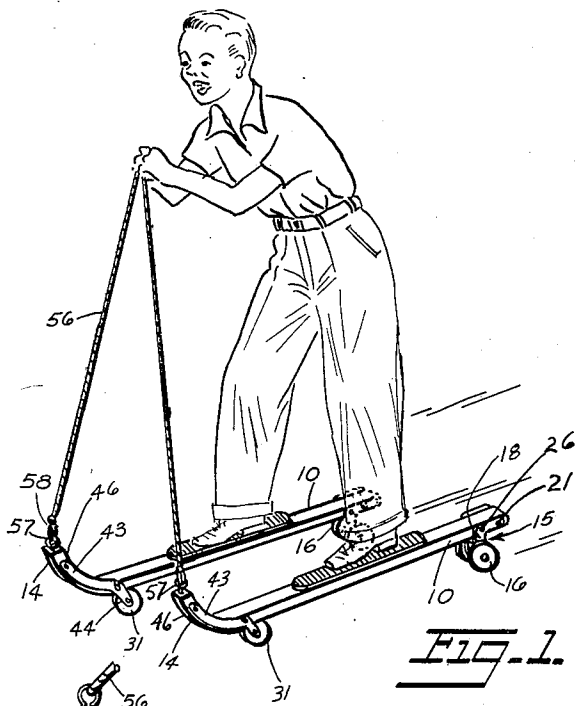
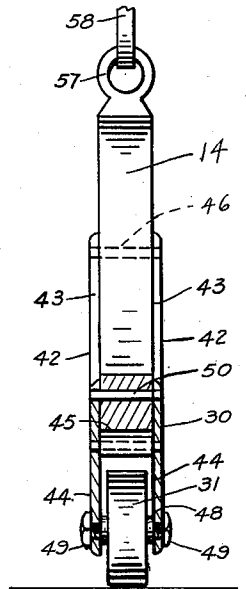
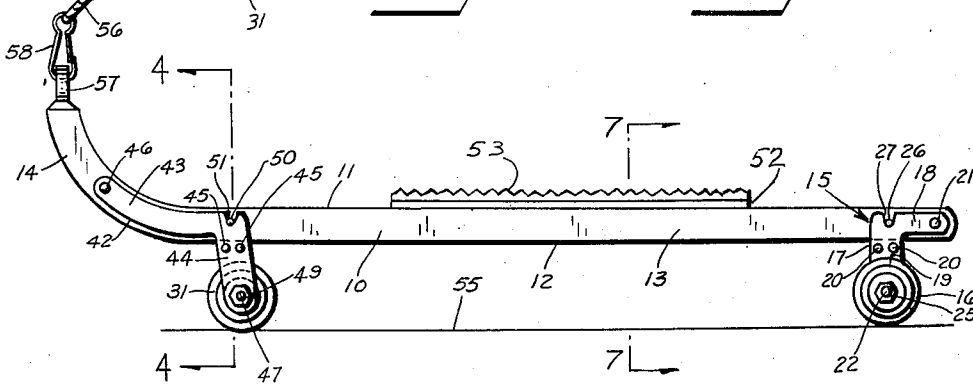
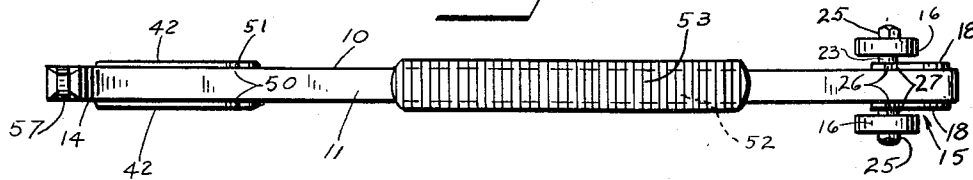


FIG. 3.

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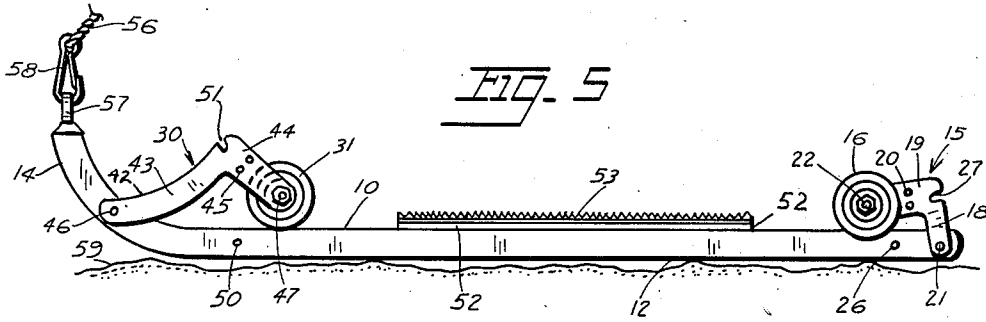
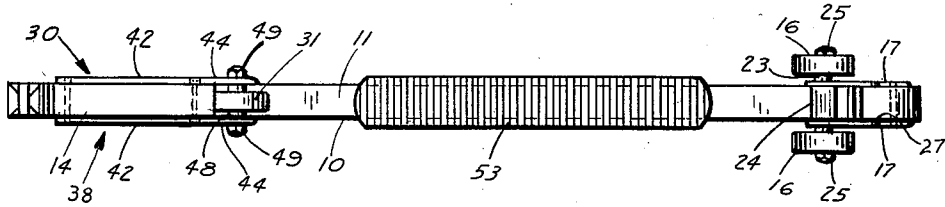
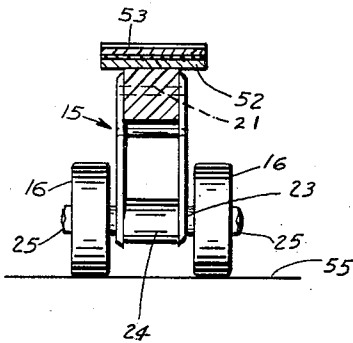
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CONVERTIBLE ROLLER SKATE AND SKI

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2 Sheets-Sheet 2



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CONVERTIBLE ROLLER SKATE AND SKI

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1 Claim. (Cl. 280—7.13)

This invention relates generally to recreational devices and, more particularly, to a recreational device convertible into either a wheeled vehicle or a runner type vehicle.

A principal object of the present invention is to provide a recreational device capable of being readily converted into either a roller skate or a ski.

Other objects of the invention are to provide a device of this kind which is readily manipulated, is versatile, interchangeable, suitable for children or adults, simple and rugged in construction and which may be manufactured and sold at a reasonable cost.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claim in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view showing a convertible roller skate and ski embodying my invention in use as a roller skate.

Fig. 2 is a side elevational view of the convertible roller skate and ski device.

Fig. 3 is a top plan view thereof.

Fig. 4 is an enlarged vertical sectional view taken on the plane of the line 4—4 of Fig. 2.

Fig. 5 is a side elevational view of the convertible roller skate and ski device converted for use as a ski.

Fig. 6 is a top plan view thereof.

Fig. 7 is an enlarged vertical sectional view taken on the plane of the line 7—7 of Fig. 2.

Referring to the drawings in detail, in Fig. 1 a convertible recreational device convertible into either a roller skate or a ski and made in accordance with the invention is shown in use as a roller skate, two of such devices being shown. The improved device comprises an elongated straight bar 10 formed of suitable metal, of narrow blade-like formation, square in cross section, with smooth flat top, bottom and side surfaces 11, 12 and 13, respectively. At the front end as viewed in Fig. 1, the bar is curved upwardly to form a nose portion 14 so as to avoid obstacles in the path of movement of the device. The rear end of the bar is preferably rounded off.

A rear wheel truck frame 15 supporting a pair of rear wheels 16, 16 is swingably mounted at the rear extremity of the bar 10. The truck frame consists of a pair of spaced plates 17, 17, each plate consisting of flat straight arm portions 18 and 19 disposed at right angles to each other. The plates are braced and held in spaced relation by a pair of spaced pins 20, 20 extending between the arm portions 19. The space between the plates is slightly greater than the width of the bar 10. A pivot pin 21 is loosely mounted in a transverse bore in the extreme rear end of the bar and the free ends of the arm portions 18 are fastened to the protruding ends of said pin in any suitable manner. A shaft 22 extends transversely of the arm portions 19 passing through aligned openings in the

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extreme free ends thereof. A sleeve 23 is sleeved over the shaft for its length and extends through the openings in the arm portions 19 having a force fit in a spacing bushing 24 disposed between the ends of said arm portions 19. A wheel 16 is rotatably mounted on the sleeve 23 at each end thereof outwardly of the adjacent plate 17, and nuts 25 on the outer threaded ends of the shaft prevent longitudinal displacement of said sleeve 23.

The mounting of the truck frame at the extreme rear end of the bar permits the truck frame to be swung in an arcuate path slightly more than 180°, from the position shown in Fig. 2 to the position shown in Fig. 5. The swinging of the truck frame in a counterclockwise direction as viewed in Figs. 2 and 5 is limited by the engagement of the bushing 24 with the top surface 11 of the bar, and swinging movement in the opposite or clockwise direction from the position of Fig. 5 to the position of Fig. 2 is limited by engagement of a pin 26, extending through a transverse opening in the bar adjacent the rear end thereof, with the bottom edge walls of opposed V-shaped notches 27 formed in the edges of the plates 17, 17 centrally of the arm portions 19. The truck is held against displacement or rattling by the frictional fit of the plates 17, 17 and bar 10.

A front wheel truck frame 30 supporting a wheel 31 is swingably connected to the bar 10 midway the ends of the curved nose portion 14. The frame 30 consists of a pair of spaced plates 42, 42, each plate consisting of flat curved arm portion 43 conforming to the curvature of the nose portion 14 and a flat straight arm portion 44 disposed at substantially right angles to the arm portion 43. The plates are braced and held in spaced relation by a pair of spaced pins 45 extending between the arm portions 44. The space between the plates is slightly greater than the width of the bar 10. A pivot pin 46 is loosely mounted in a transverse bore in the nose portion 14 of the bar, midway its ends, and the free ends of the curved arm portions 43 of the plates are fastened to the protruding ends of said pin in any suitable manner.

A shaft 47 extends transversely of the ends of the straight arm portions 44 of the plates, passing through aligned openings in said ends. A bushing 48 is sleeved over the shaft with its ends engaging the inner surfaces of the ends of the straight arm portions 44 of the plates. The wheel 31 is rotatably mounted on the bushing 48 midway its ends, between the ends of the straight arm portions 44 of the plates. Nuts 49 on the threaded ends of the shaft 47 hold the parts against displacement.

The curved arm portions 43 of the plates of the truck frame are sufficiently long to permit the truck frame to be swung forwardly and upwardly in an arcuate path over the front end of the bar 10 a distance of more than 180°, from the position of Fig. 2 to the position of Fig. 5, such movement being limited by the engagement of the wheel 31 with the top surface 11 of the bar 10. Movement of the truck frame in the opposite direction or anticlockwise direction as viewed in Fig. 5 is limited by engagement of the protruding ends of a pin 50 extending through a transverse opening in the bar 10 adjacent the nose portion 14 thereof with the bottom edge walls of opposed slightly arcuate-shaped notches 51 formed in the plates 42, 42 at points aligned with the centers of the straight arm portions 44.

A foot rest in the form of an elongated metal plate 52 is secured by soldering, welding or the like in flatwise condition to the top surface 11 of the bar 10 approximately midway its ends. The plate is preferably covered with a rubber corrugated mat 53.

In using the improved device as a roller skate, the wheel trucks are disposed so that the wheels depend downwardly from the bar 10 so as to engage a supporting surface such as a pavement 55. A pair of devices are used

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with the skater standing thereon with his feet on the mats 53 of the supporting plates 52, as shown in Fig. 1. The skating operation is carried on in the usual manner by manipulating the legs. If desired, a flexible member such as a rope 56 may have its ends tied to the front nose portions 14 of the bars 10 of the skates and for this purpose, an eye or loop 57 is suitably formed on the top extreme end of the nose portion 14. The rope may have a clasp 58 attached to each end thereof to facilitate attaching and detachment of the rope. By manipulating the rope with the hands, the roller skates may be steered or the weight on the wheels adjusted for steering or other desired purpose. The rope also serves to aid in transporting the skates.

In order to convert the device for use as a ski, the truck frames are swung upwardly over the ends of the bar 10 to the positions shown in Fig. 5. When in this position, the truck frames with the wheels are out of the way, leaving the bottom surface 12 of the bar 10 free and clear to serve as a runner to glide down over a snowy surface such as indicated at 59.

If desired, the contacting surfaces of the truck frames and bar 10 may be roughened in order to assist in holding the frames in moved position.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claim.

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

A combined roller skate and ski comprising a pair of independent runners upwardly curved at their front ends and having smooth bottom surfaces for sliding on snow, shoe engaging mats on the top surfaces thereof, and roller

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assemblies pivotally supported on the runners at the front and rear ends thereof, and swingable over said ends to rest on said top surfaces in out of the way positions with respect to said mats, the front roller assembly consisting of a frame including spaced plates, each plate composed of a curved arm portion conforming to the curvature of the curved end of the runner and a straight arm portion extending substantially at right angles to the curved arm portion, the space between said plates being slightly greater than the width of the runner, said rear assembly consisting of a frame including spaced plates, each plate being composed of straight arm portions disposed at right angles to each other, the space between said latter plates being slightly greater than the width of the runner, means for limiting the movements of the frames, said means including notched portions formed on the frames and pins protruding laterally from the runners at both ends thereof positioned in the path of movement of said notched portions, and an elongated flexible member having its ends connected by removable clasps to the extremities of the forward ends of the runners and adapted to be grasped near the center thereof by a coaster standing on the runners whereby the coaster may be supported in a standing position and may steer the apparatus.

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