June 24, 1924. 1,498,992

A. E. BLOMSTRAND

CYCLE

Filed Dec. 27, 1921 2 Sheets-Sheet 1

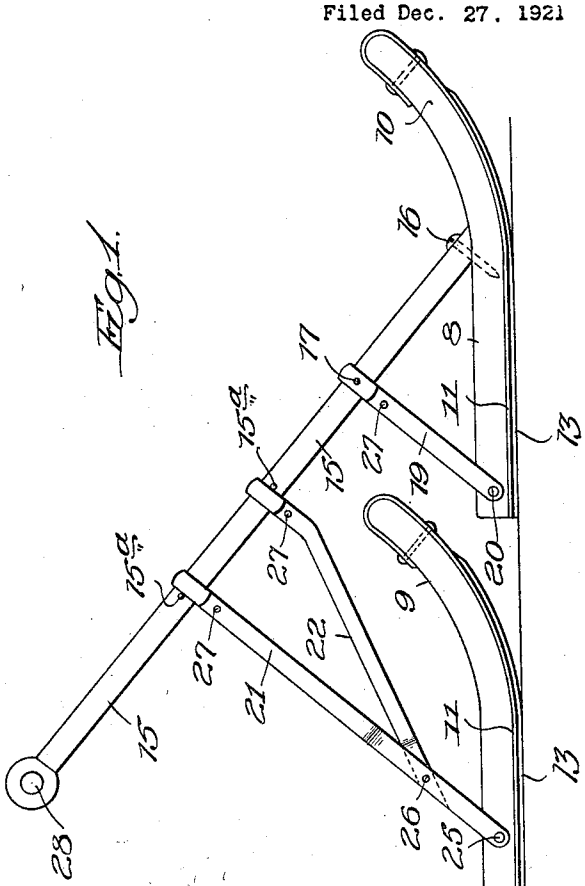

Fig. 1.

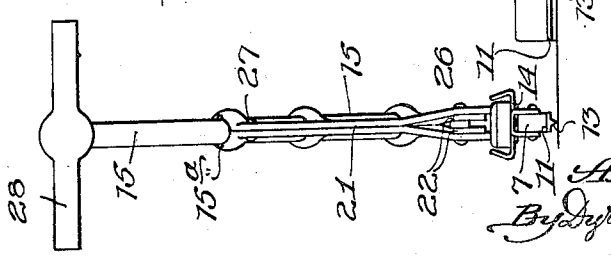

Fig. 2.

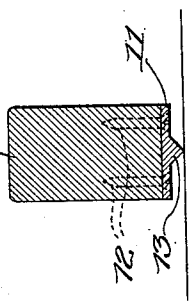

Fig. 4.

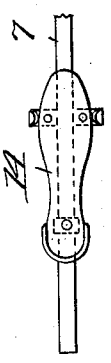

Fig. 3.

Inventor:
Axel E. Blomstrand,
By Dyrenforth, Lee, Chritton & Wiles
Attys.

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A. E. BLOMSTRAND

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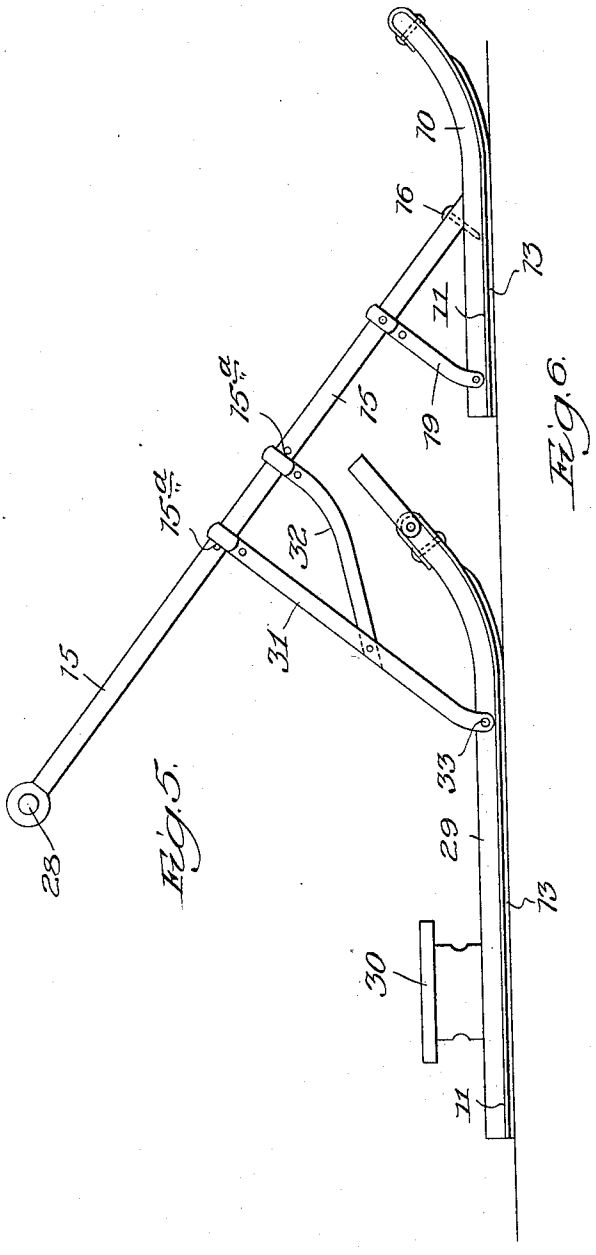

Fig. 5.

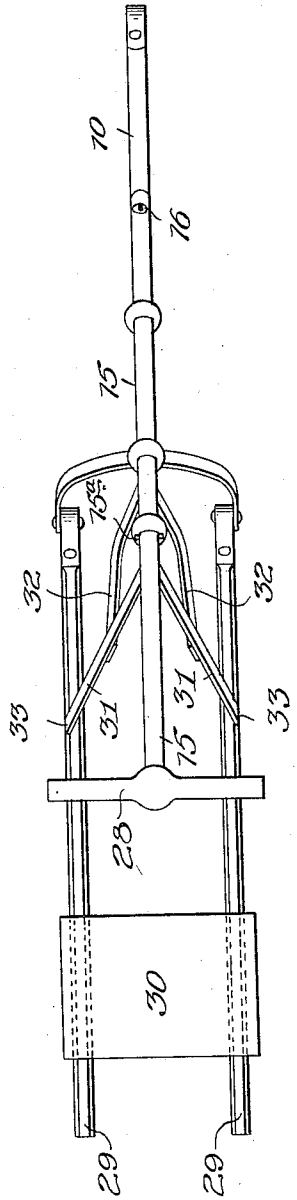

Fig. 6.

Inventor:
Axel E. Blomstrand,
By Dyrenforth, Lee, Chrisman & Miles,
Attys

Patented June 24, 1924. 1,498,992

UNITED STATES PATENT OFFICE.

AXEL E. BLOMSTRAND, OF CHICAGO, ILLINOIS.

CYCLE.

Application filed December 27, 1921. Serial No. 524,907.

To all whom it may concern:

Be it known that I, AXEL E. BLOMSTRAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cycles, of which the following is a specification.

My invention relates to cycles for use on ice or snow; and has more to do with the provision of such a device which is adapted for use by the person using it bearing his weight through one foot upon the device and propelling the device by pushing it along by engaging his other foot with the surface over which the device travels, the device having a steering section positioned to be grasped by the hands of the operator, the manner of propelling the device being very similar to wheeled structures commonly provided for children and adapted to be propelled by one foot while the weight of the child is sustained by the device, through his other foot.

One of my objects is to provide a novel, simple and economical construction of device of the general character above referred to; another object is to provide for the easy movement of the device and to minimize shocks to the user, in moving over rough or bumpy surfaces; another object is to adapt the device to effective use on both ice and snow; and other objects as will be manifest from the following description.

Referring to the accompanying drawings: Figure 1 is a view in side elevation of one of the many forms in which my invention may be embodied. Figure 2 is a view in rear elevation of the structure of Fig. 1. Figure 3 is a plan view of the foot-plate-equipped portion of the structure. Figure 4 is an enlarged section taken at the line 4 on Fig. 1 and viewed in the direction of the arrow. Figure 5 is a view like Fig. 1 of another form of construction in which my invention may be embodied; and Figure 6, a plan view of the structure shown in Fig. 5.

Referring first to the construction shown in Figs. 1, 2, 3 and 4, the cycle is shown as formed of a rear runner section 7 and a front runner section 8, these runner sections which are arranged in alignment with each other, having their front ends upwardly curved as represented at 9 and 10, respectively, each of these sections being shown as formed of a bar section 10 and a metal strip section 11 secured to the under side of the bar section 10, as by screws represented at 12, the strips 11 being provided intermediate their lateral edges, at their under sides, with ribs 13 shown as of general triangular shape in cross-section and preferably formed integrally with the strip 11, to adapt the runners to penetrate the snow or ice, over which the cycle is propelled, to a depth sufficient to prevent the cycle from sliding laterally, the runners, when the device is used on ice, bearing upon the ice at the ribs 13 and when used on snow also bearing on the snow at the undersides of the strips 11 at opposite sides of the ribs 13. The runner section 7 is provided adjacent its rear end, with an upwardly-extending foot-plate upon which the user stands with one foot, in the use of the device.

The runner section 8 constitutes a steering section and is adapted to be swung at will into different angular positions relative to the runner section 7, in a horizontal plane, the runner section 8 being preferably connected with the runner section 7 by the means shown which comprise a rearwardly and upwardly-inclined bar 15 connected at its forward end with the portion 10 of the runner section 8, as through the medium of the screw 16, and between its ends with a strap member 19 which surrounds the bar 15, with a pin 17 connecting these parts, and connected at its lower rear side portions with the portion 10 of the section 8, as by means of the rivet 20, these side portions extending at opposite sides of the portion 10. The bar 15 is journaled in a frame carried by the runner section 7, this frame comprising forwardly and upwardly extending strap members 21 and 22 which surround the bar 15 at their forward ends and form bearings in which the bar 15 is rotatable, the side portions of the strap member 21 embracing the portion 10 of the runner section 7 and being pivotally secured thereto through the medium of the pivot pin 25, the lower end portion of the strap member 22 extending between the side members of the strap member 21 and being rigidly secured thereto by the pin 26. Means for preventing lengthwise movement of the bar 15 in its bearings are preferably provided, the means shown for this purpose comprising pins 15[a] extending transversely through the bar 15 and overlapping at their

ends the upper and lower bearing-portions of the straps 21 and 22, respectively.

The bar 15, which is provided with a cross-bar 28 at its upper end, is preferably so disposed that the bar 28 extends in such position that the user, grasping it while propelling the vehicle with one foot, may, with the maximum ease steer the cycle.

It will be noted that by constructing a device in accordance with my invention the device is not only rendered rigid and easy to control, but by reason of the pivotal connection between the runner section 7 and the forward runner section 8, as indicated at 25, these sections are capable of movement relative to each other in a vertical plane which renders the device better adapted for traveling over rough or bumpy surfaces.

The construction shown in Figs. 5 and 6 is the same as that disclosed in the preceding figures except that instead of the rear runner section 7 presenting a single runner surface, this runner section is formed with two parallel runners, these two runners being represented at 29 and of the same general construction as the runner section 7. In this particular construction instead of providing the foot-plate 14, a cross board 30 is secured to the upper surfaces of the runners 29 to span the space between them and afford a rest for one foot of the user. Furthermore, in this particular construction the rear ends of the side sections of the straps connecting the rear runner section with the steering-bar and represented at 31 and 32 and corresponding with the straps 21 and 22 of the preceding figures, are spread apart to permit the side sections of the strap 31 to be pivotally secured at the pivots 33 with the section 29, and the side sections of the strap member 32 to be connected with the side sections of the member 31.

While I have illustrated and described certain forms in which my invention may be embodied, I do not wish to be understood as intending to limit it thereto as the invention may be embodied in other forms, without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is:

1. A device of the character described comprising a front runner section and a rear foot-rest and runner section, said sections being pivotally connected together to adapt said sections to move relative to each other in a substantially vertical plane, said front section being pivotally connected with said rear section to permit the device to be steered, said front section being provided with a handle portion constructed and arranged to be grasped by a person standing on said rear runner section, the foot-rest portion of said rear runner section extending at such a height above the runner portion of this section as to permit a person to stand with one foot on said rear section and propel the device with the other foot.

2. A device of the character described comprising front and rear running sections, said rear section being provided with a forwardly-extending frame pivotally connected thereto to adapt said rear section and said frame to move relative to each other in a substantially vertical plane, said frame being formed of an upwardly and forwardly-extending member and a brace member connected with said first-referred-to member between the ends of the latter, and a handle member carried by said front section and journaled in the forward ends of said frame members, the whole being so constructed and arranged that a person may stand on one foot on the rear section and propel the device with the other foot.

AXEL E. BLOMSTRAND.