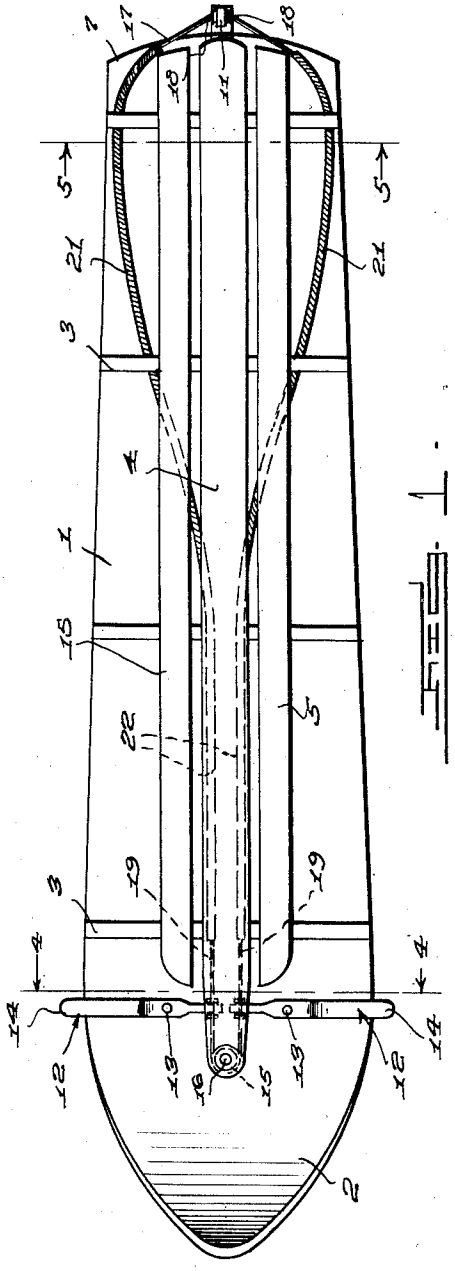
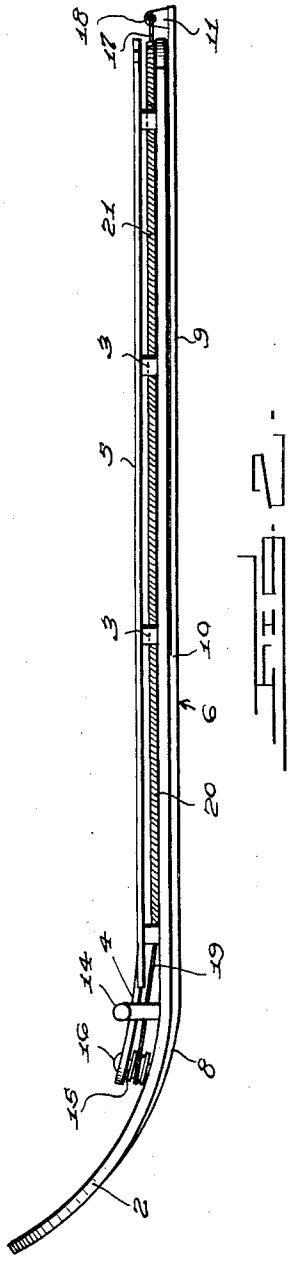
Jan. 16, 1940. J. J. WANAT 2,187,437

TOBOGGAN

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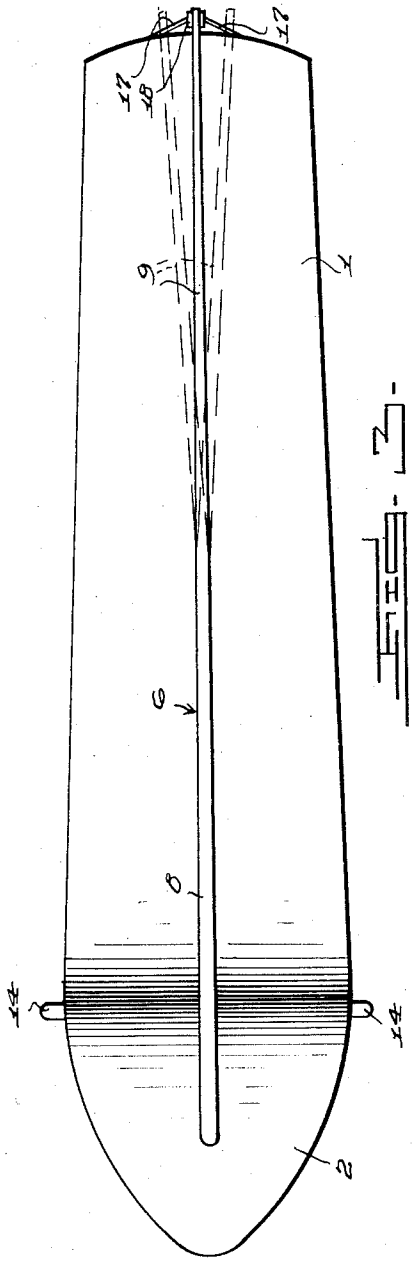


FIG. 2.

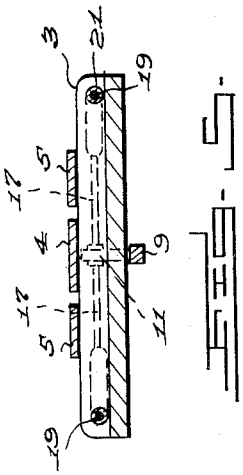


FIG. 5.

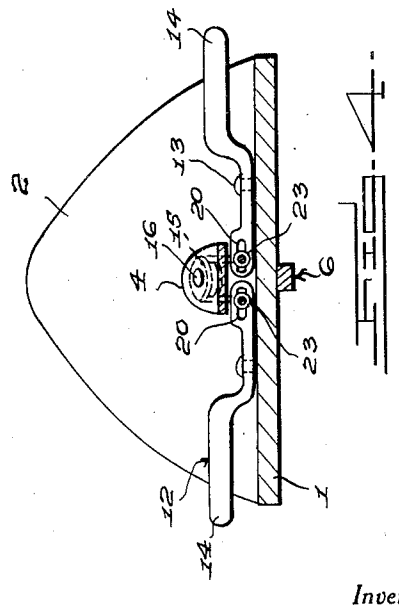


FIG. 4.

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2,187,437

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2,187,437

TOBOGGAN

Joseph J. Wanat, Wallingford, Conn.

Application April 24, 1939, Serial No. 269,759

3 Claims. (Cl. 280—18)

My invention relates to improvements in toboggans and more particularly to steering gear therefor.

The invention is designed with the particular purpose in view of providing the usual type of toboggan inexpensively with efficient, quick-acting, steering gear and without resorting to extensive modification of the basic construction of the toboggan.

Another object is to equip a togobban sled with steering gear which is reliable, easy to operate, and adapted to withstand rough usage.

To the accomplishment of the above, and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawings, set forth in detail in the succeeding description and defined in the claims appended hereto.

In said drawings:

Figure 1 is a view in top plan of a toboggan equipped according to my invention.

Figure 2 is a view in side elevation.

Figure 3 is a bottom plan.

Figure 4 is a view in transverse section taken on the line 4—4 of Figure 1 looking in the direction indicated by the arrows, and

Figure 5 is a similar view taken on the line 5—5 of Figure 1 looking in the direction indicated by the arrows.

Describing the invention in detail, with reference to the drawings by numerals, the type of toboggan to which my improvements are shown as applied comprises the usual flat bed 1 having an upturned front end 2 and transverse laterally spaced cleats 3 extending across the same supporting the usual decks comprising, in this instance, a central longitudinally extending slat 4 and a pair of similarly extending slats 5 disposed parallel with slat 4 upon opposite sides of the latter, respectively, the front end of the slat 4 extending somewhat beyond the corresponding end of the slats 5.

According to my invention, the bed 1 is provided with a central keel strip, or bar 6, formed of any suitable flexible material extending along the bottom of the bed 1 from approximately transverse center of the upturned end 2 and with the rear end thereof projecting for a short distance beyond the rear end 7 of said bed. The front end of the strip 6 is tapered to merge into the lower face of the upturned end 2. A fractional front end portion 8 of the strip 6 is secured to the bottom of the bed 1 from substantially the transverse center of said bed forwardly. The remaining portion 9 of said strip is detached from said bed, or free, for flexing laterally to provide an elongated rudder portion. Preferably the remaining portion 9 tapers rearwardly, laterally, to increase its flexibility progressively rearwardly and is cut down, as at 10, to clear the bottom of the bed 1 and, thereby facilitate flexing thereof. The rear end of the strip 6 has suitably secured thereto an apertured upstanding lug 11 for a purpose presently clear.

A pair of opposed right and left hand steering levers 12 are pivoted, as at 13, on the bed 1 upon opposite sides of the longitudinal center thereof to extend laterally, said levers being disposed adjacent to the front terminal of the central slat 4 but rearwardly of said terminal and with their inner ends spaced close together. The outer ends of the levers 12 are upwardly offset to provide hand grips 14. A pulley 15 is secured between the front terminal of the center slat 4 and the bed 1 by a headed pin 16.

A steering cable 17 of steel is suitably attached at its ends, as at 18, to the lug 11 and coiled around the pulley 15 with the side runs 19 thereof extended through slots 20 provided in the inner ends of the levers 12, said side runs 19 extending through sections 21 of flexible sheathing of any suitable material. The sections 21 are extended through and suitably secured in apertures (not shown) in the cleats 3 to converge forwardly and to extend beneath the slats 4 and 5 with front end portions thereof disposed parallel beneath the central slat 4, as at 22, and spaced apart substantially in correspondence with the diameter of the pulley 15. The side runs 19 of the cable 17 are anchored to the levers 12 by grommets 23 fixed to said runs upon opposite sides of said levers as by soldering, (not shown).

The manner in which the described steering gear operates will be readily apparent. Normally the flexible end portion 9 of the strip 6 reacts to center the same in the longitudinal center of the bed 1. However, under operation of either steering lever 12 in the proper direction, side runs 19 of the cable 17 attached thereto will exert a pull on the rear end of said end portion 9 to flex said portion to the same side as that on which the operating lever is located and thereby steer the toboggan in a corresponding direction. Upon release of the lever the parts are returned to normal position by reaction of the portion 9 as will be understood.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly the invention as described is sus-

ceptible of modification without departing from the inventive concept and right is herein reserved to such modifications as fall within the scope of the subjoined claims.

What is claimed is:

1. In combination, a toboggan having a flat bottom bed, and steering gear for said toboggan comprising a keel strip in the longitudinal center of said bottom having a fractional front portion fixed to said bottom, said strip in the rear of said portion being detached from said bottom and flexible laterally in opposite directions to provide an elongated rudder, and means for flexing said rudder comprising a pair of opposed steering levers pivoted flat on said bed upon opposite sides of the longitudinal center thereof and adjacent to the front end of the bed, and cable connections between said rudder and levers, respectively, and extending along the top of said bed.

2. In combination, a toboggan having a flat bottom and a raised slat deck on top thereof, and steering gear for said toboggan comprising a keel strip in the longitudinal center of said bottom extending along the greater part thereof and having a rear end terminal projecting beyond the rear end of said bed, said strip having a fractional front portion fixed to said bottom, the remaining portion in the rear of said front portion being detached from said bottom and laterally flexible in opposite directions, respectively, to provide an elongated rudder, and means for flexing said rudder comprising a pair of opposed steering levers pivoted flat on said bed upon opposite sides of the longitudinal center thereof, a pair of tubular flexible guides secured to said bed upon opposite sides of said center thereof and between said bed and deck, and cable connections between said terminal end of the strip and said levers, respectively, extending through said guides.

3. In combination, a toboggan having a flat bottom and a raised slat deck on top thereof, and steering gear for said toboggan comprising a keel strip in the longitudinal center of said bottom extending along the greater part thereof and having a rear end terminal projecting beyond the rear end of said bed, said strip having a fractional front portion fixed to said bottom, the remaining portion in the rear of said front portion being detached from said bottom and laterally flexible in opposite directions, respectively, to provide an elongated rudder, and means for flexing said rudder comprising a pair of opposed steering levers pivoted flat on said bed upon opposite sides of the longitudinal center thereof, a pulley mounted on said bed in advance of said levers, and a single cable secured at opposite ends to said terminal end of the strip and looped around said pulley, said cable extending between said bed and deck and having side stretches anchored to said levers, respectively.

JOSEPH J. WANAT.