May 5, 1953 G. F. LANTRY 2,637,565

SKI SLED

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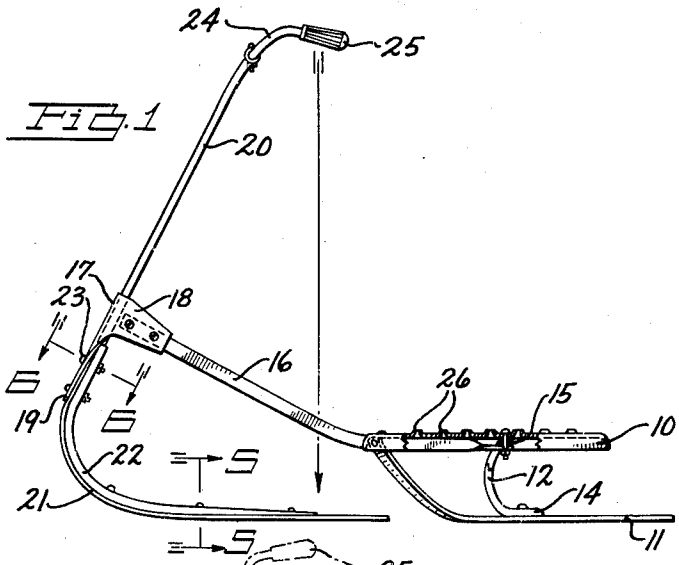


Fig. 1

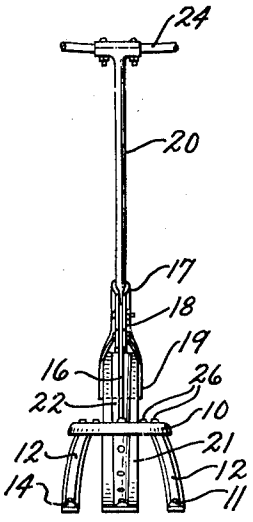


Fig. 4

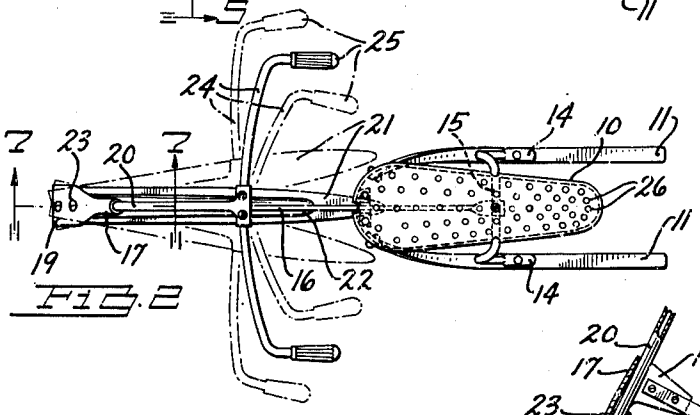


Fig. 2

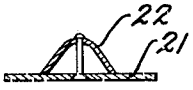


Fig. 5

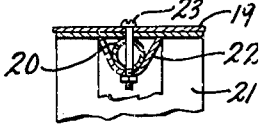


Fig. 6

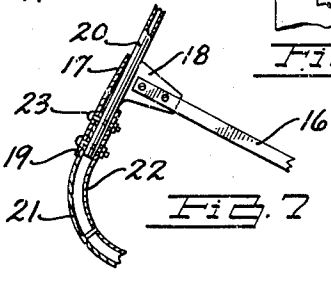


Fig. 7

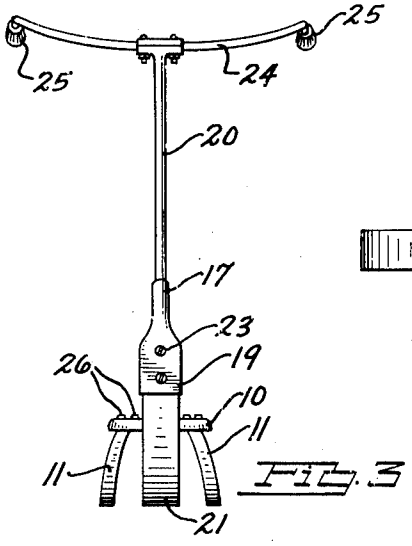


Fig. 3

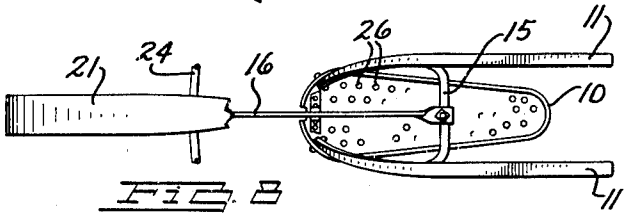


Fig. 8

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SKI SLED

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This invention relates to improvements in sleds and skis and in particular to an improved device having a single runner ski flexibly connected for sidewise steering motion to a double runner sled.

The primary object of the invention is to provide a ski sled having improved balance between the ski sled portion and the hand grips for lifting the ski sled and running and coasting with same.

Another object of the invention is to provide a forewardly cantilevered, vertically stable, laterally flexible member extending from the sled portion to the ski portion for connecting the ski and sled portions together so that the ski portion may be used in steering.

Another object of the invention is to provide a double runner sled with the runners positioned laterally opposite one another and spaced apart to give the invention sidewise stability.

Other objects of the invention will become apparent by reference to the following detailed description taken in conjunction with the accompanying drawing, in which:

Fig. 1 is a side elevational view of the ski sled of the invention showing the center of gravity located directly below the hand grips as indicated by the downwardly disposed arrow.

Fig. 2 is a top plan view of the invention showing the steering action of the ski in dotted lines.

Fig. 3 is a front elevational view of the invention.

Fig. 4 is a rear elevational view of the invention.

Fig. 5 is a vertical sectional view of the ski taken on the line 5—5 of Fig. 1.

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 1 showing the attachment between the steering column, the sleeve-leg, the ski, and the ski reinforcing rib.

Fig. 7 is a vertical sectional view taken on the line 7—7 of Fig. 2 also showing the manner of attachment between the connecting member, the ski, the steering column, and the ski reinforcing rib.

Fig. 8 is a bottom plan view of the invention with the rear portion of the ski being broken away to better illustrate the manner of attachment between the connecting member and the sled.

Referring now to the drawing wherein like numerals refer to like and corresponding parts throughout the several views, the particular embodiment of the invention disclosed for the purpose of illustration comprises a foot platform 10, laterally spaced runners 11 positioned beneath said platform and attached at their upwardly curved foreward ends to the foreward end of the platform 10 in supporting relation thereto and curving downwardly and outwardly and rearwardly from the point of attachment, a forked

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brace attached at its center in supporting relation midway of said platform 10, and, at the brace ends 14, in supported relation to said runners 11 rearwardly of their upwardly curved foreward portions so that said runners cantilever flexibly rearwardly of said brace 12; a forewardly cantilevered, vertically rigid, laterally flexible connecting member 16 secured to said platform 10 at the front thereof and at the connection of the said brace 12 thereto, and at the foreward portion of said platform 10, a sleeve 17 having rearwardly extending flanges 18 formed integral therewith secured to the foreward end of said connecting member 16, a downwardly depending leg 19 on said sleeve, a steering column 20 positioned within said sleeve 17 and extending downwardly to the end of said leg 19, a ski 21 having its foreward upwardly curving end 22 positioned between the leg 19 and said steering column 20 and its other end cantilevering flexibly rearwardly, a hollow reinforcing rib 22 secured to said ski 21 and enclosing the downwardly depending end of said steering column 20 in the area of the upwardly curving end of said ski 21; bolts 23 securing together said downwardly depending leg 19 of said sleeve 17, said steering column 20, said ski 21, and said rib 22; rigidly secured handle bars 24 mounted on the upper end of said steering column 20, and hand grips 25 on said handle bars 24 having their centers located directly over the longitudinal center of gravity of the entire device.

The top of the platform 10 is equipped with upwardly coned, centrally apertured bosses 26 for contacting the shoe of the user to provide means for preventing the user's foot from slipping off the platform 10 and the grips 25 are serrated on their surface to aid the user in grasping same.

The platform 10 bears the weight of the user which is in turn borne by the forked brace 12, the runners 11, and the connecting member 16, which connecting member, in addition to bearing weight under certain conditions of use, such as over rough ground, also prevents the sled from nosing over forewardly, while the rearwardly cantilevering runners 11 prevent the sled from tipping rearwardly and also provide flexible ground or snow contact.

The handle bars 24 bear that portion of the user's weight which he places on his hands, which weight is in turn borne by the steering column 20, the ski 21 together with its ribbed reinforcement 22, and, under certain conditions of use, the connecting member 16. As the ski 21 cantilevers flexibly rearwardly it also provides flexible ground or snow contact.

Steering the ski sled is accomplished by turning the handle bars 24 in the well known manner of the bicycle to either right or left as indicated by the dotted lines of Fig. 2. The turning motion of the handle bars 24 is transferred via

the steering column 20 to the ski 21 and this motion is accomplished by means of the connecting member 16 which is laterally flexible. In turning, the pivot point of the ski is adjacent its foreward point of ground contact which thrusts the rearwardly cantilevering portion of the ski sidewise in the well known manner of the skier in turning.

When the ski sled is used in hill coasting, the user places one, or preferably both feet on the platform 10 and coasts down the hill and steers the device by means of the handle bars 24 and shifting his weight and in this manner he can negotiate around obstacles or follow a trail or path. Due to the flexibly cantilevered runners 11 and the flexibly cantilevered ski 21, rough areas can be overrun without upset or jarring of the user.

As hill coasting is not always available to persons desiring to sport in the snow, the ski sled of the invention is designed and constructed that the user may run with the ski sled by carrying it by the hand grips 25 and so that he may set the ski sled down while running and leap upon the platform 10 and coast out the momentum of the combined moving weight of his body and the ski sled. This is an important element of the invention and it is made possible by balancing the device with its longitudinal center of gravity beneath the center of the hand grips 25.

Due to this element of balance, when the user picks up the ski sled by the hand grips 25, the device hangs balanced beneath the hand grips 25 and neither noses forwardly nor rearwardly and the device remains balanced while the user is running and as he places the ski sled upon the ground prior to leaping aboard. Obviously, the ski sled is steered and controlled after the user has leaped aboard in the same manner as in hill coasting.

The general proportions and relationship of the ski, sled, steering column and hand grips indicated in the drawing and described herein are desirable for the proper functioning of the device in running and leaping aboard as it is essential that the device be balanced beneath the hand grips so that when lifted by the user it will remain parallel to the ground enabling the user to again place the device flatly upon the ground without either the front ski or the rear sled "slapping" down after the other part has contacted the ground.

Although but a single embodiment of the invention has been shown and described in detail, it is obvious that many changes may be made in the size, shape, detail, and arrangements of the elements of the invention within the scope of the appended claims.

I claim:

1. A ski sled comprising a foot platform, runners positioned beneath said platform and attached at their upwardly curved foreward ends to said platform in supporting relation thereto, braces secured to said runners at a point permitting the rear portion of the said runners to flex upwardly and secured to said platform in supporting relation thereto, a laterally flexible connecting member secured to said platform, a sleeve secured to the foreward end of said connecting member, a steering column positioned within said sleeve, a ski having its foreward upwardly curving end disposed in overlapping relation with said sleeve, means securing together said sleeve, said ski, and said steering column, means mounted on the upper end of said steering column for

axially oscillating same, and hand grips on said means positioned at such a point as to place the hand grips in the vertical plane of the center of gravity of the entire ski sled so that the ski sled when lifted by the hand grips remains balanced in a horizontal plane.

2. A ski sled comprising a foot platform, laterally spaced runners positioned beneath said platform and attached at their upwardly curved foreward ends to the foreward end of said platform in supporting relation thereto, said runners curving rearwardly from their point of attachment to said platform and terminating in flat, cantilevered, flexible ground contacting portions, a forked brace having depending ends resting on and secured to said runners adjacent their centers and secured in its elevated central area to said platform in supporting relation thereto, a laterally flexible connecting member secured to said platform, a sleeve secured to the foreward end of said connecting member, a steering column positioned within said sleeve and depending therewith, a vertically flexible, rearwardly cantilevered ski having its foreward upwardly curving end disposed in overlapping relation with said sleeve, and means securing said sleeve, said ski, and said steering column together.

3. A ski sled comprising a foot platform, laterally spaced runners positioned beneath said platform and attached at their upwardly curved foreward ends to the foreward end of said platform in supporting relation thereto, said runners curving downwardly and outwardly and rearwardly from their point of attachment to said platform and terminating in flat, cantilevered, flexible ground contacting portions, a forked brace having depending ends resting on and secured to said runners adjacent their center and secured in its elevated central area to said platform in supporting relation thereto, a forewardly cantilevered, vertically rigid, laterally flexible connecting member secured to said platform, a sleeve, rearwardly extending flanges on said sleeve secured to the foreward end of said connecting member, a downwardly depending leg on said sleeve, a steering column positioned within said sleeve and depending co-extensively with said leg, a vertically flexible, rearwardly cantilevered ski having its foreward upwardly curving end disposed between said leg and said column, a hollow reinforcing rib attached to said ski forming a channel which encloses the depending end of said steering column, means securing said leg, said ski, said steering column, and said rib together, handle bars mounted on the upper end of said steering column, and hand grips on said handle bars positioned at such a point as to place the hand grips on the vertical plane of the center of gravity of the entire ski sled so that the ski sled when lifted by the hand grips remains balanced in a horizontal plane.

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