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SNOW SLED

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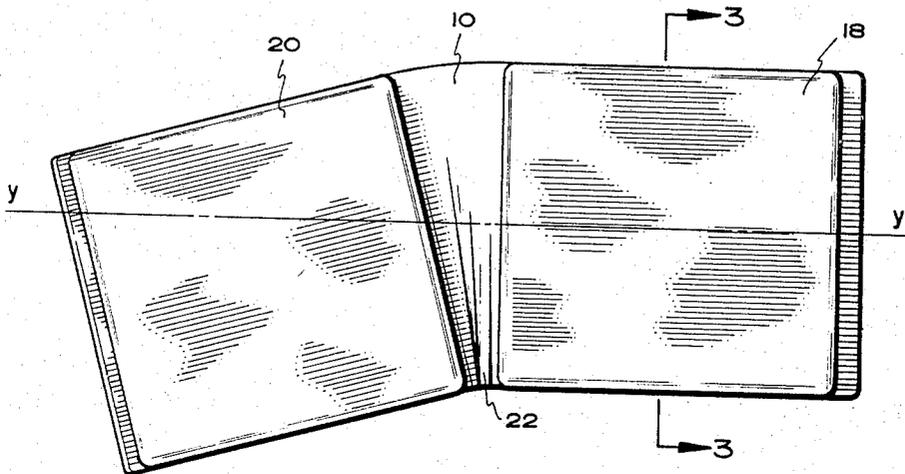


FIG. 1.

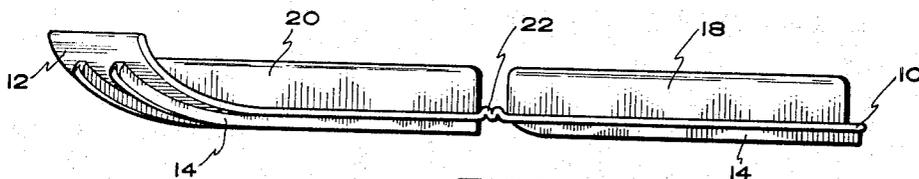


FIG. 2

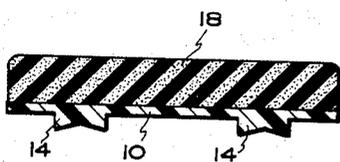


FIG. 3

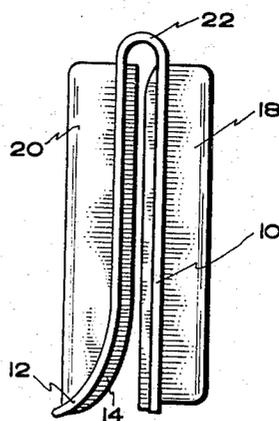


FIG. 4

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1

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SNOW SLED

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### ABSTRACT OF THE DISCLOSURE

A snow sled comprising an elongated sleigh bottom having a bottom surface, an upper surface adapted to be ridden upon without substantially deforming said sleigh bottom, an upwardly turned front end, and a back end. The sleigh bottom transversely bends between its front end and back end thereby enabling the front end to be turned from side to side to shift the longitudinal axis of said sleigh bottom. A cushion can be secured to the upper surface of the sleigh bottom proximate the front end and a second cushion can be secured to the upper surface proximate the back end.

This invention relates to a snow sled, and in particular, to a snow sled which is adapted to traverse deep powdered snow and which is maneuverable thereon.

In recent years winter sports such as skiing, sledding, and tobogganing have become more popular than ever before. As a result, many winter sports areas have been developed that have tows and lifts of various types to lift persons to the top of slopes so that they can ski or otherwise slide down thereon. Such slopes are generally designed to accommodate skiers since the snow covering them is often much too deep for sleighs which have thin runners, and wide bottom devices such as toboggans generally cannot be used because their direction of travel cannot be controlled well enough to allow them to follow the trails down the slope. Accordingly, as heretofore indicated, only skiers can take advantage of the lifts and other facilities in most winter sports areas. It has often been suggested that it would be desirable to provide a means for allowing persons other than skiers to use such facilities and also provide a method that could be safely used by both children and adults to traverse the snow covered slopes without harming or otherwise injuring said slopes so that they cannot be used by skiers.

Accordingly, it is an object of my invention to provide a snow sled for downwardly traversing snow covered slopes that overcomes the disadvantages and objections heretofore encountered in such devices.

A further object of my invention is to provide a lightweight compact snow sled.

A still further object of my invention is to provide a snow sled that can be used in deep powdered snow.

Still another object of my invention is to provide a device for sliding in soft snow and ice which is maneuverable thereon.

Still further objects of my invention will become apparent to those skilled in the art as the invention is better understood by reference to the detailed drawings and description appearing hereinafter.

The objects and attendant advantages of my invention may be achieved by providing a snow sled which comprises an elongated flexible sleigh bottom having upper and bottom surfaces, an upwardly turned front end and a back end. The sleigh bottom is adapted to be ridden upon without substantially deforming it and is also adapted to be transversely bent to thereby enable its front end to turn from side to side. Guide means for controlling the direction of travel of my sleigh are attached to the bottom surface of said sleigh bottom in a direction substantially parallel with the elongated axis of said bottom. In the preferred embodiment of my invention, cushioning means

2

are attached to the top surface of the sleigh bottom which provide a cushioned surface to be ridden upon.

So that the invention may be more readily understood and carried into effect, reference is made to the accompanying drawings which are offered by way of example only and are not to be taken as limiting the invention, the scope of which is defined by the appended claims, which obviously embrace equivalent structures and processes.

FIGURE 1 is a top view of the snow sled of my invention showing its front end turned to a transverse position.

FIGURE 2 is a side view of the snow sled showing front and rear cushions attached to the sleigh bottom.

FIGURE 3 is a sectional view of FIGURE 1 taken along line 3—3.

FIGURE 4 is a side view of my snow sled bent to its carrying position.

Referring now more particularly to the drawings, elongated sleigh bottom 10 is provided with turned or rolled front end 12 which enables my snow sled to freely slide over soft snow without digging therein. Preferably, said front end 12 is turned at an angle of about 15 to 120 degrees and most preferably, 30 to 90 degrees with respect to sleigh bottom 10. As indicated, sleigh bottom 10 is elongated in shape and most preferably rectangular in form.

It is constructed from a sheet of flexible material such as rubber, plastic, resin, fabric, leather, etc., which allows said bottom 10 to be bent to transversely turn front end 12 with respect to the longitudinal axis of said sleigh bottom 10 as shown in FIGURES 1 and 2. When sleigh bottom 10 is turned in this fashion, one of its sides is generally compressed to form small wrinkles while its other side is stretched. While said sleigh bottom 10 must be flexible enough to be turned as herein indicated, it must also be rigid enough to retain a substantially flat bottom and upwardly turned front end while a person is riding thereon. As indicated, sleigh bottom 10 is formed from a single sheet of flexible material rather than a plurality of components as used in conventional sleighs and depends entirely upon its flexibility for turning rather than coaction between component parts.

My snow sled is designed to slide over soft snow in a direction substantially parallel to the longitudinal axis of said sled. FIGURE 1 shows the longitudinal axis y—y of sleigh bottom 10 when the front end of said sleigh bottom 10 is in its normally straight position. However, as shown in the figure, when said front end is transversely bent the longitudinal axis of said sleigh bottom is shifted in the direction of the bottom's turned front end. To insure that the sled will travel in this direction, runner means 14 are attached to the bottom surface of sleigh bottom 10 as shown in FIGURE 3. Said runner means 14 are outwardly extending members which preferably traverse substantially the entire length of the bottom surface of sleigh bottom 10, i.e., preferably the entire length of sleigh bottom 10 which is in a substantially flat plane, in a direction substantially parallel with said bottom's longitudinal axis. As shown in FIGURES 2 and 4, runner means 14 traversing the length of sleigh bottom 10 can be separated into a plurality of runner means, i.e., said runner means 14 is separated between the front and rear ends of the sleigh bottom. This construction allows sleigh bottom 10 to be more easily bent. Preferably said runner means 14 protrude outwardly from said bottom surface about 1/4 to 2 inches and most preferably 1/2 to 1 inch. Runner means 14 are preferably part of sleigh bottom 10, i.e., they are formed from the same material used in sleigh bottom 10 and are an integral part of said sleigh bottom. It is to be noted that runner means 14 are not intended to entirely support my snow sled on soft snow but are designed only to give direction to the travel of said snow sled. However, when said snow sled is traveling at high speeds, it is not unobvious that it may be supported substantially entirely on said runner

3

means 14 even though they only protrude outwardly from bottom 10 a very short distance.

In the preferred embodiment of my invention, resilient means preferably formed from a soft material such as foam rubber are attached to the upper surface of sleigh bottom 10 to impart easier riding characteristics to my sled as it travels over rough terrain. In addition, said resilient means impart strength and shape to sleigh bottom 10, therein allowing said sleigh bottom to be formed out of light weight flexible material. As shown in FIGURES 1 and 2, a plurality of resilient means may be used and this is preferred. For example, front cushion 20 may be attached proximate the front end of sleigh bottom 10 and rear cushion 18 may be attached proximate the rear end of said sleigh bottom 10. A space 22 about 1 to 10 inches and preferably 2 to 8 inches is provided between said cushions 18 and 20 so that front 12 can be laterally swung from side to side to control the direction of travel of my snow sled. In addition, space 22 allows bottom 10 to be folded between said cushion so that the ends of bottom 10 are contiguous, as shown in FIGURE 4, or in an opposite direction so that rear cushion 18 and front cushion 20 are contiguous, to enable said snow sled to be easily transported when it is not in use.

In operating my snow sled, a person kneels or lies on its upper surface with his head faced towards turned front end 12. As the sled begins to move downwardly on a snow covered slope, its direction of travel is altered when the user of said sled applies a twisting force or turning force to the sleigh by merely shifting the position of his body. This causes the front end of the sleigh to turn which also relocates runner means 14 thereby turning the sleigh. The sleigh may be turned to an opposite direction by merely shifting the body in said opposite direction. In this fashion, my snow sleigh will negotiate even sharp bends or curves heretofore restricted to skiers.

Whereas there is here illustrated and specifically described a certain preferred construction of apparatus which is presently regarded as the best mode of carrying out the invention, it should be understood that various changes

4

may be made and other construction adopted without departing from the inventive subject matter particularly pointed out and claimed.

I claim:

1. A snow sled comprising an elongated flexible sleigh bottom having an upper surface, a bottom surface, an upwardly turned front end, and a back end; and first and second resilient means secured to the upper surface of said sleigh bottom and spaced apart from each other for imparting shape to the sleigh bottom, wherein said sleigh bottom transversely bends between said first and said second resilient means.

2. The snow sled of claim 1 wherein said first resilient means is secured to said upper surface of said sleigh bottom proximate said front end and said second resilient means is secured to said upper surface of said sleigh bottom proximate said back end.

3. The snow sled of claim 1 wherein elongated runner means for directing the path of travel of said sled are connected to the bottom surface of said sleigh bottom and traverse a substantial portion of said sleigh bottom's length in a direction substantially parallel with its elongated axis.

4. The snow sled of claim 2 wherein elongated runner means for directing the path of travel of said sled are connected to the bottom surface of said sleigh bottom and traverse a substantial portion of said sleigh bottom's length in a direction substantially parallel with its elongated axis.

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