May 10, 1949. E. B. FISH 2,469,765

TOBOGGAN

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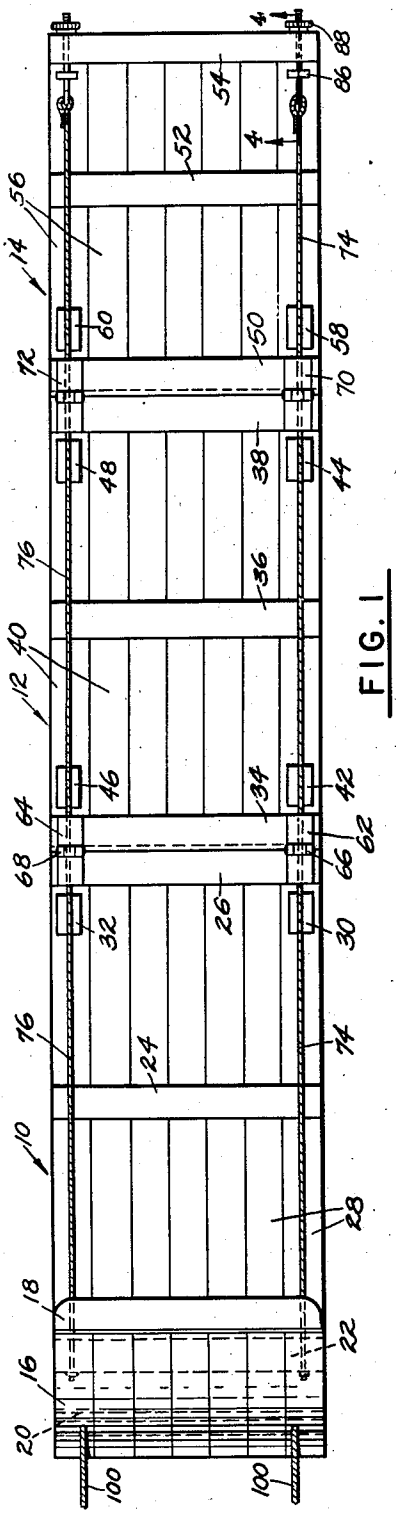


FIG. 1

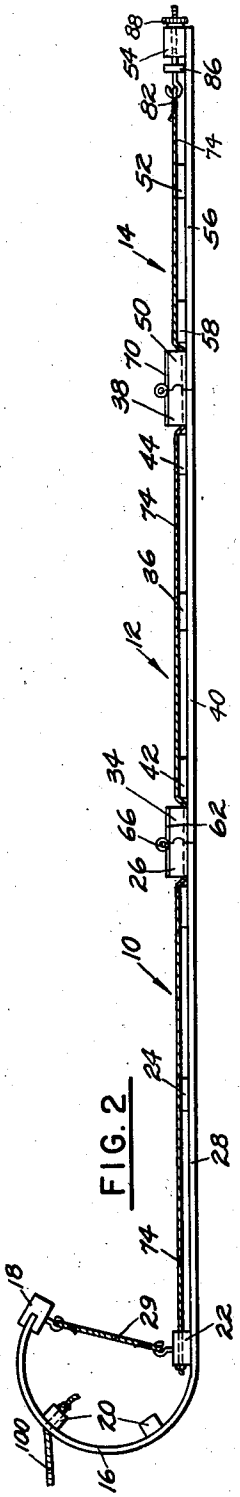


FIG. 2

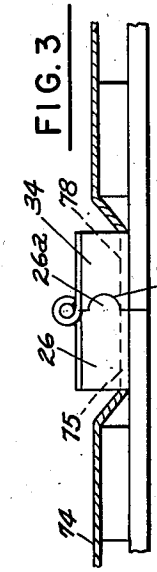


FIG. 3

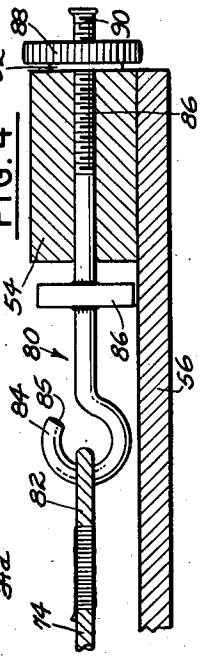


FIG. 4

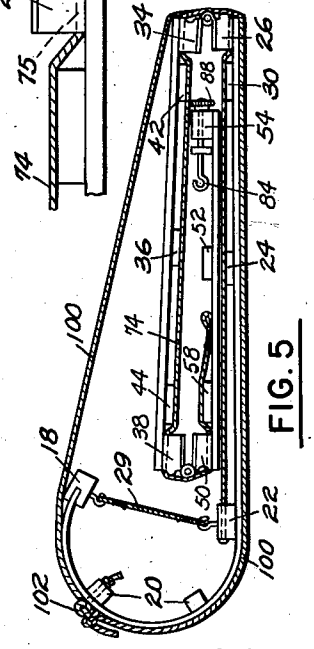


FIG. 5

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TOBOGGAN

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5 Claims. (Cl. 280—18)

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My invention relates to an improved toboggan, and more particularly to a toboggan of the type which, when in condition for use, has the usual upwardly curved nose and rearwardly connected flat body section upon which the persons or articles to be transported may rest, but which may when not in use be folded into a compact unit for ease in transportation, handling and storage.

The provision of a toboggan which may be folded into a compact unit is accomplished, in accordance with my invention, by providing in place of the usual long, integral flat section of the prior art toboggans, a plurality of longitudinally adjacent shorter sections, preferably hinged together, so that the sections may be unfolded to provide a usable toboggan, or folded together to provide a compact unit for the purposes stated above.

In order to prevent the pivoted sections from folding together and to maintain the load carrying portion of the toboggan flat while in use, suitable means are provided which may be adjusted after the sections are unfolded to prevent any relative pivoting action of the sections.

Other features of my invention will be clearly understood upon consideration of the attached drawings in which

Fig. 1 is a plan view of a toboggan made in accordance with my invention.

Fig. 2 is an elevation view of a toboggan made in accordance with my invention.

Fig. 3 is an enlarged view of the adjacent ends of any two of the pivoted sections of a toboggan made in accordance with my invention.

Fig. 4 is a detailed view of the rear cable bolt, and

Fig. 5 shows the toboggan folded into a compact unit.

Referring now to Figs. 1, 2 and 3, the three main sections of the disclosed embodiment are designated generally by 10, 12 and 14, being the front, intermediate and rear sections, respectively. The front section 10 has the usual upwardly curved or extending nose 16 and bull nose 18 as well as transverse nose battens 20, main front batten 22, intermediate batten 24 and front joint batten 26. It will be appreciated that all of these battens are provided to hold the longitudinally extending strips of wood or other material 28 in fixed position relative to one another to provide a useful device, and this holding may be accomplished by any suitable types of fastening, such as screws, nails or glue. The front section also comprises two cable blocks 30 and 32 positioned slightly ahead of the batten 26 and

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fixedly attached to the rear outer strips 28. Conventional nose cables 29 are provided.

The intermediate section 12 comprises the rear joint batten 34, the intermediate batten 36, and the front joint batten 38, all fixedly attached to the longitudinally extending strips 40. Four cable blocks 42, 44, 46 and 48 are provided, these blocks being located relative to the battens 34 and 38 as shown, and affixed to the strips 40 in any desired manner.

The rear section 14 comprises the rear joint batten 50, the intermediate batten 52 and rear batten 54, all affixed to the longitudinal strips 56. Two cable blocks 58 and 60, located relative to batten 50 as shown, are affixed to strips 56.

A pair of hinges 62 and 64 are affixed to the upper outer ends of the battens 26 and 34, the pintles 66 and 68 of the hinges lying over adjoining edges of the battens. A second pair of hinges 70 and 72 are similarly located with respect to battens 38 and 50, and are affixed to these battens.

It will be seen that two cables 74 and 76 are provided, the cable 74 running along the left side of the toboggan and the cable 76 extending along the right side. Cable 74 has its forward end fixedly held by the left end of the main front batten 22 by any suitable means, and this cable extends to the rear overlying the batten 24 and cable block 30. The cable block 30 lies close to the batten 26, as best shown in Fig. 3, and to the rear of this batten the cable extends sharply downwardly and passes through the groove 75 in the lower side of batten 26 as well as through groove 78 in the lower side of batten 34. Immediately to the rear of batten 34 cable 74 extends sharply upward to pass over the top of cable block 42 and thence to the rear over batten 36 and cable block 44, downwardly through battens 38 and 50, up over cable block 58, to the rear over batten 52, and to the rear cable bolt 80 held by the rear batten 54. The cable arrangement of cable 74 as it passes over block 44, through battens 38 and 50 and over cable block 58 may be like that shown in Fig. 3, and need not therefore be explained in more detail. It will be noted that the batten 26 has a tongue 26a which runs the entire length thereof, and the batten 34 has a complementary groove 34a. The cable 76 on the right side of the toboggan is arranged with respect to end holding means, battens and blocks exactly like cable 74.

Reference is now made to Fig. 4 which discloses in detail the rear cable bolt 80. The rear end of cable 74 is fashioned in the form of an eye 82 which is held by the hook 84 integral with

the forward end of bolt 80. Eye 84 is offset at 85 from the main shank of bolt 80. Affixed to the bolt 80 is the block 86 which engages the top of the strip 56 to prevent rotation of bolt 80. The rear end of bolt 80 passes through the rear batten 54, and is threaded at 86. A nut 88 is placed on the rear threaded portion, and the rear tip of bolt 80 is flanged at 90 to prevent the removal of nut 88 therefrom. A metal washer 92 is carried by the rear edge of batten 54, to be engaged by nut 88.

It will be appreciated that in the use of the previously described toboggan, when it is desired to compactly fold the same, the nuts 88 are unthreaded to the rear end of bolts 80, and bolts 80 are then pushed ahead until nuts 88 engage washers 92. The eyes 82 may be then removed from the bolt eyes 84, by virtue of offsets 85. The cables 74 may then be loosened, and the rear section 14 folded over onto the top of the intermediate section 12. The intermediate section 12 and rear section 14 may then be folded over onto the top of the front section 10, all as shown in Fig. 5. To permit such folding, the rear section 12 is slightly shorter than the intermediate section 12, and the intermediate section is shorter than the front section 10 to permit the rear end of the intermediate section 12 to clear the bull nose 18. When so folded, the rope 100, which is normally attached to the nose of the toboggan in the usual manner, as shown in Fig. 2, may be slung downwardly and to the rear under front section 10, and up over the top of the nose to be tied in a knot at 102. The rope may then be used as a carrying handle, and also to keep the toboggan from unfolding in transportation.

When so folded, as previously stated, the toboggan may be easily transported and stored. When it is desired to use the toboggan, the knot 102 may be untied, the sections unfolded, the cables 74 and 76 tightened, and the hooks 84 of each of the bolts 80 engaged with the associated eye 82. The nuts 88 may then be tightened, and the device is ready for use.

The cables 74 and 76, being drawn tight when the toboggan is in use, and arranged with respect to the hinged battens as shown in Fig. 3, prevent a folding up of the sections, even though the central part of the toboggan is displaced from the ground, snow or ice, as the case may be. This is because as the sections tend to fold, the adjoining lower edges of the battens are engaged by the cable which prevents any appreciable separating movement of these edges.

The slightly greater flexibility of the device disclosed herein renders it reasonably steerable, and is as fast as conventional toboggans.

It will be appreciated that toboggans built in accordance with the principles of my invention have many appealing advantages when compared with conventional rigid toboggans. It may be easily transported by automobile, airplane, boat or train, as well as by hand. It is, therefore, easily transported to remote places of use. When not in use, it is easily stored in a minimum of space.

Many changes may be made from the disclosed embodiment of my invention without departing from the substance of my invention as defined in the following claims. All such changes are intended to be covered by the claims hereof.

I claim:

1. A folding toboggan comprising an upwardly curved forward end or nose and a rearwardly extending flat section having a smooth bottom, said rearwardly extending flat section in turn comprising a plurality of separate, longitudinally adjacent sections, and releasable cable means extending longitudinally of the toboggan engaging the longitudinally adjacent sections for rigidly holding said sections in extended position.

2. A folding toboggan comprising an upwardly curved forward end or nose and a rearwardly extending flat section having a smooth bottom, said rearwardly extending flat section in turn comprising at least three separate, longitudinally adjacent sections connected by pivots extending transversely of the toboggan, the forward section being longer than the middle section which in turn is longer than the rear section, and releasable securing means engaging the longitudinally adjacent sections for rigidly holding said sections in extended position.

3. A folding toboggan comprising an upwardly curved forward end or nose and a rearwardly extending flat section having a smooth bottom, said rearwardly extending flat section in turn comprising a plurality of separate, longitudinally adjacent sections, pivot means attached to the adjacent ends of the longitudinally adjacent sections, and releasable cable means extending longitudinally of the toboggan engaging the longitudinally adjacent sections for holding said sections in rigid extended position.

4. A folding toboggan comprising an upwardly curved forward end or nose and a rearwardly extending flat section having a smooth bottom, said rearwardly extending flat section in turn comprising at least three separate, longitudinally adjacent sections, the forward section being longer than the middle section which in turn is longer than the rear section, pivot means attached to the adjacent ends of the longitudinally adjacent sections, and releasable cable means extending longitudinally of the toboggan engaging the longitudinally adjacent sections for holding said sections in rigid extended position.

5. A toboggan comprising an upwardly curved forward end or nose and a rearwardly extending flat section having a smooth bottom, said rearwardly extending flat section in turn comprising a plurality of separate, longitudinally adjacent sections, separate battens extending transversely of said sections at the adjacent ends thereof, separate cable guide means located near the ends of said battens, a cable having one end anchored ahead of said battens extending rearwardly over one of said cable guide means, downwardly and under said battens, and upwardly and over the other cable guide means, and means for holding the rear end of said cable.

EDWIN B. FISH.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
350,123	Ferguson	Oct. 5, 1886
2,365,174	Cochran	Dec. 19, 1944
2,367,157	Tufts	Jan. 9, 1945
2,367,528	Rollins	Jan. 16, 1945