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G. H. BANNERMAN ET AL

2,152,235

AERIAL SKI TRAMWAY

Filed Nov. 17, 1937

FIG. 1.

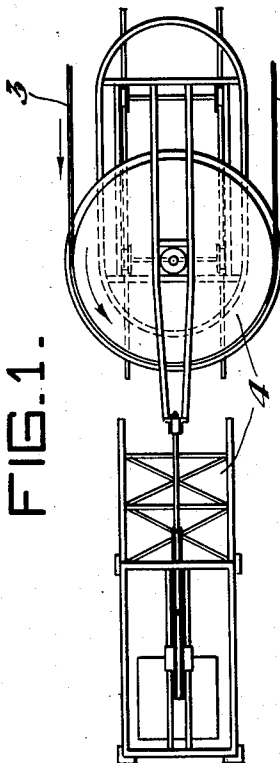


FIG. 2.

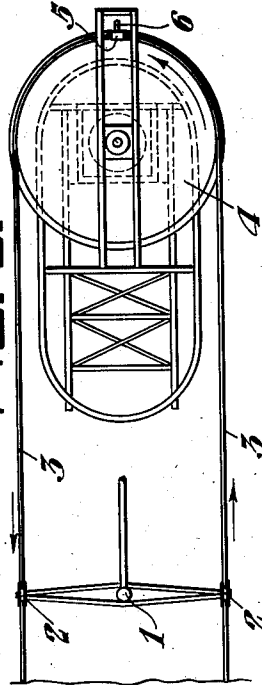


FIG. 3.

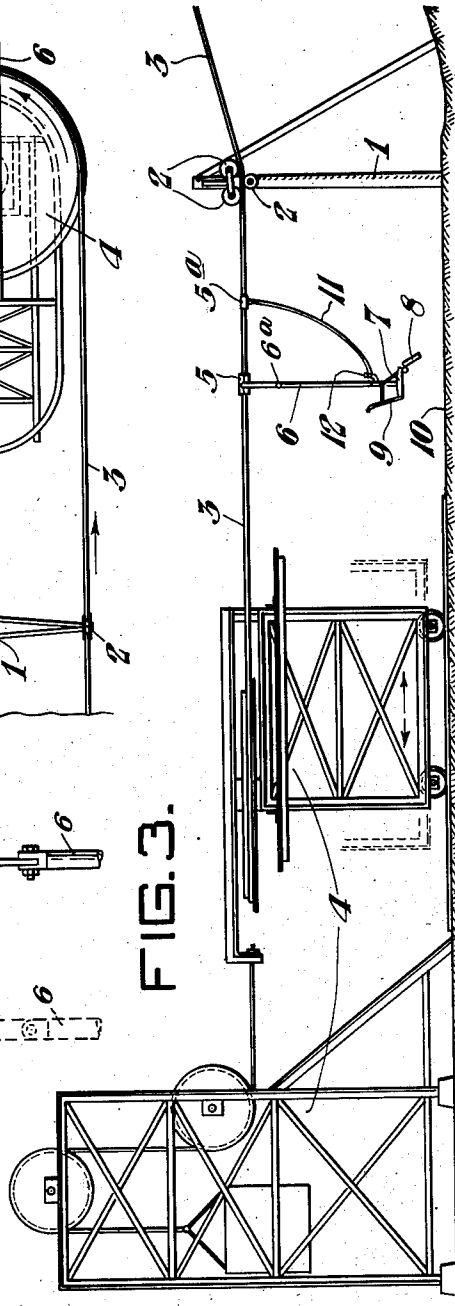


FIG. 4.

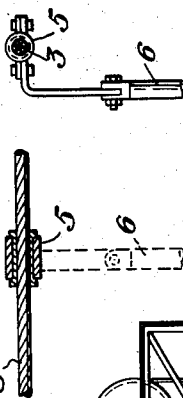


FIG. 5.

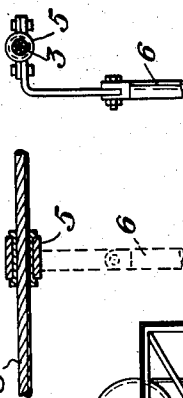
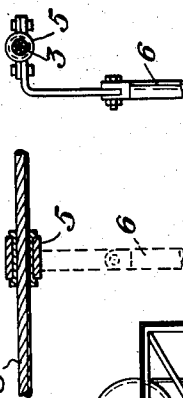


FIG. 6.



Inventors:

GORDON H. BANNERMAN,
JAMES N. CURRAN and
GLEN H. TROUT.
by: *John C. Jackson* their Attorney.

UNITED STATES PATENT OFFICE

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AERIAL SKI TRAMWAY

Gordon H. Bannerman, Worcester, Mass., and
James M. Curran and Glen H. Trout, Omaha,
Nebr., assignors to The American Steel and
Wire Company of New Jersey, a corporation
of New Jersey

Application November 17, 1937, Serial No. 175,164

3 Claims. (Cl. 104—180)

This invention is an aerial ski tramway intended to convey skiers from the bottom of snowy hills to the top so that they can ski back down again. One of the objects is to transport the skiers back up the hill in a manner involving as little effort on the part of the skiers as is possible. Another object is to carry the skiers in an absolutely safe manner so that regardless of their peculiarities it is practically impossible for them to be injured. Other objects may be inferred from the following disclosure of a specific example of the invention.

Referring to the accompanying drawing:

Figures 1 and 2 are top views of the opposite ends of the tramway, respectively;

Figures 3 and 4 are side views of the ends shown by Figures 1 and 2, respectively; and,

Figures 5 and 6 are enlargements showing details.

The tramway includes a plurality of posts 1 which, through suitable rollers 2, carry an endless rope 3, powered structures 4 at each end of the tramway serving to carry the end loops for the rope 3 and to impart continuous motion to the same.

Swivel members 5 are clamped to the rope 3 at spaced intervals, these swivel members each mounting a depending bar 6 in such manner that the bars are fixed against longitudinal movement along the rope 3 but can swing laterally, and so that the rope 3 may rotate with respect to the bars. In each instance a chair 7 is supported by the bottom of the bar 6, the latter being bent as at 6^a and otherwise constructed to bring the center of gravity of the chair 7 into vertical alignment with the rope 3. Also, the bar 6 is pivoted, as at 6^b, so that it can swing longitudinally of the rope 3, this, in conjunction with the action of the member 5, permitting the bar to swing in any direction. The chair 7 has an open front, and a leg rest 8 depends from the front end of its seat, a suitable back rest 9 extending upwardly from the other end. The leg rest 8 is characterized by being adjustable and by having its adjustable range so limited that a skier riding the seat cannot bring his legs back under him to such an extent as to permit the toe end of the skis tied to the skier's feet digging into the snow over which the chair is traveling. In this manner even incautious skiers are prevented from throwing themselves out of the chair due to their carelessness with their skis. The back rest, of course, keeps them from falling backwards out of the chair and also provides them with something to grasp. Furthermore, due

to the fact that the rope 3 can turn with respect to the bar 6, twisting of the rope during service will not swing the chair so as to dismount its rider. Generally speaking, the only way a skier can be injured is to be so incautious as to fall sideways.

The reason chair arms are not desired is because of the mode of seating of the skier contemplated by the invention. At each end of the tramway the ground is leveled off, as at 10, the height of the rope and the length of the bar 6 being such that the chair travels along the level portion at such a height that a skier standing in its path of travel and facing away from the advancing chair will be automatically seated without any effort on his part whatsoever. That is to say, the skier just stands in the way of the chair and is automatically carried up the hill. If the chair were provided with arms there would be a possibility of causing personal injury to the skier in case he misjudged the proper position for him to stand to effect registration with the seat.

In case the skiers are of impatient temperaments they may demand relatively high transportation speeds, and in such instances they might receive unpleasant shocks due to becoming seated too rapidly. Therefore, the invention contemplates the use of a hand line 11 which is fixed to the rope 3 by means of a swivel member 5^a having the same characteristics as the swivel member 5, this hand line extending back to the bar 6 and being releasably fixed to the latter by means of a hook 12. With this arrangement, attendants at the end of the tramway may release the hand line 11 as the chair approaches the skier, hand the line to the skier and, providing the skier has possession of reasonable facilities, it becomes possible for him to put himself in motion and thus relieve the shock as he contracts the seat advancing towards him. Some of the features described herein are not necessary in the case of skiers possessing normal intelligence and agility. However, they should ordinarily be provided in the case of most skiers.

It is to be understood that the rollers 2 are of the flanged type, the flanged peripheries being separated sufficiently to permit passage of the swivel members 5 and 5^a, but insufficiently to permit the rope to leave the rollers.

We claim:

1. An aerial ski tramway including a traveling rope and a chair suspended from said rope, means for supporting said rope, means for driving said rope, said chair being suspended at such

5 a height from the ground as to permit skiers to become seated thereon by standing in front of the same, and said tramway including a hand line depending from said rope in front of said chair so it can be grasped by the skiers, whereby the latter may start themselves in motion to relieve them from the shock of becoming seated on said chair with uncomfortable speed.

10 2. An aerial ski tramway including a traveling rope and a chair suspended from said rope, means for supporting said rope, means for driving said rope, said chair being suspended at such a height from the ground as to permit skiers to become seated thereon by standing in front of the same, said chair having a depending leg rest
15 arranged to positively hold the legs of skiers seated thereon at such angles as prevent the skis they are wearing from hooking into the ground and unseating them.

20 3. An aerial ski tramway including an elevated traveling rope, means for supporting said rope, means for driving said rope, a bar depending from said rope, swivel means for fixing said bar to

said rope to hold it against longitudinal movement respecting said rope while permitting rotary movement of the latter and swinging of said bar, an open chair carried by said bar at such a height from the ground as to cause skiers standing in its line of travel to become seated thereon, said bar being bent to bring the center of gravity of said chair into vertical alignment with said rope and said tramway including a hand line depending from said rope in front of said chair so it can be grasped by the skiers, whereby the latter may start themselves in motion to relieve them from the shock of becoming seated on said chair with uncomfortable speed, said chair having a depending leg rest arranged to positively hold the legs of skiers seated thereon at such angles as prevent the skis they are wearing from hooking into the ground and unseating them.

GORDON H. BANNERMAN. 20
JAMES M. CURRAN.
GLEN H. TROUT.