

[54] **SKI LIFT APPARATUS**

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[52] **U.S. Cl.**.....104/173, 198/31 AC, 267/160
[51] **Int. Cl.**.....**B61b 11/00**
[58] **Field of Search**.....104/130, 99, 179, 173; 198/31 AC; 267/160

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[57] **ABSTRACT**

A ski lift employs an endless cable loop with chairs, T-bars or the like suspended from the cable by way of hangers. A loading station selector is located below one run of the cable loop near the bottom thereof and the loading stations for the lift are located at each side of the selector midway along its length. Another similar selector is stationed at the top of the slope. Each selector has two operative positions. When it is in one position, an oncoming chair is diverted sideways to one side of the cable run so that it passes through one loading station. After this chair leaves its loading station, the selector switches to its other operative position, whereupon the next oncoming chair is diverted sideways to the other side of the cable run so that it passes through the other loading station. This process is repeated with successive oncoming chairs being guided alternately to the two loading stations.

12 Claims, 6 Drawing Figures

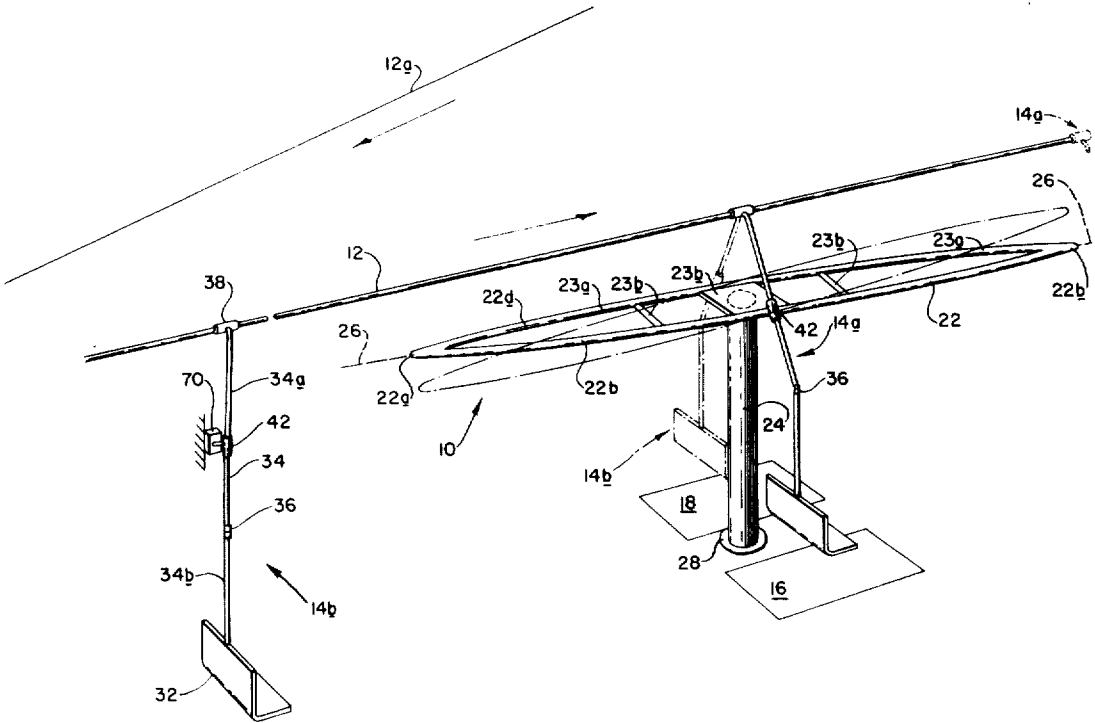
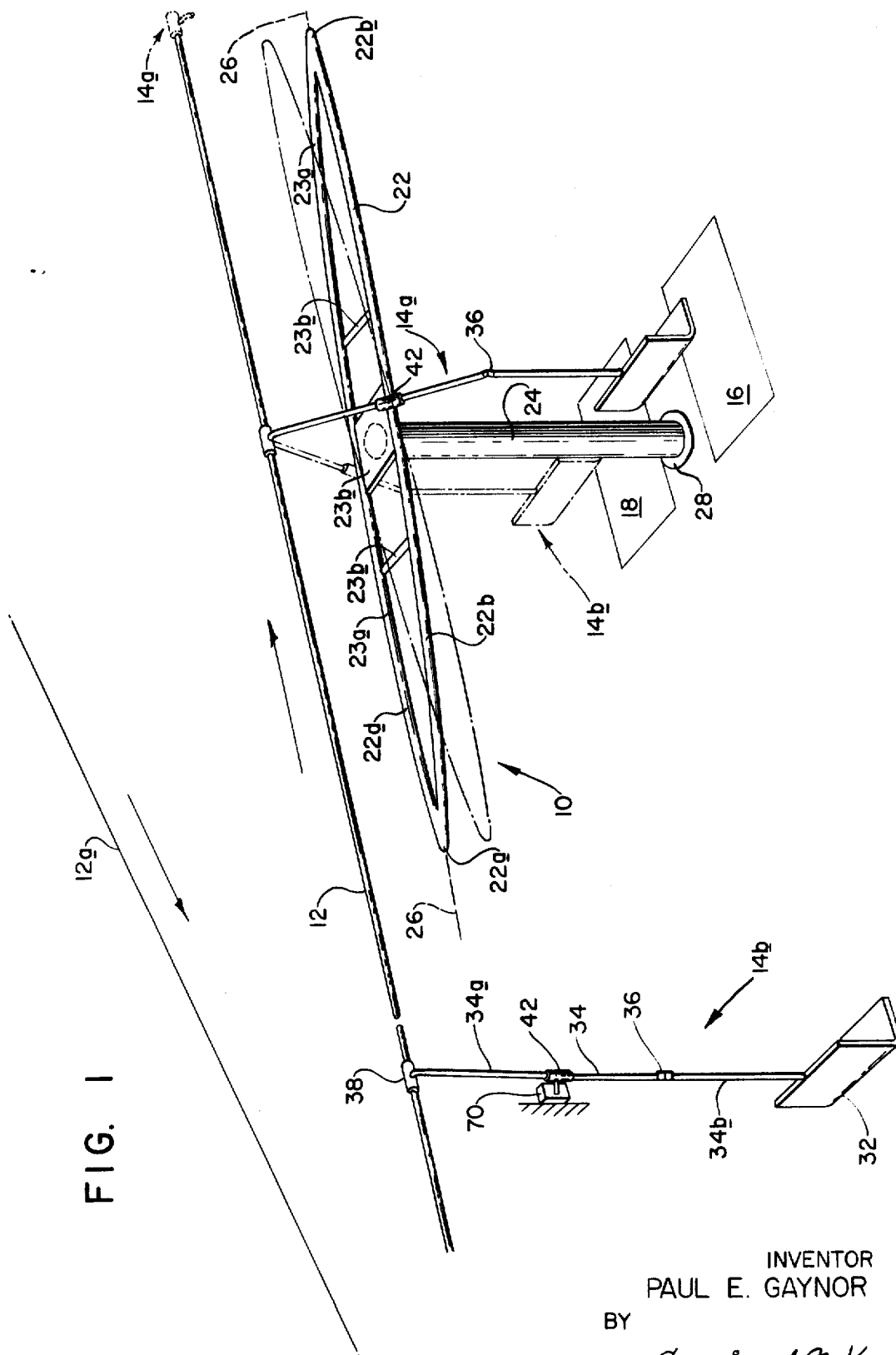


FIG. 1



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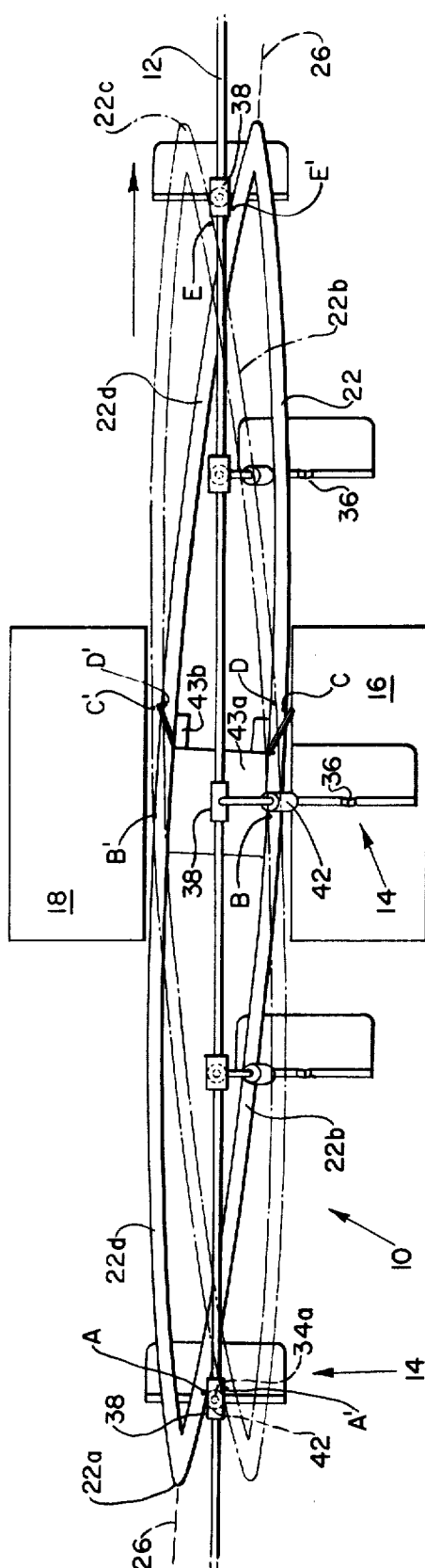


FIG. 2

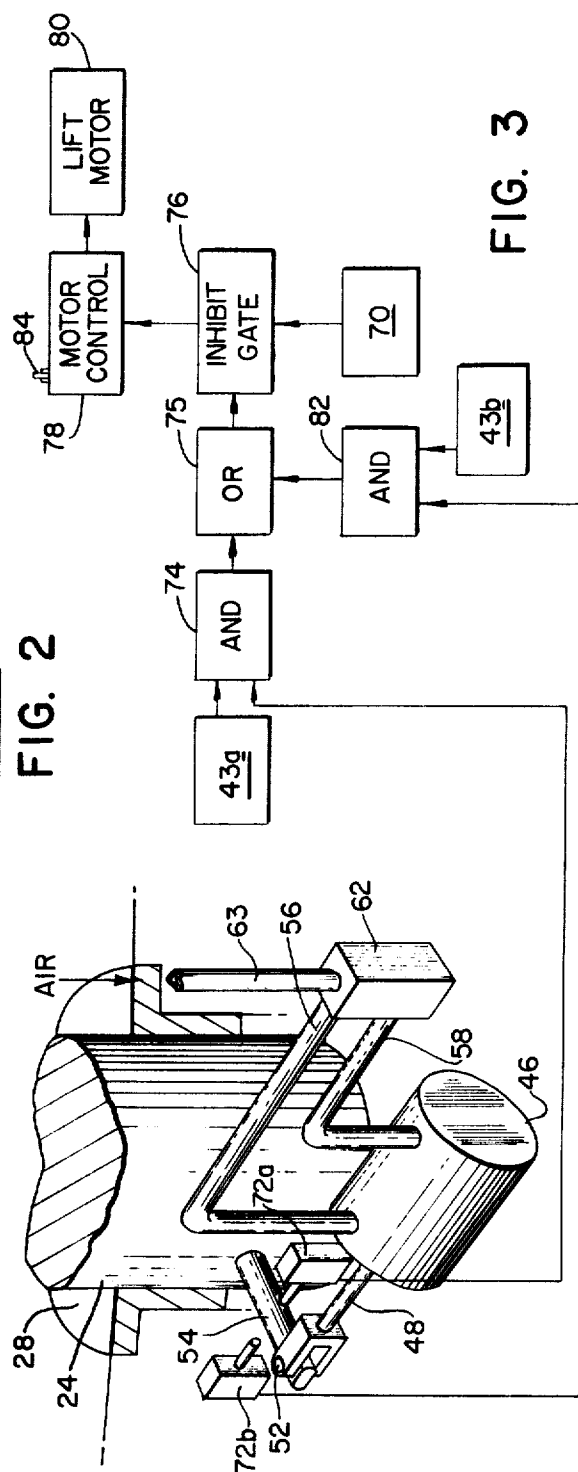


FIG. 3

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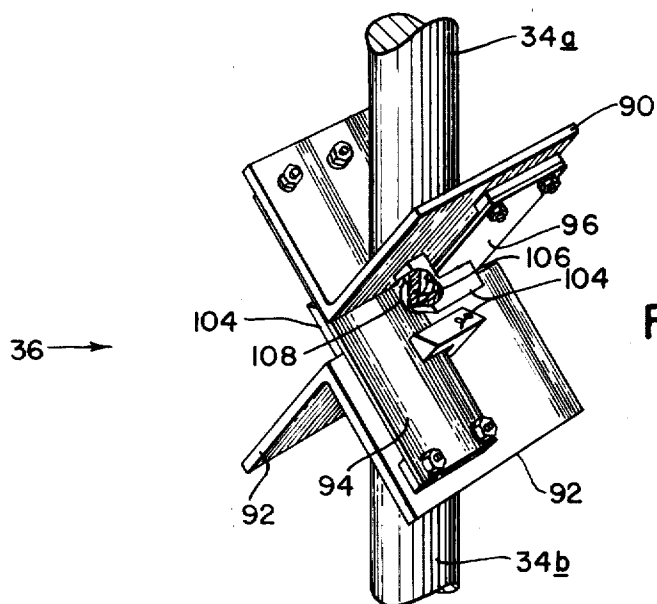


FIG. 4

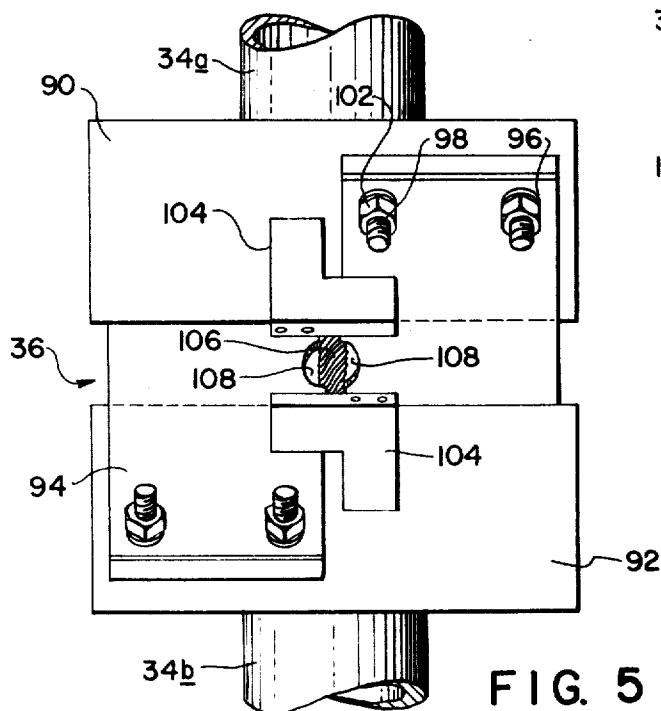


FIG. 5

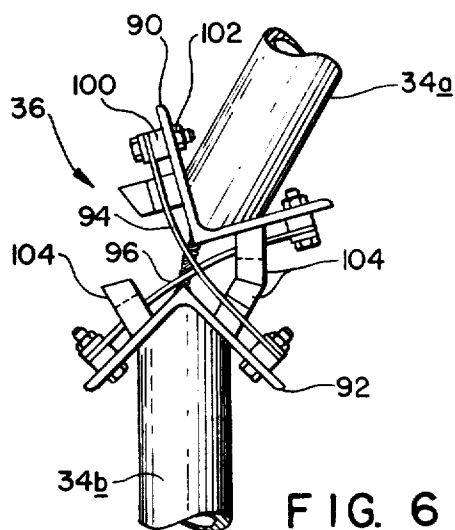


FIG. 6

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SKI LIFT APPARATUS

BACKGROUND OF THE INVENTION

This invention relates to a ski lift. It relates more particularly to an improved ski lift that can be loaded from two different loading stations at the same time.

In order to increase the capacity of a ski lift, and thereby minimize patron waiting time, I have devised a loading technique described in my U.S. Pat. No. 3,330,223 which allows skiers to mount the lift from two different loading stations at the same time. The successive chairs of the lift are directed alternately to these stations. In this way, the chairs can be hung closer together on the cable than with a conventional lift, thereby increasing the overall capacity of the lift.

In the lift described in the aforesaid patent, the loading station selection apparatus comprises a pair of frames spaced one in front of the other below the cable run. A loading station is situated adjacent each frame on the same side of the cable run. Toggle arrangements at the leading ends of the frames deflect each oncoming chair to opposite sides of the two frames. Thus, for example, the first chair is guided to the left of the first frame and then to the right of the second frame and the second chair is directed to the right of the first frame and to the left of the second frame, and so on.

While the aforesaid lift has been found to be satisfactory, it is highly desirable to simplify the construction and lower the cost of these multiple loading station lifts and to make them safer and more comfortable to use.

SUMMARY OF THE INVENTION

Accordingly, this invention aims to provide an improved ski lift capable of being loaded from a plurality of loading stations.

Another object of the invention is to provide an improved ski lift apparatus for selectively guiding the passenger carrying means to different loading stations.

A further object of the invention is to provide improved ski lift apparatus which facilitates loading passengers at more than one loading station with a minimum amount of discomfort to the user.

Another object of the invention is to provide a ski lift loading station selector which is easy to operate and safe to use.

A further object of the invention is to provide a ski lift loading station selector which is rugged and reliable and requires a minimum amount of maintenance.

Other objects will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combination of elements, and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the invention will be indicated in the claims.

In general, the present ski lift has the usual elevated endless cable loop which advances around bull wheels or pulleys located at the bottom and top of the ski slope. Carrier units such as chairs, T-bars, J-bars or the like are suspended from the cable at spaced-apart locations thereon by means of hangers. The skiers mount the lift at loading stations located below the cable run which is advancing up the slope and disembark at similarly located stations at the top of the slope.

In its simplest form, the present ski lift has two loading stations abreast of one another at opposite sides of the upwardly moving cable run. An elevated station selector erected below the cable run between the loading stations diverts successive advancing lift chairs alternately to the two loading stations. In other words, the first chair approaching the selector is directed to the one station, say, the station to the left of the upwardly moving cable run. The next chair is directed to the station to the right of the cable run and the third chair passes through the left-hand loading station, and so on. Accordingly, two lines of skiers can form on opposite sides of the selector and approach the two loading stations at the same time.

The distance between the chairs approaching each loading station is substantially the same as the spacing between the chairs in a conventional lift which loads from a single station. Therefore, the patrons have the same amount of time in which to mount the lift and they are just as safe when doing so. Yet, successive chairs can be located closer together on the cable. This means that the lift can include more chairs and therefore have a greater capacity than a conventional lift. Thus, a larger number of skiers can be transported up the slope in a given interval of time. Not only does this make the lift more profitable to operate, but it also reduces the length of the waiting lines at the lifts and therefore increases customer good will.

A similar selector is located at the upper end of the lift to facilitate off-loading the patrons.

Each station selector comprises a relatively long, generally elliptical guide member supported horizontally between the upwardly moving cable run and the ground and with its longitudinal axis aligned generally with the cable run. The two loading stations are located directly below the side edges of the guide member approximately midway along its length.

The guide member is supported for limited pivotal movement about its center point. More specifically, it can be swung in a horizontal plane between two operative positions in which its longitudinal axis is disposed at a small angle to one side or the other of the vertical plane containing the overhead cable run.

When the lift is in operation, each chair advances toward the guide member which is in one of its two operative positions, say, with its trailing end offset to the right of the line along which the chairs are moving. Thus, when the first chair arrives at the station selector, its hanger encounters the left side edge of the guide member. With continued advancement of the cable, the hanger and attached chair follow the contour of the guide member so that the chair is deflected sideways relative to the cable so that it passes through the loading station at the left side of the selector. The hanger is articulated at a point below the guide member so that the chair always hangs vertically.

At the left-hand loading station, an attendant holds the chair momentarily until the passengers have an opportunity to sit down. Then he releases the chair which moves on up the slope. The lift travels at a slow enough rate so that the cable is able to move continuously even while the passengers are being loaded onto the chair. After the chair leaves the loading station, and after it has passed a point approximately midway along the guide member, the member is shifted to its other operative position so that the right side edge of the guide member is presented to the next oncoming chair. The first chair continues to follow the curved edge of the guide member so that it is gradually brought back into line with the overhead cable run. In the meantime, the hanger of the oncoming second chair engages the right edge of the guide member and is deflected sideways so that the attached chair is guided to the loading station to the right of the station selector. Passengers are loaded onto this chair in the manner described above. The hanger of the second chair follows the guide member as it leaves the right-hand loading station. After the hanger passes the midway point, the member switches to its first operative position again so that the next chair (i.e. the third) is guided to the left-hand loading station just as described above. Thus, successive chairs are directed alternately to the loading stations.

The guide member is switched between its two positions when each chair is approximately midway along the member and relatively near the pivot point thereof. Consequently, there is minimum sideways movement of the chair when switching occurs and therefore little discomfort to the users. Patrons are off-loaded in substantially the same manner. The chairs are guided alternately to the two loading stations where the patrons disembark.

It is important to note that each chair remains on one side or the other of each station selector. They are not swung sideways back and forth between frames or posts. Con-

sequently, the present apparatus is quite safe and comfortable as far as the riders are concerned.

The system also includes a safety mechanism which shuts down the lift if a guide member fails to shift position after each chair leaves a loading station. This prevents two successive chairs from being directed to the same loading station, causing possible injury. The chairs are spaced apart on the cable a distance approximately equal to the length of the guide member so that actuation of the safety switch disables the lift before the next chair encounters the guide member.

With this arrangement then, lift chairs can be spaced closer together on the cable than would be the case with a ski lift which loads from one station. Consequently, the present lift can handle more people in a given length of time, maximizing the profit to the operator and minimizing the waiting time of the patrons. Also, however, the station selector itself is rugged and reliable and requires only a minimum amount of maintenance. Moreover, it is relatively simple to operate and does not constitute a hazard to the skiers.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view of my improved ski lift apparatus;

FIG. 2 is a diagrammatic top view illustrating the operation of the station selector portion of the FIG. 1 lift;

FIG. 3 is a perspective view of a portion of the selector, together with a block diagram of the selector control system;

FIG. 4 is a fragmentary isometric view of a chair hanger used in connection with the FIG. 1 apparatus;

FIG. 5 is a side elevational view thereof; and

FIG. 6 is a front elevational view thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIG. 1 of the drawings, my improved station selector shown generally at 10 is positioned directly below a cable run 12 which is moving in the indicated direction up a slope. Cable run 12, together with the return run 12a, form an endless loop which is supported above the ground by means of towers (not shown). The cable is moved in the indicated direction by a bull wheel (not shown) at the end of the loop located at the bottom of the slope. A station selector 10 is situated relatively near the lower loop end and another selector 10 is located near the upper loop end. Only the former will be discussed in detail here.

Cable runs 12 and 12a carry a number of vertically hanging passenger conveyors in the form of chairs shown generally at 14. While I have specifically illustrated a chair lift, it should be understood that the conveyors may be T-bars, J-bars or the like. When the lift is in operation, the chairs 14 are advanced toward station selector 10. The selector then guides the oncoming chairs alternately to passenger loading stations 16 and 18 located at opposite sides of the selector in a manner to be described in more detail later. For example, as shown in FIG. 1, the first chair 14a is gradually diverted sideways away from the vertical plane containing cable run 12 to the right-hand station 16; then the second chair 14b is diverted sideways to the left-hand station 18. When chair 14b has advanced to station 18, it occupies the position shown in dotted lines in FIG. 1, while, in the meantime, chair 14a has advanced beyond the selector to the position shown in dotted lines. The succeeding chairs 14c, 14d, etc., are guided to the stations 16 and 18 in exactly the same way.

Attendants are located at stations 16 and 18. As each chair approaches a station, the attendant there holds it steady while the skiers sit down. As he is doing this, cable run 12 is still advancing so that when the attendant releases the chair, it swings forward away from the station. The station selector 10 then guides the chair back toward the vertical plane containing the

cable run 12 so that by the time the chair leaves selector 10, it again hangs vertically from the cable run.

Using the present station selector, the chairs 14 can be spaced closer together on the cable so that the overall capacity of the lift is greater than the capacity of a comparable lift loading from a single station. Preferably, however, each chair should leave the selector 10 before the next chair arrives at the selector for reasons to be discussed in more detail later.

Referring now to FIGS. 1 and 2, selector 10 comprises a relatively long, generally elliptical guide member 22 supported in a horizontal plane by means of an upstanding post 24 directly below cable run 12. Post 24 is mounted for limited pivotal movement about its axis by a mount 28 buried in the ground below cable run 12.

It should be understood that member 22 is not elliptical in the strict geometrical sense. Rather, it has long arcuate side edges which are bowed toward one another and has relatively pointed ends. Typically, member 22 is about 36 feet long and measures 36 inches at its widest point. Preferably, also, member 22 is a relatively lightweight frame structure composed of a pair of similar longitudinal frame members 23a and an appropriate number of transverse frame members 23b.

As best seen in FIG. 2, guide member 22 pivots between two operative positions wherein its longitudinal axis 26 makes a relatively small angle, on the order of 5°, with cable run 12 at each side thereof. In one operative position of the guide member, its trailing end 22a is offset to the left of the vertical plane containing cable run 12 as shown in solid lines in FIG. 2. In the other operative position of the guide member, its trailing end 22a is offset to the right of the vertical plane containing cable run 12 as shown in dotted lines in FIG. 2.

Turning again to FIG. 1, each lift chair 14a, 14b, etc. comprises a seat or bench 32 secured to an articulated hanger 34 consisting of an upper section 34a and a lower section 34b joined by a special hinge 36 to be described later in detail. The upper end of hanger section 34a is secured via a clamp 38 to cable 12. The lower end of section 34b is secured to seat 32. Each seat 32 normally hangs down vertically so that hanger sections 34a and 34b are essentially in a straight line.

When an oncoming chair 14 reaches guide member 22, it is diverted either to the right or to the left of cable run 12, depending upon which operative position the guide member 22 is in. More particularly, if the guide member is in its first position, i.e. offset to the left as shown in solid line in FIG. 2, the upper hanger section 34a of the oncoming chair encounters the right-hand edge 22b of guide member 22 at point A and is gradually diverted sideways to the right of cable run 12 toward loading station 16. A roller 42 is rotatively mounted on each upper hanger section 34a in line with guide member 22 so that the hanger section follows the guide member with a minimum amount of friction between them.

FIG. 2 shows in solid lines the position of a single chair 14 as it is guided by member 22 toward and away from loading station 16. The chair hanger 34 engages the right-hand edge 22b of member 22 at point A. Roller 42 then follows the right edge 22b so hanger section 34a is gradually deflected sideways, carrying section 34b and seat 32 with it. By the time the chair has reached point B midway along guide member 22, hanger 34 has moved out sideways relative to cable run 12 so that the seat 32 is suspended directly over loading station 16. Since hanger 34 is hinged, as aforesaid, seat 32 remains horizontal.

As the cable run 12 continues moving to the right, passengers are loaded onto seat 32 and the chair leaves station 16 with roller 42 still following edge 22b. When chair 14 has advanced past the midway point along guide member 22, i.e. to point C thereon, its roller 42 actuates a switch 43a (FIG. 2) secured adjacent edge 22b. This switches guide member 22 to its second operative position wherein its leading end 22a is offset to the right of cable run 12, as shown in dotted lines in FIG. 2.

When member 22 pivots, the side edge 22b portion at point C moves only a very short distance sideways to point D because it is located abreast of the pivot point of member 22

(i.e. post 24). Consequently, there is relatively little sudden sideways movement of hanger 34 and seat 32. Thus, occupants of the chair are not jostled.

Following this, chair hanger 34 continues to follow edge 22b so that it is guided back toward the vertical plane containing cable run 12. Shortly before the hanger 34 reaches the leading end 22c of member 22, i.e. at point E, it again hangs vertically below cable run 12. At this point, chair 14 leaves the guide member and is carried on up the slope.

Immediately after chair 14a leaves guide member 22, the next chair 14 arrives at its trailing end 22a which is still offset, to the right as shown in dotted lines in FIG. 2. Therefore, it engages the left-hand edge 22d at point A' and proceeds along member 22 through points B', C', D' and E' along left edge 22d in the manner described above with respect to the first chair. Thus, the second chair is carried through station 18. Then it actuates a switch 43b positioned adjacent edge 22d which causes member 22 to pivot again to its first position shown in solid lines in FIG. 2. As the second chair passes through point E', it leaves member 22 and proceeds up the slope.

This process is repeated with successive chairs 14 so that they are guided alternately through stations 16 and 18.

Turning now to FIG. 3 of the drawings, conventional means may be employed to pivot guide member 22 between its two operative positions. For purposes of illustration only, we have shown a hydraulic arrangement. More particularly, a double-acting piston 46 is mounted in the mount 28. A piston rod 48 is pivotally connected by means of a pin 52 to an arm 54 oriented generally at right angles to rod 48 and connected to post 24. A pair of fluid lines 56 and 58 connect the two piston chambers to the two outlets of a conventional electrically operated impulse valve 62 whose inlet 63 is connected to a source of air under pressure (not shown).

Successive actuations of valve 62 cause air to be fed to first one and then the other of the piston chambers while the opposite chamber is being exhausted. Thus, successive actuations of the valve cause guide member 22 to pivot back and forth between its two operative positions shown in FIG. 2. Valve 62 is controlled by switches 43a and 43b mounted on guide member 22 as described above. Switches 43a and 43b are connected in parallel so that actuation of either one of them actuates valve 62.

Other conventional actuating arrangements can be used without departing from the spirit of this invention. Also, of course, station selector 10 can be controlled manually by an operator depressing a suitably located finger actuated switch (not shown) connected in parallel with switches 43a and 43b.

A preferred embodiment of my invention includes provision for shutting down the lift if member 22 does not switch to the other position as each chair reaches point C or point C'. This minimizes the likelihood of two successive chairs 14 being directed to the same loading station which could result in possible injury to patrons being loaded into the first chair or other patrons waiting at the loading station.

Referring to FIGS. 1 and 3, a lift shut-off switch 70 is positioned well ahead of selector 10, e.g. about 30 feet from trailing end 22a. Passage of a chair hanger 34 past switch 70 shuts down the ski lift unless the guide member 22 switched position when the preceding chair passed point C or C' on the guide member.

More particularly, a pair of push button switches 72a and 72b are positioned on opposite sides of arm 54 in housing 28. When member 22 is in its solid line position, shown in FIG. 1, arm 54 closes switch 72b. On the other hand, when the guide member 22 is in its dotted line position shown in FIG. 1, arm 54 closes switch 72a.

Switches 43a and 72a are connected to an AND circuit 74. When both switches are closed at the same time, AND circuit 74 applies a signal via an OR circuit 75 to INHIBIT gate 76. The switch 70 is connected via gate 76 to a lift motor control 78. Control 78 is essentially a normally closed latching relay which controls lift motor 80. When switch 70 is closed, a

signal will be applied to control 78 which will latch control 78 to the open position and thus disable motor 80 unless gate 76 receives an INHIBIT signal from circuit 74 indicating that a chair 14 actuated switch 43a and that guide member 22 actually switched to its dotted line position shown in FIG. 1.

In much the same manner, switches 43b and 72b are connected via an AND circuit 82 to OR circuit 75. Thus, the closing of switch 70 by the next chair 14 will disable the lift unless gate 76 receives an INHIBIT signal from AND circuit 82 indicating that the previous chair actuate switch 43b and that member 22 actually switched to its solid line position shown in FIG. 1.

In this connection, it should be noted that the switch 43a and 43b actuating members extend a foot or so along edges 22b and 22d so that one or the other of the switches remains closed until member 22 has had a chance to switch position.

If, for some reason, member 22 does not shift position when it is supposed to, lift motor 80 will be turned off. The lift will continue to travel about 20 feet due to inertia so that the oncoming chair will stop about 10 feet from guide member 22. The operator can then switch to member 22 manually as noted above and restart motor 80 by actuating the manual reset button 84 on motor control 78.

Thus, it is apparent that each chair leaving a loading station at each side of cable run 12 must cause the trailing end 22a of the guide member 22 to actually offset to that same side before the next chair passes switch 70. With this arrangement, it is very unlikely that two successive chairs 14 will wind up at the same loading station.

Turning now to FIG. 4, the hinge 36 which connects the hanger sections 34a and 34b is particularly critical to the optimum operation of a ski lift incorporating the present invention. More particularly, the hinge must be one which will allow the lower hanger section 34b to pivot readily with respect to hanger section 34a when the hanger is deflected sideways by the station selector. Otherwise, the seat 32 will not be level and the passenger sitting thereon will not be comfortable. On the other hand, hinge 36 cannot be so loose that the hanger section 34b and attached seat 32 will swing sideways due to centrifugal force when the hanger and seat swing around the bull wheels or pulleys at the opposite ends of the lift. Should that happen, the seats are very likely to become damaged. Also, they present a hazard to people in the vicinity of the bull wheels.

The hinge construction illustrated in FIGS. 4-6 meets both of these requirements. The hinge comprises a pair of 90° angle irons 90 and 92 welded or otherwise secured to the opposing ends of hanger sections 34a and 34b which are beveled to seat in the angle irons. A pair of identical leaf springs 94 and 96 are criss-crossed between the two hanger sections and their ends are secured to the angle irons 90 and 92. Leaf springs 94 and 96 are each about half as wide as the angle irons 90 and 92. They are arranged side-by-side and criss-crossed so that the upper end of spring 94 engages one leg of angle iron 90 and its lower end engages the leg of angle iron 92 on the opposite side of the hanger. In much the same way, the upper end of spring 96 engages the remaining leg of angle iron 90 while the lower end of that strip engages the remaining leg of angle iron 92. These springs are all secured to their respective angle iron legs by means of threaded bolts 98 which extend through passages in the spring and respective angle iron legs. Preferably, also, spacers or bushings 100 are situated between the springs and the angle iron legs so that the springs stand off from the angle irons and are free to flex. Correspondingly threaded nuts 102 are turned down on the bolts to securely tie the two hanger sections 34a and 34b together. Springs 92 and 94 are typically made of stainless spring steel approximately three-eighths inch thick. The spacing between the two hanger sections is approximately 7 inches so that the springs 92 and 94 are on the order of 8 inches long and 3 to 4 inches wide.

The hinge 36 construction is symmetric in its unstressed or neutral position so that hanger sections 34a and 34b are normally maintained in a straight line. This condition will persist

until an appreciable torque is applied to the hinge 36. This occurs, for example, when the hanger section 34a is deflected sideways as shown in FIG. 1. This sideways deflection, coupled with the weight of seat 32 and any occupants therein, exerts sufficient torque on hinge 36 that the springs 94 and 96 therein flex as shown in FIG. 6, thereby allowing the lower hanger section 34b and seat 32 to hang vertically. As soon as this torque is removed, as when the hanger leaves the guide member 22 (FIG. 1), hinge 36 returns the hanger sections 34a and 34b to their normal axially aligned positions shown in FIGS. 4 and 5. Springs 94 and 96 in hinge 36 are sufficiently stiff that they maintain the hanger section in a straight line even under the influence of the centrifugal force developed when the hanger and attached chair are swung around the bull wheels or pulleys at the ends of the lift cable loop 12. Consequently, the hinge minimizes damage to the lift components and hazards to the people in the vicinity of the lift.

Still referring to FIGS. 4-6, in order to prevent the springs 94 and 96 from being subjected to excessive stress, i.e. stress beyond the elastic limits of these elements, generally L-shaped stops 104 are secured to both legs of each angle iron 90 and 92. Stops 104 are arranged so that when the hanger sections 34a and 34b are bent through an extreme angle which is still less than the stress limit for the springs, the stops 104 engage one another as shown in FIG. 6. This limits further relative movement of the hanger sections in the same direction and thus minimizes the possibility of hinge failure.

However, in the event that, for some reason, a hinge should break, a strong steel cable 106 is connected between angle irons 90 and 92 as best seen in FIG. 5, extending through semicircular cutouts 108 in the opposing edges of the springs 94 and 96. Cable 106 is thus free to flex during normal operation of the hinge. However, should one of the springs break, its cable 108 still connects the two hanger sections together, preventing possible injury to the occupants of that chair.

Thus, the illustrated hinge 36 is particularly suited to the practice of the present invention. The only moving parts to the hinge are the flexing springs 94 and 96. Consequently, the hinge has a relatively long life. Moreover, there is a minimum number of different parts in the hinge. Therefore, the manufacturing and inventory costs associated with the hinge are kept to a minimum. Furthermore, the hinge is a definite safety factor in preventing the swinging out of the seats 32 traveling on the lift cable.

It is apparent from the foregoing then that my improved station selector for ski lifts which load from more than one loading station is relatively easy to make and maintain. Further, it does not present a hazard to skiers either because of its operation or its structure.

Further, my selector can be installed relatively easily at existing ski lifts. In this event, it is only necessary to change the hangers and perhaps install a more powerful ski lift motor. Finally, the present system greatly increases the overall capacity of the ski lift, yet it does not require the hurried loading of patrons, nor does it increase their discomfort.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above construction without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings, shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described.

I claim:

1. A loading station selector for an aerial lift having a lift cable and passenger carrier suspended from the cable, said selector comprising an elongate guide member

A. with leading and trailing ends lying on a straight axis and sides which curve toward one another and meet at said leading and trailing ends,

B. spaced between the lift cable and the ground in the path of travel of the carriers,

C. mounted for limited pivoting movement in a generally horizontal plane between two operative positions in which its trailing end is offset to one side or the other of the vertical plane containing the lift cable so that successive oncoming carriers engage the sides of the member and are diverted sideways alternately to loading stations at each side of the guide member, and

D. means for pivoting the guide member between its two operative positions when the successive carriers engaging it are proximate to the guide member pivot mount so that there is minimum sideways movement of the engaging carriers when the guide member pivots between its two positions, said member after said pivoting gradually guiding the engaging carriers back to said vertical plane prior to their disengagement from the member.

2. A loading station selector as defined in claim 1 and further including

means positioned at both sides of the guide member in the path of travel of the carriers for controlling the pivoting means.

3. A loading station selector as defined in claim 2 wherein the pivoting means includes

A. an upstanding post for supporting the guide member,

B. ground support means for rotatively supporting the post, and

C. a hydraulic actuator mounted in the ground support and linked to the post.

4. A loading station selector as defined in claim 1 and further including means for shutting down the lift if the guide member does not shift position as each chair diverted thereby leaves a loading station.

5. A loading station selector for an aerial lift having a movable lift cable and passenger carriers suspended from the cable, said selector comprising

A. an elongate guide member having leading and trailing ends and having generally arcuate sides which are bowed toward one another,

B. means for pivotally supporting the guide member in a generally horizontal plane between the cable and the ground and in the path of travel of the carriers,

C. means for pivoting the guide member between two operative positions wherein its trailing end is situated slightly to one side or the other of the vertical plane containing the cable, and

D. means for controlling the pivoting means so that the guide member pivots back and forth between its two operative positions when the successive carriers engaging it are proximate to the guide member pivot mount whereby successive carriers on the cable engage alternate sides of the guide member and are diverted sideways alternately to two different loading stations and the engaging carriers undergo minimum sideways movement when the member pivots between its two positions, said member after so pivoting gradually guiding the engaging carrier back to the vertical plane.

6. A loading station selector as defined in claim 5 and further including switches mounted adjacent the sides of the guide member for engagement by the carriers so as to initiate the pivoting of the guide member between its two operative positions.

7. A loading station selector as defined in claim 6 and further including

A. means for moving the cable, and

B. means for disabling the cable moving means whenever the guide member, while in one operative position, fails to switch to its other operative position upon passage of a carrier along one of its sides.

8. A loading station selector as defined in claim 5 wherein said carriers include

A. a seat, and

B. an articulated hanger connected between the seat and the cable so that the seat always hangs vertically even though the carrier is diverted sideways by the guide member.

9. A loading station selector as defined in claim 8 and further including means defining loading stations directly below the sides of the guide member at points midway therealong.

10. A loading station selector as defined in claim 8 wherein the hanger comprises

- A. an upper section,
- B. a lower section, and
- C. a hinge connecting the two sections, the hinge comprising a pair of flexible resilient plates
 - 1. crisscrossed between opposing ends of the two sec-

tions,

2. secured thereto, and

3. tending to maintain the two sections in axial alignment.

11. A loading station selector as defined in claim 10 and further including stops mounted on the hanger sections for limiting the pivotal movement between the two hanger sections.

12. A loading station selector as defined in claim 10 and further including a flexible safety connection between the two hanger sections.

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