

June 18, 1963

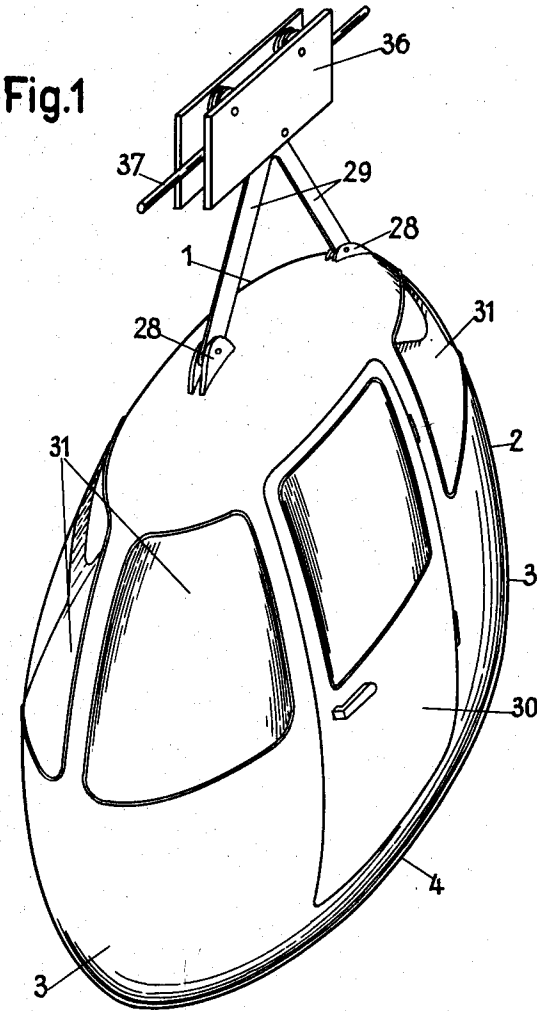
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MOUNTAIN CABLE-WAY CABINS

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Fig.2

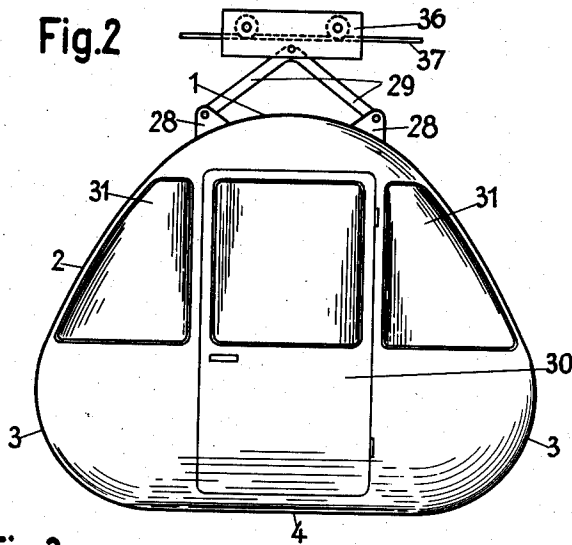


Fig.3

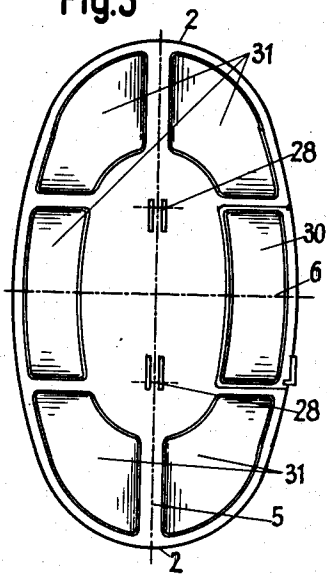
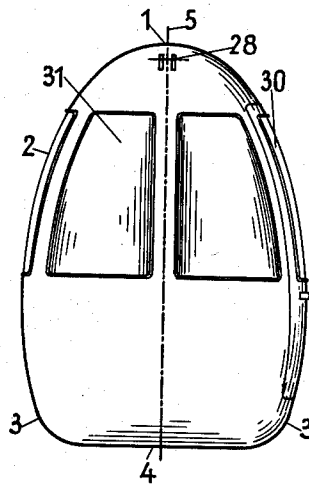


Fig.4



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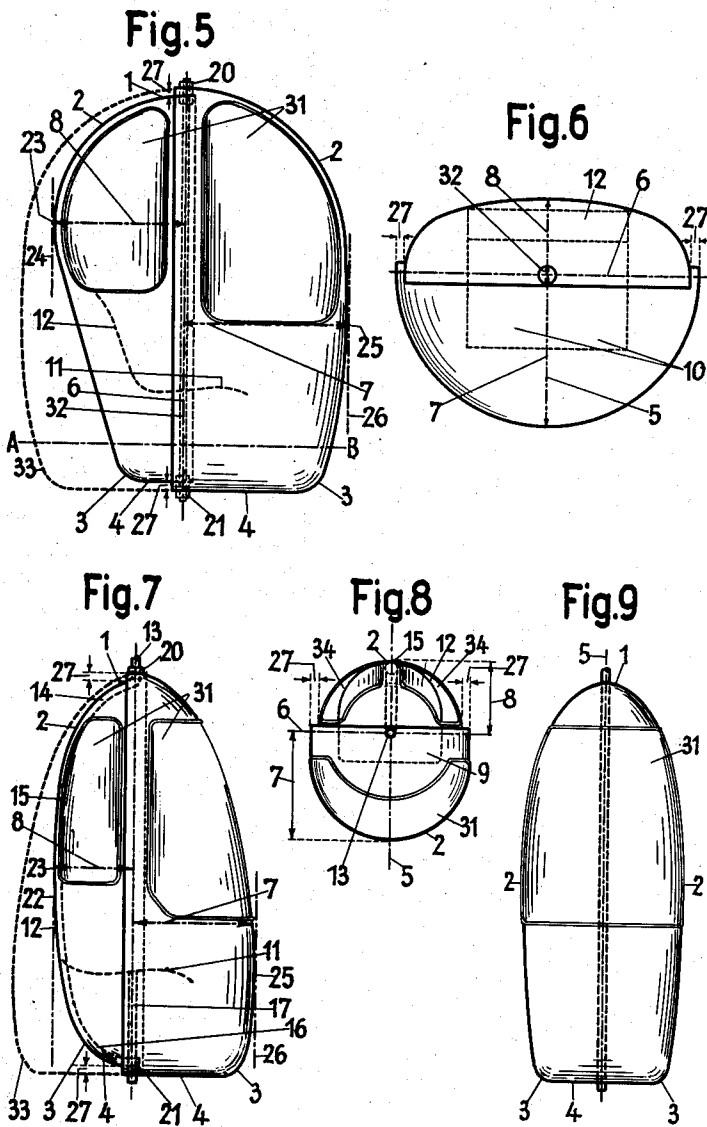
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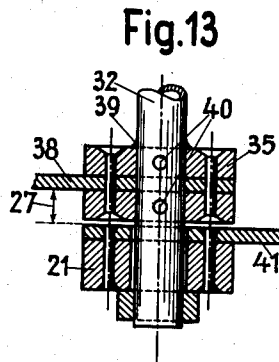
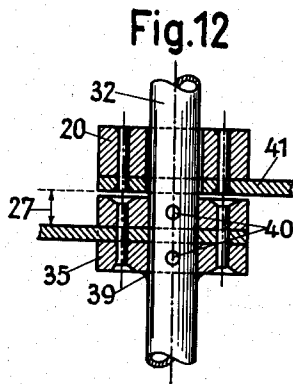
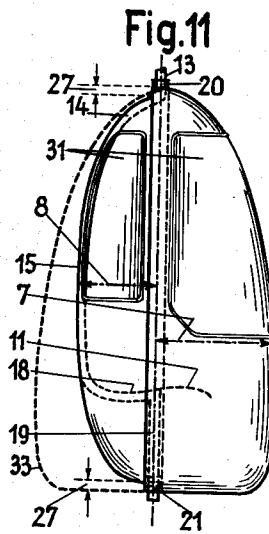
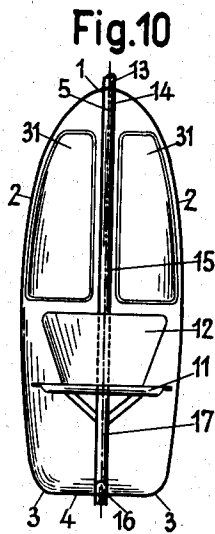
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## MOUNTAIN CABLE-WAY CABINS

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7 Claims. (Cl. 105—150)

The present invention relates to a cable-way cabin having a cup-shaped roof.

Spherical-shaped cable-way cabins are known. The inconvenience in such cabins is that there is generally too much room in one part and too little in another. Furthermore, the sphere projects relatively too far out in the direction perpendicular to the direction of travel, and requires an exaggerated cantilever on the part of the supporting cross members.

The invention eliminates these inconveniences by providing a cabin comprising an approximate ellipsoid roof part whose major axis lies in the direction of travel with a jacket part extending from said roof part by a decreasing curve down to the half height of the cabin. Said jacket part further extending by an increasing curve downwardly to a bottom part, the connection to said bottom part taking place through curved surfaces with increasing radii of curvature.

Thereby the cabin may be symmetrical with reference to the vertical median plane extending in the direction of travel. The symmetry, however, may also be given with reference to the vertical median plane extending perpendicular to the direction of travel. For small cabins, however, it has proved advantageous to build cabins provided with an approximate ellipsoid roof dissymmetrical with reference to the vertical median plane extending perpendicular to the direction of travel and projecting substantially more on one side than on the other. In this case a single or double chair may be so installed that the backrest pertains to the less projecting part of the cabin, while the other wider part of the cabin contains the seating area with sufficient room for the feet. For a single chair the wall pertaining to the less projecting part of the cabin may come in for direct or indirect use in building the backrest.

To give the cabin the form of a curved body it is advantageous that the contact points between the curved jacket surfaces and their vertical tangential planes extending perpendicular to the direction of travel should lie in a higher plane in the less projecting part of the cabin than those in the other part. If the cabin is made of two individual construction units it will be advantageous to give the units such outline shapes as to permit their being mounted rotatably within one another, whereby the more projecting part may rotate about a swivel axis with reference to the less projecting part rigidly connected to the suspension.

For the cabin walls extending along various curvatures in the various zones of the cabin there may be used plastics especially plastics of the unsaturated polyester resins type.

Several embodiments of the invention will now be described, by way of example, with reference to the accompanying drawings. It will be understood that the scope of the invention is not limited to such embodiments, or otherwise than by the terms of the appended claims.

FIGS. 1, 2, 3 and 4 relate to an embodiment for a large size cabin containing for example four seats. FIGS. 5 and 6 relate to an embodiment of a cabin for a double lift-chair, while FIGS. 7 to 13 relate to a one-seat cabin, FIG. 11 showing a slight variation of the embodiment illustrated in FIG. 7.

FIG. 1 is a diagrammatic view.

FIGS. 2, 5, 7 and 11 are side views,

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FIGS. 3 and 8 are front views,

FIG. 6 is a horizontal section view along a line A, B in FIG. 5,

FIG. 10 is a front view of an open cabin,

FIGS. 12 and 13 show details of attaching the partly rigid and partly rotatable cabin parts to a supporting rod of the suspension.

The cabin according to the invention shows in all embodiments an approximate ellipsoid roof 1, a middle part 2 provided with doors 30 and windows 31, a preferably plane bottom 4 and a transition zone 3 between said middle part 2 and said bottom 4. The middle part 2 is substantially less curved than the roof 1 and especially less than the transition zone 3. As visible in FIGS. 2 and 3, the distance between the jacket part 2 and the vertical cable plane 5 is substantially less than the distance between the jacket part 2 and the median plane 6 normal to said vertical plane. The cabin illustrated in FIGS. 1-4 is symmetric as well with reference to the plane 5 as with reference to the plane 6. By means of hubs 28 the cabin is connected through its roof part by the suspension 29 to the mechanism rolling along the supporting cable 37. It is clear from the special form of the cabin how the combination of various curved parts according to the invention supplies sufficient room for the seating areas in a minimum size cabin. Moreover the deliberate exploitation of curved surfaces and the special cabin construction according to the invention reduces the wind resistance.

The embodiment illustrated in FIGS. 5 and 6 is particularly suitable for a double lift-chair. The cabin has no door, per se, but opens by being constructed of two parts. A supporting rod 32 extending throughout the height of the cabin is rigidly connected to the cabin half represented on the left side. The other cabin half on the right side in FIG. 5 is rotatably mounted about the vertical supporting tube 32. The cabin half rigidly connected to the supporting tube 32 projects from said tube a distance 8 which is less than the distance 7 corresponding to the projection of the cabin half rotatably mounted on said supporting tube 32. Both cabin halves are provided with windows 31. There is no use for a door in this embodiment. A double chair 10 indicated in dash-line in FIG. 6 extends on both sides of the supporting rod 32. Its backrest 12 is disposed in the rigidly connected cabin half, while its seating area 11 projects into the rotatable cabin half. The full lines in FIG. 5 show the cabin in closed position, the open position of the front cabin half being indicated by the dash-line 33. It can be seen from FIG. 5 that both cabin halves frame into one another. The small clearance 27 between both profiles must be sufficient to ensure a correct opening and closing without jamming. Further it is apparent from FIG. 5 that the point 23 of the farthest projection of the rigidly connected cabin half is much higher than point 25 of the farthest projection of the rotatable half. The corresponding vertical tangential planes perpendicular to the direction of travel are indicated by the reference numerals 24 and 26.

The single-chair cabin illustrated in FIGS. 7-11 also has a rigidly connected cabin half and a rotatable one. Instead of a supporting rod 32 extending throughout the height of the cabin, in this case there is a supporting rod or tube matching the contour of the rigidly connected cabin half. The supporting tube starting from the cable extends downwardly as a vertical part 13 into the roof region (FIG. 7) of the cabin and then projects into a bent portion following the shape of the roof of the rigidly connected cabin half. Adjacent to said bent portion 14 is a downwardly extending zone 15 substantially vertical along the jacket part 2 continuing in a sharply bent transi-

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tion zone 3 adjacent the lower part of the cabin jacket and ending in a sharply bent zone 16 continued as a horizontal part. The roof 1 and the bottom 4 are provided with hubs 20, 21 providing for the rotation of the rotatable cabin half about an axis projected along the vertical tube 13.

To support the seating area 11 of the single chair 9 the supporting tube or a prolonging member 17 connected thereto may extend from the region of the hub 21 till it reaches under the seat 11. It can be seen from the drawing that here also the point 23 of the farthest projection of the rigidly connected cabin half is less distant from the vertical median plane 6 than the point 25 of the farthest projection 7 of the rotatable cabin half. The corresponding tangential planes are indicated by the reference numerals 24 and 26. FIG. 8 shows how advantageously the seat 11 and the backrest 12 of the single chair can be installed in the cabin. It must be considered that in FIG. 8 only the vertically extending upper portion of the supporting rod 13 is visible and that said rod does not extend into the region of the seating area 11 but extends as a part 15 along the rear limit of the cabin jacket because of the bent shape of the rod. Since the width of the seating area 11 is rather smaller than the width of the rigidly connected cabin half there is still sufficient room for the rest 34. The front view of FIG. 9 shows the closed cabin with a large window area 31 allowing free sight. The flat bottom gives comfortable room for the feet. FIG. 10 is a front view of the cabin in open position. The advantages of the arrangement according to the invention are apparent from FIGS. 7, 9 and 10. The embodiment illustrated in FIG. 11 differs from that in FIG. 7 merely by the shape of the lower portion of the supporting tube. In said embodiment, the vertical portion 15 of said supporting tube extends no further than the seating area 11 where as a horizontal part 18 it forms a support for said seat 11. Starting from said horizontal part 18 it bends into a vertical portion 19 coaxial to the axis of the supporting tube zone 13. FIGS. 7 and 11 show in dash-line 33 the open position of the rotatable cabin half. The bearing of the supporting rod merely indicated in FIGS. 5, 7 and 11 is shown enlarged in FIGS. 12 and 13. The illustration comprises a vertical supporting tube 32 though conditions will be the same if the tube is bent like in FIGS. 7 and 11. The wall 38 of the stationary cabin part is rigidly connected to the supporting tube 32. In this embodiment the border parts of the wall 38 are retained by discs 35. Said discs 35 may be, for example by welding 39 or bolts 40, rigidly connected to the supporting tube 32. Spaced from the discs 35 are the hubs 20, 21 which also are disc-shaped and clamp the borders of the rotatable part of the cabin wall 41. The hubs 20, 21 are able to rotate about the supporting tube 32.

Variations are, of course, possible without departing from the scope of the invention.

What is claimed is:

1. A cable-way cabin comprising a housing of two sections with a line of overlap in a first plane along the direction of travel of said cabin, each of said sections being symmetric with itself about a second plane perpendicular to said first plane and asymmetric with each other about said first plane so that one of said sections may frame the other, means for pivotably connecting said sections substantially at points along the line of intersection of said first and second planes to enable pivotal movement of said one section to a position where said one section frames the other section to allow entry into and egress from the cabin and means fixed to the top of said sections in the region of the intersection of said planes for engaging a cable to suspend the cabin therefrom.

2. A cable-way cabin comprising a housing of two sections with a line of overlap in a first plane along the direction of travel of said cabin, each of said sections being

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symmetric with itself about a second plane perpendicular to said first plane and asymmetric with each other about said first plane so that one of said sections may frame the other, the top portions of each section being ellipsoidal with a major axis along the direction of travel, the mid portions first extending downward with decreasing curvature to a central region and then extending downward with increasing curvature to a substantially flat bottom portion, means for pivotably connecting said sections substantially at points along the line of intersection of said first and second planes to enable pivotal movement of said one section to a position where said one section frames the other section to allow entry into and egress from the cabin, and means fixed to the top of said sections in the region of the intersection of said planes for engaging a cable to suspend the cabin therefrom.

3. A cable-way cabin comprising a housing of two sections with a line of overlap in a first plane along the direction of travel of said cabin, each of said sections being symmetric with itself about a second plane perpendicular to said first plane and asymmetric with each other about said first plane so that one of said sections may frame the other, the top portions of each section being ellipsoidal with a major axis along the direction of travel, the mid portions first extending downward with decreasing curvature to a central region and then extending downward with increasing curvature to a substantially flat bottom portion, means for pivotably connecting said sections substantially at points along the line of intersection of said first and second planes to enable pivotal movement of said one section to a position where said one section frames the other section to allow entry into and egress from the cabin, said means including a support rod extending from the top to the bottom of said sections along said line of intersection with hub means fixed to the top and bottom of said sections for rotatably engaging said support rod, and means fixed to the top of said support rod for engaging a cable to suspend the cabin therefrom.

4. A cable-way cabin comprising a housing of two sections with a line of overlap in a first plane along the direction of travel of said cabin, each of said sections, being symmetric with itself about a second plane perpendicular to said first plane and asymmetric with each other about said first plane so that one of said sections may frame the other, the top portions of each section being ellipsoidal with a major axis along the direction of travel, the mid portions first extending downward with decreasing curvature to a central region and then extending downward with increasing curvature to a substantially flat bottom portion, means for pivotably connecting said sections substantially at points along the line of intersection of said first and second planes to enable pivotal movement of said one section to a position where said one section frames the other section to allow entry into and egress from the cabins, said means including top and bottom hub means in the top and bottom of said sections where said line of intersection intersects said sections, a support rod extending from said top hub means along the inner side of one of said sections to said bottom hub means, and means fixed to the top of said support rod for engaging a cable to suspend the cabin therefrom.

5. The cable-way cabin of claim 4 wherein said support rod extends along said inner side to said central region and then extends horizontally toward said line of intersection and then downward along said line of intersection to said bottom hub means, and including chair means fixed to the horizontal portion of said support rod.

6. Apparatus comprising a cable-way cabin having a determinable direction of travel comprising a substantially ellipsoidal roof part having a major axis which lies along said direction of travel, a jacket part coupled to said roof part and extending with a decreasing curvature about half-way down said cabin, a bottom part coupled to said jacket part, said jacket part further extending with increasing curvature downwardly to said bottom part, the connection

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to said bottom part taking place through curved surfaces with increasing radius of curvature, means connecting said parts together to provide a smooth outer contour for said cabin, means connected to said roof part for engaging a cable, said cabin being asymmetrical with reference to a vertical median plane extending perpendicular to said direction of travel, said cabin projecting substantially more to one side of said plane than to the other side thereof, and windows distributed throughout said jacket part.

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7. Apparatus as claimed in claim 6, further including a chair in said cabin and including a seat portion extending from the jacket part on one side of said plane.

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