

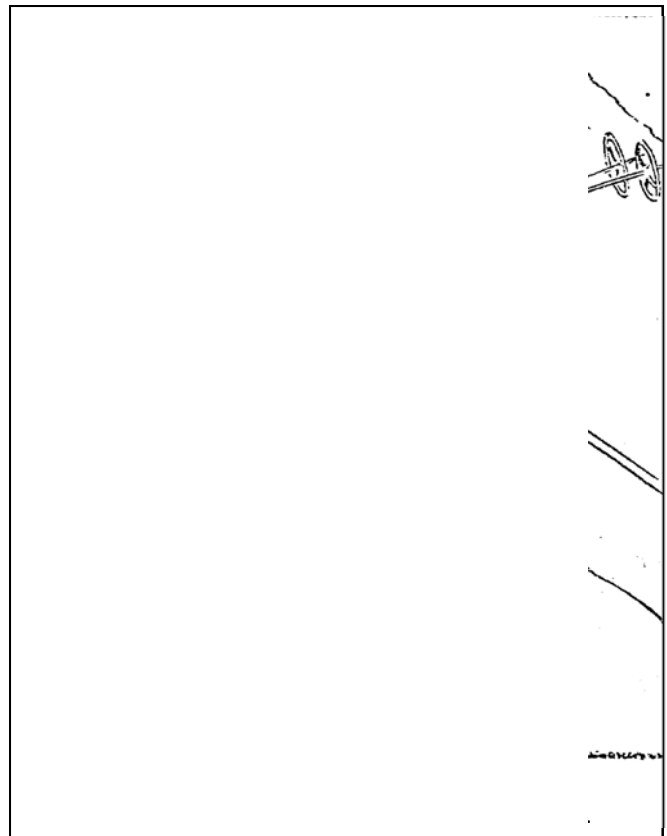
## Sahalie Historical Note #6: Early Ski Tows

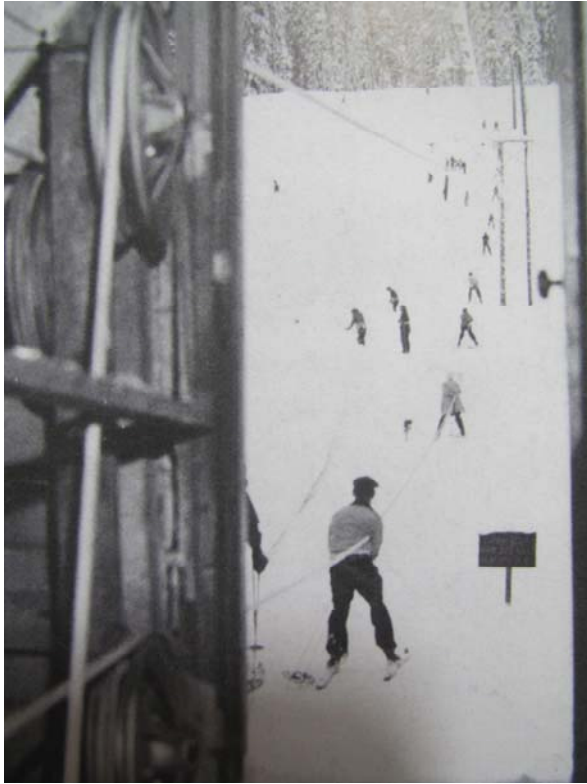
"Ahoj Skiers! Read This!" trumpeted an article in the January 30, 1934, *Seattle Post-Intelligencer*. It noted that the first motorized ski-tow in the country opened the day before, on January 29<sup>th</sup>, 1934, at Woodstock, Vermont. "The device consists of an endless rope which runs over a guide pulley at the top of the hill and over a motor at the foot of the incline. It takes skiers up 900 feet in one minute."<sup>1</sup> The future beckoned.

Early skiers through the 1920s and well into the '30s were a hardy bunch who "earned their turns" by skinning uphill using seal skins, fur, canvas or rope stuck to the bottoms of their skis; by herringboning or side-stepping; or by taking skis off and walking up hill. The enticement to find a mechanized way to move uphill was great.

According to ski historians, the Germans were the first to figure it out, with the first documented rope tow in the Black Forest around 1908.<sup>2</sup> As the *P.I.* noted, the first tow in the States showed up at an inn in Vermont in early 1934. Bob and Betty Royce powered their simple rope loop using the rear wheel of their Model A Ford. Interest exploded. The skiing "industry" was born. By the late 1930s, more than 100 tow ropes were operating in North America.<sup>3</sup>

[As an aside, my dad learned to ski in 1929 while an undergraduate engineering student at MIT in Boston (one of his professors was Norwegian, and took some of his students up to New Hampshire on the weekend trains). Sometime after he graduated in 1933, family lore has it, he and a couple of his engineer buddies rigged up a rope tow on a friend's property in New Hampshire, using their Model A Ford for power. These young engineers proceeded to string up flood lights on the hill so they could extend the daylight. While this was private, it might have been one of the earliest tow-serviced, night skiing operations in the country! If he and my mom had lived here in Seattle, they would have found Sahalie, fer-sure, you-betcha.]





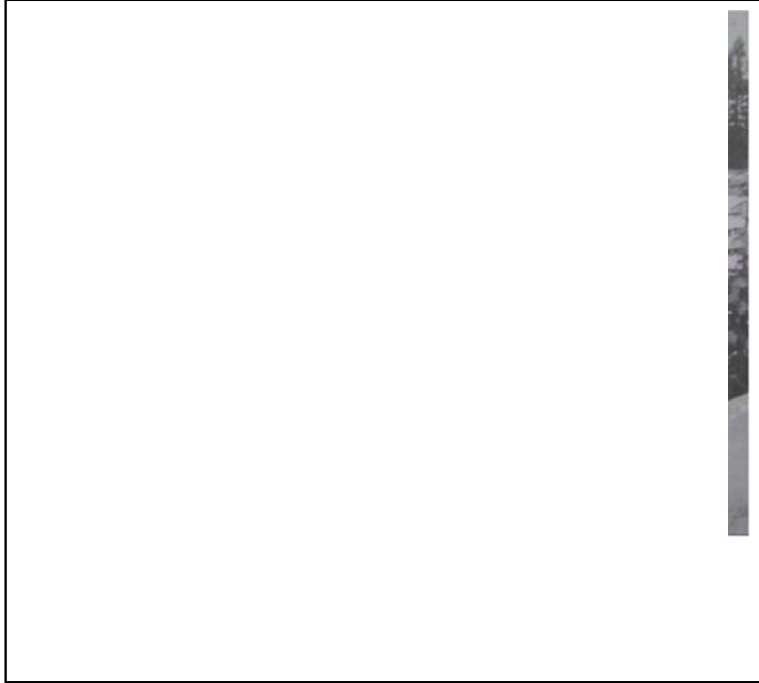
"Old Betsy," the first rope tow at Snoqualmie Pass, in 1937; photo from the Webb Moffett family collection, as published in John and Chery Kinnick, 2007, *Images of America: Snoqualmie Pass*, Arcadia Publ., p. 76.

Back at the Pass, Web Moffett of Ski Lifts, Inc., is credited with setting up the first rope tow at what is now Summit West in 1937. It was called "Old Betsy."<sup>4</sup> The company installed rope tows at Mt. Baker and at Paradise on Mt. Rainier the same year.

When did the ski club known first as Commonwealth and later as Sahalie get into the lift business? Various legends abound, but nothing is documented. Somewhere around the same time that Moffett was putting up his first lift, it is said, the Sahalie club set up its own. A photo taken from the Summit vicinity looking toward Guye Peak dated "mid 1930s" shows the original Sahalie lodge set against thick forest. The present ski hill was, at that time, all trees; the club set up slalom and downhill courses on the Guye Peak rock slide well north of the lodge. The first documented reference to a Sahalie tow comes in 1940: "Sahalie Ski Club members packed their new ski tow motor to

Snoqualmie Pass Summit yesterday [December 7, 1940] and an 'installation' party will be the main order of business today. The Sahalie membership voices a hearty vote of appreciation to Lars Nerland, Earl [probably Al] Swan and their helpers for the work they put in readying the lift motor for winter operation."<sup>5</sup> Whether this was the original tow or a replacement motor is not clear. Tom Hopp relayed club lore in 2000 that "the first rope tow ever to use an automobile brake to stop people from sliding backward in the event of a shut-down was built at Sahalie by its members."<sup>6</sup>

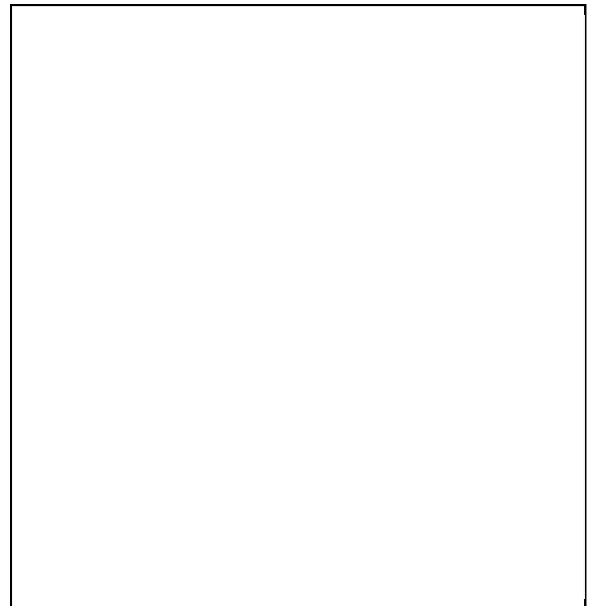
When the Milwaukee Railroad opened the Snoqualmie Ski Bowl at Hyak in 1938, skiers and ski jumpers had to walk or skin uphill at first. It wasn't until after the war when it re-opened in 1946 that this area installed a new-fangled toboggan-type lift called the Talley-Ho Ski-Boggan (it was designed by Keith Talley of Seattle). The Ski-Boggan was a huge toboggan-like cart that skiers could stand in, pulled uphill by a cable.



Sun Valley developed the world's first chair lift (for skiing) in 1936.<sup>7</sup> The engineers based their design on lifts they had seen being used to hook bunches of bananas to move in and out of cargo ships! Many skiers (and insurance adjusters) were skeptical, not sure it would be safe to be suspended up in the air. But needless to say, the concept took off. That year, 1936, can truly be seen as the launch of modern skiing: Sun Valley opened as the first true destination ski resort, "...*SKI* magazine started publication [in Seattle!], the first ski instructor

was certified in the United States, and the Third Olympic Winter Games hosted the first ever alpine skiing events. While the new chairlifts took a little getting used to, skiers quickly grew to love this convenient and comparatively high-speed transportation system."<sup>8</sup> The advent of chair lifts "completed skiing's evolution from a form of essential transportation to a recreational sport."<sup>9</sup>

It took 11 years for this concept to find its way to Washington state, with the first chair lift launching a whole new ski area known as Ski Acres, at Snoqualmie Pass, in 1947. It used single-passenger chairs. Snoqualmie Summit put in its first chair lift, a double, in 1955. It was called Thunderbird. The modern era unfolded.



- Dave Galvin

[Updated 3/26/2012]

[As in all of these historical notes for the Sahalie Ski Club, if readers have any comments, corrections, additions or stories to tell, let me know at [galvind53@gmail.com](mailto:galvind53@gmail.com) – I plan to keep enhancing this growing archive.]

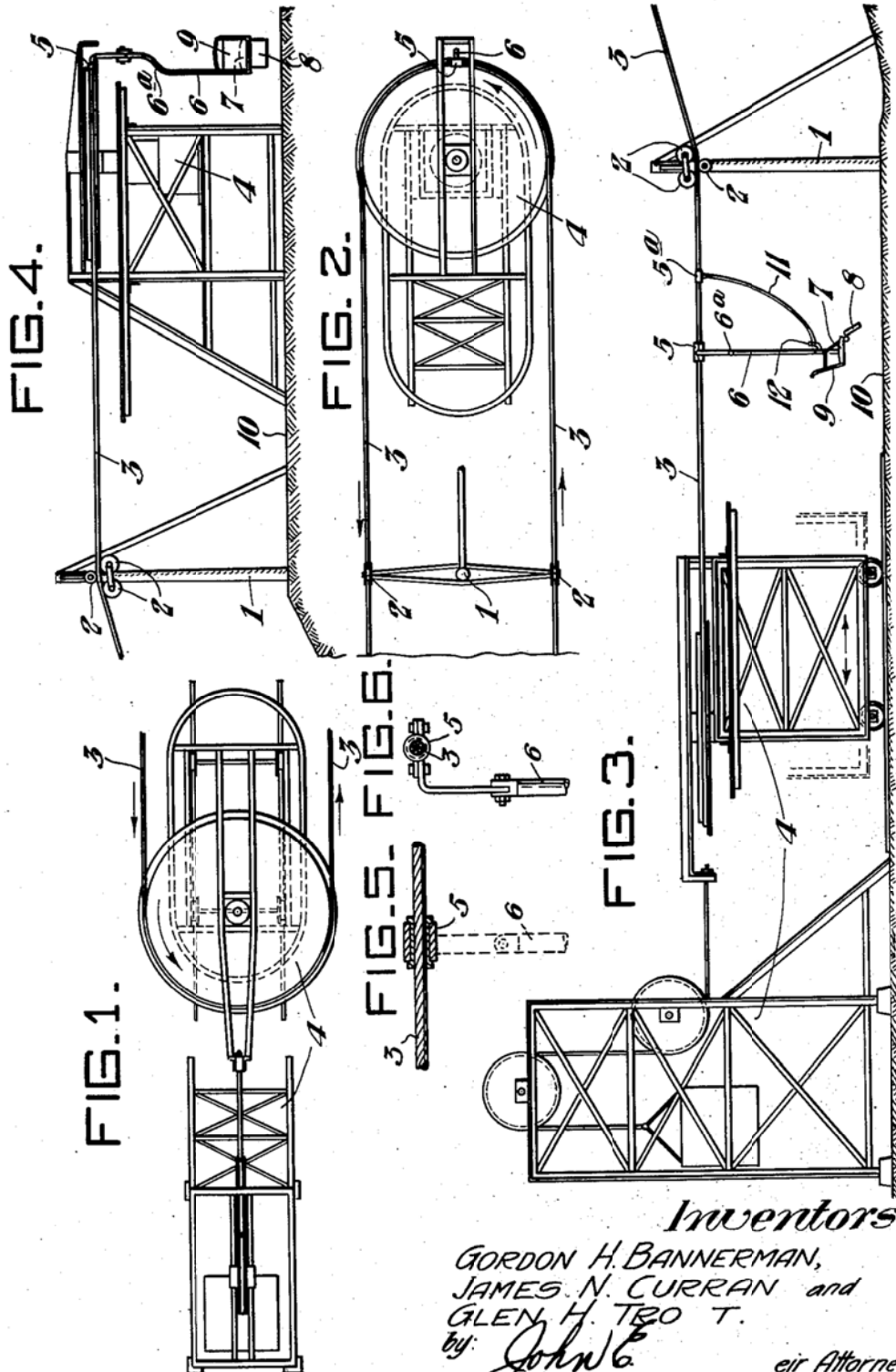
March 28, 1939.

G. H. BANNERMAN ET AL

2,152,235

AERIAL SKI TRAMWAY

Filed Nov. 17, 1937



Inventors:

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## UNITED STATES PATENT OFFICE

2,152,235

## AERIAL SKI TRAMWAY

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James M. Curran and Glen H. Trout, Omaha,  
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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<sup>a</sup> 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<sup>b</sup>, 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<sup>a</sup> 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<sup>a</sup>, 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

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.

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 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.

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.

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"Aerial Ski Tramway" (first chairlift), made for the new Sun Valley ski resort in Idaho in 1936. U.S. Patent No. 1,252,235, filed 11/17/1937, granted 3/28/1939; accessed from Google Patents at: <http://www.google.com/patents?vid=2152235> (accessed 12/28/2010).



<sup>1</sup> Lowell Skoog, 2002, Seattle Post-Intelligencer -- Silver Skis Championships, notes from reviewing archived editions of the newspaper, posted at: <http://www.alpenglow.org/ski-history/notes/news/spi/spi-silver-skis.html>.

<sup>2</sup> "Rope Tows," Wikipedia history reference, access at: [http://en.wikipedia.org/wiki/Rope\\_tow](http://en.wikipedia.org/wiki/Rope_tow).

<sup>3</sup> "Ski Tows," Knowledgerush reference, access at: [http://www.knowledgerush.com/kr/encyclopedia/Ski\\_tow/](http://www.knowledgerush.com/kr/encyclopedia/Ski_tow/).

<sup>4</sup> John and Chery Kinnick, 2007, *Images of America: Snoqualmie Pass*, (Charleston, S.C.: Arcadia Publ.), p. 76.

<sup>5</sup> "Sahalies Busy," *Seattle Daily Times*, December 8, 1940, p. 20.

<sup>6</sup> Tom Hopp, 2000, "Sahalie Ski Club History," *Snoqualmie Pass Times*, November, 2000; reprinted in the December, 2000, issue of *Sahalie Sentinel*.

<sup>7</sup> "Chairlift - 2. History," Wikipedia history reference, on-line at: <http://en.wikipedia.org/wiki/Chairlift>, accessed 12/28/2010.

<sup>8</sup> Beau Pritchard, 2009, "The History of Chairlifts," eHow.com website, access at: [http://www.ehow.com/about\\_5315197\\_history-chairlifts.html](http://www.ehow.com/about_5315197_history-chairlifts.html).

<sup>9</sup> Beau Pritchard, 2009.