

Lars Andersen's Timber Tramways

by

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In 1895 or 1896, Lars Andersen, a native of Denmark, set up business in the Brisbane Valley town of Esk as a carpenter, builder, insurance agent and undertaker¹. By 1899, he had extended his interests to sawmilling². Beginning in Esk, he eventually had interests in a number of mills in south-east Queensland, mostly within the watershed of the Brisbane River. His mills were located at Toogoolawah (about 1904-25), Redbank (about 1925-28), Happy Valley (about 1923-25), Blackbutt (about 1910-12), Mount Esk (about 1931), Cressbrook Creek (1920s) and Mount Brisbane (1930s). As well, in 1923, he opened a mill on Wengen Creek, on the Burnett fall of the Bunya Mountains³. All of his mills drew some of their timber from inaccessible and precipitous terrain. Andersen solved some of the problems of log transport from felling site to mill by building inclines and tramways. These had a number of unusual and interesting features.

At his first mill in Esk, Andersen built a short tramway, which is still in use. Two hundred feet long, having a gauge of two feet six inches, this tramway is used to move timber offcuts from the Esk mill to the Esk Dairy Co-operative Company Limited butter factory. The offcuts are transferred in a single wagon, drawn by a wire rope, and are used as fuel⁴.

A good example of Andersen's ingenuity was the system he developed on Upper Cressbrook Creek in the 1920s. Timber was brought from the Pine Cliffe area, the logs being snigged through the forest and down the steep slopes to the mill or to a place where they could be loaded on to bullock or horse waggons and taken to the mill. It disturbed Andersen that his men had to spend considerable time chipping out stones which became embedded in the logs with the consequent waste of good timber. He therefore constructed a tramway to overcome this problem. At a time when motor trucks were apparently taking over, he built, for a modest outlay considering the terrain, a tramway which served its purpose admirably until trucks and improved roads could do the job. From the mill a line was built for a little over a mile up the east bank of the creek. While it hugged the side of a cliff for a short distance, most of the construction was easy with a few small bridges over gullies and only a small amount of earthworks needed to secure a fairly level grade.

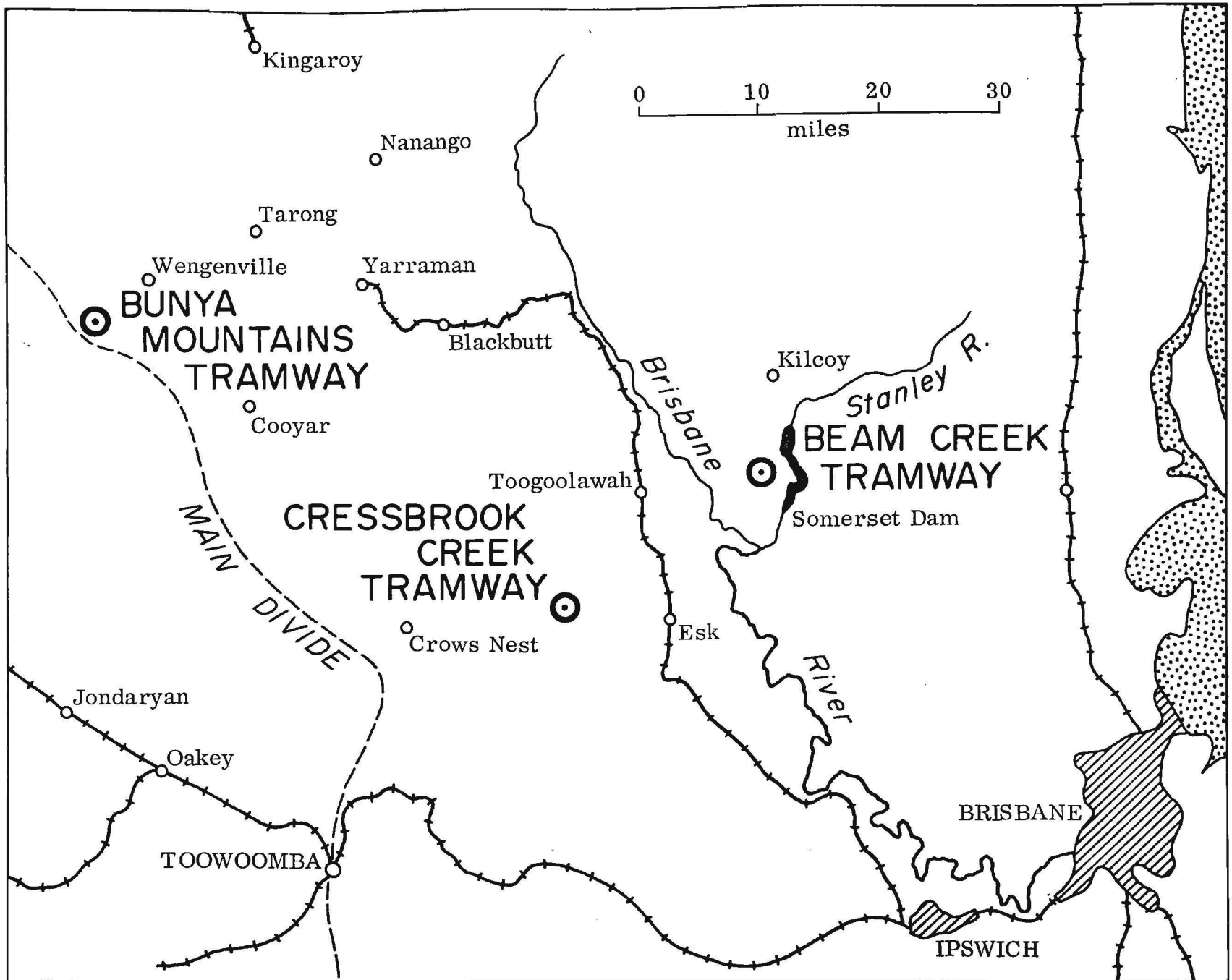
The major problem was the descent from Pine Cliffe down to the creek. This was achieved by a steep three-rail mountain tramway or incline operated by wire rope with the weight of the descending loaded wagon being used to pull up the empty wagon. There was a bridge over the creek at the bottom and a loading bank where logs were transferred to the ordinary tramway mentioned above. For those interested, further details of both tramway and incline are to be found in the Appendix.



Cressbrook Creek Incline.

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Location map

Completion of the dual tramway system in mid-1922 called for some ceremony.

A novel outing and picnic was capitally organized at Cressbrook Creek by Mr. Lars Andersen, owner of Cressbrook Creek sawmill, the occasion being to celebrate the official opening of a mountain tramway constructed up Pine Cliffe for the purposes of shooting the timber down a chute. Between 250 and 300 residents of Esk and adjacent districts assembled on the ground about 11 a.m. to witness the trucking down of logs. The feat was admirably performed and the timber in loads of approximately 1200, 1000 and 1150 super feet was brought down quickly over a track of thirty-seven chains down a steep mountain side with grades of 1 in 1, 1 in 1½, and 1 in 3 . . . After the demonstration Mr. Andersen invited all to the luncheon at which Mr. Alex Smith tendered very hearty congratulations to Mr. Andersen on his ingenuity and enterprise⁵.



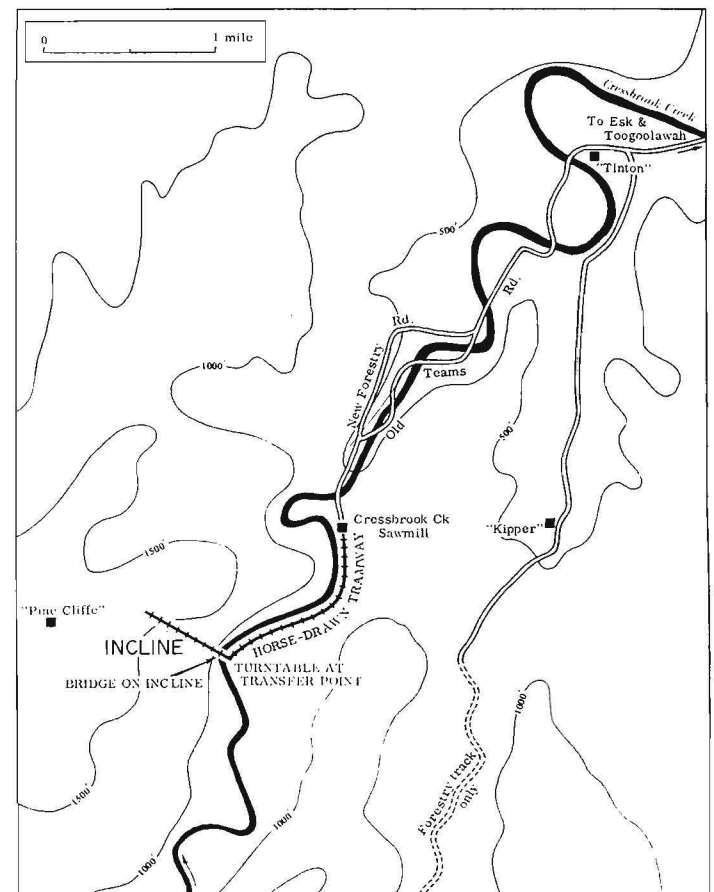
Bridge, Cressbrook.



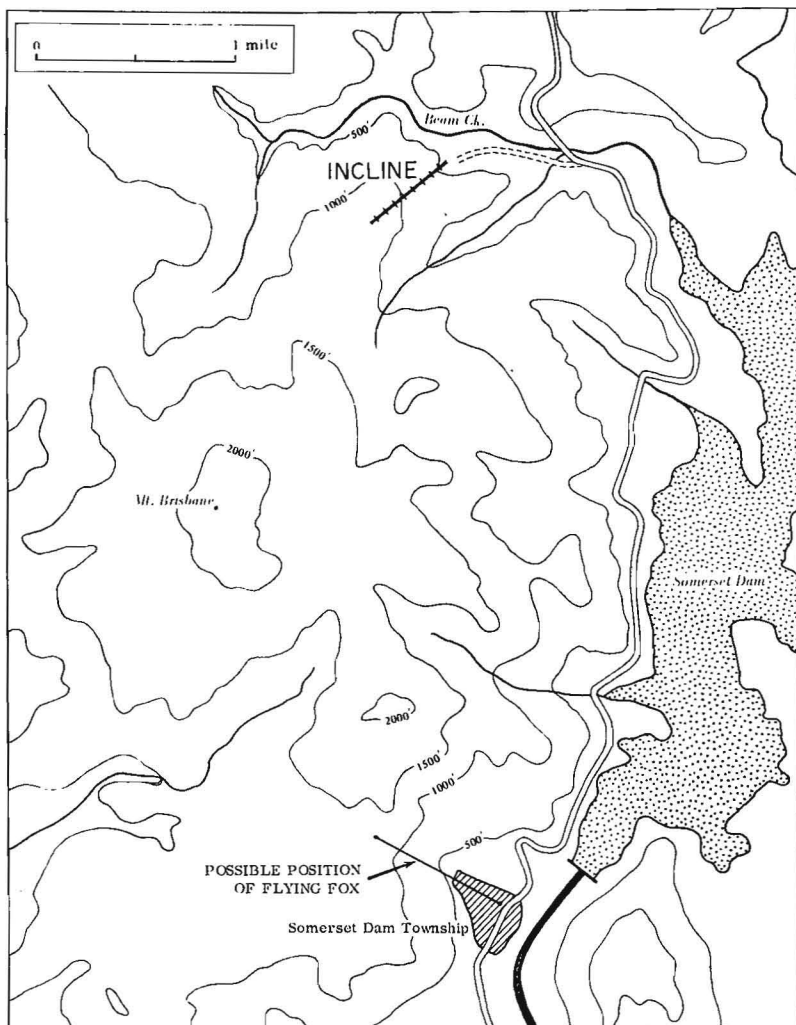
Opening Day, Cressbrook Creek.

The Pine Cliffe area was taken over by James Campbell & Sons around 1930. It is thought that the tramway passed out of use in the early 1930s. A flood in February 1931 washed out the bridge crossing over Cressbrook Creek but '... fortunately the tramline erected some years ago by Mr. Lars Andersen at considerable expense and later sold to Messrs. Campbell and Sons suffered little damage'. The bridge was evidently replaced for it still stands today.

Cressbrook Creek was visited in mid-1971 and the site of the sawmill (and workmen's cottages) was located on the east bank about three miles upstream from Tinton station and about a mile west of Kipper. From the mill — of which only a little wood and ruined brickwork remains — most of the tramway was traced. It appears that a section of the existing road was made over the tramline. Near the top end, part was obliterated by flood damage. The bridge over Cressbrook Creek — obviously that rebuilt by Campbells — was found basically intact, with even a steel rail in place in the middle position. A wheel and stub axle were unearthed, the only visible remains of the turntable. Climbing the incline, thickly overgrown with lantana, the tramway seemed practically undisturbed since it had been abandoned. The wooden rails and sleepers and wire rope remained although much disturbed by the effects of rain, erosion and decay. The telephone wires also remained, that at least is the only explanation for the two galvanized wires that ran the length of the incline. The heavy wire haulage rope was in surprisingly good condition.



Cressbrook Creek Tramway



Beam Creek Tramway

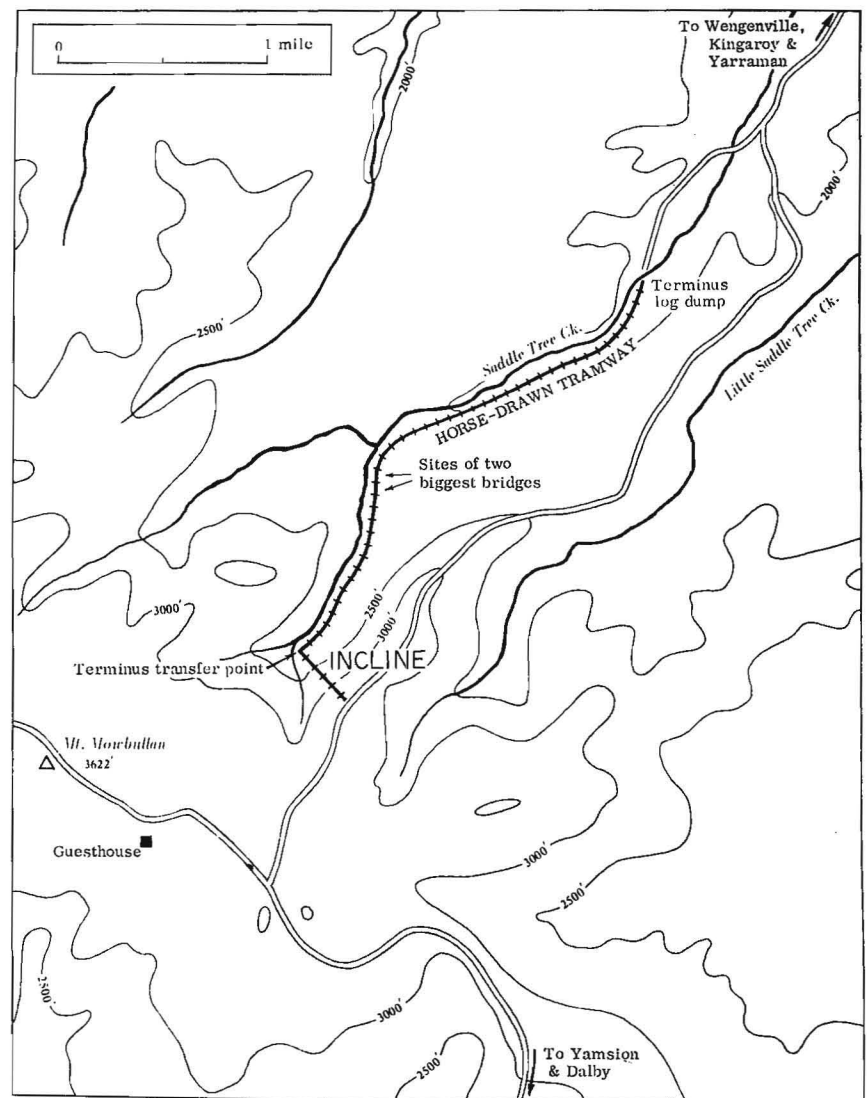
Andersen also drew timber from an area near Mount Brisbane — about two miles west of the present Somerset Dam and a couple of miles north of the dam wall. There was a sawmill known as Mount Brisbane far up Beam Creek but this was closed about 1924 before the introduction of improved transport which enabled logs to be brought down the ridge and into Esk. Near Beam Creek, tapping the north end of the region, an incline tramway was built rising up from a small tributary of Beam Creek straight up a ridge, again rising about eight hundred feet in no more than half a mile. At the bottom end the logs were unloaded on to road vehicles to take the timber to the Esk mill. Eventually the tramway was superseded and a road built, enabling complete road transport which, however, was not without its problems — there was at least one spectacular runaway. At the south end of the area, the terrain was too steep and irregular for normal transport methods. No suitable slope could be found for a tramway and a flying fox was erected instead. It was supported by high poles at the top end and attached to a tree at the bottom. The wire was at one point one hundred and fifty feet above the ground and carried two twelve inch grooved pulleys which supported a log below the wire. The load was braked by means of a tail rope which was also used to return the pulleys to the top for further loads.

Timber was dragged out of the forest, transported by the flying fox and was then loaded on to motor trucks for conveyance to the Esk sawmill. On one occasion the tail rope broke. The log whistled down and splintered into matchwood when it hit the tree at the base but the tree was unharmed. The system was in use for about three to four years, its terminus having been near Hayes Service Station, Somerset Dam. Passengers also enjoyed its convenience for quick transport. Among them was Rod Andersen, a regular traveller, even by night. In order to let the man at the top know when to slow down, it was his practice to light

a cigarette as a warning signal to indicate that he was approaching his destination!

The loading bank and a distinctive three rail bridge were located at the base of the Beam Creek incline in 1971. This area has been much disturbed by the clearing of the land and subsequent erosion and growth of lantana so that the exact path up the ridge could not be followed. The summit is still noticeable as a more open space along the top of the ridge.

In the latter part of 1923, Mr. Hugh Connolly was approached by Andersen and induced to leave his position as foreman with a local shire council to plan, supervise and execute construction of a tramway to enable the exploitation of timber on the Bunya Mountains. Andersen proposed to build a dual system — an incline of about thirty three chains from near the top of the range (not far from Mount Mowbullan), as well as a conventional tramway for two and three quarter miles along Saddletree Creek to a point where a log dump was to be established. From there, bullocks would haul the logs to Wengenville Sawmill, along a satisfactory road surface. With a gang of only three or four men, Connolly built the entire line which naturally had very few earthworks. The tramline followed the creek closely, curving round hills to obtain suitable grades without resorting to heavy cutting. Details of the construction and operation of the line are given in the appendix. Although it ran close to the creek, no floods washed any of the tramway away until it had ceased to be used. It is, however, quite likely that it was the cutting out of the timber above that led to later flooding which did damage the line.

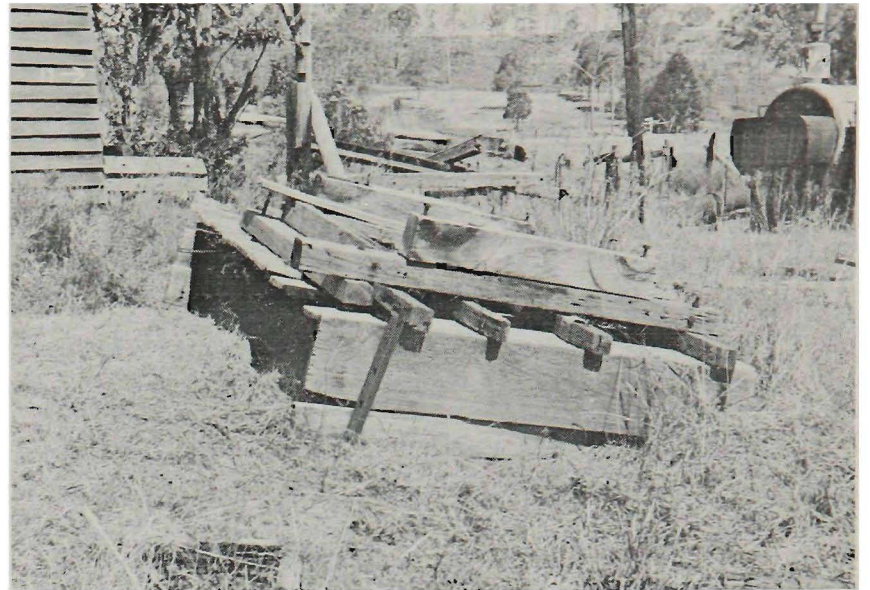


Bunya Mountains tramway



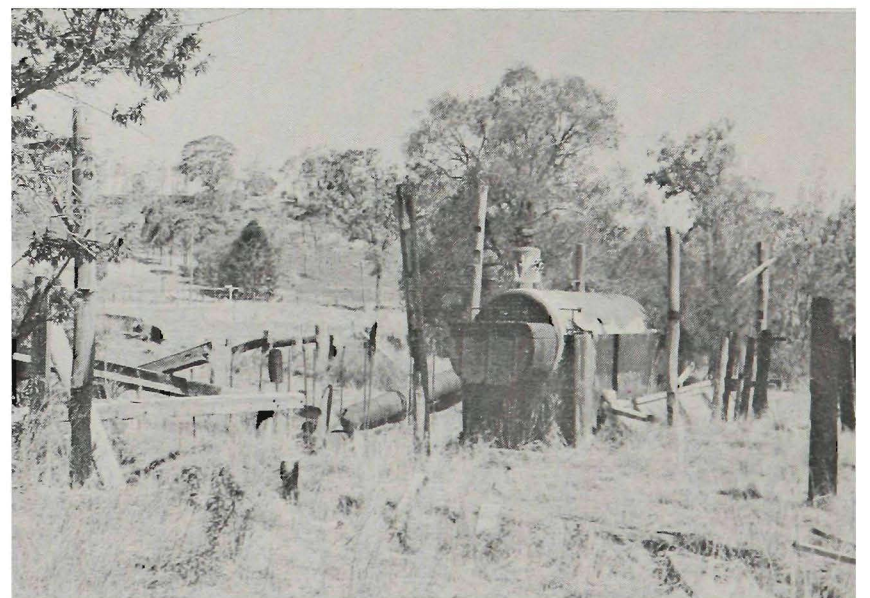
Bunya Mountains Incline.

As transport in this area was poor, both tramway and incline were used for groceries and provisions which were placed on the floor of the truck while passengers travelled seated on the logs. On one occasion an employee allowed two girls to travel on the floor beneath the logs, a dangerous practice had there been an accident. There was apparently at least one accident on the incline when a trolley was derailed on the descent. Instead of using the brake on the drum carrying the wire rope, the man at the top let go in panic and the truck and load crashed to the bottom. Fortunately there were no passengers and no one was in the way of the log as it speared its way to the bottom. It is understood the tramway worked successfully for a number of years and closed around 1930 when the timber had been worked out.

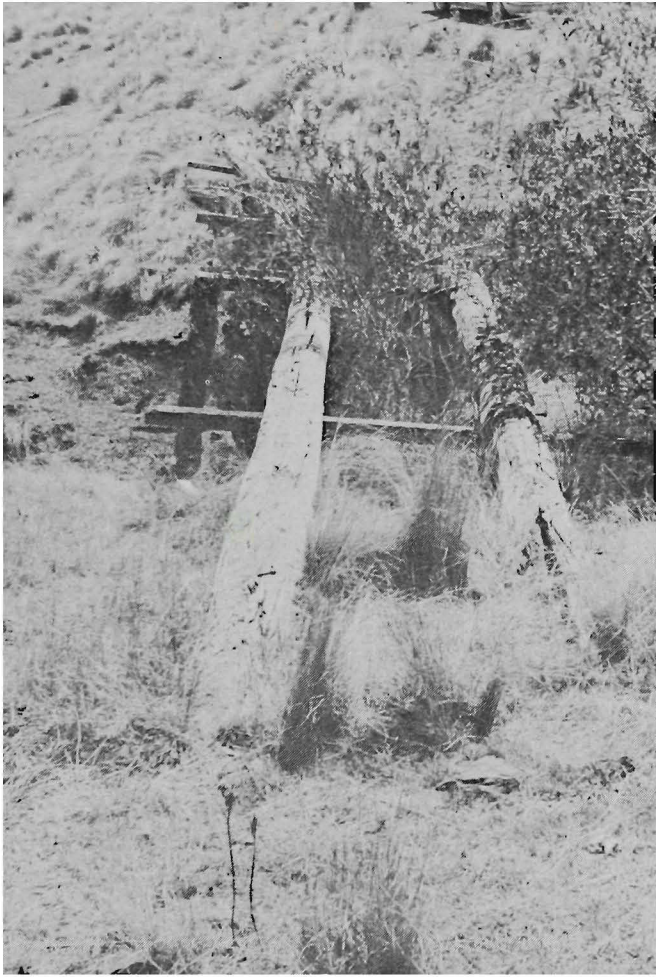


Old Wagon Body at Wengenville Sawmill — believed used on Bunya Mountains Incline or Tramway.

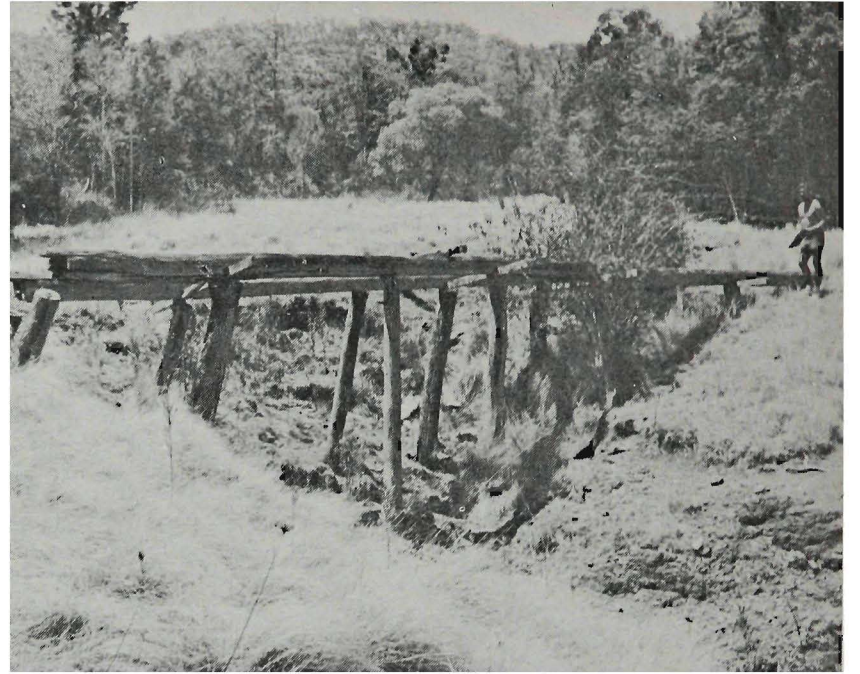
On a visit to the Bunya Mountains in October 1970 it was found that much of the tramway was clearly visible from the road and that much remained of two large bridges although both were in a state of disrepair. At the mountain end, the line runs through forest and many sleepers and wooden rails were visible, still held in place in some sections by stone and dirt ballast. The smaller bridges have vanished. Measurements showed the gauge of the tramway to be three feet. The incline site was easily located, including the passing section, together with a few steel rails left behind when it was dismantled. The summit is less than one hundred yards from the bitumen road which now climbs the range from the direction of Nanango. A few posts marked where the brake drum had been. At Wengenville, the remains of a four wheel wooden truck of approximately three feet gauge were found amongst the remains of the sawmill. This might have been used on the incline.



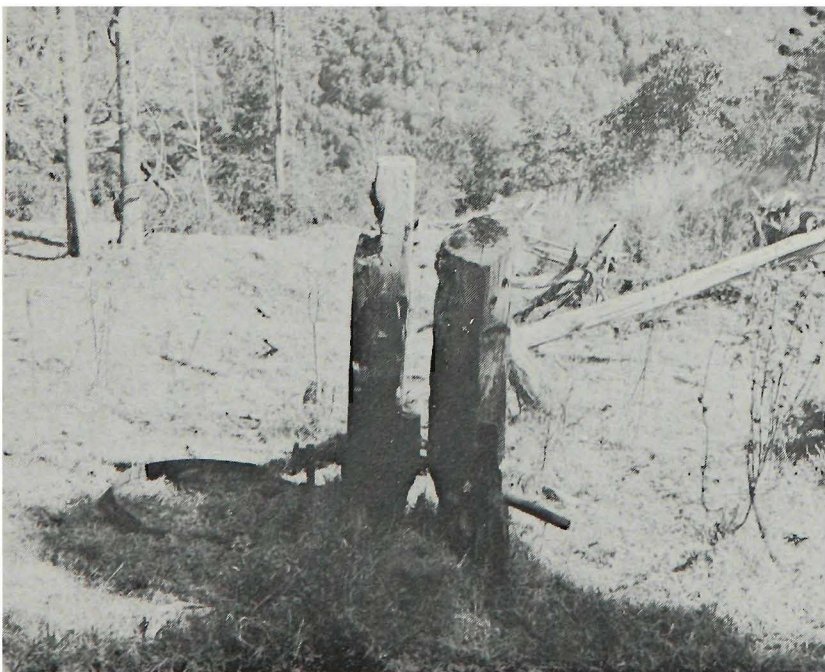
Remains of Wengenville Sawmill.



Bunya Tramway.



Upper Creek, Bunya Mountains.



Posts at top of incline, Bunya Mountains, presumably held drum.



Lower Creek, Bunya Mountains.

APPENDIX
Technical Details of the Tramways
Cressbrook Creek

On this tramway, both rails and sleepers were made of wood, the rails being cut at the mill to $3\frac{1}{2}$ inches square. The rails were square so that they could be reused, presumably to allow rotation if one face should wear unevenly. It was essential that the rails be milled dead straight. The bridges were decked and soil put on them as well as a railing, for the benefit of the motive power — three horses named Bluey, Major and Gypsy.

The tramline ended in a turntable, by means of which the need for a sharp curve (rather difficult using timber rails) was overcome. A short spur off the turntable at right angles to the main line ran beside a loading bank where logs were transferred from the incline, to complete their journey to the mill.

The incline comprised a steeply graded track and two wagons, the weight of the descending wagon pulling up the empty one ready for its next load. The two were connected by a wire which ran around a drum at the top of the incline. The drum was fitted

with a braking device. For economy, the two wagons shared a common centre rail. The three-rail tramway first crossed the creek by a bridge on the level and then immediately began the ascent of the ridge with grade averaging at least 1 in 3. Half way up, the two tracks diverged slightly, the middle rail becoming two separate rails for roughly one hundred feet to enable the two trucks to pass safely. The mode of operation is illustrated, as is the braking device by which the man at the top of the ridge was able to control the descent. Skill was necessary owing to the danger of a runaway. The line was only thirty seven chains long but most of this was invisible from the top owing to the convexity of the ridge. The rails on the incline were also of wood but were spiked on to the sleepers instead of being wedged into a v-notch on the sleeper as on the flat valley floor section. The steep grade probably rendered this necessary for reasons of stability. During the construction of the line, the rails and sleepers were carried up the steep slopes on the backs of the workmen. A telephone was later installed to facilitate communication between ridge top and valley bottom. Stones were loaded into the empty truck when required to help balance the load, thus reducing the strain on the brake drum. The descent of eight hundred feet was accomplished in a matter of minutes.



Turntable, Cressbrook Creek.

Bunya Mountains

On the surface tramline, there were a number of substantial timber bridges crossing the side creeks and gullies which drained into Saddletree Creek. Two were quite long, exceeding fifty feet in length and standing about twenty feet above the bottom of the gully. The track was built of wooden rails and held in place by wedges which kept them firm in the grooves cut in the sleepers. The entire rolling stock comprised three trollies which were formed into one train drawn by horses and there were consequently no sidings or passing loops. The bridges were decked for the horses but there were no railings so that the horses had to be of good nerve. There were never any bridge accidents but occasionally stones on the line caused derailments elsewhere. A jack was carried on each truck for such an eventuality. The train was provided with 'continuous braking'. By means of a wire, the brakes were applied simultaneously on all three trollies, good braking being necessary as the loaded wagons ran with the grade. The

horses were stabled at the mill end of the line near the log dump.

The incline descended six to eight hundred feet in thirty three chains or so, but was not as steep as that at Cressbrook Creek. Again very few earthworks were provided, a fairly uniform grade being obtained by careful selection of the route which was straight from top to bottom. Steel rails were used for this incline. These came from the Queensland Box Company's line at Aribaby Creek via Moore, the transaction being a barter in return for butter boxes, according to Mr. Forsyth⁷. To ensure safe working of the incline, a gong was provided at the top and another at the bottom. When the wagon at the top was loaded and ready for despatch, the top gong was sounded. The man at the bottom gonged when the bottom wagon was unloaded and ready to return to the top. The unloaded logs were rolled on to the wagons on the tramway which, for convenience, terminated in a short low cutting. Later the gong (which could be heard 'for miles') was replaced by a telephone line between top and bottom.



Braking Drum and Man in Charge, Cressbrook Creek.



Log Ramp, Cressbrook Incline.

Author's Note

This research began with only the intriguing Forestry Department map which shows the Bunya Mountains line, and a stray reference from a 1922 *Brisbane Courier*. The discovery of the location, details and historic photographs of these lines is due to the generous co-operation of all whom we asked for help. Especially we wish to thank Garth Andersen, Hugh Connolly and Percy Forsyth. They are among the few remaining persons who know of the remarkable system of tramways built by Lars Andersen.

Grateful acknowledgment is made to Eric Savage, Department of Geography, University of Queensland, for his clear and careful maps.

REFERENCES

1. *Pugh's Almanac*, 1896, Emerald and Esk Directory, p. 52B.
2. *Pugh's Almanac*, 1899, Esk Directory, p. 856.
3. Personal information from Mr. Hugh Connolly of Maidenwell.
4. The Esk sawmill still operates under Lars Andersen's name, being managed by his grandson, Garth Andersen. It is the only one of Andersen's sawmills remaining.
5. *Brisbane Courier*, 30 August 1922. The opening date is not stated but is presumed to have been Saturday, 26 August, 1922.
6. *Esk Record and Upper Brisbane Advertiser*, 31 January, 1931.
7. Personal information from Mr. Percy Forsyth, of Esk, a former long-serving employee of Lars Andersen.