LIGHT RAILWAYS

Number 64
April 1979
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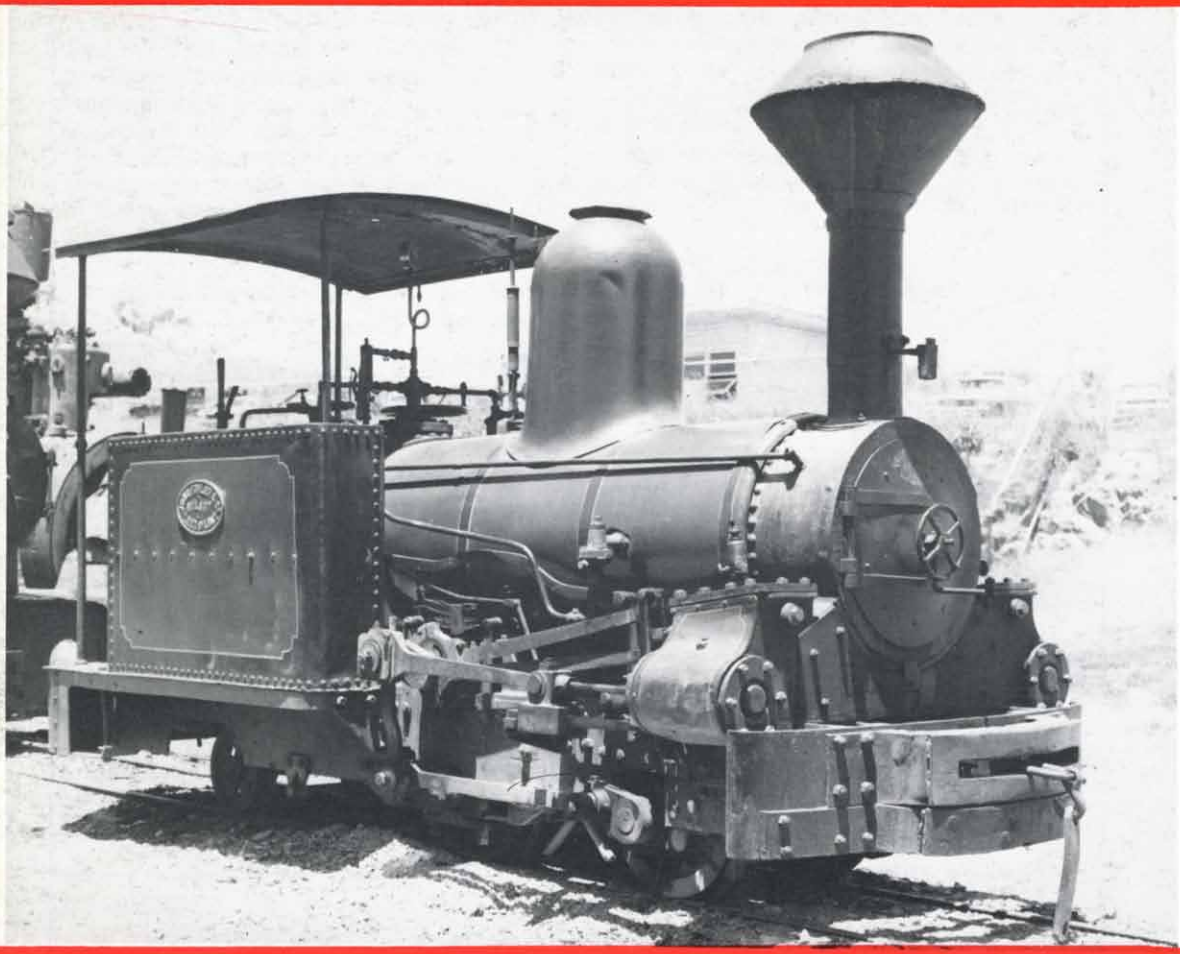

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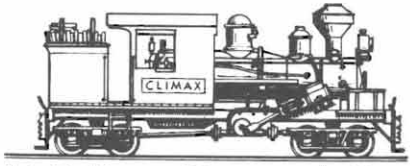

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APRIL 1979

Light Railway Research Society of Australia

Meetings Melbourne: Second Thursday every second month at 8.00 p.m., room 11, Victorian Railway Institute, Flinders Street, Station Building, Next Meetings 15 February, 12 April, 14 June, 9 August, 11 October, 13 December.

Meetings Sydney: Fourth Wednesday every second month at 7.30 p.m., Conference Room Rechabite House, 85 Campbell Street, Surry Hills, Next Meetings 28 February, 25 April, 27 June, 22 August, 24 October, 12 December.

Whilst every effort is made to ensure the accuracy of articles published in *Light Railways* errors may creep in. Additional information is being discovered all the time, and this sometimes contradicts previous information.

If you see any errors, or can add information, please contact the editor, and so help us to record the full history of Australia's light railways.

Historical references to sums of money in *Light Railways* are in Australian pounds (£). One pound equalled two dollars on changing to decimal currency in 1966.

Articles and news items are always welcome. It greatly assists the editors if they are typed or written on one side of the paper only and double spaced.

Editor's column

Again I must apologise for the lateness of this issue of Light Railway, however, be assured that No. 65 and 66 will follow in quick succession. Also LR No. 67 and 68 are being put together now, so it will not be long before Light Railways is again on schedule.

The Victorian Division is producing the next two issues and No. 65 is devoted to Baldwin locos in Australia. But although articles have come forward, there is a requirement for more articles, have you sent yours in yet?, if not start planning now so in 1980 and 1981, Light Railways can appear regularly and on time!

Paul Simpson,
Hon. Editor, N.S.W.

COVER PHOTO

John Fowler B/N 4667-1881, 2ft gauge, with an indirect jackshaft drive. This loco was built to GREIG and BEADON patents. The purpose was to keep the running gear well above ground level to avoid the usual contamination of dirt etc. on the slide bars. This photo was taken at Goulburn, but the loco has since moved back to Mourilyan Qld, where it has been placed in the Sugar Museum.

Photo: John Reynolds.

Notes on Some Jetty Tramways - South Australia

Compiled by D. Estell & K. McCarthy.

Most, if not all of the early railways, which expanded into the main line systems which we see in Australia today, started as lines linking ports with hinterlands. In fact the more recently built iron ore railways in the NW area of Western Australia are examples of this.

Many of these isolated lines serving ports, such as the separate systems which developed along the east coast of Queensland and at Lismore, Coffs Harbour, Newcastle, Sydney and Wollongong in N.S.W., were eventually linked together to form an intergrated state wide network but others were never physically joined to the parent system and most of these have long since closed, victims to the dwindling coastal shipping trade and road transport competition.

Some railways of this classification which never joined with the main networks were at Marble Bar and Hopetoun in Western Australia, Darwin to Birdum in the Northern Territory, Cooktown to Laura in Queensland and Kelly's Basin to Linda and Sorell to Bellerive in Tasmania. In addition to these lengthy undertakings Normanton to Croydon in Queensland, and the Port Lincoln Division in South Australia still operate as isolated units of the parent systems while the Whyalla to Iron Knob tramway, although recently linked to the main Australian railway network at Port Augusta is still virtually isolated as the link railway was constructed to the 4ft 8½" gauge and it continues to work on 3ft 6in gauge metals.

South Australia's railway system expanded under two principles. A main network radiating from Adelaide built by the 5ft - 3in gauge and isolated systems connecting hinterlands with ports built to either this broad gauge or the narrower 3ft 6in gauge, employing both steam and horse traction and, at a relatively early stage, internal combustion traction. In South Australia, many of the isolated systems expanded to connect in a common network resulting in several break of gauge locations, or gauge conversion projects. So complicated is the history of the SAR system we see such paradox as some 5ft 3in gauge lines being converted to 3ft 6in (Moonta, Wallaroo) and many 3in 6ft railways being converted to 5ft 3in gauge.

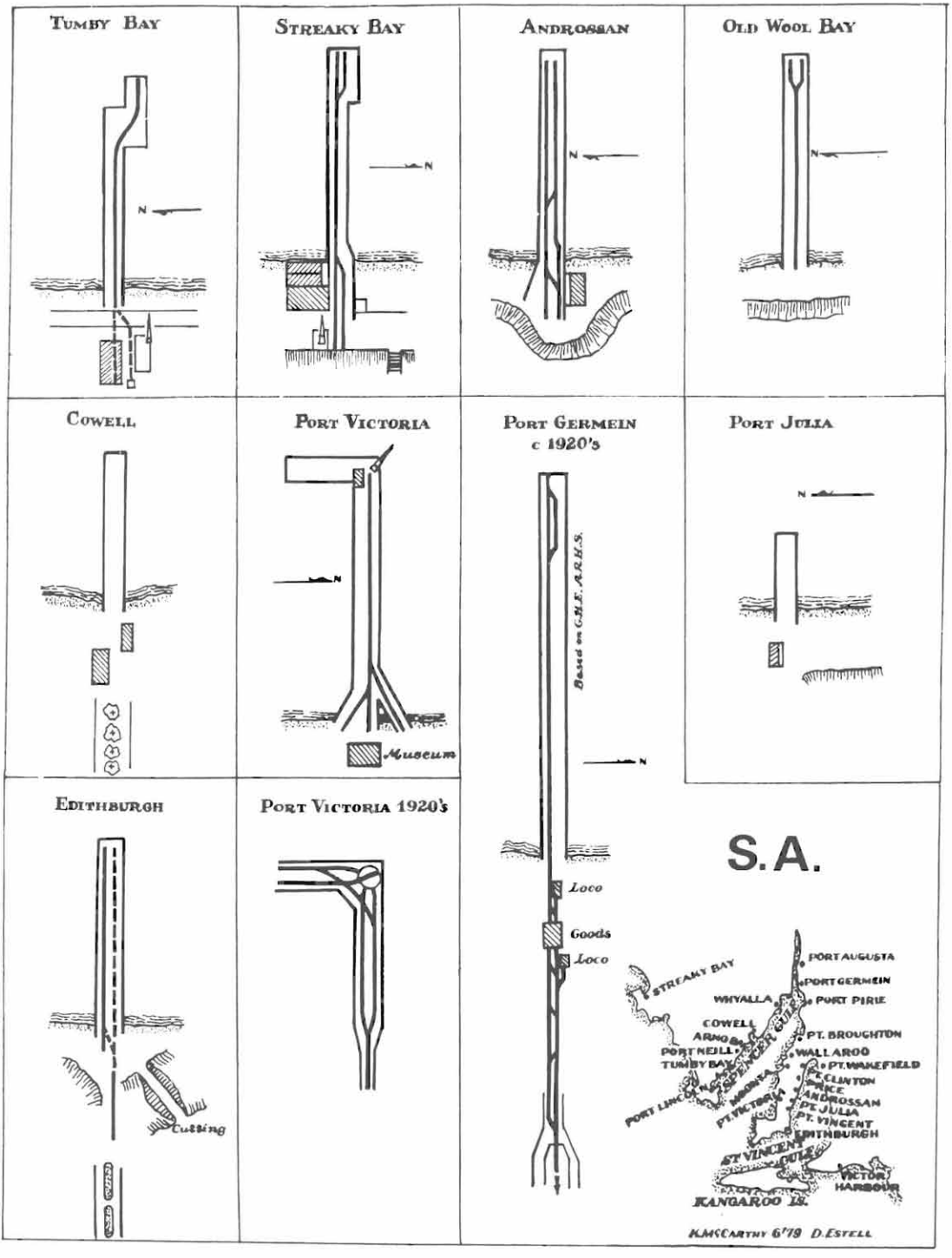
In South Australia there are many small ports and areas of settlement which, until the more recent construction of sealed roads and dependable road vehicles, relied solely on coastal shipping lines to reach the outer world. Some of these ports were situated on the sluggish waters of the gulfs and required lengthy jetties to reach dependable shipping channels, and most of these required jetty tramways of some description.

Some of these jetty tramways extended some distance into the hinterland. One of these, at Port Broughton reached ten miles inland to Mundoora and was worked by horse traction and later, internal combustion engines, while another, at Port Germein was operated by small steam locos linking the jetty with cargo sheds and loading points along the main street. Others, of more recent date linked wharves with quarries, such as the limestone undertaking at Rapid Bay where electric traction was in evidence.

This brief treatment is not presented as a definitive article on the subject, but as a record of certain observations of some jetty tramways which have been made from time to time. It is hoped at some later date that readers may add information on this topic in these pages so a more detailed story may unfold.

Port Germein Spencer Gulf.

A visit to this port in January 1974 revealed a long jetty reaching out into the gulf over the sand flats. At this time a goods shed stood on the shore end of the jetty on the northern side of the approach road while another small shed was situated a little further out. A navigation beacon light was located at the sea end of the jetty.



The main street leads from the jetty and this is divided down the centre with gardens, which possibly mark the location of the old railway line. At the eastern end of this street stands the Railway Institute Building and on the approaches to this structure some 3ft 6in gauge railway tracks still embedded in the roadway could be seen in 1974.

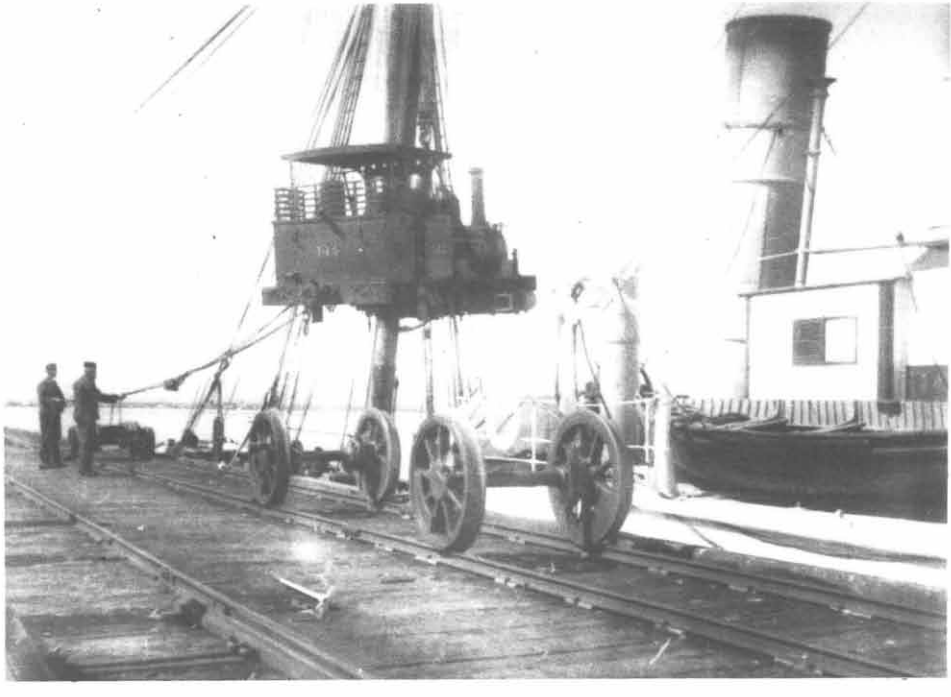
The Port Germein railway was almost 2 miles in length, the jetty accounting for some 5,500ft of this total.

The motive power and rolling stock on these South Australian Jetties were usually the responsibility of the South Australian Marine Board. Heavy repairs were undertaken at their workshops and dockyard at Glanville, Port Adelaide.

The efforts required in transferring even light locomotives between jetties and ships are amply illustrated in a set of four photos discovered several years ago by Mr. W.A. Bayley of Bulli N.S.W. These were captioned "Loco for Port Germein, 1906, the S.S. 'Governor Musgrave' ". The late G. Eardley in his article "The 'V' Class Locomotives of South Australia" (A.R.H.S. Bulletin No 464 of June 1976) stated that loco "V" 144 was sold by the South Australian Railways to the South Australian Marine Board on September 25th 1906 and was transferred to Port Germein as No. 1. from the Glanville Dockyard.

This photo set clearly shows 144 being transferred with the S.A.R. road number still clearly shown and carrying the James Martin builder's plate. Another later photo of the same collection illustrates "V" class number 1 (SAMB number) with the caption "Port Germein Locomotive (Jetty). Rebuilt at the Harbour Dockyard 1915/16". This loco carries a builder's plate different from the Beyer Peacock design fitted to the four original "V" class locos of 1876 and does not resemble the James Martin plates carried by the four locally built engines of 1893. Unfortunately the photo is not clear enough to read the letters on the plate but the word combination does resemble "Built by S.A. Marine Board Glanville S.A."

The railway workshops at Islington were known to replace original plates with their own, so "V" 144 may have been renumbered SAMB No. 1. in 1916 and fitted with a new plate.



Delivering "V" 144 from Port Adelaide (Glanville) to Port Germein on the SS "Governor Musgrave" 1906. Photo set discovered by W. Bayley from the Searcy collection.

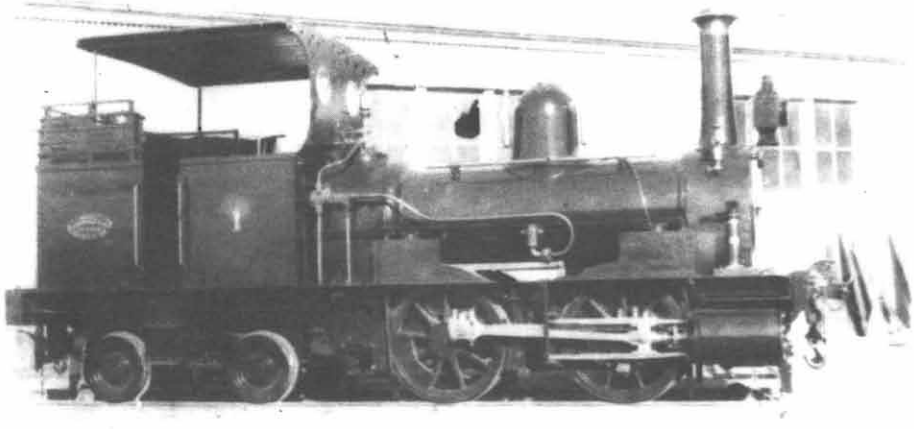
The late G. Eardley listed the following steam locos as being attached to the Port Germein railway in his various writings in the A.R.H.S. "Bulletin".

"V" 12 from Kingston to Port Germein 1882. From Port Germein to Port Wakefield 1882.

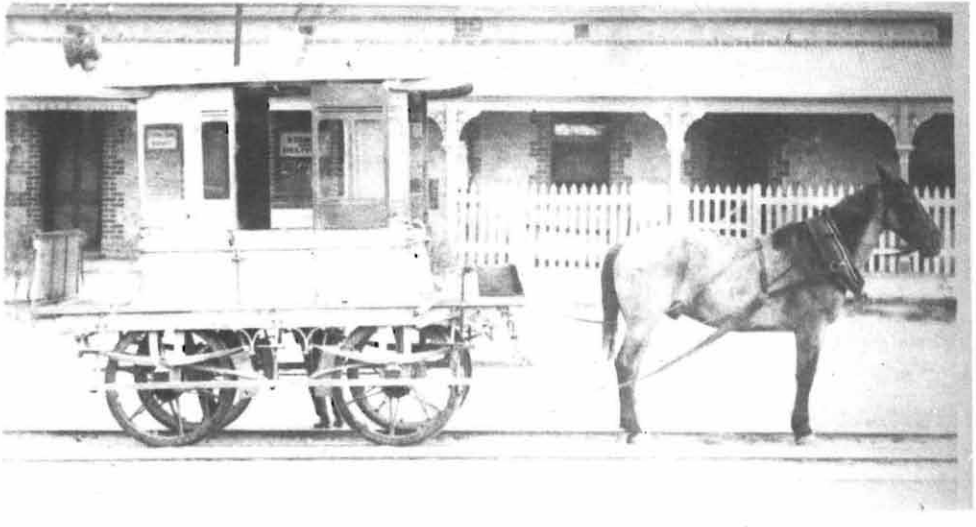
Kitson 0-4-0T 1884

"V" 144 from Port Pirie to SAMB Port Germein 1906. Stored at Port Germein 1933 Boiler removed at Port Germein by 1953.

"V" 10 from Port Pirie to Port Germein November 1937. Stored at Port Germein 1938 and 1952. At S.A.R. Islington Workshops Oct. 1953. Cut up by July 1954.



"V" class loco SAMB No. 1. Rebuilt at the Glanville Dockyard S.A. 1915/16. Photo discovered by W. Bayley in the Searcy Collection.



Early tramcar on the Port Broughton to Mundoora tramway. Possibly an example of the original 1876 rolling stock on this line. K. Major collection.

Close up of waggon on Tumby Bay Jetty taken 10th January, 1974.
Photo: D. Estell.

Tumby Bay. Eyre Peninsula, Spencer Gulf.

This location was visited on January 10th 1974. Two trucks were on the 3ft 6in gauge jetty tramway, numbered 281 and 282. These four wheel trucks were built to the flat top design with the table top overhanging approximately 9 inches on the southern side.

Around 1970 the S.A. Engineering Dept. decided to demolish the jetty and tramway but the residents of Tumby Bay protested that as a holiday centre the jetty played a major part in attracting fishermen to the region. The townspeople picketed the jetty when the demolition gang arrived, an act which finally resulted in the jetty and tramway being handed over to the local council by the Minister for Works when he visited the area to solve the problem. The upkeep of the jetty now costs the local ratepayers several thousand dollars each year in maintenance charges.

Streaky Bay Great Australian Bight.

This port was visited in August 1976. The jetty is served by a 3ft 6in gauge tramway. A warehouse and crane are located at the shore end. Four large flat trucks were observed on the jetty with two open bins on each for handling fish traffic. Three or four smaller and lower four wheel flat trucks were also noted on the tramway.

Port Victoria Yorke Peninsula, Spencer Gulf.

In August 1976 one four wheel flat truck was noticed on the 3ft 6in gauge jetty line. A rail mounted compressor unit was in use on the jetty assisting in repairs. This tramway may once have continued inland from the jetty as the roadway has a centre garden strip which could have been the

View of Streaky Bay Jetty and waggons taken 23rd August, 1976.
Photo: D. Estell.

Looking seaward along the jetty at Ardrossan S.A., taken 25th August, 1976

Photo: D. Estell.

tramway right-of-way.

The accompanying map shows the layout in 1976, but the earlier diagram is of the c 1920 period and has been drawn from a photo which appeared on p229 of Michael Page's book "Fitted for the Voyage".

Androssan. Yorke Peninsula. St. Vincent Gulf.

This jetty was also inspected during August 1976. Wheat is handled at a separate jetty by conveyor belt, while the B.H.P. Coy. also has a "T" jetty with a conveyor belt system.

Two flat trucks, similar to those at Tumby Bay were on the 3ft 6in gauge jetty railway with the table top overhanging to the north. The shore end was provided with a warehouse while a light crane served the pier head.

Edithburgh. Yorke Peninsula. St. Vincent Gulf.

A single track 3ft 6in gauge jetty tramway was in position during August 1976 and there was evidence that a parallel track once ran along the south edge of the jetty. At the land end of the jetty, tracks and check rails were still in position in line with the lifted jetty track. Beyond this, garden plantations along the main street possibly marked the former land route of the tramway.

Cowell Eyre Peninsula. Spencer Gulf

The Cowell jetty stands in Franklin Harbour. The 3ft 6in gauge track had been removed from the jetty by 1976 but two four wheel flat trucks, one of which carried number 342 were situated in Cowell Park. Their table tops extended over both side chassis sills. Here as well, a plantation along the main street possibly marked the former route of the tramway.

Wallaroo Yorke Peninsula. Spencer Gulf.

Two jetties were noted during a visit in January 1974. On one, the old coal bunker was still in place, while the larger jetty carried a conveyor belt from the silos to the jetty head. This was once a large port associated with the sailing ships and the annual grain races to the European markets while copper from the Moonta and Kadina areas also passed that way. Once part of the 3ft 6in gauge Port Wakefield railway system, this network was converted to the board 5ft 3in gauge in the 1920's.

Port Broughton Spencer Gulf

A 3ft 6in gauge tramway still served the jetty in January 1974. This was perhaps a remaining short segment of the 10 miles railway which extended into the interior to the wheatlands at Mundoora until 1942. The only rolling stock observed in 1974 was a crane mounted on a four wheel truck. Road indentations indicated that the original line passed through the town from the jetty along the street centre.

Port Wakefield. St. Vincent Gulf.

This was the terminus of the 28 miles, 3ft 6in gauge horse tramway opened to Hoyleton in 1870. Steam traction replaced horses in 1876 and the network eventually expanded to connect with the Port Pirie division. The Port Wakefield railway was converted to 5ft 3in gauge in 1924. In 1974 the old basin was so silted that the depth only amounted to a few inches in the deeper parts! The old basin lock as also noticed with the gates closed to form a swimming pool. The old stone customs house stood beside what seemed to be a former light railway location between the jetty and the present railway station.

Old Wool Bay. St. Vincent Gulf.

A jetty tramway was noticed at Old Wool Bay in August 1976 extending from the land end in single track and terminating at the pier head in a two track fork.

Port Julia St. Vincent Gulf. Yorke Peninsula.

A very short jetty stood at Port Julia in August 1976. The location of the shed at the land end of the jetty suggests that a tramway may have once served this wharf but there were no physical signs seen of this facility during the 1976 visit.

Price. St. Vincent Gulf. Yorke Peninsula.

There is evidence that a causeway across the swamps once linked with a jetty. A tramway once operated between the jetty and a salt works.

Port Clinton.

Although named as a "Port" no wharf or jetty was seen at this location. Boats using Port Clinton were aground on the mud flats awaiting the next high tide.

Other Locations

Jetties were seen at New Wool Bay, and Port Giles while jetties were also provided at Port Vincent and Pine Point but no rails could be seen. Black Point may have had a jetty in the past. At Port Neill a jetty was observed as well as the remains of a tramway. The following sites were not visited but at one stage may have been served by the usual jetty lines:- Port Parham, Port Prime, Port Gawler, Yvonne Jetty (Kangaroo Island) Mydonga Jetty, Port Stanvac, Port Noarlunga and Port Willunga.

LEVER'S TRAMWAY

Since publication of the story of Lever's tramway (LR63) this photo has been uncovered. The 'Loco' is the LINN tractor shown hauling a log jinker, posing for the camera, with the work crew travelling "passenger". Note the simple construction of the bridge, of which there were many on Lever's tramway. Photo: P.T.C. N.S.W. Archives.

Hartley Vale Shale Tramway

by F. John Reid

In this article I have endeavoured to describe this tramway which operated in the western Blue Mountains of New South Wales.

No doubt there are many omissions and measurements stated are approximate only. It is still possible today to walk (or even drive a vehicle) along the tramway track on the ridge. It is also possible to descend the incline though it is now overgrown and care is needed as it is steep. (These notes were compiled in 1974, Ed.)

Motorists travelling on the Great Western Highway between Sydney and Bathurst can turnoff this road at Mount Victoria and travel along the Darling Causeway to the small settlement of Bell and continue on to Lithgow (passing close to the abandoned Great Zig Zag that was used for 41 years).

Located 3½ miles on the western side of Mount Victoria is the railway platform and siding of Hartley Vale. Approaching Hartley Vale railway station the motorist will note a road junction sign which is followed by a signpost "Hartley Vale" 2½ miles. The railway station at Hartley Vale is no longer a station in the true sense of the word as it was closed in 1973. The small station building, water tank and fibro name-boards were removed and all that remains is the brick-faced platform. However a closer inspection is needed as a dead-end siding connects to the Down Main Line. This siding is a link with busier days of last century and today is used to load coal which is mined in the Grose Valley.

To reach the old mining area of Hartley Vale itself, a 180 yds descent is necessary leaving the Darling Causeway and travelling via the Hartley Vale Pass. The mining area is reached after travelling 2½ miles and today Hartley Vale is only a ghost town, but in the last three decades of the 19th century it was a mining area for the extraction of shale.

Companies that Extracted Shale at Hartley Vale

Extraction of shale of commercial purposes commenced at Hartley Vale in 1865 when the Kerosene Oil and Paraffine Co. was formed to work the southern portion of the deposit [1]. In 1866 this company became known as the Hartley Kerosene Oil and Paraffine Co. and erected an oil plant [2]. The first oil came on the market in 1866 and the company dispatched its production to Sydney and Melbourne for use in gas enrichment. All materials were transported from Blackheath railhead via Mount Victoria and Mitchell's Pass to set up the oil plant[3].

In 1867, another company, the Western Kerosene Oil Co. Ltd started operations in the northern side of the valley and erected a retorting plant and refinery in 1868 at Botany Road, near Waterloo, in Sydney. The shale extracted by this company was transported by road to Mount Victoria railway station where it was sent to Sydney for processing [4]. When the railway was extended westwards, the company built an incline to the top of the ridge and a tramway to join the railway at the Hartley Vale platform. By the end of 1869 the Western Kerosene Oil Co. Ltd had established a narrow gauge tramway that was 3ft (914mm) gauge[5]. (possibly metre gauge, Ed) The tramway was designed by a Mr. Norman Self [6]. Also in 1869 the company constructed a road from the mines up a new pass ("Hartley Vale Pass") to the railway, where a

siding was established. This was the first industrial siding on the Great Western Railway of N.S.W. [7].

In November 1871 the two companies extracting shale at Hartley Vale merged and became known as the New South Wales Shale and Oil Co. Ltd. As a result the oil works built by the Hartley Kerosene Oil and Paraffine Co. were closed down.

Between 1871 and 1880 it appears that only high grade shale was sent to the Botany Road works for treatment and it was in 1880 that the company decided to erect a second refinery at Hartley Vale for the treatment of the low grade shale that had accumulated at the Hartley Vale mines.

After 382,600 tons of shale were mined at Hartley Vale the shale deposits cut out [8].

The Tramway

This will be described in three sections -

i) The tramway that was constructed on the ridge and which commenced at the Hartley Vale Industrial Siding and terminated at the top of the incline.
ii) The incline which descended into Hartley Vale.
iii) The tramway in Hartley Vale.

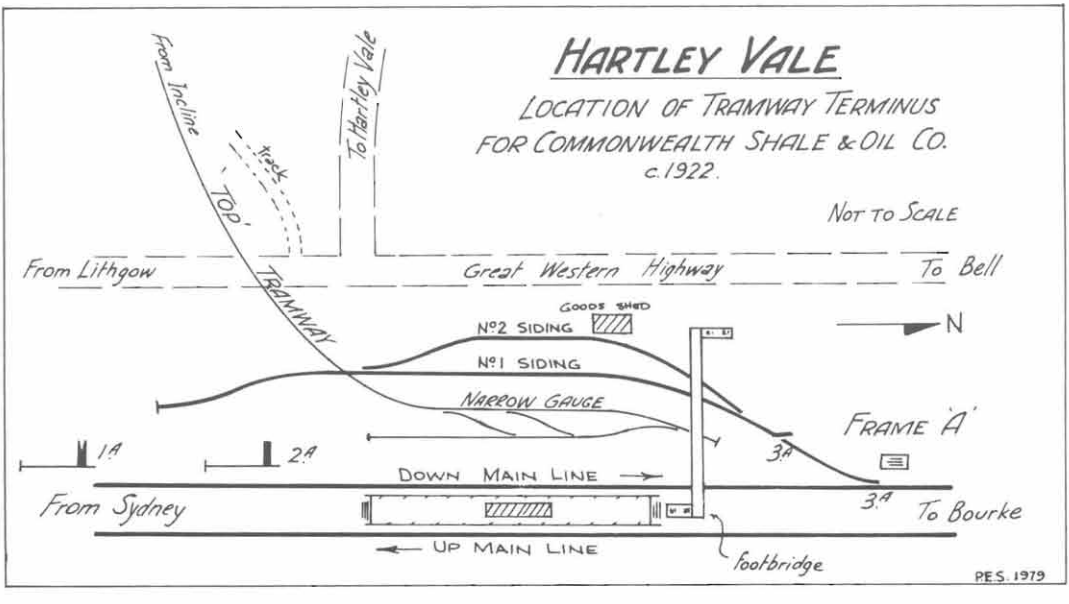
The Tramway on the Ridge

From the industrial siding on the Great Western Railway to the top of the incline is about 1.5 miles and the tramway used a projecting ridge that juts out from the Darling Causeway. The tramway for the first 1100 yds ran in a north-west direction and followed the north-west side of the ridge on a down grade. In this section ballast does not appear to have been used and it must have been after a period of time that ash was used for this purpose, because there is evidence of it today on the tramway track.

In this section there are no sharp curves and two embankments are noted, the first one being about 300yds from the exchange siding and the next one about 1100 yds from the siding. The first bank is curved and reasonably elevated. Just after leaving this bank a well preserved sleeper remains in the tramway formation. The second bank is straight and about 100 yds in length. On both banks ash deposits are still visible though in the case of the curved bank, weathering has occurred since the tramway track was lifted.

The straight bank is near the half-way point of the tramway on the ridge. After leaving this bank the tramway rises on a slight up grade and follows the south-west side of the ridge for about 700 yds. In this section there are earth embankments and about 250 yds from the straight bank an old iron pipe is still in the tramway formation, no doubt it was used for drainage. It is about 10 feet in length.

After covering the 700 yds from the straight bank the tramway changes direction from north-west and swings more to the south as it follows the ridge. In this direction change the tramway curves on a gently rising grade to follow the rather narrow ridge. At the top of the rise the tramway is about 2000 yds from the industrial siding and to the west there is a view overlooking Hartley Valley, Hassan's Walls and Hartley Vale. From this



vantage point the remains of the works of the N.S.W. Shale and Oil Co. Ltd in Hartley Vale can be seen.

The tramway is level but within a few yards commences a slight down grade. It then enters a shallow cutting about 200 yds long hewn out of rock. Today it is overgrown with trees and ferns. Drainage channels are provided at the start and half way along the cutting. Sleepers are in situ at the incline end of the cutting.

The tramway continued for about another 100 yds still on a slight down grade and on its eastern side are sandstone cliffs. On its western side is Hartley Valley. The tramway stopped abruptly as it was on the edge of the valley and the Hartley Vale Incline was constructed to bring trucks of shale from the mines in Hartley Vale to the ridge of the tableland on which the small steam locomotive operated.

The Incline

This was constructed "on a gradient so steep that it does not appear very much out of the perpendicular" [9]. This comment is very appropriate as a hiker ascending the incline today would find the gradient very steep. It is certainly a tribute to the engineering skill of Mr. Norman Self that even today it is still in a remarkable state of preservation, although it is considerably overgrown with saplings and the elements have caused some erosion of the formation.

The incline was constructed in a north-east - south-west direction and it is about half a mile in length. At the commencement of the incline there is a stone retaining wall on the northern side, and on the southern side are some ash deposits.

Operations at the top of the incline would have been restricted by lack of available level land. Two tramway tracks existed here, one being constructed slightly higher than the other. The elevated track overlooks Hartley Valley and no doubt was used as a siding. Today the stone foundations of the steam winch remain and in addition to the space occupied by the tracks, the remaining area of level land must have had some construction on it as there are bricks scattered around. Also four trucks are buried in the ground.

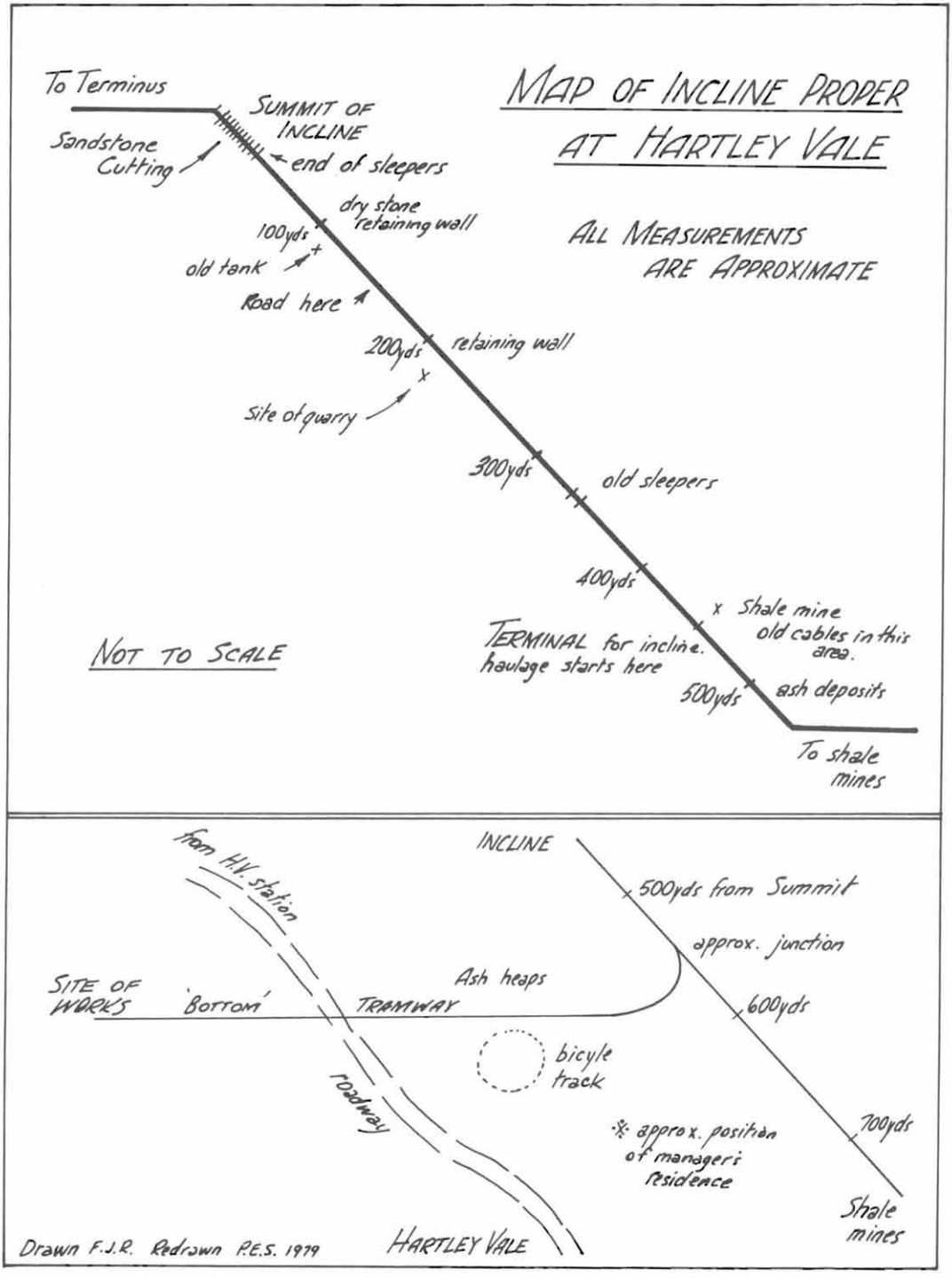
When in operation the incline must have certainly been a sight to behold as the steam winch worked, by means of the cable, the full trucks of shale from the valley below.

At the commencement of the incline sleepers are still in situ for the first 30 yds and considering that they have been in the ground since its construction they are very well preserved. On some of the sleepers notches made by the cable are visible. The sleepers have been well packed and this perhaps is the reason why they are still in the position they are, when laid last century. Due to bushfires, and erosion by water running down the steep grade, there is a long gap before any more sleepers can be found.

Sleeper at commencement of incline. Note the spikes and cable marks. Taken January 1974. Photo: F. John Reid.

Between 20 yds and 40 yds from the top of the incline the track passed through a sandstone cutting. The cutting must have been blasted away as jumper bar marks are visible on the sandstone walls. It is not possible to see the full length of the incline due to the saplings and bush growth which are encountered after leaving this cutting. Lyre birds and other bird life can sometimes be seen in this area.

Between 40 yds and 60 yds some scouring of the formation is evident. At approximately 70 yds from the top, a dry stone retaining wall is encountered on the southern aspect of it and this wall continues for the next 60 yds. It is well preserved. The width of the incline at this point is about 10 feet and this appears to be the average width throughout. An old rusty tank (hand-riveted) was seen about 110 yds from the top of the incline on the northern side. 150 yds from the top a road leads away from the incline. This was probably used to provide spoil for the filling.



Straight bank on the "ridge tramway" about 1100 yds from the industrial siding. This is the bank "as it is today". At the base of the rock on the left hand side of photo is a sleeper in original position. Photo: F. John Reid.

At 180 yds from the summit the stone retaining wall commences again on the southern aspect but it is only about 10 yds long. At 200 yds the wall commences again on the southern side of the incline and continues for 30 yds. There is a quarry at 210 yds and this no doubt provided the stone used in the construction of the dry retaining walls.

Between 230 yds and 250 yds the incline is on an elevated bank and this section is reasonably clear of growth. Shale pieces can be seen in this section (but also there are pieces of shale in other sections of the incline) which would have fallen from the tram trucks as they were hauled to the summit.

For the next 150 yds (from 250 yds to 400 yds) the incline is still well defined but weathering has taken place in this section. At approximately 330 yds from the summit an old sleeper survives (300 yds since the last sleeper was seen) and the cable mark is still discernible. Another sleeper was found at 340 yds.

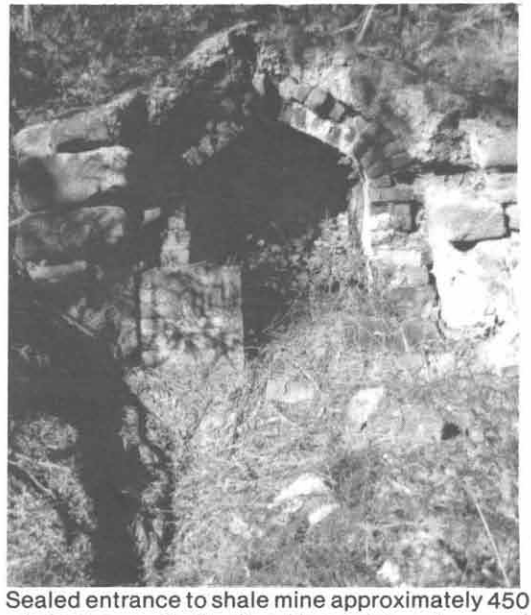
At approximately 450 yds from the summit is an area of interest. Time and the elements have changed many features that existed in this area during the mining era. Close to this point and on the southern side of the incline is an old shale mine. The shale mine is closed at the entrance but I saw bricks (used on the mine roof) and stone work (used on the mine entrance). Old rusty cables are also in the area and no doubt they were used by the steam winch. At the 450 yd point from the summit evidence indicates that two tracks existed here and that it was the terminal point for the tram trucks using the incline. Ballast (of ash) is well packed and still has grease in it. Lubrication of tram trucks was probably carried out here.

Between 460 yds and 500 yds the formation of the incline track is still discernible. At 500 yds a fairly large ash deposit was seen on the southern side of the incline formation. At 510 yds there is another small stone retaining wall but it is only about 6 yds in length. This wall is on the northern aspect of the incline formation.

At 520 yds half of a sleeper remains and at 540 yds from the summit an old tank was seen buried in the ground. At approximately 550 yds from the summit a tramway track junctions with the incline track. This proceeded to the oil works of the N.S.W. Shale and Oil Co. Ltd.

At approximately 450 yds from the summit of the incline was where the full tram trucks of shale and later the small travelling tanks of refined oil were brought to be winched up the mountainside and then taken to the industrial siding at Hartley Vale Railway Station by the small steam locomotive, for transhipment.

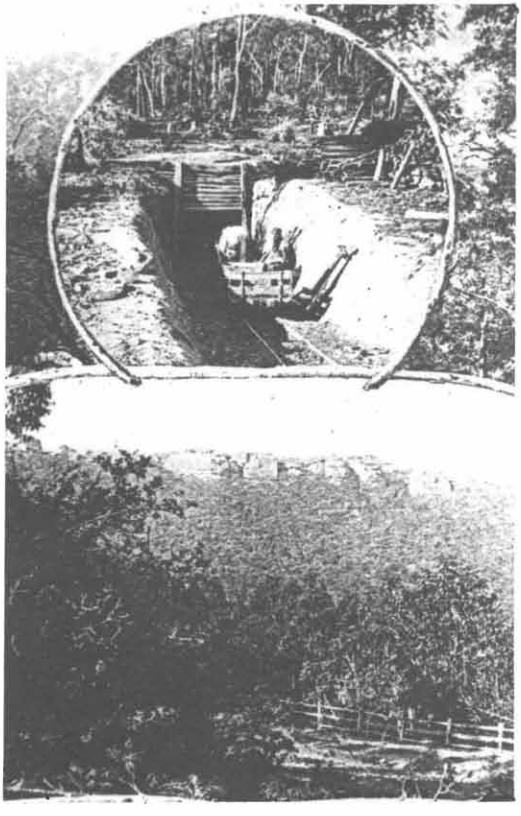
From the 450 yds point the incline track proceeded for about another 300 yds on the valley floor and terminated at shale mines in that area.



Sealed entrance to shale mine approximately 450 yds from summit of incline. Note brickwork on roof. Taken Tuesday, 4th April, 1974.
Photo: F. John Reid

As a conclusion to what must have been a spectacular sight when operating it is fitting to close the Hartley Vale Incline with Charles Lyne's description . . ." and, standing near the mine, the visitor sees the tramway up the mountain, on a gradient so steep that it does not appear very much out of the perpendicular, and ascending or descending by means of wire ropes and a steam engine, the trucks of shale or the emptied trucks as the work of the mine requires" (10)

Was the view Lyne describes in the early 1880s obtained from the closed mine at the 450 yds point? No doubt the incline was visible from the mine entrance in the 1880s.



This photo, copied from "The Railway guide of New South Wales", Sydney: Thomas Richards - Government Printer 1881. The top scene shows a horse drawn skip and miner entering a shale mine at Hartley Vale c.1879. The lower scene shows "Hassan's Wall" viewed from Old Bowenpels.
Photo: Miss M. Klam, Lithgow Regional Library.

The Tramway in Hartley Vale

The tramway in Hartley Vale was built on the valley floor and needless to say presented no great construction difficulty. It can still be seen today as a slightly elevated bank crossing the valley floor and slight sleeper depressions can be seen in the tramway formation.

Approximately 550 yds from the summit of the incline the tramway track veered away from the incline track and proceeded in a northerly direction to the plant of the N.S.W. Shale and Oil Co. Ltd. The length of the tramway track from the junction to the works is about a quarter of a mile. For the first 150 yds approximately the tramway has ash heaps on its eastern side. On its western side can still be seen the bicycle track (overgrown) which was a popular form of sport for the workers living in Hartley Vale. Five revolutions of the track equalled a mile. In close proximity to the bicycle track and on a small knoll was the manager's residence. This, I was informed, gave the manager of the N.S.W. Shale and Oil Co. Ltd. a sweeping view from the works to the incline. It still stands today.

At approximately 200 yds the tramway crossed the road (previously mentioned as "Hartley Vale Pass") and continued to the works area. This area today is used for cattle grazing.

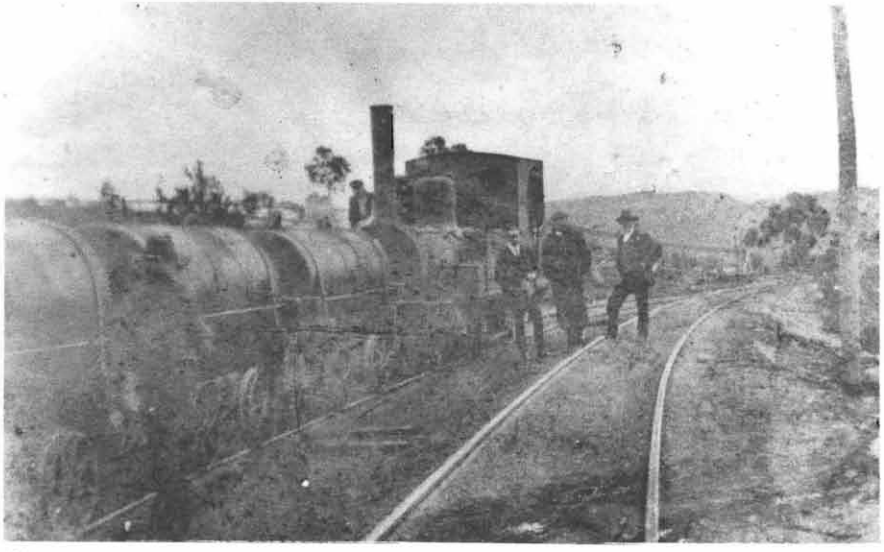
A few buildings still stand in Hartley Vale. In addition to the manager's residence there are a few houses, the "Comet Inn" and the Public School.

Phases of Incline and Tramway Working

There were three phases of incline and tramway working. They were as follows:-

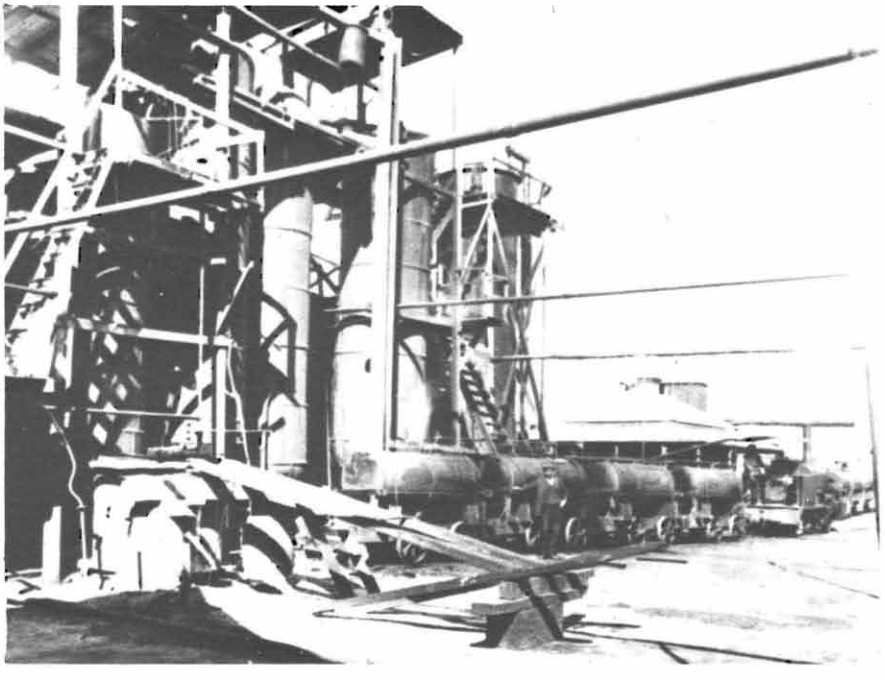
i) Period 1869-1880. During this period high grade shale was sent to Sydney for treatment.
ii) Period 1880-circa 1906. In 1880 retorts were constructed to treat the low grade shale that had accumulated at the mines. This period would have seen the incline and tramway used for the transport of high grade shale and also refined oil.
iii) Period circa 1906-1913. This was the final phase of the incline and tramway. The works in Hartley Vale were kept in operation by the use of the refinery for processing crude oil brought from Torbane which was another shale mining area to the north of Hartley Vale and about 50 miles distant.

Operations finally ceased in Hartley Vale about 1913 and the machinery was dismantled towards the end of the Great War and taken to the Wolgan Valley. With the dismantling of the works in Hartley Vale it was probably not long after that the incline and tramway tracks were also removed.



Hartley Vale Tram that operated from Industrial Siding to the summit of the Incline ("ridge tramway"). Gauge 3ft.Photo: Courtesy Lithgow District Historical Society.

"Bottom Tramway" locomotive that operated between the works and the incline terminal, seen at the refinery siding c.1906.
Photo: Courtesy Mr. Paridaens of Hartley Courthome.



View of Hartley Vale Incline. Tramway track (bottom left hand corner) would be from the works of the N.S.W. Shale and Oil Co. Ltd. Closer examination of photo shows a tram truck either ascending or descending incline. Note the "hut" and "siding" where cable operations were carried out.
Photo: Miss M. Klam, Lithgow Regional Library.

Tonnages of Shale sent to Sydney via the Incline

Following tonnages are of shale sent to Sydney in the mid 1870s. This shale would have been of high grade. In 1875 shale sent was 9,856 tons and in the following year (1876) shale sent was 15,598 tons. Another figure states that nearly 5,000 tons of shale was sent to Sydney a month when trade was brisk (11).

Locomotives

Two steam locomotives were used by the New South Wales Shale and Oil Co. Ltd. To the best of my knowledge they were both of the 2-4-0 type and had a saddle tank. The locomotive that was used on the ridge tramway appears to have a protective cab whereas the locomotive employed in the works area had an open cab.

It would appear that the locomotive on the ridge tramway worked funnel first to the summit of the incline. The locomotive employed in the works area worked funnel first between the works and the terminal of the incline.

This working procedure is put forward after inspection of several photos.

Rolling Stock

The capacity of the tram trucks was from 10 cwt to 11 cwt.

The capacity of the tank wagons used on the tramway and incline was about 350 gallons.

Appreciation

I wish to express my thanks to the Lithgow District Historical Society for photographs supplied and to Miss M. Klam of the Lithgow Regional Library for letting me delve into books for last century. A final word of thanks to Mr. Paridaens of Hartley for suppling information about the Hartley Vale area.

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1. *"The Mineral Industry of N.S.W."* No. 30 "Oil Shale". Compiled by S. R. Lishmund. 1973.
2. Same reference as for "1".
3. *"Kerosene Shale: Its Discovery and Refining at Hartley Vale."* A paper prepared by Mr. F. Winchester for the Lithgow District Historical Society.
4. Same reference as for "3".
5. Same reference as for "1".
6. Same reference as for "3".
7. "The Railway Crossing of the Blue Mountains" (N.S.W.) by R. F. Wylie and C. C. Singleton. Bulletin No. 248, June 1958. Australian Railway Historical Society.
8. Same reference as for "3".
9. *The Industries of New South Wales* by Charles Lyne. Pages 103 and 104. Sydney: Thomas Richards Government Printer 1882.
10. Same reference as for "9".
11. *The Railway Guide of New South Wales.* Sydney: Thomas Richards Government Printer 1881. Used for tonnages of shale despatched in 1875 and 1876.
    The Industries of New South Wales by Charles Lyne. Pages 103 to 104. Sydney: Thomas Richards Government Printer 1882. Used for monthly figure of 5,000 tons (5,100 tonnes). This figure does seem high.

Other References

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Kerosene Shale Deposits of New South Wales, 1903, J. E. Carne.

A TRIO OF DAVENPORTS — a further word.

By K. McCarthy

In Light Railways No.63 (January 1979), on page 5, there was brief mention of the boiler from Davenport 0-4-0ST 2ft gauge locomotive no. 1595 being taken to a farm near Menangle in the mid 1930's.

Acting on clues given by Mr. Bruce MacDonald, Illawarra Light Railway Museum Society members visited the property of Mr. Mick Cleary near Menangle N.S.W. during January 1979 and were pleasantly surprised to find the boiler, saddle tank and smokestack still standing under the shelter of a rock platform on the farm.

It appears that Mr. Cleary actually delivered loco 1596 to Kiama in c 1936 and he transferred the boiler of 1595 from the Menangle Sand Tramway to his farm to supply steam to a portable engine positioned to drive a saw bench. From the relics found on the farm in January, it seems that the boiler of the portable was possibly condemned in the 1930's and the Davenport boiler was placed beside and below the portable, its smokestack had been extended to provide a better draught, and a "live" steam pipe had been connected to the old portable engine unit.

As his property is expected to be resumed by the Department of Main Roads Mr. Cleary made a generous donation of the Davenport boiler to the ILRMS as a spare unit for the former Kiama sister loco now in steam at Albion Park.

In addition to this item three interesting hopper tip trucks were also given to the museum society. These were constructed to the 18 inch gauge by Hodkinsons of Newtown N.S.W. and were mounted on the axles by inside bearing boxes. The hoppers are mounted on a turntable frame so that the units can be worked as either end tip or side tip wagons.

These items were delivered to the ILRMS museum on February 22nd 1979 and on closer inspection it has been found that the boiler and tubes are in remarkably good order. The badly corroded saddle tank has been removed, the smokebox and tubes cleaned out and the boiler painted silver.

Well hidden from casual observation. The boiler and saddle tank of Davenport 2ft gauge loco No. 1595 as seen at the Cleary farm in January 1979. Photo: K. McCarthy.

The brief story of making a combination Davenport loco from nos. 1517 and 1596 at Kiama in c 1938 was outlined in LR63. this unit is now in steam at the museum, but at some later stage when the present boiler requires a major overhaul and the spare boiler is fitted to the Loco, the combination Davenport Loco 1517/1595/1596 will be seen in steam!

Mr. Bruce MacDonald (the founder of the Marsden Museum of Historic Engines at Goulburn) has furnished the following comments and additional information on the subject of the Davenport Locomotives.

Davenports 1595 and 1596 were both purchased by the Kiama Quarry from the Menangle Sand Company but to economise on transportation costs 1596 was taken in complete condition to Kiama c.1936 while 1595 was dismantled at Menangle by the Douglas Park Cleary Brothers and only the frame, wheels and some motion parts taken to Kiama.

The Cleary's were responsible for transporting the material to Kiama and the boiler of 1595, as mentioned above, was installed at the Douglas Park Park property to power the saw mill then operated by Dan Cleary.

The broken Davenport wheel set, as mentioned in "LR" 63 was the result of a fractured axle and an inspection made at Pikes Hill Quarry at Kiama in 1958 revealed that relics were still visible to support this account.

Combination Davenport (1517/1596) was removed from the derelict Pikes Hill loco shed for the local "Blowhole" Festival in October 1956 and placed on display outside the New Brighton Hotel. The decision was reached during the exhibition that the engine be sent to the Steam Tram Preservation Society's museum at Parramatta Park rather than be returned to the quarry.

The Davenport boiler illustrated in "LR" No.63 page 7, was from the Australian Gas Light Company's locomotive B/no. 1618 of 1917. This was used at Mortlake N.S.W., but c. 1944 it was sold to Joseph Edwards, Machinery Merchant of Sydenham N.S.W., where it was dismantled and the boiler sold for stationary purposes.

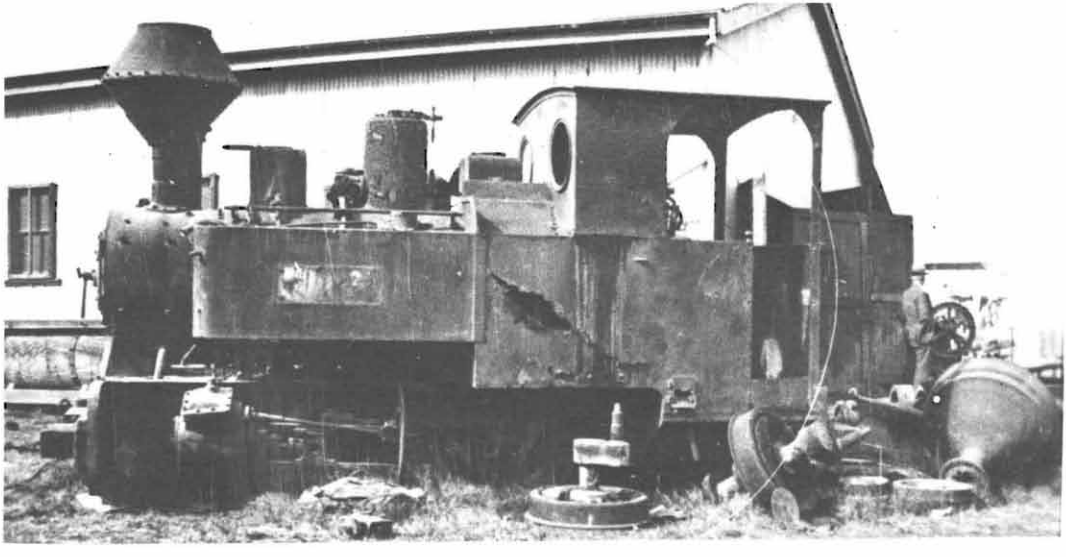
The Krauss loco "Robin" was only used at Kiama in emergencies and then mainly shunting at the quarry.

The Kiama Fowler loco (16089 of 1923) was purchased by Bruce MacDonald together with rails and two waggons in July 1958, and the engine was transported to Goulburn in August 1958. (This loco had been hauled out of the loco shed into Pikes Hill yard earlier; noted there in Jan. and Feb. 1957 - K. McC)

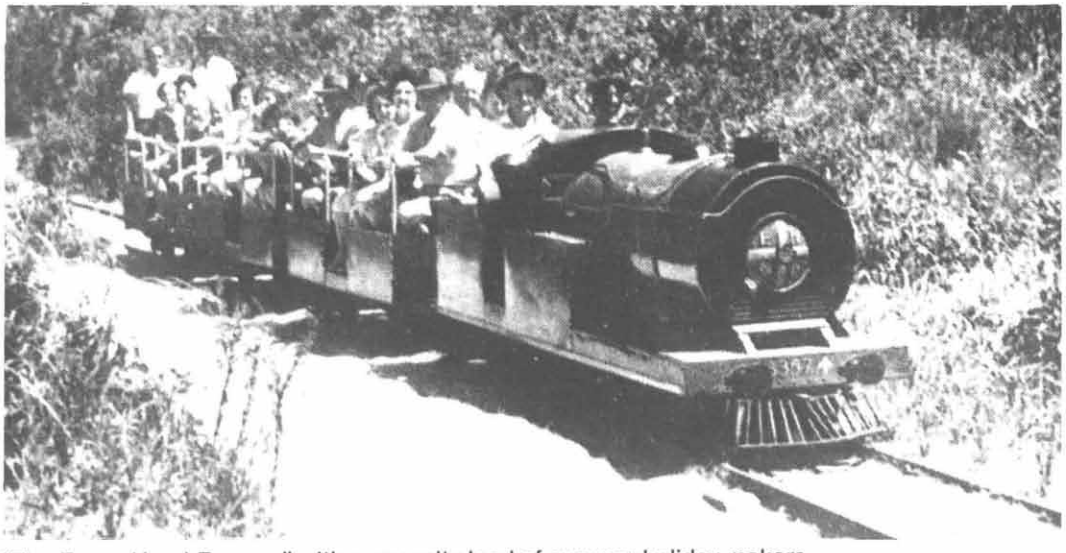
On arrival at Goulburn this Fowler loco was placed in the boiler house of the water works pumping station and used as a stationary boiler until 1962 when it was transferred onto the then recently constructed 2ft gauge tracks at that museum.

Due to its coarse scale wheel profiles (which caused track damage) and its unsuitability for continual one man operation, The Fowler engine was sold in September 1970 and finally transferred to Sydney in c. 1973.

Work is now well in hand on the preparation of a possible special edition of "Light Railways" dealing with the Kiama Gravel Tramways. This is planned to be an expansion of the account published in "Trolley Wire" in Oct 1976, Dec. 1976 and Feb. 1977 and will be accompanied by maps and drawings of the style used in "LR" number 60.



Krauss Loco "Robin" B/N 5870 of 1907 seen derelict at Kiama c 1938, in foreground are broken axles and wheels off Davenport. B/N 1595-1917 as mentioned in text.
Photo: P.T.C. N.S.W. Archives.



"The Evans Head Express" with a capacity load of summer holiday makers.
Commercial view by H. Hattersley, published by Thomas Tennant 14 Jaques St. Chatswood.

THE EVANS HEAD EXPRESS - N.S.W.

By K. McCarthy

Those carnival railways which often feature an 0-4-0 petrol engined contraption bearing the number "3801" or such names as "Sunshine Express" and "Spirit of Progress" are generally nothing more than "money generators" working on a small circle of track with the nose of the engine almost catching up with the tail of the last carriage.

On rare occasions, however, a small circular track may be inhabited by a fine scale reproduction of an historic locomotive or the crude steam outline, petrol engined, loco may be used to join two locations and thus provide a useful public service. When these combinations occur, then such railways are worthy of investigation.

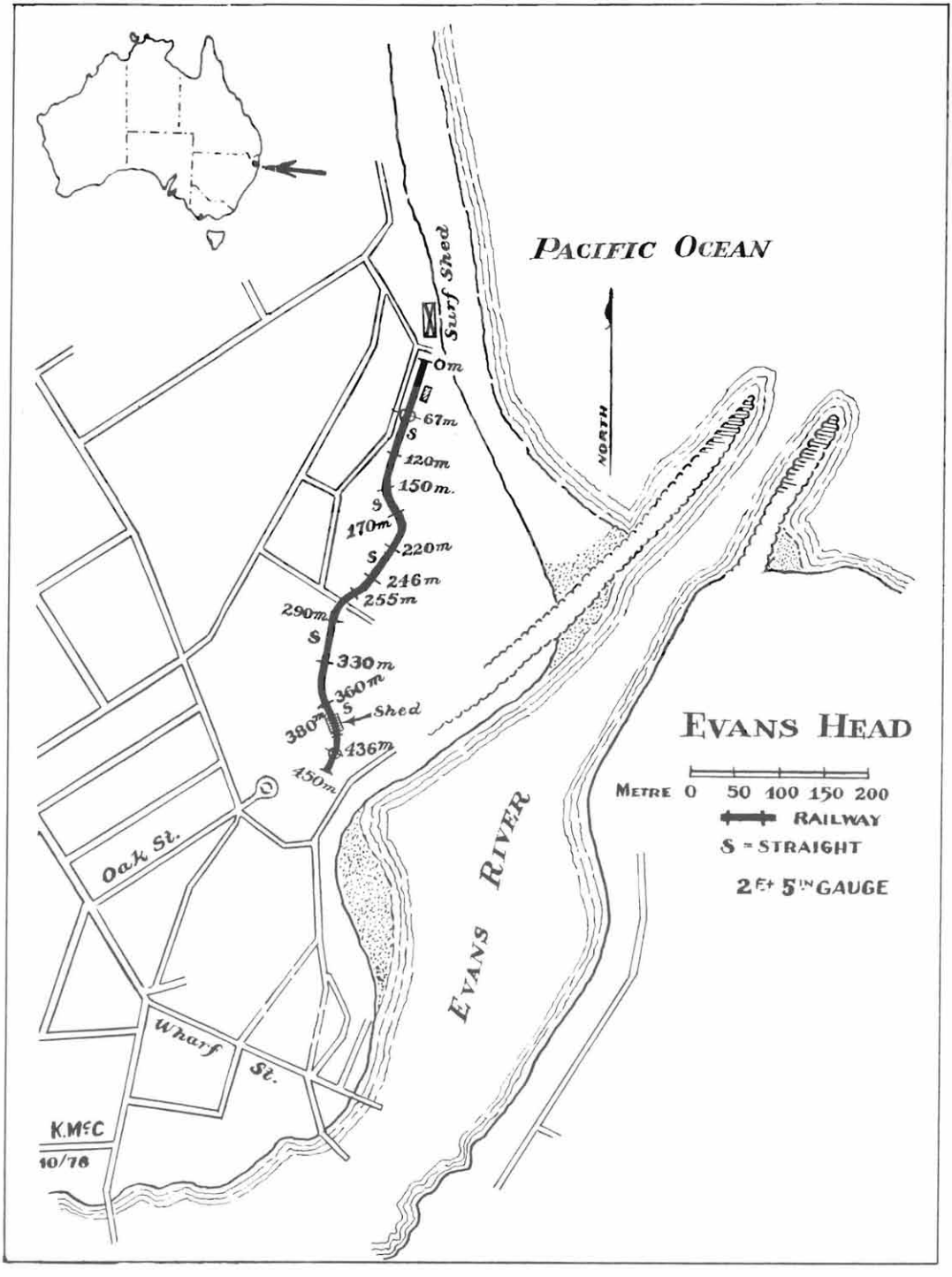
The first mentioned category generally occurs on museum or "live steam" club locations where the rolling stock and motive power and not the railway system are the attractions. The second mentioned category rarely occurs. The writer knows of two examples in N.S.W. where these miniature, or fun railways, served a public use. One linked the northern end of Manly Ocean Beach with Freshwater (Harbord) Beach in the early years of this century and except for the evidence of the tunnel under the Queencliffe headland, little historical data has been unearthed on this pleasure light railway.

The other example was the "Evans Head Rail Road" which linked the recreation and camping area with the surfing beach during the 1950's and early 1960's.

Evans Head is a small town in northern N.S.W. located at the entrance to the Evans River, a stream situated between the major Richmond and Clarence Rivers. The Evans River, however, drains part of the Richmond River Valley and the Tocumbil Canal just south of Woodburn has been constructed so that the Evans is linked with the Richmond and now eases flooding on the lower reaches of that river.

The entrance to the Evans is "trained" by a northern and southern breakwater which provide a guaranteed entrance for the Evans Head fishing fleet and keeps open the flood outlet for the Richmond Valley.

As a boy in the late 1940's the writer was told that a light railway was in existence at Evans Head, possibly working on the breakwater construction but on visiting the town in 1955 the construction railway, if it ever did exist, had vanished, but another railway was in use in the town, linking the end of the main street with the surfing sheds. A thorough inspection of this railway was not undertaken until September 1968, and while the railway



was complete, local enquiries suggested that the 1967-8 summer season had been the last for train operation and that the 1968-9 summer would see a rubber tyred train in use working along the nearby streets.

"Truck and Bus Transportation" p29 for March 1950 reported that Kirkland Brothers, the local bus operators, had developed the railway linking the picnic reserve with the beach and Clarrie Kirkland had been responsible for the construction of the petrol driven, steam outline, locomotive as well as the carriages. The brief article concluded that the "rest of the bus bigshots in the locality have treated the enterprise with suspicion. Either you are a bus man or a rail man . . . you can't sit on both sides of the fence".

One would expect that the Evans Head light railway would have been constructed to the 2 ft gauge as it was located in an area of sugar field railways and as late as 1974 the nearby Broadwater Mill was still served by 2 ft gauge railway facilities. The pleasure railway, however was built to a gauge of 2ft 5ins, a size possibly selected to suit some construction peculiarity of the prime mover.

When inspected in September 1968 the loco was at Swan Bay, a location on the Richmond River near Woodburn, being overhauled with a possible view to conversion to a road vehicle. The town end of the line commenced in the reserve at the eastern end of Oak Street near the "Bridge and Harbour-works Plaque - 16-11-1963"The entire line, which extended approximately 450 metres in length, was free from the complications of turnouts or crossings, but just short of each end were 9ft. diameter turntables. As there were no run-around loops the loco must have propelled the train in one direction and hauled it in the other.

On leaving the town end, the train passed through the 20 metre carriage shed located about 50 metres from the track end. About 170 metres along the route, where the track passed through a sandy floored scrub, a road crossing was intersected, this being the only physical feature of note along the right of way.

At 320 metres from the town end, the town to beach road approached the railway from the left and this was parallel to the line for the last 130 metres to the beach terminus.

The last 50 metres were covered with a light sand drift and the turn table at that location was situated 67 metres from the end, 17 metres beyond the drift. The line at this point was parallel to the surfing beach sheltered by a sand and scrub ridge.

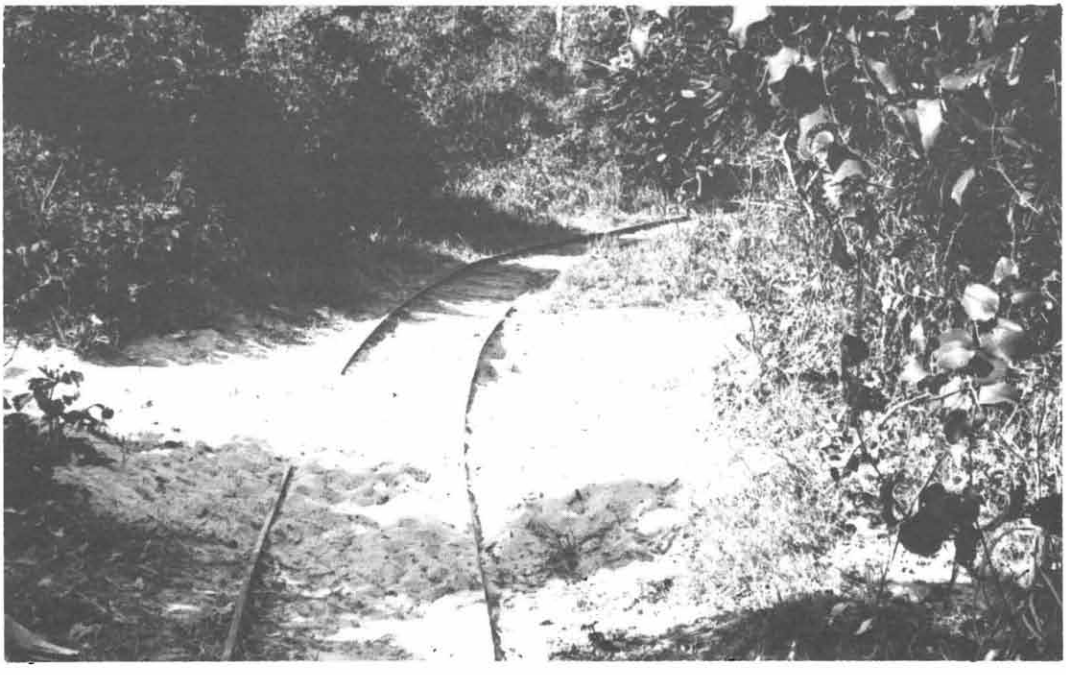
Commercial views of the train reveal that the

The track at the Town end, Evans Head. The turntable is located just under the shadow of the tree while the carriage shed stands beyond the trees. 4th September, 1968. Photo: K. McCarthy.

pseudo tank loco carried the number 3357 and at least three four wheel open passenger cars were available. These could each seat approximately 8 to 10 passengers on two outward facing longitudinal seats. When the railway was visited in 1968 the shed was locked but through cracks in the doors it would seem that only two carriages were on site at that stage.

A visit to Evans Head during 1978 revealed that the line has been removed and very little trace of its existence remained.

The accompanying map was compiled in 1968 and the distances are based on paces, where 1 pace = 1 metre. The additional road tracks in the area, which appear on the latest survey maps, make it a little difficult to accurately position the railway's route relative to the roads of today.



The track, looking south, 170 metres from the Beach end, Evans Head. 4th September, 1968.
Photo: K. McCarthy.

IDENTIFICATION REQUIRED

The loco in photo is believed to be taken in Tasmania - date and location unknown apparently 3' 6" gauge. Loco not identifiable with any known Tasmanian Vertical boilered locos.

Photo: Courtesy late A.R. Lyell, J. Buckland Collection.

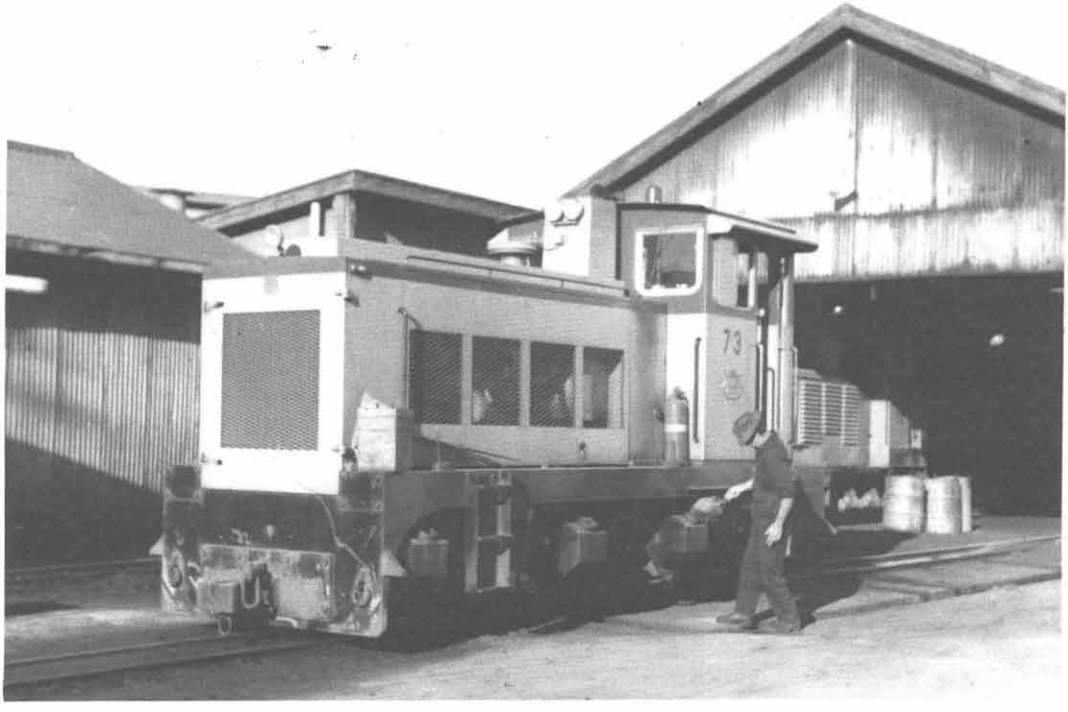
Givelda

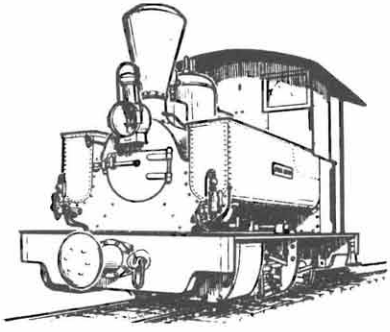
The story of two locomotives

by Peter Neve

2 ft gauge

For the 1973 cane harvesting season, Gibson & Howes Pty. Ltd.'s Bingera Mill obtained its first bogie diesel-hydraulic locomotive, a 22 ton unit from E. M. Baldwin Ltd. of Castle Hill, N.S.W. It was the Company's DH-22B model, serial number 4983-1-7-73 and was named "GIVELDA". The above photo shows the unit in the Bingera Mill depot yard on 31/10/1973. Early in 1975, this locomotive was disposed of to the Bundaberg Sugar Co's Fairymead Mill, where it received the road number "73" - the year of construction, in accordance with the practice at this particular mill. The photo opposite (upper) shows the unit being serviced at the mill depot on 30/10/1977. Meanwhile, in anticipation of "main line" operations to the area formerly served by the Gin Gin Co-operative Sugar Mill, Gibson & Howes in mid-1975 took delivery of three 26 tone model DH-26B Mk 2 bogie locomotives from E. M. Baldwin Ltd, the second of which, serial number 5800-2-6-75, was named "GIVELDA". This unit, shown in the lower photo opposite, was shunting in Bingera Mill yard on 31/10/1977 - note the extended cab and the loco-control facility above the engine unit.





LETTERS

JAPANESE MILITARY RAILWAY, KANGU TO BUIN, BOUGAINVILLE ISLAND, NEW GUINEA.GAUGE NOT KNOWN: (Possibly Metre Gauge)

This basic information is presented in the hope that other researchers may be able to carry out further research.

A Japanese military railway operated during the Second World War in the South of Bougainville Island, New Guinea. The line was about 10 kilometres in length and ran from Kangu beach inland to the Japanese Kara airstrip which is now the site of the present Buin air strip.

The Japanese invaded Bougainville in March 1942. In November 1943 the Americans captured Torokina, and the Japanese surrender was received at Torokina on 8th September 1945.

Rev. Fr. W. P. Fingleton, of the Tabago Mission near Buin, moved to Tabago shortly after the war and remembered walking up the line from the coast when the line was badly overgrown and the sleepers were in a rotten condition. The Japanese had not cleared the bush away from each side, endeavouring to get protection during air raids from the overhanging jungle. The railway was a more direct approach to the inland airstrip than the road, which wound around by comparison. The line was laid over quite soft ground in many parts.

In 1948 the Parer brothers purchased the salvage rights on war surplus in the Buin area. There was talk for a while that the Administration would maintain the line - but that was wishful thinking as the Administration centre was then at Kangu, on the coast. The salvage operators eventually took up most of the line for outside sale. However, many of the rails managed to get into native villages and now serve the very useful purpose of supporting cacao and copra dryers. Many have also been used in building local footbridges.

The photograph, taken on 13th April 1972, shows a petrol-engined loco, dumped in the P.W.D. yard at Buin. It was reported that at that time the engine could be made operable "in a day", and that the engine was basically the same as the modern Isuzu truck. The chassis is embossed *"Kato Works/Shinagawa/Tokyo"*. The rear part of the chassis appears to have an anchor emblem which possibly indicates that the loco was the property of the Imperial Japanese Navy.

The Administration centre has now moved inland to Buin. In 1972 several wagons were reported standing outside the P.W.D. office in Buin. Various trolleys and rails from the railway have been used in plantation wharves around Bougainville, such as at Numa Numa. It was reported in 1972 that several other locos remained in a stripped condition in the bush near the junction of the Kangu - Buin road, which follows the route of the railway, and the road to Panguna. The marshalling yard was reported to be in the location of this present road junction.

MINE TRAMWAYS AT PANGUNA, BOUGAINVILLE, P.N.G. 610 MM GAUGE

During the investigation stage of Bougainville Copper Limited's open-cut copper mine at Panguna, two separate mining tramways operated for the purpose of obtaining bulk ore samples for testing in a pilot plant at the mine site. Both lines ran on horizontal adits into the orebody, the tunnels measuring 8 ft x 8 ft inside the timbering. Construction was by the Dillingham Corporation. Sleepers and tunnel supports were cut out of local bush timber. Track was 2ft 0in gauge (610 mm) and constructed with 30 lb rail.

The first line developed was known as the Panguna Adit, with a length of 5000 ft horizontal development, not including crosscuts. Construc-

Japanese Military Locomotive, derelict, near P.W.D. yard, Buin, Bouganville. P.N.G.
Photo: Brian Wendt (Bouganville Copper Ltd.)

tion began in August 1967 and was completed in October 1968, after which the rails were stripped out. Three new battery-electric locomotives were used, with side-dump Granby cars which were believed to have come from Kalgoorlie. (Gemco?-Ed.) Later new end-dump cars were added. Each "round" yielded 22 tons of material on a 5 ft advance at the face.

The Western Adit was developed between May 1968 and October 1969, with a horizontal development of 8000 ft. Four locos were used including the "best" one from the Panguna Adit. On completion the adit portal was barricaded up but became covered by the Mine Waste dump before the equipment could be stripped and removed. The tunnel now lies below the present level of the open-cut pit but eventually the enlarged pit will uncover the tunnel with its now-flooded and buried track, locomotives and rolling stock.

Bruce Douglas
Hawthorn, Vic.

SAWDUST AND STEAM

After reading *Sawdust and Steam* I was amazed at such a lot of incorrect information regarding the Forrest mills. Information I have passed to a member of the LRRSA, some from my own experience, and some that I was told by R. A. Robertson (whose parents and family came to Forrest with the original Sanderson family) was excluded from the book. R. A. Robertson drove locos for Sanderson, as did his father before him, and was then J. H. Grant's mill manager until Grant finished milling.

I was born at Gerangamete and I remember Fletcher's sawmill on the bank in the station yard with skids to load the sawn timber direct into the rail trucks. Also the hundreds of tons of firewood loaded there over the years for the railway fireplaces.

When Lake Elizabeth burst its banks in 1953 the flood water and debris piled up against the railway bridge between Gerangamete and Barwon Downs causing parts of the bridge to be moved well out of

line. Temporary repairs were made but the line was finished.

The Sandersons and Robertsons came to Forrest together from Mount Cole and brought the mill engine with them. R. A. Robertson told me this was a 6 h.p. one that was installed in the mill at Noonday Creek. It did not have governors and must have kept the driver busy. An old engine recently found in the eastern Otways could well be this one.

The photographs on page 38 and 43 show Arthur Robertson driving the locos. R. A. Robertson told me the vertical boilered locos were always called *Coffe Pots.*

The claim on page 46 that the whistle now at Belmont Common came off *Tom Cue* is quite incorrect. R. A. Robertson and myself went into the shed in the Forrest yard near where *Tom Cue* was derelict and he showed me the two whistles, one off *Tom Cue* and one off *Black Angel*. I chose the one he said was *Black Angel's* as the easiest to repair. I rebuilt the steam valve in it and used it at Grant's mill at Barramunga, until I left there and went to Sharp's mill. This whistle was returned to the shed at Forrest when Grant's mill was burnt out and from then apparently started its chequered history. It came back into my hands years later as I was the go-between between Sharp's Mill at Lorne, where it was last used, and the LRRSA. As Mrs Trew asked that it go to the LRRSA this was arranged.

I supplied the photo of the Trail tractor on page 47, but the driver was my brother, Joe Wilson. On the same page, the reason Grant gave up sawmilling was that a bushfire burnt his last sawmill to the ground.

The first winch I drove for Grant was a loose eccentric which had a vertical water-tube boiler, from one of the Coffee Pot (Rowan Car) locomotives. This winch most likely came from Henry.

Henry's Hunslet locomotive was severely damaged on its last run from the Roadknight mill. The copper firebox buckled and the front end of the brass tubes flattened. I used one of these tubes as an exhaust pipe on a car. Ern Brockman (a Geelong engineer) spent a lot of time in the Forrest yard repairing the loco, but the need for locos had gone, and it was not reassembled but sold for scrap.

One of Henry's early steam winches was donated to the Historical Machinery Display at Geelong showgrounds, and is under steam at each show.

Henry's Trail and Donaldson tractors were all eight-wheel drive. Grant's Trail was fitted with a 32 h.p. Fordson engine out of the Donaldson by M. Knudson (a cartage contractor) and myself in one weekend.

Henry's employees at the Mount Sabine mills favoured the use of 'Indian' motor-bike engines for their powered trolleys, as the gearbox and engine were in one unit.

Tanybryn Tramways LR55, pp.7-10

When I started to work at Sharp's Tanybryn Mill, McPhee was running this mill and soon after disappeared, along with a fortnight's pay which we did not receive.

This mill was driven by a 20 h.p. Garrett engine, and with 130 lbs working pressure would gain some revs outside the governor speed with all saws cutting. One man was busy most hot days putting out fires around the mill. On one occasion the driver, Alf Trew, was the only person to notice the safety valve spring soften when the lagging caught fire, and he caused some concern when he insisted the 30 lb pressure showing on the pressure gauge was in fact much higher because the gauge needle was on its second time around.

A sawdust burner was later installed at this mill and the creeper chain carrying the dust gave nearly as much trouble as the water pump down the creek.

No. 2 mill had a compound engine, with 8 inch and 14 inch cylinders, I think. An underfired boiler fed with sawdust straight from the bench sometimes made so much steam that live steam had to be fed to the second cylinder. This mill was finally located at the back of Lorne and I think was the last steam mill in the Otways. No. 2 mill had the timber hauled on rail trucks to the road by a 40 h.p. Dennis winch, similar to the Leyland winch at No. 1 mill. The engine was placed crossways, with chain drive to a pinion shaft, and then pinion to spur wheel on the winch drum. Using an old separator bowl and a knocker I made bells for both these winches.

The map of Sharp's tram lines is not complete because it does not include the line that ran from the mill below the timber line and along the side of Turton's Track, actually touching the roadside a few chains before the winchsite. When I drove this winch I had a steam turbine (ex separator) coupled to a generator that gave lights in the hut nearby.

Well I remember the evening the horse team, taking a load of logs, fell off a bridge and most of the mill hands worked for hours to free them. Some had to be destroyed.

I hope this letter will clear up some of the information on Forrest and nearby mills that is local history.

Reg Wilson
Anglesea, Vic.

Norm Houghton, author of *Sawdust and Steam* comments:

I read with interest Mr. Wilson's letter and appreciate the additional information of an historical and anecdotal nature that has enlarged on that contained in *Sawdust and Steam* and 'Tanybryn Tramways' (LR55).

I acknowledge my error in regard to the number of driving wheels on the Donaldson tractor, but am not so sure on whether I have wrongly attributed *Black Angel's* whistle to *Tom Cue*. When I first visited the Forrest area in order to interview former employees of Henry, I assumed the whistle information contained in Mark Plummer's article (LR22, p.24) was correct but on voicing this opinion was told I was wrong by no less than three informants.

Mr. Wilson may well be right and perhaps my informants were all suffering from faulty memories but I expressed my conclusion on the evidence available at the time.

Norm Houghton
Ballarat, Vic.

LOCOMOTIVES OF WALLAROO — MOONTA

Reference the article on the Moonta area (LR No. 58), as I had provided the information and photograph for the *Fowler* locomotives, I note that mentioned is not made of the fact that the loco was supplied to Messrs Elder & Co. I have a note that *Beyer Peacock* 3057 of 1889 was a small 0-4-0 tank of 2ft 9in gauge supplied to Elder & Co., and this suggests to me that it is the other loco shipped with the Fowler. No doubt the Beyer records would provide more details.

Regarding the letter on references, may I make some comments as a fairly regular reader of Light Railways. Most readers prefer an article on railways rather than a discussion of techniques, so I will be as brief as possible.

I am sure that everyone will agree that an accurate, informative and readable article is the common aim. If we can have references, so much the better, but however painstaking is the author, one can only work from the information available, and very little information carries an absolute guarantee of accuracy or fact. Take the actual cases of locomotives bearing the "wrong" makers plate, or different plates on opposite sides of the locomotive - what are the correct "facts"? Does the incorrect number inadvertently affixed by a careless worker become correct if altered in the maker's records?

My ideal for an enjoyable article is one which is accurate, original and informative, with plenty of "meat" and little padding, and with statistics such as loco. measurements, route layouts etc., not described in the text, but clearly and concisely shown in maps and tables. However, everyone has his own style and ideas, which provide variety to our reading, and surely the Editor is the one to decide on style of presentation. The main wish of all of us is surely to encourage research and to see more articles printed, more information and photographs traced and placed on record. In England we have too few researchers to cover all possible sources, and it is more of a battle against time!

Frank Jux
Richmond, Surrey
England

MUNRO'S HAMPTON TRAMWAY

Since writing the article which appeared in LR 61, some further information has come to light.

Commencement of Steam Operation

Further conversation with members of the Munro family reveals that the photo on page 14 of LR61 depicts what has been called "the opening day of the tramway" on 1st April, 1905, referred to by Mr. John Kerr in LR63. The makeshift "carriages" immediately behind the engine contain the state and local government dignitaries, and behind them are the local populace, both from the mill and the surrounding farms. The line, of course, had been in use for some years before this using horses and bullocks as motive power, but the occasion depicted celebrates the commencement of steam operation.

Mr. Albert Owen

Recently I met Mr. Albert Owen who began working for Munro's at the age of seventeen, in 1918. He worked on the locomotives, training as a driver and sat for his ticket exam six months later. He was then, at the age of eighteen, fully qualified as a driver, and "took over" engine No. 2, working the Bunkers Hill end of the line. He told me that engine No. 1 was known by at least some of the mill staff as "Starlight", but the second engine was simply "Number Two".

He got on well with the manager of the mill, Bob Walker, but finished up as a driver when he was required to work on the gazetted Anzac Day holiday in 1920. He went on to describe Ernie Shum as "one of the finest men you could ever meet." Ernie Shum's ability as a bush engineer was

acclaimed far and wide. Fred Zropf, another old Ravensbourne identity, maintained he was as good as a blacksmith as you could find anywhere in Australia, adding that when one of the pinions on one of the locos broke, Ernie made up another one in his shop. (This pinion may be identified among the equipment now in the possession of the Illawarra Light Railway Museum Society).

Mr. Owen was full of praise for the Shay engines, so I asked him if they had any bad points.

"The worst thing about them was their steam brakes," he said. "They would stick for want of oil."

One day young Albert Owen was bringing in a load from Bunkers Hill, and the train got away on him. Just past Diamond's there began a steep down grade for three miles, finishing at the "First Bridge". Leaves from overhanging trees had made the rails slippery, and as he applied the steam brake it grabbed, and the train skidded down out of control.

"We came down about a mile, and by then the train must have been doing thirty miles an hour," he said. "Eric Baker was my guard, and he was just learning, and he abandoned ship. Then the three trucks in front came off the line. There were logs everywhere! The front bogie of the engine also came off, but we used wedges and drove her back onto the line." The engine suffered no damage.

These wedges were carried on the locos for just such an eventuality.

Albert commented on his guard's action: "Being a guard was quite a reckless occupation, as anything could happen."

I asked him to comment on the suggestion that one engine was a better puller that the other. He didn't think so, but added that one engine could hold more water and fuel that the other, and suggested that this extra adhesive weight might have given that engine better grip on the rails. These extra supplies enabled it to travel eight or ten miles further before replenishing was required.

The Tug-Of-War

"One day I drove up to Hampton and found the 'pig train', which ran out to Crows Nest to pick up pigs for the Toowoomba sale on Tuesdays, was in. Marty Strohfeldt was the driver of the Government train and Ken Hill was his fireman, and they were out for a bit of fun, and suggested we have a tug-of-war between the two engines, so we said O.K."

In the Hampton yard the tramway line ran parallel to one of the Government sidings, and the two engines were placed on these adjacent lines and coupled with log chains. At a signal both drivers opened their regulators wide. Albert commented, "We more than held our own, too!" He could not tell me what type of engine the QR one was, but said that the engines then used on the Crows Nest line "were pretty small".

Miss A.M. Hawkins

While references in the Munro's article to teachers brought in on the trolley are in the masculine gender, I have recently met Miss A.M. Hawkins who was one of several young women teachers appointed to the Palm Tree school. Miss Hawkins taught from 1917 to 1919, and arrived at Hampton on the train from Toowoomba, where it arrived after dark. Ernie Shum met her. (The single teachers boarded at Shum's). Miss Hawkins recounted:

"I had with me a big tin trunk and two suitcases. Mr. Shum looked at my luggage and said, 'Do you want to bring this with you?' I thought, Well, I don't want to leave it here, so I said, 'Of course I do.' He said, 'Well, I've only got the trolley.'

"I didn't have any idea what 'the trolley' was or what that had to do with it, but when I saw it I knew what he meant. It was just a little platform on wheels. By the time we got the trunk and cases on it as well as some bread for Palm Tree there wasn't much room left. I sat on the trunk and off we went with Mr. Shum pushing. It was dark, and just as well. If I'd been able to see what we went over, I don't think I'd have done it. We had a lantern and I had to open the gates while Mr. Shum pushed the trolley through.

"When the trolley began to roll downhill, Mr. Shum jumped on, and as we went he'd say, "So-and so lives over there", and "So-and-so lives in there", but I couldn't see a thing!

"Mr. Shum was a very clever man. Mrs. Shum never liked him being called a blacksmith. He was a wheelwright, and that's what she insisted that he be called. He also made some of the best bullock bells in the district. . . .

"The Shum family were all musical. He played the clarinet, two daughters played the violin, another the piano, and a son played the trumpet. I played the organ, so we had quite an orchestra. Every Sunday night we played and sang till 9 o'clock."

I asked about provisions. She said, "We used to get salt beef up from Brisbane by train, but often it was so bad by the time it got to Hampton they burnt it there."

Miss Hawkins recalls that the engines could be heard coming down the line from Hampton a long time before they reached Palm Tree, the chatter of

their exhausts and the clanking and grinding of their gears echoing down the gullies.

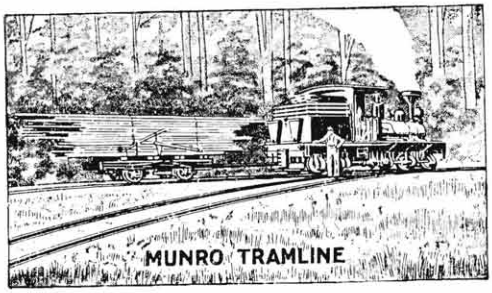
I enclose a sheet of Munro's letterhead with the block depicting a locomotive and bogie of sawn timber. The picture appears to be taken from a photo taken at Palm Tree. The "train" is standing on the line from the mill, facing towards Hampton, while in the foreground is the line which leads to the "First Bridge" and on out to Bunkers Hill.

Corrections:

A minor misprint occurs in LR61, page 14, first column, fifth line from the bottom, where the name should read "W.J. (Billy) Munro". The diagram on page 15 has been misplaced. It should have accompanied the article on Pettigrew's Tin Can Tramway, LR57. Reference in that article is made to the diagram, but no diagram appears! The locomotive is a representation of "Mary Ann".

Finally, allow me to assure Mr. John Kerr that I read the relevant copies of "Queensland Heritage", which were made available to me through the Toowoomba Municipal Library. I apologise for not being more specific in my reference.

Robert K. Morgan
Toowoomba. Qld.



SAWMILLS: TOOWOOMBA AND PERSEVERANCE
TELEPHONE 85
Folio.....

HEAD OFFICE;
RUTHVEN ST.
TOOWOOMBA,

Mr.

Dr. to **A. & D. Munro, Pty. Ltd.**

TIMBER MERCHANTS

E. & O.E. *Toowoomba,*

To Account Rendered

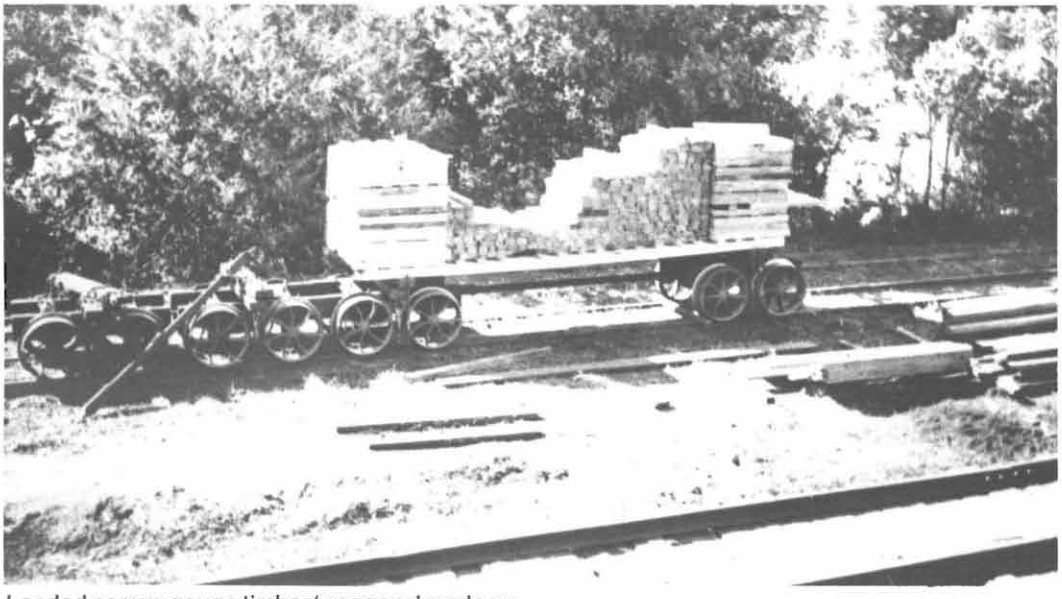
To Invoice No.

Photo shows a Fenton log tractor hauling a log jinker on sawn timber rails at Salmon River, Tasmania.

timber topics

Photos - Winters Studio.

A converted "International truck" hauling logs in the Meander District, Tasmania. Note the wide wheels for operating on logs or sawn timber rails.



Loaded narrow gauge timber 'waggons' made up of longitudinal timber between two bogies, stacked with sawn timber at the Lal Lal exchange sidings. Photo: Late K. Train.

FEDERAL TIMBER COMPANY - WARBURTON VICTORIA.

The three feet gauge line crossing the Yarra River near Lal Lal. Photo: Late K. Train.

BACK PAGE PHOTO

Tulloch built, 2ft gauge, 4wDM, 40HP, 4 ton locomotive built for the Mt. Lyell Mining and Railway Co. Ltd. tramway, Tasmania, (Motor was a Fordson, 4 cylinder diesel).

Photo: P. Simpson Collection.