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LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways

Light Railway Research Society of Australia Inc.

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Imperial to metric conversions:

1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.60 kilometres
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.536 litres
1 cubic yard	0.765 cubic metres
1 super foot (sawn timber)	0.00236 cubic metre

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No 254 April 2017

Contents

Editorial

One of the biggest issues that I face being the Editor of this magazine is being able to publish all the material that is available to me. It is a good problem to have, but it sometimes means that authors have to wait some time before their material is published.

After discussions at a recent Council meeting, it has been agreed to address this issue in a number of possible ways. One of those ways is to publish more 48-page editions of the magazine.

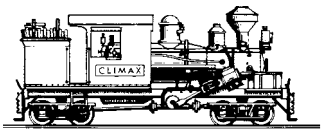
I trust that you enjoy reading the two feature articles and all the usual news and features in this bumper 48 page edition.

The first feature is Jim Stokes' comprehensive article on the later years of the Marrawah Tramway in northwest Tasmania. Jim has undertaken extensive research on the subject and has unearthed some fascinating photos. The location and details of the line are described in one of Mike McCarthy's excellent maps. This article is a follow up to the JLN Southern Award winning article by Jennifer Parnell from LR 236 that described the genesis of the line.

The second article is part 2 of Frank Stamford's history of the Kingston to Naracoorte line in South Australia. This part gives a fascinating insight to the V Class locomotives used on the line and includes many photos of these most interesting machines.

Richard Warwick

Front Cover: *Puffing Billy Railway's 861, a 2-4-2ST, at Lakeside and about to run a Footplate Experience train for our society's Vice-President Mike McCarthy, 14 April 2012. Here we see Christine Rickard admiring the shiny bell, a rarity on the PBR. No. 861 is also unusual (for the PBR) in having Walschaert's valve gear. It was built by SA Usines Métallurgiques du Hainaut, Couillet, Belgium in 1886 as an 0-4-0T and supplied (via Decauville) to the Metropolitan Gas Co's West Melbourne gasworks where, as* John Benn, *it worked for over fifty years. By the mid-1960s it was owned by Ron Kain who started converting it to an American-style 2-4-2ST for use on his never-completed Walhalla & Thomson River Steam Tramway. Named* Helen, *the partly completed loco ran (as an 0-4-2ST) at Walhalla for seven years before the project folded. Subsequently purchased by Colin Rees who finished the re-build, it is now on permanent loan to the PBR and named* J. C. Rees. *Photo: Phil Rickard*



Light Railway Research Society of Australia Inc. A14384U
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The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

Members are actively involved in researching light railways in libraries and archives, interviewing knowledgeable first-hand participants and undertaking field work at industrial sites and in forests.

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Articles, letters and photographs of historical and current interest are welcome. Contributions should be double spaced if typed or written. Electronic formats accepted in the common standards.

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C12 at the water tank at 18 mile in December 1955. *Photo: Jim Powe*

The later years of the Marrawah Tramway

Part 1: The lines

by Jim Stokes

The Marrawah Tramway and its various branch lines have always been a favourite with people interested in light railways, due to their complex history, unusual operating methods and a range of motive power that would have inspired William Heath Robinson. I first saw the Smithton end of the line in 1957 when it was still steam-worked and I had a trip out to Redpa on the weekly goods train in 1961, shortly before the line closed beyond Leesville. I have explored the line on the ground and in the archives at intervals ever since, as have many others. The interesting articles by Tony Parnell on Brittons' Tramway in *Light Railways* No. 143 and by Jennifer Parnell on the Marrawah Tramway Company in *Light Railways* No. 236 encouraged me to attempt an article on the later years of the line, covering the period from the Public Works Department (PWD)'s acquisition of the tramway in 1914 until the closure of the last remnant of the line by the Tasmanian Government Railways (TGR) in 1974. I have briefly summarised the earlier history of the line and of the privately owned timber spur lines, on some of which other researchers have already written or are currently researching.

Much of the information about the Marrawah Tramway that has circulated over the years originated in six articles published in the *Australian Railway Historical Society Bulletin* (hereafter cited as *ARHSB*) between June and December 1951. The first five articles appeared under the pseudonym 'Wanderer', but were probably written by the late Cedric Thomas. The sixth article was attributed to the late CC Singleton, but may also have been written by Cedric Thomas. These articles contain much information that is wholly or mainly accurate, subject to some modification of dates and locomotive details. However they also include more dubious information, particularly in relation to a supposed steam passenger tramway network extending from central Smithton to Pelican Point, Mella and Togari. According to the articles the passenger service employed no fewer than seven ex Tasmanian Main Line Railway passenger cars and in 1924-25 carried 155,450 passengers. I have found nothing in the extensive records of the PWD period to support the existence of a passenger service on this scale. I have tried to find independent sources for information in the 1951 articles, but where this has not been possible I have footnoted the relevant pages of the 1951 articles.

J S Lee and Sons' mills and tramways

In 1883-84 Joseph Lee transferred his family's sawmilling business from Somerset (near Burnie) to the west side of the Duck River estuary. In December 1883 the schooner *Stephen* brought steel tramway rails, with a following shipment of a locomotive and additional material expected. By the middle of 1885 the Lees had built a tramway for five miles westwards from the mill. The mill was formally opened on 29 January 1887 in the presence of 400 guests, who were taken for a ride on the tramway by the steam locomotive.[1]

By October 1887 Lee had seven miles of 3 ft 6 in (1067 mm) gauge steel-railed tramway extending south-westwards from his jetty on the Duck River estuary, one mile east of the mill. This was presumably the line which ran south from Leesville through the Mowbray Swamp to the Broadmeadows area,

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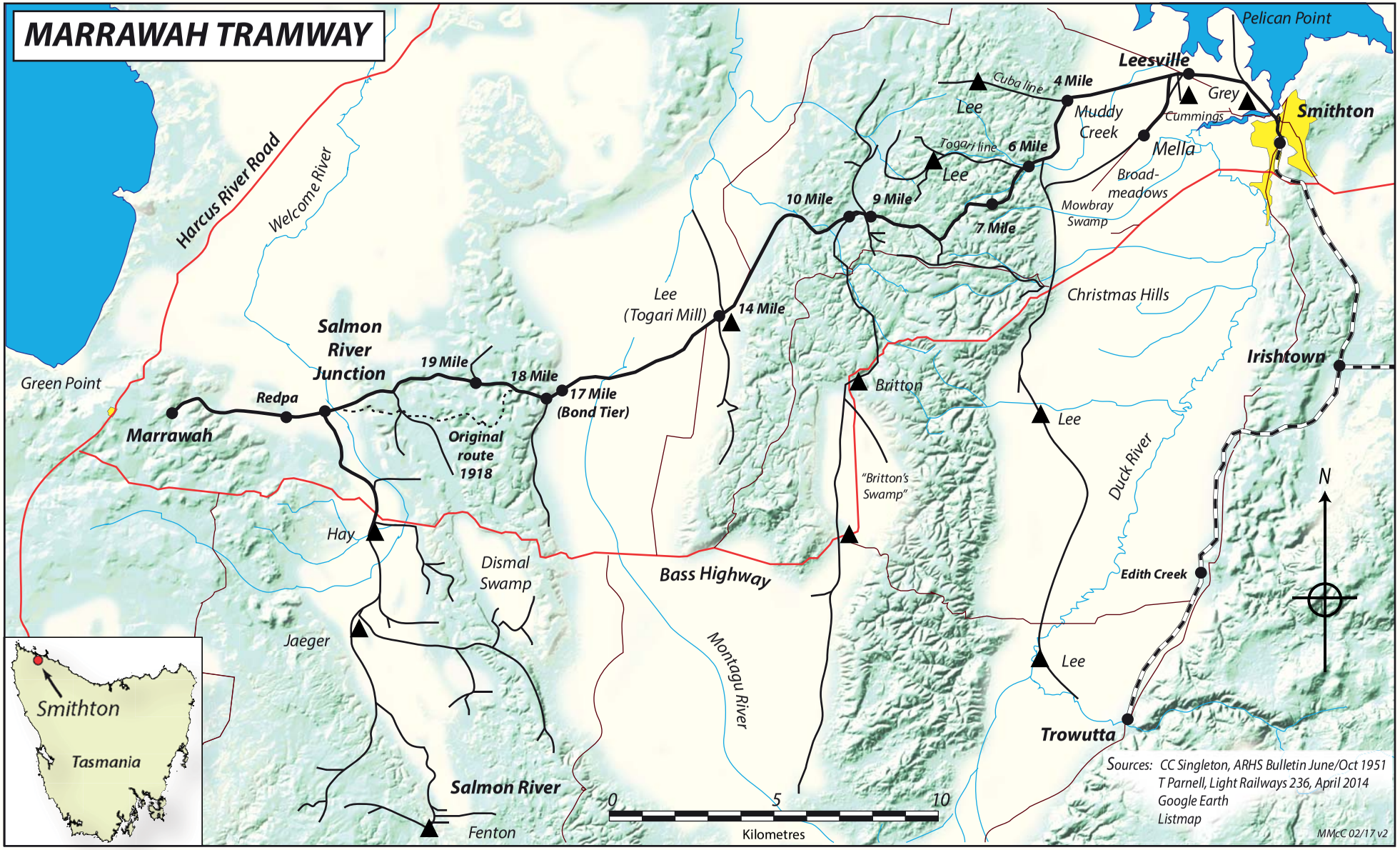

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situated some four miles south-west of Smithton township. Lee was planning to extend the tramway for a further five miles to the south-west. The planned extension was presumably the first section of the line to Christmas Hills and eventually Trowutta, which diverged from the Broadmeadows line just west of Leesville. The Thomas Green locomotive could haul 20 logs at a speed of ten miles per hour. The logs were hauled to the tramway by a steam windlass. The mill could produce 3,000 superficial feet of blackwood or 6,000 superficial feet of eucalypt each day.[2]

According to a history of Lees' operations published in 1933 the Leesville mill was burnt down around 1887 and Lee then built the Cuba mill around six miles west of Leesville to replace it. The Leesville mill was rebuilt in 1890, but it was damaged by fire in January 1898 and it was reported that 'business will be quickly resumed on a site nearer the main timber supply'. In August 1905 it was reported that one of Lee's mills would shortly be moved to Leesville, where it would occupy the site of a mill destroyed by fire some years previously.[3]

The history of Lee's operations published in *ARHSB* for June 1951 (pp.79-80) states that the line to Cuba mill from the junction with the Christmas Hills line at Muddy Creek was closed in 1894. However two newspaper accounts of a visit by the Minister for Lands in March 1905 indicate that the Cuba mill and tram were still operating. The trees were extracted from the forest by temporary tramways, along which a log hauler and crane were propelled by a locomotive.[4] A letter to the *Advocate* published on 5 July 1906 (p.4) stated that Lees had laid eight miles of tram line from Pelican Point to Cuba.

Lees later began work in the area south of Cuba, building a spur for about a mile and half westwards from 6 Mile to a new mill at Togari. *ARHSB* for June 1951 (p.80) and August 1951 (p.106) states that the Togari spur was opened in 1914 and closed in 1929, but the fact that the 1932 general appendix to the TGR working timetable states that Lee's engines were permitted to run to 6 Mile (described as Lee's Junction) suggests that it may have lasted for longer, at least to bring in logs.

By May 1890, Lee had 10 miles of tramway employing two locomotives. In November 1890 it was reported that new farmland was being opened up in the Christmas Hills area within one mile of Lee's tramway, which would carry produce to Lee's jetty, although the *ARHSB* articles state that the Christmas Hills line was not built until 1895.[5] It is also possible that the Christmas Hills line was partially relocated. When F Ford, then the PWD's manager of the Marrawah Tramway, sought approval in 1928 to build the Mella branch he noted that it would utilise the formation of an old timber tramway of Lees. A Tasmanian government map dated 25 January 1900 shows Lees' main line running westwards to approximately 6 Mile, but it shows the Christmas Hills line diverging from the main line just west of Leesville and running south-westwards through Mella to join the later course of the Christmas Hills line about a mile south of 6 Mile. It may be that the northern part of the Christmas Hills line was relocated to join the main line near 6 Mile and avoid the need to maintain a separate line via Mella. The 1933 history of Lees' operations stated that the Mella road was the original site of 'the old tramway'.[6]

The Christmas Hills mill appears to have been built in 1903. In June 1903 it was reported that Lees had too much work for their only mill and intended erecting another mill a few miles away. In October 1903 it was reported that Lees intended to erect another mill near Christmas Hills and this mill began work in March 1904.[7]

On 10 March 1905 Lees gave the Minister for Lands, Alexander Hean, a tour of their operations. Lee's engine and a box truck (with chaff bags as seats) took the visitors from Smithton Tram Yard to Leesville via the Pelican Point line and they continued on Lees' main line to Muddy Creek and up the Christmas Hills branch to the end of the iron rails, where they saw 150,000 superficial feet of blackwood from the Christmas Hills mill stacked. They continued southwards in a horse-drawn truck on a wooden tram to Stony Creek, at the point at which it entered Mowbray Swamp. They returned to Christmas Hills mill for photographs and then the steam engine took them back to the main line and westwards 'up some fairly heavy grades' to the 'large mill', which was presumably Cuba mill.[8]

The *Advocate* of 28 November 1908 (p.7) reported that 'Messrs. Lee and Sons have moved one of their mills a few miles further out to the Rogers [sic] Rivulet, where some considerable quantity of blackwood is found.' This was presumably the start of the Trowutta mill. In February 1909 Lees were operating mills at Leesville and Trowutta and they had 14 miles of tram lines. The 'new' mill at Trowutta was served by a wooden tram worked by an engine with 'specially wide' wheels and capable of hauling 18 tons at two miles per hour.[9] The Trowutta mill was still operating in February 1912, when there was a strike of mill and bush hands over the dismissal of an employee.[10]

The Smithton – Pelican Point tramway

In 1900 New Zealand harbour expert Charles Napier Bell reported on options for improving shipping facilities at Smithton. There were two small wharves on the east side of the Duck River at Smithton township, but they could only be accessed by small sailing ketches coming up the river on the high tide. Lee's jetty could accommodate a 300 ton brig, but it too was only accessible on the high tide. Bell favoured the development of a port at Pelican Point on the western side of the entrance to the Duck River, with a trestle viaduct nearly one mile long leading out to a wharf in Duck Bay. This would have a depth of 14 feet even at low tide.[11] The Tasmanian government called tenders in January 1902 for the construction of a 3 ft 6 in gauge tramway from what became known as Tram Yard, on the western side of the Duck River in Smithton, to Pelican Point wharf. The line made a trailing connection with Lees' tramway at 1 mile 28 chains from Tram Yard, reached the water's edge at the start of the viaduct at 2 miles 17 chains and the seaward end of the wharf at 3 miles 5 chains. The contract to build the tramway and jetty was let to C B M Fenton in February 1902 and completed in around July 1903. Motive power on the line was horse, but the wagon could be propelled by sail if the wind was in the right direction![12]

Responsibility for the line was initially given to the local road trust, but in 1910 it was transferred to the newly-established Smithton Harbour Trust. In 1913 the construction of the Marrawah Tramway resulted in the PWD acquiring approximately the first 65 chains of the Pelican Point line from Smithton Tram Yard to the divergence of the new direct line to Leesville and Marrawah. The PWD acquired the remainder of the Pelican Point line in 1916.[13] The Pelican Point line was originally laid with 30 pounds per yard iron T-section rails recovered from the abandoned Mersey and Deloraine Tramway, but the PWD relaid 30 chains of it with second-hand 28 pounds per yard rails in 1920-21. Between 1916 and 1924 the PWD also provided new sleepers, replaced points at Lees' junction and on the jetty and repaired parts of the jetty.[14] The jetty was damaged by fire in early 1921 and again on 3 November 1922. The latter fire, which was started by a spark from a locomotive, set the east side of the jetty alight and destroyed a large amount of timber. It was extinguished by four men who arrived from Leesville on a trolley, followed by a gang on an engine.[15]

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When the TGR took over the Marrawah Tramway in 1929 ownership of the Pelican Point line north of the junction with the Marrawah line reverted to the Smithton Harbour Trust.[16] However the TGR took over maintenance of the line as far as the landward end of the jetty, thus enabling them to charge Lees for the movement of timber between the junction with Lees' tramway (known as Lees' bottom yard) and the jetty. In October 1929 the TGR general manager reported that beams on the jetty were badly burnt or decayed in several places and that at one point a beam dropped noticeably as an engine passed over it. There was also a constant risk of cinders from engines setting fire to the jetty. In April 1933 the TGR bridge foreman reported that unless substantial work was carried out on the piles, beams and sleepers the whole jetty would have to be condemned in 12 months; the Smithton Harbour Trust agreed to undertake repairs.[17]

There were also problems with the tramway itself. In December 1933 the TGR ganger reported that some rails were so badly corroded that they disintegrated when the grass beside them was removed; despite this, 30 ton capacity FFF bogie timber wagons were being run over the line as far as Lees' junction. Between May and August 1935 896 yards of 28 pound rails[18] were replaced with second-hand 40 pound rails and 1,772 new sleepers laid.

On 12 December 1935 the TGR decided not to work the jetty until condemned beams had been replaced, although they did allow Lees to run their engine at their own risk to deliver timber for a ship due on 15 December. The seven mills owned by Lees and EH Fenton immediately gave their 150 employees a week's notice of dismissal, a political furore ensued and the TGR agreed to resume working the jetty on 17 December, provided that the Harbour Trust speeded up the replacement of condemned beams and piles. In September 1936 the TGR bridge foreman said that the Harbour Trust had made 'an honest endeavour' to repair the jetty, but that the whole structure would be unfit for use within a year.

Local opinion was divided, but the majority view by the mid-1930s was that Pelican Point jetty could not last much longer and that the only option was to extend the Town Wharf in Smithton. The wharf was located on the east bank of the Duck River just north of the rail bridge leading to Tram Yard. There had been a small wharf for general traffic there since the late nineteenth century and in 1923 a new wharf was added immediately south of the original one. A railway siding was provided to the wharf in 1938, diverging from the main line on the east side of the bridge and curving north to the wharf on a timber trestle viaduct. Unlike the Pelican Point line, the track and timber work were sufficiently robust to support the TGR's C-class 2-6-0s, which propelled loads of sawn timber to the wharf on tramway timber bogies. In 1938 the Harbour Trust obtained government support to further extend the Town Wharf as a replacement for Pelican Point. This provided safer wharf accommodation, but the river required ongoing dredging to allow ketches and schooners to get up to the wharf.[19]

Timber railed to Pelican Point increased to a peak of 11,053 tons in 1936-37[20] but then fell away to only 335 tons in 1939-40. The TGR advised the Smithton Harbour Trust that TGR trucks would no longer be allowed to carry timber to Pelican Point from 17 June 1939, but this deadline was extended to 15 July 1939 and possibly further.[21] The TGR annual report for 1939-40 reported that the Pelican Point line had been closed, although it did not give a specific date. The rails were lifted in 1940 and the jetty was gradually removed by a combination of demolition and fire. TGR timber deliveries to the Town Wharf peaked at 13,657 tons in 1948-49, but had declined to 3,711 tons in 1959-60, the last year that the wharf appeared in the traffic returns.

The Marrawah Tramway Company

The first attempt to provide transport infrastructure for the Marrawah district was the construction of a 'temporary' jetty at Green Point, about two miles west of Marrawah, in 1895-96.

Leesville sawmill 7 October 1972. *Photo: Jim Stokes*

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Former TGR wagon at Leesville sawmill 7 October 1972.
Photo: Jim Stokes

The jetty projected 16 feet beyond the rocks and included a tramway 132 feet long. The jetty was in an exposed position on the notoriously stormy west coast and appears to have been in use for only about a decade.[22] The Tasmanian Surveyor-General described Green Point in 1906 as 'a miserable place' with 'no harbour at all'.[23]

In June 1901 Marrawah residents were working with the Duck River Progress League to urge the government to build a tramway to Marrawah from the end of Lees' tram, which then extended for some eight or nine miles from Pelican Point. On 17 September 1903 a Smithton deputation urged the Minister for Lands, Carmichael Lyne, to extend Lees' tram towards Marrawah and drain the swamps for dairying. However Lyne said that his preference was to open up new areas by roads and there were in any case other areas of Tasmania with equal claims for railways or tramways.[24]

The Marrawah Tramway Company (MTC) was formed early in 1906 by local settlers to build a tramway north-eastwards for some 20 miles to a port at the mouth of the Montagu River. The tramway was intended to improve access to some 15,000 acres of first class land which had been taken up in the district over the previous 15 years. The tramway would also open up a further 15,000 acres of first class land and 30,000 acres of second class land, together with valuable stands of stringy-bark and blackwood timber. The Green Point jetty was of 'very little value' and during the past two years produce had lain on the beach at Green Point for four months before it could be shipped.[25]

On 18 September 1906 the company advertised its intention to present a Bill to Parliament to authorise a line from Marrawah to Montagu, using horse or steam traction, and including power to build branch lines to private land in the parishes of Togari, Riengeena and Marrawah. The company also sought a grant of land not more than 50 links wide on which to build the line and an additional grant of land of 2,500 acres in a block or blocks in the parishes of Riengeena or Togari.[26]

A Parliamentary select committee reported on the Marrawah Tramway Bill in October 1906. In his opening address to the committee S P Crisp, who was counsel for the MTC, said that J S Lee and Sons had a tramway running about nine miles from Smithton. Lees had asked the MTC to take the tramway to Smithton rather than Montagu, so the MTC asked that the Bill should authorise either destination. Archibald Ford, who was one of the two directors of the MTC and who had been farming at Marrawah for 14 years, said that Lees had built five miles of tram and had materials for four more miles. The discrepancy between Crisp and Ford over the length of Lees' existing tram probably arose because Ford was referring only to the section that would be incorporated into the Marrawah line. Ford said that the line would be laid with iron rails for steam traction if they could be obtained, otherwise with wooden rails for horse traction. The Bill stipulated a maximum grade of 1 in 30 and a minimum bi-weekly service. The committee generally endorsed the Bill, but recommended that MTC be required to complete the line within three rather than four years. It also recommended that that the strip of land leased for the line be one chain wide and that the MTC should be able to lease 5,000 rather than 2,500 acres of land.[27] The Bill was passed by the Tasmanian parliament in November 1906.

In August 1910 C A Ford, as managing director of the MTC, summarised the company's history over the preceding four years. Only 1,700 of the 4,000 one pound shares offered had been taken up and the original plan to build a line to Montagu had been abandoned. Lees then asked that the line be taken to Smithton instead of Montagu, since Lees already had some six miles of line constructed towards Marrawah. After prolonged negotiations and the grant of an additional 5,000 acre timber lease the MTC finally signed an agreement with Lees in November 1909 to purchase their tram from Leesville to 6 Mile and also to borrow £4,176 from them. Meanwhile during 1907 and 1908 the MTC had purchased three miles of iron rails in Victoria[28] and laid them from the end of the six miles of line already built by Lees. Once the agreement with Lees had been signed the MTC bought four and a half miles of rails in England and resumed track laying, but owing to a shortage of dogspikes only one and a quarter miles of rails were laid. The line was formed for a further two miles, but work was then halted by wet weather. The MTC now had sufficient funds to form and lay track for the remaining 11 miles to Marrawah and intended to ask the Parliament to supply funds to purchase rails.

The MTC's report for the 12 months ending on 1 October 1910 said that 1½ miles of iron rails had been laid and 3½ miles of formation had been completed ready for track laying. Lees had purchased some 4½ miles of new rails in England on the MTC's behalf and these had all been landed at Pelican Point. Once these rails had been laid the iron and steel rails would extend for 13½ miles and the remaining 10 miles to Marrawah would be laid with wooden rails.[29]

On 18 November 1909 a MTC deputation led by C A Ford met the Minister for Railways, Alexander Hean. Ford said that the three year time limit for the completion of the line would expire in a few weeks, but nine or ten miles of the line were still under construction. He asked that the government not implement its power to require the forfeiture of the line. Hean advised the MTC to seek an extension of time from the Parliament.[30] In September 1910 the MTC gave notice of its intention to seek amendment of the 1906 Act to extend the authorised completion time for a further three years and to authorise the government to lend the MTC £5,000 to complete the line with iron rails. The government initially gave only a one year extension, but this appears to have been extended later to three years.[31]

The MTC's report for the 12 months ending in February 1912 noted that iron rails had been laid to 13¼ miles and the formation had been completed to the Montagu River at 15½ miles. Forming of the line between 15½ and 19 miles was in progress and the section between 19 miles and 22½ miles was complete except for the laying of wooden rails. The MTC

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had acquired sufficient new steel rails from Lees to complete the iron and steel rail section to around 17 miles. An engine had been 'landed' in October 1911 (presumably for Lees) and was at present being leased by the MTC. Lees had erected a sawmill at 13 miles and were planning mills at 8 miles and 17 miles. The MTC was now working all Lees' traffic west of 7 miles The MTC had built three bogie trucks and a further four double bogie trucks and 12 four-wheeled ballast and produce trucks were under construction. The MTC was negotiating for the purchase of a 12 ton Climax geared engine, which would cost about £1,000 landed in Tasmania.[32]

The Marrawah tramway was finally completed to join the Pelican Point tramway in February 1913 and the first train ran from 17 Mile to Smithton on 5 February 1913, with a horse tram connection from Marrawah to 17 Mile.[33] The MTC pressed the Tasmanian government to exercise its right to purchase the tramway and Ford asked for a price of £25,000. On 26 September 1913 Edward Mulcahy, the Minister for Lands and Works in Albert Solomon's Liberal Party government, advised Archibald Ford that the government was prepared to recommend to Parliament that the line be purchased for £22,000. However in October 1913 Mulcahy realised that the line between Leesville sawmill and the junction with the Pelican Point tramway south of the jetty was still owned by Lees, so that the MTC was not in a position to sell the entirety of the line from Marrawah to a junction with the Pelican Point line, as specified in the Act. The confusion arose because the government's Engineer-in-Chief, W Ross Reynolds, had reported that the first three quarters of a mile from Pelican Point 'had been' deviated and the formation of a new section 'was just about to be laid'. However the deviation had not in fact been built. Ford said he thought the deviation was to have been built by the government.[34]

Mulcahy therefore reduced his offer by £500 and told Ford that the government would not purchase the line until he had completed it. Ford threatened to create a political crisis and received support from John Earle, the leader of the Labor Party opposition, and from the excitable independent member of the House of Assembly Joshua Whitsitt. The purchase was settled for £21,500 at the end of October 1913, with the PWD undertaking 'to put in the connection with the present Government line', which involved building a new line south-eastwards from Leesville to join the Smithton end of the Pelican Point line. This created a large triangular junction, with Leesville, Pelican Point and Smithton Tram Yard at its extremities. The purchase was approved by the House of Assembly on 2 December 1913. There was a further outbreak of hostilities on the issue between Mulcahy and Whitsitt in May 1914, by which time Whitsitt had transferred his support in the House of Assembly to the Labor Party and John Earle had become Premier.[35]

Public Works Department operation of the Marrawah Tramway 1914-1929

The PWD assumed responsibility for the line on 2 May 1914, with Archibald Ford as manager.[36] Ford was faced with the task of rebuilding the whole line. His task was made more difficult by the fact that the government allocated funds on an unpredictable and often inadequate annual basis. His main challenges were to bring the iron and steel rail section up to a reasonable standard, replace the wooden railed section with steel rails on an improved alignment and provide a more adequate locomotive fleet.[37]

A report by the Parliamentary Standing Committee on Public Works in October 1915 found that the section from Smithton to 17½ miles was laid with iron or steel rails, most of which were of inferior quality and some almost unfit to carry rolling stock. The PWD had already spent more than £7,000 on renewing some of the worst sections. The section from 17½ miles to Marrawah[38] was laid with wooden rails and worked by horse. The line was generally very roughly built and the 26 mile journey took at least six hours and even then was not immune from danger. There was only one round trip per day on the horse-worked section, carrying three or four tons. Heavy loads of timber were being carried over the iron rail section, on which there was 'some regularity of service'. The freight rate on the wooden railed section was eleven shillings per ton and the through freight rate from Marrawah to Smithton was only twelve shillings per ton, so that very little revenue was received from through traffic over the iron railed section. However timber traffic over the Smithton end of the line allowed the tramway to show a profit of nearly £1,000 in 1914-15.[39]

The PWD's Engineer-in Chief reported in detail each year on the work undertaken. In addition to gradually replacing the worst rails and sleepers and laying new ballast, vegetation was cut back from the line, ditches and culverts provided or improved and fences erected. Relaying of the section from Smithton to 17½ miles began in 1915-16 when 1½ miles of second-hand 72 pound rails were laid; these rails had probably originated with the 5 ft 3 in gauge Launceston and Western Railway in 1871. Also in 1915-16 5½ miles of existing sleepers were relaid and the rails spiked and 2½ miles of new sleepers were laid.

In his report for 1920-21 the Engineer-in-Chief complained about the very slow pace of reconstruction. During that year the only work done between Smithton and 17½ miles was to replace three-quarters of a mile of 28 pound rails with new 40 pound rails and to put down 1½ miles of sand ballast. The line was re-surveyed as far as 17½ miles between November 1921 and May 1922. The situation improved in 1922-23, when £12,000 saved from the construction of the TGR Myalla – Wiltshire Junction line was reallocated to the tramway. In his report for 1922-23 the Engineer-in-Chief noted that over the preceding few years 4½ miles of the worst rails had been replaced with new 40 pound rails and the 43 pound rails had been picked over and relaid. Sand ballast had been provided for 12 or 13 miles. The funds diverted from the Myalla line had enabled seven miles of line to be regraded and some of the existing rails had been recurved or straightened as required. 5,000 sleepers had been replaced and five miles of line partially ballasted.

A report in February 1924 said that the main problems with the line were the seven miles of 27 pound rails between 10¼ miles and 17¼ miles and the weak and wet formation between 14 miles 56 chains and 15 miles 13 chains. In addition the section between 17½ miles and 22 miles urgently needed more ballast to avoid crippling the new 40 pound rails. Until the weakest sections were strengthened the line could not carry TGR FF-class 14-ton capacity bogie timber wagons and in any case the tramway engines could probably haul twice the payload on tramway timber bogies than they could on heavy TGR wagons. The smaller types of TGR wagons were gradually allowed on sections of the line, which avoided the need to tranship timber at Smithton Tram Yard. By November 1921 TGR wagons were running to Cummings' sawmill at 2 Mile and in December 1921 Ford reported that TGR wagons could run as far as 10 Mile, subject to an eight miles per hour speed limit.[40]

The PWD also gradually upgraded buildings and sidings. At Smithton Tram Yard a shed to house two engines, wood shed, blacksmith's shop, windmill and tank were erected in 1915-16. In 1917-18 a wood shed measuring 110 feet by 15 feet was erected, the west ballast pit line was lifted and relaid as the west siding and a spur was laid to a new ballast pit 20 chains west of the station.

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Elsewhere, a wood shed was erected at 14 Mile and a small goods shed at 17½ miles in 1915-16. In 1917-18 26 chains of line to a new sand ballast pit near 12 miles were cleared and grubbed and new points were installed at 7 miles 40 chains, 17 miles 39½ chains and 17 miles 48 chains; the latter two were presumably for the loop siding at 17 Mile. A new bridge was constructed over the Montagu River at 16 Mile in 1921-22.

A Parliamentary committee was told in 1926 that in the period from 1 July 1923 to 30 June 1926 passenger numbers were not much more than 2,000 per year, but freight traffic was substantial, reaching 62,700 tons in 1925-26. There was a thrice-weekly service through to Redpa, which could be increased to daily if traffic warranted.[41]

Replacement of the wooden tram between 17½ miles and Marrawah

In 1916 the PWD surveyed a new route between 17½ miles and Marrawah (25¾ miles) to find a better alignment on which to replace the existing wooden tram. The wooden tram had grades as steep as 1 in 22 in both directions and curves as sharp as 1½ chains radius. The new route, which was a quarter of mile shorter, kept to the north of the wooden tram between 18 miles and 22½ miles, with a maximum grade of 1 in 50 and minimum curve radius of five chains. From 22½ miles the new route approximately followed the wooden tram route to Marrawah.

Construction of the new line proceeded very slowly. In 1919-20 the section between 17½ and 18½ miles was provided with a new formation and steel rails and the transfer point with the wooden tram moved to 18¼ miles. Fair progress was also made on the new formation between 18½ and 21½ miles until work was stopped by a very wet winter. In 1920-21 new 40 pound rails were laid, but not ballasted, between 18½ and 20 miles and formation work had resumed as far as 22¼ miles. The line was opened to 22 miles 7 chains in 1921-22 and to Redpa station at 23 miles 27 chains in 1922-23; both these sections were laid with new 40 pound rails. On 31 July 1922 the horse tram was running two or three trips a day over the 60 chains between the end of the steel rails and Redpa.[42] The 1922-23 report said that Redpa had been provided with sidings, cattle and goods platforms and a goods shed, but that it required a shelter shed, waiting room and urinal; it was still awaiting these facilities when the line closed in 1961.

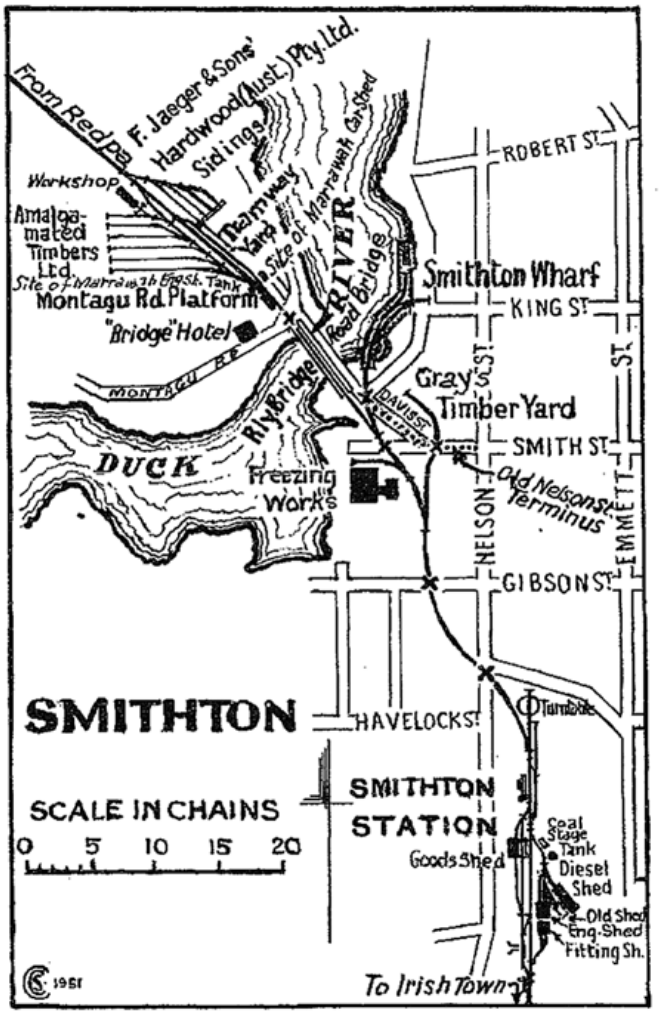
In or about October 1923 Ford suspended services between Redpa and Marrawah because the very low revenue the section generated did not justify relaying it with steel rails. He offered to hand over the wooden tramway and a truck to the public to run themselves, but stated that the government would not be responsible for repairs. At a public meeting at Marrawah on 19 August 1924 Ford said that the extension of the steel rails to Marrawah had been a condition of the sale of the MTC to the government, but it had not been honoured. The PWD was opposed to laying steel rails to Marrawah, but James Belton, who was Minister for Lands and Works in Joseph Lyons' Labor Party government, directed that the work be done. The section was relaid during the 1924-25 financial year with second hand 72 pound rails, standard sleepers and sand ballast.[43]

On 30 July 1928 F F Ford noted that the Redpa – Marrawah section was laid as a rough tram, with second-hand 75 pound rails and a ruling gradient of 1 in 30 on the climb to Marrawah. During the 1930s Marrawah station averaged annual totals of only a few hundred outward passengers and a few hundred tons of goods in each direction. The section was closed on 2 November 1939, the 1939-40 TGR annual report noting that revenue was negligible and that the section faced heavy renewal costs.

Construction of the TGR Irishtown – Smithton branch

In 1920 the PWD began construction of a branch 5 miles 20 chains long from Irishtown, on the TGR's Stanley – Trowutta line, to Smithton. The TGR station at Smithton was established on the south side of the town and the PWD continued the line for approximately 50 chains to join the Marrawah Tramway at Tram Yard, including the construction of an 11-span timber bridge over the Duck River. The rails reached Tram Yard in June 1921 and the line from Irishtown was formally opened on 14 October 1921, the official party continuing to Pelican Point in a truck hauled by an engine.[44] The opening of the TGR's Myalla – Wiltshire Jct line on 12 July 1922 linked the Smithton area lines with the main Tasmanian rail system.

The TGR line was the second rail crossing of the Duck River at Smithton. In 1911 the Circular Head Council gave Grey Brothers permission to lay a tram along the road bridge to access their sawmill located on the east side of the river, to the north of Smith Street and west of Nelson Street. However construction apparently did not proceed, as on 11 June 1915 the Council again approved the laying of a tram from Tram Yard to Grey Brothers mill. The line would be built by the PWD at Grey Brothers' expense and was expected to be used by two trains each week.[45] Even then there appears to have been some delay, as the *Examiner* of 28 February 1917 (p.3) reported that 'the tram line has lately been extended across the bridge to Grey's sawmill, where almost every day the train conveys logs of various sorts'. Grey's tram was much resented by pedestrians, particularly patrons of Smithton's only licensed hotel, which was located on the west side of the bridge. In June 1921 pedestrians were using the railway bridge in



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preference to negotiating the mud and raised tramlines on the road bridge. On 10 June 1921 the Circular Head Council ordered Grey Brothers to remove their rails from the road bridge within 14 days and to leave the bridge in good order.[46] A footbridge was built beside the new railway bridge and the TGR provided Grey Brothers with a siding entered from the south.

Public Works Department operations over TGR tracks

The connection of the Marrawah Tramway to the main TGR system enabled PWD engines to work on TGR tracks. From 1922 until the end of 1926 a PWD crew worked the twice daily TGR mixed train between Smithton and Irishtown, using ex Tasmanian Main Line Railway 4-4-0 B+1 (Hunslet 325 of 1884), which was hired from the TGR. This avoided the TGR having to station an engine and crew at Smithton. However Archibald Ford's crewing arrangements sometimes caused concern. In February 1924 the Smithton station master complained that B+1 was being fired by a boy who would not be able to control the engine if anything happened to the driver and in August 1926 the union complained that a 14 year old boy was driving an engine on the tramway.[47]

In 1923 the PWD considered ways to transport to Stanley the large volume of blackwood logs being cut along the tramway. The TGR generally carried logs on 14 or 30 ton capacity bogie wagons, but these were too heavy to run fully loaded over sections of the tramway and it was decided instead to use engine B+1 to haul at least 60 tons of logs on tramway timber bogies from Smithton to Stanley. Archibald Ford drove B+1 himself, with one of the TGR engine crew based at Trowutta travelling to Irishtown on a fettler's tricycle to pilot him to Stanley. A special train advice issued on 23 August 1923 stated that the log trains would run on Sunday mornings and Wednesday evenings until further notice, although it is not clear how long the operation lasted. A new special train advice was issued on 30 April 1924 for trips to Stanley on Sundays 4 and 11 May 1924. The trip on 4 May was quite eventful. B+1 failed at Wiltshire Junction on the outward trip and TGR Beyer, Peacock 4-4-0 A2 was sent from Stanley to recover the 12 loads of logs. As the train stopped at Stanley three of the wooden coupling poles broke and three timber bogies were derailed. After the poles had been replaced and the bogies rerailed half the train was shunted over the Stanley weighbridge, but a loose chain caught in a set of points, upending a bogie and grounding its load. The logs were transferred to a TGR wagon and the whole train taken round to Stanley wharf. The trip scheduled for 11 May was deferred to 25 May to enable B+1 to be repaired.[48]

On 16 March 1928 F Ford advised the TGR that he wanted 17 ballast wagons and two timber trucks stored in the PWD yard at Ulverstone to be moved to Smithton. He suggested that the PWD's Beyer, Peacock 2-6-0 C28, which had been stored in the TGR locomotive shed at Ulverstone since 1924, could be used to deliver the wagons, worked by a Marrawah Tramway crew.[49] The TGR replied that C28 required repairs, so the PWD suggested that the wagons be delivered by the Marrawah Tramway's engine *Spider*, which had been at the Emu Bay Railway workshops in Burnie for the fitting of a new crosshead. The TGR rejected this suggestion, pointing out that a seven ton engine hauling 19 wagons would struggle on the steeper grades and require frequent water stops. Instead the wagons were taken to Smithton by a TGR engine on 1 May 1928, 'sleeve' transition couplings being fitted to the tender and brake van to accommodate the centre buffer wagons. *Spider* returned to Smithton as a light engine on 30 May 1928, with a Marrawah Tramway driver and a TGR guard as pilot.[50] Ford continued to show an interest in C28, reporting on 9 October 1928 that the Emu Bay Railway was prepared to repair the engine for £126, which would allow the PWD to work the Irishtown line again.

Baldwin 0-4-0 Fantail *at Smithton 26 February 1937.*
Photo: WRB Johnson

TGR Tram operations 1929-1945

The TGR took over the Marrawah Tramway on 1 September 1929, paying the PWD £3,172 for it. The purchase included four locomotives, one passenger car and 105 wagons. At first the only TGR service was a tram[51] to Marrawah on Mondays, Wednesdays and Fridays. The 1933 public timetable showed a tram running to Marrawah from Mondays to Fridays (conditional on sufficient traffic offering) and a rail motor running to Marrawah on Mondays and Wednesdays and conditionally also on Fridays. From January 1935 a rail motor made a round trip to Marrawah on Fridays and then returned to Marrawah to stable overnight, returning to Smithton via Salmon River on Saturday mornings to take the bush workers home for the weekend.[52]

The working timetable of 18 October 1936 showed a quite impressive range of operations. A tram ran to Marrawah conditionally on Mondays, Tuesdays, Wednesdays and Fridays and to Redpa on Thursdays. There was also a tram from Redpa to Salmon River on Thursdays. If required a tram ran to 7 Mile on weekdays to lift logs. A rail motor ran to Marrawah via the Salmon River branch at 06.00 on Mondays, while another motor left Smithton at 08.45 for Marrawah on Wednesdays and conditionally also on Mondays and Fridays. On Friday evenings a motor ran to Marrawah and returned to Smithton via Salmon River on Saturday mornings.

In the working timetable of 17 April 1939[53] the rail motor service had been reversed to come in from Marrawah in the mornings (Saturdays excepted) and return from Smithton in the afternoon. On Friday evenings the motor returned to Smithton via Salmon River for the bush workers and brought them back early on Monday mornings. There were now two separate tram services on each weekday except Saturday, one to Marrawah and one to Salmon River, although they could be cancelled if insufficient freight was offering. In the working timetable of 17 May 1942 the motor ran morning

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and afternoon trips to Redpa on Mondays and Fridays only, the westbound Monday morning trip and the eastbound Friday evening trips operating via Salmon River. If sufficient freight offered separate trams ran to Redpa and Salmon River on Mondays to Fridays, with an additional trip (described as a 'Shunter') to 14 Mile.

The public timetable current at the end of 1944 showed the motor still running to Redpa and return on Monday and Friday mornings, but the only afternoon service was on Fridays when the motor ran out to Redpa and returned to Smithton via Salmon River. In the working timetable of 6 August 1945 the rail motors had disappeared and the only services were the two trams to Salmon River and Redpa and the shunter to 14 Mile. General passenger traffic virtually ceased after 1944, although a few people still travelled on the goods trams.

TGR improvements to the tramway

The TGR annual report for 1929-30 noted that some track relaying had been completed after the takeover and that the whole line was now in good running order. In 1930-31 two miles of 28 pound rails were replaced with 43 pound rails and 1935-36 two miles and one chain of 40 pound rails were replaced with 50 pound rails.[54] A western arm was added to Salmon River Junction in 1934-35, allowing engines and rail motors to turn. This must have been particularly welcome to drivers of the single-ended rail motors, which had previously had to run in reverse from Marrawah to Smithton.

Bridge strengthening, in particular rebuilding the bridge over the Montagu River at 16 Mile, was completed in 1935. This enabled the TGR's Beyer Peacock C-class 2-6-0s to work through to Redpa. C1, C4, C5, C7, C9, C12, C13, C14, C20 and C22 were all noted working out of Smithton between 1937 and the late 1950s and some other members of the class would also have been there over the years.[55] C-class engines were not permitted to run between Redpa and Marrawah or on the Salmon River and Pelican Point lines. Use of the four small tank engines gradually diminished as the C-class took over the main line work and the branch lines closed. John Buckland noted in May 1945 that the tramway was being run by C5, *Big Ben* and *Spider*.

The engine shed and workshop at Smithton Tram Yard were destroyed by fire on 9 May 1934. They were replaced by a varied collection of second-hand buildings at the TGR station on the south side of the town. The Tram Yard goods shed was relocated and converted to a two road engine shed, with the single road engine shed from Nietta widened and attached to its rear as a workshop. The old 45 foot turntable from Devonport was moved to Smithton and a coal stage and water tank provided. In 1936-37 the long single road engine shed from Ulverstone was re-erected beside the two road shed to house the Sentinel steam railcar working the Burnie – Stanley – Smithton service. There was also a shed on the single line between the other two sheds, but this had been reduced to a wooden frame by the late 1940s. Around 1950 a new water tank was provided, utilising the front tanks (complete with slots for Walschaerts valve gear!) from the TGR's two M-class 4-4-2+2-4-4 Garratt engines.

Safe and unsafe tram working

The 1932 general appendix to the TGR working timetable stated that the line was controlled by telephone block. On days that both a tram and a rail motor ran the motor had to report to Smithton station when it reached 6 Mile, 10 Mile, 19 Mile and Redpa, which allowed the tram to enter the section the motor had vacated. In the eastbound direction the motor reported from 10 Mile and 6 Mile. Crossings were only permitted at Redpa. Lees' engines were permitted to operate from Leesville to 6 Mile (described as Lees' Junction) and from Leesville to Pelican Point, provided that they obtained phone clearance from the Smithton station master on entering and leaving TGR lines. If two TGR trams ran beyond 6 Mile the drivers were issued with written instructions on how they were to proceed.

Beyer Peacock 2-6-0 C5 at Smithton with the Redpa goods in May 1945. *Photo: John Buckland*

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C12 and van ready for return journey at Redpa February 1950. *Photo: I K Winney*

The phone control system was adequate as long as communication between train crews and Smithton station staff was timely and accurate. Unfortunately this was not always the case, as David Beck described in his amusing account of '*The art of equipment modification on the Marrawah Tramway, 1934-41*'.[56] For example, on 10 February 1937 2-6-0 C4 was struggling with a heavy westbound load and Smithton authorised *Spider*, which had preceded it, to return to 19 Mile to give assistance. This arrangement was not recorded in writing at Smithton and when the crew of C4 phoned in from 19 Mile another Smithton staff member authorised them to proceed, resulting in a collision at 20 miles.[57] While *Spider* was being repaired the TGR hired Manning Wardle 0-4-0ST 371 of 1871 from Jaeger's Mill on the Salmon River line.[58]

On 8 August 1941 *Spider* was making slow progress with a westbound tram and Smithton authorised the eastbound rail motor to cross it at 17 Mile instead of 19 Mile. However, Smithton neglected to mention the changed crossing point to *Spider*'s fireman when he phoned in from 14 Mile, resulting in a collision at 18 Mile. Even allowing for the low running speeds they were probably lucky that these and other mishaps did not result in a serious disaster. In 1932 crossings were only permitted at Redpa, but this restriction appears to have been relaxed fairly soon.

The 1949 general appendix to the TGR working timetable included no less than 14 telephone block reporting points. Before entering a section drivers were required to obtain phone clearance from Smithton, complete a Train Working Order form and repeat the information in the form to Smithton by phone. The block points were located at Smithton station, Tram Yard, Leesville, the former Mella branch junction at 2 Mile and then 4, 6, 7, 9¾, 10, 14, 17 and 19 Miles, Salmon River Junction (23¼ miles) and Redpa (23½ miles).[59] Most of these locations could accommodate a crossing between two trams, provided that at 7 Mile the load of one tram did not exceed nine tram trucks and that at 14 Mile Lees' spur line was not occupied by loaded trucks. However crossings at 4, 6 and 10 Miles could only take place between one tram and a light engine or rail motor. Engines shunting Leesville sawmill were permitted to run to 2 Mile and back on a single Train Working Order. Lees were permitted to run a vehicle over the line to bring in injured employees, provided that they received clearance from the Smithton station master.

The Mella branch

On 11 January 1928 F F Ford requested approval to build a 64 chain branch into the Mowbray Swamp area, to the south-west of Leesville, to transport farm produce from the Mella district. The branch would utilise the formation of an old timber tramway of Lees. The PWD approved construction of the line on 6 March 1928. Freight traffic on the branch was always light. The highest total recorded by the TGR was 1,597 tons outwards in 1932-33. At least in the TGR period the line did not carry any passenger traffic. The line was extended southwards for 47 chains in 1935-36, but despite this outward freight traffic had dwindled to 119 tons by 1940-41.[60] The line was formally closed on 31 March 1945 to avoid spending the sum of £800 needed to put it into working order.[61]

Britton Brothers' tramway at 10 Mile

The MTC's report for the 12 months ending February 1912 noted that the Britton Brothers had built a line about four miles long from the 9½ mile peg on the Marrawah Tramway and the MTC began carrying their timber to Pelican Point in November 1911.[62] Brittons later extended the wooden-railed line southwards for around a further eight miles almost to the Montagu River. In 1954 Brittons built a new mill about three miles south of the original mill, which it replaced. Tony Parnell published a comprehensive history of Brittons' operations in *Light Railways* No. 143 of June 1998

After the Second World War Brittons sent their milled timber out by road and the line between 10 Mile and the mill was abandoned, apart from the first mile southwards from 10 Mile, which was retained for logging. 10 Mile recorded 3,220 tons of outward traffic in 1945-46 and 1,336 tons in 1946-47, but nothing thereafter. However from 1947-48 traffic from

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most of the intermediate sidings on the Marrawah Tramway was recorded under the generic heading of Various Mileages, so there may have been some later traffic. As noted in Part 2, the Redpa train picked up a wagon from 10 Mile in 1948.

J S Lee and Sons' operations at 10 and 14 Miles

The 1933 history of Lees' operations stated that mills were erected at 10 Mile and 14 Mile soon after the firm opened a bending plant in Melbourne in 1910, although the crucial factor in opening these mills was presumably when the MTC's track laying reached these locations.[63] The *Advocate* of 1 August 1922 (p.6) noted that Lees had a mill on a branch line at 10 Mile that was sending out large quantities of timber. Lees' branch at 10 Mile (actually located at 9¾ Mile) ran northwards for about two miles. *ARHSB* for October 1951 (p.132) stated the branch was opened in 1918 and closed in 1937. Szajna et al give the closure year as 1946.[64]

By the mid 1920s the post war timber boom was over and sawmillers were suffering severely from import competition. Lees' mill at 14 Mile was reported as closed in November 1926.[65] The great economic depression of the early 1930s devastated the industry. The *Advocate* of 21 November 1931 (p.7) reported that under normal conditions Lees operated three 'important' mills, one at Leesville and two along the Marrawah Tramway. However the Leesville mill was operating only part time and the other two were closed. By July 1933 conditions were improving, Leesville was being supplied with logs coming in over the tramway and the company also had a mill at Montagu.[66]

Lees' branch at 14 Mile ran in a southerly direction for about three miles. Most sources state that it was closed in 1940, but there is some evidence that it was in use until around 1946. On 30 October 1940 Frank Parker, who was Lees' log haulage contractor at 14 Mile, asked the TGR if he could purchase a Boston trolley (tricycle) to carry his workers from their camp at 14 Mile to their work in the bush, a distance of 3½ miles. Parker's own trolley was 'broken'. The TGR apparently hired Parker a Boston trolley, as his wife was still hiring it in 1947. The Smithton station master advised on 8 April 1947 that the trolley was being used on Lees' private line at 14 Mile and that at no time did it go on to the Marrawah Tramway. The trolley was eventually returned to the TGR in 1949.[67] 14 Mile recorded 1,455 tons of outward traffic in 1945-46, but nothing thereafter. The 1949 general appendix to the TGR working timetable noted that two trams could cross at 14 Mile provided that Lees' spur line was not occupied by loaded trucks, but this information might have been out of date by the time it was published.

Tramway at approximately 16½ miles

A Forestry Commission map from the 1930s and the Lands Department 1: 253,440 scale map of Tasmania produced around 1945 show a branch line diverging from the main line at around 16½ miles and running southwards for some 3.5 km, with the Montagu River to its east and what is now Rennison Roadto its west. The branch was probably built for timber cutting in association with swamp clearance.

The Marrawah Timber Company's tramline at 17½ miles

This line diverged from the main line near the western end of the siding at 17 Mile[68] and ran southwards along the eastern side of Bond Tier to end just north of the Smithton – Marrawah road. A Forestry Commission map from the 1930s and the Lands Department 1: 253,440 scale map of Tasmania produced around 1945 indicate that the line was between four and five kilometres long.

The first section of the tram had been built by William Etchell by 1918; it was described as an ordinary, rough tram, used by all and sundry. In November 1920 Etchell sold the

Big Ben *at Parattah Junction in March 1949.* *Photo: Jock Shennan*

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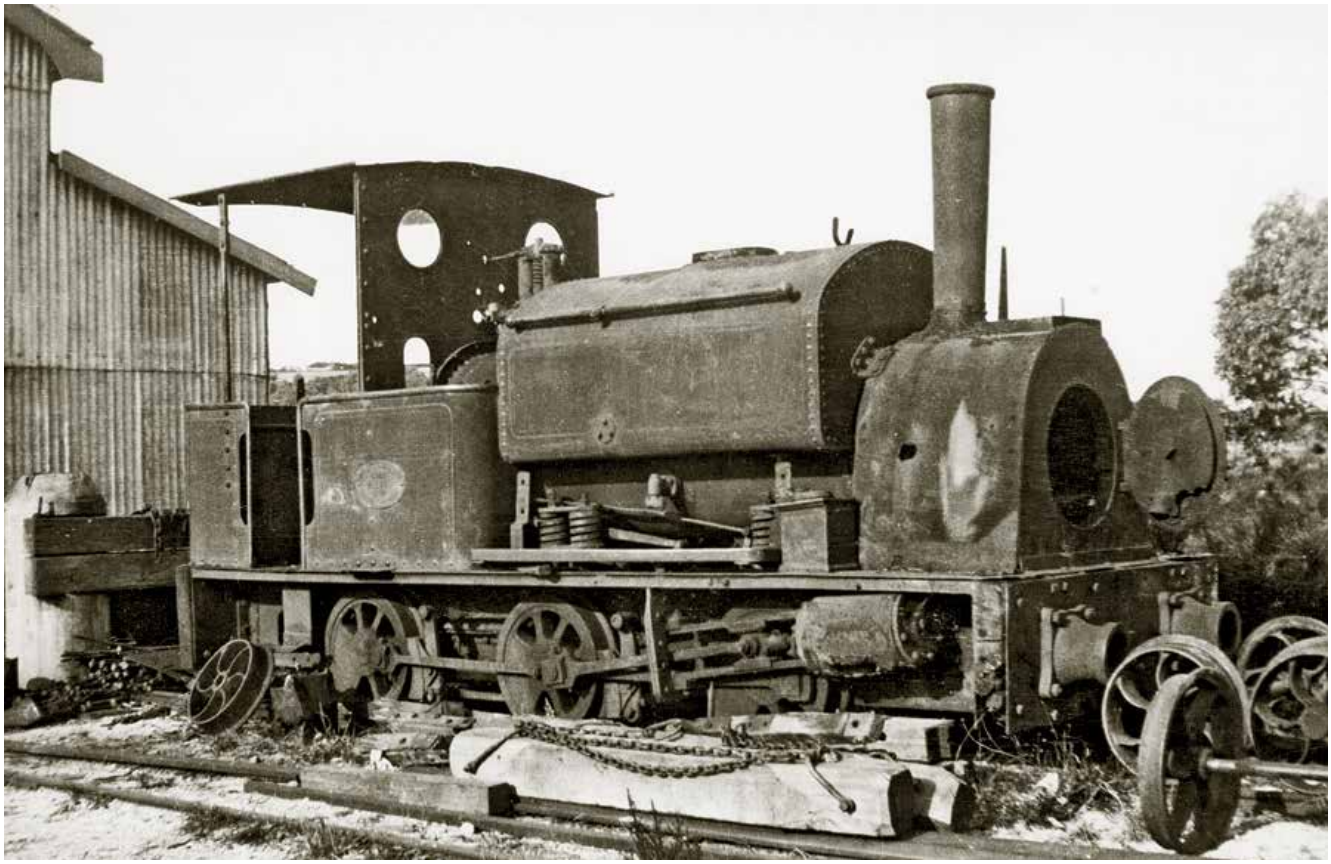

TGR 0-6-0 Six wheeler *Hudswell Clarke 350 of 1891 at Smithton 25 February 1937.* *Photo: R B McMillan*

tram to the Marrawah Timber Company. Etchell's tram included five chains of iron rails (owned by the government) and approximately 12 chains of wooden rails. In February 1921 the Marrawah Timber Company let a contract to James Gale and Herbert Ling to replace 13 chains of wooden rails with wooden sleepers (borrowed from Archibald Ford) and iron rails (owned by the government). This work was completed in March 1921. The Marrawah Timber Company then let a contract, which was completed in June 1921, to the Ollington brothers to extend the line for a further 78 chains as a horse tram, using iron rails and stringybark sleepers. Herbert Ollington had begun carting logs over the completed portion of the tram in January 1921. From 12 April 1921 government rolling stock was used to carry the timber. Ford described the line in March 1922 as 'inferior for engines', but a good horse tram.

Construction of the tram was vigorously opposed by Frank Jaeger and John Connor, who claimed that they had already been granted a license to build the line to serve their own timber leases and had pegged out the route. Each party accused the other of obstruction and the Marrawah Timber Company accused Connor of pulling up sections of their track on four occasions between July and December 1921. Connor and Ollington both lived in camps at 17½ miles, which must have placed some strain on neighbourly relations, especially when Connor pulled up the track near the junction with the main line. The dispute went to court in December 1921 and the Marrawah Timber Company obtained an injunction to stop Jaeger and Connor interfering with the tram, in return for which the company was given the right to use the tram for two days each week. In March 1922 Jaeger and Connor were awarded £250 in damages, but the Marrawah Timber Company kept the tram. The line was in use until at least the late 1930s.[69]

Associated Pulp and Paper Mills' pulpwood operations at 19 Mile

Early in 1949 loading facilities, including a short spur line, were established at 19 Mile for pulpwood traffic to the Associated Pulp and Paper Mills at South Burnie.[70] There was a loop on the south side of the main line and a spur diverging northwards into the bush, with a facing dead end to a log loading platform on the north side of the main line west of the loop. Maps and air photos indicate that the spur was about 1.5 km long, initially running to the north-west and then swinging round to the north-east. Pulpwood traffic from 19 Mile peaked at 9,276 tons in 1952-53 and then gradually declined, ceasing altogether in 1958.

Branch tram in the 20 Mile area

The *Advocate* reported on 9 August 1922 (p.7) that EH Fenton had established an up to date mill at East Marrawah some 20 months previously, with a capacity to produce 32,000 superficial feet of sawn timber each week. His main log supplies were drawn from a lease at 20 Mile on the Marrawah Tramway. This is probably the purpose of the line running south-eastwards down the west side of Bond Tier, which is shown in Tony Parnell's map in *Tasmanian Rail Hobbyist*, vol 2, no 2, 1996, p36. The *Advocate* of 10 September 1920 (p.2) reported that Cumming Bros would soon build a branch line into the bush to bring timber to their new mill at Marrawah.

References

1. *Examiner* (Launceston), 28 August 1883, p.3, 20 December 1883 p.3, 23 December 1884, p.2, 28 July 1885, p.3, 11 August 1885, p.4, 14 February 1887, p.3. The vertical boilered locomotive was an 0-4-0 built by Thomas Green of Leeds (their number 1272 of 1883) and known in Tasmania as Coffee Pot (see Richard Horne, 'Kate' and Thomas Green locomotives in Australia, *Light Railways* No. 102, October 1988, pp.3-4 and Mark and Angela Fry, Unusual Locomotives of the Tasmanian Forests – Part 2, *Narrow Gauge*

Down Under No. 10, Winter/Spring 2000, pp.31-35). The Lee family came originally from Leeds.

2. Tasmanian Parliamentary Papers, 1886, paper 67, p.12; *Examiner* 22 October 1887, Supplement p.1; Tasmanian (Launceston), 7 January 1888, p.6. The *ARHS Bulletin* (hereafter cited as *ARHSB*) for June 1951 (pp.79-80) stated that the Broadmeadows line was opened in 1885 with wooden rails and closed in 1895.
3. *Advocate* (Burnie), 21 July 1933, p.9; Mercury (Hobart), 22 January 1898, p.3 and 11 August 1905, p.8.
4. *North-Western Advocate and Emu Bay Times* (Burnie), 15 March 1905, p.4 and *Mercury*, 17 March 1905, p.7. The *Advocate* article identifies the mill visited as Cuba mill. Lees appear to have maintained a presence at 5 Mile (junction for the Cuba mill line), as the *Advocate* of 9 February 1922 (p5) reported that Lees' foreman's hut at 5 Mile had been destroyed by fire.
5. *Examiner*, 22 October 1887, Supplement p.2, 27 May 1890, p.3 and 21 November 1890, p.3. A surveyor's report dated 31 November 1890 noted that there was a steel-railed tramway running to the foot of the Christmas Hills (Tasmanian Parliamentary Papers, 1891, paper 72). The second engine that Lees had by May 1890 was presumably Thomas Green 132 of 1889, which later went to M C Davies at Karridale (WA) (see the article by Richard Horne cited in note i).
6. *Advocate*, 21 July 1933, p.9. Tasmanian Parliamentary Papers, 1900, paper 16.
7. *Mercury*, 19 June 1903, p.6, 23 October 1903, p.2 and 31 March 1904, p.7.
8. *Mercury*, 17 March 1905, p.7.
9. *Advocate*, 5 February 1909, p.4 and 28 May 1909, p.4. For a detailed history of the locomotive Gadget see Mark and Angela Fry, Unusual Locomotives of the Tasmanian Forests – Part 2, *Narrow Gauge Down Under* No. 10, Winter/Spring 2000, pp.32-35.
10. *Circular Head Chronicle* (Stanley), 21 February 1912, p.2. *ARHSB* for June 1951 (p.80) stated that the Trowutta line closed in 1914.
11. For construction of the wharf and tramway see Tasmanian Parliamentary Papers, 1900 (paper 16), 1902 (paper 34) and 1903 (paper 28). For a general history of port development see Kerry Pink and Gill Vowles, *Against the Tide: A Maritime History of Circular Head*, Hobart Ports Corporation, Hobart, 1998.
12. *Advocate*, 15 March 1905, p.4.
13. *Mercury*, 8 August 1914, p.4 and 7 January 1916, p.4.
14. Lindsay Whitham, *Railways, Mines, Pubs and People,* Tasmanian Historical Research Association, Hobart, 2002, Chapter 8. Tasmanian Parliamentary Papers, annual reports of the PWD Engineer-in Chief.
15. *Advocate*, 24 February 1921, p.2, 3 March 1921, p.4 and 7 November 1922, p.7.
16. *Mercury,* 11 July 1929, p.7, 19 July 1929, p.6 and 24 August 1929, p.7. Circular Head Chronicle, 23 July 1929, p.7.
17. Information on the Pelican Point line comes from TGR file 22/907. This was one of a large number of Transport Commission files destroyed in the early 1960s on the grounds that they dealt with routine administrative issues no longer relevant. However they included much information of interest to railway historians and fortunately the late Peter James managed to salvage many of the more interesting papers.
18. There was some confusion between 27 and 28 pounds per yard rails in reports on the Marrawah Tramway. The 72 pound rails were also described on occasions as 70 pound or 75 pound. Given the worn state of many of the rails the official weight was in any case somewhat academic.
19. *Advocate*, 1 April 1938, p.6, 2 July 1938, p.11, 29 April 1939, p.8 and 30 June 1939, p.6.
20. Information on traffic at individual locations was included in the TGR's annual reports, which were published in Tasmanian Parliamentary Papers. The reports are for the relevant financial year, so that 1936-37 indicates the 12 months ending on 30 June 1937.
21. *Advocate* 30 June 1939 p6.
22. *Mercury*, 5 and 17 March 1896, p2. Kerry Pink, and Gill Vowles, Against the Tide: A Maritime History of Circular Head, Hobart Ports Corporation, Hobart, 1998, p.78.
23. Tasmanian Parliamentary Papers, 1906, paper 45, p.14.
24. *Mercury*, 12 June 1901, p.5 and 18 September 1903, p.2.
25. *Mercury*, 19 September 1906, p.5.
26. *Mercury*, 18 September 1906, p.1.
27. Tasmanian Parliamentary Papers, 1906, paper 45.
28. A report in *Mercury* 6 April 1907 (p.5) indicates that the Tasmanian government purchased the rails and made them available to the MTC on a long term lease.
29. *Advocate*, 2 November 1909, p.3, Advocate, 14 December 1910, p4, Mercury, 27 August 1910, p.11.
30. *Mercury*, 19 November 1909, p.4.
31. *Mercury*, 7 September 1910, p.8, Advocate, 14 December 1910, p.4.
32. *Circular Head Chronicle*, 21 February 1912, p.2. The most likely candidate for the engine on offer was the B type Climax on Lahey's Canungra tramway in Queensland. In his history of the Canungra line in Light Railways No. 54, Summer 1975-76, R K Morgan noted that the Climax was taken out of service in poor condition in 1912, although it was in fact retained by Laheys and overhauled by Walkers of Maryborough in 1914.
33. *Weekly Courier*, 13 March 1913, p.19 and p.21. Mercury, 7 May 1913, p.5. Kerry Pink, In Memory of a Railway, Advocate, 9 September 1972, pp.13-14. See also Circular Head Chronicle, 28 July 1948, p.3, 8 September 1948, p.4, 22 September 1948, p.6 and 29 September 1948, p.3.
34. *Mercury*, 4 December 1913, p.6.
35. *Mercury*, 27 October 1913, p.4, 28 October 1913, p.5 and 31 October 1913, p.4. Circular Head Chronicle, 10 December 1913, p.2. Examiner, 9 May 1914, p9.
36. *Circular Head Chronicle,* 27 May 1914, p.3. Archibald Ford died on 5 January 1927 at the age of only 47 and was replaced as manager by his son F F (Pat) Ford. Daily Telegraph (Launceston), 6 January 1927, p.4.
37. Unless otherwise indicated information about reconstruction and operation of the line by the PWD comes from the annual reports of the PWD Engineer-in Chief, published in Tasmanian Parliamentary Papers and from Tasmanian Archive and Heritage Office files PWD231/1/158-160.
38. In the earlier years of the line the stations at Redpa and Marrawah were generally referred to as East and West Marrawah respectively. To avoid confusion I have used the names Redpa and Marrawah in this article.
39. Tasmanian Parliamentary Papers, 1915-16, paper 40, Advocate 20 October 1915, p.4, Examiner, 9 November 1915, p.4.
40. *Advocate*, 24 October 1921, p.5, 3 November 1921, p.5 and 6 December 1921, p.4.
41. Tasmanian Parliamentary Papers, 1926, paper 39.
42. *Advocate*, 1 August 1922, p.6.
43. *Advocate*, 24 October 1923, p.6 and 28 May 1925, p.6. Circular Head Chronicle, 27 August 1924, p.2.
44. *Advocate*, 7 December 1920, p.1, 11 December 1920, p.2, 20 June 1921, p.5, 29 June 1921, p.3, 8 October 1921, p.2 and 15 October 1921, p.3.
45. *Mercury*, 15 February 1911, p.6, Circular Head Chronicle, 16 June 1915, p.5.
46. *Advocate*, 13 May 1921, p.3, 13 June 1921, p.2 and 20 June 1921, p.5.
47. Papers salvaged by the late Peter James from TGR file 23/907 and *Mercury*, 7 (p3), 9 (p5) and 11 (p6) August 1926.
48. Papers salvaged by the late Peter James from TGR files 22/2421 and 46/1556.
49. C28 was built by Beyer, Peacock in 1908 (maker's number 5154) as Emu Bay Railway No. 10. It was purchased by the PWD for railway construction work in 1920, but hired to the TGR (who numbered it C28) at intervals between 1920 and 1923. It was too heavy for the Marrawah Tramway's track in the 1920s and it was stored at Ulverstone from 1924 until 1937, when it returned to service with the TGR. It ended its working life as the Launceston locomotive depot steam cleaner in 1960.
50. Papers salvaged by the late Peter James from TGR file 22/1944.
51. Until the early 1950s locomotive-hauled trains were described as 'trams'.
52. *Advocate*, 20 December 1934, p.6.
53. See also Circular Head Chronicle, 27 July 1938, p.3.
54. Unless otherwise referenced, information about improvements to the tramway during the TGR period comes from the TGR's annual reports published in Tasmanian Parliamentary Papers.
55. The C-class were the Tasmanian version of the Australian 'standard' 3 ft 6 in (1067 mm) gauge 2-6-0 of the late nineteenth and early twentieth centuries, built in large numbers by Beyer, Peacock of Manchester and James Martin of Adelaide for the Tasmanian, South Australian and Western Australian government systems, the Emu Bay Railway and the Silverton Tramway. They also worked on the North Australia Railway and the Western Australian timber and firewood lines.
56. *Tasmanian Rail News* No. 180, January 1993, pp.12-13.
57. For another account of this collision see Mercury, 15 February 1937, p.4.
58. For a history of Manning Wardle 371 of 1871 see Ken Milbourne, *Light Railways* No. 119, January 1993, p.3, letter by George Sweetapple in *ARHSB*, September 1998, p.272 and letter by Richard Horne in *ARHSB*, July 1999, p.268.
59. Working timetables from 1948 onwards gave the mileage for Redpa as 23¾ miles.
60. Traffic returns for individual stations were not published between 1 July 1940 and 30 June 1945. An unpublished copy of the 1940-41 returns has survived, but apparently not those for the following four years.
61. TGR annual report for 1944-45.
62. *Circular Head Chronicle,* 21 February 1912, p.2
63. *Advocate*, 21 July 1933, p.9.
64. PK Szajna, A Parnell and K Milbourne, Tracks to Tall Timber, *Tasmanian Rail Hobbyist*, Vol. 2, No. 2, 1996, p.38
65. *Advocate*, 20 November 1926, p.10.
66. *Advocate*, 21 July 1933, p.10.
67. Papers salvaged by the late Peter James from TGR files 22/2421 and 46/1556.
68. During the early 1920s the line was described as diverging from the main ine at 17½ miles, but in later years it was generally described as being located at 18 Mile. The maps suggest that 17½ miles is more accurate.
69. *Mercury*, 17 December 1921, p.12, 24 December 1921, p.5, 21 January 1922, p.11, 9 March 1922, p.3 and 2 May 1922, p.7. Advocate 17 December 1921, p.2, 21 January 1922, p.3, 9 March 1922, p.2, 10 March 1922, p.3, 11 March 1922, p.3 and 13 March 1922, p.2.
70. TGR Weekly Notice 1949/14. This gave the location as 19½ miles, but it was generally known as 19 Mile. TGR construction files gave the location as 19 miles 30 chains.

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South Australian V class 0-4-4BT locomotive No.10 or 12 in near new condition. The location is unknown, but is most probably on the Kingston – Naracoorte railway, or at Port Augusta. The tinting is based on the Beyer Peacock livery when the locomotives were new.
Photo: National Railway Museum, Port Adelaide, hand tinted Frank Stamford

And the tail-waggers did all right …

The Kingston–Naracoorte Railway in the 1870s – Part 2

by Frank Stamford

The first part of this article, which appeared in *Light Railways* No.252, described the need for the railway, its construction, and the arguments for and against the use of horse or steam haulage. This final part includes a description of the line and its unusual locomotives, and its operations up to 1879 – the time when the railway was about to become part of a much larger system.

Description of the line

At the time of its completion, the line was reported to be well sleepered and ballasted. The general opinion seemed to be that it was very well but economically constructed for light traffic, but in a way that would allow it to be easily upgraded should traffic grow in the way that some had forecast.

The rails were 35 lbs per yard wrought iron – the lightest rails ever used on the South Australian Railways. The sleepers were 6 ft 6 in long, 8 in wide and 4 in deep, of either red gum or jarrah, and 2112 were laid per mile, indicating a spacing of 2 ft 6 in. The steepest grade was 1 in 100, and the sharpest curve 40 chains [about 800 m] radius, providing easy conditions for the motive power, whether horse or steam. Crossing the swamps and ranges meant extensive embankments and cuttings. On the flats, embankments about 3 ft high were formed, and the deepest cutting was 22 ft. Many very wide flood opening structures were needed, built mainly of timber.

The stations on the line at the time of its completion, with mileages from Kingston, were: Kingston 0 miles; Reedy Creek 11¾ miles; Avenue Range 23¼ miles; Baker's Range 31¾ miles; Stewart's Range 44¾ miles; and Naracoorte 52½ miles. Baker's Range was renamed Lucindale in 1877. This was the only intermediate stopping place to develop into a moderately substantial town, its development being facilitated by the coming of the railway.

There were only three bridges of any significant size: one 90 ft long over Reedy Creek with six spans; an 80 ft long skew bridge over Mosquito Creek near Stewart's Range; and a 60 ft long bridge over Naracoorte Creek. There were three smaller bridges over Reedy Creek and its branches, one 36 ft long, one 30 ft long, and one 20 ft long. The numerous flood openings ranged from 3 ft to 100 ft long. The bridges and most of the flood openings had stone abutments, with timber piles and beams. Limestone was readily available on site and was used for the abutments and track ballast.

There were heavy cuttings through limestone in the Reedy Creek and Stewart's Range area, the deepest in this section being about 20 ft. In the Stewart's Range area there were significant embankments, the highest being 36 ft.

Both Kingston and Naracoorte had 40 ft x 60 ft goods sheds, 22 ft x 12 ft passenger sheds, weighbridges, and 33 ft Cowan Sheldon turntables for the locomotives. Kingston had an engine pit, but there were no engine sheds at either Kingston or Naracoorte – the V class locomotives had no shelter at all.

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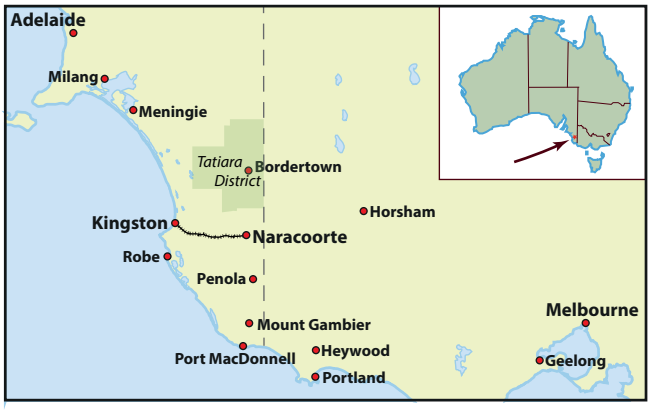
The siting of Naracoorte station had been highly controversial in that town, and reading some of the correspondence it would seem that it would have been impossible to satisfy everyone. The real problem was that the town had been allowed to develop in an illogical way in two separate places, one the private town of Kincraig, the other the government town of Naracoorte. These eventually grew into one town, but that was to be a long way into the future. The site finally chosen for the station was between Kincraig and Naracoorte, and it was located to allow easy extension of the railway east towards the Victorian border. The area set aside for it was also large, to allow it to develop into a break of gauge station. At that time it was not known where the South Australian Railways might meet the Victorian Railways, but wherever it was in the south-east, there would be a gauge difference.[1]



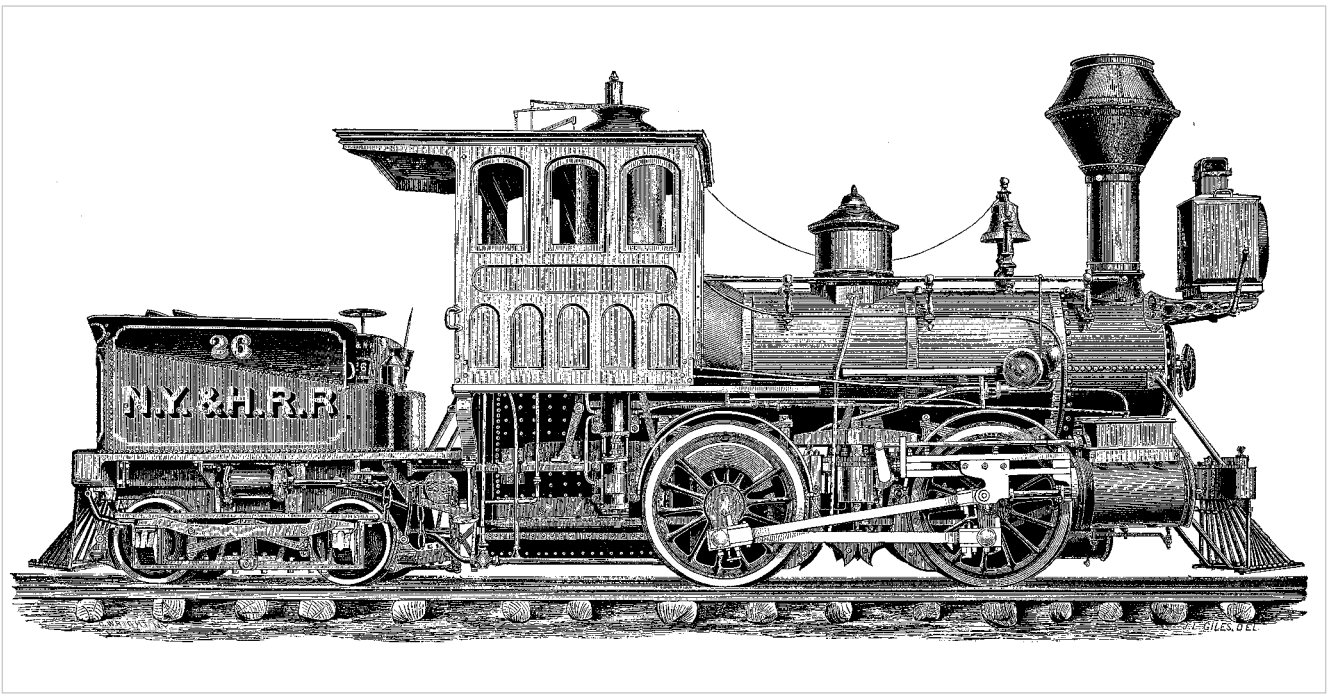
The locomotives

The locomotives were of a very unusual design. At the time they were ordered – in 1875 – there was no experience in South Australia with 3 ft 6 in gauge locomotives. Since Beyer Peacock was at that time building eight 3 ft 6 in gauge 2-6-0 tender locomotives for South Australia, the same builder appears to have been asked for advice on a suitable locomotive for use on 35 lb wrought iron rails, on a railway where the traffic was expected to be light, and the speeds low. Beyer Peacock had, in 1875, delivered six 0-4-4BT 3 ft 6 in gauge locomotives to Norway, and the South Australian locomotives were a smaller version of these.

The theory behind the design was to maximise the adhesive weight on the driving wheels by putting almost all the weight of the fuel and water on the rear bogie. In a conventional tank locomotive the performance suffers as the supply of fuel and water is consumed, because the weight on the driving wheels is reduced. This was a major limitation where light rails or lightly built bridges severely restricted the maximum axle load.

The origin of the design came from the American, Matthias N Forney, who in the mid-1860s designed and patented an 0-4-4BT locomotive with the coal and water at the back over the bogie. In terms of suspension, the design was a reversal of the traditional American 4-4-0 of that time. The bogie had a central pivot without sideplay, and the driving wheels next to the bogie were flangeless. As with American 4-4-0s the driving axles were linked by compensating beams, providing three point suspension. The purpose of Forney's design was to provide maximum power on lightly built, sharply curved standard gauge railways, and the design was quickly adopted on the elevated suburban railways of New York.[2] The locomotives were also designed to be equally effective whether working cab forward or funnel forward.

In the early 1870s the design was slightly modified when controlled sideplay was provided on the bogie, and flanges were provided on all driving wheels. Forney was the editor of the American magazine *Railway Gazette* and established himself as the leading editor in the railway trade press. He was vehemently anti-narrow gauge and took every opportunity to criticise the then fashionable movement favouring the use of gauges between 3 ft and 3 ft 6 in for mainline railways.[3] He said – quite correctly – that sharply curved, lightly built standard gauge railways were practical, and the perceived cost saving of narrow gauge was an illusion. Despite his hostility to narrow gauge, Forney locomotives provided the main form of motive power on the 2 ft gauge railways in Maine, USA.



New York & Harlem Railroad standard-gauge 0-4-4BT locomotive of 1876. By this time the design had been refined to have flanges on all driving wheels, and controlled sideplay on the rear bogie.

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Beyer Peacock used the Forney design for the "Asteroid" class of 3 ft 6 in gauge 0-4-4BT locomotives for Norway, the first six of which were delivered in 1875. This was probably as a result of the Director of Norwegian Railways, Carl Pihl, visiting the USA and Canada in 1871. On this trip he saw Forneys in use in New York. Pihl already had a very good relationship with Beyer Peacock and was seeking a locomotive with the maximum adhesive weight for use on the southern section of the railway between Hamar and Trondheim, where the axle loading was severely limited by lightly built timber bridges. The Asteroid class was the result, and were successful in meeting the special requirements of the line on which they had to work. They had flanges on all drivers, and controlled sideplay on the bogie, which was of the Adams type, using India-rubber springs to control the sideplay. Their maximum permitted speed was 55 km/h in both directions, which was high by the standards of 3 ft 6 in gauge at that time. Two more were built by Nydqvist & Holm (Sweden) in 1876-77, and four more came from Beyer Peacock in 1877. Amongst other things, they worked double-headed hauling the over-night sleeping car train on the southern section of the Hamar – Trondheim railway. Each locomotive was named after an asteroid, and they later became Type VI of the Norwegian State Railways (NSB – Norges Statsbaner).

When the bridges were eventually strengthened their special advantages were no longer needed and more conventional locomotives performed better in mainline service. Three were converted to 2-6-2T locomotives, but this conversion does not seem to have been as successful as expected. The Asteroids ended their careers as shunting and banking engines, the last being scrapped in 1930. One was sold for industrial service on a quarry railway.[4]

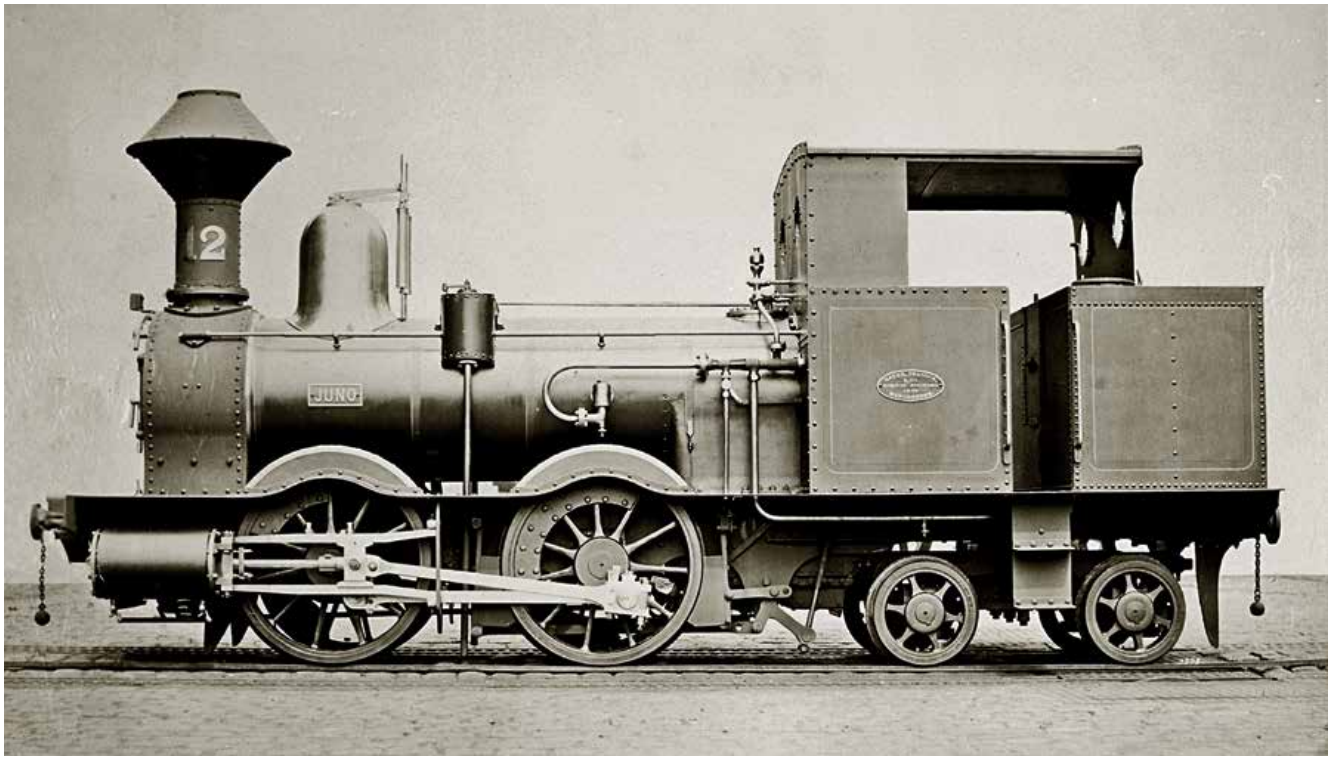
The locomotives Beyer Peacock designed for the SAR were similar to the Asteroids but about 25% smaller. One peculiarity of the locomotives was that they were tail-waggers. Gifford Eardley writing in the *ARHS Bulletin* said that they certainly wagged their tails when in motion, and when running bunker-first this peculiar gait was very noticeable.[5]

Back tank type locomotives were not widely used, and there were few other examples in Australia. They included two 5 ft 3 in gauge 0-4-4BTs built by Beyer Peacock in 1880 for the Holdfast Bay Railway Co. (Adelaide – Glenelg, SA) which were specifically designed to cope with heavy excursion traffic, whilst being limited to a maximum axle load of 8.5 tons for 50 lb rails. The HBR requested 4-4-0Ts but Beyer Peacock found the weight distribution problem could only be met by making them 0-4-4BTs. Unlike other Forney type locomotives, they had inside cylinders. They later became the GD class of the SAR and were taken out of service in 1925.[6] Another example was the Queensland Railways 6D15 class 4-6-4BT locomotive, an experimental rebuild of a PB15 class 4-6-0 tender locomotive. The only other Australian examples I know of were three 2 ft gauge Baldwin 0-4-2BT locomotives for the Fairymead Sugar Company, Bundaberg, Queensland.[7]

Delivery of the locomotives and first trial

Beyer Peacock records show that the first three locomotives, (B/Nos 1597-9 were steamed in June 1876, the date of steaming the fourth (B/No.1619) is not known, but all four were delivered together. The painting details (dated 2 March 1876) specified the boilers and tanks to be dark green as low as the footplate, the frames to be black, and the wheels to be claret colour. Lining was to be black, edged with a fine vermilion line. There was much polished brass and copper, and for shipment this and the axles and tyres were to be coated with a mixture of lead and tallow boiled together. Eight-inch brass numbers were to be riveted to the front of chimneys, 9 to 12 in the same order as the builder's numbers.

The locomotives were to be packed for shipping in very strong cases of deal [fir or pine timber] no less than 1¼ inch thick and with "parts distinctly marked and numbered



Builder's photograph of 3 ft 6 in gauge Juno, *Asteroid class 0-4-4BT of the Norwegian State Railways. It was Beyer, Peacock builder's number 1520 of 1875. They were used on all types of trains, including double-headed on the overnight sleeping car train from Hamar to Trondheim. The South Australian V class was based on the same design, but was about 25% smaller. Photo: Museum of Science & Industry/Science & Society Picture Library*

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Comparitive dimensions NSB Asteroid and SAR V class		
	NSB Asteroid	**SAR V class**
Wheel arrangement	0-4-4BT	0-4-4BT
Cylinders	11 x 18 in	9½ x 15 in
Driving wheel diam.	3 ft 9 in	3 ft
Trailing wheel diam.	2 ft	1 ft 9 in
Rigid wheelbase	5 ft	4 ft 3 in
Total wheelbase	15 ft	13 ft 1 in
Total weight on drivers	12.1 tonnes*	8.65 tons*
Total weight in service	21.1 tonnes	15.65 tons
Total length	24 ft 6 in	21 ft 3¾ in
Heating surface, total	416.5 sq ft	256.9 sq ft
Heating surface firebox	39.5 sq ft	25.6 sq ft
Heating surface, boiler	377 sq ft	231.3 sq ft
Grate area	7.25 sq. ft.	4.66 sq ft
Boiler pressure	140 psi	130 psi
Tractive effort (75% bp)	5080 lbs	3666 lbs
Coal capacity	0.6 tonne	0.6 ton
Water capacity	420 gallons	300 gallons
Max. permitted speed	55 km/h both directions	

* In both cases the weight was almost equally distributed on the two axles.
Sources: Asteroid – Carl Pihl's notebook in Hamar Railway Museum; and Thor Bjerke et al *Damplokomotiver i Norge,* Norsk Jernbaneklubb 1987, pp 227-229; **V class** – W Callaghan & A Grunbach, "Mechanical Horses: The V class of the SAR", *ARHS Bulletin* Sept. 2000, p.332 ff

to facilitate erection of the engines in the colony". The brightwork [polished metalwork] was to be placed in timber cases "lined in stout zinc soldered down to keep watertight".[8]

The locomotives were delivered from England to Adelaide on the ship *South Australian*, and tenders were then invited to transport them to Kingston. The shipment of the four locomotives consisted of:

4 engine bodies
16 pairs wheels & axles
40 cases of fittings

In addition to which there were duplicate parts, consisting of:

4 pairs wheels
16 tyres
5 cases fittings (axleboxes, stays, piston rings etc.)

The 'engine bodies' comprised the frame, boiler, coal bunker and water tanks in one piece. The proprietor of the *Annie Taylor* offered to carry these below deck, but one locomotive at a time, which meant that the total shipment would take four weeks. The proprietor of the *Legal Tender* would take them all in one shipment, but only above decks. This would double the cost of insurance to £18 per locomotive. If the bunker and water tanks could be separated from the frames, then they could have been sent below decks on the *Legal Tender*, but the Locomotive Superintendent, William Thow, advised against that, as they were riveted to the frames, and they could not be unriveted without much work and risk of damage.

The Engineer-in-Chief, H C Mais, recommended to the Commissioner of Public Works that the tender of £201 to transport the locomotives on the *Legal Tender* be accepted, but he added 'I think the prices quoted are absurdly high but I see no alternative to accept this offer'. The Commissioner accepted Mais' recommendation.[9]

On 14 December 1876 Chas Smith – the Locomotive Foreman at Kingston – wrote to William Thow, giving a report on the first trial trip of a V class locomotive:[10]

> I have the honour to inform you that on Saturday last I tested No. 9 Engine under Steam by running to Narracoorte and Back. I am glad to say that the machinery worked very sweetly and freely. The Engine runs as light as a Carriage but through my leaving Kingston with Timber alone as fuel and that being very green and in too long lengths, I had great difficulty in keeping steam both going and returning from Narracoorte, and I am strongly of opinion that to enable the Boiler to generate steam sufficient, the Engine will require to be fired with at least two parts coal, and any wood used will require to be thoroughly dry and cut to lengths of not more than 18 inches and 12 inches, two thirds being 12 inches.
>
> The fittings and finishing of the Engines by the Makers has been handsomely and faithfully carried out, the whole of the Cases as far as I have gone yet being delivered in first class condition.
>
> The sand and dust throughout the line is something tremendous and the motion of the Engines lying very low and close to the rails, I am very much afraid that these parts will receive serious damage.
>
> One thing at least that will require to be done before the Engines commence to run is that the blinding that has been put along the line for the horse traction must be covered with the Ballast. a large quantity of the Stores and working plant that I had ordered through Mr Grayson has not come to hand yet and I am badly in want for instance the Bellows, forge and anvil.

Opening and operation

The railway was officially opened on 16 January 1877. The official party consisting of ministers, members of parliament and two journalists – from the *Register* and the *Advertiser* – travelled from Glenelg to Kingston on the government's steamer *Governor Musgrave*. Due to a delayed departure from Glenelg they did not arrive at Kingston until 11 am, two hours late. There were not many people left at Kingston to greet them, as several hundred had left for Naracoorte on a free train, which had departed at 9.30 am. This arrived at Naracoorte before midday, resulting in large numbers of people in Naracoorte waiting for the official party to arrive. Eventually a telegram was received from Kingston advising that the train carrying the official party had left Kingston at 2 pm and would arrive at Naracoorte at 4 pm. It actually arrived at 4.30 pm, and upon arrival the band played "God Save the Queen", following which the Chief Secretary – Sir Henry Ayers – declared the line open. The official party then left for the "tastefully decorated" goods shed where a luncheon was provided by the Commissioner of Public Works, to which 150 gentlemen had been invited. As was normal at such events, many speeches were made, but "the speaking on the occasion was not by any means brilliant".[11]

The railway then settled down to daily operation, and seems to have been an instant success with the citizens of Kingston and Naracoorte. There were no complaints of late or cancelled trains, unreliability or breakdowns. Considering how ready the local press was to criticise the government in its handling of the railway's construction, the complete lack of criticism after the opening can only lead to one conclusion – from the point of view of the railway's users the V class locomotives were doing everything that was expected of them. The makeshift locomotive had been an object of derision, but there was no hint of derision directed to the V class locomotives.

The tail-waggers were doing all right!

After little more than two months of steam operation the development of Bakers Range into the township of Lucindale was already underway. The Traffic Superintendent reported

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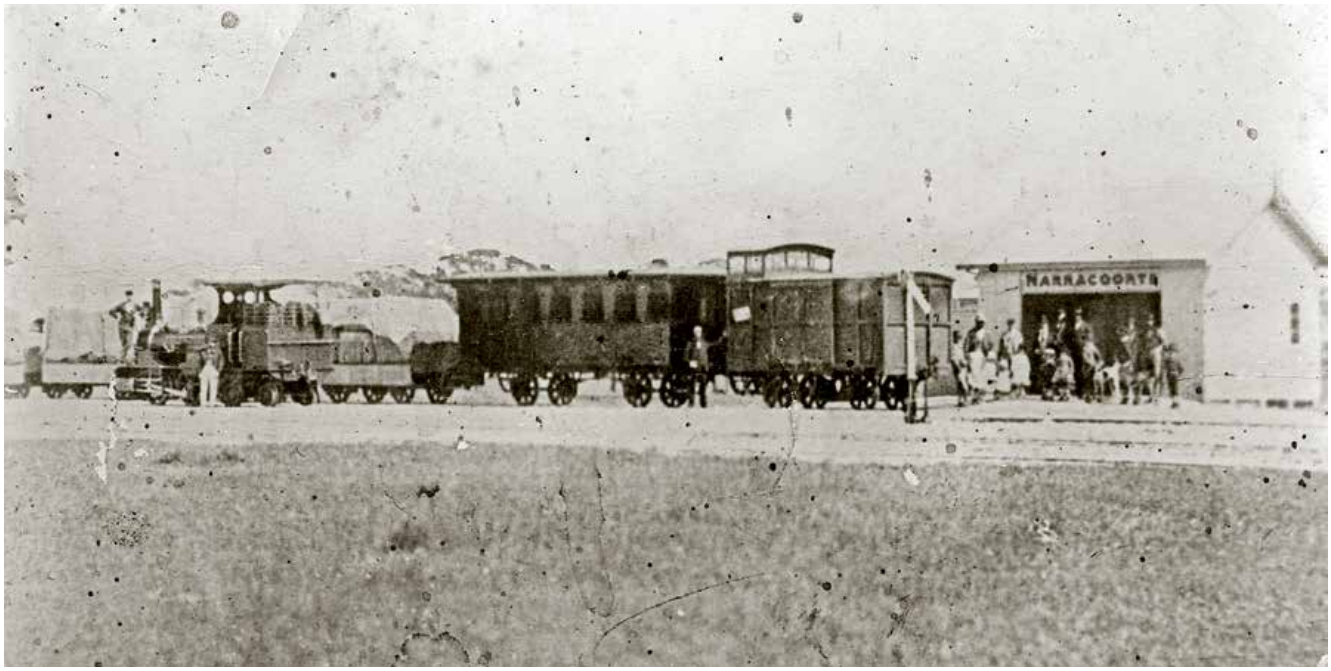

Photographs of V class locomotives in service on the Kingston – Naracoorte railway are extremely rare. This one has been claimed to be the first (steam) train at Naracoorte. That is unlikely, as there were huge crowds of people at Naracoorte, and the rolling stock was being used to carry passengers on that day. Photo: Arnold Lockyer collection, National Railway Museum, Port Adelaide

that traffic from Kingston to Bakers Range was increasing every week, both in goods and passengers:

> …several selectors have commenced building, and at the township Mr Bull has started to build a public house, so that, with building materials, farming implements, wire for fencing etc, we shall have small up traffic to that station during winter months, and should season be favourable for wheat we may reasonably expect considerable down traffic next season.[12]

Interestingly, the term "up" related to trains going to Naracoorte, and "down" related to trains going to Kingston. Since Kingston was the headquarters of the railway, this was the opposite of normal terminology.

Six months after the opening, the Naracoorte correspondent reported in the Border Watch that the trade of Naracoorte had developed wonderfully since the opening of the railway, adding to the commercial prosperity of the town. The amount of traffic being handled was greater than expected.[13] However, three weeks later he was lamenting that there were "far too many officials on the line, it is in fact literally swamped with them … How then can any railway pay when it is saddled with unnecessary expense?"[14]

Despite those misgivings about staffing levels, two months later he was again saying the railway had been a great benefit to the district.

Special excursion trains became a regular feature on the line. On Boxing Day 1877 the Naracoorte Lodge of the Independent Order of Rechabites ran an excursion to the seaside at Kingston as a fundraiser for the Naracoorte hospital. About 300 people travelled, and it was reported to be an unqualified success. The train departed at 7 am with one carriage and six trucks "prepared with every consideration for the safety and comfort of the excursionists, were quite filled with old, middle aged, and young, all seemingly bent on fully enjoying the pleasure placed within their reach". The trip to Kingston took about 2½ hours, with a ten minute stop at Lucindale.[15]

On New Year's Day in 1878 and again in 1879, Lucindale was the centre of the festivities, with tennis, croquet, cricket, and other activities including a sack race, and an egg and spoon race. Two special trains were run, one from Kingston, and one from Naracoorte. The Naracoorte brass band was on board, as it had been on the Boxing Day 1877 event.

Football special comes to grief

The V class locomotives were fitted with a rather spindly looking cow catcher on the front, presumably designed by Beyer Peacock, as similar cowcatchers were provided on that builder's locomotives for a number of other countries in the 1870s. They were necessary on the Naracoorte – Kingston line, as a number of letters to the *Narracoorte Herald* reported incidents with cows on the railway, and calling for the line to be fenced in certain places. Unfortunately the cow catchers were not substantial enough to cope with sleeping bulls:

> ACCIDENT ON THE KINGSTON & NARRACOORTE RAILWAY.
>
> Between 8 and 9 o'clock on Wednesday night the residents of Narracoorte were somewhat startled by the report that the excursion train containing the Kingston footballers and their friends, which left about half-past 6 p.m., had come to grief about six miles down the line. Some of the excursionists made their way to Narracoorte on foot, and others ran up on a trolly which they procured at Stewart's Range. From what we can learn about the accident it appears the engine collided with a bull which was lying on the line, and shoved him along for about 20 yards, when the animal got underneath the wheels, and threw the engine and the front truck off the line. Luckily the engine was thrown on her side against the embankment of a small cutting about 3 ft feet high, a complete capsize thus being prevented. The collision was so great that the side of the embankment was completely ploughed up for a distance of 10 feet by 5 feet; the rails being bent, and several sleepers were smashed. Our readers can imagine the shock the passengers sustained when the accident happened; and we believe they were violently thrown against each other and some actually found themselves on terra firma considerably bruised. The stoker was thrown out of the engine on the embankment, but unfortunately he escaped unhurt [sic]. The driver managed with difficulty to hold on. It was at once apparent that the best

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thing that could be done was to go into Narracoorte and telegraph to Kingston for another engine to take the excursionists home. It being after office hours no communication could be had with Kingston; but a hearing was obtained at Reedy Creek, and the stationmaster there at once despatched several men on a trolly to Kingston, which is about 12 miles distant, to inform them what had happened. The trolly arrived about half past 8. The many friends of the excursionists at Kingston were of course thrown into a state of excitement; but the assurance that no one was hurt greatly relieved all. Steam was soon got up, and an engine left for the rescue about 12 o'clock. Meanwhile the excursionists had settled down quietly to their fate. The night was cold, and several large fires were made, around which they gathered. There being a number-of females and children in the company, several residents of Narracoorte brought them out provisions and other comforts, which were greatly relished. The various gangs of men along the line were brought up as quickly as possible to assist in getting the engine and train righted, and the line repaired and cleared in time for the ordinary train to pass on. So great was the despatch that we believe every man on the line was at the scene of the accident before 12 o'clock that night. About 3 o'clock, an engine and carriage from Kingston arrived, and immediately the unfortunate excursionists were taken on to Lucindale, where they awaited the down ordinary train on Thursday afternoon. The engine then returned to assist in getting the disabled engine on the line and tow her on to Stewart's Range. This was successfully accomplished, and the portion of the line that was injured by the collision was ready for traffic by half-past 9a.m.

The line is fenced where the accident occurred, but the animal must have gained an entrance at a cross-road opening where it is intended to construct a couple of Yankee ditches. The beast was literally "smashed" up. It is somewhat peculiar the "cow catcher" did not throw it off. If the engine had been thrown off the line about 20 yards further back a capsize would have been inevitable, as the train would have fallen over an embankment instead of running into a cutting.[16]

By that time the days of the light-weight V class locomotives on this railway were coming to a close. The *Narracoorte Herald* of 16 September 1879 reported that more powerful locomotives were about to be placed on the line, and that one was already in Kingston being fitted up. They were W class 2-6-0 tender locomotives, built by Beyer Peacock, and were of a new design which did not exist in 1876. With a maximum axle load of 5.4 tons they were still very light, although considerably heavier than the V class. They were delivered in a dismantled state from Adelaide to Beachport, carried on the new railway to Mount Gambier, taken by road to Naracoorte, and then taken by rail to Kingston for assembly. All because nothing had yet been done to upgrade the Kingston jetty!

By 17 October the first was in service, and it was reported that "no less than 10 trucks [of wool] had arrived, which is considerably over the number the small engine could drag".[17] The V class could take at least seven trucks and the passenger car, with a maximum speed with that load, of about 20 miles an hour, and a minimum of 9 to 10 mph – crossing Stewart's Range.[18]

With the coming of the W class the railway became much like any other minor SAR branch line, and its detailed history is beyond the scope of this article. The heavy traffic so hoped for by those in Kingston never eventuated. Whilst the 35 lb rail between Naracoorte and Lucindale was later replaced with 50 lb material, that beyond Lucindale to Kingston remained until the line was converted to 5 ft 3 in gauge in 1959.[19] As a result the only locomotives that could work into Kingston were the W class, and their later rebuilds the Wx class. The line in its broad gauge form finally closed on 20 February 1989.[20]

The opening of the railway led to the immediate development of the settlement of Baker's Range into the township of Lucindale. Building materials for the John Bull Hotel, seen in this picture, and other new buildings in the town, were brought in on the railway. To the right of the hotel is Pattison's store. The date is believed to be about 1878. *Photo: State Library of South Australia B6339*

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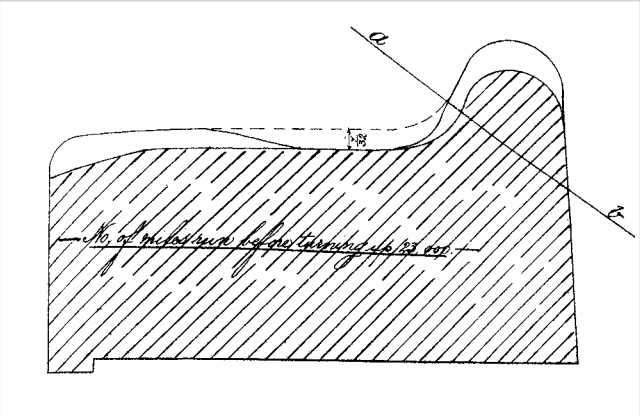
Why were the V class replaced?

The decision to run the Kingston – Naracoorte line with steam locomotives was made during the line's construction. It was probably politically driven, due to the strong local antipathy to the use of horse haulage. Experience with the horses during the laying of rails and ballasting of the line may have led to H C Mais supporting the change to steam. However, the traffic during the line's construction was much heavier and more concentrated than the day to day traffic that the line would carry once it was completed.

During the six months that the line operated with horses, all the traffic offering was carried, without undue delay, at a price one quarter of that when carried by road. There were no complaints in the newspapers about poor service with the carrying of goods during that time.

Horses were hauling trains of six trucks, each loaded to five tons, a total of 30 tons per train. It is not surprising the horses were able to carry all the traffic offering. For the year ending 30 June 1879 – the second full year of operation – goods traffic totalled 5749 tons. Assuming trains ran five days a week, this averages only 23 tons per day. In fact the traffic was not evenly spaced through the year, it was heavier in the wool season in the second six months of the calendar year. But the horses had no difficulty handling the wool season in 1876, and – judging by the lack of newspaper complaints – the V class locomotives were having no difficulties handling the traffic. It was two-and-a-half years before there were signs of problems: "traffic on the line seems to be increasing. On several occasions truck loads of goods have had to be left behind for want of sufficient haulage power."[21]

In the 1880 Commission into Public Works William Thow told the Commission that, where traffic was light, the cost of



The 35 lb rails on the Kingston – Naracoorte railway had a very narrow head which caused excessive tyre wear on locomotives. This diagram was prepared by William Thow and presented as evidence to the 1880 Commission on Public Works. The dotted line shows the original tyre profile, the middle line shows how the tyre was worn 7/32 inch [5.6 mm] after 23,000 miles [which represents about 220 return trips without allowing for shunting]. The lower line shows the form of the tyre after turning. Source: See reference 22

fuel and labour to maintain steam locomotives was greater than for operating horses. He believed it would be cheaper to work the Kingston – Naracoorte line with horses. He presented comparisons of the cost of operations, per train mile, of lightly trafficked lines, which showed much higher costs for the steam powered lines.[22] Where traffic was light, and the weight of the trains was within the capacity of horses – as on the Kingston line – the cost advantage was with horses.

Towards the end of 1879 the V class were replaced with the

Kingston, c 1890, showing the new jetty on the left, and the old jetty on the right. The new jetty was not completed until 1884. The old jetty was notoriously rickety and presented great challenges in landing the 'makeshift' locomotive and the V class locomotives.

Photo: State Library of South Australia B10037

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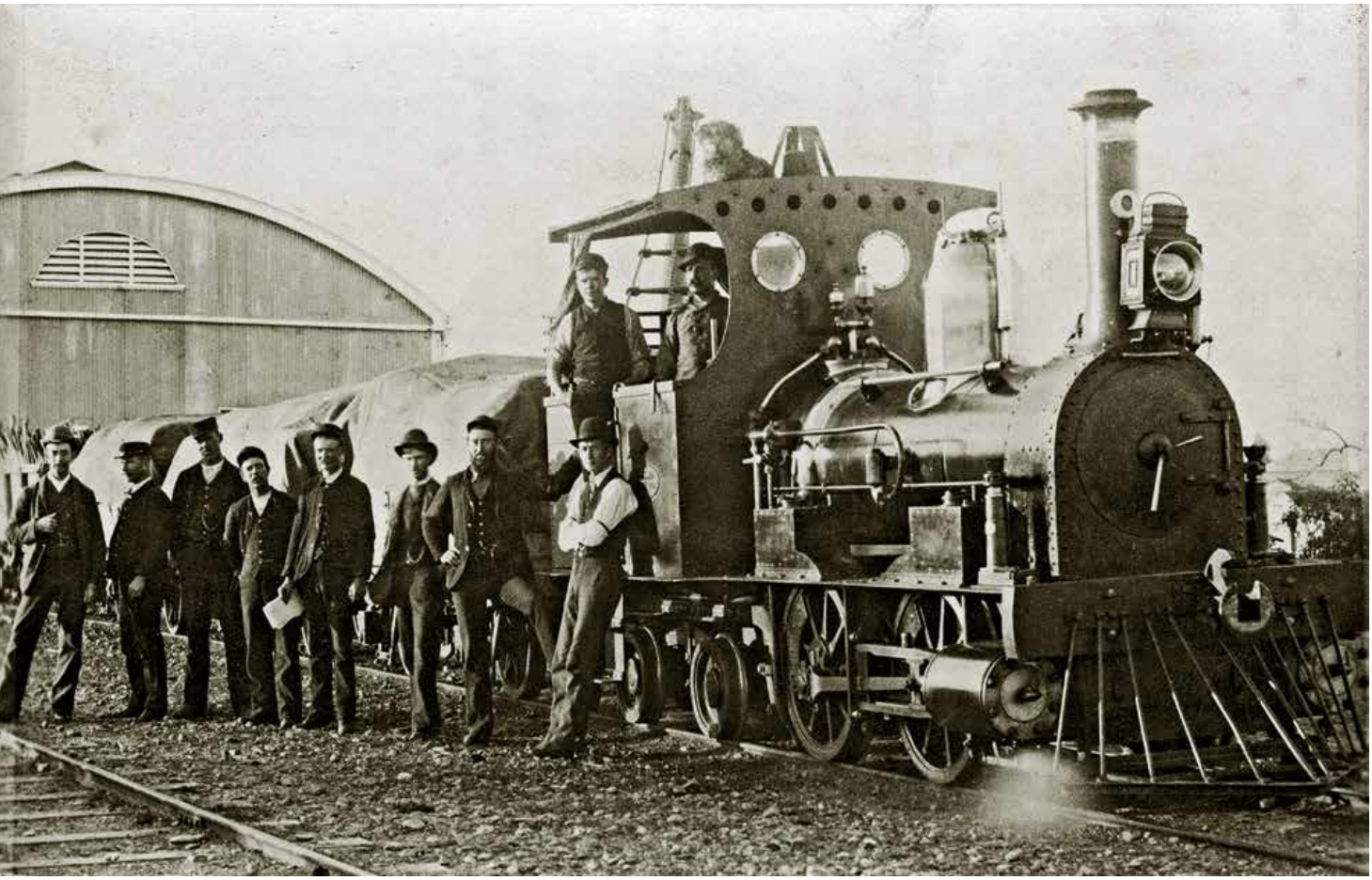


V class locomotive No. 9, still in original condition with its spindly cow-catcher, at Port Augusta, c 1887. Left to right: C E Dench, G Graham, T Nicholls, G Denham, Harrison or Spooner, ?, T Stack, ?; on the engine: Fred Lyons, J. W. Roberts, and on the cab roof: Bob the Railway Dog. Photo: State Library of South Australia B6422

new W class 2-6-0 locomotives. In the past it has been said that the V class were too light for the traffic conditions; were expensive to maintain; and had too small a water capacity as there was no water supply along the line, necessitating the haulage of a water tank wagon which further reduced the load they could handle.[23]

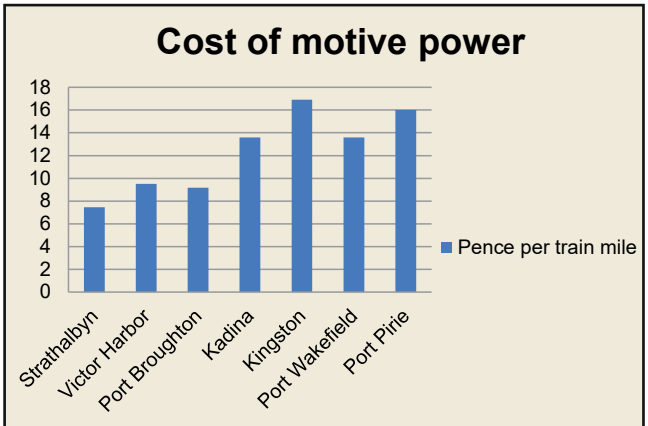
The evidence does not support these claims, and as long as the traffic levels remained as they were in the 1870s there was no reason to replace the V class locomotives. Higher maintenance costs were probably due to local conditions, and not design faults with the locomotives. The 35 lb rails had a very narrow head, which caused grooving on the wheel tyres, and the sandy nature of the environment where the railway crossed the 'ranges' may have caused additional wear and tear. And the maintenance of repair facilities at Kingston for only four locomotives would have led to higher overheads than at Port Pirie. Furthermore the locomotives were kept in the open, and there were no proper workshop facilities. When heavy maintenance was needed, the goods shed had to be used. Wheel tyres had to be sent to Adelaide for re-turning. Locomotive sheds were not provided at Kingston and Naracoorte until late 1879 after the W class locomotives arrived.[24]

In any case the operating cost per train mile which Thow presented to the 1880 Commission was only marginally higher for the V class on the Kingston line (16.9d per train mile) than the equivalent figure for the U class on the Port Pirie line (16d).

The claim that there was no water supply along the line is not correct. Water tanks were installed at all the intermediate stations before the line was opened.[25]

As to speeds maintained by the V class, there are a number of reports of journeys between Kingston and Naracoorte being completed in 2½ and 2¾ hours. Taking the longer time, that is an average start to stop speed of 18.9 mph. This is much faster than the speed that was being proposed at the time the locomotives were ordered – 12 mph.[26] These speeds are also higher than those allowed for the W class, which replaced them at the end of 1879.

The W class were certainly better suited for running on a 52 mile long railway (but they were not designed for use on 35 lb rails). They were in fact a member of a family of locomotives of Beyer Peacock design which were amongst



Strathalbyn, Victor Harbor, and Kadina were horse worked 5 ft 3 in gauge lines. Port Broughton was a horse worked 3 ft 6 in gauge line. Kingston, Port Wakefield and Port Pirie were steam worked 3 ft 6 in gauge lines. With the exception of Kadina, all were lightly trafficked.

Source: see reference 22.

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the most successful steam locomotives ever designed. But that does not detract from the fact that the V class had proved it was capable of handling the traffic offering on the Kingston – Naracoorte railway, at speeds higher than originally intended. And the cost of track maintenance with the V class on the 35 lb rails was almost certainly lower than with the heavier W class.

The real reason the V class were replaced was that the amount of traffic was about to expand considerably, and it was soon to become part of a much longer railway. During 1879 parliamentary approval was given for the construction of the Naracoorte – Tatiara railway. This would extend the railway north, parallel to the Victorian border, initially to Custon, and then to Bordertown and Serviceton. Construction of this commenced in June 1880 – the same year a new jetty was finally built at Kingston. As a result traffic increased, firstly carrying construction materials for the new railway, which was opened to Custon on 21 September 1881.

The extension of the railway to Custon and beyond brought additional traffic to Kingston in the 1880s. But Kingston's role as an export port was short lived. With the opening of the broad gauge railway through Serviceton most of the wheat traffic of the Tatiara and Wimmera districts went to Adelaide, Melbourne or Geelong. And Naracoorte remained primarily a centre of pastoral activity, as conditions there were found unsuitable for wheat. Kingston's decline as a port was accelerated from the 1890s when the area became infested with rabbits from the east. This greatly reduced the land's productivity for pastoral purposes for the next 50 years until the rabbit population was controlled.

Far from being a failure, the V class locomotives were subsequently found to be ideally suited as jetty shunters. So suitable that four more were built, by James Martin & Co., Gawler, SA, in 1893, with running numbers 143-146. It is rather ironic that although being built for a line with 40 chain curves, their ability to negotiate sharp curves in confined spaces, and their light axle loads, made them ideal for shunting around jetties. And this must have been with some fairly heavy loads, handling the output from the Broken Hill smelters at Port Pirie. The nature of the railways they were now working on was not that far removed from the sharply curved, elevated New York railways where the first Forney back tank locomotives were used.

Acknowledgements

The information in this article has been greatly enhanced by the assistance of Les Howard and Phil Rickard in carrying out research. Les has conducted extensive investigations of the material in the South Australian archives, consisting of official correspondence and other official documents. Phil expanded on my initial searches of newspaper references on Trove to uncover much interesting additional material. I thank them both for their willing assistance in what I hope has turned out to be an interesting story. I would also like to thank John Peterson for information on Forney locomotives, and Richard Horne for information on the V class in Beyer Peacock records.

V class locomotive No.10 was hired by the SAR to the State Electricity Commission of Victoria during 1921-22. It is seen here being unloaded at Yallourn East camp in October 1921 with Len Savige on the left. After returning to South Australia, it worked at Peterborough, until 1937 when it was sold to SA Harbours Board in 1937 to work at Port Germein. It only worked there until April 1939. but was not cut up until 1954. *Photo: State Library Victoria H2009-18-371*

SAR V class locomotives - summary of major movements

SAR No.	Builder, Builder's No. & year built	Notes
9	Beyer, Peacock & Co. – 1597/1876	At Kingston 1876 – 1888. At Northern Division (Port Augusta) 1888 – 1912. To SA Mines Dept from Feb 1912 to Jan 1914. At Peterborough 1914 to 1953. Stored at Islington 1953 – then to Naracoorte in 1955 where it is still on display.
10	Beyer, Peacock & Co. – 1598/1876	At Kingston 1876 to about 1882. At Port Wakefield in 1882; at Port Pirie 1894. Hired to Wallaroo Mining Co. 1902-1904. Hired to State Electricity Commission Victoria (SECV), Yallourn 1921-22. Then to Peterborough. Sold to SA Harbours Board for Port Germein 1937. Worked to April 1939. Cut up at Port Germein, April 1954.
11	Beyer, Peacock & Co. – 1599/1876	At Kingston 1876 to about 1885. At Port Wakefield 1885. At Port Pirie 1890. At BHP Broken Hill 1892 – 1893. Then to Peterborough. Sold minus boiler to A H Russell (Melbourne) for SECV Yallourn, then to Goodwood tramway, Noojee, Victoria. Cut up 1939.
12	Beyer, Peacock & Co. – 1619/1876	At Kingston 1876 to about 1882. At Port Germein jetty 1882. Later in 1882 to Port Pirie. On south-eastern system 1892. Condemned Sep 1904. Reprieved May 1909. At Port Lincoln 1910 to 1940. Condemned 1940 and cut up.
143	James Martin & Co. Gawler – 67/1893	Issued to Northern Division 1893. Hired to Wallaroo smelters 1906-1908. Shunted at Wallaroo until gauge conversion, then sold to A H Russell (Melbourne) for SECV Yallourn, then to Goodwood tramway, Noojee. Cut up 1939.
144	James Martin & Co. Gawler – 68/1893	Issued to Northern Division 1893. Sold to Marine Board Sep 1906, used at Port Germein. Cut up in 1937.
145	James Martin & Co. Gawler – 69/1893	Issued to Northern Division 1893. Shunted at Wallaroo until gauge conversion; then sold to A H Russell for SECV Yallourn, then to Goodwood tramway, Noojee. Cut up 1939.
146	James Martin & Co. Gawler – 70/1893	Issued to Northern Division 1893. At Terowie in 1936. At Peterborough 1938 - painted hawthorn green with cream lining (in place of the usual black). Became known as the *Round-house Rat.* Condemned 1953, cut up at Islington in 1954.
Sources: (1) Fluck, R E; Sampson, R; Bird, K J; *Steam locomotives and railcars of the South Australian Railways*; Roseworthy, S.A. : Mile End Railway Museum, 1986. (2) Callaghan, W H; & Grunbach, A; 'Mechanical Horses: The V class of the SAR'; Australian Railway Historical Society *Bulletin*, September 2000, pp.332 ff.		

References

1. *Advertiser* 15 Jan 1877 p.5. *Register* 15 Jan 1877. Sleeper specifications and quantities in tender specifications in *Border Watch* 9 July 1873 p.1; Register August 1873 p.7. SA Paliamentary Papers No.25 *Progress Report of Commission appointed to report on the Public Works Part I - Railways* 1880, evidence from William Thow p.78 'it is only quite recently that sheds have been built at Kingston … the engines were exposed to the weather without any cover at all'.
2. Hilton, George W; *American Narrow Gauge Railroads*, Stanford University Press 1990; p.58
3. Hilton, George W; *American Narrow Gauge Railroads*; Stanford University Press 1990; p.58
4. Bjerke, Thor et al; *Damplokomotiver I Norge*; Norsk Jernbaneklubb 1987; pp 227-229. Bjerke, Thor and Stenersen, Roar; *Rørosbaneboka*; Norsk Jernbanemuseum and Norsk Jernbaneklubb Hamar 2002; pp.301-303
5. Eardley, G H; 'The V-class locomotives of South Australia'; *Australian Railway Historical Society Bulletin*; June 1976, p.114
6. Mack, David; *Little Coastal Railways of the Adelaide Plains*; published by the author 1986; p.32
7. Belbin, Bruce; 'Fairymead No.1'; Light Railways No.123, pp.3-15
8. This information was extracted by Richard Horne from Beyer Peacock records in the Museum of Science & Industry, Manchester.
9. Engineer in Chief's Department – Correspondence files ('EO' files) letters received GRG53/16/37/2128-1876; GRG53/16/37/2271-1876.
10. Engineer in Chief's Department – Correspondence files ('EO' files) letters received GRG53/16/38/2676-1876
11. *Narracoorte Herald*, 23 January 1877, pp.2-3
12. Engineer in Chief's Department – Correspondence files ('EO' files) letters received 1842-1876 (I. Martin, the Traffic Superintendant at Kingston in a report to the General Traffic Manager at Adelaide dated 14 April 1877)
13. *Border Watch*; 14 July 1877; p.3
14. *Border Watch*; 4 August 1877; p.2
15. *Border Watch*; 1 January 1878; p.2
16. *Narracoorte Herald*; 12 August 1879; p.3
17. *Narracoorte Herald*; 21 October 79 Kingston correspondent
18. *Border Watch*; 19 November 1879, 'Notes of a trip northward'
19. Stewien, Ronald; *One Rusty Rail*; Australian Railway Historical Society SA Division; 1973
20. *Advertiser*; 21 February 1989
21. *Border Watch*; 23 July 1879 Kingston Correspondent
22. SA Paliamentary Papers No.25 *Progress Report of Commission appointed to report on the Public Works Part I - Railways* 1880, evidence from William Thow, pp 92-93.
23. Eardley, G H; 'The V-class locomotives of South Australia'; *Australian Railway Historical Society Bulletin*; June 1976; Callahan, W A and Grunbach, A; 'Mechanical Horses – The V Class of the SAR'; *ARHS Bulletin*; September 2000; Callahan, W A; 'A Pastoral Railway, Narrow Gauge Railways in the South-East of South Australia – Part 1 – The Kingston and Naracoorte Railway', *ARHS Bulletin* August 2004
24. *Border Watch*, 27 August 1879, p.4; *Evening Journal* 29 August 1879, p.3; re acceptance of tenders for construction of engine shed at Naracoorte, and engine sheds and workshop at Kingston.
25. Engineer in Chief's Department – Correspondence files ('EO' files) letters received 2738-1876 (Report upon inspection of railway)
26. Engineer in Chief's Department – Correspondence files ('EO' files) letters received GRG53/16/0/30/1400-1875

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Was the last train from Gellibrand hauled by a Diesel locomotive? With a Perkins Diesel engine in lieu of its original Ford V8 petrol motor, the Malcolm Moore loco is seen festooned with various fuel cans (the nearest has the Golden Fleece logo), gas cylinders, chains and tools. A place for everything and everything in its place - note the dog spike remover, just protruding, at left, from between the frames.

Last train from Gellibrand

Colac – Weeaproinah railway dismantling

Photos by Ray Graf, Notes by Phil Rickard

In June 2004, (*Light Railways* No.177), Gavan Bennett enquired for information regarding a small Diesel locomotive used in the dismantling of the VR's Beech Forest 2 ft 6 in-gauge railway. Mr Bennett advised that in the late 1960s he was working for the contractor engaged in the dismantling and was told the Malcolm Moore locomotive was probably from North-East Victoria – Mr Bennett suggesting the State Electricity Commission (SEC).

A detailed examination of the Victorian photos from the Ray Graf collection, recently donated to the Society, found several colour slides and black and white photos showing the dismantling; a selection of which may be of interest. The slides are all dated 26 August 1965 and show the locomotive, owned by R M Littlehales & Sons, of Ballarat, operating dismantling trains. The locomotive depicted is one of the Malcolm Moore locos made during World War II for the Department of Supply. Built as 4wPM with a Ford V8 engine, many were later rebuilt with Diesel engines. For further details of this class of locomotive readers are referred to *Light Railways* Nos.158, 182, 186, 188, 194, and 209.

The locomotive, pictured above, underwent a number of gauge conversions, some definitely, some inferred. Commencing on 2 ft gauge (as built for the Department of Supply), it was converted to 3 ft gauge, probably for the (SEC) Kiewa hydro-electric scheme around 1949. One of four such locomotives used on that scheme, it was up for sale at Mt Beauty by 1953. Littlehales finally purchased it, in the late 1950s to assist in dismantling of the VR's 10-mile-long Bittern to Red Hill railway for which it would have needed to be converted to 5 ft 3 in gauge. In 1964 Littlehales obtained the tender to dismantle the Colac to Weeaproinah railway so another conversion was needed, to 2 ft 6 in-gauge. According to available locomotive lists the SEC had four ex-Army MM locomotive, nos. 1003, 1004, 1026, 1091 of 1943. No.1003 is known to have gone to the SEC at Rubicon, leaving the other three surplus. A photo of one of the SEC's MM locomotives, cabless, and working on the tailrace tunnel construction at the West Kiewa power station in the early 1950s, appears in *The Kiewa Story* (Napier & Easdown, SEC, 1993). The altered framework on that Kiewa loco is identical to Littlehales' locomotive.

The Littlehales are a old-established Ballarat family – the phone number on the side of the locomotive is still that today of the firm's automobile mechanical business (albeit with the addition of a few prefixes over the decades!). One of the ex-Kiewa locomotives was listed as "without engine" which I'd suggest might have made it the obvious choice for Littlehales to purchase. By the time it was in the Otways it was noted as having a Perkins Diesel engine and, given the firm's experience in the auto business, I'd suggest they probably did the re-gauging and re-engining themselves.

Following closure in mid-1962, the Colac – Beech Forest – Weeaproinah railway was given a one-year stay of execution for removal of rails. However, no 'white knight' appeared and tenders were called in late 1963 for dismantling the line. Littlehales won the contract and seem to have started work from the southern end, working back towards Colac. Assembling all known photos and reports we have them at Ferguson in September 1964, near Gellibrand in August 1965 and not far from Colac by February 1966 – possibly between Birnam and Barongarook. This chronology agrees with the loco's condition which is markedly cleaner and less battered the further south it was sighted. After the dismantling work the locomotive was returned to Littlehales' depot in Ballarat and was last reported there in 1974. Readers' comments and additional information are invited.

My thanks to John Browning, Colin Harvey, Norman Houghton and Peter Medlin, for assisting with details and a big thank you to the late Raymond Graf for taking the photographs.

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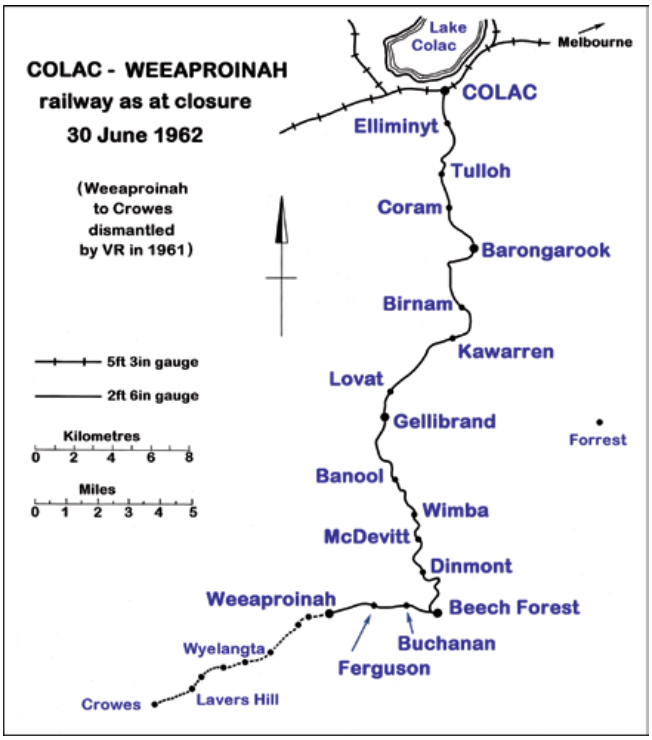
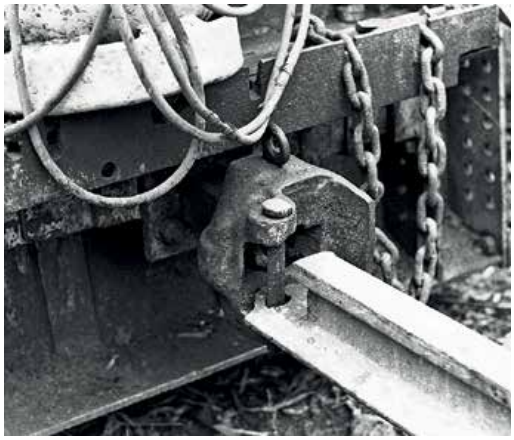


Right: *Having unloaded their rails, the locomotive and trolley backed up the track to where a bulldozer is working at dislodging the rails – it is barely visible amongst the fast-growing wattle that are enveloping the right of way.*

Left: *The rather basic trolley, presumably constructed by Littlehales, for carrying the rails. A bulldozer was used to dislodge the rails and pull them onto the trolley which was then shunted to a clearing where rails were stockpiled for ultimate loading onto road vehicles.*



Left and right: *Close-up views of the coupling between the locomotive and rail trolley – definitely the creation of a fully-qualified bush mechanic!*

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Right: *Malcolm Moore locomotive. The home-made engine cover is rather at odds with the neatly-painted ownership details. The photos are believed to have been taken just over a mile south of Gellibrand station, where the Link Track connected the Old Beech Forest Road, on one side of the railway, with Charley's Creek Road, on the other. My thanks to Norman Houghton for identifying the location*

Left: *What alerted Ray to this locomotive working on the dismantling of the much-loved Beech Forest railway is not known – possibly he had heard something on the railfan 'grapevine' in Melbourne. Whatever the case, on Thursday 27 August 1965 he headed down the Geelong Road, destined for the Otways. Starting from Colac, he headed into the hills and eventually encounted the contractors at work. In the background, half-hidden behind the locomotive is Ray's much-travelled grey Holden panel van.*

Right: *The Malcolm Moore locomotive enters a clearing and adds more rails to the stockpile, adjacent to the Link Track and the Old Beech Forest Road, just south of Gellibrand. Littlehales' contract was to remove rails from the Colac to Weeaproinah section. The track from Weeaproinah to Crowes had previously been dismantled, in 1961, by the Victorian Railways using more conventional methods – G42 and a string of NQR open trucks making a number of forays along the rickety track. Such was the regrowth along parts of that rail corridor in the seven years since closure in 1954, that much clearing work was required before those trains could operate.*

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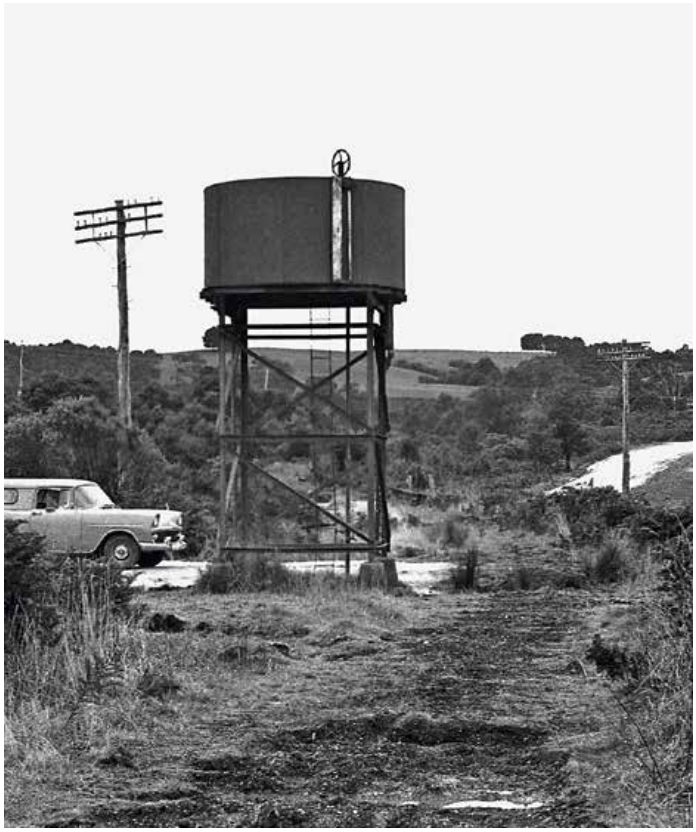

In a number of Ray's photos, workers are absent – did he arrive around lunchtime? Taking advantage of a lull in proceedings he photographed along the line, showing how the bulldozer was dislodging the rails. By all accounts, not much force was required as the track was said to be in a parlous state even when the last train ran back in 1962. Above left, we see the rail trolley and rear of the Malcolm Moore loco, waiting in the bush. Leaving the contractor's operations, Ray visited the nearby Gellibrand station yard (below) and recorded the sad scene compared with that which he had photographed five years previously whilst on a train. Further south he photographed the tank at Dinmont (above right) where all locos used to stop for water. The tank still stands today. To complete his day, Ray drove through Forrest to Barwon Downs where he photographed Hayden Bros short tramway from their No.7 mill to their stacking yard, plus the remains of one of their Traill tractors.

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Industrial Railway NEWS

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e-mail: industrial@lrrsa.org.au

Special thanks to contributors to the *Sugar Cane Trains/Navvy Pics 2ft* Facebook page.

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill
(see LR 253 p.25)
610 mm gauge
The cab from Millaquin Mill's EM Baldwin B-B DH *Calavos* (4983.1 7.73 of 1973) has been sent to Bingera mill for repairs and was seen there in early February.
Mitch Zunker 2/17; Geoff Driver 2/17

BUNDABERG SUGAR LTD, Millaquin Mill
(see LR 253 p.25)
610 mm gauge
The cab from EM Baldwin B-B DH *Calavos* (4983.1 7.73 of 1973) was seen at Bingera Mill in early February. It is there for repairs.
Mitch Zunker 2/17; Geoff Driver 2/17

MSF SUGAR LTD, Mulgrave Mill
(see LR 253 p.25)
610 mm gauge
Bradken of Boogan near Innisfail has been awarded a contract to build one thousand 6 tonne bins for Mulgrave and South Johnstone mills over the next three years. It is not known what numbers are going to each mill but four hundred are to built in 2017, three hundred and fifty in 2018 and two hundred and fifty in 2019. The last of the 4 tonne bins at this mill were being scrapped in January.
Bradken 2/17; John Charleton 1/17

MSF SUGAR LTD, South Johnstone Mill
(see LR 253 p.25)
610 mm gauge
Previous to the above order for 6 tonne bins, and since 2013, three hundred and fifty-seven 6 tonne bins have also been supplied to South Johnstone Mill by Bradken. Some of the mill's locomotives were placed into slack season storage in the former locoshed at the closed Mourilyan Mill site during

Top: *Tully Mill Walkers B-B DH* Tully-7 *(657 of 1970 rebuilt Tulk Goninan 1994) waits for a cross at Deans Loop on 27 December. Photo: Luke Horniblow* ***Centre:*** *Tully Mill Walkers B-B DH* Tully-6 *(653 of 1970 rebuilt Walkers 1993) grabs some fulls out of the Midgenoo branch on 27 December. Photo: Luke Horniblow* ***Above:*** *Macknade Mill's EM Baldwin 0-6-0DH* Hobart *(4413.1 7.72 of 1972) at the Halifax washaway on 18 December. Photo: Luke Horniblow*

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Top: *A line up of South Johnstone Mill locos in slack season storage at Mourilyan on 23 December. Front to rear are Clyde 0-6-0DH 14 (63-288 of 1963), Com-Eng 0-6-0DH multi-unit locos 5* Bramston *(AH2460 of 1962) and 4* Harvey *(AD1138 of 1960), Clyde 0-6-0DH 11 (55-64 of 1955), Clyde 0-6-0DH multi-unit locos 3 (56-90 of 1956) and 2 (55-56 of 1955), EM Baldwin B-B DH 25 (6470.1 1.76 of 1976), Com-Eng 0-6-0DH multi-unit locos 9 (AH3979 of 1964) and 8 (AA1543 of 1960) and Clyde 0-6-0DH 15 (66-491 of 1966). Photo: Luke Horniblow* ***Centre:*** *This and the following photos were taken on the last day of harvest for Inkerman Mill on 2 January. EM Baldwin B-B DH* Bojack *(7280.1 9.77 of 1977) at Turnbulls siding. Photo: Luke Horniblow* ***Above:*** *Inkerman Mill EM Baldwin B-B DH* Iyah *(6558.1 6.76 of 1976) crossing Iona Road on 2 January. Photo: Luke Horniblow*

December. These are Clyde 0-6-0DH locomotives 2 (55-56 of 1955), 3 (56-90 of 1956), 11 (55-64 of 1955), 14 (63-288 of 1963) and 15 (66-491 of 1966), Com-Eng 0-6-0DH locomotives 4 *Harvey* (AD1138 of 1960), 5 *Bramston* (AH2460 of 1962), 8 (AA1543 of 1960) and 9 (AH3979 of 1964) and EM Baldwin B-B DH 25 (6470.1 1.76 of 1976). Also there is South Johnstone bogie brakewagon 6 (built in 1990).
Luke Horniblow 12/16; Bradken 2/17

SUGAR TERMINALS LTD, Lucinda
(see LR 240 p.29)
610 mm gauge
By 3 February, Com-Eng 0-6-0DH (G1023 of 1958) had been transported to L&W Repairs in Ingham where it will be fitted with a new Mercedes Benz motor and new transmission.
Clayton Cassady 2/17; Editor 2/17

TULLY SUGAR LTD
(see LR 252 p.26)
610 mm gauge
One hundred new bins are being built for Tully this year. They are being built by a firm near Innisfail, presumably Bradken.
Townsville Bulletin 12/1/2017

WILMAR SUGAR (HERBERT) PTY LTD, Herbert River Mills
(see LR 253 p.26)
610 mm gauge
Three hundred 11 tonne bogie bins are being built for the Herbert this year. Sides and ends are being manufactured at the firm's Burdekin workshop with chassis and bogies being manufactured at the firm's Ingham workshop. Assembly is being done at Macknade Mill and this commenced around the start of February. Also at that time, three locomotives from Macknade were sent to Victoria Mill for slack season duties with the navvies and shunting work. These locomotives are Clyde 0-6-0DH 11 (65-383 of 1965) and EM Baldwin B-B DH locomotives 20 (7070.4 4.77 of 1977) and *Darwin* (6171.1 9.75 of 1975). Clyde 0-6-0DH *Canberra* (65-433 of 1965) also went to Victoria from Macknade for a broken axle to be replaced.
Editor 2/17

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WILMAR SUGAR (PROSERPINE) PTY LTD, Proserpine Mill
(see LR 253 p.28)
610 mm gauge
As of 18 February, Com-Eng 0-6-0DH *Oakenden* (FB3169 of 1963) was still on loan from Invicta Mill and was receiving repairs to its torque converter. Walkers B-B DH locomotives 12 (673 of 1971 rebuilt Bundaberg Foundry 1998) and 14 (701 of 1972 rebuilt Bundaberg Foundry 1998) are being fitted with RSU remote control gear this slack season.
Tom Badger 2/17

NEW SOUTH WALES

GOULBURN RAIL HERITAGE CENTRE, Goulburn
(see LR 253 p.28)
1435 mm gauge
Walkers B-B DH locos 7319 (678 of 1972), 7322 (684 of 1972) and 7333 (695 of 1972) were seen still stored here for K & H Ainsworth Engineering Pty Ltd of Goulburn on 3 February.
David Philips 2/17

JUNEE RAILWAY WORKSHOP PTY LTD
(see LR 252 p.29)
1435 mm gauge
Seen in the roundhouse on 25 January were Goninan Bo-Bo DE locomotives *Folly* (051 of 1977) and 57 (057 of 1982). Both were formerly at BHP Newcastle Steelworks.
Steve McNicol 1/17

K & H AINSWORTH ENGINEERING PTY LTD, Goulburn
(see LR 253 p.29)
1435 mm gauge
This firm's Walkers B-B DH locomotives 7319 (678 of 1972), 7322 (684 of 1972) and 7333 (695 of 1972) were still in storage at the Goulburn Rail Heritage Centre, Goulburn on 3 February.
David Philips 2/17

Top: *Inkerman Mill EM Baldwin B-B DH* Iyah *(6558.1 6.76 of 1976) with the last rake of fulls from the Inkerman siding on 2 January. Photo: Luke Horniblow* ***Centre:*** *Inkerman Mill EM Baldwin B-B DH* Iona *(4498.1 7.72 of 1972) poses at Rogers siding on 2 January. Photo: Luke Horniblow* ***Above:*** *Inkerman Mill EM Baldwin B-B DH* Bojack *(7280.1 9.77 of 1977) passes through the mill yard with a rake of empties for slack season storage on 2 January. Photo: Luke Horniblow*

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Top: *Inkerman Mill EM Baldwin B-B DH* Bojack *(7280.1 9.77 of 1977) with a rake of empties for slack season storage in Turnbulls siding on 2 January. Photo: Luke Horniblow* ***Above:*** *Inkerman Mill EM Baldwin B-B DH* Iyah *(6558.1 6.76 of 1976) pulls the last rake of fulls out of the Inkerman siding on 2 January. Photo: Luke Horniblow* ***Below:*** *In Inkerman Mill EM Baldwin B-B DH* Iona *(4498.1 7.72 of 1972) delivering empties to Rogers siding on 2 January. Photo: Luke Horniblow*

VICTORIA

QUBE HOLDINGS LTD, Horsham

(see LR 241 p.22)
1435 mm gauge
Walkers B-B DH 7334 (696 of 1972) was seen derelict in Horsham railway yards on 24 January, its status remaining unchanged since last reported there on 8 December 2014.
Brad White 1/17

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 253 p.30)
610 mm gauge
Cane production in 2016 was 1.39 million tonnes and it is hoped to produce 2 million tonnes in 2017. The reopening of Penang Mill to a syrup production factory could take up to five years. Last year, cane from the Penang area was road hauled to the mill by the usual flat bed lorries then dumped on a pad from where it was reloaded into high-sided tip trucks for transport to Rarawai Mill. Possibly, this cane will be hauled direct to Rarawai this year, avoiding expensive double handling. The bridge at the mill is expected to be repaired before the start of the 2017 crushing season. FSC is looking at reverting to rail for the transport of cane to its mills which it claims is cheaper than road transport. Cane cutters however, find it easier to load lorries then cane trucks. The government has allocated $2 million for the purchase of mechanical cane harvesters to reduce harvest and transport costs. The co-generation and ethanol projects at Rarawai Mill are now on hold as well as the sugar refinery at Labasa Mill.
T*he Fiji Times Online* 15/1/2017, 16/1/2017; *Fiji Sun Online* 26/1/2017; John Browning 1/17

Correction to Light Railways 253

A word was omitted from the caption to the photo at the bottom of page 29. It should read 'last manual semaphore'.

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Fiji – 2016 season

Text and photos: John Browning

Fiji is ideal for a short break during the crushing season. Labasa, a short flight from the international airport at Nadi, is particularly recommended for seeing old-style cane railway operations in spectacular scenery. Small 4WD hire cars are readily available, traffic is civilised, people are friendly, and English is spoken. On the main island, even a resort holiday can include some cane train action with a little planning. The 2016 season was a difficult one on the main island because of the effects of a tropical cyclone, leaving Labasa Mill with the lion's share of crushing, and more than 250,000 tonnes of cane were brought to Labasa Mill by rail.

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Top left: *Labasa's Clyde 0-6-0DH 9 (62-270) approaches the junction with the Bucaisau line at Nagigi with a train from the east, 19 October 2016.* ***Above:*** *Labasa 8, the first Clyde diesel at the mill, (DHI.8 of 1955) makes up its rake at Coqeloa, the terminus of the Bucaisau line, in preparation for its return to the mill on 21 October 2016.* ***Above right:*** *At the end of the day's work, this Lautoka Mill diesel line car will be gingerly eased over the 'jump points' into its shed at Lomowai, 26 October 2016.* ***Right:*** *Lautoka Mill once proudly operated six Clyde Model HG-3R diesels. Now only two remain, and they are largely restricted to the section between Nadi and the mill. On Sunday 16 October 2016, 11 (65-432) and 12 (65-431), slumber at Navo depot awaiting their first turns of the working week.* ***Below:*** *The driver's assistant on Labasa number 9 dribbles sand onto the rails to assist traction as it heads its load across the Qawa River bridge, the very last leg of its lengthy journey from Wainikoro and beyond, 19 October 2016.* ***Below left:*** *The Labasa line east from the mill past Nagigi clings to the coast in spectacular fashion. On 20 October 2016, 16* DAMO *(Clyde 65-441 rebuilt by IBS in Innisfail, 2013), with 80 full cane trucks, passes lagoons amidst the mangroves at Batiri. It will soon turn north to skirt the first of the two headlands in the distance.*

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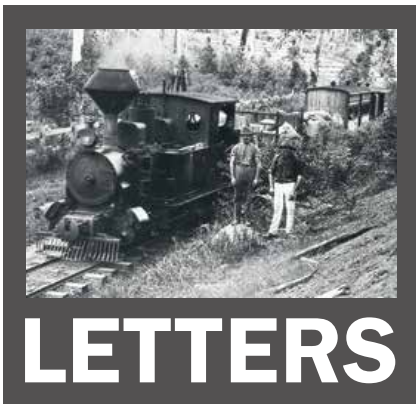

LETTERS

Please send letters to:
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PO Box 21, Surrey Hills, Vic 3127
e-mail: editor@lrrsa.org.au

Tramways of the Moreton Bay Islands (LR 251)

I too, like Rod, have been a frequent visitor to "North Straddie" for about the last 30 years holidaying every year at Amity Point.

Rod says that "up until the second world war, the islands were one". This is not correct, as the split occurred in 1893 during a cyclone. The split was blamed on the detonation of a shipment of dynamite from a shipwreck, thus weakening the dunes.

On page 16 the photo shows the Dunwich Jetty tramway prior to the jetty, looking down in the water one can still see a length of railway track in the water beside the stone causeway. This is the only item I can see remaining of the tramway.

The whole area has changed with it being filled to provide access for the vehicular ferries from Cleveland (Toondah harbor) to Dunwich.

In June Berthesen's book titled '*The lost years of leprosy*' [1]on page 43, it states ' The stables on the Island accommodated a number of horses but when she was there, there was only one who pulled the wood and sanitation carts'. I assume that trucks provided all other transport.

There were three jetties on Peel Island, namely, Stone Jetty, Western Jetty and Patients Jetty.

With regard to Bribie Island, in the book '*I Thomas Welsby*' by James G Lergessner, he mentions that Welsby was a Director of the fledgling Brisbane Tug and Lighter Company who proposed to build a steam tram from the proposed jetty on the Passage side to the Ocean beach at Woorim. In an extract from Welsby's diaries he states that he used to walk from a Mr Colgrane's house at Bongaree up to the jetty then across to Woorim following the tram tracks. This is the only reference I can find to the tracks being actually laid. I have asked people in the railway fraternity and they have no knowledge of the tramway. Maybe some one out there can verify whether the line was laid or not? It was proposed to purchase a tram engine from the Ann Street tramway, but no mention is made of carriages and/or wagons.

On another matter, does any Tasmanian researcher know of an abandoned tramway 16 miles in length from the coastal port of Temma to Balfour. I can find no reference to Temma, only that Balfour was a copper mining town.

Dennis McLean
Paddington, Brisbane, Queensland

References

1. Surrey Beatty and Sons Pty Ltd ISBN 0 949324 64.7

The HMAS Creswell Breakwater Tramway (LR 253)

I found the article of the HMAS Creswell Breakwater tramway fascinating in more ways than one. Firstly, I photographed No.530 in very hot steamy conditions, in early January 1973 in company with two other railway enthusiast mates, John and Geoff Allerton, in between photographing the 10 class operating on the nearby, South Maitland Railway.

As can be seen in the attached photographs, the locomotive even after 35 years abandoned on its isolated siding in the bush was still remarkably complete, albeit it minus boiler, side rods, most cab fittings, but still with its stovepipe chimney, buffers, reversing lever and inside valve gear, naturally. It was sitting on track which appeared to extend many metres back toward the colliery, so it may not have been so 'isolated'. Keith Jones from the Dorrigo Steam Railway and Museum, did often talk about attempting to recover this apparently, abandoned locomotive, however, I do not think he ever recovered its side rods, as I think they were long gone by the time we saw it in the bush all those years ago.

In addition, I spent a weekend at HMAS Creswell, when I was member of the sea cadets in 1966, motoring around Jervis Bay, in small cutters, work boats and clinker-built sailing boats, as part of our training process. Unfortunately, I was not yet a railway enthusiast and had no knowledge of the former tramway at that time.

Shane O'Neil
via email

The HMAS Creswell Breakwater Tramway (LR 253)

I must congratulate Dr Crabb for his interesting article in LR253 on the railway at RANC Jervis Bay, the subject of which I had but heard little.

To address Dr Crabb's final sentence, locomotive No.530 was not the first locomotive owned by the fledgling Commonwealth government, though it may well have been its first industrial locomotive. On 1 January 1911, whilst RANC Jervis Bay was but a thought bubble in the politicians' minds, the Commonwealth became the owner of six or seven locomotives upon the acquisition of the 3 ft 6 in-gauge North Australia Railway. Fortunately, one of those locomotives is preserved; the famous *Sandfly*, near Darwin.

As an aside I might mention that at least two locomotives that the NAR obtained in early 1915, from the South Australian Railways,

No.530; a view the cab of the smokebox, front tubeplate and part of the motion, Kalingo, January 1973. Photo: Shane O'Neil

No.530 dumped in the bush near Kalingo Colliery, January 1973. Photo: Shane O'Neil

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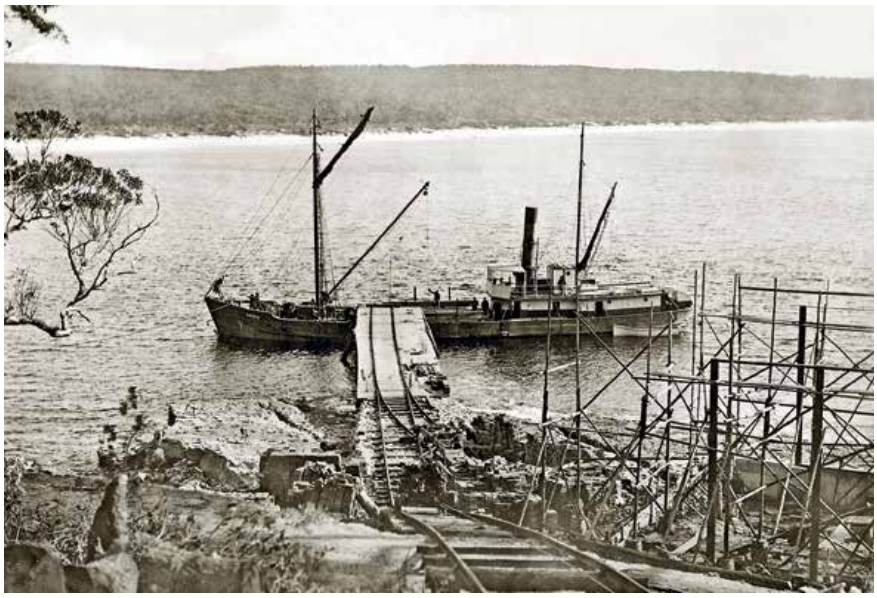
View from the RANC, across Jervis Bay to the Heads, 12 Feb 1916. Point Perpendicular is on the left, Bowen Island and Governor Head on the right. A couple of trucks sit on the breakwater railway and the small trestle bridge to the rocky offshore islet is just visible, photographer: Hon V N Hood (SLV H36531/3/1-379; page 83)

were shipped north, from Port Lincoln to Darwin, via Sydney, and thus passed but a few miles from Jervis Bay. If one had been dropped off at Jervis Bay and the tramway rebuilt to 3 ft 6 in-gauge it would have saved the Commonwealth trying to wangle a locomotive out of the somewhat tardy New South Wales Government Railways!

Additionally, in May 1913 the Commonwealth purchased two B13-class 4-6-0 tender engines from the Queensland Railways. These were sent to Port Augusta for Commonwealth shunting use on the 3 ft 6 in-gauge at that place.

In the matter of 4 ft 8½ in-gauge locomotives, in late 1912 the Commonwealth purchased six old Q-class 4-4-0 tender engines from the NSWGR. These were for construction trains on the East-West railway. They entered service between April and June 1913, half at Kalgoorlie and the rest at Port Augusta. These engines were more than thirty years old and problems soon arose, no doubt expediting the purchase of the new passenger tender locomotives that had been intended for normal trains upon the line's completion.

Four 4-6-0 tender engines from Clyde Engineering, Sydney, and a further ten from Baldwin in the USA; all arrived in the first half of 1914. The first – G.1 (Clyde b/n 126/1914) – entered service at Port Augusta on 2 March 1914. It has been scrapped, but G.2 (lettered as G.1) is preserved at Port Dock museum, in South Australia. G.2 entered service on 17 March 1914 at Kalgoorlie, over a year before the Commonwealth bought No.530 and shipped it to RANC Jervis Bay. During construction of the East-West railway the locomotives were lettered "C. of A.".



The ss Astral *at unloading at the contractor's jetty. A truckload of timber is being winched up the incline; bricks are being unloaded from other trucks in the siding. At right, the power house is being built. (SLSA PRG 280/1/11/147)*

In mid-1930, as an economy measure, the functions and personnel of the naval college were moved to Flinders Naval Depot (HMAS Cerberus), on Western Port in Victoria. The college at Jervis Bay did not return to its original function until 1958, when it was renamed HMAS Creswell.

In September 1932, the Commonwealth called tenders for the purchase of locomotive No.530, crane, trucks, boilers and other machinery from the former RANC, Jervis Bay (*SMH* 17 Sep 1932). An aerial photo dated c1946, in *The Argus* collection at the State Library of Victoria (H2001.3009), and taken during the period the college was not in Navy use, still shows the railway on the breakwater. It is not known if any of the new leasees of the college made their own arrangements to maintain the breakwater during this period nor when the railway was removed though the 1931 inch/mile Army map (correct to 1929) shows the route as 'old railway', implying it was out of use, at least at the quarry-end of the line.

Regarding the attached photographs – the one showing the contractor's temporary jetty was noted in the Searcy collection at the State Library of South Australia (SLSA) about four years ago, and said to be in SA. Despite this, neither Les Howard (our SA Group Convenor); Neville Collins (author of The Jetties of South Australia), nor myself could identify the actual place. Les then obtained a high-resolution copy of the photo and the vessel's name, *Astral*, led Les to a New South Wales coastal steamer.

The ss *Astral*, a 157-ton, twin-screw steam ship, was built by Miles Bros at Forster, NSW, and launched in April 1908. The engines were fitted in Sydney, and the steamer was trialled in August 1908. Yet still the location pictured remained unknown – until LR253 arrived. And there on page five was the answer! Same jetty albeit different vessel. The 'Astral' picture appeared in the *Sydney Mail*, 11 June 1913, along with a number of others from RANC Jervis Bay, depicting construction activities. A month later (9 July) the same newspaper devoted another

COMMONWEALTH DEPARTMENT OF THE INTERIOR.

TENDERS, accompanied by the necessary deposits, will be received up to NOON on MONDAY, 26th SEPTEMBER, 1932, for the Purchase and Removal from the late Naval College, JERVIS BAY, of Locomotive, Crane, Trucks, Boilers, Machinery, Tools, etc.

Specifications and Tender Forms are available at the office of the Commonwealth Works Director, Customs House, Sydney, to whom tenders, in envelopes endorsed with the name of the work, should be forwarded. No tender necessarily accepted.

ARCHDALE PARKHILL,
Minister for the Interior.

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page to photos at Jervis Bay. Most of those dozen or so photos have now been identified in the SLSA though how they ended up with high-resolution copies is unknown.

At the time the *Astral* was photographed at Jervis Bay she was owned by Allen Taylor & Co, which had a contract for supplying timber for the RANC. The *Astral* sank, carrying coal, on 7 April 1924 north of Barrenjoey.

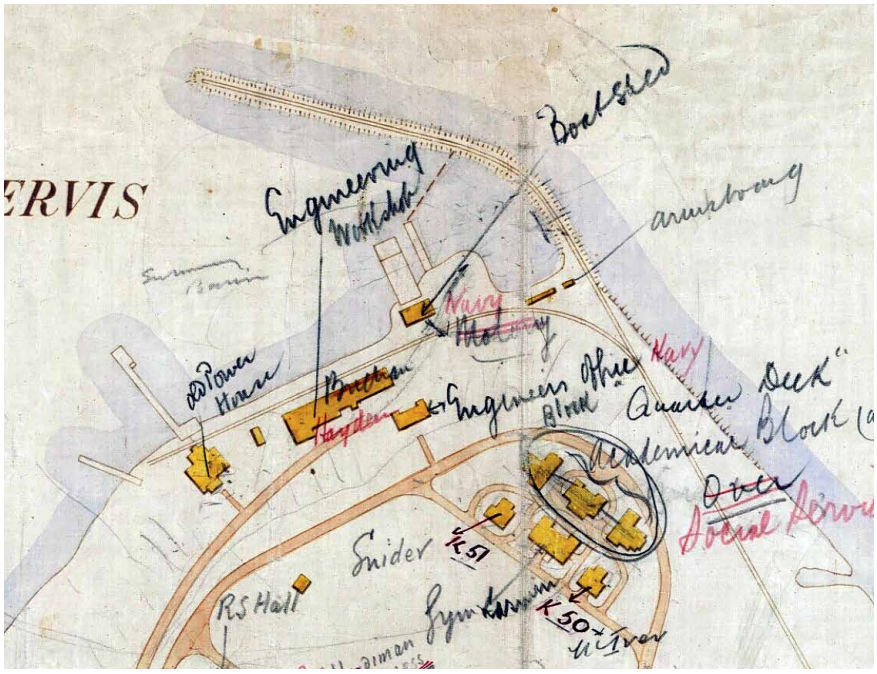
In mid-July 1912 the *Shoalhaven News* (Nowra) reported the arrival of the first shipload of building materials, on the ss *Seagull,* owned by the Nowra & Jervis Bay Co. The reports add that "Mr. Buckley, manager of the company, took some photos, showing this first shipment in process of landing". Possibly the page 5 photo in LR253 is one of those photos – I cannot locate any photo of the *Seagull* to verify. However, of the vessels known to have called at RANC Jervis Bay in 1912 - 13, the one with the closest resemblance to the page 5 photo is the ss *Hillmeads*. Interestingly, the *Hillmeads* was built at Dent's shipyards on Currambene Creek, Huskisson, Jervis Bay, in 1907.

From the SLSA photos we now know that the building seen under construction, to the right of the jetty, is the boiler house and power station which was to be supplied with coal shipped to a new, longer, more sturdy jetty in front of the building. Tenders for that permanent jetty were called in mid-June 1914 (*Shoalhaven News* 13 June 1914) and that jetty was certainly there by February 1916 as evidenced by a photo in the State Library of Victoria.

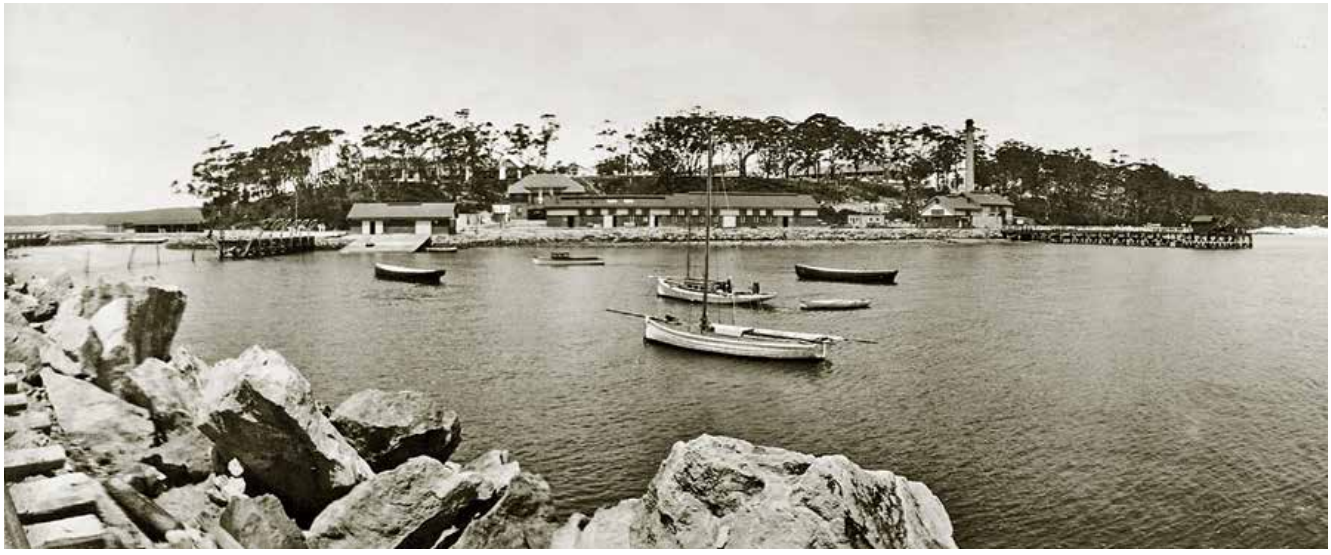
The contractor's jetty, which appears to be of standard gauge but not connected to the breakwater railway, was principally concerned with the transit of building materials, via the incline to the top of the 'cliff' where the parade ground is now situated. Such materials were then moved on via narrow gauge tramway or horse dray as required. Several photos at the Wollongong City Libraries show temporary 2 ft-gauge tracks around the various buildings under construction at Captain's Point, as the site was often referred to prior to the college opening.

Phil Rickard
via email

Locomotive 530 at Cessnock Collieries, c1940s. (University of Newcastle, ARHS collection)



1926 map showing northern end of the naval college at Captain's Point, Jervis Bay, with railway along seawall and breakwater. Note the new permanent jetty to power house plus the old contractor's jetty. (NLA 230054015)



View across the small harbour from the breakwater 12 Feb 1916. At right, the power house (with chimney) and new jetty have been completed. Photographer: Hon V N Hood (SLV H36531/3/1-379; page 82)

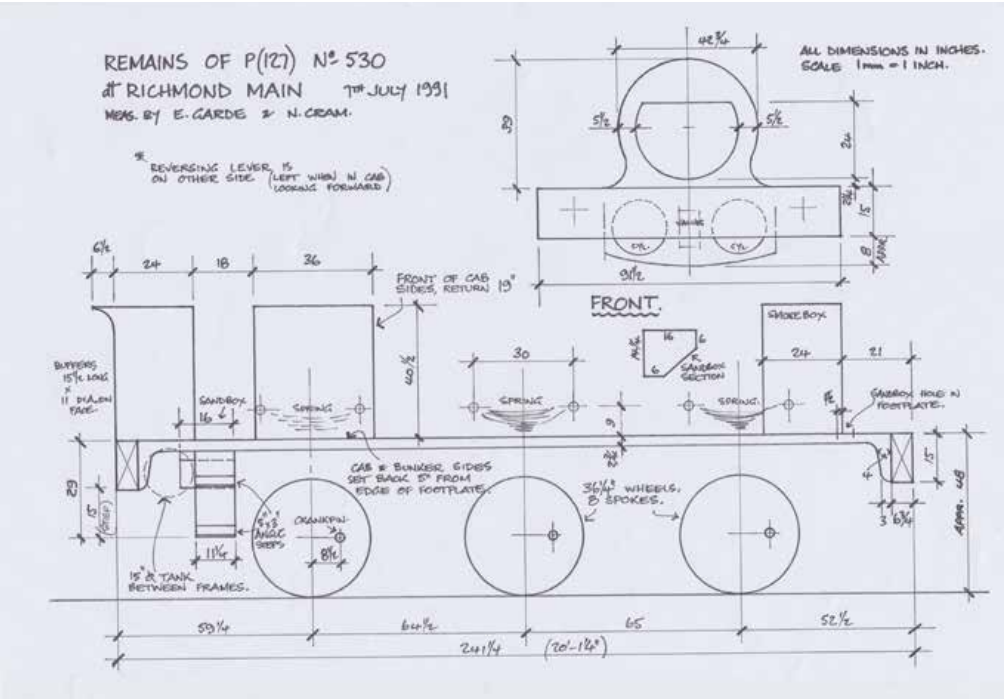
The HMAS Creswell Breakwater Tramway (LR 253)

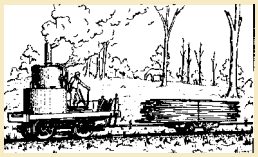
I refer to the article in LR 253 about the Creswell Breakwater Tramway by Dr Peter Crabb.

Over the years, I have been involved in assisting Neil Cram with his collection of HO scale models of all the classes of the NSWGR from locomotive No 1 up to the present day. Neil has willed the collection to the Powerhouse Museum in Sydney, and most of it is there, including the model of locomotive No 530.

When the time came for No 530, we went to the Richmond Main Museum, to measure up the remains of the locomotive for Neil to send the details to a well known modeler, Paul Bernsten, of New Zealand, who built the model. I attach a copy of what we measured up in July 1991. Later on, Neil found some more information in the Museum Journal, in that the remains of the saddle tank were still there, and so we went back. When we reached the Museum, we asked where the remains of the tank were, and we were told "somewhere over there in the grass". We then went searching in the grass and there it was! So, we measured it up and photographed the bits and pieces. That was some 25 years ago, so I suppose that if they were not stored away, they would be rusted away by now,

Edward Garde
Blaxland, NSW





LRRSA NEWS

MEETINGS

ADELAIDE: "Appila to Yarrowie Railway"
We will be discussing Max Sayer's Appila-Yarrowie railway. News of light rail matters will be welcome from any member. Intending participants would be well advised to contact Les Howard on 8278 3082 or by email lfhoward@tpg.com.au, since accommodation is limited.
Location:
1 Kindergarten Drive, Hawthorndene.
Date: Thursday 6 April 2017 at 7.30pm

BRISBANE: "Show and tell evening"
The meeting will include a "show & tell" segment so bring along any old photos or perhaps photos that you have taken over the Easter break – the meeting is one week after Easter.
Location: BCC Library, 107 Orange Grove Road, Coopers Plains.
Date: Friday 21 April 2017 at 7:30pm

MELBOURNE: "Railways of Romania"
Alan Williams will provide a presentation of the railways of Romania where he was a participant on a recent tour there, which visited seven different narrow gauge lines across the country. He will be presenting a photographic report of that tour.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday 13 April 2017 at 8:00pm

SYDNEY: "Newnes and the manufacture of shale oil"
Mark Langdon, a prolific author of many well known railway books will be presenting an evening examining the technology of shale oil distillation and by-product manufacture at the shale industry hub of Newnes in the Wolgan Valley. The fabled Wolgan Valley Railway and its four Shay locomotives served as the transportation mode into the valley. Mark has written a new book on the oil industry at Newnes and copies should be available for interested members to purchase. Any talk about Newnes and its Shay locomotives is always interesting so see you at the meeting.
NOTE NEW LOCATION: The meetings have returned for 2017 to **Woodstock Community Centre, Church St, Burwood**. Free Council car park behind building (entry via Fitzroy St) or easy street parking nearby. Only 10 minutes easy walk from Burwood railway station.
Date: Wednesday, 26 April 2017 at 7:30pm

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Field Report "Catherine Hill Bay Jetty N.S.W." (LR 249)

While this report was enjoyable I must make a small correction and add further information. I was employed at Catherine Hill Bay Coal Preparation Plant as a front end loader operator from 1982 to 1994 and part of my work involved working a front end loader on the jetty.

The small correction concerns the later 1975 and for a time the wooden 1889 jetty "Linking the jetty to the mine in the cliff face"

I am not sure of the date, somewhere in the mid-1960s, a new Coal Preparation Plant was constructed on the headland overlooking the jetty. A new large concrete coal storage bin was cut into the cliff face and a bottom discharge system with a moveable conveyor belt "Tram" was linked to the jetty. The conveyor belt "Tram" was housed in a shed built on this section of jetty and ran out on rails bolted direct on to the concrete surface of the jetty to the ship coal loader.

Coal spillage, from below the coal storage bins was shovelled onto the "Tram" conveyor belt, before it is run out, the conveyor belt started and the spillage is run into the front bucket of the front end loader before transport above to the Preparation Plant.

In April 1992 the last ever ship load of coal to Balls Head in Sydney sailed from Catherine Hill, thus ending around 190 years of coal haulage by sea from Newcastle to Sydney.

Many years ago I was given an old shoe box full of negatives, photographer unknown, and in it were several of the Catherine Hill Bay Railway. One photo is of interest. It shows Wallarah Coal Co.0-6-0ST No 1 B/N 11225 of 1889 standing on the jetty. Behind at the far end of the jetty a curve can be seen where the track turned right and headed towards Middle Camp not into the mine.

Behind the man shovelling ashes, above the high water level, was the entrance to possibly the original coal mine. In 1986 this entrance was sealed up due to people lighting fires in it thus weakening the original supporting timbers and making it unsafe. This was done by a front end loader transporting clay, one bucket full at a time along the beach and after dumping, this clay was pushed in to the tunnel entrance by a bulldozer.

The second photo shows No 1 with a train of empty wagons leaving the junction to the loco shed while returning to Middle Camp loading bin

In 1988 the last structure associated with the railway was removed. This was the road bridge allowing access to the cemetery and the beach from the main road through Middle Camp. The bridge was in a very unsafe condition (Rotted timbers) and a new culvert pipe was laid alongside, the railway cutting filled in and the old bridge was knocked down, really it fell down when it saw the bulldozer coming towards it.

With the new subdivision of most of the mining area in and around Catherine Hill Bay, especially the location of Mooney Colliery and coal the storage sites the jetty is now the last visual link with history of coal mining and the railway. But for how much longer?

Graham Black
via email

SEQ GROUP meeting – 17 February 2017

Eight members and two female guests attended a last minute change to the programme to celebrate the 100th Birthday of the Dreamworld Baldwin locomotive 4-6-0 B/N 45215 of 1917. The locomotive was released from the works in February or early March 1917 for WW1 service with the ROD in England. Research has suggested this locomotive, being towards the end of the 495 Locomotives built, spent some time in Africa before being demobbed and sold to Queensland's Racecourse Sugar Mill where it worked on an isolated railway and returned to the mill at the end of each season.

Bruce Macdonald saved the locomotive from the scrappers torch taking it to Goulburn where it was spotted by John Longhurst, who bought it, moved it to Sydney for a rebuild to its present condition and it started running in 1981 at Dreamworld.

I drove the Baldwin from July 1986 to December 1988, our two sons Peter and Mark also drove this locomotive.

Peter started driving at Dreamworld in 1987 and is still the locomotive driver to this present day.

Bob Gough
SEQ Convener

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Otway Ranges Tour – 12 and 13 November 2016

The Otway Ranges tour was a unique experience for 20 members on the weekend of Saturday 12 and Sunday 13 November 2016. A few months earlier I was planning the tour and decided the Otways would make an ideal destination, given its timber and railway history. Also the Society has not toured in this area for quite some time.

Naturally I approached Norman Houghton for some ideas knowing his long association with the Otways. Norman was magnificent, I loosely specified my requirements by email and he ran with it. Within a week, Norman had come back with a rough itinerary and offered to check out the sites on his regular visits to the area.

A few weeks later, he had added a historical talk in Colac on Saturday night and a catered lunch in Beech Forest on Sunday. And Norman did not hesitate when I asked him to lead the tour. All I had to do was get the tour flyer into the October mail-out and rustle up a projector and computer for the talk.

Melbourne's weather has been mediocre this Spring and the forecast was for a wet weekend. Luckily the sun was shining when the members met in Deans Marsh at 10 am on Saturday. The tour began on the Pennyroyal Valley Road and a walk along two sections of the Great Western Colliery tramline. We were accompanied by two local dogs on the first section, one who chased every stick thrown by members.

We had lunch at the Martians Café in Deans Marsh complete with gluten-filled cakes. After lunch, we followed the old broad gauge alignment towards Barwon Downs with several stops to look at the embankments and old bridges. At Forrest we inspected the station site and saw the Sharp and Henry mill in the railway yard and Alex Sanderson's house and shop at the south end of the station.

We then drove further south to Barramunga and to the Barwon Valley lookout where we could see the area where Sanderson operated. Further on we stopped at the site where Henry had his transfer gantry. Finally, along the Sunnyside Road (built on top of the tram) and down the walking track into Henry's Fun Factory mill.

At this point, the members returned to Forrest and travelled back to Colac for the night. The weather was good all day and only started to deteriorate around dinner time. At 7.30 pm, Norman gave a talk to the members on the West Otways timber industry at the Colac History Centre. Norman had changed into his "presentation jacket" which was a surprise after seeing him in a dry japara all day. The Centre also provided tea and scones afterwards which were much appreciated.

On Sunday the members met at the Colac railway station and inspected the broad gauge turntable which is preserved nearby. We headed off to Gellibrand and had a number of sightings of the narrow gauge formations which has been turned into a rail trail. We stopped at Hits Siding at Kawarren, then on to the Gellibrand tourist hut for a look at the railway pictures and static displays.

There are a number of replica stations on the rail trail such as Wimba and McDevitt with old boilers and interpretive signs detailing the history. We stopped at Devitt Bros Siding which had been recently logged and out of bounds to the public. It served two sawmills belonging to Devitt Bros who ran a tramway along the top of the ridge to these mills. The operation closed in 1919 when the entire area was burnt by a bushfire.

At Dinmont, Norman had arranged a visit to Anthony Zapelli's farm where there is a display of mill gear (ex Kincaid at Stalker) and other tramway remains lying near the old farm dairy (on Kincaid's 1902 mill site). Anthony took the members down to the creek beyond the mill site and it was flowing well given the 51 mm of rain which fell overnight. We could clearly see the outlet tramway benched into the bank on the other side of the creek.

We drove onto the Beech Forest History Centre where Norman had arranged an exhibition of various rail and sawmill resources. The members also received a "gold standard" four course lunch which was sensational. Most of the members had to be crow-barred out of the Centre but some took the opportunity to walk the main street and see the VR houses and the site of the old turning circle.

Next stop was a walk into Knott's No.1/Condon Bros mill site at Triplet falls at Ferguson. This is a popular tourist location and has a boiler and log bogies on display. Unfortunately, they have been moved from their original positions and were now considered "disturbed relics". The final stop for the tour was the Ferguson Station site where the members said their farewells and headed back home around 3 pm.

We were very fortunate to have Norman as the leader of this tour given his widespread knowledge, fantastic recall and the ability to the make the local history interesting. I admired Norman's talk on Saturday night where he simply ran through 250 forestry slides, enthralling the members and talking from memory !! Thank you Norman for doing the lion's share and arranging a fantastic tour to the Otway Ranges.

Simon Moorhead

Members (and Goldie) pose for a group photo on the Great Western Colliery tramline on the Otway Ranges tour. Photo courtesy of Owen Gooding

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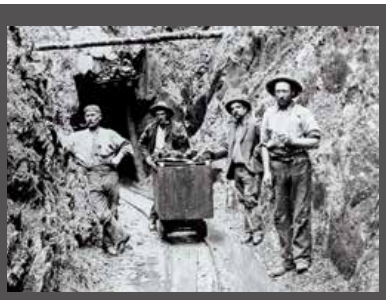

Field Reports

Please send any contributions, large or small, to fieldreports@lrrsa.org.au or to P.O. Box 21, Surrey Hills, Vic 3127.

Bolla Bollana smelter, Flinders Ranges, SA. Gauge unknown

The Bolla Bollana group of mines in the Flinders Ranges formed the northernmost outpost of South Australia's copper boom, and were opened up from 1862 during a period of high copper prices. The ore also contained bismuth, used for creating alloys for railway bearings, and even more valuable than copper. The workings consisted of a series of open cuts. Initially, ore was hauled to Port Augusta by bullock dray for shipment to Adelaide for treatment. A severe drought from 1864-1866 precluded animal transport and so the mines fell idle. In 1872 the 'South Australian and Victorian Copper and Bismuth Mining and Smelting Company' was formed; most of the capital coming from Ballarat in Victoria.

The Company commenced the erection of reverberatory furnaces at Bolla Bollana, the first of which was completed in October 1873. To get the ore to the smelter required the construction of a tramway, operational in May 1874. Unfortunately, by this time the Company had exhausted its capital and it was wound up in November 1874, having spent £27,000 on the smelters and tramway. It was succeeded by the Bollna Bollna Company, like its predecessor, Ballarat-based.

A shortage of mined ore and technical problems with the smelters led to a suspension of operations in 1876. In 1885 the Port Augusta Mining and Smelting Company was formed, but it too failed, and the site was subsequently stripped of all reusable materials.

In relation to the tramway mentioned above, The *Ballarat Star* of 28 August 1874, page 4, reported:

> The tramway for conveying the ore from the summit of the hill to the place of loading, occupied much greater time, and much greater outlay than had been calculated, and, notwithstanding every effort made to expedite this work, it was not until the 22nd day of May that it was reported completed. It has since worked well, and is found fully adequate to requirements.

This would seem to indicate an inclined tramway from the mine site to a point where the ore could be loaded onto another form of transport for conveyance to the smelter.

In October 2015 Ian Barnes photographed rail remnants at the Bolla Bollana smelter (not necessarily associated with any tramway; it may have seen reused as constructional material). The rail is of the type known as 'bridge rail'. The width of the base of the tape measure in the photograph is 50mm. Research by Frank Stamford into a possible source of such rail has revealed an interesting possibility. When the Adelaide - Port Adelaide railway was built in 1856, 63lb/yd bridge rail laid on longitudinal bearers was used for most of its length. This type of rail was first used on the 7 ft gauge Great Western Railway in England from about 1838, and the GWR continued to use it throughout the nineteenth century. It was designed to be screwed down onto longitudinal timbers with timber cross pieces about every 11 ft to keep it in gauge. This type of track construction was not a success in the Adelaide climate as the longitudinal timbers warped in the heat. Between 1865 and 1868 the bridge rails were replaced with double-headed rails laid in chairs on conventional sleepers. (This was the typical system for standard and broad gauge railways in Australia at that time). The head width of 63lb/yd bridge rail was about 2¼ inches, and was certainly narrower than 3 inches, so the rail at Bolla Bollana is probably ex mainline bridge rail. That being so, the most likely source would have been the Adelaide - Port Adelaide railway. The tramway aspects of this site would no doubt repay further historical and site investigation, and we look forward to further reports.

Ian Barnes, Frank Stamford, 1/2017

References

1. Bannear, David (1988): *The Interpretation of Structural Remains at Bolla Bollana Copper Smelting Works, South Australia.* In *Australian Historical Archaeology*, Volume 6, pages 20-25.
2. Thompson, Malcolm (1988): *Rails through Swamp & Sand: A history of the Port Adelaide Railway*, Port Adelaide Railway Museum.

Bridge rail at the Bolla Bollana smelter on 14 October 2015. *Both photographs: Ian Barnes*

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Above: *Clarence River; crane footings and interpretive sign. Photo: Stuart Hibberd*
Below: *Bucca Bucca Creek; Underfired boiler at one of the mine sites. Photo: Kevin Sewell*
Bottom: *Bucca Bucca Creek; Vertical boiler with remains of engine at a mine site. Photo: Kevin Sewell*

Clarence River breakwater railways, NSW 1435 mm gauge (see LR248)

In the late 1950s a 10 ton steam-operated crane and a 40 ton electric crane were installed to transfer stone and pre-cast concrete blocks from barges to railway trucks for transport to the Clarence River breakwater. The foundations for these cranes are extant. The rock embankment immediately behind the footings supported a siding that allowed the trains to run under the cranes. On the other side of the embankment was the Terminal Wharf. The trains ran along the wharf to go to the north breakwater at the entrance to the river. The crane footings recently received an interpretive sign erected by the Clarence Valley Council. The sign was designed by Jon Henry for the Iluka History Group, with further interpretive signage in preparation.
Jon Henry 01/2017

Coffs Harbour tramways, NSW

Over Christmas we explored some of the abandoned timber tramway formations on the summit of the Coast Range behind Coffs Harbour (see LR 238). There is a walking track along part of an old British Australian Timber Company's branch tramway formation at Bruxner Gap, which is easily accessible via Bruxner Park Road. We were astounded beyond belief just how steep the tramway up from Coffs Harbour must have been.
As well as briefly touching on timber tramways, we also explored some of the late 1890s era abandoned gold mining sites in the headwaters of Bucca Bucca Creek, including what had once been a large settlement of which not a trace remains. The principal mine seems to have been Taylor's Reward (later renamed the Beacon), and it at least had a tramway to connect the mine with the battery. At one mine site there was a much-decayed underfired multi-tubular (colonial) boiler and, at another, a vertical boiler with the remains of a twin-cylinder reversible steam engine attached to the side. Nothing definite was seen to indicate tramways, but a flattened passage around the side of a hill may indicate a horse-drawn tramway. However, the remnants are so subtle that it is very difficult to be sure. It would seem this site would repay further investigation.
Kevin Sewell 1/2017

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Heritage & Tourist NEWS

News items should be sent to heritagetourist@lrrsa.org.au Digital photographs for possible inclusion should be sent direct to Richard Warwick at editor@lrrsa.org.au including the name of the location, the name of the photographer and the date of the photograph.

QUEENSLAND

RUSTON HORNSBY LOCOMOTIVE, Cooroy
610 mm gauge

Ruston and Hornsby locomotive, number 285339 of 1949, Model 30DLU, which was originally built for the State Rivers and Water Supply Commission of Victoria, was recently offered for sale on eBay by Russell Savage of the Tinbeerwah Mountain Railway, Cooroy, Queensland. Asking price was $6500.

Builder's plates come with the locomotive, which came from Hayman Island resort off Queensland where it worked from 1958 to 1985. It is currently in need of restoration. The hour meter reads roughly 1400 hours. The locomotive is fitted with a Lombardini four cylinder diesel engine and the previous owner has stated that the motor runs.

No cab is fitted and this area is in need of restoration. All the brake shoes and hangers and drive chains are there but probably need some refurbishing of the components. The gear box has oil and the inbuilt individual clutch locks in on each gear position. It does not have the end weights but these could be replicated easily. It needs some work but the basics are there. Included in the price are six lengths of 42 [20kg] lb rail in either six metre or nine metre lengths, fishplates, dog spikes and some iron bark sleepers, some of which have eaten ends but are sound in the middle.

All items can be tilt tray truck delivered for a nominal fee within a 160 kilometre radius of Cooroy. If unsold at the end of this listing (February 10), the item will not be relisted and will be offered for sale elsewhere.

John Browning, 11 January 2017

IPSWICH WORKSHOPS AND MUSEUM, Ipswich
1067 mm gauge

At Ipswich workshops, progress on the rebuilding of Hunslet 4-6-0T 1239 (sister to locomotive 1215 covered in the Overseas section) has not advanced as far as hoped. While the frames are ready to be united with the boiler, as proposed in early November, this has been postponed due to the overhead crane that was to be used, being out of certification. It is hoped that re-certification will happen early in the new year. As soon as the boiler is in the frames, the cab can be fitted and a few fittings waiting in the wings will be added to complete the picture. The fully assembled locomotive can then be placed in the museum.

Queensland Heritage Volunteers Newsletter Volume 9, issue 3, December 2016

ATHERTON-HERBERTON HISTORIC RAILWAY INC., Herberton
1067 mm gauge

The eccentrics on the Peckett 0-4-0ST (B/No. 1069) have now been machined and are ready to be fitted, and new high tensile studs have been made and are in storage ready for final fitting. New taps being made locally to suit the washout plugs and a new mud door is being sourced from the UK. The remaining pallet of parts is due to arrive from Brisbane very shortly and this will allow closer assessment of the restoration situation.

The steam cylinders will have to go out and be machined and sleeved. Piston rings will have to be made and the piston rods machined. The new smoke box has now been manufactured.

After checking with a newly acquired electronic thickness tester, the boiler has come up to specifications. Workers have also cleaned up the boiler manifold. All of the brass valves are away being soft cleaned.

The 1903 timber frame end carriage BL 769 is progressing at a very good pace. The aisle side of the carriage has had all the timber framing upgraded and ready for paint with a lot of new uprights being installed on the seating side of the carriage. This will allow every seat to have its own window so all passengers can enjoy the views. New cladding has been ordered for this carriage and will arrive soon.

Much construction work has taken place at Herberton, Wongabel and Platypus Park Stations, all part of the home of the Atherton-Herberton Historic Railway. A shed has been constructed on one side of the workshop for the Men's Shed, which is now at lockup stage. On the other side, the Railway's shed has been extended with a pit and a compressor room so the *Tinlander* can be housed. This will free up some space in the main shed for the rebuilds of the Peckett engines and carriages.

The timber carriage at Platypus Park Station has been stripped out with new window frames in place and new doors on the way soon. Management is also looking at ways to build a cover over the Village platform in readiness for the steam train's arrival.

WOODFORD RAILWAY, Woodford
610 mm gauge

With the focus in recent weeks being on mainline sleeper renewals, there has been limited progress on tracks to service the new shed. However, one-and-a-half panels of track have been fabricated using the ex-Ingham concrete sleepers. In the first few months of 2017 the tracks will be laid into the new shed and the concrete in the shed poured. This is largely funded by a council grant and the Railway needs to use this grant before they can apply for another one. A roof water drainage pipe needs to be installed across the end of the shed before the track work advances too far.

Durundur Railway Bulletin 38:343 January/February 2017

Tourist train on Hayman Island in the early 1960s. *Photo: John Browning*

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BUDERIM PALMWOODS TRAMWAY, Buderim

762 mm gauge

A report in the *Sunshine Coast News* in October 2004 about the return of Krauss locomotive to Buderim, mentioned that the locomotive was last in Buderim in 1935 after a career that began in December 1914. The German steam locomotive operated on the Buderim-Palmwoods Tramway, which linked to Queensland Railways at the northern end.

In 2004, Buderim Palmwoods Heritage Tramways representative, Garth Fraser, said the organisation would eventually like to place the locomotive in the park at Buderim between the swimming pool and the traffic circle in Buderim which was the location of the old station.

Mr Fraser said the heritage group had approached Maroochy Council about the prospect, based on its understanding some remodelling of the park space was planned. It would probably take a good year or so, Mr Fraser said, to make a decision on the placement of the Krauss, and the work needing to be done on her restoration.

The Krauss was one of two locomotives that worked the tramway from 1914 until the tramway's demise in 1935. Hopes of restoring the locomotive to an operational condition were considered to be impractical, as the original plans were destroyed along with the Krauss factory during World War II. A cosmetic restoration is the best that could be done. Ironically, the locomotive was one of the last major purchases from Germany prior to the outbreak of World War I.

Fast forward to January 2017, 13 years after this optimistic report, and the restoration has been completed, albeit mostly with wood, but the locomotive is still on the farm where the restoration was carried out and the organisation is still trying to arrange its re-location from the farm to the town.

FRIENDS OF ARCHER PARK STATION AND STEAM TRAM MUSUEM INC. Rockhampton

1067 mm gauge

There is still some work to do on the tram before a fire can be put in it to see if it operates to requirements. The Friends had hoped to have the first operational day on the 5 February 2017, but this will be delayed due to waiting on a part. Some fitting operations will continue between normal operations when they resume. In coming months Archer Park will have to out-source coal supply for the tram as the reserve pile is nearly exhausted.

Tram Tracks Volume 11 Number 1, February 2017

NEW SOUTH WALES

RICHMOND VALE PRESERVATION CO-OPERATIVE SOCIETY LTD, Kurri Kurri

1435 mm gauge

The Society has been successful in applying for grants during 2016. $8000 of funding has been received through the Community Building Partnership for solar panels. These will be installed on the Entry Building and will significantly reduce the electricity bills in the future. $14,150 funding has been received from Transport Heritage NSW to be used for the first steps in restoring a 10 class 2-8-2T locomotive to service. This is a long term project. In addition, the boiler from SMR 30 will be lifted out of the frames, sandblasted and inspected.

In late 2015 work commenced on returning W379 Way & Works van to its former configuration CHG10913 4 wheel brake van. Built in 1897, the CHG van was built primarily for use on coal trains for the NSWGR. It was basically a box mounted on a steel underframe with entry via two side doors with four small windows fitted in each end and sand boxes on the end platforms. Later versions had a skillion roof over each end, side doors closed in and doors fitted in each end. In 1935 it was converted to W379 Way & Works crew van for the NSWGR, by closing in both ends and fitting cooking and crew facilities. This was a challenging project for all volunteer members of the carriage shed, but has resulted in a 120 year old van being given a new lease of life.

Marjorie has been improved in valve timing and running gear and now runs smoothly with just enough exhaust to be heard. The locomotive is entering its 31st year of continuous service to the Railway and will soon equal the time it did in regular industrial service.

The Railway purchased two ex-NSWGR X 200 Rail tractors. One, X 217, has been transported to the Railway and restored to working condition. The other, X 215 has been prepared ready for transport which should occur this year.

Kermit (The Planet) had a major problem during last year. This is not surprising as it was designed

Dismantling of the line and the subsequent derailing of rolling stock just down from the Glenreagh West Depot in January 2017. Photo: Andrew Webster

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to work on short haul trains on reasonably level track. For nearly 30 years this locomotive has struggled up and down the grades at the Railway until it inevitably broke down. After much searching on the Internet, volunteers have finally found the engine bits needed to fix the Planet at MacPhersons Generators in Melbourne. The items (pistons, cylinder liners, water pump components and a complete gasket kit) are brand new in their original packaging.

The Railway's ROD 2-8-0 No. 23 has had its cosmetic restoration completed and work has commenced on the site preparation for the official launch of this locomotive. The launch will be held on the Saturday of the Hunter Valley Steamfest, 8 April 2017 (99 years to the month from its build). Work involved includes ground preparation, laying of gravel base, ballast, sleepers and track, ahead of moving the ROD and associated wagons. This will form a permanent site and will allow the public to get up close and view this historic train display.

The aim to have *Kathleen* in working condition has been slowed by the theft of some parts, including both injectors, but it should be running this year.

The Link Line No 180 February Edition 2017

GLENREIGH MOUNTAIN RAILWAY, Glenreagh

1435 mm gauge

A recent visit to the Glenreagh West Depot observed no activity, with a big closed sign on the main shed. Further down the track, rails had been removed and many items of rolling stock derailed. It is unclear whether this has been deliberately done by the organisation or not. Their last media release was dated April 2014 and the current edition of the Newsletter is dated March 2015. The last activity on their Facebook page however, was on 26 January 2017, showing work being done at Glenreagh West. An earlier post on 19 December 2016, to an enquiry about trains running during the holidays, saw an apology being made for the lack of trains, as the organisation was still repairing the steam locomotive and the rail motor and will not be running for some months. The enquirer was advised to watch the Facebook page for updates.

Andrew Webster 2/1/2017

VICTORIA

PUFFING BILLY RAILWAY, Belgrave

762 mm gauge

One of the projects the Board of Management is considering is the conversion of NA locomotive 14A to light oil firing. This is to enable Lakeside – Gembrook trains to be steam hauled during the high-fire danger period in some summer months. The problem is the Wright forest through which the railway runs between Lakeside and Cockatoo. In past years trains have been diesel hauled beyond Lakeside for several weeks during the fire season. This year that has not been necessary due to regular rainfall and no extended periods of hot weather. There are no further details of the conversion, although one Guard described the outcome as a diesel powered steam locomotive. Others describe it as either heresy or practical.

During the period from 26 December to 8 January three trains were running to Gembrook, with departures from Gembrook at 11.55am, 2.50pm and 5.10pm. They were operated with diesel locomotives from Lakeside, unfortunately, but this was apparently due to shortage of locomotives rather than high fire risk. Examination of public timetables during this period shows two cases of down trains departing Belgrave eight minutes before the arrival of up trains. They were crossing on a loop just to the east of Belgrave workshops. This was a way of handling large numbers of people at Belgrave with only one platform.

WALHALLA GOLDFIELDS RAILWAY, Walhalla

762 mm gauge

Funding has been secured for the return of the Walhalla Vinter Ljustfest (Winter Light festival) which was abandoned in 2016 due to lack of funding. This means that the very popular Light Trains, which saw the trains running at night with a light show mounted on the flat car, NQRW, will be running again on the Walhalla Goldfields Railway.

Media Release 12/2/2017

TASMANIA

TASMANIAN TRANSPORT SOCIETY INC. Glenorchy

1067 mm and 610 mm gauges

Some rail exhibits were relocated on Saturday 12 November resulting in carriage AB1 being moved to the Road Transport building, locomotive H1 being moved next to Q5, and the Abt and Climax locomotives being moved to road 6 where the H sat for many years.

Tasmanian Transport Society Inc. Newsletter January-February 2017

OVERSEAS

HUNSLET 1215 PROJECT, Killamarsh, Scotland

610 mm gauge (see LR 250, p.47)

2015 was a frustrating year for the project as the team very much wanted to steam the locomotive again in the centenary year but despite their best efforts it was not to be. 2016 saw much

NA locomotive 14A at Emerald, 24 February 2017. It may be converted to oil firing for use beyond Lakeside in the high-fire risk period. Photo: Frank Stamford

For reproduction, please contact the Society

John Fowler 0-6-0T of 1906 on a plinth at the Fiji Gateway Hotel at Nadi. *Photo: John Browning*

Motor Rail 100hp 4wDM on the Coral Coast Railway. *Photo: John Browning*

John Fowler 0-6-2T 11393 of 1907 inside the Ba Civic Museum. *Photo: John Browning*

more rapid progress and all their preparations have started to come together very well; 1215 will steam again in 2017.

There was a setback recently regarding the frame cross members, when the team tried the boiler in the frames, but they were largely expecting this. The cross members will be dealt with first thing in the new year and then getting the boiler in and out should be a lot simpler and easier.

The new and tricky boiler cladding is now almost finished and the cab roof section has had a lot of work done to it. The new side rods are on site and the new con rods arrived on 10 January, thus completing the motion and valve gear work, so the end of the restoration process is clearly in sight. There is still a way to go but all the big parts are now mostly complete and the last items are generally things like pipe work and consumables.

Martyn Ashworth
War Office Locomotive Trust Project Manager

FIJI

610 mm gauge

Ba Civic Museum

This, the only local council museum in Fiji, is open regularly and features some very creditable displays. Ex-Rarawai Mill John Fowler 0-6-2T 11393 of 1907 is housed here. Unfortunately it is far from complete but is presented well (although on a fearsome gradient!) It has been paired with the bogie tender that was previously attached to the Fowler locomotive plinthed close by at the entrance of Rarawai Mill.

Ba Town Council, Riverside Park

Steelweld 4wDH 18 (IEL6305 of 1962), built in Australia under licence from Plymouth, remains in the Council Park, in poor condition and with only one wheelset.

Gecko Trucking (Fiji) Ltd, Vuda

The carcass of Clyde 0-6-0DH 65-449 of 1965, ex Lautoka Mill 13, continues to lie in this haulage yard.

Fiji Gateway Hotel, Nadi

John Fowler 0-6-0T 10656 of 1906 remains plinthed here with a bogie tender and is regularly spruced up. Meanwhile the hotel, right opposite the international airport, has been rebranded from its former identity, the Raffles Gateway Hotel.

Coral Coast Railway, Cuvu

The Coral Coast Railway operates a tourist service day trip to Sigatoka and return several times per week. The line is no longer used for sugar cane transport. Motor Rail 100hp 4wDM 8 38 (23014 of 1960) operates with a large open sided bogie carriage. An assortment of closed carriages and Motor Rail 4wDM 24 *The Puffing Boto* (14024 of 1957) languish in a siding.

John Browning 21 November 2016

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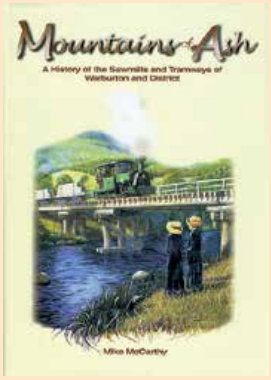

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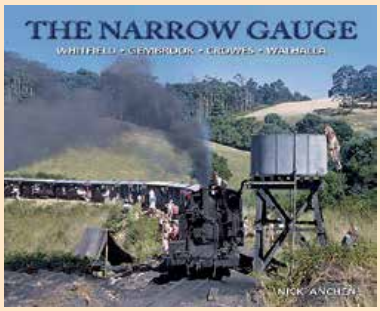

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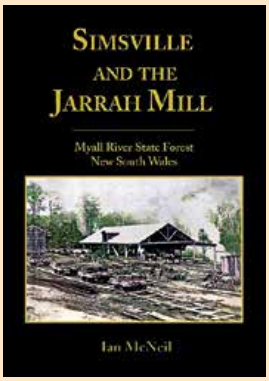

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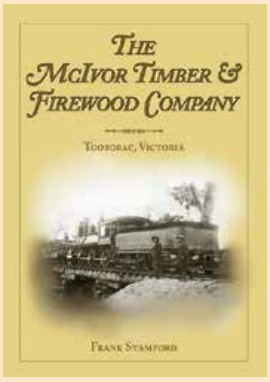

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