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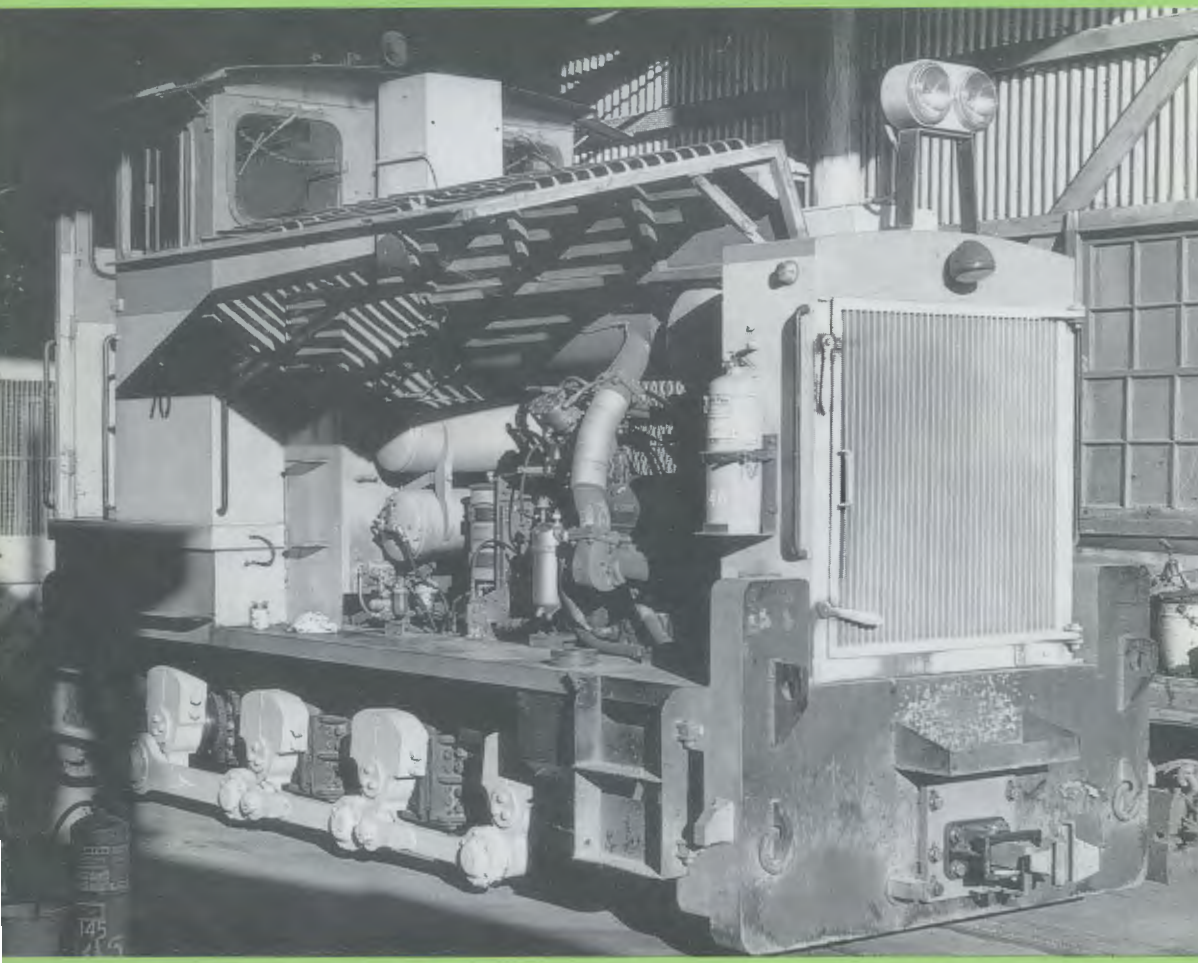

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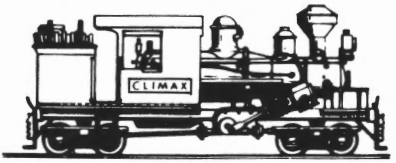

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CONTENTS

EDITORIAL

This issue concludes the three part series on the North Mount Lyell Railway with a review of the locomotives and rolling stock used on the line. The earlier articles have generated considerable interest, and letters received to date are published in this issue. Ella Hennell has also contributed a most interesting primary document on the lobbying for and construction of the Buderim shire railway in Queensland.

With this issue, we also introduce a new column offering news and comments on research topics. The initial column provides information on happenings in other historical societies of interest to LRRSA members. I plan to include notes on research projects being undertaken by members in future columns, including requests for information, photo-graphs etc. Please forward information and requests for inclusion to the editor.

Cover: Locomotive depots have always offered photographers interesting opportunities from patterns of light and shade. Craig Wilson found Fairymead's No. 70 in the Milla locomotive shed late on 30 June 1988.

THE NORTH MOUNT LYELL RAILWAY, TASMANIA PART 3: LOCOMOTIVES AND ROLLING STOCK

by Ray Ellis

Introduction

Previous articles on the North Mount Lyell railway covered the development of the Mt Lyell mining field and railway construction (*LR.105*) and the operation and decline of the railway (*LR.106*). This final article describes the locomotives and rolling stock used on the railway.

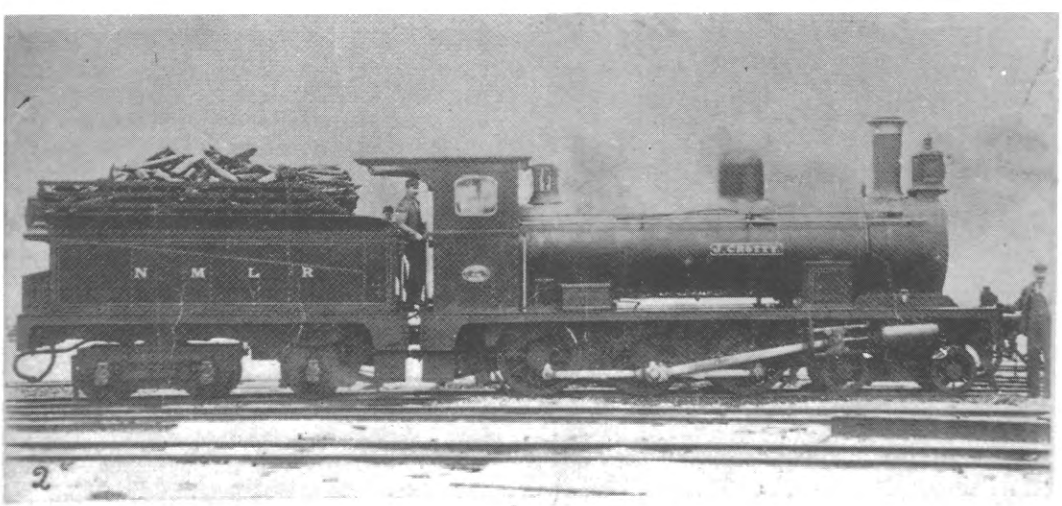
Locomotives

Main Line Locomotives

For the operation of their main line, the North Mt Lyell railway purchased three identical 4-6-0 tender locomotives built by the Avonside Engine Company, Bristol, in 1899. They were numbered and named 1 *J CROTTY*, 2 *JP LONERGAN* and 3 *DJ MACKAY* after the founder of the company, the Australian chairman and one of the London directors respectively. The engines were designed by the famous Scottish locomotive engineer, David Jones, of the Highland Railway and were based on the same general lines as his famous and successful standard gauge 4-6-0s which became known as the *JONES GOODS*.

Following an unfortunate accident, Jones retired prematurely from the Highlands Railway and, in 1896, became advisory engineer to three Tasmanian west coast railways, the Emu Bay, Mt Lyell and North Mt Lyell railways. He was also responsible for the design of the well-known Emu Bay 4-8-0s built in 1900 and 1911 which, in later years, were to achieve a blue livery on the *WEST-COASTER* passenger service.

The North Lyell 4-6-0s were a neat design and most suited for the task for which they were intended. Avonside used the works photo of No.1 in their advertisements in various trade and railway journals for many years, where they were often promoted as their TD class of locomotive. They even managed a write-up in the doyen of railway magazines of the time, *The Locomotive Magazine*, although this was not until January 1903. Their tractive effort, 15,000 lbs, was generally higher than that of contemporary 3 ft 6 in gauge 4-6-0s of similar design. The engines were fitted with a six-wheel tender of which the first pair were fixed and the rear pair formed a bogie, a typical arrangement where some form of flexibility was required for



Avonside 4-6-0 locomotive No.1, *J CROTTY* (AE 1392/1899) was of typical British colonial appearance design by David Jones of Highland Railway fame. CB Thomas collection, courtesy JL Buckland

tender first running. All were wood burners, although in later years they burnt coal, and all were fitted with automatic vacuum brake.

Two of the locos arrived in Tasmania on 26 June 1899, as part of the cargo on the company ship *NORTH LYELL*. It had been a delay in their completion which had led to the vessel's late departure from England. How the third locomotive arrived or on what date has not so far been discovered, although it was in Tasmania by the end of June 1899.

The three locomotives are recorded as being erected in a temporary engine shed built for the purpose, as the main engine shed was not completed until May 1900. This could have been the contractors shed at The Brickworks. The first engine was given a trial run on 16 May 1900, No.2 followed on 3 June and No.3 on 20 June. The three engines handled all traffic until the arrival of the Shays in 1902. A likely disposition seems to have been one engine working the twice daily mixed train, one on shunting duty and standby, and the other for use at times of heavy traffic.

After the 1903 amalgamation and closure of the smelters, traffic declined considerably. However, all three 4-6-0s survived the first cut-back of equipment in 1906-07 (when the Shays were sold) to work the little traffic that was offering. Nos. 1 and 2 were given major overhauls in early 1907, which included a strengthening of the boilers, as the original work was not completed by the builders to a degree suitable to local boiler requirements. No.3 probably received similar treatment at some stage. No.1 received a further major overhaul in 1911. While they are the only major overhauls recorded, others may have taken place as records of the railway in the Mt Lyell company files are far from complete.

Popular opinion has it that only two locomotives worked the line after 1903: 4-6-0 No.2 and the 0-6-0ST *MALVOLIO*. However, at times of heavy traffic, the other two 4-6-0s must have been steamed. There are records of such events for the operation of special picnic trains.

Nos 1 and 3 were both shipped out of Kelly Basin about 1925 to Strahan and then taken to Regatta Point or Queenstown (it is uncertain which) and placed in storage pending possible sale. No.3 received a boiler inspection in March 1929, prior to sale in 1930 of both engines to the Emu Bay Railway (EBR). This sale was consistent with the big expansion planned for the EBR following the erection of the new Electrolytic Zinc Company smelter at Rosebery in 1929. The Depression forestalled the opening of the smelter and the two 4-6-0s (as well as the new Beyer Garratts) were put into storage until the smelters were commissioned in 1936.

The EBR numbered the locomotives 15 and 10 (their second) respectively and modified them by adding deeper buffer beams to accommodate the buffers and screw couplings of their line. They were also fitted with cut-away upper cab sides in place of the fully enclosed originals. No.10 later acquired a stovepipe chimney. Both engines were mainly used for shunting at Burnie and only ventured onto the main line on ballast rains or at times of very heavy traffic. On these occasions they were used for double-heading.

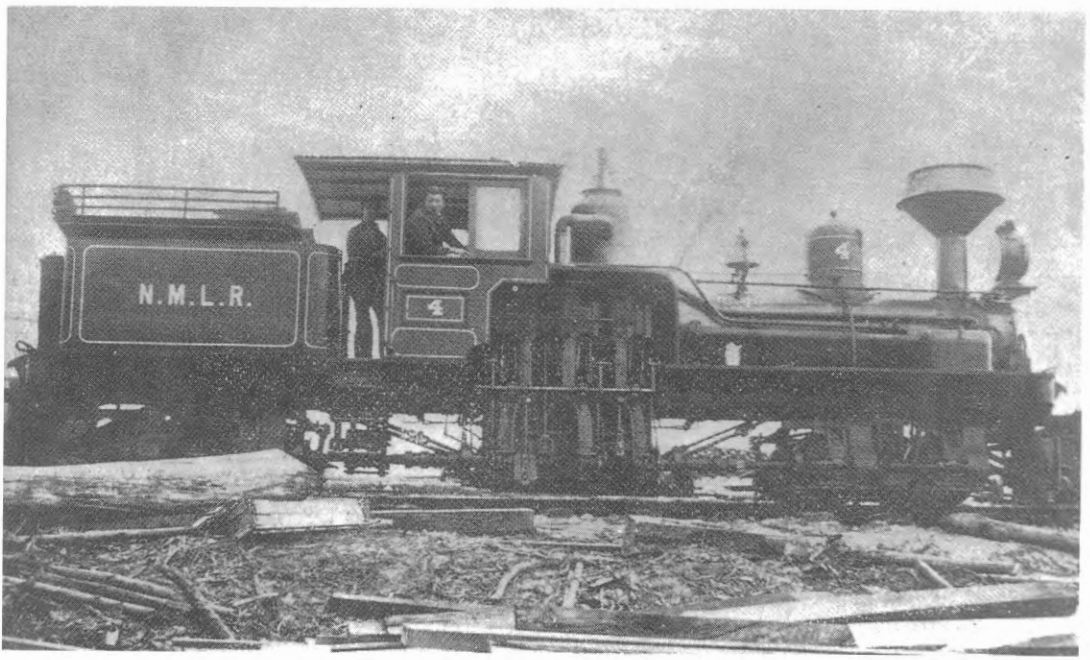
In the years prior to 1950, the EBR frequently hired an engine to the Government railways for working wood trains from Wynard to the Burnie paper mill. This was usually one of the Dubs 4-8-0s, but an Avonside 4-6-0 was occasionally substituted. Second No.10 was sold to Queensland for spare parts in 1950, while No.15 was scrapped in 1956.

No.2 remained on the North Lyell railway until 1925 as the sole remaining motive power. It was used for hauling the timber traffic, yearly picnic trains and eventually had the sad task of hauling the demolition train between Darwin and Linda in 1928. After closure of the line, it remained in the engine shed at Linda. In April 1935 it was inspected at Linda for its steam ticket prior to sale. The engine went north to the Fairymead Sugar Company at Bundaberg, Queensland in May 1935, probably via Melbourne.

At Fairymead the locomotive was used on the sugar company's 3 ft 6 in (1067 mm) gauge connecting line from the Queensland Government Railway (QGR) at Meadowvale, just north of Bundaberg, to the mill. It was numbered 5 in the Fairymead roster, entering service in June 1935 after being fitted with Westinghouse brakes for working QGR rolling stock.

No.5 was highly thought of at Fairymead, being rated to haul 650 tons over the comparatively level track from Meadowvale. This was equal to the load allowed for QGR PB15 class 4-6-0s, which were the heaviest locomotives to operate the line, most likely on a hire basis.

In December 1950, Fairymead purchased second No.10 from the EBR as a source of spare parts. In 1958 No.5 was reboilered with what some sources claim was a QGR PB15 boiler, although boiler mounting positions seem to dispute this. Certainly, the chimney fitted to No.5 in later life was of a standard lipped stovepipe type as seen on many PB15s. The engine also later sported an unusual home-



Shay locomotive No.4 (Lima 698/1902) was a typical three-cylinder two-truck example of the Lima shops built in large numbers for industrial users. IK Winney collection

made smokebox door which somewhat detracted from its original graceful appearance. No.5 was fitted-out with equipment for steam cleaning molasses tanks but, with a change in procedures at the mill, the engine was offered for sale in November 1958. There were no buyers and the locomotive was laid aside in 1963 and gradually became derelict on a siding near the mill. It was sold to Abrahams & Williams, scrap merchants, in November 1967 and towed to Brisbane for scrapping later in the same month.

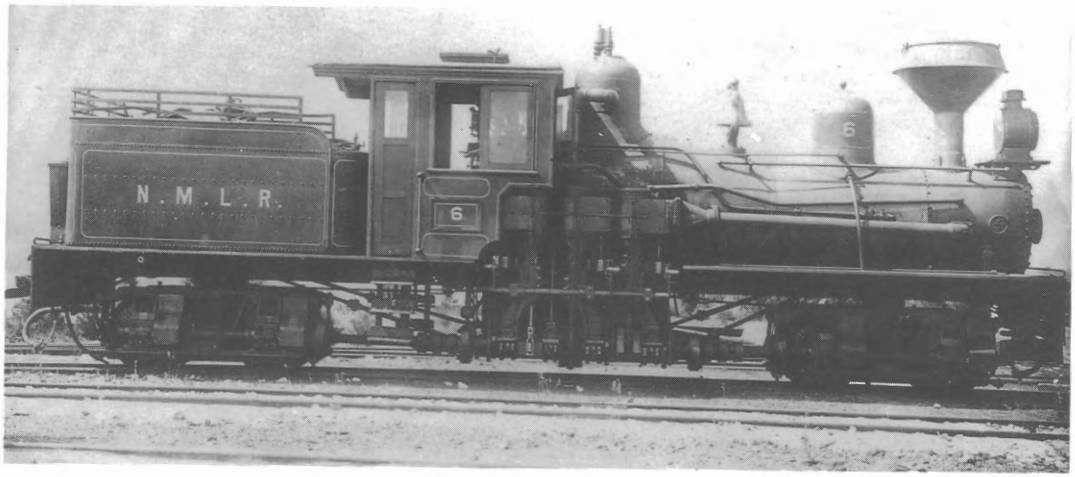
The Shay Locomotives

Three Shay geared locomotives were purchased by the railway at the institution of the American general manager, LC Trent. They were built by the Lima Locomotive Works in 1902 and numbered 4, 5 and 6 on the North Lyell register.

The Shays differed in their dimensions and appearance. A likely explanation is that they were purchased in a hurry and were probably 'stock' orders. The smaller two — Nos 4 and 5 — were purchased to operate the ill fated Comstock branch, a line with steep grades and sharp curves which were more akin to the timber tramways with which Shay locomotives are normally associated. There is a report that No. 5 was employed on track laying of the Comstock line prior to its abandonment. No.6, the largest of three, was purchased to work on the main line.

The locomotives by no means fulfilled expectations and, although the design was sound, construction was considered to be cheap and faulty compared with the sturdy Avonside engines. The boiler working pressure was also considered high for that normally allowed for the thickness of the boiler shells used and this was subsequently reduced. This was no doubt on the advice of the boiler inspector, who had a dislike for the engines and made his views known on the boiler record cards!

The three Shay locomotives were confined to the operation of ore and smelter traffic, with one of the smaller engines usually on shunting duties at Crotty whilst the others worked ore from Linda to Crotty, smelting supplies from Kelly Basin to Crotty and matte production from Crotty to Kelly Basin. The Shays saw little if any service after closure of the smelters and were placed in storage. They were offered for sale to the Emu Bay Railway, but there was little interest. All three did, however, find new homes with timber milling operations and thus ended up in an environment more suited to their type.



Forty ton Shay locomotive No. 6 (Lima 704/1902) was the largest of the NMLR family of three Shays.
Winters Studio, Burnie, courtesy JL Buckland

No.4 was sold in February 1906 to the Geeveston Timber Company for their tramway on the western side of the Huon estuary in south-east Tasmania. This company subsequently became the Huon Timber Company and a subsiduary of the famous Western Australian timber firm, Millar's Timber and Trading Company from 1925. Millar's may have had an interest in the Huon Timber Coy from an earlier date as, in 1922, the locomotive was transferred or sold to Millar's interests in the Philippines.

It has not been positively established just where the locomotive went, but a likely candidate was the large operation at Kolambugan on the island of Mindinao. The operation was originally owned by the Kolambagan Lumber & Development Company, but Millar's took an active interest from the early 1920s. In May 1938 the enterprise became the Findlay Millar Lumber Company. The company eventually operated four Shays on the line. The fate of No.4 is uncertain, but it seems unlikely that it survived World War II in operating condition and it has not surfaced in any post-war tramway reports.

The second Shay, No.5, went to Queensland and, along with the Dubs 2-6-0 at Mt Mulloy and Avonside 4-6-0 at Fairymead, was the third loco used on the North Lyell line to work in that state. It was sold in 1906 to Lahey Brothers for use on their Canungra and Pine Creek timber tramway in the ranges near the border south-west of Brisbane (*LR.54*). It is likely that the engine was out of service by 1920, but its remains were still to be found in the mill yard at Canungra after World War II. Like the other engines there, it just rusted away.

No.6 was sold in 1907 to another well known Western Australian timber company, Bunning Brothers, and went initially to their Lion mill at Mt Helena on the Government railway just east of Midland. The timber tramway here was originally owned by R Honey & Coy (*LR.78*, p.20) and ran from the main WAGR line connection to the mill, then into the Darling Ranges near Ginginnumup. In 1926 Bunnings transferred the locomotive south-west to Argyle on the WAGR Northcliffe line. The mill, originally built by JC Port, was taken over by Bunnings in 1905. The Shay worked here until withdrawn and scrapped in 1947.

2 ft Gauge Locomotive

In April 1900, the North Lyell company took delivery of a 2 ft (610 mm) gauge locomotive for use on their tramway from the North Lyell mine to the Mt Lyell haulage, a distance of about a mile. It was given a trial run on 15 June and was in service by July 1900. While there is photographic evidence that a Krauss 0-4-0WT locomotive worked on this tramway, there has been much speculation over its identity, not assisted by Tasmanian boiler records which only identify the boiler and not necessarily the loco on which it was placed.

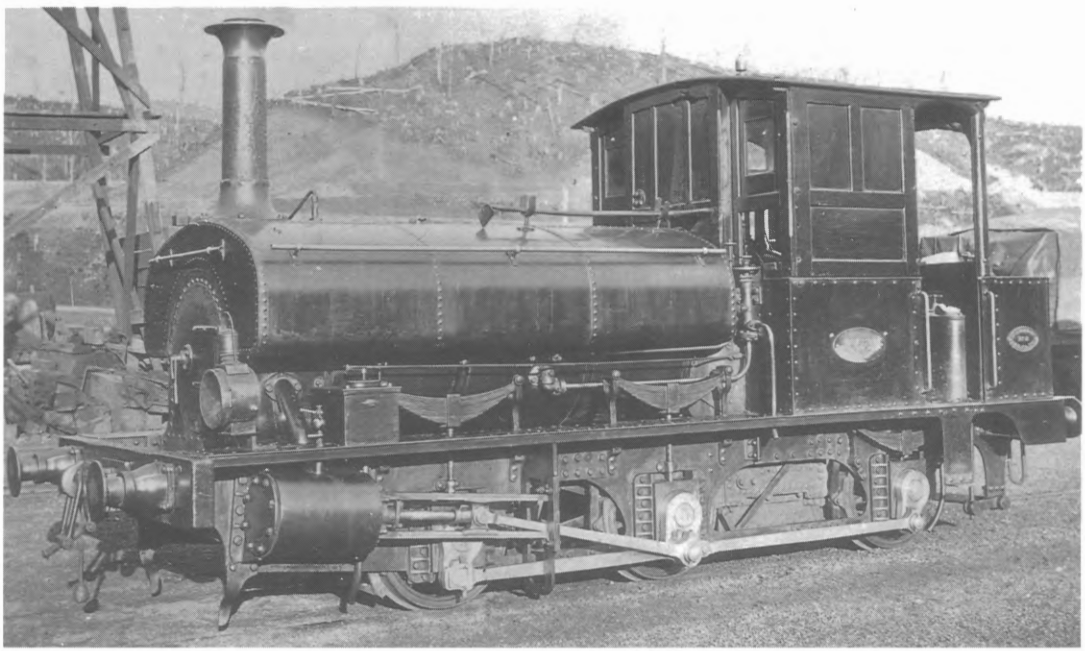
The engine in question is considered to be Krauss works number 4087, built in 1899 to the order of an agent, Diercks & Company of Melbourne, and it was probably new to the West Coast of Tasmania. The loco is not mentioned in reports compiled at the time of the 1903 merger, although it has been established that a loco of this description was insured by the North Lyell company from 1899 to

1903. An engine bearing the boiler 4087 is credited with becoming No.6 in a fleet of ten Krauss 0-4-0WT locos operated by the Mt Lyell company on their 2 ft gauge tramways in the Queenstown area. It is possible that swapping of boilers between similar locos had taken place before or after 1903.

Boiler 4087 was last inspected at Queenstown in 1939 and its next inspection, in 1946, was Renison. Reports state that a loco bearing boiler 4087 arrived here in the early years of World War II, possibly in 1943, for use on the newly constructed Boulder Tramway of Renison Associated Tin Mines. This line connected with the Emu Bay Railway at Renison Bell, just south-west of Rosebery. It joined Krauss 0-4-0WT 5800 of 1907, which had previously worked on the Zeehan Tramway Coy (their No.2), then timber millers Dunkley Brothers at Zeehan, prior to sale to the Boulder Tramway in 1932. In 1952 these two locos were rebuilt into one engine by fitting the boiler from 5800 to the frame of 4087. The combined locomotive ran until the tramway closed in September 1960. It was then 'preserved' in the Apex Playground at Mersey Bluff in Devenport. In 1983 it was removed from the park and relocated in the Zeehan Pioneers Museum. It was unfortunately in a rusted state and will require extensive restoration.

Sharp Stewart 0-6-0ST

The final steam locomotive to work on the North Lyell railway had an interesting history. It was originally built as an 0-4-0ST to 4 ft 6 in (1372 mm) gauge by Sharp Stewart (works number 2030) in 1869 for the Mersey & Deloraine Railway in northern Tasmania. The tramway opened in 1872, but the loco only worked for four months before it was withdrawn because it was too heavy for the light track and thereafter the tramway was horse operated. The Sharp Stewart was stored until 1884, when it and the tramway were purchased by the Tasmanian Government Railways (TGR). The loco was regauged to 3 ft 6 in gauge and extensively rebuilt at Launceston Workshops into an 0-6-0ST and given the number 6B (*LR.85*, p.23). It was then sold to the railway construction contractors, Boland & Scott, and worked for them for five years until 1889, when it returned to TGR ownership. In 1896, the loco was sold to the Mt Lyell railway as their No.2 and it was during their ownership that it gained the name *MALVOLIO*. The name would appear to derive from the racing horse 'Malvola' which won the Melbourne Cup in 1891 and not the Shakespearian character of the same name.



Sharp Stewart 0-6-0ST locomotive (SS 2030/1869) *MALVOLIO* at Mt Lyell. When in operation on the NMLR, the locomotive appears to have had an open cab (see LR.105 p.11).

Sticht collection, courtesy Lou Rae

MALVOLIO appears to have been used on the construction of the Mt Lyell railway from Dubbil Barril to Queenstown and was then used for shunting duties. After the 1903 merger of the Mt Lyell and North Lyell companies it was suggested that the loco would be most suitable for use by the permanent way gang at Kelly Basin on the North Lyell line. Being a small loco, it could be steamed quicker in cases of emergency than the larger Avonside 4-6-0s and was well suited to the maintenance trains necessary when landslip and washout damage occurred. The locomotive was fitted with vacuum ejector (it previously had only a steam brake) and was shipped across to Kelly Basin in September 1903.

Just how much *MALVOLIO* was used on the North Lyell railway is conjecture, although was one of only three active locos inspected there in 1909. It was destined, however, to see a further lease of life on the Elphingstone timber tramway in Victoria (*LR.85*, p.21). This ran from Elphingstone, on the broad gauge Bendigo main line of the Victorian Railways, north-east to near Granite Hill to serve timber stands at nearby Coliban Park. A new company, the Elphingstone Red Gum Milling Coy, in which a Mr Hancock was involved, assumed control in 1926, but the line had a short life, ending operations in 1927 and the track was lifted in 1928. *MALVOLIO* arrived at Elphingstone in either October or November 1923 and presumably worked the line until closure. It was stored in the engine shed there until purchased for scrap by Dickson Primer Industries in Melbourne about 1940.

Rolling Stock

Passenger Carriages

The three passenger carriages owned by the North Lyell railway were built by the Metropolitan Railway Carriage & Wagon Company of Birmingham in 1899 and arrived at Kelly Basin via Hobart in April 1900. Numbered 1 to 3, they were the last items of rolling stock to arrive.

The three cars were clerestory roof end-platform bogie composites, elaborately fitted and upholstered, with polished teak exteriors. Each had a centre aisle with accommodation for 20 First class and 22 Second class passengers in two compartments, separated by lavatories centrally located. Each compartment was fitted with patent reversible seats.

The origin of these vehicles is a bit of a mystery, as the builder's records, now held by the Birmingham City Library, contain no mention of them whatsoever, nor are there any works photos or diagrams under the North Lyell name. It is claimed that they had been built for a South American railway and were bought by North Lyell when the original customer failed to take delivery. However, surviving records do not appear to mention this,

Composite passenger carriage built by the Metropolitan Railway Carriage & Wagon Company in 1899. Of interest is the unusual bogie design and the American styling. State Archives, courtesy JL Buckland

Brake composite passenger carriage as converted by the NMLR c.1903 from an ordinary composite vehicle.
State Archives, courtesy JL Buckland

nor has any further evidence been found to support this theory. However, their appearance is distinctly 'American' in style. The design of the cars is somewhat antiquated for the period and they do not follow the neater 'British colonial' style adopted by Jones for the locos and other rolling stock, which suggests they were built for somebody else.

After arrival on the North Lyell one of the cars received modifications to make it into a brake/passenger vehicle suitable for the carriage of light goods, luggage and parcels and accommodating the guard. This was achieved by removing the centrally located lavatories and four seats (two in each compartment) to form a large open luggage type compartment fitted with sliding doors on either side. The date of this conversion or the number of the car is unknown, although it had taken place by 1903 and may have been done soon after arrival.

All three vehicles remained on the railway until either late 1921 or early 1922 when the two full passenger cars, including No.2, were shipped out of Kelly Basin to Regatta Point and sold to the TGR. Here they became BA-class Nos 49 and 50. Some modifications were made to them for Government railway service — the lavatories were removed and fixed slat seats fitted in the Second class section, increasing the weight to 15 tons 11 cwt. Buffers and screw couplings were also fitted and, to reduce coupling height from 3 ft 6 in to 3 ft, the simple and rather crude expedient of simply bending the main frames at each end was used! The two cars later worked on the Hobart suburban service and may have done so from their purchase.

Car BA 50 was converted to camp wagon 115 in 1950 and, in 1956, was given a steel underframe from saloon car AB 14 built by Ashbury in 1884. Thereafter some sources give the origin of camp wagon 115 as AB 14 and not BA 50, but the author feels that the body is the most important part of a passenger car and so should be credited to BA 50. Car BA 49 actually went back to the West Coast in its later years when it was allocated to Zeehan as 'spare' car in 1953. It was converted to camp wagon 115 in March 1954. After this conversion, it was noted that six of the axle box covers read 'Metropolitan R.C. & W., Birmingham, 1899' and the remaining two 'N. Mt. Lyell Coy., 1901' clear indication of its former owner.

Both vehicles survived to be allocated for preservation by the Van Diemen Light Railway Society who intend to make one good vehicle from the two for operation on the Don River Railway. Car BA 50/Camp 115 is now at Don River, while car BA49/Camp 135 is in storage at Launceston loco yard. The latter car currently carries an incorrect identity as during the 1970s someone erroneously painted 134 on it.

The brake and passenger vehicle appears to have

remained on the North Lyell railway after 1921-22 and probably lasted until the railway closed in 1928. While its fate is unknown, it is believed to have been scrapped.

Riley Rail Motor

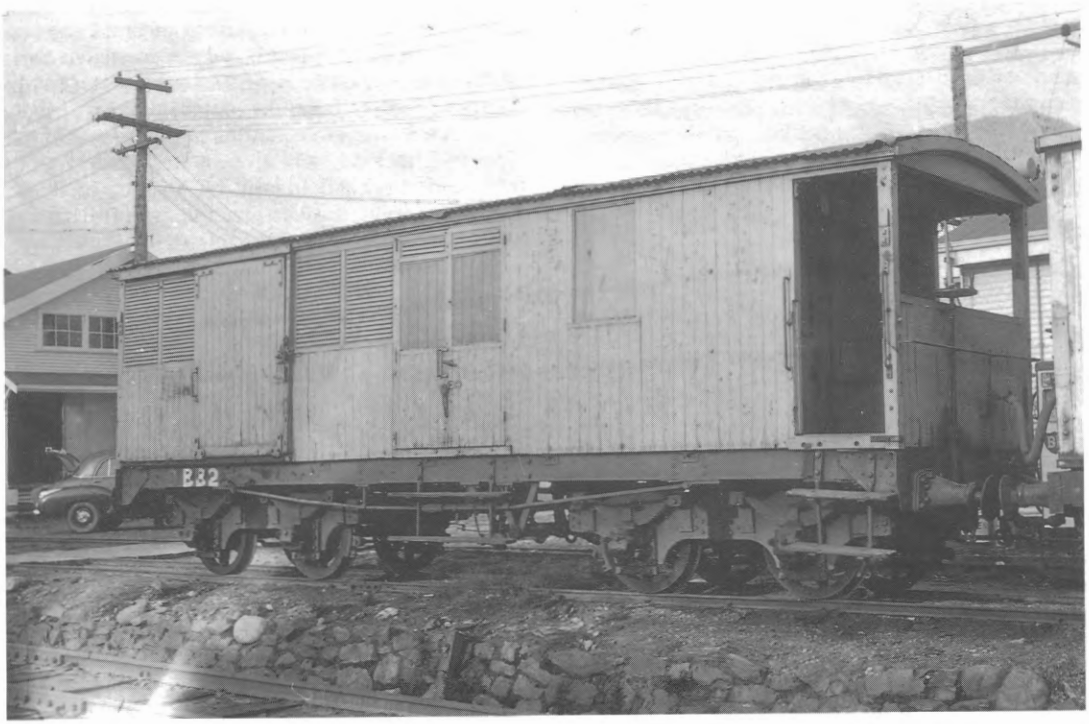
After the 1903 amalgamation, the Mt Lyell railway workshops at Queenstown built a small rail motor using a Riley motor car engine placed on a home-made frame. The intention was to provide a vehicle for the conveyance of maintenance personnel on the North Lyell railway. It had a capacity of ten passengers and the canvas roof and side blinds gave protection in inclement weather. Judging from photos of this vehicle, the stated passenger capacity must have been very nominal, as conditions would have been decidedly cramped with 10 people on board.

Passenger revenue for this vehicle, probably excursionists, was first noted in railway reports for the week ending 27 July 1908, so it seems that the Riley motor was built and transferred to the North Lyell line late in 1907 or early 1908. Its regular availability for excursions was advertised from October 1908. After the First World War when a normal train was little used south of Darwin, the railmotor was used on a regular basis to Kelly Basin, conveying passengers, mail and goods. It remained on the railway until closure in 1928, when it was placed in storage. It was not transferred across to the Mt Lyell railway until about 1930, when it made the journey on the back of a truck.

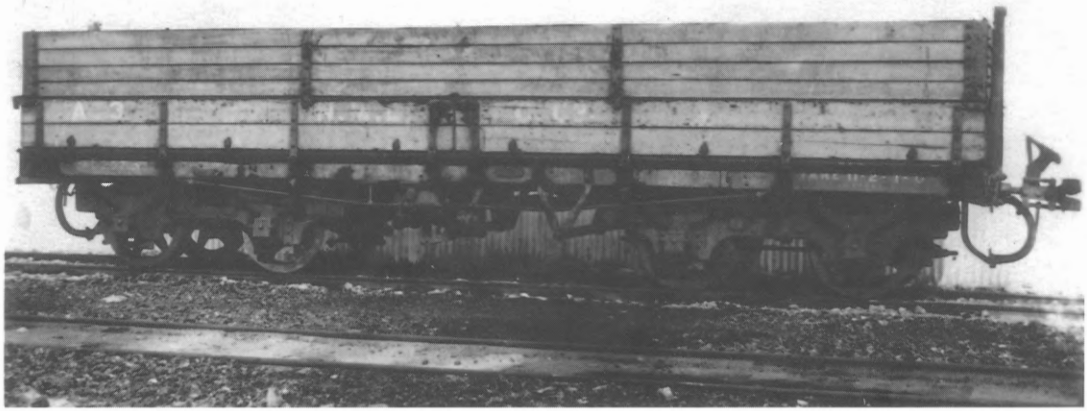
Brake Vans

The railway had seven bogie brake vans which could be used for either passenger, mixed or goods traffic. Built by the Bristol Carriage & Wagon Coy in 1898 to the design of Jones, they were shipped to Kelly Basin on the company vessel *NORTH LYELL*, arriving on 26 June 1899. The vans were classified D-class Nos 1 to 7 and were a pleasant looking combination of British and colonial design built of teak with varnished exterior.

At the front end of the van was a 12 ft 6 ins (3810 mm) long compartment with sliding doors and, above the waist line, two sections of louvres each side of the door. This ventilation section was fitted with hooks and could be used for the carriage of



NMLR brake van in use on the Mt Lyell Railway as No. BB2 in 1963. Note the extension to the buffer beams to accommodate the buffer and screw couplings of the MLR. Photo: HJW Stokes



This neat 25 ton bogie open wagon was fitted with an extension frame to make it suitable for the carriage of coal and coke. State Archives, courtesy Lou Rae

meat carcasses and perishables. The remainder of the van, 10 ft 3 in (3124 mm) long, consisted of an enclosed section fitted with double swing doors with windows, one window and fitted internally with seats and lockers capable of seating eight people if required. Double sliding doors led into the guard's compartment with a seat on each side, brake valves for actuating the vacuum brake and brake pressure gauge. At the rear was a platform open above the waist with half-doors each side and a wheel hand-brake on the rear wall.

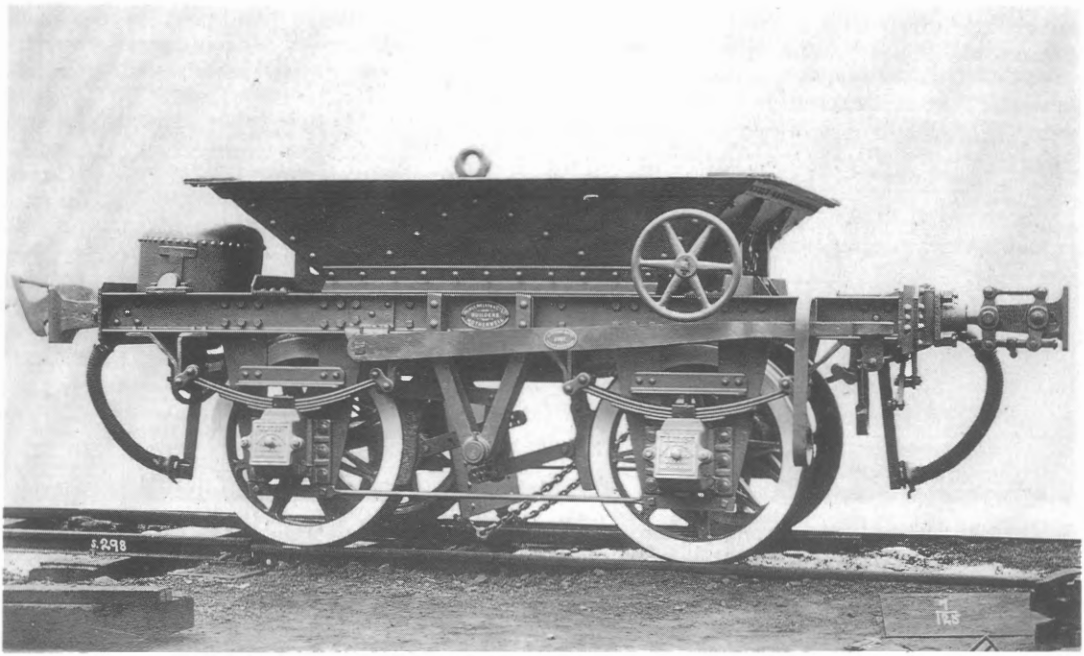
By 1903, three of the vans had their open rear platform enclosed as protection against the weather. This also involved removal of the rear partition leading to the platform to give greater floor area inside. Only one of the vans, D4, retained its open platform. By this time, the bodies of the other three vans had been removed and their underframes were in use as wood wagons.

The only use of the other four vans in the declining years seems to have been for picnic trains for which they were fitted out internally with extra passenger seating. All four were eventually transferred to the Mt Lyell railway where they became part of the BB class. One of them, numbered BB2, was still around in 1963 and was noted as having an open rear platform, suggesting it was originally North Lyell D4.

The three underframes used as wood wagons undoubtedly remained on the North Lyell railway until the end and may thereafter have been transferred across to the Mt Lyell railway. It was probably the grounded bodies of two of these which remained at Kelly Basin after closure of the line, one of which became the well known 'Reindeer Lodge' visited by railway enthusiasts in the 1960s and 1970s. The other body had, by this time, become derelict.

Goods Wagons

The Bristol Carriage & Wagon Company built twenty bogie low sided goods wagons in 1898 to the design of Jones for the North Lyell railway. They were shipped to Tasmania on the *NORTH LYELL*, arriving in June 1899. The wagons, which came in two types, were built of pitch pine and painted in a French grey livery. All were fitted with two plank sides arranged in two fold-down side doors and fold down ends. Fourteen of the wagons were equipped to have an extension frame fitted which comprised four narrow planks, thus converting the wagons into high-side open wagons for the carriage of such cargos as coal and coke. To these could also be added at each end triangular stanchions to support a centre ridge pole for rigging tarpaulins. The other six wagons were also fitted with two-plank sides and ends which folded down, but were equipped especially for log and timber carriage. The ends were so arranged that they folded inwards to make bolsters and stanchions, which normally lay flush in the floor, but could be turned up to retain the load. Binding chains and screw shackles were also provided for each wagon. The two types of wagons



Hurst Nelson works photo of a NMLR 4-wheel hopper wagon. Note the unusual Jones & Calcroft centre coupler. Motherwell Library, courtesy RT Horne

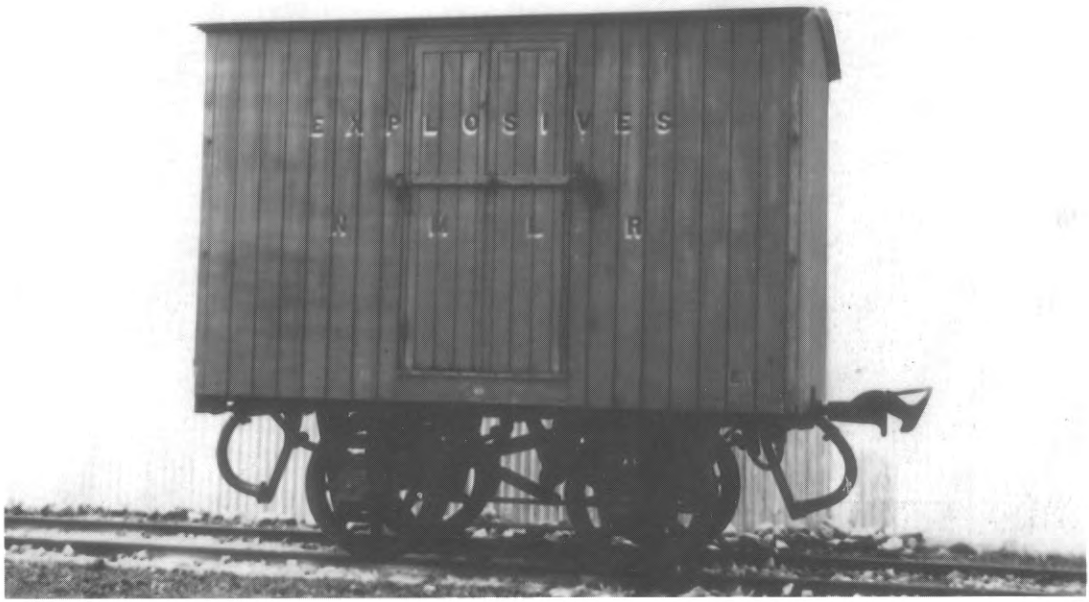
were classified separately: A-class Nos 1 to 14 for the ordinary goods wagons, and I-class Nos 1 to 6 for the wagons convertible to timber carriage.

The next type of wagon were the four-wheel ore hoppers, designed by Jones and fitted with a hopper which could be removed from the frame for discharge via bottom doors. These wagons were built by Hurst, Nelson & Company of Motherwell in Scotland and originally consisted of an order of seventy vehicles. Some time after placing the order it was decided to build sixty-nine hoppers and the remaining frame was used as the basis for a powder van for the carriage of explosives. It was fitted with a small tongue and groove pine board body. The arrival date of these vehicles on the railway is not clear, but it appears that they did not arrive until January 1900. The hopper wagons became G-class Nos 1 to 69 and the explosives van was classified E-class No.1.

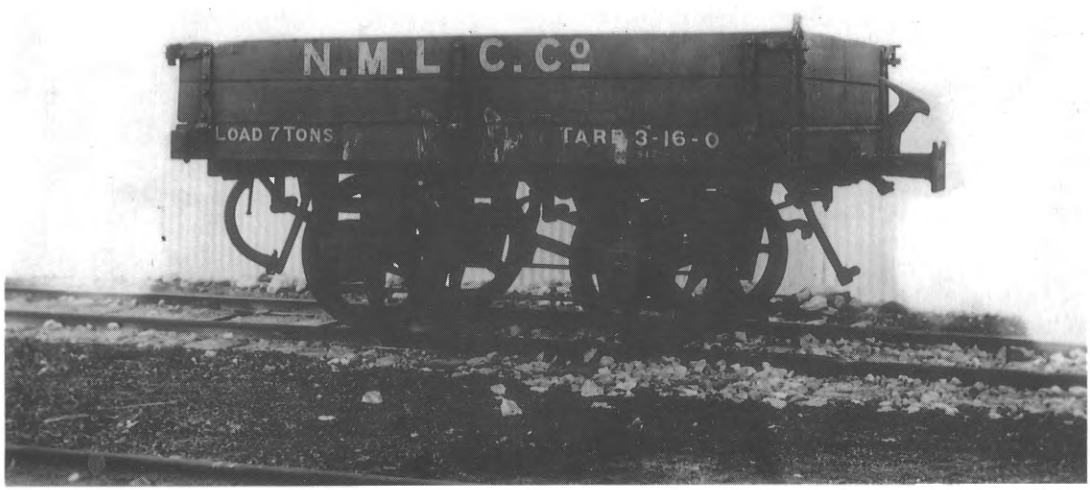
At some later stage, possibly by 1902, two of the hopper wagons were rebuilt into small into small two-plank open goods wagons which were similar in style to the bogie wagons, but with a single fold-down door each side and fixed ends. The only known photos of these wagons do not appear to show a classification number.

The disposition of the goods wagons after the 1903 merger is a difficult problem to solve, made more complex by the fact that many of the wagons were rebuilt by their new owners into configerations which did not resemble the originals and that many of the bogie wagons had their bodies removed to make them more suitable for timber carriage, thus making identification difficult. The first movement of this stock away from the North Lyell railway took place in 1906, when forty of the 4-wheel hopper wagons were sold to the Emu Bay Railway (EBR). As far as can be ascertained, none of them retained their hopper bodies on the EBR. Thirty-five were rebuilt into low-sided open wagons — C-class Nos 1 to 35. Although they were initially fitted with two planks in similar manner to the North Lyell conversions, they varied from two to four and a half plank sides in later life. At least three have been preserved. One No. C 14 is owned by the Bellarine Peninsula Railway in Victoria, C 2 is now on the Don River Railway at Devenport and C 22 is with the Tasmanian Transport Museum at Glenorchy in Hobart.

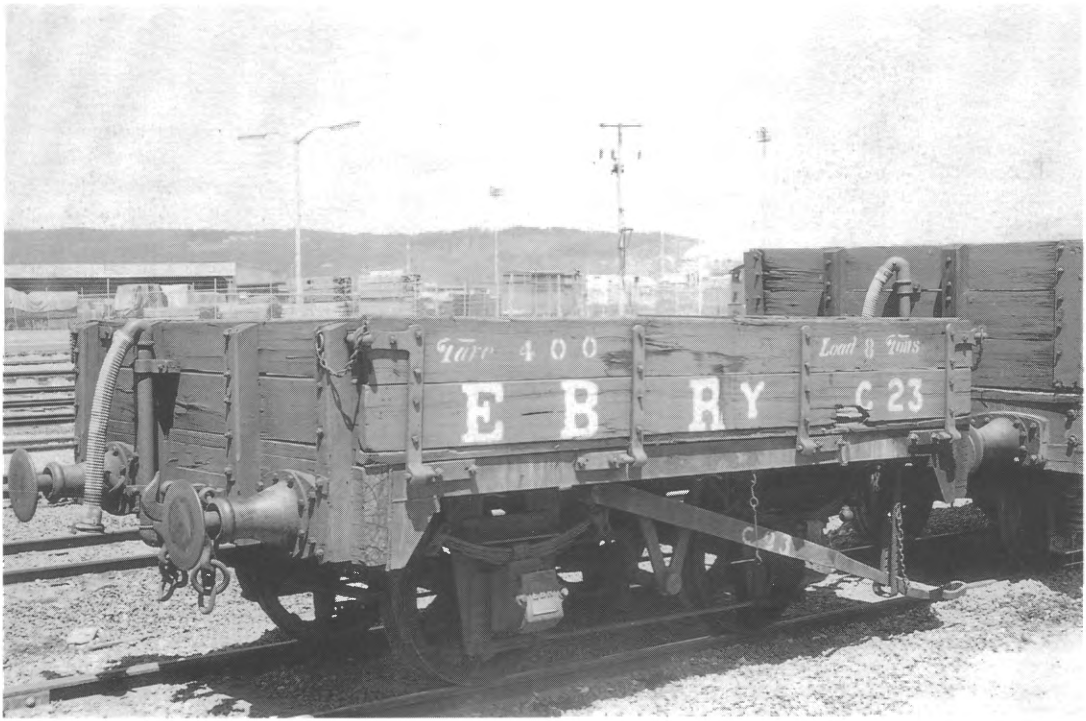
The EBR used three of the remaining five hopper wagon frames as the basis for their steel bodied 4-wheel insulated meat vans, which became



4-wheel explosives van, E-class No. 1, was built on the underframe of a Hurst Nelson hopper wagon c.1902.
State Archives, courtesy Lou Rae



A 4-wheel open wagon built on the underframe of a Hurst Nelson hopper wagon c.1902. No record has so far been found of its class or running number.
State Archives, courtesy Lou Rae



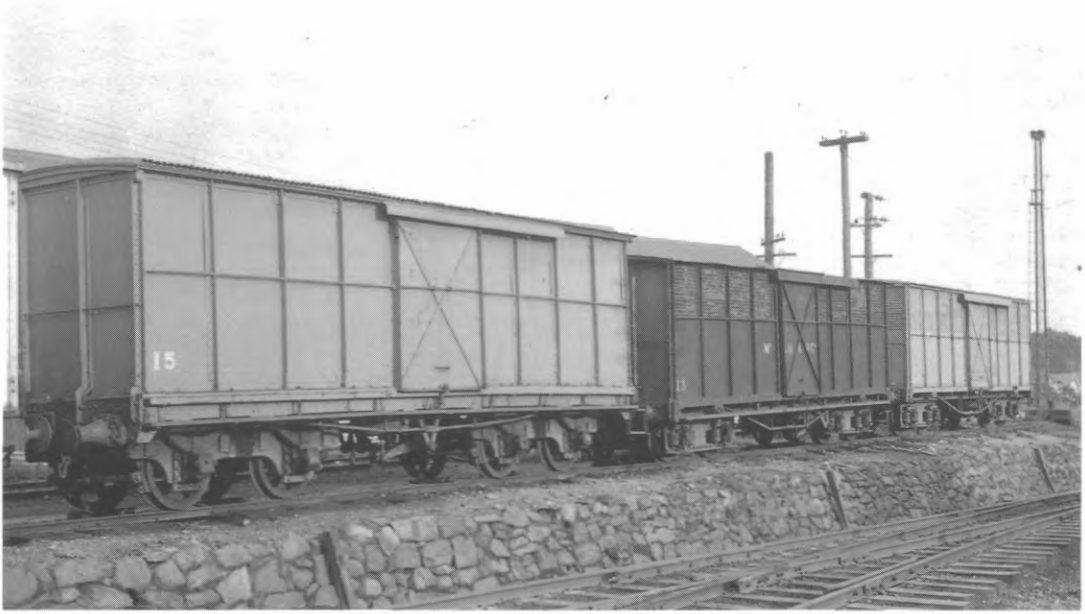
Emu Bay Railway 4-wheel wagon C23 was built on the underframe of a Hurst Nelson NMLR hopper wagon and looks much like the NMLR's own 4-wheel open wagon. Photo: HJW Stokes

CM-class Nos 1 to 3. The remaining two probably became 4-wheel flat wagons — F-class Nos 5 and 17 — as both have been noted as having North Lyell axle box covers, although this is not positive proof of their origin.

It is only possible to surmise when the next movement of stock from the North Lyell railway took place, but it seems to have been in late 1921 or early 1922 when the carriages were sold and moved out, in 1925 when the lower end of the line was closed, or 1928 when the rest of the line was closed. It is almost certain that remaining movements were exclusively to the Mt Lyell railway in line with their policy to retain all surplus stock which could be put to further use on their railway. Twenty-two of the hopper wagons were transferred, although it seems that many of them may have been renumbered to fill gaps created by the earlier sale to the EBR. On the Mt Lyell railway they were noted with no class identification and numbers in a range of 1 to 22. Some of them were also noted at this time with straight steel extensions fitted to the tops of the hoppers, but it is not known whether this was done at Mt Lyell. The Mt Lyell railway used these wagons until 1952 for loading pyritic concentrates onto ships, a job to which they were well suited with their removable hopper body. Twenty of them were noted derelict at Regatta Point in November 1962. It is interesting to note that they still retained their original North Lyell couplings (see below). Presumably they were worked as a block train with a 'match' truck at each end.

At least some, and possibly all of the twenty bogie open and timber wagons were transferred to the Mt Lyell railway within the time span mentioned. It is likely that a number of them were, by this time, only frames or flat wagons. The Mt Lyell railway used the wagons as a basis for a variety of conversions. In 1962 it was noted that many of their K-class two-plank open wagons were built on North Lyell underframes, as were some of the class operating as flat wagons. At least one was used as the basis for a steel bodied I-class goods van (I 5) which was noted as having a North Lyell underframe. Just what happened to the two 4-wheel open wagons, the explosives van and the remaining ten hopper wagons is not known.

Emu Bay Railway 4-wheel steel goods vans Nos. 3, 2 and 1 built on the underframe of Hurst Nelson hopper wagons ex-NMLR. Photo: HJW Stokes



Mt Lyell steel bogie vans Nos. I5, I3 and I1 at Queenstown in 1963. No.I5 was built on the underframe of a NMLR bogie open wagon from the Bristol Carriage & Wagon Company. Photo: HJW Stokes

The Lima Wagons

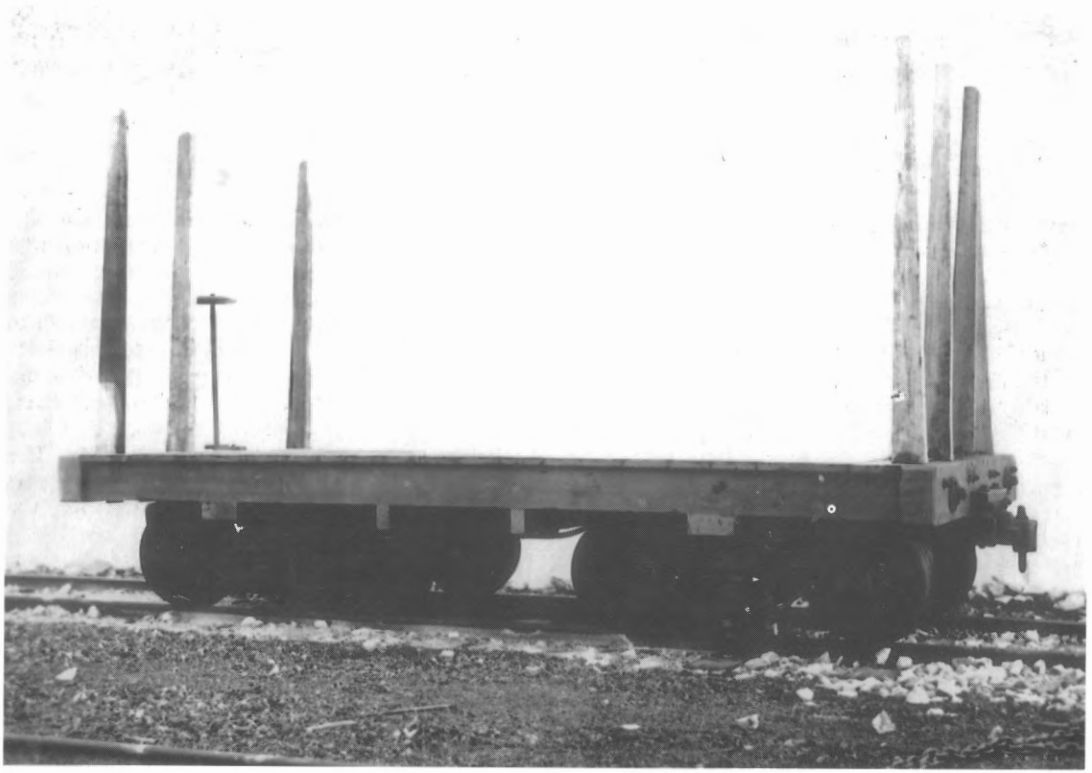
When the Shay were ordered from America in September 1901, an order was placed with their builders, the Lima Locomotive & Machine Company, for 16 flat wagons. Ten were delivered, most likely with the Shays in 1902. Apparently Trent put a stay on delivery of the other six, as in February 1903 the North Lyell company received a curt letter from Lima saying they still had the iron work on hand for these wagons and what would they do about it! The balance of the wagons were never delivered and, in 1903, it was noted that five of the wagons received still were under construction.

The vehicles did not conform to the standard of the other North Lyell wagons. The only photo of one shows a typical American-style flat car with archbar trucks, wheel handbrake on a pedestal at one end, and fitted with timber stanchions at each end. According to archival correspondence they were fitted with standard North Lyell couplings, but the photo shows a rather unusual link and pin/knuckle style coupler. These would not have been compatible with other North Lyell wagons.

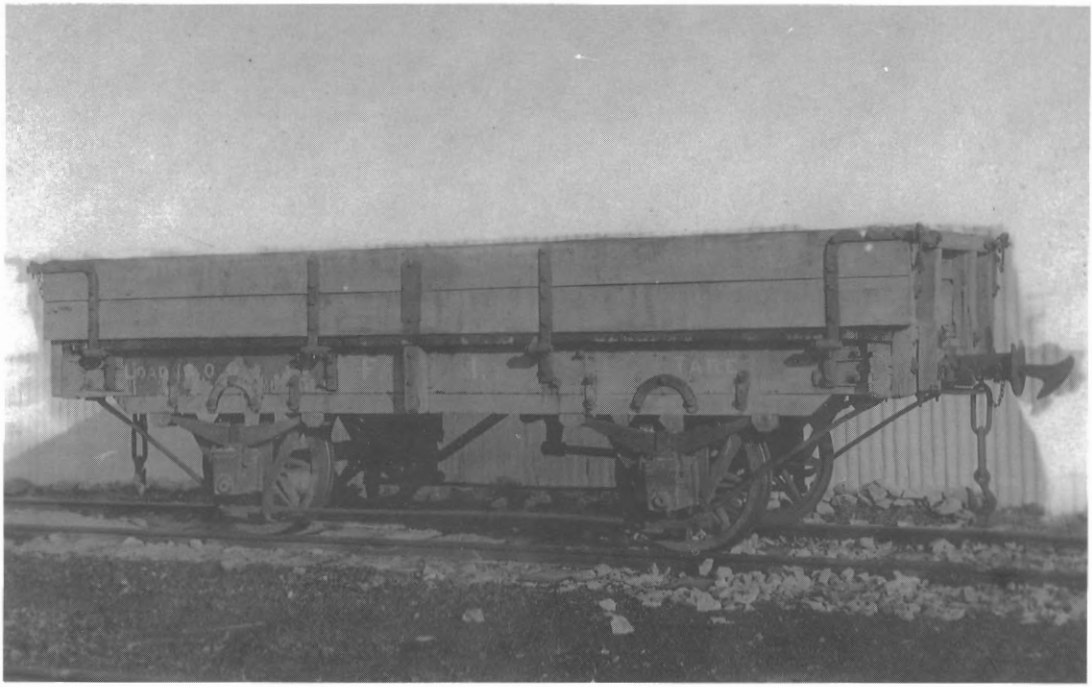
No class designation or running numbers appear to have been applied and they were referred to in records as 'Lima wagons'. Their disposition is not known, but as they were non-standard, it seems unlikely that they went elsewhere.

Couplings, Brakes and Underframes

The couplings fitted to all North Lyell locomotives and most of the rolling stock were quite distinctive. They were a 'chopper' style centre buffer/coupling, quite different to the type found on Western Australian and South Australian railways. Set at 3 ft 6 in. (1067 mm) above rail height, they were very different to the rest of Tasmania's railways, which employed the side buffer and screw coupling arrangement set 3 ft (914 mm) above the rail. The North Lyell couplers were a Jones design, known as the Jones & Calcroft Patent Centre Buffer and their main claim to fame was that, unlike other 'chopper' style couplings, they allowed vehicles to couple automatically on sharp curves. The arrangement seems to have been successful on the North



One of the ten 8-ton capacity flat wagons built by Lima and fitted with stanchions for the carriage of firewood. Note the non standard coupling.
State Archives, courtesy Lou Rae



The rolling stock used by contractors Baxter & Sadler for construction of the NMLR is described in *Light Railways* No. 107, p19-20. This 4-wheel open wagon was taken into NMLR stock and classed F No.1.

State Archives, courtesy Lou Rae

Lyell railway, but apparently the design was not taken up as the author has never heard of them being used elsewhere.

The vacuum automatic brake, using two inch train pipes, was adopted as standard on the railway. The three Avonside 4-6-0s were all fitted with ejectors and brake cylinders as well as steam brakes on the engine. The Shays also had engine steam brakes, but only Nos 4 and 6 had vacuum equipment. They were fitted with ejectors for creating a vacuum throughout the train, but not brake cylinders. The passenger cars and brake vans had two cylinder vacuum brakes and screw hand brakes, whilst the vans were also fitted with vacuum gauges and instant release valves. The A- and I-class bogie open wagons and G-class hopper wagons were all fitted with two cylinder vacuum brakes and side lever hand brakes, but the explosives van had only through vacuum pipes and side lever hand brakes. The 4-wheel open wagons and contractors wagons were only fitted with side lever hand brakes, while the Lima wagons had a hand pillar wheel brake only.

The main dimensions of all the vehicles are shown in the accompanying table. It is worth noting that the brake vans and A- and I-class open wagons all shared a common underframe design, as did the four-wheel hopper wagons, explosives van and open wagons.

Other Rolling Stock

The North Lyell railway also owned two travelling steam cranes. One of these was the 8 ft (2352 mm) gauge 10-ton capacity crane used on the railway or breasting wharf at Kelly Basin. The other was a smaller 2-ton capacity crane on 3 ft 6 in (1067 mm) gauge used at Crotty Smelters. The builder (or builders) of these cranes has not so far been located, although it seems likely that they were of British origin.

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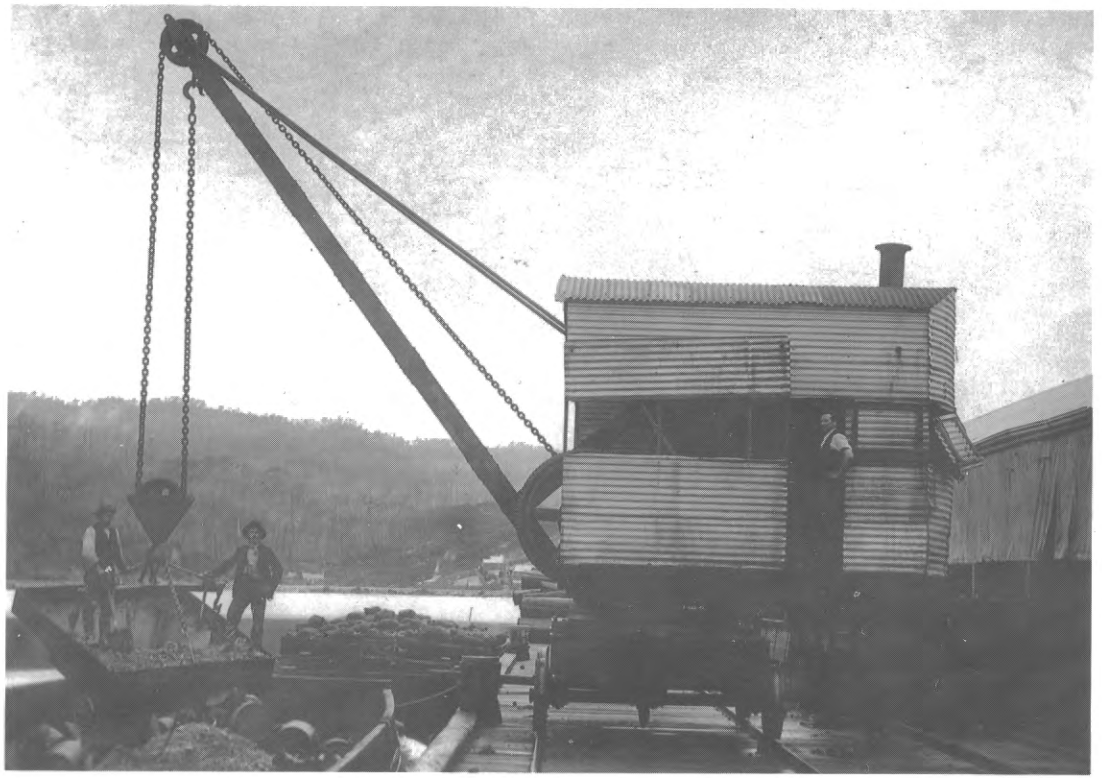

10-ton capacity steam crane (builder unknown) which operated on an 8 ft gauge track on the wharf at Kelly Basin c1902.
State Archives, courtesy Lou Rae

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Acknowledgements

The following have individually or collectively assisted the author in his research: Doug Abel, Professor Geoffrey Blainey, George Bond, John Buckland, Tony Coen, Ken Flood, Joe Henry (NZ Ship & Marine Society), Greg Johnston, John Knowles, Ken Milbourne, TJ Lovell-Smith (Union Shipping Group), RH Parsons (Australian Maritime Historical Society), Loe Rae, Jack Shennan, Jim Stokes, and the staffs of the Tasmanian State Archives and Melbourne University Archives. Geoff Thorpe drew the maps and diagrams, which were based on information supplied by Tony Coen. Grateful thanks are extended by the author.

TABLE OF LOCOMOTIVE DIMENSIONS — NORTH MT LYELL RAILWAY

Running Numbers or Names		TOM CUE	YALGOO/MURCHISON	1-3	4	5	6	MALVOLIO
Type		0-6-OST	2-6-0	4-6-0	Shay	Shay	Shay	0-6-OST
Builder		Hudswell Clarke	Dubs	Avonside	Lima	Lima	Lima	Sharp Stewart
Works Numbers		378	3385-3386	1392-1394	698	697	704	2030
Year Built		1891	1896	1899	1902	1902	1902	1869
Cylinders - diam. & stroke (in)		7in x 12in	14in x 20in	15in x 20in	8in x 12in	7in x 12in	11in x 12in	9½in x 15in
Wheel Diam.	coupled	2'0"	3'6"	3'6"	2'2"	2'2"	2'6"	
	leading	—	2'0"	2'2"	—	—	—	
Wheelbase	rigid		10'0"	9'3"	3'6½"	3'6"	4'4"	
	total E & T		32'7½"	36'10¾"	24'0"	21'0"	28'3"	
Heating Surface	tubes - sq ft		660	841				
	firebox - sq ft		60	90				
	total - sq ft		720	931				
Grate Area	sq ft		11.7	13.5	12.5	7.5	20.5	
Boiler Pressure			130	175	180	150	180	
Water Capacity	gallons		1,250	1,250	1,000	500	1,800	
Fuel Capacity			100 c/ft	250 c/ft	3,500lb	1,400lb	6,500lb	
Loco Weight	— working order	20t	31t	41.5t	25t	15t	40t	15t
Tender Weight	— working order	—	15.5t	10t	—	—	—	—
	Total working order	20t	46.5t	51.5t	25t	15t	40t	15t
Load on 1 in 40 grade (max.)				120 tons	113 tons	80 tons	180 tons	

NOTES:

1 Those dimensions not shown are not known to the author

2 The dimensions for *YALGOO & MURCHISON* are based on those for *MURCHISON* when at Mt Molloy by which time boiler pressure may have been reduced from original.

3 Shay No 4 had 3 cylinders, No 5 2 cylinders and No 6 3 cylinders. All were 0-4-4-OTg and wheelbase shown is for each powered bogie.

4 *MALVOLIO* was originally built as an 0-4-OST but rebuilt to 0-6-OST in Tasmanian Govt Rlys Launceston Shops in 1884.

TABLE OF ROLLING STOCK DIMENSIONS — NORTH MT. LYELL RAILWAY

Type of Vehicle	Open Wagons	Bolster Wagons	Hopper Wagons	Lima Flat Wagons	Contractors Wagons	Explosives Van	Open Wagons	Brake Vans	Passenger Carriages
Class	A	I	G	Lima	F	E	?	D	Composite ½
Running Numbers	1-14	1-6	1-69	(five)	1-6	1	(two)	1-7	1-3
Builder	Bristol	Bristol	Hurst Nelson	Lima	various	Hurst Nelson	rebuild	Bristol	Metropolitan
Year	1898	1898	1899	1902	various	1899	?	1898	1899 ?
Width (extreme outside)	7'9"	8'10½"	7'10"	7'6"	6'6"	8'1"	7'9"	7'10"	8'6½"
Length (over headstocks)	28'0"	28'0"	10'6"	16'0"	13'0½"	11'5"	11'5"	28'0"	37'9"
Height (above rail)	8'0⅛"	3'6¼"	5'9"	2'8"	4'11½"	11'0"	8'0⅛"	11'5½"	12'9¼"
Number of Wheels	8	8	4	8	4	4	4	8	8
Bogie Wheelbase	4'9"	4'9"	—	3'10"	—	—	—	4'9"	5'0"
Total Wheelbase	21'9"	21'9"	5'3"	12'4"	7'6¼"	5'3"	5'3"	21'9"	32'11"
Tare Weight (tons/cwt/qrs)	10.7.2	10.3.0	4.6.0	3.0.0	3.0.0	4.6.3	3.16.0	11.10.0	14.8.0
Capacity (tons)	25	25	8	8	6	7	7	25	—

NOTES:

1 The explosives van and two 4-wheel open wagons were all rebuilds on hopper wagon underframes.

2 Lima flat wagons — 16 were ordered, but only 10 delivered of which 5 were never erected.

3 4-wheel open wagons were rebuilt from hopper wagons after delivery to North Mt Lyell Railway; work probably undertaken at Kelly Basin.

4 The bogie bolster wagons were similar to the bogie open wagons. Dimensions shown here are when in use as bolster wagons.

THE BUDERIM MOUNTAIN TRAMWAY

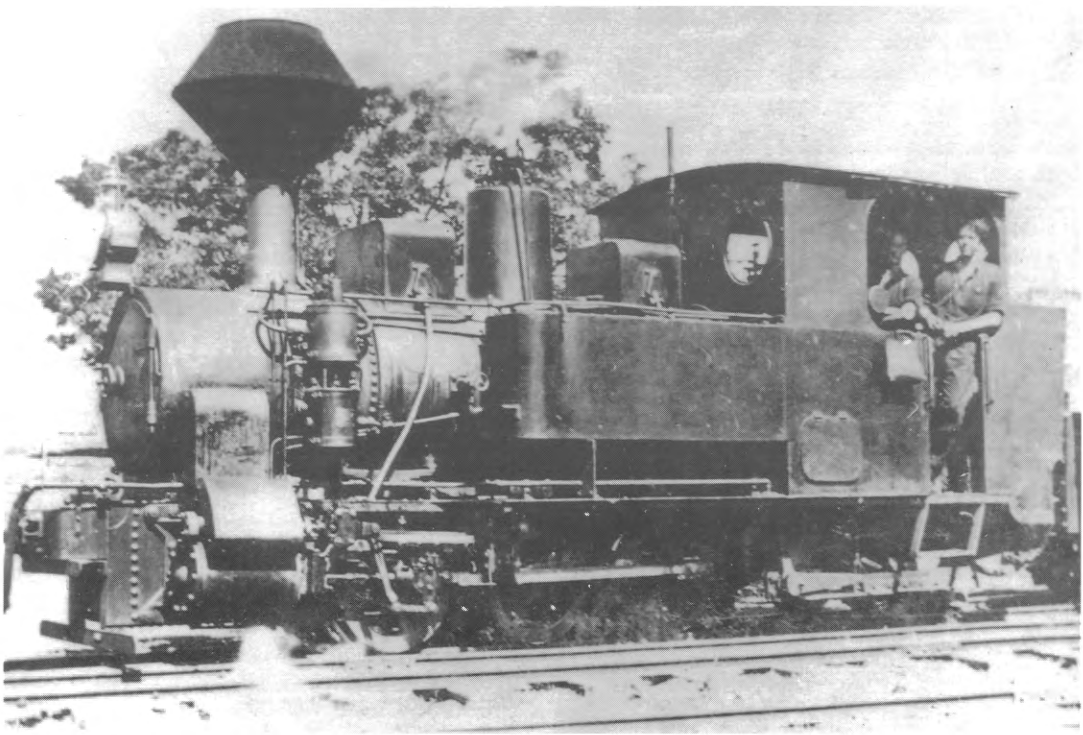
by Ella M Hennell[1]

During my childhood, my father operated a farming property in the hills which surrounded the Buderim district in Queensland. Not the least of my childhood memories is that of *The Tram*, the principal means of transporting the farmers' produce from Buderim and elsewhere to the Queensland Railway's facilities at Palmwoods. Accommodation was also provided on the train for any passengers offering, and so the tram and its 2ft 6in gauge track were very much part of life of the area during the period between the wars.

Among my friends at Buderim was — and still is — a girl named Sybil Vise, whose father, Ambrose, settled in the district at much the same time as my own family. Now, Ambrose was a public-spirited man, and he participated in all activities which would enhance the amenities of the area and better the conditions under which the local people lived and worked. Thus, when there was movement afoot to obtain railway communication for the dwellers of Buderim Mountain, Ambrose found himself on the committee which fronted up to the Minister for Railways seeking his cooperation.

Although the committee failed to achieve early success, such a worthwhile project was not to be dismissed lightly and further action was taken to bring the matter to a successful conclusion. Some years later, Ambrose Vise put pen to paper to preserve for posterity the story of the struggle to achieve *The Tram*, and of his part in turning a dream into reality.

Here then, in Ambrose's quaint style, is a first-hand account of how Buderim won its railway[2].



The Maroochy Shire Council imported this 0-6-2T Krauss locomotive (B/N 6854/1914) through Diercks & Company of Melbourne to operate the Buderim Tramway. Walkers Ltd regauged it in 1935 for the Bingera Sugar mill's 2ft gauge operations. It is now owned by the ANGRMS Durundur Railway at Woodford. EM Hennell collection.

Buderim Tram 1914-1935

Origin of the Tramway

After my arrival here I soon identified myself with all local movements for the public good and used to attend all meetings called for any purpose on Buderim Mountain. The roads were in such a terrific state that we decided something must be done about it. A committee was formed, of which I was a member, and a deputation went to Brisbane to try and get the Government to give us railway communication. We interviewed the Minister for Railways and made out, as we thought, a good case; but, he pulled it all to pieces saying, "You are within eight miles of the railway now and there are so many other places in the back country clamouring for rail connection that I cannot recommend your claim."

We then decided to see what could be done about getting a tramway for which the Shire Council would have been responsible to the Government. Some years before, these plans had been discussed, but they came to nothing always. The rock on which they split was the question of route. There was a man of outstanding ability on these matters, Mr Jas Lindsay, who, if not the originator, always took a leading part in any movement for public good.

After the rebuff by the Minister for Railways, Lindsay called a meeting on the mountain for further discussion of ways and means. Of course I was there, and he was in the chair. He said:

> We have had previous meetings here on this subject and have always ended up doing nothing. Now the time has come when something **must** be done, and I have a proposition to put before you with this end in view. Before anything can be done about getting a tramway, a practical route must be found and to get this a trial survey must be made. I estimate the cost of this at 250 pounds. Now Mr Foot and I have put up one hundred pounds between us for the job. It is up to you people, if you really mean business, to put up the balance. Now, what about it?

Then Lindsay took out his notebook and asked every man in succession what he was prepared to give. He started at the first row of seats. "Now, Mr Wallace Burnett, what can I put you down for?" "Five pounds." His brother, who was next to him, said "I will give ten pounds." Wallace then said, "If he can give ten pounds, so can I." He went though the whole assembly and the amount was promised. "Now, what I propose is that we leave the choice of route entirely to the engineer making the survey." This was agreed to, thus by-passing the fatal rock on which previous discussions had foundered.

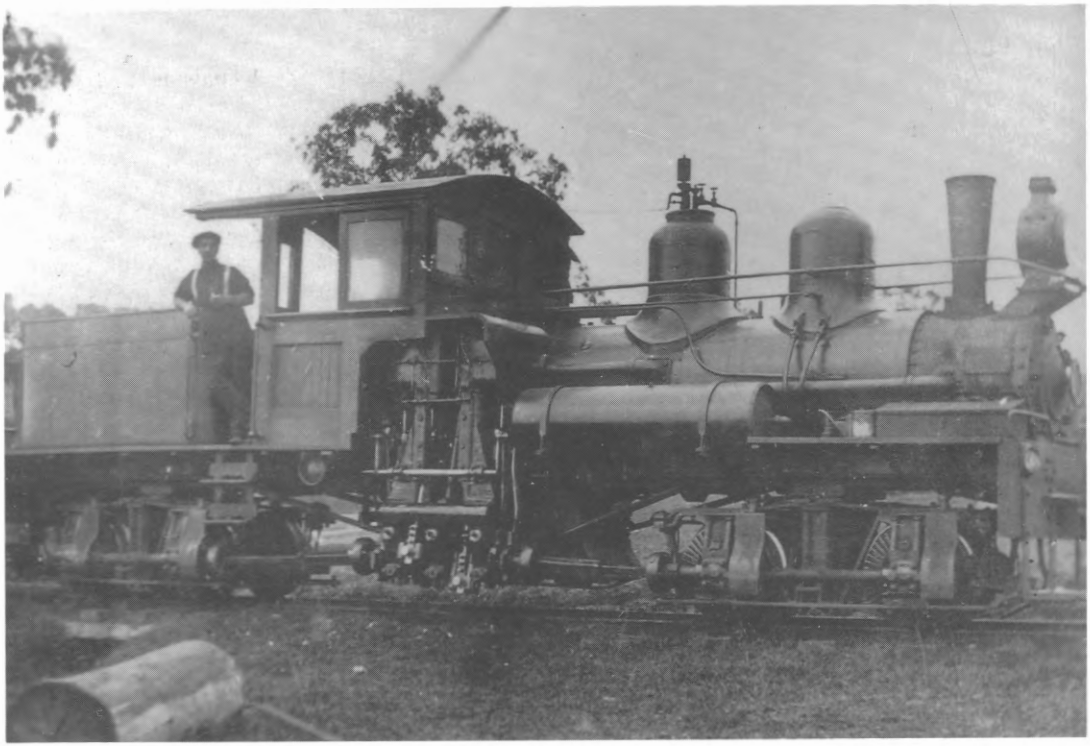
The engineer who was given the job was a prominent man who had done a lot of railway surveying for the government. There were three possible routes and, after trials on each of them, Palmwoods was chosen as the nearest point on the railway to make for. Most of us wanted a connection at Woombye, but to get that, it would have been necessary to go right through the township and that would have meant too much for resumptions. In fact, this would have amounted to £7000 more than the route chosen. Another route to Nambour was discarded on account of the prevalence of landslides on that side of the mountain.

After finishing the survey, he (the engineer) estimated that he could build and equip the line with engine and rolling stock for £18,500. This burden we thought we could carry. The next job was to strike the boundaries that would be benefited by the construction of the line and then to task a poll of the people in this area to see if they wanted the line built. The people in this area would have to be responsible for the repayment to the Government of money that was to be loaned for the purpose. The money was, of course, to be loaned to the Shire Council, which in turn would levy a special tram rate over the area. The voting was strongly in favour of the loan.

I was a member of the original tramway committee which had attend to the business. There were six of us — this was in 1912 — and of this committee now in 1950, I am the sole survivor, really the "last of the Mohicans" all the others having "passed on".

Construction

In due course the work was commenced. All money was handled by the Council and all work to be done arranged through them and the engineer. Although we would ultimately have to find the money, we had not say in the expending of it. Some things were being done we did not approve of, considering them a waste of money or unnecessary, and we complained to the Council. Whereupon we were allowed to form what was called an advisory council of which I was a member. We met regularly to discuss natters and then passed decisions on to our Council representative, who brought the matters up at Council meetings. This went on for several months and then Lindsay (the councillor) bluntly told us:



This B-class Shay locomotive was imported from the Lima Locomotive Works (B/N 2823) in 1915 for the Buderim tramway. EM Hennell collection

You fellows are only wasting your time over these meetings, because the Council takes no notice at all of your recommendations. As soon as tramway matters come up for discussion, some members go out to get a drink, whilst others open their newspapers and start reading.

The fact is none of the others were from the benefited area and therefore were not financially interested in any matters connected with the tramway. This, of course, was not satisfactory to us, especially when we could see things going wrong and had no power to intervene to get an alteration.

Then the war came and prices of materials and labour increased greatly. Then the engineer came forward and said he could not build the line for under £27,000. This was a great knock-back, because the Government was limited by Act of Parliament not to advance more than £3000 per mile and the tramway was seven miles long. This meant a long delay in operations, as a special Act had to be passed, authorising the Government, in this instance, to advance up to the amount of £27,000.

Then work was resumed, but the previous conditions continued and, in addition, the engineers made bungles in their work which seemed wholly inexcusable. Here are a few instances that came under my special notice, as they occurred not far from my home. The tram had to cross a low swampy piece of land. Over this an earth embankment had been built with two small openings, each about six feet wide, to carry off the water which came down after rain. Men living nearby and knowing the locality told the engineers that the openings were not nearly large enough to carry off the water there would be during heavy rain. These men were snubbed and told that, as engineers, they knew what they were doing, having measured the catchment area and calculated accordingly. One night soon after, a heavy fall of six inches came down and most of the embankment disappeared. This of course necessitated another embankment as well as a viaduct instead of the two small openings. This development **should** have made these cocksure engineers feel rather small — I don't know if it did.

Another instance of inefficiency was shown in making a rock cutting about 50 yards long. It was on a sideling slope with a drop of several hundred feet on the lower side. Blasting powder was being used, and so that the rock would not be shattered too much where the sleepers had been laid, the last foot of the cutting was taken out with a hammer and gads, a slow and tedious process. When this was finally done, the engineer came along to inspect and said a miscalculation had been made — although he did not admit this really — and that another foot had to come off by the same means (hammer and gad). This was not the end of it, for when this had been done it was found that another foot had to come off.

Mistakes like this were very costly and meant that in the end we unfortunate farmers would be called on to foot the bill for the bungles that had been made. One more instance. An earthen cutting had been made through a spur, the earth taken out being used to form an embankment lower down (what is technically known as cutting and filling). A lot of water would accumulate in such a cutting, and no provision had been made for it to get away. After some heavy rain the water rushed out at the end of the cutting on to the embankment, with the result that most of the embankment disappeared. The width of the cutting had to be nearly doubled to get more earth to build it up again.

It was not very long before the boss engineer came along and said the £27,000 would not be enough to finish the line. In spite of the Acts of Parliament and everything else, as the Government had advanced so much money already, the job could not be left half done and it had to be completed. The final cost was nearly £40,000, or just about double the original estimate. Had we known it would cost as much as that we should never have shouldered the burden of debt. Again, could we have foreseen the development of motor traffic, there would never have been any tram at all.

Tramway Opening

They say all things come to an end, and after many delays, the job of building the line was completed and the tram's life was about to begin. The Minister for Railways was invited to perform the opening ceremony. He was John Adamson, Methodist parson, also a minister in the Labour Government. It was a great day for us, being the culmination of all the work and worry of the previous two years. Then we had great hopes for the future, which were destined not to be realised, though we got some benefit to start with, being thankful for the spell from carting heavy loads over still heavier roads.

As is usual at such ceremonies, it was customary to stretch a ribbon across the line and let the engine break it. For the honour of holding the ribbon, the

BUDERIM—PALMWOODS TRAMWAY.

BUDERIM TO PALMWOODS.

Miles from Buderim.	Stations.		Mixed. Ex. Wed. and Sun.	Mixed. Wed. only.	—	Fares from Buderim. Single.
			a.m.	a.m.		s. d.
...	**BUDERIM**	dep	*7 30	9 0	...	...
2	Telko	...	7 40	9 10	...	0 6
4	Forest Glen	...	8 0	9 30	...	1 0
5	Chevallum	...	8 10	9 40	...	1 6
7	**PALMWOODS**	arr	8 20	9 50	...	2 0

PALMWOODS TO BUDERIM.

Miles from Palmwoods.	Stations.		Mixed. Daily, except Sundays.	—	Fares from Palmwoods. Single.	—
			a.m.		s. d.	
...	**PALMWOODS**	dep	*11 15	...	...	...
2	Chevallum	...	11 25	...	0 6	...
4	Forest Glen	...	11 40	...	1 0	...
5	Telko	...	11 50	...	1 6	...
7	**BUDERIM**	arr	12 5	...	2 0	...

* Connects at Palmwoods on Monday, Tuesday, Thursday, Friday, and Saturday with the 7·10 a.m. Train from Gympie to Brisbane; also with the 8·10 a.m. Train from Brisbane to Gympie daily.

The Commissioner for Railways is not responsible for the running of Trains over the Buderim Tramway.

For Notes (a, d, &c.), see page 1.

A typical train on the Buderim mountain tramway hauled by the Krauss locomotive. EM Hennell collection

committee thought it would be a nice idea for the oldest woman on the mountain, one of the old pioneers (Mrs Caton), to do this but, when approached on the matter she refused, saying' "I should be afraid of being run over." Then they decided to have two of the school children. But, as there were lots of *Kanakas* in the school, it would have looked bad to have one, or perhaps two of them to do the job. Of course the kids were all eager about it, but the headmaster was equal to the occasion and, in the drawing of lots, he managed so that two pretty little white girls were picked who were not scared at the prospect.

Operation

As the cost of the tram had been excessive, it was necessary for us to pay heavy freights. The distance was only seven miles, but we agreed to pay (for a start anyway) as much as it had been costing to cart fruit to Woombye — viz one pound per ton — and the return fare to Palmwoods for passengers was fixed at 5/-.

Once the route had been fixed, we had to have stopping places along the line for loading fruit and all these places had to have a name. There were five such places in the distance. I had only a mile to cart my stuff to Telko. We had a stopping place nearer than that, but it was only for mails and passengers, as it was too steep to get any vehicles down to, being about 200 feet below the level of the road. We called this place Mons. In order to pick a name a meeting of all those concerned was held at my place. Each one suggested a name and wrote it on a piece of paper. My wife drew the winner and it was Mons. I had said before, "Let's have a short name. It will be easier to write on consignment notes."

For a little while things went on pretty smoothly, till a good bitumen road was made to the seaside at Maroochydore. This road ran close to the foot of the mountain and it was not long before motor lorries found their way up and started taking loads of fruit direct to the railway. This saved one handling of fruit and, besides, the freight they charged was much less than the excessive rate we were compelled to charge on the tram. Gradually the amount of freight sent from the top of the mountain decreased, though we the people who lived along the line continued to support the tram to the end. The rates could not be reduced as there was such a lot to be paid for interest and redemption to the Government. The amount of loading left for the tramway to carry got less and less. We were getting in a bad way over the reduced earning capacity of the tram and reductions in working expenses had

to be made wherever possible.

Meanwhile, the amount of rates the individual guarantors from the benefited area had to pay got heavier and heavier. One reason for this was that so many farms had got into the the hands of the Government Agricultural Bank and the bank paid no rates at all, leaving less ratepayers to contribute to the total amount we had to pay. Things got so bad that drastic action had to be taken.

Mr HJ Murphy, a comparative newcomer to Buderim, said "What a shame it seems that after all the trouble you have been put to in getting the tram, apart from the money you put into it, that so little use is made of it." He was a really splendid fellow and did not what one man in a thousand would have done. The manager of the tram was being paid a good salary and there was not too much for him to manage then. He (Murphy) undertook to run the tram gratis for six months to see if any improvement could be made. One during this time when the engine had broken down and it would take some time to effect repairs, he sent his own truck and a man to pick up any loadings along the line and deliver it at the railway station at Palmwoods. This was indeed a most generous act, and we people living along the line duly appreciated it and were grateful accordingly. However, the traffic from the top of the mountain continued to decrease until the line could no longer pay working expenses and it had to be shut down.

The Debt Burden

I was on a deputation that went down to interview the Premier (Forgan Smith) to try and get the Government to let us off some of our terrible load of debt. The deputation consisted of HV Fielding, one of the old pioneers, HJ Murphy and myself. We found Mr Smith a very approachable man and quite affable. He sat there smoking his pipe whilst I talked to him and explained our difficulties. I pointed out that, in reality, the Government was in measure responsible for the failure of our tram by making a good bitumen road past the foot of the mountain to compete with loading. Could we have foreseen the future development of motor traffic there would never have been any tram and, again, had we known that the estimated cost would have doubled before it was completed, there never would have been any tram.

He listened attentively and said at the end, "Well gentlemen, I realise that you have an impossible task ahead of you." We went home feeling assured of his sympathy and anticipating that some measure of relief would be given to us. Blessed are they that expect nothing, for they shall not be disappointed. After a six month interval, we are notified that the Government would be pleased to give us a moratorium for twelve months. This was equivalent to nothing at all, simply meaning that payment would be wavered for this year and added onto the end of the period for which the loan had been granted.

After this it was decided that the best thing to do was to realise what assets there were. So the engine and rolling stock were sold, the rails and sleepers were taken up and sold too. Some time later, as things were really hopeless, another deputation was sent down to see what could be done. They had to interview another deputy premier this time. It is hardly credible that any man could be such a fool in his reply. After telling him the line had been closed when it no longer paid working expenses, and that the rolling stock, rails and sleepers had been sold, he was idiot enough to say, "The best thing you can do is to go and put the sleepers and rails back again."

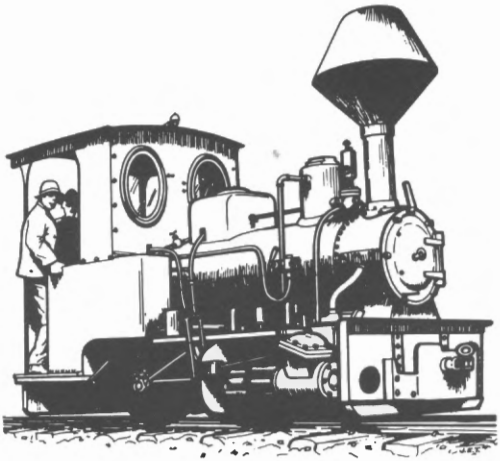
Of course, the Government looked to the Shire Council for the money and the Council looked to us to pay on demand. To bring things to a head, a largely-attended meeting in the Buderim Hall decided unanimously to pay no more rates till we got some relief from the crushing burden (I myself had to pay as much as £25 in rates). The bulk of us stood by our word and notified the Council of our intention. The Government, Shylock-like, insisted on being paid and, when informed of the position, told the Shire Clerk to spread the tram rate over the entire shire. This was a most damnable thing to do — to compel people who had no say about getting the loan and got no benefit whatever from the operation of the tramway, to pay a share of our indebtedness.

According to instructions received, this was done, and naturally it raised a storm of protest from the more distant parts of the shire. They refused to pay and went to law about it. It was found that the Council did not possess the power to do this. What did the Government do then, but amend the Act, making it lawful for the Council to do so. It was not a fair thing, whatever way you looked at it, but it was done and remains done. There are still a good many years to run before the amount owing is finally liquidated[3].

This is "finis" to my description of tramway matters from the inception to the disgraceful and tragic ending.

Notes

1. Ella Hennell is LRRSA Life Member No.1
2. The account is taken from the memoirs of Ambrose E Vise, written in 1950. Permission for their publication has been given by his daughter, Sybil .
3. As at 1950. The final payment was made in 1971.



RESEARCH COLUMN

With this issue of *Light Railways*, we introduce a new column to provide an exchange of information on research topics. It aims to provide updates on research projects being undertaken by LRRSA members and a forum on the activities of other research groups covering topics of interest to our members. Where appropriate, information will also be included on resources available for research into light railway history.

Australian Historic Records Register

The Australian Historic Records Register is the product of a Bicentennial project to describe personal, family, community organisation and business records. It represents the most comprehensive list of paper-based records held in private hands ever to be assembled in Australia. The Register consists of microfiche packaged in a folder and is available from the National Library of Australia for $30 (including packaging and postage), Complimentary copies have been provided to major research libraries and to each local government area for its main library.

Australian Forest History Society

The Australian Forest History Society aims to advance historical understanding of human interactions with Australian forest and woodland environments. A conference on Australian forest history was held in 1988 and the proceedings of this, *Australia's Ever Changing Forests,* are available at $15 per copy. It includes papers on sources of forest history, archival resources and a paper on road/rail policy issues in the Otway Ranges by LRRSA member Norm Houghton. For copies and membership details, contact Dr Kevin Frawley, Dept of Geography & Oceanography, University College, Aust Defence Force Acadamy, CAMPBELL ACT 2600.

Royal Australian Historical Society

The RAHS publishes a journal and a magazine *(History)* for members. The April 1989 issue of *History* contains an article on the Australian Kerosene Oil & Mineral Company operations at Joadja Creek by Leonie Knapman. Membership enquiries to RAHS, 13 Macquarie Street, SYDNEY NSW 2000.

Tasmanian Historical Research Association

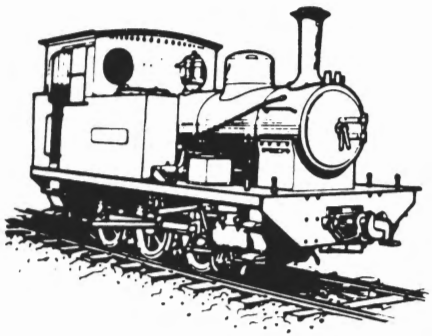
THRA *Papers & Proceedings* for June 1989 contains an article by LRRSA member Lindsay Whitham titled "The bridges, roads and rails of Bridgewater". It covers a detailed history of the four road and rail bridges over the Derwent River at Bridgewater. Copies are available at $5 from THRA, PO Box 441, SANDY BAY TAS 7005.

Industrial Archaeology

Industrial archaeology is concerned with the research, documentation and conservation of industrial sites and relics. Our research into Australia's light railways — with its concern for the economic and historical context in which they operated — is a part of the industrial archaeology movement. The National Trust in New South Wales has recently published an *Industrial Archaeology Policy Paper*, which sets out criteria for assessing the heritage value of industrial sites and the appropriateness of proposed uses.

LRRSA Member's Projects

Notes from members on research projects for inclusion in future columns is most welcome. This includes projects which may be of interest to other members, or topics where publicity through *Light Railways* may bring forth additional information or photographs.



BOOK REVIEW

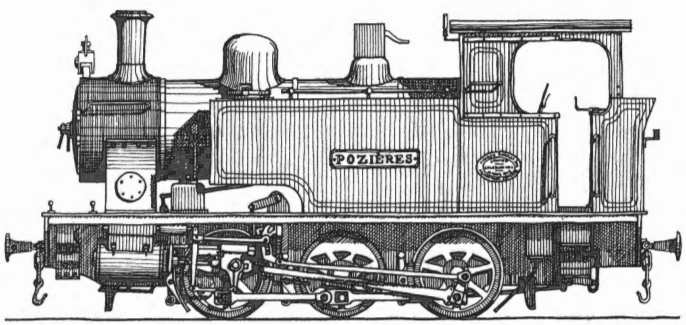
A century of sugar: Racecourse Sugar Mill, Mackay by John Kerr. Published by Mackay Sugar Cooperative Association Ltd, PO Box 5554, Mackay Mail Centre Qld 4741.

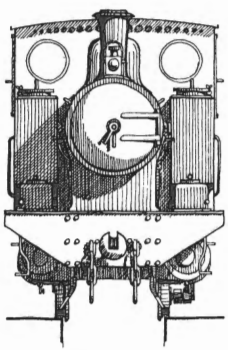
LRRSA member John Kerr is well known for his books on various aspects of Queensland history, and Racecourse Cooperative Sugar Milling Association was indeed wise to commission him to write their Centenary History. The subject this time is one he is particularly familiar with, having spent much of his youth close to the mill. Since the book was commissioned, Racecourse has become part of Mackay Sugar, as chronicled in the latter part of this 224 page book.

The history of Racecourse sugar mill is closely bound up with the development of the Mackay district. As the mill depended on the Mackay Railway for much of its cane, it encouraged far-flung farmers to grow cane, and more often than not, feeder tramways brought cane to the QGR siding. The story of CSRs Homebush mill, which came under the Racecourse orbit in 1927, is dealt with in detail. It was only on taking over the Homebush tramlines that a main-line tramway was built to serve Racecourse mill directly for the first time.

The book is obviously the fruit of much research and is copiously illustrated in black and while and colour. The development of mill plant, including tramways and locomotives, the lives of farmers and of the ever-developing technology of cane farming, and the interplay of mill and industry politics are all treated well. This is a very good book, essential reading for all those interested in the sugar industry. It is very good value indeed for a hard-cover book at $22.50 posted.

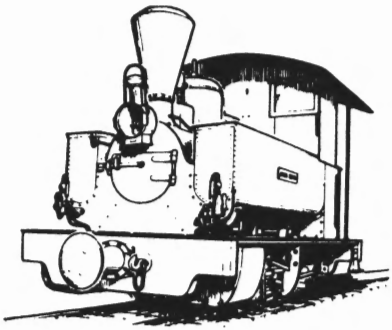
JKB





R.T. HORNE MARCH 1987

BROKEN HILL ASSOCIATED SMELTERS, PORT PIRIE, S.AUST.
'POZIÈRES', BUILT BY ANDREW BARCLAY, 1543 OF 1918



LETTERS

NORTH MT LYELL RAILWAY, LR.105, 106

Thanks very much for the complimentary copy of *Light Railways* No.105. Ray Ellis' article, 'The North Mount Lyell Railway, Tasmania Part 1: Construction' is a more than worthy banner head cum bulk of the issue. Indeed, it is a beauty — comprehensive and well constructed: presenting for the first time (and as good reading) the tracing and mapping out of the North Lyell enterprise and attendant rail facilities.

Frank Strahan
Melbourne University Archivist

The Dubs & Co builder's photo on page 20 of *LR.105* does not show one of the Baxter & Saddler's two locomotives (B/N 3385-6), but B/N 1212 of 1879, first of a batch of four for the New Zealand Government Railways, Nos 107-110, later J.234-6 and 110. Unfortunately no builder's photo was taken of either 3385 or 3386 as they were so similar to the earlier NZ locomotives. The photo on p.19 of NZGR J.259 shows the Vulcan Foundry version, this being their B/N 998 of 1883.

Richard Horne
South Croydon, UK

I would like to say how much I enjoyed reading Ray Ellis' articles on the North Mt Lyell Railway. To bring you up to date, I can add some extra information.

Currently, the Hydro-Electric Commission are building a dam on the King River, close to the site mentioned on p.28 of *LR.106*. This, when filled, will submerge the smelter and village site at Crotty and the King River bridge, which is still in place. It was heavily reinforced for use as a road bridge, but later abandoned in favour of a road bridge further upstream.

The Crotty smelter site is now occupied by a concrete batching plant and little can be seen of the old smelters. For those people wanting to visit the site, the diversion closure which will start the flooding is programmed to take place in August 1991. Filling is expected to be completed by the end of January 1992, depending on rainfall.

The sites at Kelly Basin and Pillinger are unaffected by the HEC activity. A walk into the area is well worth while, although conditions can be wet with plenty of leeches! There is a good campsite at Pillinger and an overnight trip is recommended to allow ample time for exploration.

The headrace tunnel for the new King River scheme is 7 km in length and was excavated with the aid of a quite extensive 3ft 6in gauge railway, which has now been dismantled. The equipment, including *Gemco*locomotives is now being refurbished for use at the Anthony power scheme, also on the West Coast.

I have spent a lot of time walking on the West Coast and would be happy to advise anybody planning to walk to Kelly Basin, the North East Dundas formation or the abortive Comstock line described in *LR.105*.

Wally Mounster
47 Corby Ave
West Hobart 7000

Ray Ellis is to be congratulated on the detailed research he has put into the first two parts of his article on the North Lyell Railway and the presentation of his research. I believe I can add a little more information.

Tunnels: The survey plans of the 'North Lyell and Macquarie Harbour Railway' (9 sheets at 8 chains/inch), signed by Clayton and McEachern, dated 1 April 1899 and certified conditionally by the Engineer-in-Chief (of the Public Works Department) show that initially three tunnels were proposed — the first "about 170 ft. long" at 20.5 miles. From my recollection of the formation, the site of the third tunnel would have been where a deep solid rock cutting still stands.

Gradients: There are unfortunate inconsistencies between the accounts in Parts 1 and 2 of grades and levels from Purgatory Gap northwards. A careful study of the 1:31,680 Pillinger and Lyell C (now superseded) or 1:100,000 Franklin Tasmaps will show that neither is correct in all respects.

The line descended from 908 ft at Purgatory Gap, through the big open cut substituted for the second tunnel at 10.25 miles, in grades of 1 in 40 and 1 in 50, to about 600 ft between 12.5 and 13.5 miles. It then climbed to the Divide, 740 ft at 15 miles. (The Divide is the watershed between the King and Gordon Rivers, where work is underway now on the Darwin Dam, a component of the King River Power Development.) The line dropped to 600 ft again at the Governor River and climbed to about 800 ft at 22.5 miles, before levelling off for 4.5 miles to the mouth of the Linda Valley. All these figures are confirmed by a detailed "Section Showing Grades" of the NML Railway in my collection.

Excavations at 10.5 mile cut: On the northern side of the Gap, the ground dropped away so steeply beyond the open cut that a high wooden trestle was required to bridge a gully. Obviously this must have posed serious maintenance problems and bushfire risks because, in 1915-17, the Mt Lyell Company replaced the trestle with a large embankment requiring 78,032 cubic yards of fill (Tasmanian Parliamentary Papers 1916-17, No.14, p.13; 1917, No.7, p.13; and 1918-19, No.10, p.11.) The three excavations which Ray attributes (rather uncharitably to the railway engineers I believe) to unsuccessful attempts to drive the tunnel, were the borrow-pits for this

Reindeer Lodge at Kelly Basin was a popular spot for railway enthusiasts in the 1960s and 1970s. It utilised the body of one of the NMLR bogie brake vans. Jim Stokes recorded this view in May 1964.

Malcolm Moore/Drewry 0-6-0DM underground locomotive at Clarence, 30 October 1987, shortly after delivery to the Zig Zag Railway Cooperative.

Photo: Peter Jzilezck, Ray Graf collection

huge embankment.

Lindsay Whitham
Mt Stuart, Tas

SOUTH AUSTRALIAN JETTY TRAMWAYS: LR64, 69. 95, 104

I am writing concerning my photograph on page 23 of *LR.104* showing a 4-wheel crane truck of the SA Department of Marine & Harbors on Goolwa wharf, with wheels by Lloyds, Foster & Company. I have now discovered that this firm was established in 1818 with its works at Old Park, Wednesbury, Staffs. It was taken over in 1866 by a neighbouring firm, The Patent Shaft & Axletree Company Ltd, who became well-known as suppliers of railway wheel sets. Thus the crane truck, or at least its wheels, date from 1866 or earlier and there must therefore be the possibility that it originated on the South Australian Government's pioneer Goolwa-Port Elliot horse tramway.

Richard Horne
South Croydon, UK

GHERANG GRAVEL TRAMWAY, GEELONG

A major reorganisation of municipal archives in Geelong region during 1989 resulted in a vast quantity of records being released for public perusal.

Amongst the material were the files of the Gherang Gravel Conference, the operator of the Gherang gravel tramway. The story of this tramway is covered in my book, *The Saddle Line*, pp 27-34 and I do not propose to repeat it here, but the files document the disposal of the tramway and railway siding in 1938-40 and complete the history.

In December 1938, the Conference sold all the plant, tools, buildings and loading platform at the gravel pit to Welling & Crossley Pty Ltd, machinery merchants, of Melbourne for one hundred pounds. Welling & Crossley took possession of only some items for their stock and commissioned EM Purdy & Co to auction the remainder on 13 December 1938. The auction schedule detailed the tramway plant as comprising 8 tons of light steel rails with fishplates, 5 steel side-tipping trucks of 24in gauge, 6 truck chassis and turntable. The files do not show the result of the auction.

The railway siding was next to be abolished. The Victorian Railways agreed to terminate the siding agreement from 31 January 1939 as well as dismantle the siding, make good the mainline and stack the materials on railway land for disposal by the Conference. The VR declined to purchase the rails. The siding was lifted in August 1939 and the rails sold by the Conference for forty-five pounds in February 1940 to GM Steward & Sons, machinery merchants, South Melbourne.

Norm Houghton
Geelong, Vic

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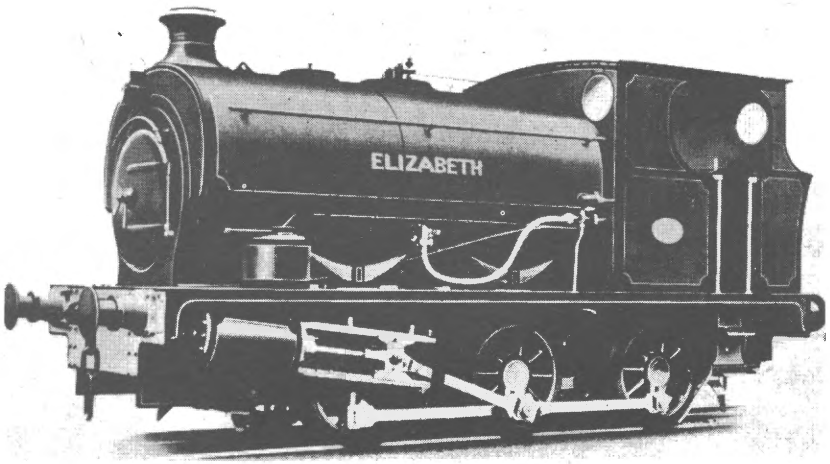

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