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Comment

Welcome to Light Railways number 200. Almost 48 years have passed since issue number one appeared, under the then title of Quarterly Review.

As befits such a publishing milestone, this issue features contributions by three LR stalwarts. Firstly by way of his late father’s evocative colour slides, Phil Rickard takes us on a journey through some of the Society’s early tours of the 60s and 70s.

John Shoobridge tells the fascinating story of an early Australian-built locomotive and its operation on the Burwood Estate railways of Edward C Merewether. Then, Light Railways’ original Editor (and LRRSA member No.2) Frank Starnford provides a wealth of new information on the subject of his grand obsession, the Powelltown Tramway’s Baldwin 2-4-0 LITTLE YARRA. Plus, of course, LR wouldn’t be LR without our regular News, Reviews, Letters and Research pages.

Here’s looking forward to LR number 250, and beyond.  

Bruce Belbin

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 the forests.

Light Railways is the official publication of the Society. All articles and illustrations in this publication remain the copyright of the author and publisher. Material submitted is subject to editing, and publication is at the discretion of the Editor.

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.

Material is accepted for publication in Light Railways on the proviso that the Society has the right to reprint, with acknowledgement, any material published in Light Railways, or include this material in other Society publications.

Front Cover: In 1974, inspired by his son’s purchase of former Moulton Mill 0-4-2T number 7 (Perry 2714/31/1 of 1931), artist Phil Belbin produced two almost identical paintings depicting the loco in a typical North Queensland cane fields setting. One painting remained within the family, the other was sold to Reader’s Digest, who used it on the cover of their magazine in August of the following year, under the title ‘Bringing in the Cane’.

Although the scene was fictitious, with references coming from a number of sources, a former South Johnstone driver declared that at the time the countryside, the mill and the presence of a Perry 0-4-2T (of which his former mill had three) made the scene very evocative of South Johnstone in the 1950s. Upper Back Cover: The Water Wheel Creek Timber Heritage Experience, at Marshanna in north-west Tasmania, features a working tractor locomotive-hauled timber tramway (see LR 197, page 27). In November 2007, Mark Fry was on hand as the loco, trailing a load of logs, emerged from the forest and into the sunshine.

Lower Back Cover: Bingera Mill’s EM Baldwin B-B DH MIARA (898/1 6.80 of 1980) makes smoke as it powers a rake of full cane bins from the old Gin Gin Mill area up to the underpass of the Wallaville-Bungadoo Road, 26 October 2007. This line is built on the formation of the former QGR Wallaville branch and was brought into cane railway use in 1975 following the closure of Gin Gin Mill. Photo: Lincoln Driver
Reminiscing
Early VLRRS and LRRSA tours

Whilst it was in 1961 that the LRRSA in one of its earlier incarnations held its first tour (to Yallourn and Morwell to see the SECV’s 90cm gauge electric railways), it was not until the society’s first ‘big expansion’ years of 1967-70 that tours took place on a more regular basis.

Known at the time as the Victorian Light Railway Research Society, the first major tour was in May 1967 to see the SECV Rubicon and Royston hydro-electric scheme’s 2ft-gauge tramways. Seven months later, on 2 December, a large group participated in the now-legendary ‘Bump in a Bus’ tour which visited sites associated with the Powelltown Tramway, in the Little Yarra Valley, east of Melbourne.

The following year, over the Easter long-weekend, a three-day hiking tour traversed the Ada River Valley, north of the Little Yarra Valley, inspecting sawmill and tramway remains. Two months later followed a visit to the private pleasure railway known as Whistletop near Frankston. 1969 saw three tours – Cheetham’s 2ft gauge saltworks’ tramways at Moolap and Laverton plus the Truganina Explosives Reserve near Altona; the East Malvern Sewer tour; and in October, the State Rivers & Water Supply Commission’s tramways at Tatura and Waranga, in the Goulburn Valley. 1970 brought with it five tours – another Yallourn and Morwell tour, a four-wheel drive tour east and north of Powelltown, a trip to the Lal Lal Iron Co’s historic blast furnace and tramways (which hopefully helped develop members’ interests in industrial archaeology and the place of railways in the wider scheme of things), the Sewer Tour No.2 and finally, in December, the first McIvor tour to look at remains of the McIvor Timber & Tramway Co’s 5ft 3in gauge firewood lines in Central Victoria.

A keen participant on many of these early tours was the late Lionel Rickard, using an Olympus Pen S Half-Frame camera with a Zuiko 30mm f2.8 lens, a handy small camera that did the job fairly adequately. Whilst half-frame slides were only half the size of normal slides the advantage was that you got twice the number for the same price!

Phil Rickard

Society members ponder the amount of fish and chips they would need in order to use this amount of salt. Moolap saltworks. 1 March 1969.

Cheetham Salt Ltd., Laverton saltworks. VLRRS el-cheapo do-it-yourself special train using one of Cheetham’s Simplex diesel locos. The site of the former Laverton salt works is now the Sanctuary Lakes housing development at Point Cooke and there is very little sign of the once extensive salt works tramway system. 1 March 1969.
Above: Prior to visiting Cheetham’s Moolap saltworks on 1 March 1969, a call was made to the recently-formed Geelong Steam Preservation Society’s railway at Belmont Common where a track had been laid using ex-Fyariford cement works equipment. Here we see a rather disreputable ex-Australian Portland Cement No.6, a 3ft 6in gauge 0-4-2ST built by Hudswell Clarke, their No. 646 of 1903. The GSPS later moved to Queenscliff and now operates the Bellarine Peninsula Railway, using the formation of the closed VR branch line. Left: 1 March 1969 Cheetham Salt’s Laverton saltworks used low-lying ground close to the shores of Altona Bay, adjacent to Point Cook. The salt pans were extensive and parts were far from the works buildings. This interesting vehicle is thought to be Cheetham’s version of a mobile dunny, this being the deluxe model with water trough attached. Readers’ confirmation sought. This would make a delightful addition to any model railway. Below: Saturday, 1 March 1969, at the Cheetham Moolap saltworks. A Ruston & Hornsby locomotive hauls a long train of wooden box trucks to the works from the salt pans that skirt the southern shores of Stingaree Bay, the southern extension of Corio Bay, to the east of Geelong.
Top: Carbon and its carriage doing a VLRRS trip on the Whistlestop pleasure railway near Frankston, on the rather gloomy afternoon of 25 May 1968. Ex-West Melbourne gasworks 2ft 6in gauge locomotive Carbon was built by the Belgian firm of Hainault at Couillet, No. 986 of 1889. Whistlestop comprised a lengthy track around a lake and through bushland – it is all under urban housing now! The loco is presently housed on the Puffing Billy Railway.

Right: Powelltown sawmill 2 December 1967. Victorian Hardwood Co's 6-wheeled, chain-driven rail tractor with a Fordson kerosene engine. This machine is of indeterminate origin. Whilst it has Malcolm Moore counterweights at each end of the frame, it may be a Day's Engineering product, much-rebuilt. Retained by the VHC when all other locomotives were disposed of after the war, it shunted the mill yards until about 1965. It is now preserved at the Upper Yarra Valley Historical Society's museum in Yarra Junction.

Below: The first Mclvor toun. Bridge remains at Major Creek just to the east of Triangle, about 13 miles north of Mclvor Siding, 13 December 1967.
Above: At the Ada No. 2 mill, one of the most venerated relics was found at rest. The classically-shaped saddle tank of the VHC's Andrew Barclay 311 of 1888, a diminutive 0-4-2ST locomotive known affectionately (or derogatively) as 'Squirt', seen here on 2 December 1967. A recent visitor to the site could not find it — any further information gratefully received. Top right: Wheels in Ada River. To cross the Ada River, from the bottom of the High Lead incline to the Ada No. 2 mill, a lengthy bridge was constructed in the mid-1920s. From either end of this quarter-mile-long bridge, inclines rose to the north and to the south and it is not hard to imagine where any runaway trucks would come to rest! This set of wheels was one of several noted in the chilly waters of the Ada River, on 2 December 1967. Right: On the four-wheel drive tour to Powelltown and the Ada Valley, on 12 April 1970, a high trestle bridge was still intact on the Federal tramway near Starlings Gap. Below: On the same day, participants on the four-wheel drive tour to Powelltown and the Ada Valley inspect a winch to the north of Ada No. 2 Mill.
Above left: On the four-wheel drive tour to Powelltown and the Ada Valley, on 12 April 1970, trouble was struck in the vicinity of Ada No. 1 Mill, but with many willing assistants we got through! Above right: Waranga Reservoir, 4 October 1969. Before OH&S and PLI ruined life and made people unfit, LRRSA members were an inventive lot and never needed much encouragement to conduct ‘do-it-yourself’ rail specials. Here we see a few members pushing a flat truck up to the main line (the high-level in the background) preparatory to a bit of brisk after-lunch exercise. Below: Waranga Reservoir, 4 October 1969. This small diesel locomotive numbered 18-C-25 was owned by the State Rivers & Water Supply Commission and used on the maintenance tramway at Waranga Basin Reservoir between 1959 and 1994. Superseding horse traction, the locomotive was constructed by George W Sewell of Footscray, and consisted of a skip frame with a petrol engine driving the axles via roller chains. The original engine was replaced by a Petter diesel in 1971-1972. It is now preserved at the Alexandra Timber Tramway & Museum. Here we see it outside its engine shed, below the dam wall.
A locomotive named BURWOOD
by JW Shoebridge

Introduction

For some 15 years, the author has been conducting research into the mines around Merewether, a suburb of Newcastle, New South Wales. In the process, a considerable amount of new information has come to light regarding the local industrial railway system, its locomotives and the environment in which they worked.

This, the first of two articles, sets out the little that is known regarding the locomotive named BURWOOD that holds pride of place as the first locomotive to be built in Newcastle. The subsequent article will cover the history of the locomotive named NEWCASTLE that worked on the same system, although under different ownership.

The Burwood Estate Inheritance

From 1835 onwards, Dr James Mitchell, a one-time British Army surgeon, purchased land to the south of Newcastle which he named the Burwood Estate. Eventually the estate, including leasehold lands, encompassed a total of 2300 acres (931 ha) and contained some 13 kilometres of railways, a copper smelter, coke ovens, numerous coal mines and brickworks as well as an experimental porcelain factory.

For a time he explored these assets by means of the Newcastle Coal and Copper Company (NC&C Coy) and the Burwood Coal Company, but by the time he died in 1869 most had failed and his estate was beleaguered by considerable debts.

Mitchell's widow, Maria, died in 1872 and the Burwood Estate eventually passed to their daughter, Mrs EC Merewether. Her husband, Edward C Merewether, was then able to assume effective control and set about restoring the property from virtual bankruptcy.

EC Merewether

Edward Christopher Merewether was born in 1820 in London, where his father was prominent in the legal profession. He attended Oxford University, and then in 1847 followed one of his cousins to New South Wales where family connections obtained him the post of Aide-de-camp to the governor. Subsequently he occupied a number of public service posts before becoming Clerk to the Executive Council.

Merewether married Dr Mitchell's elder daughter, Augusta Maria, in 1866 and in the following year, he accepted the position as General Superintendent of the London-based Australian Agricultural Company (AA Coy). This necessitated a move to Newcastle where the couple built a home, The Ridge, which still stands on high ground overlooking the city.

In 1872, when Merewether took charge of the Estate, its industry was at a standstill. The principal coal mines had closed, the Victoria Tunnel in 1863 and Burwood Colliery in 1869. The recently-rebuilt smelter was idle, the coke ovens cold, and the porcelain factory abandoned as an expensive fiasco. Burwood Estate remained encumbered by mortgages totaling £27,000 with its only income derived from the rent of household plots and a few small brickyards.

For fortune's sake, the same year, he was able to lease certain coal rights to his employer, which they worked via their new Hamilton Pit. With an income thus assured, Merewether resigned his employment in 1876 and continued negotiations with local business interests to let the mining rights beneath the remainder of the property. Eventually these came to fruition and in time three large collieries were established on his land. He moved to the Sydney suburb of Bondi leaving his Agent (and cousin) Robert Scott to attend to the day-to-day business at Burwood.

Burwood Estate railways

For some twenty years, Edward C Merewether had absolute control of all land, mineral rights and improvements in an area extending south from the Lake Macquarie Road (the present-day Glebe Road) to Glenrock Lagoon and from the seafront, west to Adamstown (around present-day Bryant Street).

Except perhaps for John Brown, the author can not bring to mind any other instance in Australia, where an individual owned and operated his own private locomotive on his own railway system. Indeed, although operating rights were over the years leased to others, ownership of the railways themselves remained with the Merewether family until 1958.

In 1872, the railways associated with the Burwood Estate, consisted of a main line, from The Junction into Newcastle, fed by two subsidiary lines, one from the Victoria Tunnel colliery in the Glebe Valley and the second coming from Burwood Colliery at Glenrock. This latter line, referred to variously as the 'Red Head' or 'Coastal Railway', ran right along the seafront, passing through two timber-lined tunnels. In addition to Burwood Colliery, for a time it also served a bank of coke ovens and a copper smelter.

There had been two earlier 'tramroads' on the Estate, one from Donaldson's Tunnel, the second from J&A Browns' mine. Both led to The Junction, but by the time of Merewether's accession, they were long out of use and dismantled.

Rail traffic

Although no coal had been won from the Victoria Tunnel itself since 1863, the Glebe Railway remained open to allow access to the engine shed and workshops. There was still a small amount of traffic on this line from local brickyards, two of which had their own sidings, whilst on the Red Head Railway, one or two small coal mines generated spasmodic business. Such trains as were run were worked by the two Neilson 0-4-0ST

In 1841, the year of his arrival in Australia, young Edward Merewether posed for this watercolour & pencil drawing by artist William Nicholas. Mitchell Library, State Library of New South Wales
locomotives inherited from the defunct Newcastle Coal and Copper Company and driven by George Wardell, who had been with them since they first arrived in 1857.

As an interim measure Merewether let out both the Victoria and Burwood mines on tribute and by the end of 1872, he had also leased out the copper works and the coke kilns. These activities generated a little more traffic, which at times the railway struggled to handle, hampered by the run-down state of the engines and rolling stock.

In 1875 he leased 700 acres of virgin coal rights to the newly formed, Newcastle Coal Mining Company (NCM Coy), which proceeded to establish a new mine at the head of the Glebe Valley, close to the venerable Victoria Tunnel. In June the following year he sold them the two Neilson locomotives along with some 120 coal wagons, previously owned by Mitchell’s Burwood Coal Company.

Merewether still had to run and repair the Red Head Railway and for a time he was able to hire back one of the engines at £5 per month. Around this time, the Estate had commenced the commercial sale of sand and this traffic had also to be worked from the ‘Sand Siding’ near Merewether Beach, to The Junction. As part of their lease agreement, the NCM Coy had the rights to operate the Glebe Railway and the Burwood Tramroad. The combined line was now generally referred to as the Newcastle Coal Company’s Railway and they ran their own trains over it from the mine to an exchange siding situated between Blane and Lower Church Streets in Newcastle. As production increased, the NCM Coy board made the decision that they required both locomotives:

…owing partially of the late breakdown of the No 1 Engine and to the deficient repairs of both, the Board is of the opinion that to ensure punctuality in the haulage of coal it is necessary to retain the two. Thus the No 2 Engine that had been on hire to the Burwood Estate, was recalled in May 1877.

Proposal for a new locomotive

Having foreseen such a situation, Merewether had already taken steps to acquire his own motive power and in late 1876, he had called on James Rodgers, a Newcastle engineer, in answer to the following:

In the event of your deciding to get another Tank Locomotive Engine, may I ask the favour of being allowed to submit a tender to make and supply one similar in size and design to those in use on the Burwood Line or larger. I have just imported steel tyres to match them and if there was no immediate hurry, could send home by the next mail for the patterns and tracings from Neilson and Coy of Glasgow who are the makers. Kindly inform me if you come to any decision and oblige.

The letter carries an annotation in Merewether’s hand: - Reed, 16th, Saw him same day and asked him to send in a Tender.

As requested, Rodgers submitted his quotation on 28 February 1877 and on June 20 he received an order to build a small, four-wheeled saddle tank locomotive. The agreed price was £1350 with an advance payment of £100 to accompany the order. Merewether had earlier approached the NSW Railways asking that one of their engineers be permitted to oversee the building of his locomotive. When this was not approved, it was arranged that ‘young Alexander Brown’ and Alexander Patrick, would jointly supervise the workmanship and progress.

JS Rodgers and the Newcastle Foundry

Archibald Rodgers, trained as a blacksmith, had set up an Iron Works and Foundry in Newcastle in 1854. His sons, James and Alexander, took over the business in 1869, trading as Rodgers Brother. Their father continued as a consultant but died after a work accident in 1870. Three years later the partnership was terminated and James carried on as sole proprietor, trading as ‘JS Rodgers, The Newcastle Foundry’. Alexander continued to pursue similar business interests.
James Stuart Rodgers had served his time in the works of PN Russell and Company in Sydney and was for a time employed by the Australasian Steam Navigation Company's works at Pyrmont before joining his brother in the family firm. Rodgers constructed all types of mining, industrial and marine machinery including coal hopper wagons. They also repaired, brokered and hired locomotives, but as far as is known, this is the only one actually built by the firm. 36

The Newcastle Foundry was located fronting Lower Church Street (now King Street), eventually occupying the whole block between Burwood and Auckland Streets, with a portion extending through to Blane Street. 37 No close-up photograph of the exterior has come to light, but one of the firm's advertisements includes an engraving showing coal hoppers under construction, and the apparent course of a siding onto the Burwood line. Contemporary correspondence confirms the regular use of the Estate's railway: 38

We respectfully make application to you to allow us to load four engine turntables and two boilers on the Burwood Line and allow us to run two wagons to the GN Railway on the same conditions as before; i.e. not to interfere with the working of the line and to be responsible for damage done to same by us. 29

Before the order was even formalised, the first signs of cash-flow problems arose with Rodgers writing to Merewether:

I purpose sending home next mail a Cash Credit to enable my Agent to draw upon me for materials for the construction of your Locomotive. I have sent him £100 two mails ago. But this will not be sufficient. Will you one day early next week kindly appoint a day to close the contract and advance me the first deposit to enable me to do the above. 30

Merewether did as he was asked, and even added a further £150 to the deposit but by January 1878, it had become obvious that Rodgers had seriously underquoted on the job and there followed a series of (sometimes desperate) letters seeking progress payments to maintain liquidity:

I have been very much occupied during the last fortnight in pushing my men with the Locomotive and have made very considerable progress. If you could kindly see your way clear to let me have another £100 to enable me to meet wages on Saturday next I should feel extremely obliged. I think that the result of an inspection from your overseer in a day or so would amply justify you in so doing. 31

Delivery

At last the locomotive was completed and was handed over in July 1878, with the event being described in the Newcastle Morning Herald as follows: 32

New Locomotive

On Saturday last there was turned out from Newcastle Foundry a specimen of the capabilities of the firm in the shape of a locomotive tank engine, that is not only a credit to the engineering skill of Mr JS Rodgers, but an exemplification of what can be done here if sufficient inducement is offered.

This is the first locomotive engine that has been made outside of the metropolis, and was constructed to the order of EC Merewether Esq, for the purpose of removing the immense deposits of sand which have drifted from the ocean front. The sand was hand-filled into trucks and as the wind-blown drifts that were encroaching onto the line all along the ocean front. The sand was hand-filled into trucks and as the

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sleepers were thus uncovered, many were found to be in need of replacement. Supplies were ordered and this work was combined with the sand clearance program, the urgency of the task being emphasised on a number of occasions in Estate correspondence.

The sand, along with any clay or brick traffic offering, was handled in the Estate’s own low-sided open trucks. Described in the office ledger as ‘B’ trucks, they had dumb buffers and a capacity of five tons. So far neither the number of these vehicles nor their origin has been determined, although some appear to have been built on coal truck frames at the time when copper ore was being handled.40

As noted above, the 120 coal hoppers inherited from the Burwood Coal Company had all been sold to the NCM Coy, so whenever coal was moved, one or two of them had to be borrowed back.41

Hire of BURWOOD to the Newcastlock Coal Mining Company

Although the NCM Coy now owned two locomotives, both were in need of repair and in turn they were sent off for overhaul at Messrs Morison and Bearby’s Soho Foundry at Carrington.42 Stuart Keithley, the General Manager of the NCM Coy, accordingly wrote to Merewether in September 1878 seeking to hire BURWOOD:

In keeping with the verbal understanding between you and I arrived at on Saturday afternoon last that I should write to you officially respecting the loan to this Company of your Loco Engine in cases of emergency when it may be spared by you. I have now on behalf of this Company to offer you two pounds (£2) per day for every full day the Engine may be used and one pound (£1) any half day only the engine may be used by us. We to find the coals free of cost to you and you the driver free of additional cost to the Company.43

Thus despite the urgency of sand clearance, on several occasions during the following twelve months, the little locomotive was away, filling-in during situations such as that described in the following letter from the NCM Coy’s mine manager, Alexander Ross:44

The fire box on our locomotive is leaking in one or two places at an old patch and also at another place where the iron has become very thin - this compels us to put her into Mr Rodgers’ hands. I have again (to ask) if you will kindly allow your locomotive to do our running for a few days during the time the repairing is being done it should make demand it - it is thought there will be very little work this week so that your loco may not have much to do.45

By this means the NCM Coy struggled on until the end of 1879 when their brand-new Beyer Peacock locomotive NEWCASTLE arrived from England allowing BURWOOD to return to full-time work on the line. The story of NEWCASTLE will be the subject of a subsequent article in Light Railways.

In 1883, the Newcastle Wallsend Coal Company sought to hire BURWOOD for three months to assist in the duplication of their main line.46 Although he maintained a good relationship with the colliery manager, John Y Neilson, Merewether declined to permit it being away for such a long period and in the end the job was done using horse teams:

I don’t see how we can let the engine to the WallSEND Coy, I want Patrick to get on with the blinding and now is the time to push the work... I have not heard from Binney but if he writes the reply is NO. Let them buy or hire the Newcastle Coal Coy’s loco, it is for sale.47

Hire of BURWOOD to the Burwood Coal Mining Company

Merewether continued his efforts to find a lessee for the remainder of his coal property, and by August 1883, he had succeeded in attracting a group of Sydney-based investors headed by the Cowlishaw brothers, notable for their extensive interest in mining properties near Newcastle. In August, he wrote to Scott:48

He (Cowlishaw) purposes taking some of those who are to join with him down to Newcastle next week and wants us to let him have the loco to take him and them out to the Lagoon.
The party apparently liked what they saw, even expressing their pleasure at the train ride along the sea front.59

Shortly after, the Burwood Coal Mining Company Limited (BCM Coy) was formed to work coal beneath the remaining 1000 acres of Burwood Estate. It also agreed to rent 24 acres of surface land adjacent to the old Burwood Colliery and with it the operating rights over the 'coastal railway' between the mine and The Junction. Robert L Simpson came from Greta as their colliery manager to sink shafts down to the Borehole seam, at the same time overseeing repairs to the bridges and tunnels along the railway. The 260 or so tons of old rails were sold as scrap and the BCM Coy engaged a contractor to relay the track.

Realising that the speedy completion of this work would serve his own interests, Merewether now made no demur when asked to loan BURWOOD to assist.60 Indeed, the hire rate was reduced to £1 per day. Patrick went with the engine, being strictly enjoined by his employer to see that it was not misused or overloaded. An additional charge of 12s per day was made for his services, whilst the BCM Coy agreed to provide the coal as well as the services of a cleaner and a 'stoker'.

Once coal production commenced in October 1884, haulage duties increased and so did the hire rate, with an agreement now reached permitting BURWOOD to continue on loan until the end of the year but with a charge of three pence now payable on each ton hauled. Although at times, this returned up to £35 per week, the additional workload led to conflict between Patrick and the irascible Simpson, a feud which simmered until Simpson moved on to Victoria at the end of 1885, and leading Merewether at one time to exclaim in despair: "What on earth can Simpson and Patrick find to quarrel about now?"61

February arrived with Patrick and BURWOOD hard at work on the coal traffic and still no indication that the BCM Coy had any intention of obtaining their own locomotive. Merewether became impatient and instructed Scott that all outstanding debts, including monies owed for locomotive hire, should be settled. He specially noted that the absence of Patrick and his charge had 'sadly interfered with work on the sand'.

At long last, in June 1885, the BCM Coy negotiated to purchase the locomotive NEWCASTLE from its original owners and it now ran their coal trains. BURWOOD was occasionally sought after in emergencies but before long, however, relations between Merewether and the BCM Coy had become even more strained and the correspondence contains not only references to the hire of the locomotive, but also to its loan being denied:

In your letter of 23rd you say Pendleton wants to hire our Loco. I do not know whether you have promised it but if you have not and the application is still pending, you may tell him that I decline most positively to let it to the Coy on any terms nor will I depart one hair's-breadth from any of the conditions of the Lease until they have settled for all that they have had from us and are still owing for. I hope you have not promised the engine and I beg that henceforth you will concede nothing of any kind nor refer any such application to me. Refuse them at once and as shortly as words can do it.62

These tactics appear to have achieved the desired result, with a later entry in the cash book confirming the receipt of back payment owing for 31 days of locomotive hire. At times, however, commercial reality intervened, although Metewether's feelings are clearly evident in a letter to his son in January 1891.63

I do not half like letting the loco to the Burwood Co, no doubt it is a gain to get something out of it but I am afraid they will not put it to death unless they are well looked after so Patrick must keep his eyes open upon them. If they make any demur to paying £2 per day close the offer forthwith.64

On this occasion, the coal company made other arrangements and the matter was not pursued.

Engine shed

In 1879, the Burwood Estate architect had prepared plans for an 'engine house' to be built at Glenrock.65 For some reason nothing was done, and so far there is no indication where BURWOOD was initially stabled.66 With the coming of the BCM Coy, Merewether and Simpson proposed that they jointly share a two-road shed to house both their locomotives. The timber to build it and the bricks to line the ash pit were set aside from the derelict smelter buildings. A site was selected which Merewether offered, rent free until such time as he had no need to own a locomotive, and after that for a nominal sum.67

The matter was put before the BCM Coy directors who rejected the proposal, considering that their locomotive should be housed closer to the colliery. However, in return for certain property concessions, they eventually agreed to build a separate shed for BURWOOD together with a small blacksmith's forge.68 Tenders for both jobs were called, and at last, in 1885, a small loco shed was erected just outside the colliery yard, close to the Patrick residence.69 Photographs indicate that there were doors at either end and that it was accessed via a single siding off the main line. The smithy appears to adjoin the southern side of the main building.

Trains for picnics and feasts

Dr Mitchell, through his Burwood Coal Company, had allowed the running of special trains to convey picnic parties from Newcastle to the Smelter Paddock and Glenrock Lagoon.70 These excursions were popular with both church groups and the general community and Mr Merewether permitted the privilege to continue.71 A privilege it was, and permission was not to be taken for granted, however, with a written application required on each occasion.

It was a cheek in Mr Gregory asking for the trucks to have a pic-nic at Redhead. The enquiry reads as if he thought he had quite a right to go to Glenrock and only needed permission to use the trucks. Please refuse everybody any similar request and tell Patrick to do the same on the grounds that I decline to lend the trucks to anyone for such a purpose unless the application is made to me and in writing.72

The Estate's four-wheeled open trucks were used on these excursions, fitted with temporary seating, and on most occasions, the use of the trucks was approved, but not the locomotive. On one occasion in 1881, Patrick heard that arrangements had been made to hold a picnic at Glenrock with the church assuming, without formal application, that permission to use the train would be forthcoming. This information was passed to Scott, who wrote to Merewether.

I hear today that St John's Sunday School class say that they are going to have their picnic out at Glenrock and not only that but that they are going out in the Engine and trucks. At that was the first that I had heard of the matter I told Patrick not to let them have the trucks and if they walked out to Glenrock, then to send them out of the paddock unless they produced an order from you giving them permission. I heard that they had applied to you but I doubted it.73

The letter continued to the effect that some persons had stated that if permission was refused, they would be happy to go to Warratah instead where there was a public house nearby. Four days later Rev Corlette sent a last-minute letter.

The teachers of St John Sunday School have requested I ask your permission to hold their Feast next week at Glenrock and whether you make any demur to paying £2 per day close the offer forthwith.74

I have written to Arthur Corlette saying that they may hold the Feast in Glenrock Paddock and have the use of the trucks if they employ
Horse traction but that I decline to lend the engine on account of the risk of accident that the use of it entails. I have alluded to the damage and mischief at the place done by a previous picnic party and begged that he will see that nothing of the kind occurs on this occasion.

Again, on another occasion.

So as to Bowtell's pic-nic, you do not say whether you allowed him the engine or merely gave him permission to pic-nic in the paddock. If the latter it is all right and I am content, but it is a dangerous thing to lend the engine especially as money appears to have been paid, and you had better, if any similar request is made in future to say "NO" absolutely... we might get into much trouble if any accident happened. Give them leave to use the paddock but refuse the engine. Patrick can keep the £2 and welcome but I would rather not have it get abroad that such use could be had for money, it must be granted as a pure matter of grace and favour without charge.

This generous policy appears to have been maintained and over the years there is no evidence in the Estate accounts that a charge was ever levied for the running of trains for schools or churches. Some of these excursions were indeed large affairs. In March 1881, the local school picnic at The Smelters required three train trips each way to handle the 800 or so people who attended. Merewether later noted with some astonishment

Patrick at it all day... yet not one of the youngsters was killed or injured.

At times, a degree of subterfuge was necessary to maintain consistency. Thus whilst the Junction Independent Cricket Club was freely permitted to hire two trucks to convey their bats, balls and bats to a picnic at the Smelter paddock, a request from the Clan McDonald Caledonian Society seeking the use of the engine and two trucks to take them, cabers, bagpipes, haggis and all, to Glenrock was refused. However a marginal note on their letter in Merewether's hand reads

Will not hire loco but Patrick & George may use and invite friends.

On many occasions the use of the engine was left for Patrick to decide, so long as it did not take him from his duties.

Eventually, in 1889, Merewether's apprehensions were proved correct when a picnic outing was marred by a fatality. On Saturday, 23 February, David Read aged 51, left his home in Sandy Patrick did previously find a dock there and move a few feet inland for housing purposes. Sandy, who had previously found a dock there and moved a few feet inland for housing purposes. Sandy Patrick similarly travelled to his work most days on the engine and Mr Merewether made regular inspection trips and on one occasion he wrote to Scott,

I will go [from the ship] straight to the Great Northern [Hotel] and leave my traps and be at the office by 10am and will go out with you to Flaggy. Will you warn Patrick to have the engine at the office at that hour.

It appears that Patrick himself maintained the locomotive using the small workshop beside the engine shed. Blacksmith Jonathon Rees assisted with forge work and for heavy jobs, one of Rodger's fitters was hired by the day. Given the proximity of the Newcastle Foundry, visits were made there as required and a running battle with those who would steal his soil and timber.

A personal approach had been made to Mr EA Merewether and the managers of the NCM Coy and the BCM Coy.

Less well documented is the use made of the locomotive to convey the residents from the small settlement at Glenrock to The Junction. On the southern shore of the Lagoon there were four substantial brick cottages, together with several smaller houses on the northern bank. One of the former was occupied by the Patrick family, the other three by colliery employees. According to anecdotal accounts, residents were taken shopping, and schoolchildren were run to and from the Junction School each day on the footplate.

Sandy Patrick similarly travelled to his work most days on the engine and Mr Merewether made regular inspection trips and at times ‘engined out’ with visitors to the mine. On one such occasion he wrote to Scott,

I will go [from the ship] straight to the Great Northern [Hotel] and leave my traps and be at the office by 10am and will go out with you to Flaggy. Will you warn Patrick to have the engine at the office at that hour.

It appears that Patrick himself maintained the locomotive using the small workshop beside the engine shed. Blacksmith Jonathon Rees assisted with forge work and for heavy jobs, one of Rodger’s fitters was hired by the day. Given the proximity of the Newcastle Foundry, visits were made there as required and the Estate accounts contain a number of references to payment to Rodger’s for repairs to the locomotive and trucks. On one occasion there was a hint of dissatisfaction with the workmanship:

Patrick must do what is necessary to the engine but Rodger’s must not pile it up too heavily as it appears his men broke the cylinder top.

Of interest is a mention in the ledger regarding the fitting of three tunnels to the engine within two years which no doubt has something to say regarding the state of the roof timbers in the coastal tunnels.

Miscreants

Throughout the years, Merewether and his employees fought a running battle with those who would steal his soil and timber and graze their animals on his land. This gave rise to a deal of local animosity, especially towards Sandy Patrick. By 1881 the problem had escalated to the extent that he was issued with a revolver and ammunition to carry while working alone. At times the railway became involved in the ensuing ‘guerilla’ warfare.

In January 1881, Patrick and his wife were returning to Glenrock on the locomotive when they encountered a portion of a sleeper laid on the rail near ‘the dark turn in the Big Tunnel’. Patrick had previously found a rail chair keyed upside down atop the rail in the same place, and thus was proceeding slowly. Although BURWOOD was not derailed, it ‘gave a great jerk’ and gave Mrs Patrick such a fright that ‘she has not been well since’. Robert Scott placed an advertisement in the newspaper offering a £5 reward for information. When the incident was reported to Merewether, he considered the matter sufficiently serious to increase this to £50. Even this very considerable sum failed to reveal the culprits, although Merewether made clear he had a fair idea who they were.

The same month ‘larrikins’ emptied the water cask belonging

This rule was not hard and fast. In June 1884 the Burwood United Cricket Club advertised that their picnic train would commence in Newcastle, at Tattersall’s Corner (now the corner of Hunter and Darby Streets), and pick up passengers ‘all the way to Glenrock’. As it so happened the outing was cancelled due to rain. Held the following weekend in Riley’s Paddock, it was voted a huge success with some 150 persons attending.

On Easter Monday in 1887, the same club ran a similar train, and the surviving correspondence confirms that on this occasion, a personal approach had been made to Mr EA Merewether and to the managers of the NCM Coy and the BCM Coy.

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to the 'small engine' at Glenrock, stole the copper waste pipes from the cylinders and 'did other small mischief'. At Scott's request, Constable Porter, the local policeman, investigated, but to no avail.46

In another incident in January 1883, Patrick was taking the engine down the 'main road in the Sand Paddock' and as it was rounding the curve 'just where the Beach Siding turns off', he noticed that the keys had been taken from one rail and thrown onto the beach, 'evidently for the purpose of throwing the engine off the road'.47 In this case, Patrick was able to stop in time. With no damage done and commenting that the brakes always hang together, Merewether decided no reward should be posted. Some time later, in the same vicinity, trespassers ran several trucks off the line and otherwise damaged the machinery. This time Scott did offer a reward, but again, apparently to no avail.48

Special constables ('rangers') were employed: initially Sullivan, then Caldwell in 1881 and later Thompson. They patrolled the railway, impounded straying cattle, herded errant pigs and shot the goats.49 They also collected rents and in their spare time cut up fallen timber for sale as firewood.

**Tunnel fatality**

The railway to Glenrock ran through two timber-lined tunnels, the first to be driven in New South Wales. The shorter No. 2 tunnel, gave few problems but the No. 1 or 'Long Tunnel', some 500 metres in length, was a constricted, dark and dangerous place, requiring constant maintenance. It was the scene of several fatal accidents.

The victim in one of these was George Brightmore, who lived alone in a shanty near Glenrock. One afternoon in August 1879, returning home somewhat the worse for drink, he followed his accustomed route along the railway and into the tunnel. It was a cold wet evening and, safely out of the rain, he sat down for a rest and fell asleep.

At the inquest Patrick gave evidence that he and George Lindsay were coming from their work on BURWOOD around five o'clock. Before entering the tunnel, he sounded the whistle and 'leaned over the engine as far as he could' to look ahead.49 He saw something by the track but, as he had previously noted a small fall of stones at this spot, he continued, assuming that it was the same obstruction. Feeling a bump, he stopped the engine, lit the lamp and went back to see what had happened. Lindsay confirmed Patrick's statement, adding that he felt the engine lurch then heard cries and curses.

The two men took Brightmore on the engine back to The Junction and sent for Mr Merewether who had the victim school and shopping trips and moving a little fill or chitter to reinforce the embankments or cover the sand hills.

**Subsequent history**

The ledger entry noted above would indicate that Watkins and Coy were buying on commission for another party, possibly Messrs Wilcocks & Firth, who were at that time engaged as contractors on the Lismore-Tweed railway.46

BURWOOD was recorded in use by G Wilcocks on breakwater construction at Harrington during 1899.47 Wilcocks had taken over the contract after Granter & Coy abandoned the job. He faced little better and defaulted in 1900. His plant was acquired by the NSW Harbours and Rivers Branch of the Public Works Department (PWD) and, between 1904 and 1908, the little engine was back near Newcastle, working on the Swansea training walls at Reid's Mistake.48

After this job was completed the trail grows cold, although BURWOOD is believed to have been included in the PWD plant register and allocated the number 20.49 Railway historian JLN Southern suggested it was cut up for scrap around 1914.

**Conclusion**

These notes contain all that has at present been unearthed regarding this most enigmatic locomotive. There were rumours that some plans had survived amongst Rodgers Bros files but these have not been located. Similarly, despite a search of Local History, Mines Department and Merewether family records, the only known photograph of BURWOOD is that taken when the engine was delivered.

In a following article the history of the engine named NEWCASTLE will be examined in detail.

**Acknowledgments**

Assistance from my friends, Brian Anstews, John Browning, David Campbell, Dennis Hitchcliffe, Bruce Macdonald, Ron Madden, John Merewether and John Rodgers in the preparation of this article, has as always, been readily forthcoming, and is most gratefully acknowledged.

**Dedication**

Mr E J Merewether died whilst this article was in preparation, and I respectfully dedicate it to the memory of our friendship and to his considerable interest in, and assistance with, my researches.

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46. EC Merewether private correspondence 9 Aug 1884. Newcastle Library, Regional History collection.
47. With which Merewether disagreed, quoting the deteriorated state of the track around the headland.
50. EC Merewether private correspondence 29 Dec 1886. Newcastle Library, Regional History collection. Pendleton was by now the colliery manager of Burwood Colliery and the BCM Coy were well behind in royalty and rental payments.
51. EC Merewether's Agent, Robert Scott, died in November 1890, and his eldest son, Edward AM Merewether was now in charge of the Burwood Estate.
52. EC Merewether private correspondence 12 Jan 1889.
53. The architect was Frederick Rees, Jr. and the plan survives in the Merewether Estate Archives in the Newcastle City Library.
54. Burwood Estate outward correspondence 2 Oct 1884. Newcastle Library, Regional History collection. Merewether states he proposes to build an engine shed and pit but makes no mention of any temporary arrangements. One plan shows an unsectioned siding near the lagoon weir and I suspect this may have been a possible location.
56. In correspondence this is referred to a various times as a 'blacksmith's shop', a 'workshop' and a 'store room'.
57. Newcastle Morning Herald 21 Mar 1885.
58. It is suspected but not confirmed that the Coal and Copper Coy initiated this practice. They certainly ran passenger trains to bring their employees to town on pay day and to church on Sunday.
59. Thomas Howley similarly allowed the tradition to continue and such trains ran until the late 1950s.
60. EC Merewether private correspondence 3 Jan 1879. Newcastle Library, Regional History collection.
61. EC Merewether private correspondence 10 Oct 1881. Newcastle Library, Regional History collection.
62. This is one of several references to Government trucks running on the line. Also they appear in some later photos.
63. EC Merewether's private correspondence 14 Oct 1881. Newcastle Library, Regional History collection.
64. EC Merewether's private correspondence 8 Jan 1886. Newcastle Library, Regional History collection.
65. For many years there was still a public hall at this location. Also BURWOOD and train could be stowed on the old works siding, clear of coal traffic.
66. Burwood Estate inward correspondence 11 June & 15 Oct 1878. Newcastle Library, Regional History collection. George was the gardener at The Ridge.
69. Burwood Estate outward correspondence 7-9 Jun 1884.
70. Burwood Estate inward correspondence 15 Mar 1887. Newcastle Library, Regional History collection. The Merewethers', father and son, were keen cricket supporters.
71. Three of the back buildings, much altered, still remains as part of the Scout Association complex.
73. For many years there was still a public hall at this location. Also BURWOOD and train could be stowed on the old works siding, clear of coal traffic.
74. Burwood Estate inward correspondence 11 June & 15 Oct 1878. Newcastle Library, Regional History collection. George was the gardener at The Ridge.
75. Newcastle Morning Herald 25 Feb 1885, quoting Coroner's Court proceedings. Surprisingly I can find no mention of the accident in the Estate correspondence.
77. EC Merewether's correspondence 3 Nov 1883. Newcastle Library, Regional History collection.
78. EC Merewether's correspondence 20 Mar 1881. Newcastle Library, Regional History collection.
79. EC Merewether's private correspondence 23 Nov 1883. Newcastle Library, Regional History collection.
80. 78. In 1884 and again in 1885.
82. Although the tunnel was originally driven in a straight line, earth movement and subsequent re-timbering over the years had led the bore to take a pronounced curve.
84. A considerable sum indeed, equivalent to around $5000 in today's terms.
85. Although Merewether now resided in Sydney, he had lived among his tenants for many years and retained a most amazing knowledge of their individual fortunes.
86. Constable Porter was a regular recipient of an annual gratuity from the Estate for his diligence.
88. Newcastle Morning Herald 14 Aug 1885.
89. Burwood Estate cash book Oct 1883. Newcastle Library, Regional History collection. Coats were a special problem, denuding the stabilising vegetation on the sand dunes.
90. Newcastle Morning Herald 21 Aug 1879.
91. This would imply the engine was travelling funnel-first.
92. Newcastle Morning Herald and Sydney Morning Herald 9 Nov 1889.
95. By now known as the Merewether Estate.
96. R. Maddison personal communication.
97. Also spell 'Wilcox' in some references.
FOUR-COUPLED LOCOMOTIVE BUILT FOR THE VICTORIAN POWELL WOOD PROCESS COMPANY, LTD., AUSTRALIA

The Baldwin catalogue illustration of LITTLE YARRA.

LITTLE YARRA

by Frank Stamford

Recently thanks to the efforts of early-US locomotive enthusiast and researcher David Fletcher, a number of new facts have emerged about the locomotive LITTLE YARRA, which add to and correct many of the details given in the book Powelltown (pages 97 and 139). Amongst other things, David has been able to find the original builder's specification, but unfortunately so far all efforts to find a general arrangement drawing, or any other form of overall scale drawing have proved fruitless.

LITTLE YARRA was a 3ft gauge 2-4-0 tender locomotive built for the Victorian Powell Wood Process Ltd for use on the Company's Yarra Junction - Powelltown Tramway, 65km east of Melbourne. It was built by the Baldwin Locomotive Works, Philadelphia USA, having their builder's number 37718 of 1912. In the book Powelltown it was said that LITTLE YARRA did not appear to be a stock type, but was designed for the Company's requirements. This is not correct. It was a standard design, which appeared in Baldwin's catalogues over a period of years, the 6-14C class. The catalogue listed a range of 2-4-0 tender locomotives available for either 3ft or one metre gauge, with tractive efforts ranging from 3480lbs to 11,590lbs. The 6-14C was about the middle of the range, with a tractive effort of 5880lbs.

Baldwin catalogues list a wide range of classes of locomotives as being available, but that does not mean that many examples were actually built. In the case of the 6-14C class, only 12 were built, and this over the period 1874 to 1929, with various gauges from 5ft to 2ft 6in.

The appearance of a Baldwin locomotive was largely defined by its Drawing Number. The Drawing Number in effect referred to the standard General Arrangement drawing to be used for the locomotive. On the side of the drawing would be a schedule, listing 20 to 30 cards, which referred to common components, such as cylinders, stacks, wheels, cabs, etc. This arrangement of standard drawings, cards, and components enabled Baldwin to build what were seemingly 'one-off' locomotives very quickly. With LITTLE YARRA the order was placed in April 1912, the locomotive completed two months later, and delivered to Yarra Junction ready to run early in October 1912.

In the case of the 12 examples of the 6-14C class, six different drawing numbers were used (see list). Baldwin uniquely identified every locomotive within a class by a Serial Number following the Class Number. LITTLE YARRA's Serial Number was 8, hence it was uniquely identified as 6-14C 8. It had a second unique identifying number, the Builder's Number, or Construction Number 37718. Baldwin's lists of locomotives built within classes survive, and show the purchaser of the locomotive, but they are handwritten and often indecipherable. Unfortunately these lists do not show the Builder's Number, but by cross-checking with the complete Baldwin construction list it is possible to deduce the builder's number.

LITTLE YARRA was built to Drawing Number 5. Only one other 6-14C class was built to this drawing. It was builder's number 37693, a 3ft gauge locomotive for the United Fruit Company of Cuba. However this order must have been cancelled, and the locomotive was changed to metre gauge and supplied to Brazilian agents Alencar Lima & Co. in April 1912. The locomotive eventually became No.7 of the Viação Ferroviaria Federal do Leste Brasileiro (VFFLB). This railway, which operated in the Brazilian state of Bahia, was previously known as Cia. Chemins de Fer Federaux du L'Est Breziliens - a French-owned company, before becoming the VFFLB in June 1934 when it was taken over by the state. At that time the VFFLB had about 1866 km of track and 138 steam locomotives, including seven Baldwin 2-4-0 locomotives of varying sizes. Unfortunately the VFFLB is not widely known, even by railway enthusiasts in Brazil, and I have not been able to find any photographs of No.7 in service, nor its ultimate fate, but it does not appear amongst the lists of known surviving Brazilian steam locomotives.

So LITTLE YARRA was not unique, there was one other loco that was almost identical. The differences were that 37693 had a Radley & Hunter spark arrestor stack (as on Puffing Billy's Climax...
matches it is a 2-4-2 of 3ft 10in gauge. It is possible that example built to Drawing No.1 in 1874, and a 3ft of one built to Drawing No.3 in 1901. However for the latter one, They went to Cuba and the only entry in the Baldwin construction list that closely displayed a more 19th-century appearance. Drawing Number 4 was a 2ft 6in gauge version of the 6-14C class, livery was very different.

Design and specification work on 37693 started on 27 March 1912, and on LITTLE YARRA only five days later.

One other locomotive was very similar to LITTLE YARRA but was built to Drawing Number 6, a more modern design with steel cab and Walschaert valve gear. It was metre gauge and built for Recreio, Cia Minas, of Brazil in 1929. The three other 3ft or metre gauge 6-14C class locos were built from 1887 and 1891, to Drawing Number 2, and no doubt displayed a more 19th-century appearance. Drawing Number 4 was a 2ft 6in gauge version of the 6-14C class, four examples of which were built between 1911 and 1916. They went to Cuba and San Domingo (now the Dominican Republic). I surmise that they were an outside-framed version of LITTLE YARRA.

The only other 6-14C class were genuine one-offs, a 5 ft gauge example built to Drawing No.1 in 1874, and a 3ft 9½ in gauge one built to Drawing No.3 in 1901. However for the latter one, the only entry in the Baldwin construction list that closely matches it is a 2-4-2 of 3ft 10in gauge. It is possible that “2-4-2” is a typographical error.

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**List of Baldwin 6-14C class locomotives built**

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Purchaser</th>
<th>Gauge</th>
<th>Fuel</th>
<th>Date of delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drawing Number 1:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Pensacola &amp; Perdido RR, Florida [C/n 3557]</td>
<td>5ft</td>
<td>Wood</td>
<td>May 1874</td>
</tr>
<tr>
<td><strong>Drawing Number 2:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Alamont Coal Co. (Kentucky?) [C/n 8781]</td>
<td>3ft</td>
<td>Soft coal</td>
<td>Oct 1887</td>
</tr>
<tr>
<td>3</td>
<td>Hipolico Dunois &amp; Co. (Cuba) [C/n 10868]</td>
<td>3ft</td>
<td>Soft coal &amp; wood</td>
<td>April 1890</td>
</tr>
<tr>
<td>4</td>
<td>Henerneway &amp; Browne (Chile?) [C/n 11601]</td>
<td>3ft 3½ in</td>
<td>Soft coal</td>
<td>Jan 1891</td>
</tr>
<tr>
<td><strong>Drawing Number 3:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Aretas &amp; Mad River Railroad, California [probably C/n 18564 3ft 10in gauge 2-4-2]</td>
<td>3ft 9¾ in</td>
<td>Soft coal</td>
<td>Jan 1901</td>
</tr>
<tr>
<td><strong>Drawing Number 4:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Bartram Brothers, probably for Quisqueya Sugar Co. “Canutillo” [C/n 36762]</td>
<td>2ft 6in</td>
<td>Hard coal</td>
<td>Aug 1911</td>
</tr>
<tr>
<td>9</td>
<td>Bartram Brothers for Quisqueya Sugar Co., San Domingo [C/n 42481]</td>
<td>2ft 6in</td>
<td>Hard coal</td>
<td>Sept 1915</td>
</tr>
<tr>
<td>10</td>
<td>Domingo Ramirez Cuba No.2 [C/n 43959]</td>
<td>2ft 6in</td>
<td>Coal &amp; wood</td>
<td>Sept 1916</td>
</tr>
<tr>
<td>11</td>
<td>Forcella Vincini &amp; Co. San Domingo, probably Quisqueira Plantation Co. No.8 [C/n 44230]</td>
<td>2ft 6in</td>
<td>Wood</td>
<td>Nov 1916</td>
</tr>
<tr>
<td><strong>Drawing Number 5:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>United Fruit Co., Cuba Alencar Lima &amp; Co. [C/n 37693]</td>
<td>3ft 3½ in</td>
<td>Wood</td>
<td>May 1912</td>
</tr>
<tr>
<td>8</td>
<td>Newell &amp; Co for Victorian Powell Wood Process Ltd Australia [C/n 37718]</td>
<td>3ft</td>
<td>Wood &amp; coal</td>
<td>June 1912</td>
</tr>
<tr>
<td><strong>Drawing Number 6:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Recreio, Cia Minas; Porto Alegre, Brazil No.101 [C/n 611161]</td>
<td>3ft 3½ in</td>
<td>Brazilian coal</td>
<td>Dec 1929</td>
</tr>
</tbody>
</table>

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Other Baldwin narrow gauge 2-4-0s

As mentioned previously Baldwin offered a wide range of 2-4-0 locomotives, with the 6-14C being about the middle of the range. So photographs exist of locomotives which have an overall similarity to LITTLE YARRA, but lack the proportions; they may be shorter, fatter, skinnier or longer, and on any gauge from 2ft to at least 5ft. Only nine of the next smallest size – the 6-12C with 9 x 16in cylinders, were built, none of which were of 3ft gauge, and two of which were of metre gauge for Brazil. The next larger class – the 6-16C with 11 x 16in cylinders, was much more popular with 34 built, only one of which was of 3ft gauge, for Central America, and 11 were for metre gauge, most for Brazil. Ten were for standard gauge.

The first Baldwin narrow-gauge 2-4-0s were of 3ft gauge for the Denver & Rio Grande Railway. They were built in 1871. Their driving wheels were of 3ft 4in diameter (compared to LITTLE YARRA’s 3ft 1in). In all other dimensions they were slightly smaller. They were the D&RG’s first passenger locomotives, but very few were built, 4-4-0s and 2-6-0s quickly becoming more popular for passenger trains. In fact, up to 1890, the total number of 3ft gauge Baldwin 2-4-0s built for US common carrier railways was only six.²

These, and all subsequent Baldwin narrow gauge 2-4-0s had two interesting features. The first was that the valve-gear eccentrics were on the leading axle, not the same axle as the connecting rod cranks. This was because the firebox and ashpan were around the rear axle. The valve gear faced backward, not forward.

The second was that they had a three-point suspension system. There was a rocker beam between the two drive axles, with the whole loco swinging forward onto the pilot axle, supported...
by a sliding block. It was based on the three-point suspension system of the classic American 4-4-0. This was very effective. In LITTLE YARRA’s case, it was able to venture to the far end of the Powlettown Bush line, where – due to their weight – even the Shays could not go until the bridges were upgraded. This was quite an achievement, for the far end of bush line was sharply curved, very rough, with stub points, and a wide variety of light rails. It also had a 1 in 19 grade leading up to the tunnel. The only other locomotives that could do this were the 4-ton 0-4-2T ‘Squirt’, and the 8-ton 0-4-0T ‘Coffee Pot’.

**Dimensions**

My interest in (or obsession with?) LITTLE YARRA goes back to 1954, when at the age of nine I first saw the photo below, which shows my father standing next to the loco at Powlettown in the early 1930s. More than anything else it kindled my interest in timber tramways. Around February 1958, I set out to get as much information as possible on the Powlettown Tramway, with the intention, amongst other things, of finding or recreating scale drawings of the locomotives. LITTLE YARRA always presented insuperable problems in trying to create a drawing which captured its character. It has taken 50 years to find out why! Some of the key published dimensions were wrong. In particular the rigid and total wheelbase was always quoted incorrectly. No one actually checked it with a tape measure when the locomotive still existed.

The leading dimensions are shown in the table at right. For comparison I have also included the Victorian Railways 2ft 6in gauge "A" class, and POWELLITE (Bagnall, Builder's No.1965 of 1913) the locomotive with which LITTLE YARRA shared the main-line work.

Of these dimensions, the total wheelbase has always been quoted incorrectly as 14ft 4in; the rigid wheelbase has been quoted as either 7ft or 8ft 6in, (both are wrong); the leading wheel diameter quoted wrongly as 2ft 4in; the tender wheel diameter quoted wrongly as 1ft 10in; and the driving wheel diameter usually quoted correctly as 3ft 1in; but (inexplicably) as 3ft 6in in Powlettown, page 139 (I do not know where I got that figure from, but all the others have been quoted consistently

---

**Table: Dimensions**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>LITTLE YARRA</th>
<th>VR &quot;A&quot;</th>
<th>POWELLITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel arrangement</td>
<td>2-4-0</td>
<td>2-6-2T</td>
<td>0-6-0</td>
</tr>
<tr>
<td>Pony wheel diam.</td>
<td>2ft</td>
<td>2ft 6in</td>
<td>-</td>
</tr>
<tr>
<td>Driving wheel diam.</td>
<td>3ft 1in</td>
<td>3ft</td>
<td>2ft 6in</td>
</tr>
<tr>
<td>Rigid wheelbase</td>
<td>6ft 3in</td>
<td>8ft</td>
<td>9ft</td>
</tr>
<tr>
<td>Total wheelbase, loco</td>
<td>12ft 4in</td>
<td>21ft 10in</td>
<td>9ft</td>
</tr>
<tr>
<td>Tender wheel diam.</td>
<td>2ft</td>
<td>-</td>
<td>1ft 9in</td>
</tr>
<tr>
<td>Total wheelbase, engine and tender</td>
<td>30ft 11½in</td>
<td>-</td>
<td>24ft 5½in</td>
</tr>
<tr>
<td>Boiler pressure</td>
<td>160psi</td>
<td>180psi †</td>
<td>160psi</td>
</tr>
<tr>
<td>Cylinders, diam. &amp; stroke</td>
<td>10 x 16in</td>
<td>13 x 18in</td>
<td>11 x 16½in</td>
</tr>
<tr>
<td>Tractive effort</td>
<td>5880lbs</td>
<td>12,168lbs†</td>
<td>8000lbs</td>
</tr>
<tr>
<td>Weight, roadworthy, loco and tender</td>
<td>23t 4cwt</td>
<td>34t 7cwt</td>
<td></td>
</tr>
<tr>
<td>Maximum axle load</td>
<td>6t 5cwt*</td>
<td>9t 9cwt</td>
<td></td>
</tr>
</tbody>
</table>

* Assuming the weight on the driving axles was evenly divided.
† 1A's original boiler pressure was 160psi and the tractive effort 10,816lbs.

Data for LITTLE YARRA is from the Baldwin catalogue, and confirmed from the Baldwin specification; for the VR "A" from EA Downs, Speed Limit 20; and for POWELLITE from the builder's pipe diagram for the loco.

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LITTLE YARRA at Powlettown, circa 1932. The author’s father, Laurence Stamford is inspecting the loco. Photo: Reg Stamford

For reproduction, please contact the Society
Direct side-on views of LITTLE YARRA are rare. This one helped to confirm the dimensions of the loco wheelbase. Photo: Frank Staniford collection

in articles published in 1916, in the 1930s, 1940s and 1960s). It appears that the figures quoted in The Railway Magazine article of 1916 were always taken as gospel, and have been thus repeated ever since.

As a result of the availability of the correct specifications, and using his extensive knowledge of Baldwin narrow gauge locomotives, David Fletcher has been able to recreate a scale drawing of LITTLE YARRA using the information available: key dimensions and many photographs.

Livery

In the book Powelltown the original livery is given as red, with white lining and black trim. This was based on The Railway Magazine article of 1916, and the memory of Jack Saxton and others who worked with the locomotive from about 1915 to the early 1930s. Jack Saxton described the locomotive as “reddish brown”. He also accurately described the livery of POWELLITE at that time, as deep green with lining, which is in agreement with all other sources. In an interview with Jack Saxton, I was able to rate his memory as very reliable, based on many other facts that I could corroborate from other sources. However in the article in The Locomotive magazine of December 1915 the livery is given as unlined black. I dismissed this as incorrect, because there was no other supporting evidence, and many photographs taken at that time showed that the statement was at least half wrong – the locomotive and tender was definitely lined at the time of delivery, and for some years after. In the case of the tender, photographs show that the lining and painted name LITTLE YARRA survived until at least about 1920. A very good photograph of the locomotive in near-new condition at Yarra Junction can be found on page six of the LRRSA’s book Arsenic and Molasses.

However, the Baldwin specifications shows that the loco was to be painted in Style 229: black with gold lining; including a black painted boiler, and the lettering was to be gold, lined with red. The 1915 article in The Locomotive stated that major overhauls on the locomotives were done by the Victorian Railways at Newport. Since POWELLITE would have been less than two years old when this article was written, it is unlikely that it would have been there for major overhaul at that time. But it was apparently assembled at Newport prior to delivery to Powelltown in 1914. LITTLE YARRA was probably due for an overhaul shortly after POWELLITE’s delivery, as it must have been very intensely used from the time of its delivery in October 1912, including work on the tramway’s construction, and was on its own for much of that time.

This puts the question of the locomotive’s original livery in doubt. To many this may seem a trivial detail, but it is a problem for anyone wanting to build a model of LITTLE YARRA, and there are many who do!

The following are possibilities (and I emphasise they are only possibilities), with either the third or the fourth being the most likely, as these two theories fit most of the written, photographic and oral evidence.

1. The specifications changed and Baldwin painted the loco red, and the article in The Locomotive got the colour wrong and details of the lining wrong. (Since it also got many of the dimensions wrong this seems possible). The only problems with this theory are that Baldwin would normally annotate such a change on the specification sheet, and red was not a colour that they normally used on locomotives. However late in 1911 they built twenty DD class locomotives for the Victorian Railways, and if these were delivered complete the VR presumably would have required them to be painted Canadian Red.

2. The loco was delivered black, with lining, and The Railway Magazine got the colour and lining details wrong, and Jack Saxton’s memory of the loco’s colour was wrong and The Locomotive got the colour right, but was wrong to say it was unlined!

3. The loco was delivered in black with lining, and within a few years was sent to the VR for overhaul. Baldwin paint finish did not weather well, apparently, so the VR may have repainted it in VR Canadian Red livery, and carefully reproduced the Baldwin lining and lettering on the tender. The VR would certainly have had the skills available to do this, and up to about 1922 the VR did not paint their own locos black.

4. The loco was delivered in black with lining, and within a few years the loco alone, but not the tender, was sent to the VR for overhaul. The VR may have repainted the loco in Canadian red whilst the tender remained in lined black livery.

There seems to be no doubt on the livery of LITTLE YARRA.
SPECIFICATIONS:

GAUGE: 3FT
CLASS: 6-14-C - DRAWING 5
TENDER: DRAWING 858
RIGID WHEEL BASE: 6' 3''
TOTAL WHEEL BASE: 12' 4''
WHEEL BASE ENGINE & TENDER: 30' 11 1/2''
WEIGHT IN WORKING ORDER: 33,000 lbs
TRACTIVE EFFORT: 5880 lbs
BOILER PRESSURE: 160 lb
CYLINDERS: 10 X 16''
DRIVING WHEELS: 37''
PILOT & TENDER WHEELS: 24''
TENDER CAPACITY: 800 Imperial GALS
PAINTING: BLACK & GOLD, STYLE 229

For reproduction, please contact the Society
VICTORIAN POWELL WOOD PROCESS LTD
BALDWIN 6-14-C (8) - LITTLE YARRA
CONSTR. NO. 37718 - 1912

DAVID FLETCHER 2008
in later years, after it had lost its cowcatcher, bell, kerosene headlight, and painted name on the tender. It was reported by John Buckland as being unlined green in the 1930s, and by WRB Johnson as newly overhauled and freshly painted green in 1940. As for the shade of green, movie films show the Shays in a green not unlike the foliage of the gum trees, presumably LITTLE YARRA was painted with the same pant.

Performance

The Baldwin specification sheet for LITTLE YARRA said that the sharpest curve on the Powelltown Tramway was 11°, compensated, (this is slightly less than 8 chains radius, or 158 m), the steepest grade 1 in 40, and the rails 40 pounds per yard. These figures would apply to the Yarra Junction – Powelltown section, as the curves and grades beyond Powelltown were much more severe. The loco was required, for passenger service, to haul trains of 55 tons at an average speed of 15 mph “throughout”, including a grade of 1 in 40 which had compensated curves of not less than six chain radius. As a comparison, 55 tons was the load limit for a VR “A class locomotive between Gellibrand and Beech Forest, which had continuous 1 in 30 grades on curves of less than three chains radius.

In almost all major dimensions affecting performance, LITTLE YARRA was about half the size of an “A”. The tractive effort (at 85% boiler pressure) of LITTLE YARRA was 5,880lbs, compared to 11,490lbs for 1A (which had a boiler pressure of 160psi, the same as LITTLE YARRA), and 12,980 lbs for the other “As, which had a boiler pressure of 180psi. The “As would have needed double the power to cope with the long stretches of 1 in 30 grades and numerous sharp curves found on most VR narrow-gauge lines.

At 6½tons the maximum axle load of LITTLE YARRA was much lighter than the 9½ tons of the “A”, making it suitable for 40lb rail and lighter bridges.

The specification sheet tells us the cab was made of wood, with “crystal plate glass windows”. The kerosene headlight had a 12-inch diameter reflector, and came complete with six headlight chimneys and 12 wicks! The front engine truck was designed to swing three inches each side of centre. Like the locomotive, the six-wheeled tender had a form of three-point suspension, with the leading wheels working in pedestals, and the rear four in an arch bar bogie. Baldwin provided the same arrangement on the tenders of the VR’s successful 5ft 3in gauge W class 4-6-0 locos 32 years earlier. Steam and handbrakes were provided on all driving wheels, and hand brakes on all tender wheels. The “painting [was] to receive particular attention as loco will be ready for immediate service on arrival in Victoria”.

LITTLE YARRA was designed to burn wood or coal, but “chiefly hardwood blocks” and no brick arch was fitted in the firebox.

In the Powelltown Tramway’s busy days up to the late 1920s LITTLE YARRA was normally used on the ‘passenger trains’. These were the trains that appeared in the Victorian Railways timetables, and included either one or two passenger cars. But they were really mixed trains, and included a variety of 5-ton and 3-ton trucks. Five-ton trucks were mainly used to carry general freight, whilst 3-ton trucks normally carried sawn timber. In the busy days of the 1920s LITTLE YARRA’s train would usually be as heavy as the loco could pull. But the main burden of timber haulage fell to POWELLITE, which was more powerful, running timber trains day and night to carry the loading. And if all the timber had not been cleared by the end of the week, a Shay would be called upon to run a long train on a two-hour journey to Yarra Junction on Saturday afternoon.

LITTLE YARRA was easily the fastest of the Powelltown tramway engines, and on several occasions it was called on to make a mercy dash to Yarra Junction, either to take in an injured person, or to fetch the doctor. In one case, it did the 16½ miles in 20 minutes. Nearing Yarra Junction LITTLE YARRA’s whistle would be blown to warn the doctor he was needed – and on arrival at the station the doctor was usually already waiting.

For light trains, LITTLE YARRA was more popular with drivers, as it had a spacious cab with padded seats and rode well, features lacking in POWELLITE. But it could be difficult to fire, the fire had to be stacked very carefully. It was unpredictable, and could run well one day, and badly the next. It had steel
boiler tubes and a thin steel tube plate, which was troublesome and difficult to repair. The steel tubes did not retain heat well and frequently leaked at the tube plate. Up to six tubes were blocked off at a time. The leaking tube plate problem was finally fixed in 1934 when LITTLE YARRA visited Newport workshops for the repair. Apart from being more powerful, POWELLITE was also more predictable, easier to fire, and easier to work on.

LITTLE YARRA's other idiosyncrasies included a leaking regulator valve and a tendency to wander off on its own. It was usual to check it in place at Powelltown, and on one occasion when this was forgotten it was found half a mile from Powelltown.

LITTLE YARRA's fuel was cut into 3ft 6in lengths, compared to 4ft for the Shays and Powellite. Occasionally coal was used, sometimes obtained from helpful Victorian Railways' crews at Yarra Junction. Various types of wire mesh spark arrestors were fitted in the fire season, but they all used to clog up quickly, affecting steaming. The Radley & Hunter stack fitted to its mate 37693 would surely have been better.

LITTLE YARRA and POWELLITE both ran funnel first to Powelltown until about 1916. This was not ideal, as the direction of heavy loading was towards Yarra Junction. About that time a temporary triangle was laid at Powelltown to turn them. From that time they always ran funnel first to Yarra Junction.

LITTLE YARRA's ultimate fate is not known. In 1945 it was sold to Cameron & Sutherland, machinery merchants, who bought it and POWELLITE for the British Phosphate Commission for use in Nauru. Whilst POWELLITE saw a few years service in Nauru, there is no record of LITTLE YARRA ever being shipped there. It is likely that it was judged as being too worn to be worth repairing, and was probably scrapped in Australia.

Acknowledgements

Firstly I would like to thank David Fletcher for the prodigious amount of work he has put into this project, culminating in the drawings which appear in the centre pages on this issue. David has also produced drawings, in colour, showing the livery details of LITTLE YARRA, and explaining the Baldwin standards on locomotive livery. You will find this information in the current issue of Narrow Gauge Downunder.

In addition, David and I wish to acknowledge the following organisations and people who have provided information:

- California State Railroad Museum Library, Sacramento. Special thanks to Librarian Cara Randall, who has been central to our searches.
- DeGolyer Library, Southern Methodist University, Texas. Special thanks to Cynthia Franko.
- Stanford University Library. Colour Scheme paint book information courtesy of the Department of Special Collections and University Archives.
- Jim Wilke, Railroad Historian in the USA, Vance Bass in the USA, Eljas Põhö in Sweden, Antonio Gorni in Brazil.
- The Yahoo Groups of the LRRSA and the Industrial Railway Society (UK).
- Phil Rickard for deciphering the purchaser names in the list of 6-14C locomotives, which enabled the construction numbers to be identified.
- Finally, it is worth noting that the power of the internet to communicate worldwide has enabled all this information to be brought together in a way which was inconceivable only a few years ago!

References and sources

Baldwin Specification for Locomotives 6-14C 6 and 6-14C 8 in Book 39, pages 221, 222, 316 and 317.
Baldwin Construction list for Class 6-14C locomotives.
Baldwin Style Cards
Baldwin Locomotive Works 1832-1956, Complete list of locomotives built.
FE Stamford, EG Stuckey, CL Maynard, Powelltown: A History of its Timber Mills and Tramways, LRRSA 1984

Notes

What is it?

The operations of Australian Blue Asbestos Ltd around Wittenoom in the Pilbara region of Western Australia have become notorious because of the disastrous impact of asbestos on the health of many workers and family members. Mining began in 1940 under the management of Lang Hancock, and finished in 1966. Australian Blue Asbestos used 2ft gauge railways in the mines in a number of the local gorges, with some battery electric locomotives remaining on site until recently.

However, this interesting photograph shows another story altogether. Dated 1950, it shows what appears to be a substantial diesel locomotive emerging from a mine adit. The lengthy locomotive has a long overhang at the front, above which is the engine, making it appear quite unbalanced. The shape of the welded frame gives grounds for suspicion that it might have started life as a trolley-wire electric. The axle boxes are of a very unusual design.

I have seen photographs of mines locomotives in Serbia which are ex-trolley-wire units fitted with a diesel engine and generator and utilising the original traction motors, so I wonder if this is a similar case.

If any reader can comment further on any aspect of this scene, that would be much appreciated.

John Browning

Photo: courtesy Battye Library 003891D
Hagan's Patent locomotives
Well-known light railway historian Charles S Small wrote an article, 'Hagan's Articulated Patent Locomotive', in *Short & Narrow Gauge Rail* (No. 10, 1984) that describes a large Hagan Patent four-axle articulated locomotive THESSALIE supplied to the Greek Volos-Milas 600mm gauge line (the Thessalian Railway) in 1895. There is a fine scale drawing of this locomotive in the article. Like its Tasmanian counterpart, the 'monster' was regarded as a failure and the railway subsequently stuck to 2-6-0 tank locomotives.
I was surprised that this information was not covered in Geoff Murdoch's book, *Tasmania's Hagan*.

Garry Allen
Palmwoods, Qld

Dear Sir,

Re: Garratt Locos

I was interested to read your editorial in LRN 1, wherein you commented on the Gauge 1 railway. My wife and I have such a railway at the Museum. The main layout is 51m in circumference, and when finished will have twin track, a rack railway and a live steam loop, for which we have a 3-cylinder 2-track Shay.

Our new drawcard, we hope, will arrive in a few months; an Accucraft 2-6-2+2-6-2 Garratt. A high quality model based on the West Highland Railway No.138 (ex-South African Railways class NGG16).

This sent us to the WHR website (http://whr.bangor.ac.uk/whr.htm) to see Garratt K1 in action. It has recently been converted to coal firing (LR 199), while No.138 is currently dismantled for overhaul.

The British seem to have developed the art of dragging exported machinery back to Britain, which may seem a bit harsh until you look at the list of 23 exhibits on the Welsh Highland Railway - only three are from Wales!

Incidentally, Wikipedia is a great source of such information. They have a 14-page entry on the Welsh Highland Railway.

Jim Walker
Curator,
Turon Technology Museum
Sofala, NSW

Dear Sir,

Jetty & Wharf Tramways on Kangaroo Island, South Australia (LR 142)

Vivonne Bay jetty

The tramway on the jetty at Vivonne Bay is still complete and in regular use. The rails had fresh wear marks. The shore-end had long fresh rusts, worn by the wheel flanges running off the end of the rails into the dirt. While Judy and I were there, a fishing boat pulled in and unloaded its catch onto the trolley, which was then pushed along the line to the shore. The jetty has been much shortened from the 990ft in 1919, and the gauge seemed narrower than 3ft 6in (LR No.142, August 1998). A good photo of the original long jetty with its curving outer end and line is to be found in the State Library of SA photo collection.

Looking shoreward along the Vivonne Bay jetty, 21 November 2007. Photo: Jim Longworth

Looking down the cutting for the flying fox from above the Cape du Couedic jetty. One rail remains in place, 23 November 2007. Photo: Jim Longworth

Harveys Return, Cape Borda

As noted in LRN No.39, there was light railway associated with the lighthouse at Cape Borda. The line did not run along a jetty or wharf as strictly defined. However it did run along a rocky shoreline to a derrick crane where supplies were off-loaded from ships. The Cape Borda lighthouse museum has several excellent photographs of the double track incline up from the shore, a wheel set, and horse capstan once used to power the incline.

Jetty and wharf enthusiasts have as much problem defining a jetty and a wharf as we do defining light railways. So, could the definitions of a jetty and a wharf be stretched to include a constructed landing place? Or must the light railway at Harveys Return be categorised as a 'landing place light railway'?

Jim Longworth
Cheltenham, NSW

LRRSA NEWS

ADELLAIDE: "A Register of Light Railways in South Australia" Members will be working on the record of light railways in SA, with a view to creating a complete register of such railways.

Location: 150 First Avenue, Royston Park.
Date: Thursday 3 April at 8.00pm.
Contact Arnold Lockyer on (08) 8296 9488.

BRISBANE: "No.5 at Moreton Mill"
The April meeting will feature a DVD by Bob Gough, showing the visits by ANGRMS to Moreton Sugar Mill at Nambour, between 1997 and 2001, with their locomotive Bundy Fowler No.5.

Location: BCC Library, Garden City Shopping Centre, Mount Gravatt. After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys R Us.
Date: Friday 11 April at 7.30pm. Entry from 7pm.

MELBOURNE: "Puffing Billy Railway - Maintaining the Locomotives"

Adam Black, Rolling Stock Manager of the Puffing Billy Railway will give a first hand insight into the problems and challenges of maintaining and restoring locomotives on the Puffing Billy Railway. He is currently responsible for 13 locomotives of eight different types, from 6-ton 0-4-0Ts to a 69-ton Garratt, a geared steam loco, and three very different diesels.

Location: Ashburn Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday, 10 April 2008 at 8.00pm

SYDNEY: "The Maine Two-Feeters and Indonesian gold mine tramways"

A double presentation, with Michael Bickford showing images from his 2007 visit to preserved Maice 2ft gauge railways plus vintage video footage, then Ray Gardiner on Indonesian gold mine tramways, which still use battery and overhead electric locos for haulage.

Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday 23 April at 7.30pm.
Coal Mines of Puponga
by Peter Dyer

211 x 278 mm, 192 pages printed landscape format with card covers. 132 black and white photographs, 29 maps and diagrams. Published 2003 by River Press, PO Box 10, Picton, New Zealand.

Puponga was a small coal mining area at the north-west corner of New Zealand's South Island. Two coal mines used 2ft gauge tramways to bring coal to ocean wharves with the Puponga mine using steam locomotives from 1901 to 1943 while the North Cape mine used a Fordson tractor conversion during the 1920s.

Your reviewer missed this book when it was published in 2003, but it is still in print and available from the publisher. What a fine production it is too, a most attractive volume, with Peter Dyer producing a very readable text and the use of landscape format making the presentation of many of the fine photographs particularly appealing.

The detail of tramway, wharf and mine infrastructure shown in the photographs makes this book a modeller's delight and the quality of Peter Dyer's locomotive and rolling stock line drawings is already well known. The book also provides a valuable social history of the area. This book will also appeal to anyone with a love of 2ft gauge railways or who wishes to gain a better understanding of the challenges that faced coal mine operations in a remote location 100 years ago.

Copies may be purchased from the publisher for AU$50 including economy postage. E-mail orders to riverpress@xtra.co.nz

Highly recommended. John Browning

Silimpopon: A Borneo Coal Mine
by Ross Ibbotson

254mm x 183mm, 210 pages, hard cover. 105 monochrome photographs, 11 maps and diagrams. Published 2007 by Opus Publications, PO Box 15566, 88864 Kota Kinabalu, Sabah, Malaysia.

The Silimpopon coal mine was established in a remote corner of British North Borneo in 1906 and closed in 1932. It had a 4½ mile 2ft gauge tramway connecting the mine with a river wharf, using four Andrew Barclay steam locomotives.

Many of the problems it faced were similar to those dealt with more successfully at Puponga, but the situation at Silimpopon was exacerbated by its location in a tropical colony with remote corporate control and an unskilled workforce of miners who were mostly illiterate Chinese peasant labourers.

This is a well-written and beautifully produced book. The writer succeeds well in clearly explaining the technical aspects of coal mining as they applied to the mine, and traces well the various vicissitudes of the coal company. Fortunately, a wonderful archive of excellent photographs of all aspects of the mine and its associated settlement has survived, and these have been reproduced to a high standard using sepia tones. With his long experience of managing enterprises in Borneo, the author is well able to analyse and explain some of the difficulties faced by those who had the task of local management of the mine.

Unfortunately, they do not seem to have done a good job by and large. While the author's main focus is not on the mine tramway, it receives adequate treatment and there are several excellent photographs showing the locomotives and rail operations. The level of detail in many of the photographs taken around the mine would provide much valuable data for the modeller.

The book provides valuable insights into the enormous problems of operating a technically complex enterprise in a remote part of the British Empire in the first half of the twentieth century. Such a task was only possible because of the seemingly inextricable confidence and ample financial resources of the colonisers, combined with the availability of cheap labour working under dreadful conditions.

Copies may be purchased from the publisher at about AU$55, plus postage.

Email info@nhborneo.com or go to http://tinyurl.com/23wwpv

Highly recommended. John Browning

70 ans de chemins de fer betteravières en France: La voie de soixante betteravière
by Eric Fresné

286mm x 210mm, 144 pages, card covers. 24 colour and 128 monochrome photographs, 70 maps and diagrams. Published 2007 by LP Presse, 12 Rue du Sablon, 56400 Auray, France.

This book deals with the 600mm gauge railways associated with the sugar beet industry in France in the period from the 1890s to the 1960s. As such, it provides a valuable comparison with the same period for Queensland's sugar cane railways. This book is very attractively presented. It forms a general survey of the large topic of French sugar beet railways. There were around 50 factories and the book does not attempt a comprehensive listing of them or their locomotives. As in Queensland there were numerous amalgamations and rail system linkages over the years. The lines were largely used for transporting sugar beets from the fields to the factory and in return taking the spent pulp back to the farms for use as animal feeds. Some also carried finished sugar to transport outlets, such as the last survivor which brought the product to a canal wharf.

The author deals with methods of operation and gives significant attention to the development of locomotives and rolling stock, which was significantly influenced by the impact of two world wars, with many locomotives designed for wartime use being put into sugar tramways. Apart from an influx of American war service locomotives following the Great War, the main locomotive suppliers were either French and Belgian, or German, and some interesting comparisons are drawn between them.

The author also discusses the reasons for the demise of the French beet tramways at a time when the Queensland cane tramways were reinvesting and expanding.

Schoolboy French is quite sufficient for comprehension of most of the text, but for those with more limited linguistic skills the outstanding features of the book include the range of well-produced photographs, some in colour, and the selection of beautifully-pressured 1:43 scale drawings of locomotives and rolling stock that would be a modeller's delight.

Unfortunately, the cost of freight means that LRRSA is unable to stock this book at economic rates, but you can easily purchase direct from the publisher at http://tinyurl.com/2hy681 by credit card using the very same process that is used to make purchases from the LRRSA online shop (although the instructions are in French). The cost including postage is approximately $48 depending on prevailing exchange rates.

Highly recommended. John Browning

LRRSA ONLINE DISCUSSION GROUP

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Lithgow's Iron and Steel Industry 1874-1932
by Bob McKillop
The story of Australia's first and only inland heavy industrial centre, from its beginnings with the opening of New South Wales' Great Western Railway into the Lithgow Valley in 1869 and the establishment of the first blast furnace there in 1874, to the final closure of the iron and steel works in 1932. It covers the technical, commercial, industrial and political history of the operation.

$31.90 (LRRSA members $28.90) Weight 2.6 kg.

**Bellbrakes, Bullocks & Bushmen**
A Sawmilling and Tramway History of Gembrook 1885-1985
by Mike McCarthy
Served the raw materials of Gembrook and its predecessors. The book includes maps and diagrams. It also examines the technical, commercial, industrial and political history of the operation.

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A History of West Gippsland Tramways and the Industries They Served 1875-1934
by Mike McCarthy
Describes the tramways which linked the coastal lands in the hinterland to the coastal towns. Maps, diagrams, references and index.

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**The Golden City and its Tramways**
Ballarat's tramway era
by Alan Bradley
Published by Ballarat Tramway Museum Inc.
Using the wealth of the 1650s goldrushes, the founders of Ballarat built a magnificent provincial city. This book is not a dry technical history but describes how the citizens of Ballarat used the trams in their daily lives. It brings to life the difficulties experienced in the second world war, when lights were dimmed and petrol severely rationed. This book also addresses the technology, economics, politics, working conditions, and competition from other forms of transport. Many wonderful photos dating back to the 1880s. 144 pages, A4 size, hard cover, 119 photographs (15 in colour), 4 maps, bibliography, index.

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The line of the diminutive Shay locomotives
By John Knowles, published by the author
The Mapleton Tramway was an 18 km long 2 1/2 gauge railway, which climbed the steep ranges, west of Nambour, about 110 km north of Brisbane. In many places the line was located on shelves in the mountain sides with magnificent views over the coastal lands to the sea. It used steep gradients and very sharp curves, and reached 380 m altitude. It was operated by two small Shay locomotives. It carried sugar cane, logs and sawn timber, fruit, cream, small livestock, as well as passengers and mail. It also includes seven scale drawings of the rolling stock and locomotives, 92 pages, A4 size, plus card cover, 81 illustrations, references, and index.

$28.50 (LRRSA members $25.65) Weight 0.7 kg.

**Laheys' Canungra Tramway**
by Robert K. Morgan, revised by Frank Stamford
Describes Queensland's largest timber tramway with one Climax locomotive and 3 Shay locos. 32 pages, soft cover, A4 size, 28 photographs, plus maps and diagrams, references and index.

$9.95 (LRRSA members $7.46) Weight 0.2 kg.

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The History and Development of the Ger-aldton Shire Tramway and the Mourilyan Harbour Tramway
by John Armstrong & G.H. Verhoeven

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**Mountains of Ash**
A History of the Sawmills and Tramways of Warburton - by Mike McCarthy
Describes a network of over 320 km of tramways which linked 66 major mills to the Warburton railway. 320 pages, A4 size, 280 photos (incl. 52 duotones), 50 maps/diagrams, (incl. 14 four-colour maps).

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**The Aramac Tramway**
By Peter Bell & John Kerr
The history of the 41 mile long 3 ft 6 in gauge Aramac Tramway, almost in the centre of Queensland. Built in 1913, it operated for 62 years, providing the Shire Council a major challenge to keep it going. 48 pages, A4 size, 49 photos, 5 maps and plans, references, bibliography and index.

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the Burnett River ferry with Millaquin Mill should be completed for the 2008 season.

Bingera Mill's Com-Eng 0-6-0DH JAMACA (B1112 of 1956) has been acquired for presentation by Mitch Zunker at Sharon, and was delivered to a siding there by EM Baldwin 0-6-0DH MANOO (3875.1/7.71 of 1971) on 12 December 2007. The Bundaberg District Canegrower 12/07 via Bill Kerr, Lincoln Driver 1/08, 3/08; Mitch Zunker 1/08

**BUNDABERG SUGAR LTD, Innisfail District**

(see LR 199 p.16 & 198 p.19)

610mm gauge

Further progress with the construction of the new link line connecting the South Johnstone and old Mourilyan networks in the Boogan area was noted in February. From near the QR loop at Boogan, the new line turns onto the old 1067mm gauge South Johnstone branch formation. Just before Willie Gray Road, it turns off the old right of way in a roughly south-west direction, crossing the road and disappearing into the countryside, away from public roads.

The new river bridge to be built on this line will not only replace the ex Innisfail Tramway Queensland Bridge and direction and 1067mm rail, but also the old dual gauge bridge that was part of the QR South Johnstone branch. Cane railway 610mm-gauge bins still cross this bridge at South Johnstone but have to be pushed across as locomotives are not allowed onto it. A farmer’s tractor collects the bins on the other side.

In the slack season, all 6-tonne bins are maintained at the former Mourilyan Mill site, with the rest receiving attention at South Johnstone. Locomotives 1 to 20 are serviced at Babinda and the others at South Johnstone.

It is reported that Bundaberg Sugar’s northern mills will be hived off into a separate company irrespective of any progress of merger talks with neighbouring mills.

Peter Lukey 1/08; Chris Hart 2/08, Shane Yore 2/08

**CURTAIN BROTHERS (QLD) PTY LTD, Townsville**

1067mm gauge

A Plymouth 4wDH locomotive has been repatriated from Papua New Guinea and is currently stored. Its last known use was on oil exploration work at Palibina (see LRN 119 p.22) in 1994, after which it was stored at the Curtain Brothers yard at Port Moresby. Its history goes back to the Snowy Mountains Scheme and it was later used on the Melbourne underground railway construction around 1977 and the Cardstone tunneling project in north Queensland in 1990.

The locomotive is unidentified but is almost certainly one of 6127, 6128 and 6130 of 1958 or 6131 and 6132 of 1959.

Curtain Brothers are involved in a scheme to develop the Mt Moss iron ore mine, about 155km north-west of Townsville, which lies about 30km from the trackbed of the old QR Greenvale line. It is understood that they hope to build a railway to the mine site, largely using the old Greenvale line route.

Peter Murray 2/08; Peter Renton 3/08; Courier-Mail 25/3/2007

**CSR PLANE CREEK PTY LTD**

(see LR 198 p.19)

610mm gauge

The mill’s four Walkers B-B DH locomotives are being repainted this slack season, with only CARMILA (661 of 1970 now in Bundaberg Foundry 1995) remaining to be done by late February. EM Baldwin B-B DH D12 (6690.1 10.76 of 1976) has its cab painted by mid February, and the remainder was expected to follow.

The Plasser Model TC50 linear (built 1982) has reappeared on rails. It appears to have had some panel work done and has had new windscreen installed. Its bodywork has largely been painted with a light grey primer.

Carl Millington 1/08, 2/08, 3/08

**CSR SUGAR (HERBERT) PTY LTD, Herbert River Mills**

(see LR 195 p.16)

610mm gauge

The carcass of EM Baldwin B-B DH BRISBANE (5423.1 9.74 of 1974) arrived in Brisbane on 17 January. It is to undergo a major rebuilding by Australian Diversified Engineering Pty Ltd at the direction of an associated company, ADC Products Pty Ltd. Work will include lengthening of the frame by approximately 900mm, and it will receive a new Caterpillar engine and drive train with locally manufactured new drive gearboxes and axles. The cab will be lengthened by about 300mm and joystick controls will be fitted. Main braking will be through the transmission system. It is expected that the locomotive will be ready to return to service for the 2008 crushing season. 125 new 8-tonne bins are to be supplied this year, and while wheelsets and couplings will be sourced in Australia, the remainder will be manufactured in China and shipped in containers to be assembled locally by Rinaudo Engineering. Work has been going on at Victoria Mill on various locomotive engine upgrades. EM Baldwin B-B DH TOWNSVILLE II (6400.2 4.76 of 1978) has received the engine taken out of BRISBANE. EM Baldwin B-B DH ADELAIDE (7070.2 4.77 of 1977) appears likely to receive a new engine and the one that had been removed from it by mid-February may be going into another locomotive.

The end of Macknade Mill’s Seymour branch was lifted in December in another siding rationalisation which will see the last three sidings, Warren’s, Cresta and Jones, being replaced by a large siding to be situated between Warren’s and Cresta. The line between Cresta and Jones has been lifted and a bridge in this section removed.

Chris Hart 1/08, 2/08; Tony Gray 1/08; “JR934” 3/08

**CSR SUGAR (KALAMIA) PTY LTD, Kalamia Mill**

(see LR 799 p.16)

Victoria Mill’s EM Baldwin B-B DH GOWRIE (7135.1 7.77 of 1977), sent to Kalamia for loan in December 2007, has been returned north, arriving in Ingham on 20 February. Two locomotives are expected to be sent to an outside contractor for sandblasting and repainting during the 2008 slack season.

Jason Lee 1/08, Chris Hart 2/08

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For reproduction, please contact the Society
Lincoln Driver was out and about in the Bundaberg District on 26 October 2007. Top: With the picturesque Sloping Hummock in the background, Millaquin Mill’s EM Baldwin B-B DH FAIRYDALE (10048.1 6.82 of 1982) hauls full bins across the red soil of the Woongarra towards Grange Road. The loco is hauling fulls cab-first to the old Ounaba Mill site, where they will be stowed for later collection, because the points at Grange Loop face the ‘wrong’ way in relation to Millaquin.

Centre: Having arrived at Wallaville with empties from Bingera Mill, EM Baldwin B-B DH MIARA (8988.1 6.80 of 1980) pauses briefly outside the delightful ex-OGR station building before heading back with the waiting fulls that have been brought here by the locally-based locomotive. Above: The massive size of the ex-government railway conversions is accentuated here as Bingera Mill’s Walkers B-B DH KOLAN (633 of 1969, rebuilt Bundaberg Foundry 1996) clears the top of Pitt’s Hill on its way with a shuttle from Fairymead.

HAUGHTON SUGAR CO PTY LTD
(see LR 199 p.16)
610mm gauge
The crush at Invicta Mill continued up to around 8 January, with Pioneer Mill finishing on that day. Very heavy rain meant that Giru was flooded at least three times during the wet season. The last occasion, around 12 February, was said to have been the worst in living memory. The entire mill yard area at Invicta Mill was submerged and TV shots showed locomotives standing in water about a metre deep.

At the same time, torrential rain also caused disastrous damage to the two largest concrete bridges on the mill’s Dalbeg line, both 13 metres in height, at Landers Creek and Expedition Pass Creek, tributaries of the Burdekin. The 135-metre Landers Creek bridge had two spans carried away and also lost a pier, while at the 135-metre Expedition Pass Creek bridge one span was carried away and a pier has sunk a couple of metres, leaving another span perched precariously upon it. In flood times, these bridges would normally carry the line above water backed up from the Burdekin, but on this occasion, it appears that it was the raging creeks themselves that did the damage. It will be a major task to return the bridges to use in time for the 2008 season.

Victoria Mill’s Walkers B-B DH CAIRNS (681 of 1972 rebuilt Bundaberg Foundry 1997), together with Solari brake wagon BV13, sent to Invicta on loan at the end of November 2007, have been returned north, arriving in Ingham on 27 and 21 February respectively.

Locomotive work at Invicta this slack season was scheduled to include fitting a new MTU engine to Walkers B-B DH SCOTT (669 of 1971 rebuilt Bundaberg Foundry 1995). In addition Walkers B-B DH GIRU (693 of 1988 rebuilt Tulk Goninan 1999) will receive a similar new MTU engine as well as a reconditioned Voith transmission from Europe to provide dynamic braking, the first ex-QGR DH class to be so fitted. The new blue 6-tonne bins delivered in 2007 were manufactured in China and assembled in Australia.

Jason Lee 1/08, 2/08; Chris Hart 2/08; Carl Millington 2/08; Peter Murray 2/08; Townsville Bulletin 18/2/08 via Corey Seaton

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD
(see LR 199 p.17)
610mm gauge
The torrential rain that occurred on 15 February brought extensive damage to the Mackay Sugar rail network, with repairs estimated to cost at least $1m. The fall of up to 600mm in six hours has meant that many causeways, culverts and bridge headwalls have been significantly affected, with track washed away in some locations.

The new Harsco Track Technologies Model...
TSR/TRS resleepering machine, RSLEP 8, was noted working on track refurbishment at Otterburn on the Marian Mill system on 5 February. It carries builder's number 226577 and was apparently delivered during 2007. It weighs 7.3 tonnes. Two Walkers DH-class B-B DH locomotives have been purchased from Mackay Sugar by Emerald Tourist Railway Board to meet the future needs of the Puffing Billy Railway. These are reportedly DH25 (607 of 1969) and CC02 (587 of 1968). DH25 was purchased by Racecourse Mill in 1995 and was stored there before being moved to North Eton in 2003. CC02 was purchased by Cooks Construction in 1992 and used on 900mm gauge track at Yallourn in Victoria. It was purchased by Mackay Sugar in 2001. It is believed that both locomotives are substantially complete, with one to be put into service and the other to be a source of spare parts.

ABC Local Radio 22/2/08; Carl Millington 2/08; Frank Stamford 2/08

PIONEER SUGAR MILLS PTY LTD,
Inkerman Mill
(see LR 198 p.21)
610mm gauge
Another locomotive is expected to be sent to a contractor for sandblasting and painting before the start of the 2008 crushing, continuing a programme that has gone on for a number of years.

Jason Lee 1/08

TOLL QRX
1067mm gauge
QRX, part of the Toll Group, has hired ex-Emu Bay Railway Walkers B-B DH locomotives from Cairns Kuranda's Rail Services for captive shunting duties at various depots. 1101 (638 of 1970) was at the Mackay QRX depot in 2005 and after its return to Cairns the following year, it was used for a short time at the Woree QRX depot (see LRN 113 p.10). In August 2007 it was transported by road to the Rockhampton depot and was used there until January 2008 while building works were carried out there. On its return to Cairns, it was again put to use at the Woree QRX depot to replace a broken down shunting tractor. 1105 (642 of 1970) was obtained by Cairns Kuranda from the Beaudesert Railway in 2005. It was sent directly to Mackay and has been there ever since.

Carl Millington 1/08, 2/08; Editor

TULLY SUGAR LTD
(see LR 198 p.21)
610mm gauge
The Bruce Highway is being rebuilt and relocated between Murray Flats and Tully and this has affected the rail system. At Hewitt, the new highway will run parallel to the QR and will pass over the cane railway on the eastern side of the catchpoints. At Ewan, the new highway is being built on the western side of the existing highway over the course of the Stamp Road line. This line...
Bogong Village. One is the Power Station site, next to the junction of the Rocky Valley Branch and the Pretty Valley Branch of the East Kiewa River, where the 1.2km high pressure tunnel commences. The other is the old Commissioners Residence site, just above Bogong Village, where the 6.5km headrace tunnel is being constructed by a tunnel boring machine.


WESTERN AUSTRALIA

BHP BILLITON IRON ORE PTY LTD
(see LR 199 p.18)
1435mm gauge
BHP will commence duplication of the railway track between the Yandi mine and Port Hedland. Railway construction is expected to begin in May 2008, subject to various government approvals. It is believed that BHP Billiton will take delivery of 10 new Model SD-70 locomotives diverted from a USA order for Burlington Northern Santa Fe, to be shipped from north America about the end of April. BHP Billiton media release 2/08; David Rowe 3/08

MONARCH GOLD MINING CO LTD, Mt Ida
610mm gauge
Monarch Gold Mining acquired a 2.5 tonne 4wBE ‘Goodman’ locomotive built by Trident SA in Germiston, South Africa, for use at the Mt Ida mine, apparently in late 2008. Trident also supplied in late 2006 a new Eimco 12B bagger for underground use here. It is assumed that Monarch Gold Mining is associated with Mt Ida Gold Operations Pty Ltd (see LR 198 p.22).

http://www.flickr.com/photos/markedgar via Phil Rickard

THE PILBARA INFRASTRUCTURE PTY LTD
(see LR 199 p.18)
1435mm gauge
All four of the construction locomotives are in use with AE Goodwin Co-Co DE DR8404 Vera (G-6040-01 of 1970 rebuilt GTSA 2007) noted in use at Indee Station Road level crossing on 12 January. By the start of March, the tracklaying train, owned by Laing O’Rourke, was working on the line at the fortrescue overpass of the BHP Billiton line near Woodstock. CFQLAs ex Kowloon-Canton Railway Clyde Bo-Bo DE TL154 (57-144 of 1957) has been shipped to the Pilbara, and is being used to work ballast trains north from Cloud Break Mine. Toed Montgomery 2/08, 3/08; Brett Geraghty 3/08

PILBARA RAIL
(see LR 199 p.18)
1435mm gauge
Rio Tinto Ltd has formed an alliance with equipment supplier Komatsu to develop and deploy advanced autonomous haulage solutions, with a new control
centre in Perth, 1300km away, controlling driverless trains, planned to be in initial operation during 2008. The plan also includes a driverless truck fleet and remote control drills.

The first instalment of 10 new GE Model ES44DCi Co-Co DE locomotives arrived in port at Dampier in early February. These have builder’s numbers 57996 to 58005 and carry numbers 8100 to R108. A company statement indicated that the purchase of 30 more of these locomotives was planned in the current year.

Fortescue Mineral Group has applied to the National Competition Council to gain access to Rio’s iron ore lines. It has also been successful in fighting attempts by Rio to have the Federal Court prevent the Australian Competition Tribunal from dealing with access disputes in the future.

The Fiji Sugar Corporation Annual Report for 2007 recognises the current shortcomings of the rail infrastructure and the need to turn back the tide of conversions to lorry transport, which has adverse effects on foreign exchange and causes traffic congestion. FSC aims to have 45 per cent of the crop back on rail by 2010. This will call for significant steps to address the state of the locomotive fleet and cane truck fleet as well as considerable investment in the track.

John Peterson 2/08

One of two 2ft gauge Jenbach Model JW15 4wDM locomotive situated on Makira Island in the Solomons, for possible use in swamp logging operations. It was originally used in Sarawak and has Jenbach transmission number 1394, probably dating from the 1970s. An extension has been provided at the front to accommodate a replacement Japanese Yanmar 18/22hp diesel engine. Photo: Ross Ibbotson

SOLOMON ISLANDS

MIDDLE ISLAND INVESTMENT PTY LTD, Makira

610mm gauge

Situated on the island of Makira (formerly San Cristobal) are the logging operations of this company, a subsidiary of Lau Brothers of Sarawak (Borneo). A quantity of rail equipment was brought over from Sarawak in early 2005 in preparation for its possible use in swamp logging operations. The equipment consists of 3.7 miles of rail, two sets of points, 100 sets of wheels and axles, a 4-wheel carriage, and two Jenbach Model JW15 4wDM locomotives. One locomotive still has its original Jenbach engine (number 11299), built in 1974, and the other has been fitted with frame extensions to accommodate a replacement Yanmar engine.

It is doubtful if this rail equipment will ever see use in the Solomon Islands as conventional methods are proving satisfactory in the patches of swamp forest that have been encountered.

Ross Ibbotson 2/08

CORRECTIONS & CLARIFICATION

• LR 199, page 16. NDIA NRE MINERALS should read INDIA NRE MINERALS
• LR 199, page 16. Chris Hart indicates that while Victoria Mill locomotives CENTENARY and INGHAM were both at Macknade Mill on 17 December, it was only to transfer bins there, and they returned to Victoria Mill the same day.
• LR 199, page 18. The lower photo was taken by Toad Montgomery. Apologies to Toad and to Carl Millington.

Brett Giraghty captured a BHP Billiton iron ore train passing under the new Fortescue line overpass with the Laing O’Rourke track laying train working above on 1 March. The ore train is headed by General Electric Model AC6000CW Co-Co DE 6077 NIMINGARRA (51089 of 1999), with a General Motors EMD second-hand Model SD-40R locomotive behind.
**National Library of Australia newspaper digitisation**
Newspapers are a basic reference for industrial and light railway researchers. Readers will therefore be interested in the four-year project initiated in 2007 by the National Library of Australia, in collaboration with each Australian state and territory library, to digitise major newspaper from each state and territory. The aim is to build a service that will provide a free on-line access from the first Australian newspaper published in 1803 through to 1954, when copyright comes into play. The total cost, funded by the National Library, is expected to be $8 million. By the end of 2008, the 19th century portions of the following newspapers are expected to be available: Sydney Gazette, Maitland Mercury, Argus (Melbourne), Courier Mail (Brisbane), Hobart Town Gazette, Courier Advertiser (Adelaide), the West Australian and the Northern Territory Times. It was announced on 13 December 2007 that the Sydney Morning Herald will be digitised as part of this project at a cost of $1.7 million, $0.7 million of which will be contributed by the National Library and the remainder by a grant from the Vincent Fairfax Foundation. Digitisation of the Sydney Morning Herald, which commenced publication as the weekly Sydney Herald on 18 April 1831, is expected to be completed by 2009.

**Phil Rickard**

**Forestry railways in North Borneo**
Ross Lobotson is currently researching a history of logging in North Borneo. His short article on the development of rail transport in the logging industry can be found at http://tinyurl.com/2vbd06 [NB This is a large file, most suitable for downloading using broadband.] It is interesting to note that light railways are still used for swamp logging in Sarawak. Ross would be interested in hearing from anyone who has information or photographs of logging operations in North Borneo. He can be contacted at lobotson@pd.jaring.my.He has also authored the recently published book, Silimpopon: a Borneo Coal Mine (see page 26), which is illustrated with a selection from a fascinating collection of photographs. John Browning

**LRRSA Mt Cole Forest Tour report**
On the weekend of the recent Federal Election, 24 and 25 November 2007, a group of 20 LRRSA members and friends undertook a forest tour to Mount Cole and the adjacent Mt Buangor State Park. Peter Evans led the tour and provided a detailed historic account of key sawmills on-site and in his comprehensive tour notes. The weather was perfect for bushwalking with the temperature in the high 20's and both fine and sunny. Mount Cole is approximately 200km northwest of Melbourne and, due to its proximity to the Ararat, Ballarat and Beaumont goldfields which boomed in the last half of the 19th century, its forested slopes were home to some of the earliest and most intensive forest utilisation in Victoria. It was also fortuitous that, in the early 20th century, the area had a far-sighted forester who displayed a passion for protecting the forests which had re-grown when mining had faded, and Mount Cole remained essentially closed to sawmilling until after the Second World War, by which time the logs were processed off-site at Ararat and Beaumont. Mt Cole is therefore a time capsule of the archaeological expression of 19th century sawmilling practices. The terrain is relatively dry and steep which enabled the sawmills to utilise extensive systems of log chutes. This largely eliminated the need for the elaborate light rail or tramway networks used elsewhere in Victoria. The tour commenced at Bailes Picnic Area which was named after Thomas Derham Bailes, the local forester who was instrumental in closing the area to logging for the first half of the 20th century. The first stop was Kozminsky's log chute which starts high on the summit above Saddle Road and runs down to the mill site in the valley below. Kozminsky's...
The group then made their way to the Ararat for dinner and a tour of the Ararat Railway Museum adjacent to the Ararat Station. Prior to dinner several members visited the Langi Morgala Museum in Ararat which houses a fascinating range of old historical items associated with town and rural life in general. Adjourning for dinner at the local RSL club, members of the group who approached the management to see whether the TV station could be changed from the greyhound racing to the ABC election special were warned that, unless they wanted to be on the receiving end of a re-enactment of World War II using all the attack memorabilia in the RSL lobby, the station should stay permanently on the greyhound racing.

After dinner the group visited the Ararat Railway Museum and, following a tour of its restored signal box, Peter Evans made a presentation on how what we had been seen during the day fitted into a national historical context. Coincidentally, the volunteers at the museum had the ABC election special on in the background and members were torn between listening to Peter’s talk and watching Johnny’s tram march resoundingly out of office.

Next morning the tour commenced from The Glut Picnic Ground and followed the local water supply road up to the headwaters of Fairy Creek and past Hill’s mill site. Significant excavation had been undertaken around the mill site to bench it into the hill side, resulting in a fairly confined operation in an extremely picturesque location. To the North East of the mill is a substantial linear excavation which pre-dates Wilkinson’s mill. This excavation (possibly the site of Mount Coles’ tramway) was followed down to Turbridge’s (later Caldwell’s) mill site at the foot of the hill. The tour party then walked back to The Glut Picnic Ground for lunch.

After lunch the tour visited Philp’s Albion sawmill on Phillipson’s Track. At this site there are significant stone works up to 2.4 metres high that delineate the boiler setting, as well as bolts near the likely position of the mill engine. Unfortunately this site is very close to recent logging operations and is potentially at risk.

The final destination of the tour was Sanderson’s mill near Cave Hill Creek. The earthworks are relatively well preserved, but the site is highly overgrown. Peter included an historic photograph of this site in the tour notes which allowed the tour party to visualise the site in its heyday.

Once again Peter Evans researched, planned and executed a sensational tour to Mt Cole, which is a time capsule of 19th century sawmilting practices in Victoria. Special thanks go to Peter who freely shared his comprehensive historical knowledge with the participants of this tour.

Simon Moorhead

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NEWS

Queensland

DURUNDUR RAILWAY, Woodford
Australian Narrow Gauge Railway Museum Society

Further to the report in LR 199 (p.26) on the sale of ex-Pioneer sugar mill 0-4-2T KURFE (Perry 265 of 1925) to the Queensland Pioneer Steam Railway, the ANGRMS President, Terry Olsen, has explained that while it would have been nice for the Society to have donated the locomotive to their kindred organisation, the harsh reality is that ANGRMS has financial commitments that must be met. The QPSR did not wish to continue with the past lease arrangement, so the loco was offered to them for purchase at a considerable discount.

The ANGRMS Trackmaster carried out his annual inspection on 15 December 2007 and found the standard was generally good, with just two medium priority defects to be addressed. Track work days in October and November concentrated on spot re-sleepering on the main line and monthly track work parties are scheduled through until June 2008.

BAUPLE HISTORICAL MUSEUM, Bauple

The Bauple & District Historical Society Inc.

John Fowler 0-6-0T (B/N 11185 of 1907) from the Isis Central Mill is on display in a fenced-off area (see photo LR 175, p.29). Its cab design is said to represent that of the Krauss locomotive that once worked at the Mount Bauple mill nearby. Also at the museum is a representation of the first locomotive built by Walkers, the Pettigrew & Sims 0-4-0/VB/TG loco MARY ANNE, built in 1873.

John Browning 11/07

CHRIS HART, Higham

610mm gauge

Following his move to a new home, Chris Hart transported his collection of 610mm gauge equipment from Cordelia on 5 and 6 November 2007. The items include two Clyde and two Hansen linecars, and two locomotives — Malcolm Moore 0-4-0DH Moore (DH-112-GT-1 of 1956) and Drewry 0-4-0/DGM HERBERT (built by Baguley, but with Drewry builder's plate 2394 of 1952).

Chris Hart 11/07

GYMPIE MINING & HISTORICAL MUSEUM

610mm gauge Mancha 4wBE ZZ2, with battery box ZL09, has been moved from the Gympie Eildorado Gold Mine to the museum site, along with an ore car. John Browning 11/07

ISIS DISTRICT HISTORICAL SOCIETY, Childers

610mm gauge

The John Fowler 0-6-0T (B/N 7607) built in 1888 for the Colonial Sugar Refining Company's Childers Mill, and subsequently No. 4 on the Isis Central Mill roster, has been returned to Childers for restoration as a static display at the local museum. Following its withdrawal from service, the locomotive was placed in a kindergarten playground in Childers in 1964. The locomotive was purchased by a private collector and moved to Sydney in 1983, where it was apparently stored in the open in poor condition. It was advertised for sale in a vintage machinery magazine in 2004 and the owner subsequently applied for an export permit, which was refused (LR 196, p. 6).

The Isis District Historical Society has received a $22,000 grant to refurbish the locomotive for static display. It arrived back in Childers on 23 November by road from Wollongong and, by mid-December 2007, 'Old No. 4' was awaiting sandblasting as the first step in the refurbishment project. Further reports on this project would be appreciated.

Isis Town & Country, 22 November & 13 December 2007, via Bob Gough

ERROL DENNIS, Jambin

610mm gauge

Formed Fairleigh Mill Simplex 4wDM locomotive PHAR LAP (Motor Rail 21623 of 1957) was advertised on eBay for sale in February with a reserve price of $10,000 (with the B/N given as 216231). No bids were received.

Chris Statton, LRRSA Yahoo Group 16 Feb 2008

New South Wales

ILLAWARRA TRAIN PARK, Albion Park 610mm gauge

Illawarra Light Railway Museum Society

The fruits of the strong volunteer efforts at Albion Park during 2007 have come to maturity in the early months of 2008. The ex-Condong Mill Ruston 4DL 3-cylinder 4wDM (R&H 371959 of 1953) has now rolled out of the paint shop in its new colour scheme and following completion of lining the livery, it is hoped to commission this locomotive in mid-2008.

SHELLHARBOUR, the ex-Tully Sugar 0-6-0DH No. 8 (John Fowler 2192 of 1937, rebuilt EM Baldwin 5.80.963 of 1963) was trialed after the successful fitting of its new torque converter and other related works. The trial, which involved load test hauling the locomotives CARNS, TULLY 6 and KIAMA dead attached, was successful with the loco performing well. Following completion of paint works this loco is expected to commence active service around mid-year.

The Society maintained an active operating schedule over the Christmas/New Year holiday period. The 0-6-0DH SEYMOUR (Baguley 2392 of 1952) was on main line duties during the December 2007 running day, while a mixed bag of operations throughout the school holiday period saw the two-cylinder Ruston twins in

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operation with the Vernier mancar making a guest appearance. 0-6-2T TULLY 6 (Perry Eng. 7957/49/1 of 1949) was in action for the January operating day, but unfortunately heavy rain resulted in cancellation of the February event.

Brad Johns 03/08

GOLDEN MEMORIES MUSEUM,
Millthorpe
Millthorpe & District Historical Society

This dynamic museum in the heritage village of Millthorpe located between Blayney and Orange in central western NSW, offers a model for railway preservation groups. Its main attraction is the Museum of Rural Technology, a vast collection of agricultural machinery and tools, including many unique items. It includes a mining section, featuring the Cadia Mine and its private railway (a standard gauge line connecting with the NSWGR system at Spring Hill), as well as items from the Browns Creek Gold Mine. Pride of place in the separate tractor display is the huge 1911 Clayton & Shuttleworth traction engine (B/N 44128). Following use on a farm at Cowra, it went to Trunkey Creek in 1928 where it was used as a local sawmill and to drive the stamper at a gold mine until 1976.

The museum is open from 1.30pm every weekend, daily from 10.30am during school holidays, and from 10am-5pm (4pm winter) on public holidays — entry $5 adults, it will be open daily during Heritage week (12-20 April) and there are several other open days each year which feature special displays and machinery demonstrations.

Editor 02/08

LAKE MACQUARIE LIGHT RAIL,
Toronto 610mm gauge
Grahame Swanson

In recent months, activities have ranged over a wide number of fronts. Restoration of the ex-SECV Malcolm Moore 4wPM locomotive (1050 of 1943) is well advanced, with the original radiator (which leaked like a proverbial sieve) now replaced by a reconditioned unit which once saw service in an underground man-riding car. Still fitted with its original Ford V6 petrol engine, the locomotive has proved to be very powerful — easily pulling the 0-6-2T Perry while in idle.

The Commissioner's Car has been fitted with a pair of reconditioned bogies. A second ex-Ionisfail Tramway H-wagon frame has been overhauled, and this will form the basis of a new passenger carriage, which will be an end-platform vehicle, in the style of a North-East Dundas Tramway AB car.

Construction of the station building at Nomad is almost completed, with only some internal fitting-out remaining to be done. Thanks to some recent donations, the booking office now has an Edmonson ticket validating office, restored to as new condition which, along with the original date stamps, is once again validating tickets, whilst the platform is now graced by an authentic set of Avery platform scales, together with a fully operational destination board which features guests to join the next train for all stations to Sydney!

Earthworks have commenced for the projected branch road at Nomad, which will feature a low-level platform to facilitate easy loading and unloading of the tramcar and the four-wheel passenger cars. Recent acquisitions from the former Megalong Valley Railway have included a four-wheel miners' car (ex-Exelsior Colliery, Thirroul) and several whole-stick cane trucks (ex-North Eton Mill). Once these are restored, it will be possible to run a heritage cane train of seven whole-stick trucks.

The level crossing adjacent to the running shed at Onslow now has a swinging gate, complete with flashing red lights and fully interlocked with the railway signalling.

The first running day for 2008, on Sunday 10 February, saw Baldwin 0-4-2T FAIRYMead (10533 of 1899) back in action following repairs to its cab and cylinder lubricator. It performed faultlessly throughout the day, at one point hauling the longest train yet assembled on the LMLR — 13 vehicles in all.

The engine shed has recently been extended at the front by 3m, giving around 25% additional weather protection over all four tracks. On 30 March, the LMLR was due to host its first charity event for 2008, a Group of children from Camp Quality have been invited as guests. Bruce & Graeme Relbin 03/08, Grahame Swanson 03/08.

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the transport previously restored. The museum was recently successful in obtaining a Museums & Galleries NSW Volunteer Initiated Museums Small Grant of $1000 to upgrade display lighting. New track lighting is being installed in the museum to better illuminate existing displays.

Ray Christison, 02/08

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM

610mm gauge

Further to our comment in LR 199 (p.26) on the efforts of the ATT&M to address global warming, the February 2008 issue of TreeSmart News (the newsletter of TreeSmart Australia, a carbon pooling organisation that offsets emissions from the transport sector) has a feature report on the ATT&M initiative. The society has offset its estimated 7 tonnes of carbon dioxide emissions for 2006-2007 through TreeSmart Australia using a local eucalypt plantation at a cost of $84. Thus, the society was a carbon neutral organisation for this period.

Peter Evans, 02/08
Western Australia

BENNETT BROOK RAILWAY, Whiteman Park 610mm gauge WA Light Railway Preservation Assoc. Inc.

The BBR operates trains every day during December and January, most of them comprising ex-Lake View & Star Planet 0-4-0DM No. 1 (FC Hibbard 2150 of 1939), and the four-carriage corridor train set. The Planet travelled over 800km during this period and in February it was shopped for adjustments to the brakes and general maintenance work. The boiler of 0-4-2T BT1 (Perry Eng 8867.39.1 of 1939) was inspected on 2 February 2008 and received a clean bill of health. It has received a new coat of paint and reassembly of the locomotive commenced during the month.

Volunteer crews were focusing on track maintenance tasks in February, with some 1500 timber sleepers to be installed in conjunction with steel sleepers. The 'track crew' achieved its 'best ever' result on the evening Friday 22 February when 176 sleeping beasts were unpacked, de-plated and restacked by the end of the night. A Barthgate train indicator donated to WALRPA by the Puffing Billy Railway has been refurbished and was installed at Whiteman Village Junction Station on 8 February. Barthgate indicators were used extensively in the United Kingdom, Victoria and New South Wales and similar forms of indicators were used at Perth City Station. The Puffing Billy Railway also has a working example.

BBR website news, 02/08

CARNARVON LIGHT RAILWAY 1067mm gauge

Carnarvon Heritage Group Inc.

Fire, believed to be deliberately lit, destroyed a 72 metre section in the middle of the famous 1.6km long Carnarvon Jetty in the early hours of Sunday 28 October 2007. It took firefighters 14 hours to quell the blaze. The Carnarvon Heritage Group immediately launched an appeal for $100,000 as a deposit on the jarrah timber required for repairs. It is estimated that rebuilding of the destroyed section will cost $1.2 million, for which the preservation group is looking to contributions from the state and Federal governments. The president, Mike Maude, reports that the group is hopeful that this task can be completed during 2008. For the 2008 tourist season, EASTER to November), the Puffing Billy train will operate over about 1km of the jetty tramway from the Babbage Island station to the destroyed section of the structure. In addition the 2.5km ‘town tramway’ will operate from the Fescine station (the old South Arm of the Gascoyne River) to the Babbage Island station. Initially trains will be hauled by the Simplex diesel locomotive, ‘Banana Clipper’.

The impending return to service of the ex-Public Works 0-4-0ST steam locomotive KIMBERLEY, (Barclay 175A/1921) has generated considerable excitement in Carnarvon. Ian Lindsay, a Queensland boiler inspector on vacation in the town has assisted local volunteers to refurbish the locomotive after 8 years in storage due to mechanical problems and the lack of a qualified driver (LR 185, p.29). The locomotive undertook a test run in early February 2008 when a number of faults were identified that require rectification, but it is hoped to have KIMBERLEY back in action on the town tramway during the 2008 tourist season.

A $10 return fare will be available from town to the jetty covering the two trains.

The Carnarvon Heritage Group is seeking individuals with steam tickets to assist them by providing driving instruction for members on KIMBERLEY. Any reader with appropriate qualifications who is interested in a vacation at Carnarvon with accommodation provided should contact Mike Maude on (08) 9941 3384 or write to the Carnarvon Heritage, PO Box 779, Carnarvon WA 6701.

ABC Radio 20 February 2008, via Barry Blair; Editor based on interview with Mike Maude 02/08

Overseas

COMMUNITY TRUST OF SOUTHLAND, Invercargill, New Zealand 1435mm gauge

A replica of New Zealand’s first locomotive, the railway curiosity LADY BARKLY, is on display on the old Invercargill wharf. Built in 1861 by Hunt and Opie at the Victoria Ironworks in Ballarat, the locomotive was built to the Davies patent design with flangeless driving and carrying wheels, and guide wheels at each end set at an angle of 45 degrees and featuring a V-shaped groove to engage the inside, upper edges of the wooden rails. Named after...
the Governor of Victoria, the LADY BARKLY was originally used on an experimental 1600mm gauge line that James Davies had built near his home at Green Hills. Davies persuaded the Province of Southland to construct a standard gauge wooden railway to his patent design after he demonstrated the LADY BARKLY on the Invercargill jetty on 8 August 1863, thus becoming the first locomotive to operate in New Zealand. The diminutive LADY BARKLY was used for ballasting work on the 20 mile Oreti Railway built to Davies patent design, but it, like the railway, was not a success, in large part due to its having been built to the wrong gauge! The ill-conceived project caused the Province of Southland considerable financial embarrassment. Following rebuilding, the locomotive was used for shunting at sawmills in the Invercargill area. The replica, built in 2003, was funded by the Community Trust of Southland.

Editor and Ian McKillop, 02/08

SANDSTONE HERITAGE TRUST, South Africa  610mm gauge
The Trust is scheduled to hold a Steam & Cosmos Festival between 9 and 13 April 2008 when the railway will be open to the public. Up to 10 different narrow gauge locomotives will be steamed throughout the Festival with visitors and enthusiasts given an opportunity to familiarise themselves with the railway and the Sandstone Heritage Trust preservation programme. Regular guided tours will be held of all items in our collection. A highlight will be the Reefsteamers passenger train from Johannesburg, which will provide an opportunity for visitors to see some of South Africa’s biggest steam locomotives in operation.

Joanne West, SHT 02/08

The 2003 replica of New Zealand’s first locomotive, LADY BARKLY, on display at the Invercargill wharf in February 2008.

Photo: Ian McKillop

David Payling photographed the front (low pressure) bogie of Garratt K1 on the Welsh Highland Railway on 6 February 2008. It shows the steam sanding equipment recently fitted.

WRAL analyst, 02/08

WELSH HIGHLAND RAILWAY, United Kingdom  597mm gauge
The WHR’s ex-South African Railways 2-6-2+2-6-2 Garratt loco NG138 has been taken out of traffic for its ten years boiler inspection, making the recent progress with the performance of the line’s pioneer Beyer Garratt, K1, very timely. The locomotive has been in traffic at Caernarfon over the Christmas season with Santa trains and is now expected to be in front line passenger service during 2008 along with the line’s other NG616 Garratt, NG143. Coal firing has led to better steaming and fuel economy for K1 than was achieved with oil. The valve settings shown in the Beyer Peacock drawings have proved unsatisfactory compared with experimentally found settings which are currently being optimised through the use of test trans. The recent fitting of steam sanding using equipment recovered from scrapped ex-BR Class 08 shunters has allowed K1 to take a full service load of six cars (and with a considerable load margin to spare). The haul up the 1 in 60 gradient from Caernarfon and the 1 in 40 from Diras towards Tryfan Junction are achieved without slipping. The locomotive has also proved happy working in its compound steam mode throughout. When starting away from stations, this makes it unnecessary to use the simpling valve which allows live steam into the low pressure cylinders of the front engine. Improvements to the oil feeds and oilways of the axlebox bearings have made hot axle boxes a thing of the past. The water capacity is proving sufficient for the locomotive to run from Caernarfon to the summit station of the line at Rhyd Ddu with only normal water stops.

David Payling, 02/08

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