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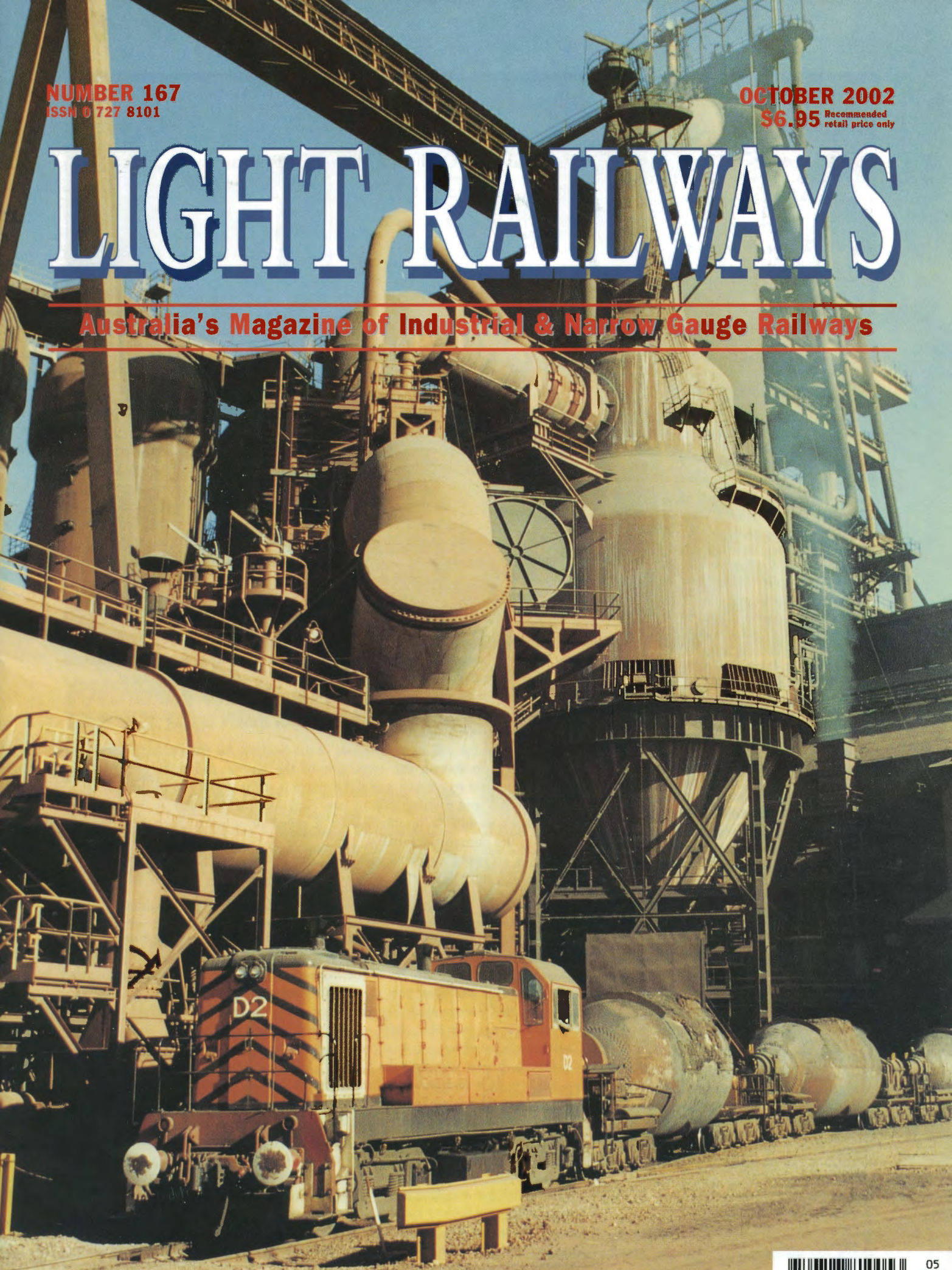
LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.

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Editor: Bruce Belbin,
PO Box 674 St Ives NSW 2075.

Research, Heritage & Tourist Editor:
Bob McKillop,
c/o PO Box 674 St Ives NSW 2075.

Industrial Railway News Editor:
John Browning, PO Box 5646
Rockhampton Mail Centre QLD 4702.

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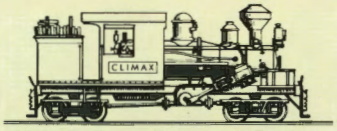

Light Railway Research Society of Australia Inc. A14384U
PO Box 21 Surrey Hills Vic 3127

COUNCIL
President: Bill Hanks (03) 5944 3839
Secretary: Phil Rickard (03) 9870 2285

New South Wales Division
18 Rodney Avenue, Beecroft, NSW 2119
President: Jeff Moonie (02) 4753 6302
Secretary: Craig Wilson (02) 9484 7984

South Australian Group
6 Dunedin St, Dover Gardens, SA 5048
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South-east Queensland Group
54 Aberdare St, Darra, QLD 4076
Secretary: Bob Dow (07) 3375 1475

Tasmanian Representative
11 Ruthwell St, Montrose, Tasmania 7010
Ken Milbourne (03) 6272 2823

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Conversions:

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

Contents

Comment

In 1797, British colonists were excited by news of the first discovery of coal in New South Wales. Unfortunately, it was halfway up a cliff face on a rugged stretch of the south coast. In time, however, British industrial ingenuity found a way to exploit the reserve, using a combination of sea transport and light railways, as Jim Longworth describes in our main feature article, beginning on page 5.

Light railways continue to serve the sugar industry, and despite continuing problems with low world sugar prices, operations such as those described by Rod Milne in "Babinda Mill's Jogo Line" (pages 14–17) should be with us for some time yet.

Of course, light railways are not just a thing of the past, as Keith Watson has shown with his latest project, the 2ft gauge 0-4-0ST *PHOENIX*, described on pages 3 & 4. If ng steam locos are still being built, there's hope for the world yet! *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 provision 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: *At a time when government and private railways throughout Australia were dominated by steam motive power, BHP subsidiary Australian Iron & Steel took the bold step of ordering eight 750hp Bo-BoDE locomotives for use around their Port Kembla steelworks and on coal trains from the nearby Wongawilli, Kemira and Nebo Collieries. Built locally by Commonwealth Engineering using components supplied by English Electric, they entered service from May 1950, and were judged an immediate success. In this vintage Comeng publicity photo, D2 is at the steelworks shunting a string of 232-ton capacity Treadwell ladle cars, also built by Comeng. Following several years spent in storage, brought upon by a downturn in the steel industry, D2 was scrapped in February 1990. Today, class leader D1 can be found at the NSW Rail Transport Museum at Thirlmere, D7 is with the ARHS in Canberra, and D6 has been preserved by BHP at Port Kembla. Photo: Phil Belbin collection.* ***Upper back cover:*** *Also preserved at Port Kembla is B class 0-6-0ST* BRONZEWING *(Clyde Engineering 457 of 1937) seen at the steelworks on 15 July 2002, about to set off with a train load of visitors.* ***Lower back cover:*** *In Fiji, visitors may also travel over a working industrial railway. The Coral Coast Railway Co. has a daily return passenger run between The Fijian Resort at Cuvu and Natadola Beach, over Fiji Sugar Corporation trackage. On 13 February 2002,* THE PUFFING BOTO, *a 9-ton Motor Rail 'Simplex' 4wDM (14047 of 1959) is on a two-car train at Cuvu. Photos: Chris Stratton.*

PHOENIX *on trial at the Bennett Brook Railway in late 2001.* *Photo: Author*

PHOENIX rising in the west

The first 2ft gauge steam loco of the millennium

by Keith Watson

Introduction

In 1963 I located the rusted chassis of a 20in gauge Freudenstein 0-4-0WT (217 of 1905) and built a 7¼in gauge replica. Three years later, Mr Jim Gardener of Engineering Services of Kalgoorlie presented me with the remains of the original locomotive. This sat in my back garden for twenty years until one day my friend Mr Peter Ledgerwood and I set about rebuilding it as a 24in gauge 0-4-0T fitted with a new Briggs boiler. It took us eight months of hard work to rebuild *GOLDEN RIDGE*. It later worked on the Bennett Brook Railway in Western Australia and was subsequently sold to Dick Smith for use on his private railway.

In 1990 we decided to build *ANNIE*, a 24in gauge 0-4-2T based on a Bagnall that had been buried in a rubbish tip in New Zealand, and was later dug out by Mike Collins with the aid of a bulldozer. *ANNIE* took Pete and I nine months to build. She later worked for about ten years at the Bennett Brook Railway and is now in Germany.

A new locomotive

Towards the end of 1998, I decided to build another 24in gauge steam locomotive. This time it was to be a simple 0-4-0ST, and my twenty-first locomotive in all. The design was to be based on locomotives built by the famous Porter Locomotive Works in Pittsburgh, USA.

I found that most Porter locomotives of the type that interested me had the firebox directly above the rear drive axle, making it almost impossible to set the eccentrics for the Stephenson valve gear as they would be in the ash pan! Further research indicated that these locomotives had the eccentrics on the front axle driving the valves through a rocking lever. My solution was to pitch the boiler higher and put the eccentrics in their usual place - on the rear axle - placing the ashpan so as not to interfere with the valve gear.

With the exception of the driving wheels, the locomotive is built from my own patterns. The wheel patterns came from my long time friend and well-known American builder Bob Maynard of Cincinnati, Ohio. I found the pattern hanging on the wall of his lovely underhouse workshop, and when I questioned him what he was going to use it for, he replied, "It's for your next loco, so put it in your suitcase and get on with it." The wheel pattern was modified to suit 24in gauge by adding extra thickness for tread and flange. My local foundry cast the wheels in spheroidal graphite (SG) iron of the correct grade.

A spacer had to be used with my cylinder pattern to increase the centreline distance from the frame. Many other patterns were made, such as those for the smokebox door and ring, eccentrics, diamond stack and steam dome. The bell and swinging bracket came from the patterns used for the 15in gauge Brunei mogul when I built the railway for the Sultan's brother, but that is another story!

Construction started with Keith Tingle agreeing to be my partner in the project. The locomotive would be built in his workshop on his machines including numeric control (NC) machinery which would speed construction. Frames were cut from 32mm (1¼in) plate and then straightened. After cutting a large hole in the end of the NC milling machine to allow the plate to project whilst machining, the program was fed in

and the machining of each frame plate was done. My building stand was modified for 24in gauge and strengthened for the larger size of locomotive being built.

Using screwed rod and tube spacers and aligned with long sight levels and careful measurement to ensure that the frame assembly would be true, we used welding to attach the flame-cut and drilled end sills (buffer beams).

The machining of the wheels and crankpins on the NC mill was fascinating to watch and very quick. The axles, made from 41-40 steel, followed and then the eccentrics and axle-boxes with roller bearings. The whole assemblies were pressed together and trial assembled. It was now starting to look like a steam locomotive chassis.

The cylinders now on hand from the foundry were quickly machined on the NC and the drilling was the same as used for the frames to ensure an accurate fit. Tapping of all the holes was done at the same setting. The spacers were also machined and fitted with two dowels to ensure a snug fit.

Springing

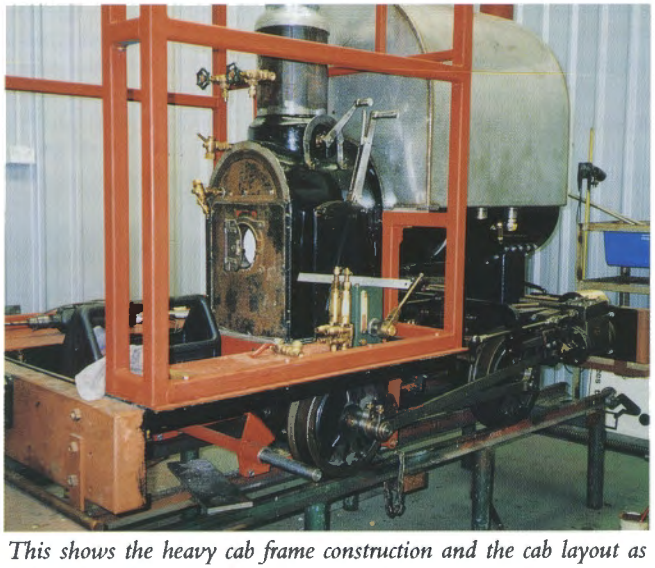
Oh Mr Porter, a major departure from your ideas! The idea of rubber blocks came from Sir Arthur Heywood, and I used the good Queensland practice of synthetic polyurethane as shown to me on the cane locomotives at Nambour by George Hadley, and as used by Roger Marsh in 1969 on his locomotive *TINKERBELL*. A large block of 90 Durometer poly was simply fitted between the axlebox top and the underside of the frame opening, retained by two small pieces of steel plate. So eat your heart out, you who wish to waste your life making authentic leaf springs! Poly really does work.

Valve gear was next. As usual I made the links from 20mm (3/4in) steel plate machined, hardened, and fitted with the sliding die block. Eccentrics were cast in bronze with lubrication via small plastic pipes from a small easy-to-get-at oil pot.

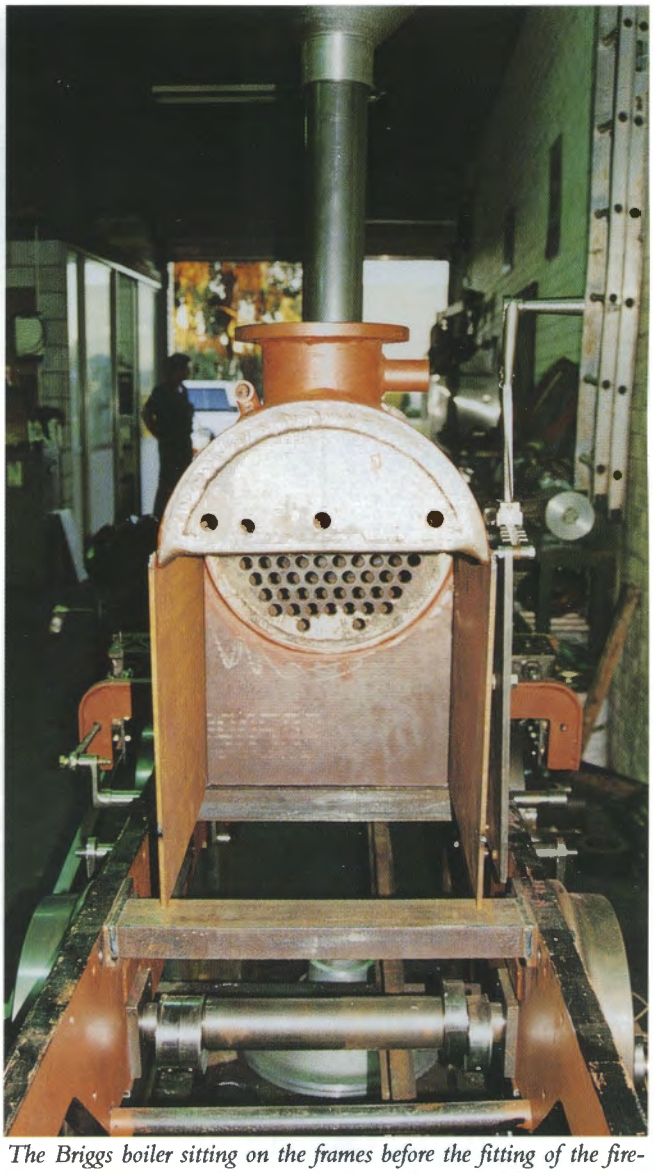
The boiler is my usual Briggs stayless type. The steam dome is located in the cab, Porter style. Inside the dome is the stainless ball valve throttle. It is operated by two stainless links mounted Stroudley fashion, and actuated by a short shaft to a quadrant type handle outside the dome.

The safety valves are two commercial Johns 1/2in bronze valves fitted with stainless steel springs. They vent through the cab roof via stainless steel pipes. Alongside them is the roof-mounted brass whistle.

The saddle tank is of the typical Porter humpback design



This shows the heavy cab frame construction and the cab layout as well as the stainless steel welded saddle tank. Photo: Author



The Briggs boiler sitting on the frames before the fitting of the fire-box, which will sit well clear of the rear axle. Photo: Author

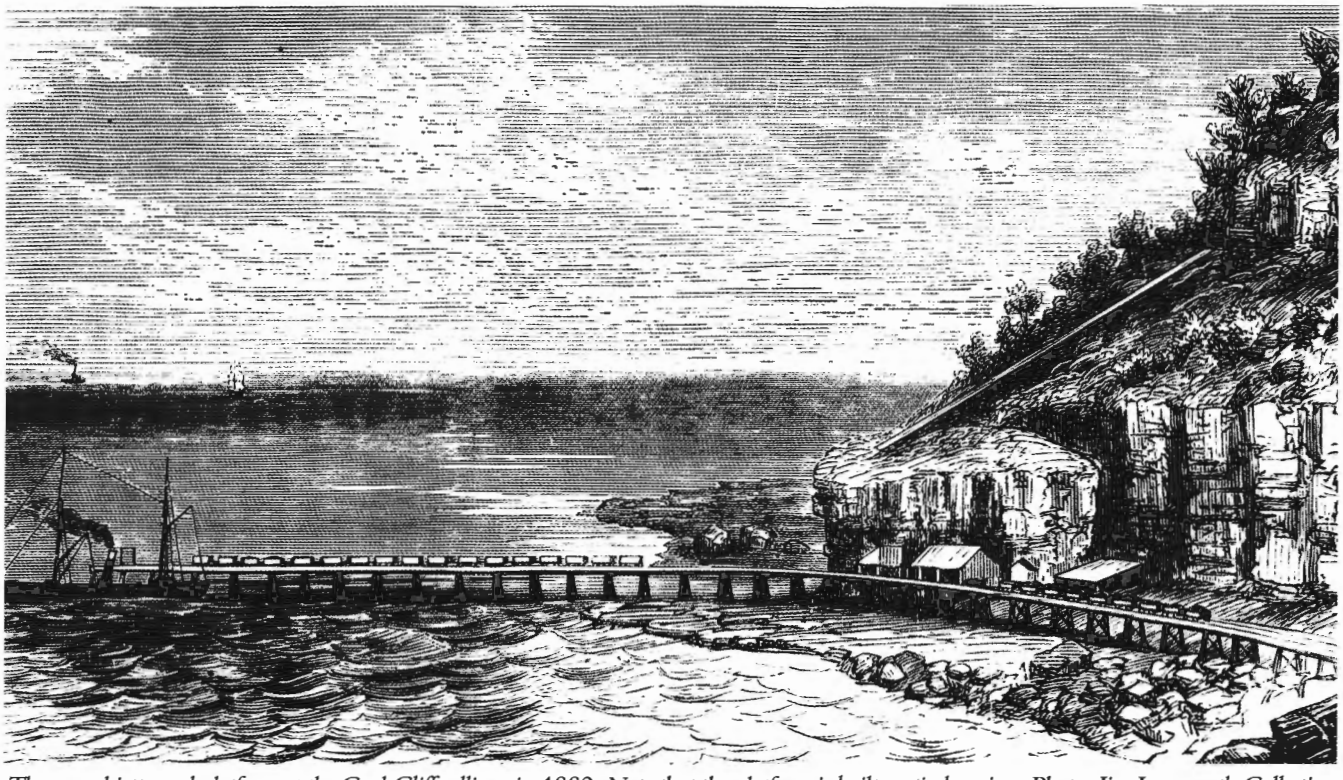
fabricated entirely from 2mm (3/32in) stainless steel. This is easily removed by unfastening four bolts and disconnecting the pipework. Water feed is by two British Blackgates 8-pint injectors operated from the cab, with discharges visible from the cab.

Lubrication is by a twin-feed fully adjustable, primable mechanical lubricator with sight feed, by Centralube of London. Oil is fed directly to the steam chests by copper pipes and check valves, ensuring good lubrication of the cylinders.

The wooden cab was built to resemble the period of the original locomotive. It is substantially reinforced as it was built with a heavy steel square tubular frame with stout steel roof angles. The timberwork was given three coats of marine varnish and the steelwork was primed with rust inhibitive primers and two top coats of enamel. Trials took place on the Bennett Brook Railway in late 2001.

Steam is raised in 25 minutes from cold, and with full steam pressure the locomotive is very lively, having towed a Land Rover with the handbrake on. Building the locomotive has been an interesting project and I am now engaged on the design and construction of two other steam locomotives.

At the time of writing *PHOENIX* is for sale. More details can be obtained by contacting the author at 10 Scarp Terrace, WILLETTON 6155, Western Australia.



The second jetty and platform at the Coal Cliff colliery, in 1882. Note that the platform is built on timber piers. Photo: Jim Longworth Collection

The Coal Cliff Colliery Adit and Jetty Tramway, 1797 to 1910

by Jim Longworth

Wreck of the *SYDNEY COVE*

Finding no supply of fresh water in Botany Bay, Captain Arthur Phillip sailed his ship the *SUPPLY* north, where on 26 January 1788, he landed in Port Jackson (Sydney Harbour), hoisted the Union Jack, and commenced the British colonisation of Australia.

Less than nine years later, on 10 November 1796, the sailing ship the *SYDNEY COVE* set sail from Calcutta under the command of Captain Guy Hamilton, with a load of merchandise for Port Jackson.

The ship ran into continuous bad weather from mid-December onward, and when north-west of Van Diemen's Land (Tasmania) was holed and taking water. Fortunately she was run aground in the shallow water around Perseverance Island which is part of the Furneaux Group of islands. All hands made it safely to shore, together with provisions and arms.

The ship's longboat was prepared for sailing on to Port Jackson to seek help, and in late February 1797 set sail with a crew of seventeen, leaving the rest of the crew from the *SYDNEY COVE* on the island. Unfortunately the longboat fared no better than her ship, and was also wrecked on 2 March, apparently on the northern end of Ninety Mile Beach on the NSW south coast.

After resting, the crew set forth on foot, northwards along the coast through unknown and trackless country heading for Port Jackson. Rivers were forded by raft or canoe provided by friendly Aborigines, who also provided the crew with some meagre food. Crew members died from drowning and starvation, and some were killed by hostile natives. On 15 May 1797, a fishing boat picked up the last three survivors about fourteen miles south of Botany Bay.

First Coal in Australia

Shortly before being picked up, on or about 14 May 1797, the three surviving men had come across a large quantity of coal, and made a fire from it to keep themselves warm overnight.[1] Some time after their return to Port Jackson, Governor Hunter dispatched George Bass by boat to investigate the reported find of coal south of the colony. On his return in late August 1797, Bass reported to Lieutenant-Colonel Paterson that he had found a seam of coal about six to seven feet thick about twenty miles south of Botany Bay. At its northern end the seam was about twenty feet above sea level, dipping gradually downward as it was traced for about eight or nine miles along the coast south to the point where it entered the Ocean.[2] It was the first authentic report of the discovery of a coal seam in Australia. To a society dependent on wood and coal for heating and cooking, the find was extremely valuable.

While the quality of the coal was good, and its location obvious, simply outcropping in an immense cliff, there was no landing place within several miles of the outcrop. Without an inlet to secure a boat in, the coal could not be extracted.

Within a month of the find, Lieutenant Shortland discovered more accessible coal at the mouth of the Hunter River. Thereafter the northern coalfield grew to supply the colony's growing needs, while the monopoly on mining held by the Australian Agricultural Company seriously retarded the development of other coalfields around Sydney.

Despite its discovery in 1797, no attempt was made to extract coal from the Southern Coalfield until about 1857.[3] Even then, the extremely inaccessible situation of the Coal Cliff outcrop meant that coal was mined at several other more easily accessible locations on the Illawarra before being successfully mined at the site of the original find.

The coal seam visited in 1797 turned out in time to be the seam later called the "No.1 Seam", "Top Seam", or more commonly the "Bulli Seam". The Bulli Seam was one of the principal coal seams of the Southern Coalfield, being worked at Bellambi, Woonona, and by the Mount Keira, Mount Pleasant, and Bulli coal mining companies.[4]

Early Proprietors

The cliff area at Coal Cliff originally belonged to Sir Thomas Mitchell as part of his Stanwell Park Estate, and afterward to his son Captain Campbell Mitchell. Captain Mitchell opened out the coal in several places, but could not raise sufficient capital to fund the necessary but expensive shipping facilities there. Captain Mitchell disposed of his interests in the cliff, and the property was sold to Mr Justice Hargrave. Subsequently it came into the possession of the Honorable Alexander Stuart MLA, who was the principal proprietor of the Coal Cliff Land and Coal Mining Company during the late 1870s.[5] Stuart became the Premier of NSW in 1883, holding the position until 1885. Lewis Gordon and Thomas Walker are also reputed to have had interests in the land.

The First Jetty

Upon assuming control, Alexander Stuart lost no time in resuming the work of extracting coal in earnest. The site that he selected was in a bight that although small, was the deepest indent in the coastal cliffs between Bulli and Port Hacking. A rough track had already been built around the cliffs terminating just over the bight. However the bight was overhung by steep cliffs, and the very rough beach, littered with boulders, was washed by the surf in all seasons.

Thomas Hale, who had had previous experience in constructing jetties out into open water, and had managed the Woonona and Catherine Hill Bay Collieries, was appointed as manager and "Alick" De Flon as overseer or foreman.[6] De Flon had been in the service of Hale for the previous 18 years. Thomas Oswald was described as the "boss" of the mine.

Stuart started by constructing a jetty and opening out a simple adit straight into the outcropping seam of coal under the Illawarra mountain range. As there was no possibility of getting timber down to the site of the mine by road, a timber slide was constructed in April 1876. This was 150 feet long, and ran from the edge of the cliff down to the level of a rock platform just above the mine entrance. The slide was made roughly from large saplings of considerable length, all bolted together and securely slung with strong chains. It was used to deliver timber and other supplies with the aid of block and tackle, and was also used by workmen and visitors to slide down to the mine entrance. A zigzag footpath broken by flights of steps cut into the hillside was formed down the face of the cliff during mid-1877. With the preliminary works nearly finished, the mine was expected to be ready for shipping coal in the near future.

At the outset, considerable difficulty was experienced in obtaining sufficient working space at the foot of the cliff as no land of any kind was available between cliff and ocean.

Eventually a substantial semi-circular timber platform was built along the line of the sea cliffs northward for about 200 feet. The platform was 60 to 70 feet wide, and supported the office, store room, blacksmith's shop, and carpenter's shop.[7]

Looking out to sea, over the top of the tippler, with the jetty out of sight below. The photograph on page 10 was taken looking in the opposite direction. *Photo: Ken McCarthy Collection*

From its southern end a jetty was constructed into the open ocean starting at the cliff face about 20 feet above sea level.

The jetty was constructed out of turpentine piles, and extended for a distance of about 500 feet from the shore straight out into the Pacific Ocean. Water about 18 to 20 feet deep was required for ships to be able come alongside the jetty. The greater part of the jetty sloped down from the platform at the sea cliff at a gradient of half an inch per yard to ease running out the full trucks of coal. Turpentine was the timber used for the piles of the jetty as by this time it had been found to be considerably more resistant to the marine dwelling cobra borers than even the hardest ironbark.

Hale and De Flon designed the Coal Cliff jetty above a submerged rock shelf (ie reef), so as to offer as little resistance to the ocean currents and waves as possible. The piles were between 40 and 50 feet long, arranged in pairs and inclined inwards like the lower part of the capital letter A. They were firmly bound together by one horizontal and two diagonal iron tie rods a few feet above high water level. Higher up were two transverse turpentine beams, which provided support for the bearers and decking timbers. Bracing was of iron crossbars rather than timber stays, so as to maintain sufficient rigidity whilst offering the minimum possible surface area to the force of the waves. The bottom end of each pile was shod with an iron spike, that was "*joggled*" into the rock below.[8] A crane was erected on the outer end of the jetty.

A single line of iron rails was laid down progressively as the jetty was extended out to sea. The additional width of the platform along the sea cliff allowed sufficient width for a double line of rails.[9]

Unloading the jetty trucks down the chute at the end of the jetty could be done at a rate of one per minute. The usual mode of landing passengers from ships at the jetty was in an armchair that was swung out from the ship. Otherwise people had to be landed in small boats on the rocky and dangerous shore.[9]

Shipping

Lack of shelter prevented sailing ships from calling at the jetty. Even steamers could only lie alongside and load quickly in fine weather, and then depart in haste for Sydney. So long as the wind blew from the west boats could load. The colliery was capable of putting out 300 tons per day, and had sufficient rolling stock to load 500 tons per day. The total output was in the order of 30,000 to 50,000 tons per year. Much of the mine output was stored in the jetty trucks which were parked on the jetty while they awaited loading into the ships.

During late November 1877, the steamer *MANLY* arrived from Sydney to lay down anchors, mooring-chains, and buoys opposite the jetty for the purpose of future anchorage. Afterwards she came in and lay alongside the jetty to discharge a quantity of ironwork and other materials for the colliery. The *MANLY* returned to Sydney with some of the coal that was waiting in readiness in jetty trucks on the jetty - this being the first shipment of coal from the new colliery.[13]

The first commercial shipment seems to have taken place during the second week of January 1878. The steam collier *EAGLE* had left Sydney on the Thursday night heading for the Coal Cliff jetty, but passed right by the jetty during the early morning of Friday in a dense sea fog. Returning from further south where she had been turned around, the ship was covered in bunting from stem to stern. A considerable quantity of iron and machinery for the mine was unloaded, and then coal loading took place. The first 100 tons took an hour and a quarter to load, and loading was complete within about 3 hours. The ship departed for Sydney with a load of about 200 tons shortly before 1pm, amidst loud cheers. On the instruction of Stuart, to celebrate the occasion the company gave the employees an extra full day's pay. The steamer *NEOBLIE* joined the *EAGLE* and during September 1878 she was busy taking coal to Sydney every second day.

Unable to have two steamers built in Sydney due to lack of local interest, Alexander Stuart proceeded to Britain in April 1878, to have the colliers built there. The *HERGA* and *HILDA*, built by Cunliffe and Dunlop of Port Glasgow, were launched on 24 December 1878. Both ships were screw steamers of iron construction, 125 feet long, with a breadth of 21 feet and tonnage of 265 tons. Each was fitted with compound surface-condensing engines of 60 nominal horsepower. They were equipped with steam winches to enable the speedy discharge of coal to shore.[14] High coaming around their hatches prevented any spreading of coal about the deck, a common problem on other ships of the period. Each steamer could carry 300 tons of coal, and could make a trip to Sydney every day.

At first the colliery could not provide sufficient output of coal to keep both ships operating, so they were diverted to serve the general Wollongong trade, but by August 1879 the two steamers were transporting the bulk of the Coal Cliff coal to Sydney. The *HILDA* was lost in 1893 after striking a reef near Port Hacking, leaving the *HERGA* to service the Coal Cliff jetty alone.

As well as supplying Sydney, Coal Cliff coal was found to be eminently suitable for steaming coal in ships. Some was even exported to San Francisco and New York.[15]

One Sunday night in early June 1878, four spans of the jetty (probably the outer ones) with a total length of about 100 feet, were washed away in a furious storm, together with several jetty wagons that had been standing on them. Loss of the jetty was a serious blow to the company and the men it employed. Hale hoped to have the jetty re-erected within a month or so, and possibly to use a smaller boat than the *EAGLE*, that could still be loaded with coal at the truncated stub.

Apparently the waves in surging up from underneath had lifted the deck, and in so doing had plucked out the piers. Therefore the new portion of the jetty was erected slightly higher than the original one. The Illawarra Mercury reminded readers that the Bulli jetty had also lost its head a couple of times before it was made able to withstand the daily battle with the seas. The work of re-erecting the jetty was pushed forward with all possible speed. In the meantime the *EAGLE* ran the coal trade between Sydney and Newcastle and Sydney and Wollongong as opportunity offered.

The second jetty was laid with a double line of rails and turntables at both ends. After passing through the iron screen the coal slid into the jetty wagons, of which by 1879 there were about eighty, each of sufficient capacity to hold about 2½ tons. The jetty wagons were then run out on the tramway to the end of the jetty to await arrival of the company's steamer.[17]

The Mine

The company held mineral rights over an area of about 5000 acres. About 15 feet above the level of the platform and jetty, two tunnels were opened up straight into the seam of coal. The main one, nine feet wide by six feet high, permitted a double line of rails to be laid along the tunnel floor. A smaller tunnel for ventilation was located about 50

feet south of the main tunnel. It ran parallel to the main tunnel, and was six feet wide by six feet high. By October 1877 both tunnels had penetrated 400 feet under the mountain, and preparations were in place for the opening of the "bords". The dip in the coal seam was slightly downwards towards the mouth of the mine, ensuring that the mine was always dry.

The mine was worked by the Welsh Bord system following a haphazard pattern. Miners worked in pairs on contract. The front shift miner would enter the working place, undercut the face, bore the coal by hand and shoot it down. His mate would then load the coal into skips. Miners supplied their own tools that were sharpened by the colliery blacksmith.[11]

During July 1878, a contract was let to Messrs Jobling, Forrest and Co. to excavate an airshaft into the mine. During late September, the underground manager, Thomas Oswald, was killed by falling stone during excavation of the shaft. Before coming to the Illawarra, Oswald had been the manager of the Waratah Colliery at Newcastle. He was replaced by Alfred FG Swinney, an English mining engineer who worked at several New South Wales collieries. A furnace was installed at the base of the vertical airshaft. This heated the air, which rose up the shaft, so drawing fresh air through the mine.

Skips were hauled out of the mine and tilted over the covered screens. The large coal was deposited in trucks in front of the screens, with the small coal falling through the screens into the trucks waiting below. The upper part of the screens was approximately level with the coal seam, about 30 feet above water level. Extracting the coal from the mine and delivering it to the jetty was extremely convenient.

All skips for underground use and trucks (wagons) for use on the jetty were built in the mine's own workshops on the cliff face platform. Each jetty truck held about three tons of coal, with the actual weight being noted on passing over an Avery's platform weighing machine inserted in the line of the outgoing rails. Every truck had to be pushed out along the jetty by hand.[12]

About 45 men were employed during 1878. Ventilation had been much improved, but the furnace was not yet completed, nor were the miners paid on the basis of the weight of coal actually extracted.

During early January 1879 a landslide of about 200 tons immediately north of the mine mouth was witnessed by several men working on and about the jetty. The men were startled and afraid that the slip would extend southward to engulf the pit and jetty. Fortunately it did not.

Due to failing health, Hale resigned his position as manager in March 1880, and departed by coach for Sydney on 20 May. Mr C Harper was appointed as the new general manager. Following his appointment, Harper made many improvements. The first was the addition of steam power, the lack of which had long been felt. A space was excavated for the boiler which was to provide power to both the mine and jetty. Another improvement was the construction of a bunker for small coal. This structure held about 400 tons so that at any time an order was received it could be dispatched without delay. Previously the slack and small coal had been tipped into the sea as waste, in the thousands of tons.

During bad weather in April 1882, a portion of stone and earth fell down the cliff onto the mine works and jetty, causing considerable injury.

Tenders for supplying coal to the different shipping companies were hard fought for, often changing around among the different Illawarra mines each year. Mining was a very off and on affair, depending on tenders won, and on the vagaries of the open sea. Overtime was rare.

In 1885 the seam of coal being mined was cut off by a down-throw fault of 29 feet. The manager drove a "stone mine" in for 40 yards, and fortunately regained access to the seam that was found to be still in splendid condition, seemingly unaffected by the faulting.

During the great maritime strike of 1890, the mine continued to provide coal to Sydney. Thousands of strikers congregated at the mine to try and prevent loading, but strong detachments of military and police were stationed there to protect the shipping. During this period, the potential value of the previously wasted slack coal was realised. This was just as well, as by the end of June 1882 a bar of slack coal and sand was forming at the jetty significantly reducing the depth of water. Occasionally the bar interfered with loading the steamers.

The Bulli to Coal Cliff Road

While free selectors had been moving into the district for several years, a decent road of any sort was not built along the coastline until the coal company gave some assistance. The year 1880 saw work on making a road around the cliffs towards Stanwell Park and the Georges River road. Work was completed around to Fisherman's Flat by the middle of May.

The descent and ascent of workmen at Coal Cliff between the road above and jetty below was made partly by ladders and partly by rope holds fixed regularly in position. For emergency use, Hale rigged up a basket chair so that anyone who became disabled on or near the jetty could be hoisted up the cliff face by means of rope and tackle. A small office and forge were erected at the end of the road, with the rest of the space being reserved for turning teams around.

The condition of the road was a source of ongoing dispute between the local residents, mining company, local council, and the colonial government. After heavy rain, sections often subsided and fell over the cliffs. One local resident erected a fence across the road, and the North Bulli Coal Mining Company tried to close the road where it passed through its land.

Worker Relationships

Unlike other mines on the Illawarra, the Coal Cliff mine seems to have enjoyed a relatively harmonious relationship between workers and management, but as profitability declined, industrial unrest escalated. In late January 1879, the greater number of employees at the Coal Cliff mine had joined the Illawarra Miners Union. A meeting was held in the middle of June 1879 to discuss improvements to the Coal Cliff tunnel, and delays in loading the boats at the jetty. Thomas Hale expressed himself quite satisfied with what the miners voiced at the meeting. Compared with other Illawarra mines, trade in coal from the Coal Cliff mine was generally good through 1880.

During the middle of 1880 the Newcastle mines dropped their prices for coal from fourteen shillings to nine shillings and sixpence per ton. This had a disastrous effect on the southern coal producers, who were in danger of losing their markets to the cheaper competition. Alexander Stuart proposed a reduction in the rate paid to miners for hewing coal, but not for those men on fixed wages. The miners refused to accept the reduction. Fortunately both sides agreed to send the matter to arbitration. A Mr Riley acted on behalf of the men, and a Mr McElhone for the company, with Bolton Molineaux acting as the umpire. The rate was set at tenpence per skip.

The number of miners employed underground grew rapidly, from about 45 men in 1878 to about 70 in 1880 and to 138 men in 1881, when there were also 34 above ground employees, and 28,705 tons of coal were mined. In February 1882 the payment to miners changed from a per skip amount to one based on the weight of coal actually extracted and transported. The quality of coal was becoming poor, reducing the price that the company could charge, and so pay in wages. The seam had reduced to five feet high, which reduced worker productivity as well. The miners went on strike, but soon accepted the company proposal of two shillings and sixpence per (20 hundredweight) ton, on the condition that good coal was produced. Asking for an increase of threepence per ton, miners again struck in March 1883 although this strike did not last for long.

During the latter half of 1889 the miners once again went on strike, this time for about four months. The mine proprietors responded by engaging "free labourers" to work the mine. Little work was done during 1891-2, and the mine was just kept in general repair. Work started to build up again in 1893 with 15 to 26 men being employed.

Clifton

About half of a mile south of the mine, a level piece of land between two small creeks offered a small space for erecting houses on. The company erected residences for the manager and overseer, plus twelve well-built, two- and three-room weatherboard cottages with galvanized roofs for miners and other employees. Because of its position perched above the cliffs, the village received the name of Clifftown, later Clifton.

When a terrible storm raged along the coast on Thursday 9 June 1881, the people of Clifton were woken from their sleep at 2am when they heard the timbers of the jetty creaking. The outer half was bodily lifted up and smashed into countless pieces, together with about thirty coal wagons which were strewn along the coastline.[18]

Meetings of the mine workers immediately petitioned the state government for access to funding for upgrading the Bulli - Coal Cliff road, so providing work and an income for the workers who were unemployed pending reconstruction of the jetty. Fortunately funding had already been voted for the proposed road work in the Estimates for the year. A deputation approached the Minister for Works, who immediately ordered the required work to commence. The contracts were let in small amounts to enable the workers who were without capital to bid on the work. Alexander Stuart was instrumental in arranging this speedy settlement. Meanwhile, the company had to make alternative arrangements to supply coal under the contracts that were then in force.

The Third Jetty

The management of the mining company immediately decided to reconstruct the jetty. The company steamer *HERGA* was unable to unload supplies at the jetty, so they had to be unloaded at Belmore Basin, Wollongong, and transported by road to Coal Cliff. Unfortunately the inner portion of the jetty had been so severely shaken that it had to be strengthened before work could start on re-erecting the outer portion. Captain Grainger superintended the work.

By 1 July 1881, men were at work lowering piles and other material for re-erecting the jetty. Some days they could place two piles in a day, but during bad weather two piles per week was considered good progress. The diver needed for this work could only work when the sea was not running heavily.

All the piles were in place by 21 October 1881, but rough seas prevented completion of the work. During re-erection, the outer portion of the jetty deck was installed about 6 feet higher than the previous one, and the opportunity was taken to install steam power for hauling the loaded jetty trucks.[19]

The company advertised in the local paper on 25 October 1881 that work at the mine was to be resumed in two weeks time. Miners, wheelers, and drivers wishing to return to work at the mine were invited to apply for positions. Coal was extracted from the mine and stored in jetty wagons kept on the old part of the jetty pending completion of the new portion. By 8 November 1881, the jetty was sufficiently

The third Coal Cliff jetty, seen in 1898. A large rock-faced working platform has replaced the original timber trestle arrangement.
Photo: Jim Longworth Collection

completed to ship coal once again, pending full completion of the work. By the end of March 1882 the mine was back in full production, and the company was advertising for more miners and wheelers.

One problem resulting from the increase in height of the jetty was that in loading the ships the coal fell a further 6 feet, breaking up the lumps into smaller pieces, and so lowering the price that the company could charge for its product.

The Illawarra Railway

During December 1881, railway surveyors moved into the area to survey possible routes for the Illawarra railway line between Sydney and Kiama. They camped for some time near "Clear Hills" between Coal Cliff and Bulli, working on the difficult calculations necessary to survey a line for the proposed tunnel through the bluff.

The loss of survey records through fire in 1882 meant that surveyors had to return to the field in November of that year to re-survey the difficult section of the proposed line between Coal Cliff and Bulli.

Rowe & Smith were awarded Contract No.2 for constructing 10 miles 67 chains of single line between Waterfall and a position about half a mile south of the present Coal Cliff station Platform.[20] The contract included the lengthy Otford tunnel, located between Stanwell Park and Otford.

Disputes arose between the proprietors of the coal mine and some of the navvies working on constructing the railway. The land owners insisted on charging the navvies a shilling a week ground rent for every tent on their ground. The navvies asserted that they had a right to camp within 200 yards of the centre of the railway free of charge and refused to pay. The owners' agent rode around on horseback accompanied by a constable taking names, but no summonses were served.

One day a horse and tip dray were dumping spoil over one of the embankments where the line rounded the bluffs. Unfortunately the dray backed back too far, and fell backwards over the embankment, falling down the cliffs, killing the horse and smashing the dray *to atoms*.[21]

The section of line between Waterfall and Clifton (now called Scarborough) was opened as a single track line on 3 October 1888.[22]

The Illawarra Railway undoubtedly had a serious impact on the company's business. The location of the mine entrance out on the sea cliff and well below the level of the government railway line prevented the company from taking advantage of the new railway line, except at great expense. However, their competitors could now transport their coal cheaply and reliably by rail to either Wollongong Harbour or to the coal loading wharves at Darling Harbour in Sydney.

E Vickery and Sons Limited

On the death of Christiana Stuart, the widow of the late Alexander Stuart, the company was incorporated. On 2 August 1889, the Registrar of Joint Stock Companies issued a certificate adding Limited to the company name.[23] Sir John Robertson and Charles Cowper had been partners of Alexander Stuart, and they now took control of the new company. John K Clark is also understood to have been an owner.

In 1892 the colliery estate and ships were acquired by Ebenezer Vickery. On 1 March 1893, Vickery together with several other owners of coal mines on the Illawarra joined together to form the "Southern Coal Owners' Agency", for the purpose of acting as a selling agency for the various mines.[24]

Looking into the mine. The tunnel straight ahead led to the western district and that on the right to the northern district. The return line to the north is shown cutting through the line bringing coal from the west. *Photo: Jim Longworth Collection*

The fourth, and final, jetty seen in June 1906. *Photo: Jim Longworth Collection*

Vickery decided to develop a shaft on Stoney Creek, but before work could begin the economy entered the depression of 1895-6, so building the shaft was postponed, ultimately until 1909.

In 1902, ownership was transferred from Ebenezer Vickery to E Vickery and Sons Limited. The firm owned two coal mines on the Illawarra, Coal Cliff and the Osborne-Wallsend Colliery. By 1912, Coal Cliff was under the management of a Mr PJ Carrick who had been in charge since about 1902, having been employed at the colliery for about seventeen years before that.

The product of most of the mines on the Southern Coalfield was suitable for use as steaming coal in ships, and the small coal was suitable for turning into coke. The Coal Cliff mine was capable of supplying 200 tons a day, with the product going to Sydney.

Underground

The colliery was still being worked from the two tunnels that had originally been driven into the face of the sea cliff along the seam of coal. While the mine had previously been ventilated by means of a furnace, during late 1899 a seven-foot diameter "Schiele" ventilation fan was installed which greatly improved ventilation, indicating a growing investment in the operation.

Skips were gathered underground by horses that were 15 or 16 hands high, with ponies used in low places. In 1879 the horses were stabled in a neatly fitted stable inside the mine, and used to draw loaded skips from the coalface to the entrance to the tunnel on the surface. Later the horses were stabled outside the tunnel entrance.

Skips were hauled in and out of the mine by a main (3 inches in circumference) and tail (2½ inches in circumference) rope system, at a rate of about 12 miles per hour. The ropes were wound on drums driven by a Tangye duplex engine, located in a chamber underground to protect it from the salt laden sea air. The drums were thrown in and out of gear by means of claw clutches. Strap brakes were located between the drums. As there was only one haulage engine to work the two underground districts (northern and western), only one district could be worked at a time. Just inside the entrance to the mine the return line from the northern district cut through the kip of the western district, the space being bridged over by loose rails when it was required to draw skips out from the western district [as shown in the photograph on page 10]. Steam for the various engines was generated by a Cornish boiler at the surface.

The third jetty survived frequent damage until the latter months of 1904. A strong southerly gale with a heavy sea blew up in early October. Increasing in violence, the seas broke on the jetty with greater fury than any seen over the previous 18 years. At 11am the following day, the decking, fully 27 feet above the surface of the water, was burst upwards by the force of the waves. As the heavy swells struck the piles they snapped like carrots. After many of the piles had been broken, a mountainous sea broke with terrific force, carrying away about 160 feet of the outer end of the jetty.[25]

The Fourth Jetty

After the loss of the third jetty, tenders were called for rebuilding. The proprietors of the colliery also contemplated sinking a shaft and installing a railway siding and loopline connecting to the government railway, to carry the output of coal during repairs to the jetty. The shaft and line were not built at that time, but this occurred five years later.

Apart from a few stores lowered from the main road down the cliff to the mine level in a box on an aerial rope, the colliery was dependent on sea cartage for supplying stores and transporting coal. Power for the aerial rope was provided

by a friction winch that was usually used for hauling skips of slack coal up to the top of a storage hopper.

After emerging from the mine, coal was screened through a set of short stationary screens. Slack coal that passed between the bars was hauled up an incline to the top of the hopper by means of a friction winch and cable. Round coal and any unscreened coal that was to be shipped out was hauled to the end of the jetty in trucks by means of an endless rope. A terminal pulley was positioned vertically between the rails, and located underneath the jetty decking. Trucks were hauled up a slight double-sided incline (called a kip) on the jetty deck, which was formed by placing beams on the jetty decking as longitudinal sleepers under the rails. When released from the endless rope, the truck ran under the influence of gravity down the far side of the incline to an end tippler where the coal was discharged into a loading chute. After being emptied, each truck was switched onto a return track along which it ran back to the slack hopper or to a storage track on the platform near the cliff face. As the far end of the kip crossed the outer rail of the return line, a groove was cut out of the timber beam of the kip, while the rail above was hinged and kept out of the way by a counter-weight. As a full truck moved down the far side of the kip towards the tippler, the wheels pushed the rail back into place in the line, so the truck could pass over the outer rail of the lower return track[26] [see sketch below].

Ordinary screw clips would not have been strong enough to hold the large trucks that were used on the jetty's endless rope, so cam clips were employed to attach the trucks to the rope.

As the jetty was constructed straight off the cliff face out into the open Pacific Ocean without any protection whatsoever from the waves or wind, there were times when the weather was too rough for the company's steamboats to lay alongside the jetty and load.

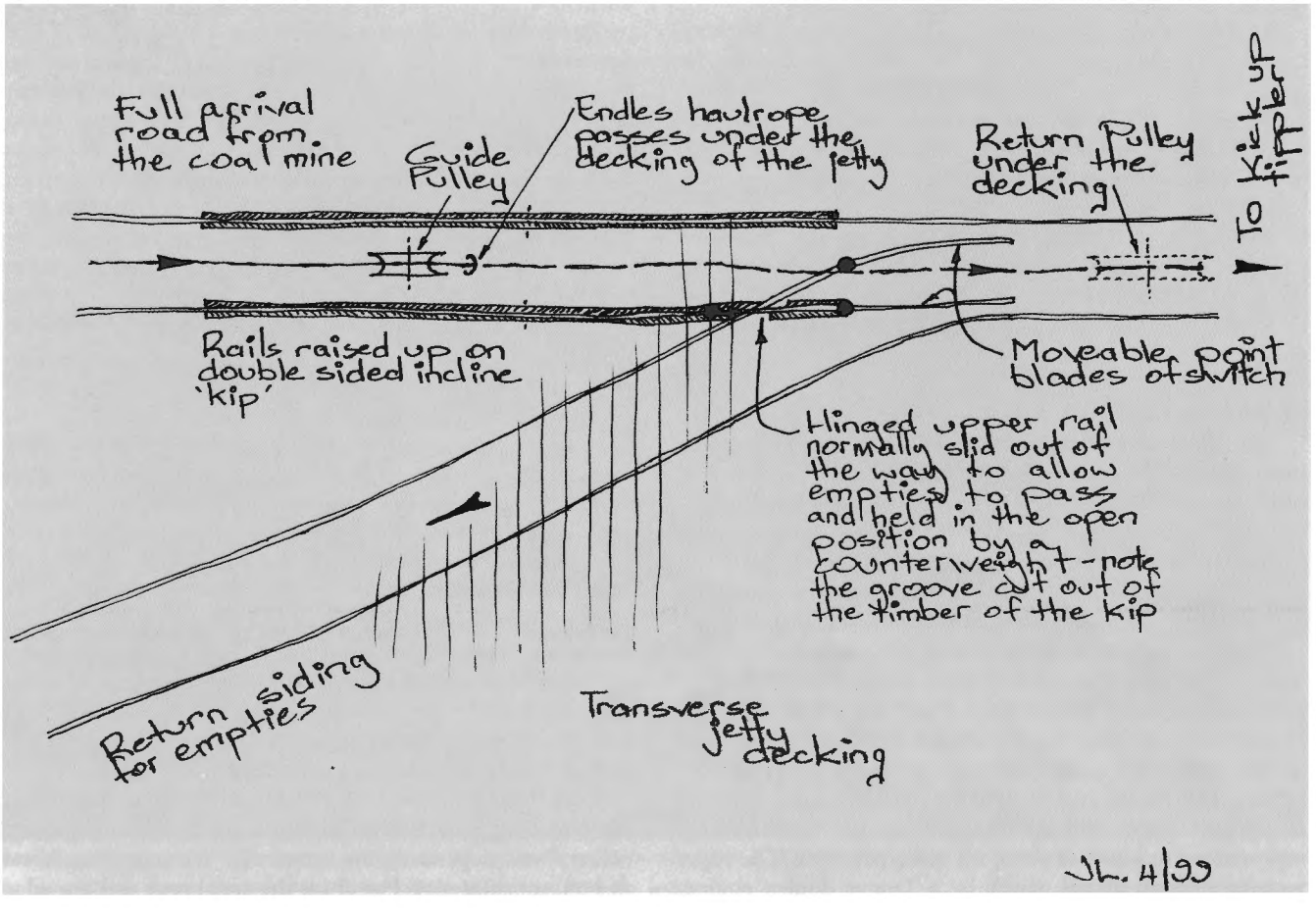
The Coal Cliff Collieries Shaft

In early 1909 the mine was taken over by the Coalcliff Collieries Company Ltd. This new company finally had sufficient capital to sink a shaft at the northern end of the Clifton tunnel on the Illawarra railway line. The site was selected after an extensive survey of possible locations carried out by JH Graney and C Carrick under the supervision of PJ Carrick (the latter's father).

On 7 September 1909, the mine manager, PJ Carrick, commenced work on sinking a vertical shaft shaft to the northwest of the original adit in the sea cliff.[27] The shaft was 18 feet in diameter and intersected the coal seam at a depth of 328 feet. A heading from the sea cliff adit was driven to the site of the base of the shaft, and on breaking through, the centrelines of the heading and shaft were found to be only 1 1/2 inches offset [28]

On 10 August 1909, a new dead end siding on the Down side of the Illawarra line with points facing Down trains was brought into use to serve the company's new mine shaft.[29] A nest of tightly curving sidings was built on the spoil dump that had accumulated from the boring of the Coal Cliff tunnel. The new facility was regarded at the time as the most advanced set of sidings at any colliery in Australia. The Coal Cliff Signal Box, which controlled the crossing loop and entrance to the colliery yard, was brought into use on 27 September 1910. Five days later, a heavy government railway locomotive was run over the sidings to thoroughly test them, with a satisfactory result.

The initial proposal was to work both the new shaft and the original adit in the sea cliff together. However, the operations were progressively relocated to the new shaft. Vacancies for large numbers of men were expected to be available in the new year of 1911, suggesting that the new shaft had improved the viability of the mine.



Round poles, hewn baulks of structural hardwood and spare rail littered the cramped deck of the jetty. The storage hopper for slack coal is in the background. *Photo: Jim Longworth Collection*

Closure of the Jetty

With the more reliable and cheaper transport provided via the shaft to the Government Railway, the need for the jetty diminished and finally it was needed no longer. What finally happened to the jetty I do not know. It was still intact in July, 1921, when visited by photographer John Henry Harvey. The Coal Cliff mine continued to use light railways, both underground and on the surface - but that is another story.

Extant Remains

While difficult of access, one can still see the site of the original adit in the sea cliff. A few holes in the rock shelf mark the place of long gone piers. The coal band can be traced along the cliff, and it is easy to imagine the scene encountered by supercargo Mr Clarke just over 200 years ago. Diving along the route of the jetty would probably be most revealing to a marine archaeologist.

Dedication

Thanks are extended to the late Gifford Eardley for his work *Transporting the Black Diamond, Book 1*, and the late Ken McCarthy for the fascinating photograph taken looking out of the adit.

References

1 Collins D. 1802. An account of the English Colony in New South Wales. [not seen, but quoted in many documents]
2 Historical Records of New South Wales, Volume 3 (Hunter). 1895. Government Printer, Sydney.
3 McKeown. E. Ed. 1953. *Coal in Australia*. Office of Congress.
4 Harper LF. 1915. *Geology and Mineral Resources of the Southern Coal-field*. Government Printer, Sydney.
5 *Town & Country Journal*. 2 August 1879.
6 Eardley G. 1968. *Transporting the Black Diamond, Book 1*. Traction Publications, Canbèrra.
7 *Sydney Morning Herald*. 30 October 1877.
8 *Sydney Morning Herald*. 15 January 1878.
9 *Illawarra Mercury*. 25 September 1877.
10 Jervis J. 1942. *Illawarra. Journal of the Royal Australian Historical Society*. Vol. 28 (5).
11 *Coal Cliff Mine, 1878 - 1978, 100 years of mining*. Coal Cliff Collieries.
12 *Illawarra Mercury*. 24 August 1880.
13 Illawarra Mercury. 30 November 1877.
14 Illawarra Mercury. 7 March 1879.
15 Lyne C. 1882. *The Industries of New South Wales*. Government Printer, Sydney.
16 *Illawarra Mercury*. 7 June 1878.
17 *Sydney Morning Herald*. 18 January 1879.
18 *Illawarra Mercury*. 14 June 1881.
19 *Illawarra Mercury*. 15 July 1881.
20 Singleton CC. 1969. *Railway History in Illawarra*. Illawarra Historical Society, Wollongong.
21 *Town & Country Journal*. 14 February 1885.
22 Laidley D. 1996. *Railways: opened, disused and operational, the evolution of the New South Wales railway network*. Unpublished manuscript.
23 *Articles of Association of the Coal Cliff Land and Coal Mining Company Limited*. 1889. W.Smith, Sydney.
24 *The Cyclopedia of New South Wales*. 1907. McCarron Stewart, Sydney.
25 *Illawarra Mercury*. 5 October 1904.
26 Danvers Power F. 1912. *Coalfields and Collieries of Australia*. Critchley Parker, Melb.
27 *NSW Department of Mines Annual Report*. 1909.
28 *Sydney Morning Herald*. 3 October 1910.
29 *Weekly Notice*. 32/1909. NSW Railways.

Babinda Mill's Com-Eng 0-6-0DH 5 BRAMSTON *(AH2460 of 1962) approaches Jogo with a rake of empties in July 2000. Photo: Rod Milne*

Babinda Mill's Jogo Line

by Rod Milne

Introduction

Extending west into the fertile red soil hills of the Jogo district north-west of the major regional centre of Innisfail in far north Queensland, the cane railway branch described in this article is only a relatively new extension. This influences its name in mill operations, the term "New Line" applying to it even though it has been in service since 1954. The track was constructed by the original operator, CSR's Goondi Mill, but was acquired by Babinda Mill after 1986 when Goondi Mill crushed for the last season. Since the line was first built almost five decades ago, the alignment has remained relatively unchanged apart from a deviation built in 1967 in association with a realignment of the Bruce Highway.

The entire area served is cane country drained by Fitzgerald Creek, itself a tributary of the main North Johnstone River. The name for the area ("Jogo") comes from an old rail siding that used to exist on the QR main North Coast Line in earlier years, two kilometres north of the cane tramway terminus, and is said to be derived from the name of a tree with red berries. Like many QR station names, its origin is somewhat dubious!

I am unaware of a post office or state school ever bearing the name Jogo, but the Johnstone Shire Council retains a public road with this title. Jogo Road runs east of the Bruce Highway not far from Moody Road, which seems to honour the family of a former local farmer, Mr Arthur Moody. Jogo Road has a through connection to the Eubenangee district, and Eubenangee Road, via Goldmine Road.

Description of the line

Branching from the main line between Babinda and Goondi close to where the Daradgee branch line diverts, the New (or Jogo) line is unusual in that its junction faces towards the south, like the Daradgee branch. However this is not as irrational as it seems, for the direction of the turnout reflects the direction to Goondi Mill, the original operator. Sited just south of the Garradunga Road crossing, the junction boasts a long loop to enable the cane locos to run around, and a dead end cane siding. The Daradgee line comes off the main line at the southern end of the loop and the Jogo line at the northern end.

Swinging sharply to the west, the line follows the Garradunga Road down to the Bruce Highway intersection, crossing the Highway at an open crossing protected by flashing lights. The crossing is the only one on the line so protected, with the rest being open and protected by the usual warning signs. Another sharp curve to the right brings the line onto the alignment following the Bruce Highway, and both arc gently towards the west over a low divide before dropping down about a kilometre out.

At the 1.5 kilometre point is a cane siding consisting of two dead ends and referred to by the mill as Parisi's. It adjoins the level crossing with Bronson Road and is unusual in that the main line drops as the cane sidings remain level on a low embankment. For the 2000 cane season, the two dead ends at Parisi's were extended at the Jogo end and now function as two loop tracks. The cane locomotives usually work hard at this point as they bring loads back up to the main line from Jogo, and it is a spectacular location indeed for a photo in the morning sun, with the red soil hills and cane behind, and Mount Chalmynia as a distant backdrop. However, for much of the year, getting the sun to shine can be the problem, for low cloud is common in this area close to Mount Bartle Frere and the Bellenden Ker Ranges.

At the bottom of the climb but still beside the main Bruce Highway at the 1.9 kilometre mark is the set of points that gives access to the only major spur line from the main Jogo line, referred to by the mill as Shrank's line. Built at the same time as the New Line, Shrank's line consists of a long branch

climbing towards the south west with three intermediate cane sidings on it. One of these (the second) is a loop facility enabling running around. The oddly named Quebba siding marks where the branch actually ends and is of the dead end variety. Like the New Line proper, the spur line is also scenic as it negotiates the red soil ridges timbered with scrub and jungle in places. Alas, it is a line difficult to access by road. Most of the sidings on it, and much of the route, lie on private land away from the only public roads in the area.

Back on the main line, west of that tiny junction there was another cane siding as the line skirts a green cane covered knoll, curving in the process, with the main highway a little more to the north. For a brief period, a cane paddock separates the two transport spines before a loop cane siding (Fedalto's) which has access from Todd's Road. This is an important siding in the cane season, as important perhaps as the rail head at Jogo a little distance beyond. Cane is sometimes loaded here on the main line straight, with through cane trains kinking through the loop line points at each end to avoid the rake of bins.

For the last leg to the terminus at Moody Road, the line runs north-west away from the line of the Bruce Highway, crossing a small creek by one of the very few bridges on the branch before reaching the terminus proper at 3.3 kilometres. There is a loop line here, but it was once just a dead end referred to as Eureka siding by the mill. It provides sufficient accommodation to load cane and also to enable locomotives to run around before pushing up to the actual end of the line at 3.8 kilometres at Vandeleur' s siding. The final part is quite spectacular, as the main line enters a deep cutting by Moody Road before swinging almost through 90 degrees to go through another cutting below a sawmill and ending in two dead ends. Thus, in the line' s heyday, there were four separate cane sidings on the main branch (if you include Jogo and Vandeleur's as one siding), and three more on Shrank's line up to Quebba.

Train working

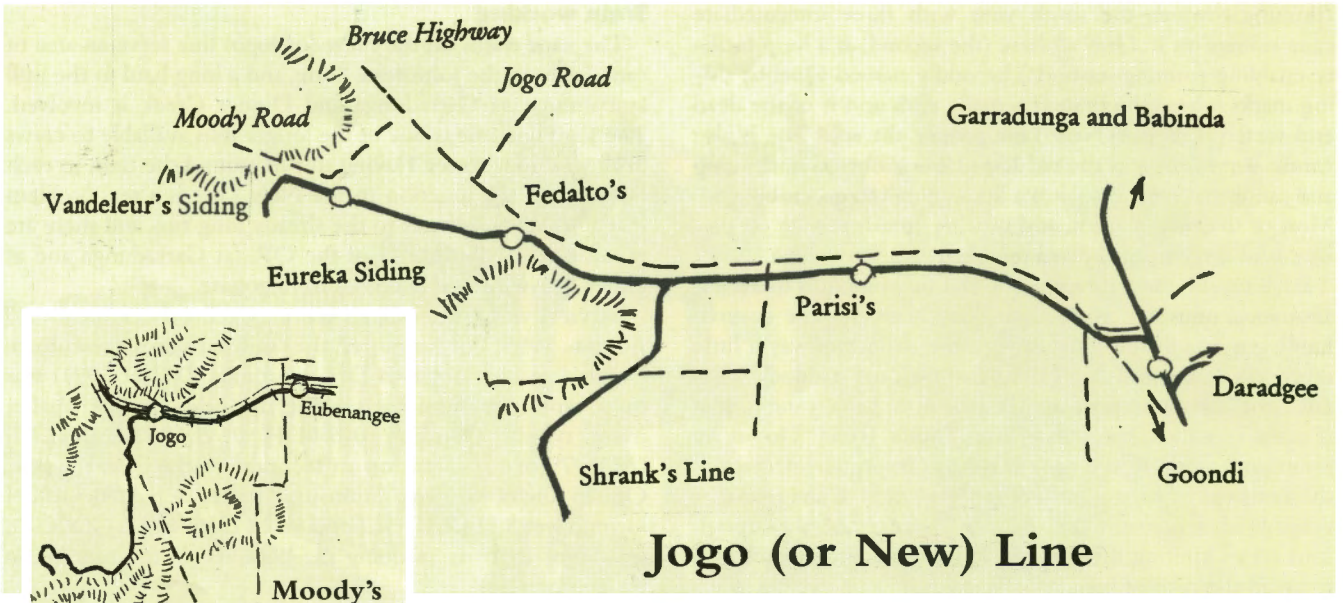
The cane trains on the New (or Jogo) line serve an area of cane farms in the Johnstone Shire, and a long haul to the mill at Babinda via Garradunga and Dinner Creek is involved. The Jogo line one is one of the longer jobs available to crews of the Babinda roster. Having to run around the train in each direction at the junction to the New Line is a real problem that adds a few minutes to the already long run, and there are in addition two crossings of the QR (at Garradunga and at either Miriwinni or Babinda) to negotiate.

Services work seven days a week if need be. On Sunday 25 August 1996, for instance, the mill's then largest loco, Bundaberg Foundry B-B DH 8 Babinda (002 of 1991) was on a cane train from Jogo, while the next day, the smaller more typical ComEng 0-6-0DH 9 *BARTLE FRERE* (AH3979 of 1964) was on an identical working on the line. On 25 October 1996, multi-unit paired Clyde 0-6-0DH locomotives 3 *DARADGEE* (56-90 of 1956) and 2 *GOONDI* (55-56 of 1955) were doing the honours on the cane trains on the Jogo line.

In the 2000 season Com-Eng 0-6-0DH locomotive 5 *BRAMSTON* (AH2460 of 1962) was the main loco used on the Jogo line, being deployed to ferry loads into Garradunga for the multi pair of *RUSSELL* (A2027 of 1958) and *JOSEPHINE* (A1821 of 1957) to haul back to Babinda. However, Mourilyan Mill's Clyde 0-6-0DH number 14 (63-288 of 1963) was also seen on the Jogo line that season, reflecting the flexibilities of working possible with the integration of mill ownership. Babinda's 9 (by now without the *BARTLE-FRERE* name) had been used on the pre season weed train.

Services operate according to the harvesting contractors' work, but because of the area served and the number of sidings on both lines, the line is usually worked at least one or two days a week in the season. Cane trains may not go all the way up to the railhead at Moody Road at Jogo if no cane is being loaded up there, and similarly Shrank's line is not

At the further extent of the Jogo Line, Com-Eng 5 with its all-female crew prepares to leave with its rake of full bins from Vandeleur's in July 2000. *Photo: Rod Milne*



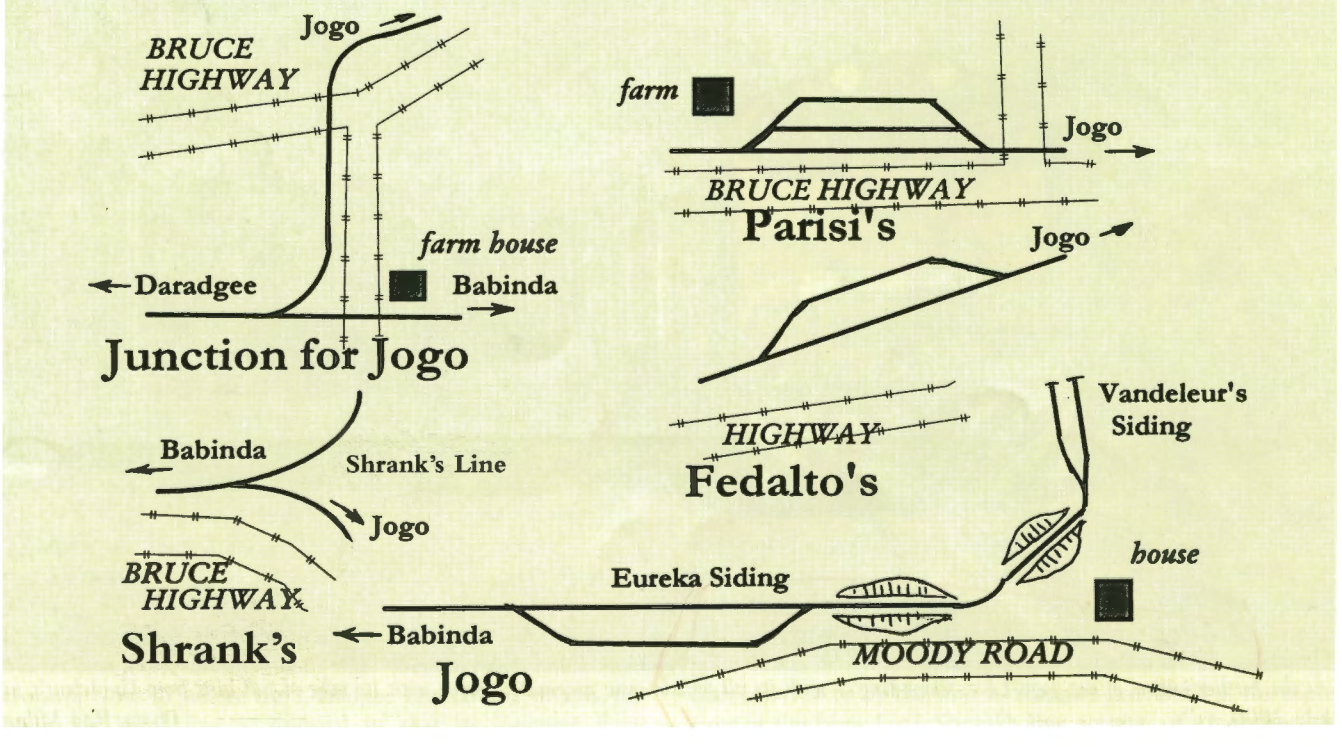
always worked either. A common working is to serve both the New and Shrank's lines by the one trip, with the loading being left at the junction as the loco proceeds up the other branch to collect loaded bins or put off empties. At this end of the line it is not unknown for trains to run with loaded bins at one end of the loco and empties at the other end to simplify shunting.

Mill loco crews being the resourceful types that they are, workings are flexible and based on the need to bring the biggest load possible into Babinda within the capacity of the loco rostered. Sometimes cane must be left behind, and an extra trip run, when the cane loaders are working on the branch.

Because several of the sidings, including Quebba and Vandeleur's, are dead end facilities it is usually necessary for the loco to run around its load at the previous loop (Moody Road in the case of Vandeleur's), and push the empties out. The double loop arrangement at Parisi's enables two rakes to be loaded simultaneously, and allows push out workings to Shrank's Line.

The Jogo branches are interesting from the point of view of loco working, as they have been worked through the years by locomotives from three different mills. Up until 1986, Goondi mill's roster of locos worked the New Line but since then the Babinda roster of locos has worked the branches. Since 1990, with common ownership between Babinda and Mourilyan mills, Mourilyan locomotives occasionally venture into the area to facilitate crushing operations. Steam workings may have applied during the first few years of operation, with the mill largely dieselised by 1957.

Because of the high rainfall, maintenance is always a costly issue on the New (Jogo) line and its long branch. During the slack season, the red soil often washes over the tracks, and the grass grows as high as the proverbial elephant's eye, nature seeming to reclaim the right of way. In the weeks leading up to the restoration of cane train services each crushing season, a trip is usually worked by the weed spray train, and it certainly leaves a tell tale path through the mud and grass. In the slack season, navvy trains also work if required.



Moody's Tramway

An interesting aspect to the operation of the cane lines in the Jogo district is the one time presence of another 2ft line, an isolated one that ran on the northern side of the ridge line beyond the New Line's terminus at Moody Road. It is indicated on old survey plans as a hook shaped line about two miles long that ran south from the old QR loop siding at Jogo, crossing the current highway alignment and then running up a narrow defile along a small gully to a terminus up in the high country. This was the private tramway of Arthur Moody, a farmer who most unusually had his own locomotive worked line to haul cane down to the 3ft 6ins gauge government railway. His locomotive, a Motor Rail Simplex 20hp 4wPM locomotive (B/N 4199) was new in 1927 but the date of the line's construction is not known. Its period of operation was over by 1950, when the locomotive appears to have been sold for use at the resort at Hayman Island. The QR used to impose a royalty charge on cane loaded at Jogo siding, the latter being advised as removed in 1954, the year the cane tramway of the Goondi mill reached the area.

Conclusion

Nearly fifty years after its construction, the New Line to Jogo remains an important branch line to the mill cane railway system, and there would appear little likelihood for the forseeable future of its demise, even if there are further mill rationalisations (an ever present threat it seems). However, a forkline connection at its junction near the Garradunga Road would help to make it a little more easily worked by trains from Babinda. Unfortunately, this would be difficult to achieve due to the presence of a farm house by the actual junction. It is not likely there will be any more extensions to the line though, with both branches terminating as far up the valley that they can go. At Moody Road, the line ends at the foot of the ranges leading up to Mount Chalmynia, so no new extensions are probable.

Babinda Mill's Com-Eng 0-6-0DH 9 (AH3979 of 1964), fitted with an enclosed cab at the mill, parts the grass as it hauls a weed spray train before the start of the 2000 season. Photo: Rod Milne

Acknowledgements

Bundaberg Sugar Company (Babinda Mill) • Scott Jesser • Johnstone Shire Council • Murray Broad • Marg Macdonald • Romy Romilly • John Browning

On 7 July 2000, Mourilyan Mill's Clyde 0-6-0DH 14 (63-288 of 1963) heads a rake of cane from Fedalto's siding back towards the main line, not far from the Bruce Highway. The combined buffer/coupler was originally fitted to enable Mourilyan locomotives to haul both mill and Innisfail Tramway stock. Photo: Rod Milne

Industrial Railway News Editor : John Browning
PO Box 5646,
ROCKHAMPTON MAIL CENTRE 4702
Phone: (07) 4931 3684 (W); (07) 4926 6356 (A/H)
Fax: (07) 4927 7560 E-mail: ceo8@iinet.net.au

EDITORIAL

I am delighted to be able to say that in the last two months I have received reports relating to every sugar mill tramway in Queensland (although not every mill is featured in this issue's news section). This is the first time that such a thing (or anything close to it) has happened in all the 25 years since I started "Light Railway News". Sincere thanks to all those who share news and photographs with our readership. Interest in sugar cane railways appears to be at an all-time high with the cane areas of Queensland increasingly accessible as roads have improved. In addition, the use of the internet as a news and discussion medium has enabled those who are interested to communicate so much more easily. The internet discussion group Locoshed gives particular attention to industrial railways, and regular readers will have noted how much of our news comes from that source. While I realise from our readers' survey that many of our readers have absolutely no interest in the internet, I thank group owner and LRRSA member Brad Peadon for his support of "Light Railways" and can recommend http://groups.yahoo.com/group/LocoShed to all those who use the internet. *John Browning*

NEW SOUTH WALES

BHP STEEL, Port Kembla

(see LR 166 p.18)
1435mm gauge
Preserved Clyde 0-6-0ST *BRONZEWING* (457 of 1937) hauled passenger trains in mid-July to mark the public listing of BHP Steel on the stock exchange. For these trips, GEC Australia Co-Co DE D49 (A.243 of 1972) was the back up locomotive.
BRONZEWING also ran trips to Mt Kembla on 3-4 August, push/pull with English Electric Co-Co D34 (A.197 of 1969) as D49 had failed with engine problems. *BRONZEWING* is due to receive new piston rods and will also receive attention to crossheads and cylinders as necessary.
GEC Australia Bo-Bo DE D38 (A.239 of 1972) was undergoing an overhaul in August and will be the first loco in the new BHP Steel livery.
English Electric Bo-Bo DE D30 (A.083 of 1964 has re-entered service after a number of years intermittent repair work. It is predicted that English Electric Bo-Bo DE D17 (A.031 of 1960) will be withdrawn from service in the near future.
Brad Peadon 6/02 & 8/02; Chris Stratton 6/02, 7/02 & 8/02; John Garaty 7/02 (all Locoshed internet group)

BHP BILLITON LTD, Newcastle

(see LR 166 p.18)
1435mm gauge
On 20 July, Goninan Bo-Bo DE locomotives BHP 53 (018 of 1964) and BHP 54 (020 of 1965) were transported by road to Richmond Vale Railway Museum, together with the molten metal torpedo ladle whose bogies had been moved in May.
Similar locomotives BHP 55 (051 of 1977) and BHP 57 (057 of 1982) were noted loaded onto road transport on 11 August for transport to Junee, with BHP 48 (012 of 1961) and BHP 51 (015 of 1961) soon to follow. These locomotives have reportedly been sold.
Brad Peadon 7/02; Bob 8/02 (both Locoshed internet group)

2ft gauge Gemco 3-tonne 4wBE "Hauler" 24 with 29 and an unnumbered unit await the hammer at the New England Antimony Mining auction, Hillgrove, 25 June 2002. Photo: Ray Graf

NEW ENGLAND ANTIMONY MINES NL, Hillgrove

(see LR 166 p.19)
457mm & 610mm gauge
Ray Graf attended the auction held on 26 June 2002 and made a very comprehensive listing of the rail equipment, all of which was sold, including not only the material originally advertised but much more from the salvage yard.
All the battery locomotives appeared to be built by Gemco. The two types are 3 tonne 4wBE "Haulers" (H) and 1.5 tonne 0-4-0BE "Trammers" (T). The following were sold as more or less complete units:

Lot	Type	Gauge	No.	Notes
54	H	24"	24	Sold. Still on site 1 Sept 2002. Fate unknown.
56	H	24"	29	Sold for reuse
58	H	24"		Sold for reuse
60	T	24"	3	Sold for preservation
62	T	24"	2	Sold for preservation
62A	T	24"		No Battery box. Sold for preservation

Lot 158 included the following thirteen locomotives that were noted dismantled in the salvage yard. They were sold to Metal Recyclers for scrap.

Type	Gauge	Builder's no.	Date	Notes
T	18"	12328/122/65	1965	ex Golden Plateau Mine, Cracow, Q
T	18"	12567/150/68	1968	ex Golden Plateau Mine, Cracow, Q
T	24"	12701/167/70	1970	ex MWS&DB 103
H	24"	12561-62/72	1972	(a)
H	24"	1516/182/72	1972	
T	18"	1896 200 74	1974	
T	24"			
T	24"			ex MWS&DB. Numbered W19
T	18"			(b)
T	18"			(b) numbered 7
T	24"			numbered 2
T	24"			ex MWS&DB. Numbered 1
T	24"?			Numbered 3

(a) also carries plates Gemco Perth, WA Serial Number No.602, Type No.CC3, 968; and E A Marr & Sons Pty Ltd Unit No. 3133
(b) believed to be ex Golden Plateau Mine, Cracow, Q, 11986/96/62 of 1962 and 12426/142/66 of 1966

There were seven air-powered boggers as follows:

Lot	Builder	Model	Notes
75	Atlas Copco	LM36	numbered 2
76	Atlas Copco	LM36	numbered 327 5019 (ex MMBW)
77	Eimco	12B	numbered B3510
78	Eimco	12B	numbered B3508
79	Eimco	12B	numbered 1
80	Eimco	12B	numbered 19
81	Eimco	21	numbered Z4260 (ex Zinc Corporation)

Lots 75 and 76 were noted on a truck in Sydney on 5 July 2002, reportedly consigned to Broken Hill. Lots 64 to 68 were 2.5 tonne Granby cars and 69 to 73 were 1.9 tonne Granby cars. Lot 74 was a 1.5 tonne side tipping car that was purchased for preservation. Other rolling stock included Lot 82 - a hydraulic cap lifter (for lifting overhead timber

supports in tunnels); Lot 83 - two mobile storage cabinets; and Lot 84 - eight timber trollies. The derelict equipment in Lot 158 included some Eimco boggers, Models 12B and 21, and a 3ft 6ins gauge Gemco petrol-hydraulic track maintenance machine.
Ray Graf 7/02; Gray Eisdell Timms catalogue via Ray Graf

SILVERTON TRAMWAY
(see LR 166 p.19)
1435mm gauge
Following the resumption of mining at Broken Hill by Perilya, production has been reduced meaning that a number of Tramway employees have been put off. However, it is forecast that the line to the northern mining area will be reopened for ore hauling in the future.
Dick Holland 7/02 (Locoshed internet group)

TRISTAR PACIFIC PTY LTD, Kalaroo Road, Redhead
610mm gauge
Hunslet 4wDM 8824 of 1978 was offered for sale in June 2002, for an asking price of $10,000 including GST, with enquiries invited to (02) 4940 0079. This locomotive is fitted with a catalytic converter. It appears to have been refurbished and repainted and is stored in a warehouse. It was previously in the ownership of Coya Constructions Pty Ltd, at West Gosford, in NSW.
Just Trucks plus Just Heavy Equipment June 2002 via Ray Graf; Brad Peadon 8/02; Editor

Top: *Ex-Energy Brix Walkers 900mm gauge B-B DH locomotives CC01 (586 of 1968) and CC02 (587 of 1968) stored in the old mill building at North Eton, with Hunslet 0-4-2T 1026 of 1910 and 4-6-0T 1239 of 1917 alongside, 14 July 2002. Photo: David Rowe* ***Above:*** *Fiji Sugar Corporation's Lautoka Mill Clyde 0-6-0DH 3 (57-173 of 1958) at Nabua, west of Nadi, 13 July 2002. Photo: Chris Stratton*

Industrial Railway NEWS

VALLEY EXCAVATIONS, Carramere Road, Muswellbrook
610mm gauge?
As a result of the retirement of the owners after 30 years in business, 34 underground tipping mining cars, 36 "bogies to suit", and a quantity of 42lb rail were to be auctioned on 7 August by Gamers Auctions of Newcastle.
Courier-Mail 3/8/02 via Bob Gough

QUEENSLAND

Independent Assessment of the Sugar Industry 2002
The "Hildebrand Report" was released in June. Appendix C contains profiles of mill areas including some useful information on rail transport. The report can be located on the internet by going to http://www.affa.gov.au and then typing "Hildebrand" into the Search box.

Cane railway safe working
A new system of tramway safe working is being introduced, based on a computer program used by the traffic officer at the mill. It was in use at Plane Creek Mill by last year and is known to be in use by Mackay Sugar and by the CSR Herbert River Mills this year.
When a train gets to a control point on the tramway system, the driver contacts traffic control by radio to ask for authority to proceed. Authority is granted to proceed to the next section with a number that is randomly generated when the traffic officer moves the icon for the train or locomotive concerned to the next section on the computer screen. The driver must repeat back the authority number to the traffic officer. On the Herbert River, the letter stays constant but the number changes at each check point and upon receiving his new number the loco driver must make sure that the letter stays the same and the number changes. The letter stays the same to make sure that the traffic officer has moved the correct icon and the numbers change to make sure that he did move it and not leave it in the same section. The letter is not specific to a particular locomotive and can change from journey to journey if the traffic officer "parks" a loco icon between trips.
David Rowe 7/02; Tony Wells 7/02; Chris Hart 7/02 (all Locoshed Internet group)

CSR LTD
(see LR 164 p.22)
CSR still sees splitting its Sugar Division off into a separate entity as a viable option for the future. However at the 2002 Annual General Meeting,

shareholders were told that this "demerger" will only go ahead if forecast legislation is passed to provide capital gains tax relief.
Editor 7/02

BUNDABERG SUGAR LTD, Bundaberg mills
(see LR 166 p.19)
610mm gauge
On 27 June, **Millaquin Mill's** EM Baldwin B-B DH *CALAVOS* (4983-1-7-73 of 1973) was delivering bins out to the new Elliott line in preparation for the commencement of crushing the following week. On the way back to the mill the loco derailed at a dirt road crossing and ended up on a 60 degree angle. Only a small amount of damage was sustained.
The season commenced with no Locotrol operations between **Bingera Mill** and Wallaville but it was planned for new slave controls to be purchased and installed in the relevant locomotives in due course.
Lincoln Driver 7/02

BUNDABERG SUGAR LTD, Moreton Mill
(see LR 166 p.20)
610mm gauge
Early in July, Plasser Model KMX-12T ballast tamper 390 of 1994 was sent with its crew from Bundaberg for about two weeks to realign and level on the main lines in preparation for the start of the crushing season.
The Eudlo Flats line is not being used for cane haulage but locos are going there on occasions to shunt empty bins to truck loading ramps, particularly in the area behind Kunda Park. The Paynters Creek line was also not supposed to be used but according to loco drivers cane is being hauled out by tramway as well as by trucks.
Late in August, the track was lifted on the southern side of Clarke's Bridge (the Petrie Creek lifting bridge) and it appeared that track was also being lifted on the other side. This may indicate that the bridge is about to be removed.
Ron Aubrey 7/02 & 8/02; Carl Millington 7/02 & 8/02

BUNDABERG SUGAR LTD, South Johnstone Mill
(see LR 161 p.19)
610mm gauge
Not all the mill's locomotives have been renumbered under the unified district scheme: those not in regular service seem to have escaped, and it appears that the renumbered locomotives still also carry their old numbers. Where carried, the new numbers are used in this report.
Four locomotives were based at Silkwood depot in July-August. These were Com-Eng 0-6-0DH 21 (AD1453 of 1962), 22 (AK3675 of 1964) & 23 (AD1452 of 1961) and EM Baldwin 25 (6470-1-1-76 of 1976). EM Baldwin B-B DH 32 *LIVERPOOL* (10385-1-8-82 of 1982) was based at Japoon depot. *LIVERPOOL* and Prof Engineering B-B DH

Top: *Kalamia Mill's 2ft gauge EM Baldwin B-B DH* NORHAM *(5383-1-7-74 of 1974) hauls a 3ft 6ins gauge match wagon and molasses tank wagons on the dual gauge link between Ayr Station and the mill, 16 July 2002. Photo: Brian Webber* ***Centre:*** *Proserpine Mill's Clyde 0-6-0DH 7 (65-442 of 1965) on a train of bogie ballast hoppers in the mill yard, May 2002. Photo: David Rowe* ***Above:*** *Mackay Sugar's Pleystowe Mill yard is being used as a marshalling point for bins on their way to Farleigh Mill. Here on 13 July 2002, Clyde 0-6-0DH* CONNINGSBY *(61-232 of 1961) waits its next run while Eimco B-B DH* FARLEIGH *(L254 of 1990) heads away with a rake. Photo: David Rowe*

33 *NYLETA* (P.S.L.25.01 of 1990; rebuilt South Johnstone 1993) were working trains up and down the Eight Mile Range and tended to take empty bins as far as the Walter Lever Estate in the direction of Silkwood, where full bins were collected from the Silkwood based locomotives. *NYLETA* was based at the mill along with the other locomotives in regular main line use. Early in August, EM Baldwin B-B DH 24 (5477-1-8-74 of 1974) was working to Nerada and bringing loads back to Pin Gin Hill where they were left for Com-Eng 0-6-0DH twins 31 (C1125 of 1957) and 36 (A1102 of 1955) working in multiple. 31 & 36 were also doing local runs south of the mill. EM Baldwin 26 (7244-1-8-77 of 1977) was working from the mill to Japoon and the No.1 and No.2 branches. Com-Eng 19 (AH4688 of 1965) was the yard shunter and did not carry its official number, 39. Com-Eng 0-6-0DH AH4695 of 1965 (old number 20; new number 38) was in the loco shed. All the other locomotives were in the storage shed and apparently not renumbered.

A handful of 10-tonne bogie bins were noted in use. In addition, all the bins used in the Japoon - Silkwood area have been extended in height by approximately 30cm and are now referred to as 6-tonne bins.

David Rowe 7/02; Neville Conder 7/02 (both Locoshed Internet group); Chris Hart 7/02; Scott Jesser 7/02 & 8/02

CSR LTD, Herbert River Mills

(see LR 167 p.20)

610mm gauge

As previously reported, for the 2002 season **Macknade Mill** is responsible for hauling cane from the Stone River area west of Ingham directly to Macknade Mill via the **Victoria Mill** yard. In the first couple of weeks of the season five different Macknade locos did this trip, but on 7 July EM Baldwin B-B DH *BRISBANE* (5423-1-9-74 of 1974) was transferred from Victoria Mill with Clyde brakewagon 5 (built 1976) for this service. This is the first addition to the mainline locomotive fleet at Macknade in 25 years. The brakewagon has been ballasted up to 16 tons but the middle axle is unbraked.

An error appeared in LR 166 where it was stated that EM Baldwin B-B DH 20 (7070-4-4-1977 of 1977) was used to haul Victoria Mill's brakewagon 8 around on points maintenance during the latter part of the slack at Macknade. It was in fact 19 (7070-3-4-77 of 1977). 20 was actually dismantled for repairs for most of the slack.

Chris Hart 6/02 & 7/02

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 166 p.22)

610mm gauge

The mill had a bad run on the tramway in mid-July. On the morning of 16 July, the engine of Walkers B-B DH ISIS No.4 (656 of 1970 rebuilt Walkers 1994) failed coming up the Hill above the mill. The spare locomotive, Walkers B-B DH ISIS No.1 (602 of 1969 rebuilt Walkers 1991) substituted. The engine in No.4 had been taken from 5804, the unit obtained for rebuilding from Mt Isa last year so its life was expected to be limited.

The following day just after lunch, an empty train headed by ISIS No.2 (Walkers 598 of 1968 rebuilt Walkers 1994) derailed across the empty and full lines on the Hill while taking empties into the Hill siding. It took an hour and a half to re-rail all the bins and fix the track, delaying all the incoming trains. With the line reopened, a full train headed by ISIS No.6 (610 of 1969 rebuilt Isis 2002), was allowed through, but as the damaged track was still being worked on it was diverted to use the empty line and cross over into the full yard by way of Cockings loop. Unfortunately, the curves there put a lot of stress on the couplings and it was only a matter of time before No.6 had fulls off the line.

A further mishap occurred on Thursday afternoon when ISIS No.3 (Walkers 600 of 1968 rebuilt Walkers 1994) was hauling empties to the Horton area. It ran over split points at speed and ended up in the dirt. The locomotive had to be lifted by a crane brought from Bundaberg. There was not a lot of damage to the loco but it was expected to be out of action for about a week.

The newly rebuilt ISIS No.6 did not run well until it was discovered that there was a hairline crack in one of the transmission feeder pipes. With this fault rectified, the locomotive is pulling well and capable of a good turn of speed.

Clyde Queensland 0-6-0DH 9 (75-812 of 1975) has not seen use for two years, although it received a gear box overhaul last crush. It has been offered for sale, but only two mills have shown interest, with its weight and height not meeting their requirements.

Carl Millington 7/02 & 8/02

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD

(see LR 166 p.22)

610mm gauge

With Pleystowe Mill not crushing for the 2002 season, most of its locomotives have been dispersed among the three other Mackay Sugar mills. Pleystowe's tramway system is being operated by the other mills, apparently with Farleigh responsible for the lines north of Pleystowe and south to Victoria Plains, Racecourse Mill for the lines east of Pleystowe and east and south of North Eton, and Marian for the lines west of North Eton and north from North Eton to Victoria Plains.

In August, observations indicated that loco transfers from Pleystowe had been as follows:

Farleigh Mill

2	PLEYSTOWE	0-6-0DH	Clyde 64-321	1964
4	HABANA	0-6-0DH	Clyde 60-215	1960
6	MIA MIA	B-B DH	EM Baldwin 9815-1-10-81	1981
9	PALMYRA	0-6-0DH	Clyde 63-273	1963

Racecourse Mill

7	NORTH ETON	B-B DH	EM Baldwin 6780-1-8-76	1976
8	PALMS	0-6-0DH	Clyde Q 70-708	1970
12	NELLIE	0-6-0DH	Clyde 58-188	1958
13	DEVEREAUX	0-6-0DH	Clyde 67-568	1967
29	VICTORIA PLAINS	0-6-0DH	Clyde 66-490	1966

Marian Mill

5	SHANNON	B-B DH	EM Baldwin 7126-1-5-77	1977
28	TE KOWAI	0-6-0DH	Clyde 56-103	1956
44	WALKERSTON	B-B DH	Walkers 672 reb. Pleystowe	1971 1994

However, it is not certain how firm these allocations are. For example, 28 *TE KOWAI* had been working at Farleigh in July and reportedly went from Farleigh to Marian on 15 August in exchange for Com-Eng 0-6-0DH 25 *ETON* (FB3170 of 1963), which had previously been reported transferred from Marian to Farleigh in 1999.

Pleystowe's Com-Eng 0-6-0DH *SEPTIMUS* (A2128 of 1958) has been noted at North Eton depot and does not appear to have been used for some time, while Farleigh's Com-Eng 0-6-0DH *BARCOO* (FB4383 of1965) was noted parked behind the Pleystowe loco shed in August, also apparently out of use.

Com-Eng 0-6-0DH *CATTLE CREEK* (B1724 of 1957) has been numbered 1, while Com-Eng 0-6-0DH *DALRYMPLE* (AL4892 1965) is confirmed as number 3. That means that the vacant number 23 probably is allocated to the unnumbered *SEPTIMUS*. Some or all of the other locos reported as not carrying a number in late 2001 still do not appear to have them.

Because of the changes to traffic patterns this season, Mackay Sugar has installed portable floodlights and electronic warning signs on the level crossings on the connection lines between the mill areas. They were noted on the Bruce Highway and on Maraju-Yakapari Road at Mandurana, on the Peak Downs Highway at Te Kowai and on Marian-Eton Road at North Eton.

The 15 tonne bin transloader at North Eton for cane hauled by road from the Blue Mountain / Nebo area is not in use this season. Cane was being dumped from road vehicles onto a concrete pad and in August a front end loader was loading the cane into bins for haulage to Racecourse Mill (although the cane had gone to Marian earlier in the season). The 15-tonne bogie bins normally used at the transloader were noted stored at Pleystowe Mill as they cannot be tipped at Racecourse or Marian.

During August, Racecourse Mill's Com-Eng 0-6-00DH 54 *OAKENDEN* (FB3169 of 1963) was stabled at Marian to haul road cane from North Eton towards Racecourse. The loco left Marian about 6am, running light engine to North Eton, picking up a rake of loaded bins and then continuing to pick up along Barrie line towards Oakenden until meeting a loco from Racecourse coming the other way. Loaded bins were swapped for empties, and *OAKENDEN* then returned to North Eton. The process was repeated several times during the day depending on how much cane was being loaded, and the loco returned to Marian in the evening for stabling overnight. As the loco is fitted with rotary couplers, it is not compatible with Marian bins, which have Willison couplers.

Racecourse Mill's EM Baldwin 4wDH *LEO* (6-2612-1-10-68 of 1968) has been noted parked in the navvy yard at Marian several times this year,

numbered BALD 1. At Racecourse, the similar *ROAD RUNNER* (6-2612-2-11-68 of 1968) now carries number BALD 2.
During July, Farligh Mill's Eimco B-B DH *FARLEIGH* (L254 of 1990) was shuttling rakes of cane from the Pleystowe Mill yard up Church Hill and across the Bruce Highway to Wundaru. From there they were being shuttled to Farleigh by a rebuilt Walkers B-B DH.
Mackay Sugar has purchased the two 900mm gauge ex QR DH-class B-B DH locomotives from Energy Brix at Yalloum in Victoria. They were noted stored at North Eton in July and are CC01 (Walkers 586 of 1968) and CC02 (Walkers 587 of 1968).
In a surprise move, Mackay Sugar announced on 23 August that Pleystowe Mill would be partially recommissioned as soon as possible to process syrup from the other three mills and thus enable crushing rates to be increased in response to larger than estimated crop figures. This would not involve any cane being crushed at Pleystowe.
Proserpine Guardian 4/7/02; David Rowe 7/02; Tony Wells 8/02 (both Locoshed Internet group)

MT ISA MINES LTD
1067mm & 610mm gauge
(see LR 162 p.21)
The Mt Isa Mines complex now consists of four mines: the original zinc-lead-silver mine; Enterprise Mine, which is a copper mine below it; the X41 copper mine, two kilometres to the south; and George Fisher Mine, a zinc-lead-silver mine, 22 kilometres to the north. George Fisher mine was previously known as the Hilton Mine, and has a 2.5 kilometre underground link to the old Hilton Mine infrastructure. It appears that rail equipment has a restricted use in all four mines. Rail is only used for materials and in some cases man haulage, with all ore haulage by rail having been eliminated. 2ft gauge is restricted to the upper levels of the original mine, with 3ft 6ins gauge lower down and in all later developments.
On a visit on 26 July, dual 2ft and 3ft 6ins track was noted around the main R62 shaft of the zinc-lead-silver mine, with mostly 3ft 6ins gauge stock in evidence although there were two 2ft gauge cement cars and a 2ft gauge ore car. Dual gauge track is laid in the cage. Two 8-tonne 3ft 6ins gauge 4wBE Gemco "mule" locomotives were seen parked on 19 level where they are rarely used. Two similar locomotives were noted near the salvage yard on the surface while a third, numbered 1, was seen outside a workshop near the copper smelter. It appeared to have been recently painted in white with purple flashes.
Walkers B-B DH 5803 (682 of 1972), painted yellow, was noted parked on the mine lease close to the QR yard.
John Browning 7/02

PIONEER SUGAR MILLS PTY LTD, Pioneer Mill
(see LR 165 p.19)
1067mm gauge
The unnamed ex-Aramac Tramway Walkers 0-6-0DH (583 of 1968) was noted shunting molasses tank wagons at the mill on 7 July, and hauling cane on 5 July and on the Lochinvar line to the east of the mill on 25 July. Clyde 0-6-0DH locomotives *PIONEER* (63-287 of 1968) and *AIRDALE* (64-318 of 1964) were parked at the fuel point all day on 25 July although both looked serviceable. The main burden of cane haulage is on the two ex-QR DH class Walkers B-B DH locomotives, *JARDINE* (592 of 1968) and *JERONA* (647 of 1970).
The navvy sidings contain eight ex-QR VTJ ballast wagons (timber hoppers), an old grass mower, two almost derelict passenger cars, a Plasser ballast tamper (41 of 1973), also in a poor state of repair, and nine ex-QR VTS ballast wagons (steel hoppers), loaded with ballast.
David Rowe 7/02 (locoshed Internet group): Scott Jesser 7/02 & 8/02

PROSERPINE CO-OPERATIVE SUGAR MILLING ASSOCIATION LTD
(See LR 165 p.20)
610mm gauge
With the arrival of the Walkers B-B DH rebuilds, some of the Clyde 0-6-0DH locomotives now see little use for cane haulage. Number 6 (62-272 of 1962) is allocated to the navvies while 7 (65-442 of 1965) did a few weeks work with the weed spray wagon during the slack season. 2 (56-91 of 1956) and 4 (59-202 of 1959) are parked behind the bin repair shed and appear not to have been used for some time.
David Rowe 7/02

TULLY SUGAR LTD
(see LR 156 p.21)
610mm gauge
Two of the mill's three EM Baldwin 0-4-0DH navvy locomotives were noted in use on 11 July. Number 1 (6-1082-3-2-65 of 1965) was working a ballast train of two hopper wagons on the Riversdale line, while 3 (6-1082-1-2-65 of 1965), based at El Arish depot, was on a navvy train near Feluga. In the meantime, 2 (6-1082-2-2-65 of 1965) was at the mill without wheels.
The sugar milling industry and the Cardwell Shire Council have joined forces to request funding for an expansion of the district's cane rail network to relieve pressure on local roads and have approached Queensland Minister for Transport for support.
David Rowe 7/02 (Locoshed Internet group); Scott Jesser 7/02 & 8/02; ABC FNQ Radio News 29/7/02

WESTERN AUSTRALIA

BHP IRON ORE
(see LR 166 p. 22 & 165 p.21)
1435mm gauge
Further to the report in LR 166, the Goodwin/Goninan "Dash 8" locomotives 5506, 5511 and 5512 had been sold for scrap and were stored at Maddington in Perth by July, with 5510 soon to follow. 5507, 5508, 5509 and 5513 had been purchased by United Goninan and were stored at their Bassendean premises.
Com-Eng Co-Co DE 5499 (C6096-04 of 1975) has been donated to the ARHS WA Division and was due to be shipped to the Bassendean Museum in Perth in August after the engine had been removed and miscellaneous repairs carried out.
Jim Bisdee 7/02; Richard Montgomery 7/02 (both Locoshed Internet group)

OVERSEAS

FIJI SUGAR CORPORATION
(see LR 166 p.22)
610mm gauge
Observations during the current season indicate that the main rail lines appear to be in good order even though in most places the grass is up to the rail head and no poisoning of the right-of-way is evident. Derailments are common, mostly caused by bearing failure or bad loading of the cane trucks. A couple of major derailments took place in mid-August near Vuda Point between Nadi and **Lautoka Mill**, one of which blocked the line for several hours with many trains backed up on the Nadi side of it.
A previously unreported locomotive out-depot was noted on the Lautoka Mill system at Nabau, west of Nadi on the Tunalia branch, close to the junction with the main Sigatoka line. On July 14 Clyde 0-6-0DH 3 (57-173 of 1958) was in the main line sidings here with a rake of empty trucks, while similar locos 5 (58-189 of 1958) and 21 (58-191 of 1958, ex Isis Mill in Queensland) were outside the shed close by. Inside the shed was Baguley-Drewry 0-6-0DH 18 (3770 of 1983).
Trains from the Sigatoka area, which is about 100kms south of Lautoka, normally take about 15 to 20 hours to get to the mill but on the day of the major derailment mentioned above some of the cane had not reached the mill even after two days. Whole stick cane can be delayed this long without significant deterioration. All cane in Fiji is cut by hand except for an area around Nadi, where the cane is machine cut like in Australia and transported in rail bins constructed on standard cane wagons, which are emptied through side doors.
With the sugar trains no longer running between **Rarawai** and Lautoka Mills, a long line of sugar boxes and molasses tank wagons was noted parked at Rarawai Mill with the sad sight of a Baldwin B-B DH in a semi dismantled state. The other bogie Baldwin was not sighted but conversations with drivers at Tavua depot indicated that that it is used occasionally on ballast duties.
The season got off to a bad start at **Labasa Mill** during the first 24 hours of the crush when two locomotives were burnt out in apparently mysterious circumstances. The police were reportedly looking for a locomotive driver.
Meanwhile, a Fijian cane growers' representative has stated that the cane tramway system is inefficient due to a lack of investment in maintenance and upgrading and would require substantial investment to bring it to a satisfactory standard.
Chris Stratton 7/02; *Fiji Times* 12/7/02 via Chris Stratton; Neville Conder 8/02

A selection of books from the LRRSA Sales Department ...

***New !* Focus on Victoria's Narrow Gauge Walhalla Line** Photographs by Edward A.Downs and others, published by Puffing Billy Preservation Society. Very high-quality landscape format book of duotone photographs dating from circa 1940 to 1956, most never previously published, 48 pages, soft cover, A4 size.
$35.95 (LRRSA members $32.35) Weight 280 gm

***New!* Railways, Mines, Pubs and People and other historical research** by Lindsay Whitham published by Tasmanian Historical Research Association. Fascinating collection of 18 historical research projects, including tramways around Catamaran, Zeehan, Sandfly, Waddamana, Port Arthur and many others. Essential reading for anyone interested in Tasmanian tramways, 264 pages, soft cover, A5 size, 64 photos, 33 maps.
See Review in Light Railways No.166
$25.00 (LRRSA members $22.50) Weight 425 gm

Echoes through the Tall Timber
The Life and Times of a Steam Man 1895-1984 by Dorothy Owen, published by Brunel Gooch Publications Life story of Harry Matheson, who drove logging winches, and mill engines in the Warburton-Powelltown area. 176 pages, soft cover, A5 size, 48 illustrations.
$22.95 (LRRSA members $20.66) Weight 375 gm

The Bonanza Narrow Gauge Railway
The Story of the Klondike Mines Railway by Eric L. Johnson, published by Rusty Spike Publishing. History of a 3 ft gauge 31 mile long railway at Dawson City, Yukon Territory, near the Arctic Circle - Canada's most northerly public railway, which operated from 1906 to 1913. 164 pages, soft cover, near A4 size, 82 photographs, 13 maps, 34 drawings and other graphics.
See Review in Light Railways No.166
$40.00 (LRRSA members $36.00) Weight 560 gm

Rails to Rubicon
A History of the Rubicon Forest by Peter Evans
200 pages, A4 size, over 200 photos, many maps and diagrams.
$37.95 Hard cover (LRRSA members $28.46) Weight1000 gm.

Powelltown
A History of its Timber Mills and Tramways by Frank Stamford, Ted Stuckey, and Geoff Maynard.
150 pages, soft cover, A4 size, 150 photographs, 22 maps and diagrams, references and index.
$22.00 (LRRSA members $16.50) Weight 550 gm.

The Innisfail Tramway
The History and Development of the Geraldton Shire Tramway and the Mourilyan Harbour Tramway by John Armstrong & G.H. Verhoeven
128 pages, A4 size, 99 photos, 22 maps/diagrams.
$37.90 Hard cover (LRRSA members $28.43) Weight 650 gm.
$29.95 Soft cover (LRRSA members $22.46) Weight 470 gm.

Modernising Underground Coal Haulage
BHP Newcastle Collieries' Electric Railways by Ross Mainwaring
60 pages, soft cover, A4 size, 18 photographs, 13 maps and diagrams, references and index.
$16.50 (LRRSA members $12.38) Weight 230 gm.

Tasmania's Hagans
The North East Dundas Tramway Articulated "J" Class by Geoff Murdoch, published by the author. 71 pages, soft cover, A4 size, 42 photographs, 2 maps, 38 diagrams/drawings, references and bibliography.
$20.00 (LRRSA members $18.00) Weight 300 gm

Mountains of Ash
A History of the Sawmills and Tramways of Warburton - by Mike McCarthy
Describes a complex 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).
$59.95 Hard cover (LRRSA members $44.96) Weight 1500 gm.

Settlers and Sawmillers
A History of West Gippsland Tramways and the Industries they Served 1875-1934 by Mike McCarthy
168 pages, soft cover, A4 size, 96 photographs, 17 maps and diagrams, 6 graphs, one loco diagram, references and index.
$31.90 (LRRSA members $23.93) Weight 700 gm.

Bellbrakes, Bullocks and Bushmen
A Sawmilling and Tramway History of Gembrook 1885-1985 - by Mike McCarthy
104 pages, soft cover, A4 size, 71 photographs, 17 maps and diagrams, references and index.
$26.00 (LRRSA members $19.50). Weight 500 gm.

Arsenic and Molasses
A Pictorial History of the Powelltown Tramway and Timber Milling Operations by Frank Stamford. All photographs are different to those in *Powelltown*. 88 pages, A4 size, over 100 photographs, 8 maps and diagrams, glossary and index.
$36.00 Hard cover (LRRSA members $27.00) Weight 650 gm.
$24.00 Soft cover (LRRSA members $18.00) Weight 470 gm.

Laheys' Canungra Tramway
by Robert K. Morgan, revised by Frank Stamford Describes Queensland's largest timber tramway.
32 pages plus soft cover, A4 size, 28 photographs, plus maps/diagrams and index.
$9.95 (LRRSA members $7.46) Weight 220 gm.

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Application for membership of Light Railway Research Society of Australia Inc. P.O. Box 21, Surrey Hills Vic 3127

I, _____
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desire to become a member of the Light Railway Research Society of Australia Inc. In the event of my admission as a member, I agree to be bound by the rules of the Society for the time being in force. I enclose cheque/money order for $42.00, or please charge my Bankcard/Visa/Mastercard No.

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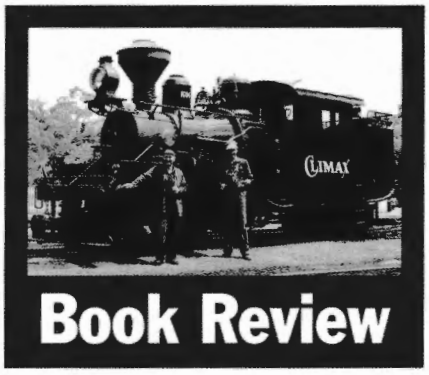


Book Review

The Climax Locomotive

By Dennis Blake Thompson, Richard Dunn, Steve Hauff, et al.

497 pages, 8in x 11in size, Many photographs, maps and diagrams, hard cover. Published by Oso Publishing Company, Arlington, WA (USA), 2002. Will be available soon from LRRSA Sales, Check the Sales Supplement or Web Page for details.

Christmas came in August this year. And it came in the form of a long awaited book on the Climax steam locomotive, complete with as many builder's photographs as should satisfy the most demanding rivet counter, and enough detail and context for the industrial archaeologist or modeller.

While quality books on the other major geared types (Shays, Heislers, etc.) are now mostly out of print, they were widely circulated and are still available in second hand bookshops and libraries. The sole book exclusively on the Climax, however, was never circulated widely and has long been out of print. The Climax also suffered from the lack of builder's lists and other manufacturing data that provided a rich lode of information for historians writing about these unusual locomotives that primarily worked the timber tramways of the world.

The Climax Locomotive, the hardcover book, is 497 glossy pages huge and profusely illustrated with black and white photographs, patent and scale drawings, advertisements and facsimile correspondence. The first six chapters trace the history of the Climax Manufacturing Company, the next six the locomotive's evolution and details. There are over 100 pages of shop number records including a listing of locomotives for which shop numbers are unknown and production by owner and location. Finally, the appendices include the drawings and other details, followed by a bibliography and an index by topic, country and shop number.

The book is the result of a wide collaboration based on extensive personal archives of Walter Casler, an ex-Climax employee and the co-author of the first Climax book (*Climax – An Unusual Locomotive*). Casler died early in the development of this book, but fortunately his family continued the collaboration as it's unlikely that there would be any other source with the resources to produce such a book. The named authors are well known to logging enthusiasts. The 'et al' includes an even wider range of the logging authors: Gertz, Labbe, Lawson, Lewis, Richtler and Muralt.

The Climax locomotive was one of the three most successful geared locomotives, with over 1000 produced between 1889 and 1929. I confess to being unable to quickly tell the difference between the various Class A geared locomotives, but the Class B and C Climaxes are distinctive. The Shay has an offset boiler and a row of uptight cylinders on the right hand side, the Heisler has a V2 cylinder arrangement, driving a central shaft, the Class B and C Climaxes have an inclined cylinder aimed downwards at 22.5 degrees on each side of the boiler. The jackshaft then has a right angle gearing to the central lineshaft driving the geared trucks.

As with all geared locomotives, the Climax was slow moving but powerful. The gearing mechanism was flexible enough to 'float' over rough track and the independently sprung four wheel trucks could twist with the track. The drive mechanism may not have been as easy to maintain as the side-mounted Shay but the Climax drive shaft didn't snag on trackside trash as frequently. While some Climax drivers disliked the 'bucking' and rolling that accompanied the inclined two cylinder operation, most were very attached to their locomotives and the book commemorates the loyalty of them and their employers.

Climax didn't have a large marketing organization, buyers came to the company because they knew someone in the same line of business who was pleased with their Climax. The locomotive was relatively simple to maintain and relatively cheap, good attributes for logging operators who couldn't afford sophisticated workshops or expensive locomotives. And most Climaxes held up through several changes of ownership as the logging business shifted from prosperity to depression or area to area.

The Climax was also exported to non-US timber producing countries, notably Canada (British Columbia), New Zealand and Australia. In addition to over 200 pages of pictorial essays concentrating on the US, there are 32 pages of overseas photos and information. The overseas coverage is primarily New Zealand and Australia, and includes a two page description of the operating life of S/N 1694, which is currently owned by the Emerald Tourist Railway Board. Another 18 pages on the Climax in BC, which is where I met, photographed and rode the Climax and other geared locomotives, rounds out the non-US coverage.

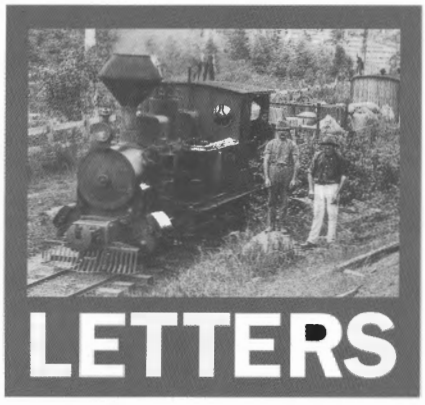
A number of the photographs have been printed full page (8in x 11in) but most are smaller, typically 2 or 3 to a page. Reproduction quality is excellent, even where the originals were old or obviously snapshot quality, and coverage is extensive. The usual builder's photos are supplemented with shots of the locomotives in use and abuse – working in the woods, at the log dumps, wrecks and derelicts. If I have any complaint with the illustrations it would be that none of the work of railway artists featuring the Climax, or colour photographs, have been included.

While some mistakes can be expected in a book of this size, I do wish that Oso had done a better job of proofreading the text. The presence of simple typographical errors, a truncated sentence at the bottom of one page that isn't completed on a subsequent page and the use of dollar/cent symbols instead of foot/inch symbols, for example, do not inspire trust in the accuracy of other details.

However, these are small problems and readers will undoubtedly be able to provide corrections and updates now that The Climax Locomotive is finally available. Minor problems aside, highly recommended.

A C Lynn Zelmer

Class A Climax ALEDA *(1297/1913) was one of two such machines employed by Allen Taylor & Co. on their Mayers Point tramway in the Myall Lakes district of northern NSW. Photo: Roger Persson collection*



LETTERS

Dear Sir,

The first Light Railway in Australia?

Light or industrial railways predated the first government general carrier railways. However, when was the first light railway in Australia? One contender for the prize was the Agricultural Company's incline at Newcastle.

Quoting from the *Sydney Gazette and New South Wales Advertiser*, of 17 December 1831, under the heading of: *OPENING OF THE NEW COAL-WORKS AT NEWCASTLE. "As the* Sophia Jane *proceeded majestically towards the wharf, two wagons, each containing a ton of coals, were seen descending the inclined-plane from the pit's mouth, with flags flying, and amidst the cheers of the Company's servants; two empty wagons being drawn up the plane at the same time, by the descending weight of the two full ones. The latter then travelled along the level rail-road with great rapidity to the end of the wharf; and the bottom of the first wagon being dislodged by a single blow from a hammer, three hearty cheers from every person present announced the instantaneous discharge of the first ton of coals into the vessel."*

But was this the first light railway in Australia?

Jim Longworth
Cheltenham, NSW

Dear Sir,

Glenrock Railway (LR 163, LR 165)

In a recent edition of *Light Railways* there was a reference to the locomotive *BURWOOD* that was built by Rodgers Newcastle Foundry. Following is an article that appeared in the *Newcastle Morning Herald* of 17 July 1878, describing this locomotive:

New Locomotive.

On Saturday last there was turned out from the 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 offer. This is the first locomotive engine that has been made outside the metropolis, and was constructed to the order of EO Merewether Esq, for the purpose of removing the immense deposits of sand which have drifted from the sea-shore on to that gentleman's estate. The engine will be employed for the present in running to Redhead, but will doubtless be made use of, and do good service should Mr Merewether decide on opening up his Redhead coal seams, which are known to be equal to any in the district. The dimensions of the engine are as follows: - Diameter of cylinders, 12 inches; length of stroke, 18 inches; diameter of wheels, 3 feet 6 inches; capacity of tank 700 gallons. The boiler is constructed of the best Lowmoor boiler plates, as also are the axles and all the working parts, which are also case hardened. The fire box of the boiler is made of copper, and the tubes are of solid drawn brass. There are two injectors (colonial made) each of which is capable of supplying the boiler with water. All steam and feed pipes are also of copper and brass. In fact all the materials are the very best of their respective kinds, and the workmanship displayed is first class. On her trial trip on Saturday, the engine worked smoothly and well, and was immediately employed removing trucks, full of sand, by Mr Merewether's engineer, Mr Patrick, under whose superintendence the locomotive has been constructed.

Mark Langdon
Mt Victoria, NSW

Dear Sir,

A Mysterious Artifact

I wonder if the readers of Light Railways magazine would be able to help me with a little history or information.

A few years ago, a fellow train driver gave me an old oil can, with the following engraved on its left side:

Mt CROSBY. 30.5.26
MAY JIMMY AND HIS CREW
CONTINUE FOR AN INDEFINITE PERIOD
TO REVOLVE UPON THEIR OWN AXIS
WITHOUT HOT BOXES OR SEIZED ENDS

The right side has exactly the same inscription, except the date is 6.6.26! The oil can is a K's brand, and is 6½in (165mm) long, 3¾in (95mm) wide in the body and 20in (508mm) long including the handle and spout. It is 3¾in (95mm) tall.

It is in very good condition and I can only assume it has been kept as a shelf ornament; a memento of some special occasion.

Does it have some connection to a light or industrial railway or tramway, though? That is the question I am hoping someone will be able to answer.

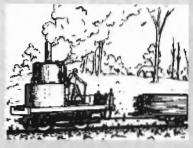
Emile Badaway
Emerald, Vic

READERS' SURVEY

Thank you to the hundreds of readers who completed the survey form in the June issue of *Light Railways*. To date almost 300 forms have been received and are presently being compiled. Thank you too, to those who added extra pages with their thoughts and ideas and criticisms. Please be assured all are being read and will be deliberated upon by council and the editors. A summary of the main results will appear in a future LR. Suffice to say, the general theme seems to be "steady as she goes - we like it the way it is!"

As an incentive to complete the survey, four respondents received a copy of a long-out-of-print LRRSA book. The draw was duly conducted after the AGM in Melbourne on 8th August with the lucky four names being drawn from "the barrel" by members of the audience.

The winners are Anthony Bennett (Qld), Don Keevers (NSW), Bo Gyllenberg (Sweden) and David Pilkington (Qld).



LRRSA NEWS

MEETINGS

ADELAIDE: "Light Railways Register"
There will be a follow-up of our review of the proposed register of South Australian light railways. Members are requested to please bring along any information relating to possible additions to the list.
Location: 150 First Avenue, Royston Park.
Date: Thursday 3 October.
Contact Arnold Lockyer (08) 8296 9488

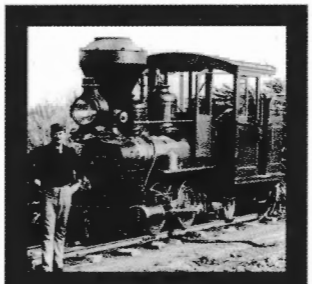
BRISBANE: "German Railways"
Paul Rollason will be showing video of recent railway operations in Germany.
Location: BCC Library, Garden City Shopping Centre, Mount Gravatt. After hours entrance (rear of library) opposite Mega Theatre complex, next to Toys'R'Us.
Date: Friday 11 October at 7.30 pm. Entry from 7 pm. Contact Bob Dow (07) 3375 1475

MELBOURNE: "Canals and Railways in Britain"
John McCutcheon will talk about the once extensive canal and railway systems of Great Britain.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday, 10 October at 8.00 pm.

SYDNEY: "Built by Baldwin"
Craig Wilson anticipates he will be launching his new book *Built by Baldwin*, on EM Baldwin & Sons locomotive builders of Castle Hill, NSW, and giving a talk on Baldwin's manufacture of canefield, tunnelling, flameproof and surface locomotives.
Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday 23 October at 7.30pm.

APOLOGY

Our sincere apologies are extended to the family and friends of the late Ian Back who, due to a typographical error, was described on page 22 of LR 166 as Ian Black.



RESEARCH

Sugar Industry Engineering Drawings

Several hundred thousand aperture cards and full size printed engineering drawings pertaining to the sugar industry of Australia and Fiji have recently come into the possession of the LRRSA.

This material was saved from destruction by members of the Dorrigo Steam Railway & Museum who generously salvaged it and have made temporary storage space available. Items of likely interest to light railway historians/enthusiasts are being identified, with about 1500 indexed to date.

Discussions have been taking place as to how this material can be made readily accessible to interested people, and consideration has been given to a suitable archive in which it might be placed. Consideration is also being given to finding a means of obtaining some funding to electronically publish selected material of interest to LRRSA members.

Further suggestions may be forwarded to Jim Longworth, 2 The Boulevarde, Cheltenham, NSW 2118 (jimlongw@hotmail.com) who is co-ordinating the indexing and conservation project.

Croll's Timber Tramway, Mayers Point , NSW

Jim Longworth and Ian McNeil have been researching the sawmill owned by Alexander Croll located in the Village of Bungwahl, between Seal Rocks and Smiths Lake on the North Coast of New South Wales. The mill was established c1872 and operated under various owners until 1997, surely some sort of an Australian record. Croll constructed a tramway from the mill to the southern shore of Mayers Point on Myall Lake in 1896. This was the second timber tramway to the point, following that of Hudson Bros (LR 155). Mayers Point is better known for the extensive timber tramways of Allen Taylor Pty Ltd (LR 70).

To date, Jim and Ian have been unable to find basic information about the construction of Croll's tramway, its mode of operation or the rolling stock employed. If any reader can assist with this matter, please contact Jim at the address given in the previous item.

Early limestone mining at Myall Lake, NSW

Another tramway at Myall Lake was that constructed for limestone haulage a short distance from Alexander Croll's timber tramway. The main limestone deposit occurs within Reserve 16073, adjacent to Myall Lake. In early 1896, the *NSW Government Gazette* carried details of an application by T.S. Huntley for a special lease of 192 acres of land for grazing, with 20 acres of that land to be used for quarrying limestone and constructing tramways. Huntley's application covered Portions 79 and 80 and reserve No. 16073 for wharfage purposes, all in the parish of Topi Topi, county of Gloucester. (*NSW Government Gazette* : page 184, 1896.) The fate of Huntley's application is at this stage unclear, but from the 1 April 1898 to 31 December 1903, William Walter O'Neill of "Bulladellah" was permitted to lease 93 acres for the special purpose of procuring limestone, the 93 acres including portions 79 and 80), and 3 acres to the east of portion 79, all in the parish of Topi Topi. (*NSW Government Gazette* : page 5064, 1898. NB – Portion 88 in *Gazette* should read Portion 80.) By late February 1899 O'Neill had obtained a contract with the "Cockle Creek Smelting Company" to supply limestone and was in the process of opening a large quarry, with several men engaged in constructing a tramline a half mile in length to the shore of the lake, from where the stone was to be carried by punts to Nelson's Bay and then shipped to Newcastle. (*Wingham Chronicle* : 1 March 1899 – Coolongolook correspondent, Feb. 22.). By mid July however, O'Neill had disposed of his limestone quarrying interests to a Newcastle Syndicate, for whom Alexander Croll [junior ?] was constructing amongst other things, a wharf and tramline. (Manning River Times : 19 July 1899). As a proprietor of Croll and Co., Alexander Croll Senior had held on the eastern shore of the lake in the early 1880's, a one acre lease for quarrying limestone at Bibby Harbour.

Mid-May 1900 saw the Port Stephens Limestone Company, having completed the laying down of its tramlines and wharves, busily engaged at its quarries on the western shore of the lake, under its manager WT Lee of Newcastle. (*Manning River Times* : 12 May 1900 – Bungwahl correspondent.) Some twenty additional hands had just been put on and it was expected that the firm would be able to take extract some 300 tons of limestone weekly. The firm had then accepted a contract to supply the "Cockle Creek Sulphide Works" with 150 tons of limestone weekly. It is surmised that the above-mentioned manager of the Port Stephens Limestone Company, WT Lee of Newcastle, was the same William Thomas Lee of 84 Church Street, Newcastle, who in 1901 formed a syndicate with Thomas Winn and William Masters, which commenced the construction of a sawmill at "Purgatory" on the upper Crawford River, some 11 miles upstream from Buladelah, which passed into the hands of the Port Stephens Hardwood Company. – {"Timber from Purgatory," Ian McNeil – *Light Railways*, July 1995,} Further special leases had been granted for the obtaining of limestone, for some 26a 2r 11p, from 1 December 1899 to 31 December 1904, to James David Jones of Newcomen Street, Newcastle. These leases which covered parts of Portions 68, 70 and 71 parish of Topi Topi, virtually to the immediate north-west of O'Neill's leases, may have also been connected with the Port Stephens Limestone Company.

Ron Madden

Jenbach 4wDM Loco at State Mine, NSW

Further to the item in LR 164 (p.26), State Mine Museum is preparing interpretative signs of its exhibits, including the Jenbach JW20 underground locomotive, which is thought to have worked at Hartley No.2 Colliery in the 1950s. The museum is keen to obtain a good quality photograph of a Jenbach locomotive of this type in operation. If any reader can assist, please contact John Oates, State Mine Heritage Park & Railway, PO Box 617, Lithgow NSW 2790. Ph: (02) 6353 1185; Email: statemine@lisp.com.au

Coming Events

OCTOBER 2002

6 Cobdogla Irrigation & Steam Museum, Barmera, SA. Steam & Humphrey Pump Open Day. Phone (08) 8588 2323.

7 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam trains (610mm gauge) operating 1200-1600. Also on 27 October. Phone Anne Drake, (03) 2228 (W)/1229 (H).

12-13 Puffing Billy Railway, Belgrave VIC. *Thomas the Tank Engine* comes to Puffing Billy – a family fun attraction at Emerald town. Also on 26-27 October. Book with the Fat Controller: (03) 9754 6800.

19-20 Bennett Brook Railway, Perth, WA. *Friends of Thomas the Tank Engine* Day with narrow gauge steam trains and the Fat Controller. Phone: (08) 9249 3861.

20 Puffing Billy Railway, Belgrave VIC. Kids Fun Run with *Thomas*. A race against Thomas the Tank Engine for children under 12. Bookings: (03) 9754 6800.

NOVEMBER 2002

2-3 Lake Goldsmith Steam Rally, Beaufort, VIC. Melbourne Steam Traction Engine Club ph 03 9763 1614; www.vicnet.net.au/~mstec

9-10 Menangle Steam & Machinery Rally, NSW. Campbelltown Steam & Machinery Museum rally with 610mm steam gauge railway, traction engines, steam rollers, stationary steam engines and vintage machinery. Contact Andrew McVey 0414 692 867 for information.

9-10 Puffing Billy Railway, Belgrave VIC. *Thomas the Tank Engine* comes to Puffing Billy – a family fun attraction at Emerald town. Also on 17, 23-24 and 30 November-1 December. Book with the Fat Controller: (03) 9754 6800.

10 Cobdogla Irrigation & Steam Museum, Barmera, SA. Steam Open Day. Phone (08) 8588 2323.

24 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam trains (610mm gauge) operating 1200-1600. Phone Anne Drake, (03) 2228 (W)/1229 (H).

DECEMBER 2002

1 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam trains (610mm gauge) operating 1200-1600. Phone Anne Drake, (03) 2228 (W)/1229 (H).

6-7 Wee Georgie Wood Steam Railway, Tullah, TAS. Steam train (610mm gauge) twilight run for carols at 1800 on 6th; operating 1200-1600 **7th**. Phone Anne Drake, (03) 2228 (W)/1229 (H).

7 Puffing Billy Railway, Belgrave VIC. Santa's Special Trains. Also on 14 and 21 December. Information on (03) 9754 6800.

15 Cobdogla Irrigation & Steam Museum, Barmera, SA. Steam Open Day. Phone (08) 8588 2323.

Heritage &Tourist

Public Risk Insurance

As indicated in LR 166, public risk has become a major issue for railway preservation groups, particularly those operating trains, and other voluntary organizations across Australia.

Following the closure of the Richmond Vale Railway in late May, other operations in South Australia, Tasmania and Western Australia were forced to close due to difficulties with public liability insurance. State Governments have generally been responsive to the crisis, most spectacularly in Tasmania where an election campaign brought out promises of instant relief. But, 'quick fixes' are unlikely to solve the more basic challenges of managing risk in situations where railway preservation groups are opening their facilities to the general public.

As developing and growing organizations, railway preservation groups are constantly faced with new challenges to re-invent themselves to cope with growth and changing circumstances. Public risk management is a central focus of that challenge. As reported under Western Australia, governments are assisting through policy and legislative changes that improve the framework within which voluntary groups operate. It is up to the individual groups to respond to these initiatives with sound risk management processes that will give the public – and insurance companies – confidence in their operation. And responding they are. The best story comes from the small New South Wales town of Murrurundi. There, local organisers have defied the odds and convinced insurers that they have a set of quality controls and procedures in place that will enable the safe running of a street 'billy-cart' event. As no one else in Australia has been able to meet this challenge, Murrurundi is to be the proud host of the National Billy Cart Championships! *Bob McKillop*

News items should be sent to the Editor, Bob McKillop, Facsimile (02) 9958 8687 or by mail to PO Box 674, St Ives NSW 2075. Note new email address for H&T reports is: rfmckillop@bigpond.com
Digital photographs for possible inclusion in *Light Railways* should be sent direct to Bruce Belbin at: boxcargraphics@ozemail.com.au

NEWS

Queensland

DREAMWORLD GOLD COAST RAILWAY, Coomera
610mm gauge
The rebuilding of ex-Proserpine sugar mill 0-6-0DH No.1 (Clyde DH1-7 of 1955, see LR 150, p.35) has not yet been undertaken and it remains in store with the motor started from time to time. The superstructure has significant rust damage. The locomotive was advertised for sale in a trade journal in 2002, with enquiries invited to (07) 5588 1181 or 0407 144774. The rebuilt Baldwin 4-6-0 (45215 of1917) has been stripped for major overhaul. Boiler work includes replacing the internal steam pipes and the tender will also receive major attention. Accordingly, Perry 0-6-2T (5643.51.1 of 1951) is the main operating locomotive on the DGCR. Several deviations have been made to the main line. The ex-Rocky Point sugar mill Fowler 0-4-0WT (16249 of 1925) is still at Dreamworld, but there have been negotiations for its relocation back to its original home.
Plant & Equipment May 2002 via Ray Graf; Bob Gough 8/02

IPSWICH WORKSHOPS RAIL MUSEUM 610/1067mm gauge
Further to LR 162 (p. 26), the $20 million railway museum at the former Ipswich Railway Workshops was opened on 1 September 2002. The museum is housed in the former 1903 boiler shop and includes ex-Qunaba sugar mill 0-6-2T locomotive No.3 *FLASH* (Perry Engineering 6160.48.1 of 1948) as a representative exhibit of the sugar industry railway systems. Queensland Rail's vast collection of rail memorabilia and historical records are to be relocated to the museum site later in 2002.. The new museum is part of the Queensland Heritage Trails Network which links 43 authentic heritage experiences throughout the State, bringing to life the stories, legends, evidence of incredible feats, epic events in history, rich landscapes, colourful tales and characters that shaped Queensland.
Queensland Tourism, via LocoShed E-group, 7/02

THE GINGER FACTORY, Yandina
610mm gauge
Buderim Ginger Ltd
A visit to this site in October 2001 found a very professionally run operation with frequent train services. The operating locomotive is ex-Moreton sugar mill 0-6-0T+4wDH *MORETON* (Krauss 4687/1901), converted to diesel-hydraulic operation from the tender in 1992 (LRN 92, p.12; 94, p.10). Although it is sad to see a steam locomotive being pushed around by a diesel tender, it is better than no steam loco at all! The train starts from the station at the northern end of the site, heading west and passing through a forested area, which also has walking tracks through it. It proceeds at a sedate and comfortable pace, giving passengers ample time to see the sights. The track layout consists of balloon loops at the northern and southern ends of the site, joined by a straight section that crosses the main entrance, with a total length of about 1km. The points where each loop joins the straight are trailable.
Chris Stratton, 7/02

UNDERGROUND MINING WORLD, Marian Street, Mt Isa
This tourist development is currently under construction and will open next year. It will include an underground mine about 15m below the surface to which visitors will descend by means of a shaft. Toyota rubber wheeled transport will carry visitors around underground. Below ground exhibits will include 2ft and 3ft 6ins gauge rail equipment. Currently stored on site is some Mt Isa Mines 2ft gauge material that has been dragged up from somewhere in the Mt Isa mine including Mancha 4wBE 10 (2794 of 1948) without a battery box, five small Granby cars, an Eimco Model 21 bogger and two explosives cars. It is understood that a quantity of 3ft 6ins gauge equipment is stored at the Mt Isa mine site ready to be moved in when the time is right.
John Browning 7/02

FRANK ASTON MUSEUM, Marian Street, Mt Isa
This tourist attraction is sited at a lookout to the east of the town and includes a simulated "mine" tunnel through the hill beneath. On display above ground is a 3ft 6ins gauge Granby car and two 2ft gauge items, a drilling platform car and a grout mixer. On display underground are two different types of mine skip, also apparently 2ft gauge.
John Browning 7/02

ROTARY CLUB OF MT ISA, Barkly Highway
High up on the hillside on the south side of the Barkly Highway as travellers arrive in the mining town is displayed Hudswell Clarke 0-4-0ST 3 (928 of 1910). This is placed as an advertisement to the Frank Aston Museum and is sited behind a wire mesh fence and with faded green paintwork.
John Browning 7/02

MERRILL PANG, Camooweal Street, Mt Isa
This collector of many things old has in his back yard a 2ft gauge Eimco (GB) bogger, serial number B1148 (although it has a Scoma chassis) and two mining tip trucks that can tip sideways or over the end as the body is mounted on a turntable. The equipment is painted yellow and the trucks are lettered 7/L, which could indicate "Seventh Level".
John Browning 7/02

New South Wales

BRUXNER PARK, Coffs Harbour
A visit to this popular Flora Reserve, located within Orara State Forest, in July 2002 located formations of the former BAT Company's timber lines, which once echoed to the 'whoop' of a Shay locomotive. The railway formations are not signposted, but once located are easy to follow. The road from the Pacific Highway to Bruxner Park Flora Reserve has been constructed on the former BAT Company line. It divides at the location formerly known as 'The Gap', at the eastern end of the Reserve. One road continues to climb, leading eventually to Sealy

Lookout, while the other continues on more or less westerly through the Flora Reserve and onto the lush grazing lands of the Bucca Valley. There is a cleared area at the junction and a good map of the area.

Uphill from this, a walking trail leads initially parallel to the road going up to Sealy Lookout. A trail branches almost straight away and descends towards Bucca Bucca Creek, along which a walk of 1.3kms can be taken through the rainforest. The main trail uses former railway formation, winding quite sharply back and forth. The likely terminus of this particular branch is about 550 metres from the map. There are a number of significant cuttings up to perhaps 15 feet on one side, and three separate locations where the topography demands that there must have been bridges. This trail is not signposted. If one takes the official walk to Bucca Bucca Creek, a level section of former railway formation is encountered within 50 metres. Following this formation northwards, a series of railway cuttings are encountered.

At the point where the main terminus may have been, a steep track leads down to the headwaters of the Bucca Bucca Creek. At this point an overgrown but clearly man-made path of the same width as the main trail leads uphill. This appears to be an old railway formation. The formation is quite steep, probably too heavy a grade for even a Shay locomotive, so loaded wagons may have been braked downhill to the limit of loco operations, and been taken on from this point by the Shay. John Kramer, 8/02

HUNTER VALLEY RAILWAY TRUST, North Rothbury
1435mm gauge

This preservation group has seven of the 10-class Beyer Peacock 2-8-2T industrial locomotives that operated on the South Maitland Railways. The 14 members of the class hauled trains over the SMR until 10 June 1983 and on the Richmond Vale Railway until 1987, being the last steam operations in Australia. They are a unique industrial steam locomotive fleet and they have been heritage protected by the NSW Heritage Office. Chris Richards reports that 10-class Nos. 17, 20, 23 and 28 are operable. Work continues on getting rolling stock and track from North Rothbury to Branxton to the required standard for the operation of regular steam and diesel-hauled trains.

Editor, 8/02

ILLAWARRA TRAIN PARK, Albion Park 610mm gauge
Illawarra Light Railway Museum Society

Ex-Tully sugar mill 0-6-0DM (John Fowler /1937) underwent trials at Albion Park during July. It was finished in yellow livery with black frames and red buffer beams and coupling rods. The mechanics and finish of the locomotive are still under observation and testing, with its recommissioning scheduled for early 2003. Brad Johns, 7/02

Former Tully sugar mill 0-6-0DM No.8 (Fowler 21912of 1937, rebuilt EM Baldwin 5-90-9-63 of 1963) undergoing trials at Albion Park in July. *Photo: Brad Johns*

MILLENNIUM PARKLAND RAILWAY 610mm gauge

Further to the reports in LR 162 (p.26) and 164 (p. 28), Visits in July-August found considerable progress had been made in upgrading the rail infrastructure and restoring the heritage buildings. While the restoration of buildings has been carried out to a high standard, some basic tasks for the railway's full reinstatement, such as the provision of mechanisms and levers for points, had still to be completed. At the railway depot and workshop in Building 30, two restored original single-motor Wingrove & Rogers BEV locomotives were noted. The 1948 Wingrove & Rogers BEV locomotives were returned to Newington on 6 August. The two-motor version has been restored, but the single-motor loco is in a partially dismantled state and there is no intention of restoring it in the foreseeable future. The three operable W&R locomotives will be used for works trains and replica displays of former munitions haulage operations. Work progresses on modifying the air-braking system fitted to the prototype articulated passenger carriage set. Improved linkages and repositioning of the equipment mean that public application will be possible. Another prototype frame has been welded up and ten more bogies have been completed. Three of the original 4-wheel wagons have been partially overhauled and repainted and over 20 of the bogie flat wagons have been re-decked, with side bracing and timbers replaced as necessary. All have been resprayed safety yellow from the wheels up.

Len King 8/02

RICHMOND VALE RAILWAY
1435mm gauge
Richmond Vale Preservation Co-operative Society Ltd

Former BHP Newcastle steelworks Bo-Bo DE 80-ton centre-cab locomotives 53 (Goninan 018 of 1964) and 54 (Goninan 020 of 1965), together with the bogies of Treadwell hot-metal ladle car No.8, were transported from the steelworks site to Richmond Main on 20 July. They were unloaded at Mulbring Road, from where they were hauled to the workshops by ex-BHP Bo-Bo DE end-cab No.34. Nos. 53 and 54 are in working condition and will return to service when the Society resolves its insurance crisis. They join sister units 42 and 43 at the RVR. Nos 42-3 and 53 were built to a narrow-body configuration and originally fitted with Rolls Royce C6TFL engines. They were later rebuilt to wide-body configuration. No.54 was the first BHP locomotive built as a wide-body unit and was fitted with Cummins NT855 engines, which were later adopted by BHP as standard for its Newcastle locomotive fleet.

The Treadwell bogies have been reunited with the body to provide a display of Australia's grandest item of industrial railway rolling stock. The 232-ton capacity torpedo slag ladles were manufactured by Commonwealth Engineering at Granville under licence from the HM Treadwell Company of New York, USA. In normal service, with refractory brick lining, the cars weighed 156 tons and loaded with hot-metal, the all up weight was 388 tons.

STATE MINE HERITAGE PARK RAILWAY, Lithgow 1435mm gauge

State Mine museum has loaned a skip to Scenic World Katoomba under a partnership agreement. This skip will be used as a pattern to build a replica for incorporation

in their newly-developed coal mining exhibits. Mine related light railway equipment at the museum is being moved into the restored Bath House for display. The Chullora Railway Workshops forge is being installed in the workshops building. This will be a major step forward in developing an operating blacksmith's shop at the State Mine. Resident blacksmith Phil Spark is actively guiding developments in this area. The new rail platform at the State Mine site has been completed. Construction of similar platforms at the Blast Furnace and Eskbank Goods Shed was to be undertaken in August 2002.

Conservation works on the Davey Pump House at the Blast Furnace site commenced in August. These involve stabilisation of masonry and installation of a protective barrier on top of the exposed brick-work to stop water ingress. Outdoor interpretive signs for the State Mine site are being finalised. These will be enamelled steel and incorporate text and photos. These signs are sponsored by local businesses. Lithgow City Council has commissioned similar signs for installation at various locations around Lithgow and in surrounding towns and villages.

Ray Christison, 8/02

TIMBERTOWN, Wauchope
610mm gauge
Hastings Shire Council

A visit on 24 July found ex-South Johnstone sugar mill 0-4-2T No.10 (JF 17881of 1929) hauling trains on the park railway (LR 161, p.28). Services depart at 1100, 1200, 1300 and 1400, seven days a week and rides cost $5 for adults. The Fowler is fired on timber off-cuts and the driver advised that he uses more wood lighting up than for running. Lighting up takes 2 hours. Insurance problems mean that the sawmill does not operate for the public. However, current attractions include coach rides, a bullock team in action, woodturning, a blacksmith demonstration, general store and a tavern where visitors can buy lunch.

John Stavert, via Peter Neve, 8/02

Steam Tram & Railway Preservation Society's Robert Stephenson 0-6-0ST STEVO *(B/N 2994 of 1899, ex Commonwealth Portland Cement No.2) in steam at the Valley Heights Locomotive Depot Heritage Museum. Photo: Ted Dickson*

Former Moreton sugar mill 0-6-0T+4wDH MORETON *(Krauss 4687/1901), converted to diesel-hydraulic operation from the tender in 1992, at The Ginger Factory, on Queensland's Sunshine Coast, 4 October 2001, Photo: Chris Stratton*

Victoria

MENZIES CREEK STEAM MUSEUM Various gauges
Puffing Billy Railway Preservation Society

The Museum played host to most of the Puffing Billy 40th Anniversary events on 7 July (see below). Operating exhibits included the TACL rail tractor, ex-Tyers Valley tramway, which has been recently restored through the dedicated efforts of the TACL Tractor Group, including LRRSA volunteers. The Tractor Appliance Company Limited, a subsidiary of Malcolm Moore, built the tractor in 1928. It operated on the Tyers Valley tramway with Climax locomotive 1694 (the Society's logo) before being abandoned at the State Sawmill at Erica. The TACL tractor now operates at the Museum on the quarterly steaming days.

PBRPS Newsletter, via Web site

PUFFING BILLY RAILWAY
762mm gauge
Emerald Tourist Railway Board

Another milestone was reached on Sunday 7 July 2002 when the Puffing Billy Preservation Society ran a 40th Anniversary re-enactment special between Belgrave and Menzies Creek. The special train was hauled by locomotive 6A and two empty NQR wagons and 2NBH carriages to resemble the consist of the first train for the many volunteers who helped re-build this section of the railway in the 1960s. Locomotive 7A which hauled the original train and the two NQR wagons of that consist were unavailable and had to be substituted. The occasion was well represented with four past Presidents attending and many of the original volunteers. A highlight

was the gasp from re-enactment passengers as they noticed the TACL tractor propelling two log bogies along the Menzies Creek Museum spur line as the train pulled into the station.

Tourism Minister, John Pandazopoulos, attended and paid tribute to the railway that had carried almost seven million passengers since its rebirth as one of Victoria's favourite tourist attractions. Also, to mark the occasion, the Belgrave Railway Station building was named after Puffing Billy's longest serving President, Lon Wymond, who has given over 30 years of service to the Society. Participants enjoyed a well prepared BBQ lunch at the Menzies Creek Museum. To further honour the occasion, past Presidents Lon Wymond and Norm Wadeson equally shared the cutting of a 40th Anniversary birthday cake. This was preceded by a speech by President John Thompson, who provided a recollection of events leading up to this momentous event in the history of railways in Australia.

Peter Ralph, 7/02

WALHALLA GOLDFIELD RAILWAY 762mm gauge
Walhalla Tourist Railway Committee of Management

On Wednesday 17 July 2002 a further landslide occurred on the main road near Walhalla at the site of the May slip, which had resulted in the road being closed for 10 days (LR 166, p. 30). The WGR yet gain became a vital lifeline into the township, carrying passengers and supplies over several days. This activity was augmented by the appearance of the first steam locomotive to arrive at Walhalla since 1944 on 20 July. The 0-6-0T *Spirit of Baw Baw* (Henschel 25427/1956, LR 162, p.29) made two trips to Walhalla hauling two carriages for testing purposes, an event that generated considerable excitement in the town. The WGR's 4wDH *KASEY* (EM Baldwin 3225-1-2-70 of 1970) was transported to the WGR's Morwell depot on 7 August to allow a rebuilt Detroit 6-71 (ex US military) engine to be fitted. *KASEY* was towed from Thomson to Walhalla by Fowler 0-6-0DM No.14, as craneage is logistically simpler at the terminus.

Peter Ralph, 7/02; John Cleverdon, LocoShed E-group, 7/07; Colin Harvey 8/02

Tasmania

ABT WILDERNESS RAILWAY 1067mm gauge
Federal Hotels & Resorts Ltd

Roger Smith has sold his interest in AWR to the Federal Group, which had also purchased Strahan Village in March 2002. In announcing the purchase on 2 August, the group's managing director, Greg Farrell, stated that he hoped to have trains operating from Queenstown through to Strahan by the start of the peak spring tourist season. Under the new owners, AWR chief executive Eamon Seddon has become general manager, while Roger Smith has been retained as a consultant.

The AWR received yet another setback on 8 August. Engineering problems with the restored Abt steam locomotives led to their withdrawal from service in August 2002. This occurred after weighing the locomotives to test whether their axle loadings were in accordance with contractual specifications. It revealed they had an uneven axle loading which would result in long-term maintenance issues for both the locos and the track. It was decided to withdraw the locos to rectify the problem. A spokesman for the Federal Group, stated that it was not unduly concerned at the withdrawal and was looking forward to the completion and full opening of the Abt in time for the coming

Henschel 0-6-0T Spirit of Baw Baw *(25427 of 1956) at Walhalla station with driver Dick Sibley, during one of its test runs in July.* *Photo: Peter Ralph*

After the arduous climb up the 1 in 16, the fireman waters Mt Lyell No.1 while the driver checks the pinion gear, at Rinadeena, before the return journey to Queenstown on Saturday, February 15, 2002. *Photo: Jim Shugg*

tourist season later this year. In the interim, trains pulled by diesel locomotives will continue to operate on the opened section of the Abt line between Queenstown and Lynchford. The rack-equipped 0-6-0DM V13 *MT LYELL* was to return to Queenstown by the end of August to haul trains to Rinadeena. Media release via Peter Ralph, 8/02; *The Advocate*, 10 August 2002, via Mark Plummer

Western Australia

ASSOCIATION OF RAIL PRESERVATION GROUPS

The 12 railway preservation groups in Western Australia have come together as an Association to promote rail heritage and provide more effective links with the Government. In June 2002, 60 people attended a State Rail Strategy Forum at Midland Workshops to discuss the issues affecting rail heritage groups. The key issues discussed were: recognition and funding support for rail heritage, skills accreditation for maintaining and operating locomotives, the development of a Rail Heritage Centre and ways of reducing insurance costs.

The latter matter has become the dominant issue for the Association. The Carnarvon Light Railway & Jetty Tramway is currently closed due to public liability insurance problems and the Pemberton Tramway was closed from 1 to 20 July, which covered the peak school holiday period. The WA State Government has developed a five-point plan to address the public liability insurance crisis, namely:

1. Law reform to ensure a fair and predictable system for all;
2. Enabling legislation for the Government's insurance arm to provide cover to essential not-for-profit organizations;
3. Implementation of a risk management and public safety awareness campaign;
4. Helping businesses and community groups achieve bulk buying power through pooling; and
5. Bringing down of the Volunteer Protection from Liability Bill 2002, to protect volunteers who serve the community from personal liability.

Editor, 8/02

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

During July-August, a major maintenance effort was being undertaken on the section of line between Whiteman Village Junction station and a point just past Kangaroo Flats station, a distance of about 1.5km. To facilitate this work, the section of line was closed to all traffic. Passenger service trains were operated normally from Mussel Pool to Whiteman Village Junction and then worked out to Maine station and back along the southern section of the "Bushland Loop" line. As there are no run-around facilities at Maine, the train is worked "top and tail" with one of the diesels hauling the train out to Maine with the steamer coasting at the back and then the steam loco hauling the train back with the diesel dead attached at the rear.

Work is progressing on the restoration to service of 2-8-2 NG15 -123 *FREMANTLE* (Franco-Belge 2670/1951). By mid-August, the boiler had been closed up and the grate installed in readiness for a steam test of the boiler. Work continues on the production of new pistons and valve pistons and rings. Both the cylinders and valve chests have been line-bored to return them to a circular condition. New cylinders had been cast and were being machined, while new piston rings were being manufactured. All of the superheater elements have been pressure tested and repairs made where required, and these were ready to be re-installed. Simon Mead, 8/02

Overseas

WELSH HIGHLAND RAILWAY, United Kingdom 597mm gauge

Our last report on the restoration of the world's first Garratt locomotive, K1 of the Tasmanian Government Railways, was in LR 157 (p.30). Steady progress has been made on this important project and, on 1 August 2002, the new boiler was filled with water in preparation for the Hydraulic Test. This brought to completion the construction of the new all-welded boiler by the Bradford company of Israel Newton & Sons to the Festiniog and Welsh Highland Railway's own design based on the original 1909 boiler. Following the hydraulic test, the boiler was transported to the Boston Lodge Works of the Festiniog Railway for its first steam test. Subject to successful tests, the boiler was to be united with the frames of K1, which have been undergoing restoration in Boston Lodge Works. With the end of this long project in sight, it is hoped that the rebuild can be completed by the end of 2002. Line trials on the Welsh Highland Railway are planned during the early part of 2003 culminating in a public launch early in the 2003 operating season. It is intended that K1 will play a major part in the WHR motive power diagrams during 2003.

Colin D Hill, K1 Project Manager, 08/02, via John Browning

GERMAN NARROW GAUGE

Paul Rollason has reported on several trips on German narrow gauge lines. The first was a regular passenger service between Radebeul and Radeburg just outside Dresden. This 750mm gauge railway, The Lößnitzdackel, is a spur line approximately 17km in length. The DB still operates a regular passenger service running approximately every hour. There are many tourist attractions along the way including Schloß Moritzburg (Moritzburg Castle) which was one of Mad King Ludwig's castles. There are some five steam locomotives, quite a number of 4-wheel traditional green passenger coaches with platforms at each end and several freight wagons. Paul rode behind a 2-10-2T K-57 type locomotive, 99 1775-8, which appeared huge in its narrow gauge setting. This trip is a must for any narrow gauge or steam enthusiast travelling in Germany.

The second trip was behind on a 0-4-0T metre gauge steam tram (Krauss BN 1813 of 1887) at Lake Chiemsee. This railway runs as a tourist train every hour, each headed by a steam tram followed by a string of small 4-wheel passenger coaches. The line is approximately 3km in length and travels through some stunning forests and the small town of Chiemsee. A short paddle steamer ride to a small island on the lake takes you to another one of Ludwig's castles, Herin Chiemsee Schloß, the largest and most spectacular of all the castles.

Paul Rollason, 8/02

0-4-0 steam tram (Krauss BN.1813 of 1887) at Lake Chiemsee south of Berlin, Germany on 25 June 2002.
Photo: Paul Rollason