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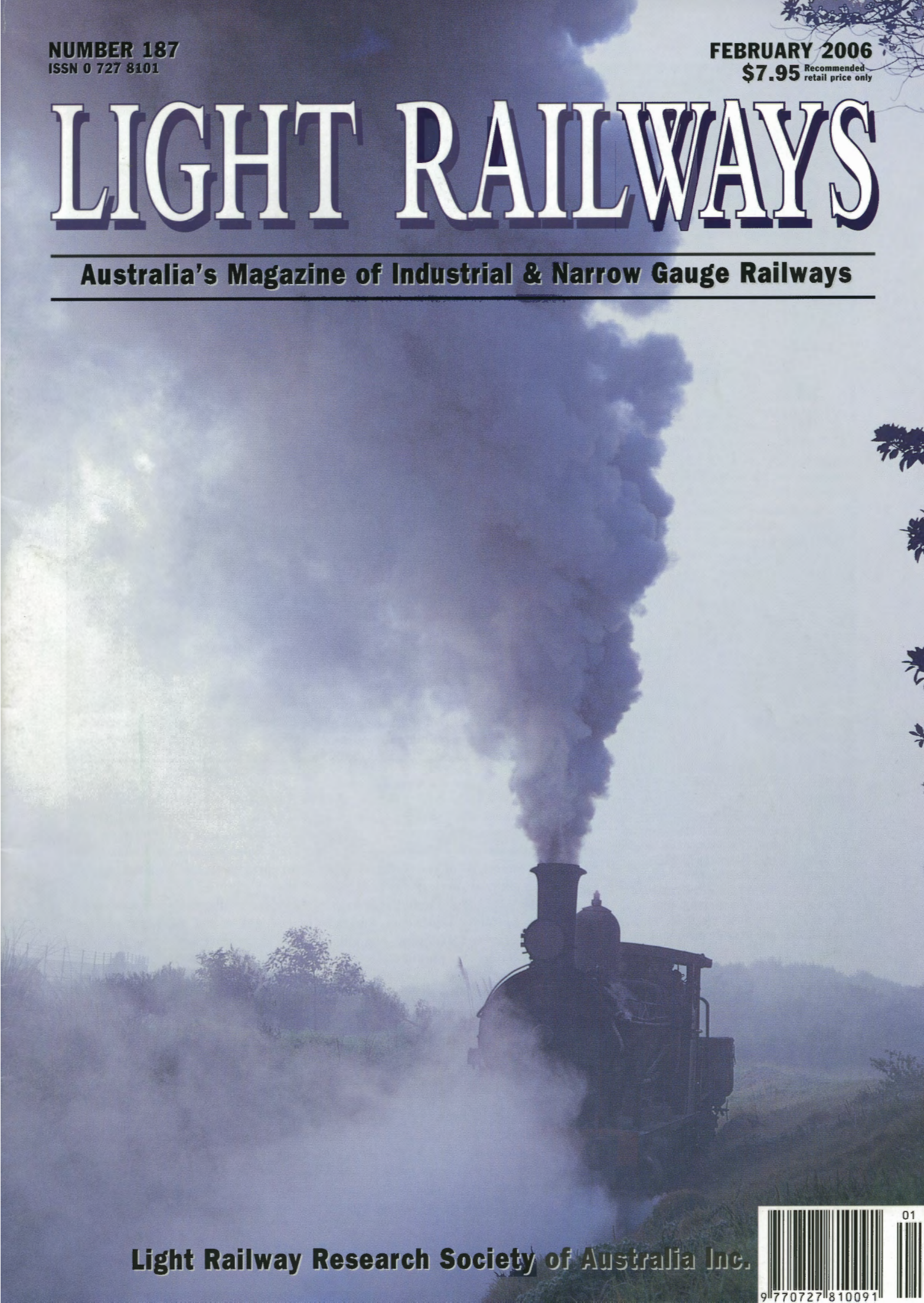
LIGHT RAILWAYS

Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.

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LIGHT RAILWAYS
Australia's Magazine of Industrial and Narrow Gauge Railways

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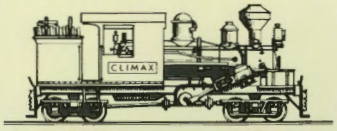

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1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metres
1 mile	1.60 kilometres
1 super foot	0.00236 cubic metre
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1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

Contents

Comment

As I write this, it's mid-January, and I'm on leave from my 'day job' in Advertising, spending (most of) the school holidays with my two daughters, Bridgette and Zoe (known collectively as 'The Treasures') plus catching up with a bit of maintenance around the place. Of course my wife, Gaye, and I also have an art studio, Box Car Graphics, and the work hasn't stopped there, although at least it did slow down a bit over Christmas and New Year.

Unfortunately, there really hasn't been much of a chance to do anything of a railway nature during the break (other than put this issue of LR together). It's sometimes surprising, though, just where items of interest can turn up in one's day-to-day family life. Not just seeing the GWR 'Hall' 4-6-0 masquerading as a 'Castle' in the *Harry Potter* movies, but industrial railway subjects as well.

For instance, in Walt Disney's animated classic *Snow White & the Seven Dwarfs*, the initial action in the climactic scene where the animals arrive at the mine, to warn the Dwarfs about the wicked witch, takes place around a mining skip. A mining skip (in 'run-away' mode) also features in *Ratchet & Clank* - one of the games The Treasures play on their new PlayStation®2.

Actually, I once heard a stand-up comic recalling his previous life, when he drank a lot of beer, watched a lot of television and hardly ever went out anywhere. His new life commenced the day he caught himself thinking that Wilma Flintstone was quite an attractive woman. If I'm starting to get excited about cartoon side-tippers, perhaps I need to get out more, too! *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.

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

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: *In July 1974, as the early morning fog rolls in from Botany Bay, the NSW Electricity Commission's veteran 2-6-0 number 7 (Dübs 2631 of 1891), on its first run of the day, backs up the steep grade to the BORAL Refinery at Bunnerong to collect some bitumen tankers for delivery to the NSWGR sidings at Botany. Photo: Graeme Belbin*
Back Cover: *4wPM locomotive* MAYLANDS *is about to leave Mussell Pool station on the Bennett Brook Railway at the head of the shuttle train of 4-wheel coaches on 3 December 2005, 21 years after it hauled the inaugural train (see report on page 30). Photo: Alan Spencer*

Tipping push trucks, with their water tanks removed, beside the pelleters in the trinitration house, TNT Section, 1972. Photo: Brian Andrews

The Salisbury Munitions Tramways

by F Brian Andrews

Introduction

During the early years of World War II the Commonwealth Government embarked upon a major expansion of the manufacturing capacity of the Ministry of Munitions by authorising the construction of four munitions facilities in and around Adelaide, South Australia.

The new facilities consisted of a small arms ammunition factory at Hendon; a foundry and rolling mill at Finsbury producing cartridge cases, fuze bodies and primer bodies; an explosives and filling factory at Salisbury; and a magazine area at Smithfield (Fig. 1). All these establishments were served by South Australian Railways (SAR) broad gauge branch lines and associated sidings. In addition, the Salisbury factory and the Smithfield magazine had a total of four narrow gauge tramway systems.[1] The three Salisbury tramways are the subject of this article.

As a result of the pooled capabilities of Adelaide's principal architectural and building firms, and the concentrated design and production efforts of private industry and various South Australian Government Departments, the 'No. 2 Explosives and Filling Factory, Salisbury', was established in a remarkably short time on the flat pastoral landscape of the Penfield district

about two miles north-east of Salisbury township. Creation of the factory progressed from drawing board to full production in some eighteen months, and the planned range of munitions was being turned out by mid-1942.

Comprising many hundreds of buildings sprawled across four and a-half square miles, the factory was engaged in the manufacture of propellants and explosives and in the assembly and filling of a wide variety of bombs and shells, including 25-pounder shells, 3.7-inch AA (anti-aircraft) and 40mm AA (Pom Pom) cartridges, 3-inch trench mortar bombs, 6-pound anti-tank shells and anti-tank mines.[2] Some idea of the factory's output can be gauged from the target weekly production figures for January 1943, namely 80,000 25-pounder shells, 45,000 3-inch mortar bombs and 10,000 contact mines, along with smaller quantities of other munitions.[3]

Employment at the factory rose to over 6500 persons working a six-day week around the clock in three shifts. To meet the transportation load the factory was served by twenty-five

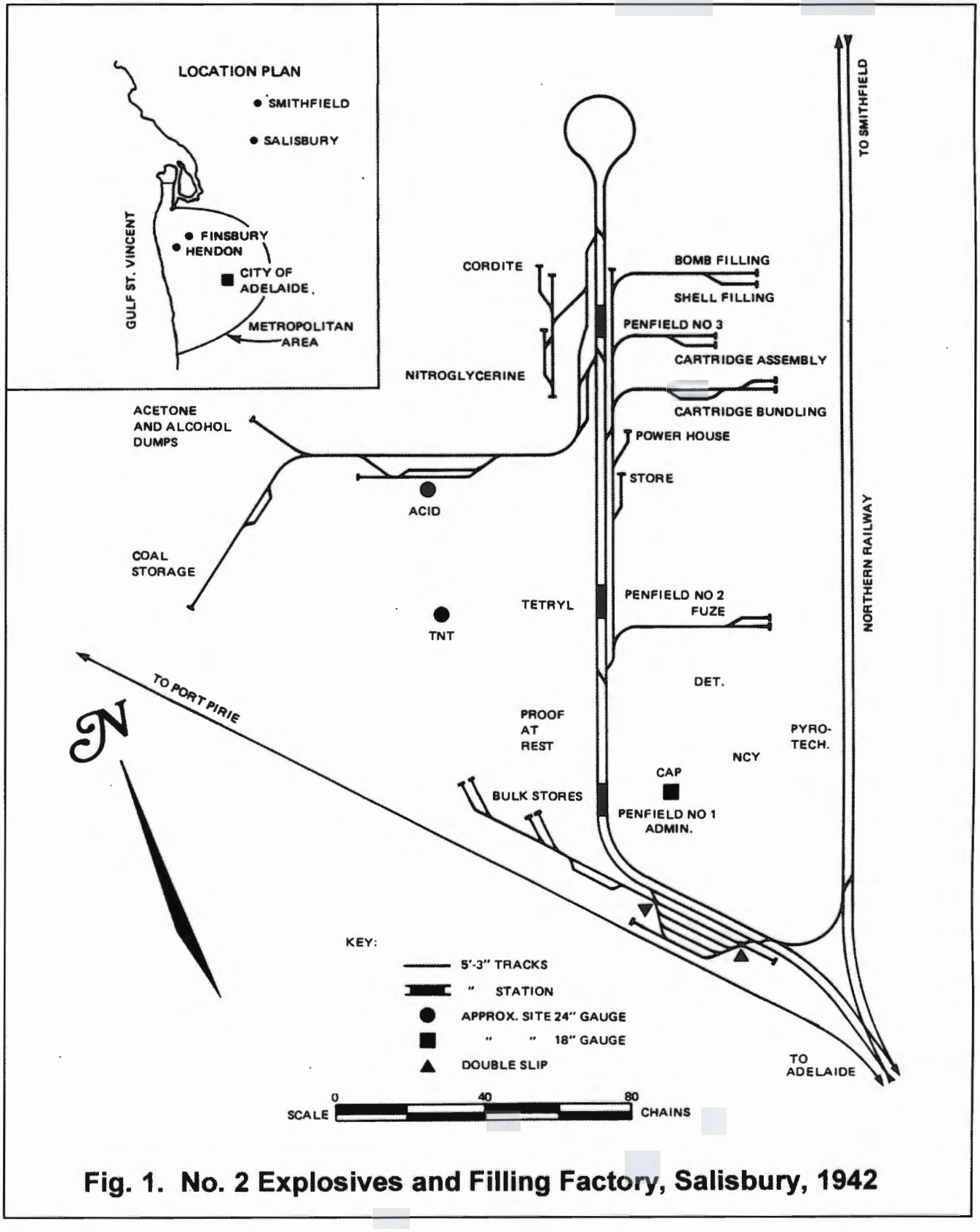
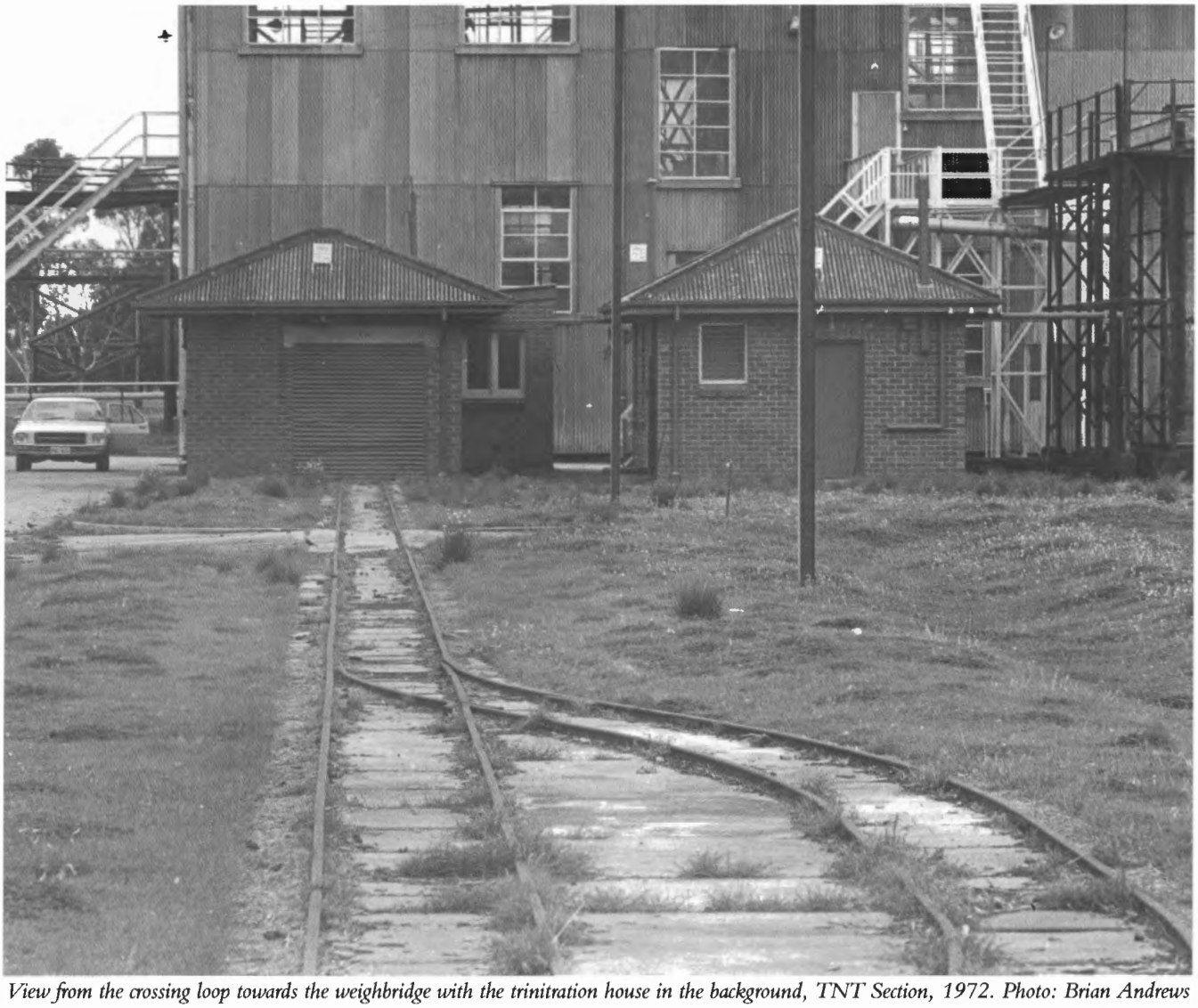


Fig. 1. No. 2 Explosives and Filling Factory, Salisbury, 1942



View from the crossing loop towards the weighbridge with the trinitration house in the background, TNT Section, 1972. Photo: Brian Andrews

passenger trains daily, of which nineteen were from Adelaide. The other six trains ran direct to Penfield from the near northern country towns of Gawler, Hamley Bridge, Tanunda, Angaston and Kapunda via a specially-constructed connecting curve from the Main North line to the Penfield branch line.[4] Special arrangements were made for factory workers arriving by train in Adelaide at 12.43am off the afternoon shift. In addition to late trains to all suburban destinations, there was a comprehensive early morning tram service departing from North Terrace, opposite Adelaide Railway Station.[5]

The Salisbury Factory was more or less bisected by the broad-gauge Penfield loop line with its many sidings. To the west of this line were the stores, dumps and the explosive and propellant manufacturing sections. Between these latter sections was Acid Section where nitric acid, a basic component in explosives chemistry, was produced. A 2ft gauge tramway was integral to the operation of this section.

The nitric acid was conveyed southwards in lead-lined pipes on overhead wooden gantries to both TNT and Tetryl Sections. (Tetryl, a sensitive explosive, was used as a booster charge between the initiator and the main TNT charge to amplify the detonation wave. TNT was too insensitive to be used without some intermediate agent.) There was a 2ft gauge tramway in TNT Section.

Nitric acid was also piped northwards from Acid Section for use in the manufacture of nitroglycerine, a component of the propellant Cordite. No conventional tramways were used here, although a rather interesting 'guideway' was utilised. Because of the highly sensitive nature of nitroglycerine, it was conveyed by hand-pushed rubber-tyred trucks running in water-filled grooved cleanways of Angaston marble and Colas.[6]

To the east of the broad-gauge loop line lay the component assembly and filling sections. The manufacturing process progressed from south to north, finishing with the completed munitions which were transported from the factory either by rail to the user ammunition depots or by road transport into storage at the Smithfield Magazine.

At the south-eastern end of the factory was Cap Section, which commenced production in November 1941. It manufactured percussion caps for insertion in the primers that set off the propellant charges. The only 18in gauge tramway in the complex was located there.

To the north was Detonator Section. Detonators produced here became part of the fuze assembly in the warhead. Percussion caps and detonators were transported north to Fuze Section for insertion in the primer and fuze bodies respectively that had been manufactured at Finsbury. The armed fuzes and primers, together with the Cordite, TNT and Tetryl, were finally assembled into complete shells, cartridges, etc. at the north-east end of the Factory.

All three tramways within the Salisbury Factory could be termed production facilities inasmuch as they were used for transporting materials at an intermediate stage in the various production processes.

Cap Section Tramway

This tramway consisted of three isolated lengths of 18in gauge track (Fig. 2). Two of these, of lengths 215ft and 265ft, were for the transportation of the percussion cap filling compound, consisting principally of fulminate of mercury, potassium chlorate and antimony sulphide, from storage in the composition magazines to the cap filling houses.[7] This composition had been prepared and mixed in other buildings in Cap Section, measured into pots in 10oz lots that were in turn placed inside felt-lined 12in square boxes, and then carried into storage.

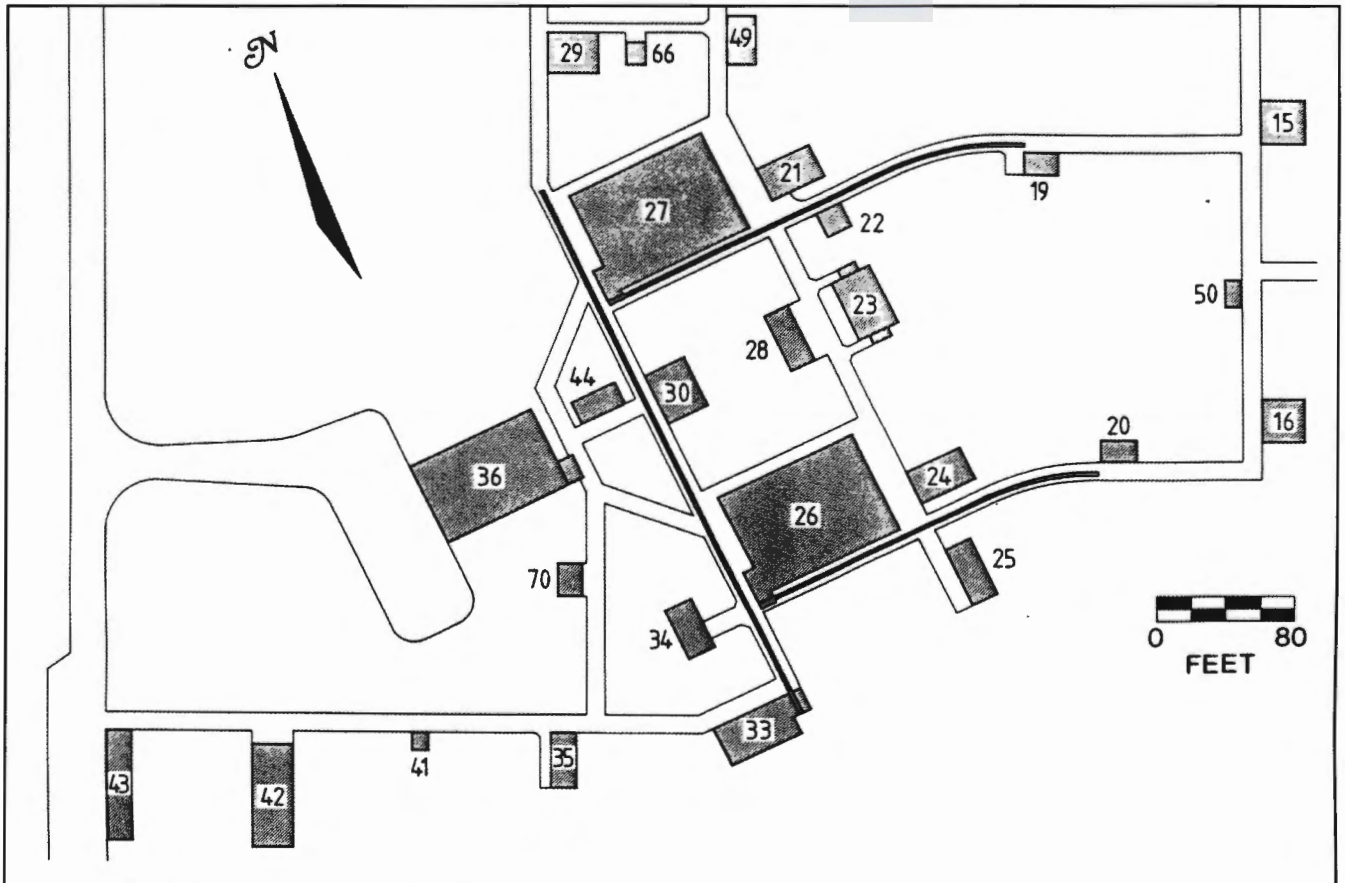
As the need arose for composition, one of the boxes would be taken out of storage and loaded into a push-truck. There was one truck for each track. The trucks are said to have been four-wheel unsprung vehicles with metal underframe, wheels and axles.[8] To prevent sparks at the wheel-rail interface in such a hazardous environment, the wheels were made of gunmetal. The body of the truck was an eighteen-inch square felt-lined wooden box attached to the underframe by leather straps. The pot of composition was placed in this box for transport to the filling houses.

The loaded truck was hand-propelled to the side of the cap filling house under a verandah. This side of the house consisted of seven bays surrounded by thick walls. Hence seven operators could work simultaneously because any accidental explosion would be confined to one bay and the blast directed upwards. The pot of composition was off-loaded at the required bay, passed in via a small hatch and used to fill the percussion caps. When not in use the push-trucks were stored at the western end of their tracks in brick shelters under the verandah roofs of their respective cap filling houses.

For transporting the filled percussion caps to the cap drying house, a third track, 345ft long, ran past the western ends of the cap filling houses and into the cap drying house. A larger push-truck was operated on this track.[9] It had a wooden body fastened to a four-wheel unsprung base. Because the safety hazard with the filled caps was much less than with the pots of composition there was no need for the wheels to be made of gunmetal. Body size was about 3ft wide by 4ft long with wooden ends and roof, the open sides fitted with canvas blinds. Its overall height was about 4ft. The truck was fitted with shelves for the trays of percussion caps and when not in use it was stored in a lean-to shelter at the north-west corner of the northern cap filling house.

The dried caps were examined and then placed in storage pending transportation to Fuze Section.

The Cap Section tracks were still in situ as late as the 1990s, although largely buried under asphalt or linoleum.[10] They consisted of 18ft lengths of 20lb/yd flat-bottom rail laid in concrete to railhead with a flange groove formed in the concrete. The rails were fastened to pairs of half-inch studs at 30in intervals with cranked rectangular clips and square nuts, all set within the 31½in wide roadbed, manufactured in three pours.



Building Key

19	Composition Magazine	20	Composition Magazine
26	Cap Filling house	27	Cap Filling House
33	Cap Drying House		

Fig. 2. Cap Section Tramway

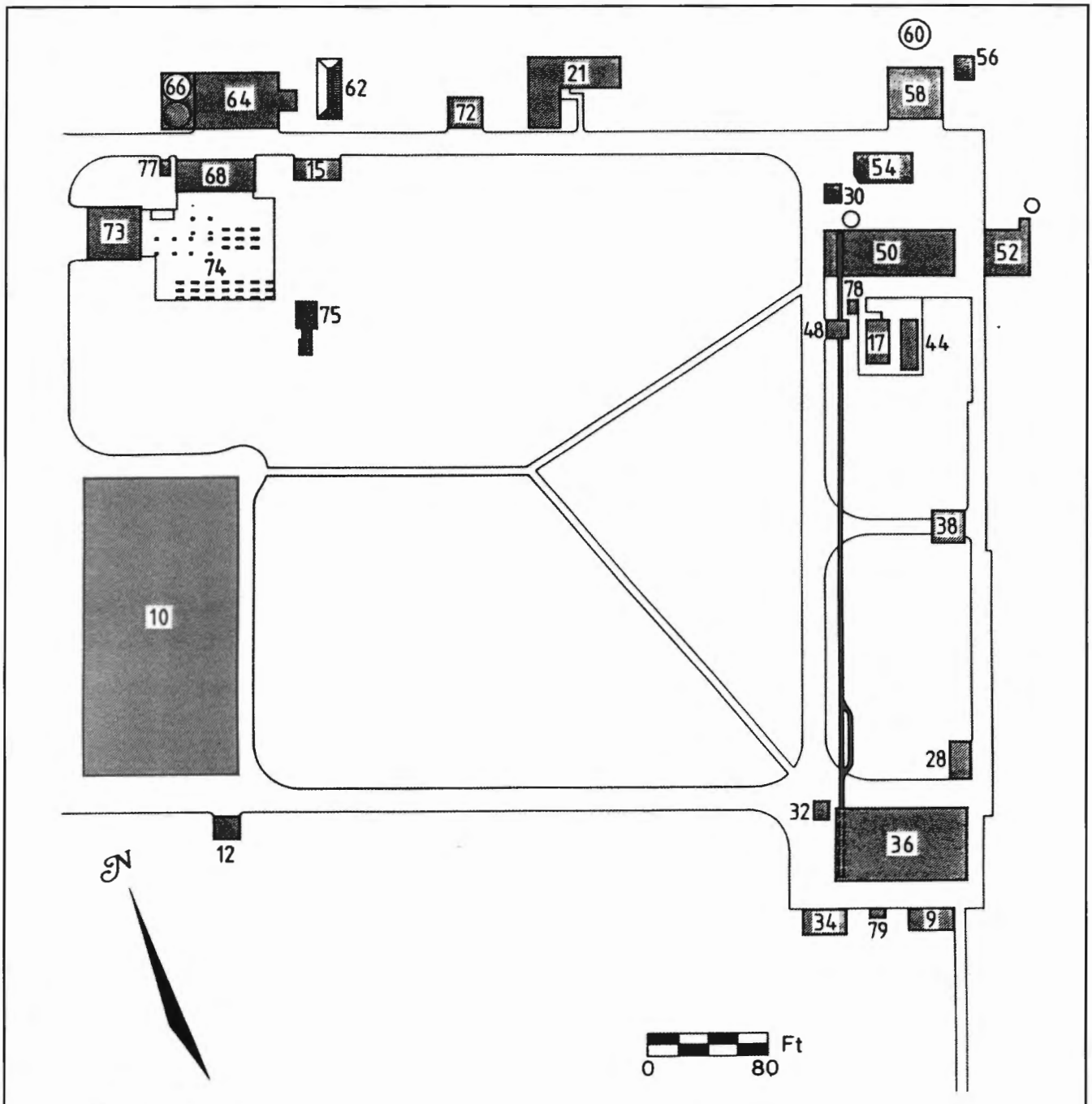


Fig. 3. TNT Section Tramway

TNT Section Tramway

The Shell Company of Australia Ltd, with its considerable experience in chemical process engineering, was responsible for the design and commissioning of the plant for manufacturing the high explosive compound trinitrotoluene (TNT).

With the war already in progress, there was no time to be spared in developing equipment for producing TNT by a modern continuous process. Accordingly, the batch process developed in Great Britain during World War I by the Research Department, Woolwich Arsenal, was adopted for Salisbury.[11] So closely was the British process followed that the Salisbury plant included a 2ft gauge tramway for transporting TNT at an intermediate stage in its production exactly as was done at HM Factory, Queen's Ferry.[12]

At the Salisbury plant mononitrotoluene (MNT) containing a quantity of paraffin was prepared from toluene obtained by the fractional distillation of Borneo petroleum. After the paraffin had been distilled off, the MNT was piped in liquid form to the trinitration house. Here it was nitrated with a mixture of nitric and sulphuric acids in a counter-flow process. At the end of this process washed molten impure TNT was poured into a pelleter where it collided with a stream

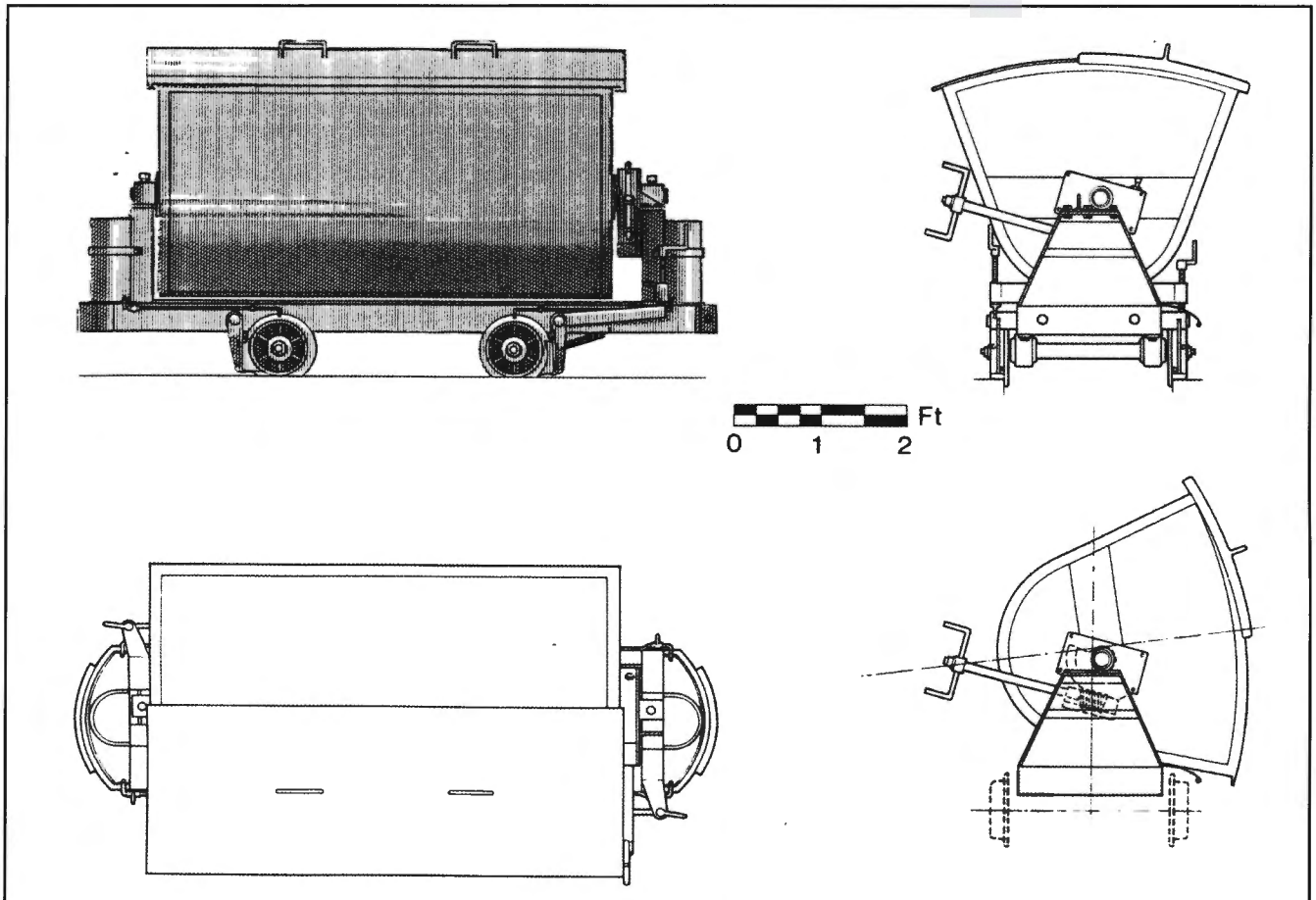


Fig. 4. Tipping Truck, TNT Section Tramway

of water and immediately solidified into granular, or pellite, form. The wet pellite passed into hoppers from whence it was discharged into tipping push-trucks. The loaded trucks were propelled into the purifying and packing house, raised to its the top level by electric hoist and discharged into hoppers. After being re-melted the TNT was purified by washing and sulphitation, being finally packed in flake form ready for transportation out of the section by road.

As late as January 1974 the TNT plant was still intact, having been retained on a care and maintenance basis since the end of World War II.[13] It was subsequently dismantled and disposed of by public auction in August 1974.

The tramway consisted of a 390ft length of single track with crossing loop, extending from the interior of the trinitration house via a weighbridge to an electric hoist inside the purifying and packing house (Fig. 3). The 40ft clear crossing loop was near the latter building and there was a further 40ft length of track at the top level of this house, extending from the door of the hoist to the far wall.

Four tipping push-trucks were used on the TNT tramway, being stored when not in use on the section of track inside the Trinitration House. The trucks consisted of a side-tipping stainless steel container with lid, supported on a welded mild steel angle and channel iron frame (Fig. 4). Unsprung plummer blocks were used to attach the two axles to the frame. Screw-down handles at each end of the truck frame applied wooden brake blocks to the wheels on the axle nearest them. The container was tipped by winding a handle that actuated a worm and sector gear. Overall dimensions of the truck were 7ft 8in long over the bumpers, 3ft 10in high and 3ft 6in wide over the TNT container.

Because of the highly dangerous nature of the material being transported, the trucks incorporated a number of interesting safety features. The tipping mechanism gearbox was packed with grease to prevent bare metal contact between the worm and sector gear. When the truck was in the tipped position the container rested on a wooden bumper strip. From below this strip a stainless steel guard extended out over the wheels to deflect away any TNT inadvertently spilled during loading or unloading. The frame ends were fitted with rubber bumper strips to eliminate sparks and soften the impact should two trucks collide. Brass tanks were strapped to each end of the truck frame. From these a steady trickle of water was directed via copper pipes onto the 8in diameter phosphor bronze truck wheels.

Three of the four trucks were built by Daniel Scott Pty Ltd of Williamstown Road, Port Melbourne.[14] Their tare weight was 856lb. The fourth truck differed in a few minor respects, such as lid style, from that depicted in Fig. 4 and did not bear a maker's plate, perhaps being a later modification of a truck similar to the other three.

The covered weighbridge just outside the trinitration house had a deck 4ft wide by 5ft long and a stated capacity of 3,300lb. It was built by the Fairway Scale Company of Evans St, Braybrook, Vic., and was their serial 1190.[15]

All the TNT tramway trackwork was laid on a concrete bed approximately 4ft wide. Within the trinitration house the rails were set in brickwork to railhead level. From here to the weighbridge, as well as over the road crossing, they were set in concrete to railhead level with the wheel grooves formed in the concrete. Elsewhere the rails were welded to steel cross members flush with the concrete roadbed. These

cross members, 3in wide by 3ft long, were spaced at 40in intervals. The rails were 20lb/yd tee-head section laid in 20ft lengths and joined by four-hole rectangular fishplates and half-inch diameter bolts. The points at each end of the crossing loop were of the kick-over variety, and the overall length of the loop outside the switch-blades was 85ft.

Acid Section Tramway

With a total track length of 4070ft this was the largest tramway operating in the Salisbury Factory area. Two separate manufacturing processes utilised it, sharing a need for the Chile nitre (sodium nitrate) that was transported over its tracks.

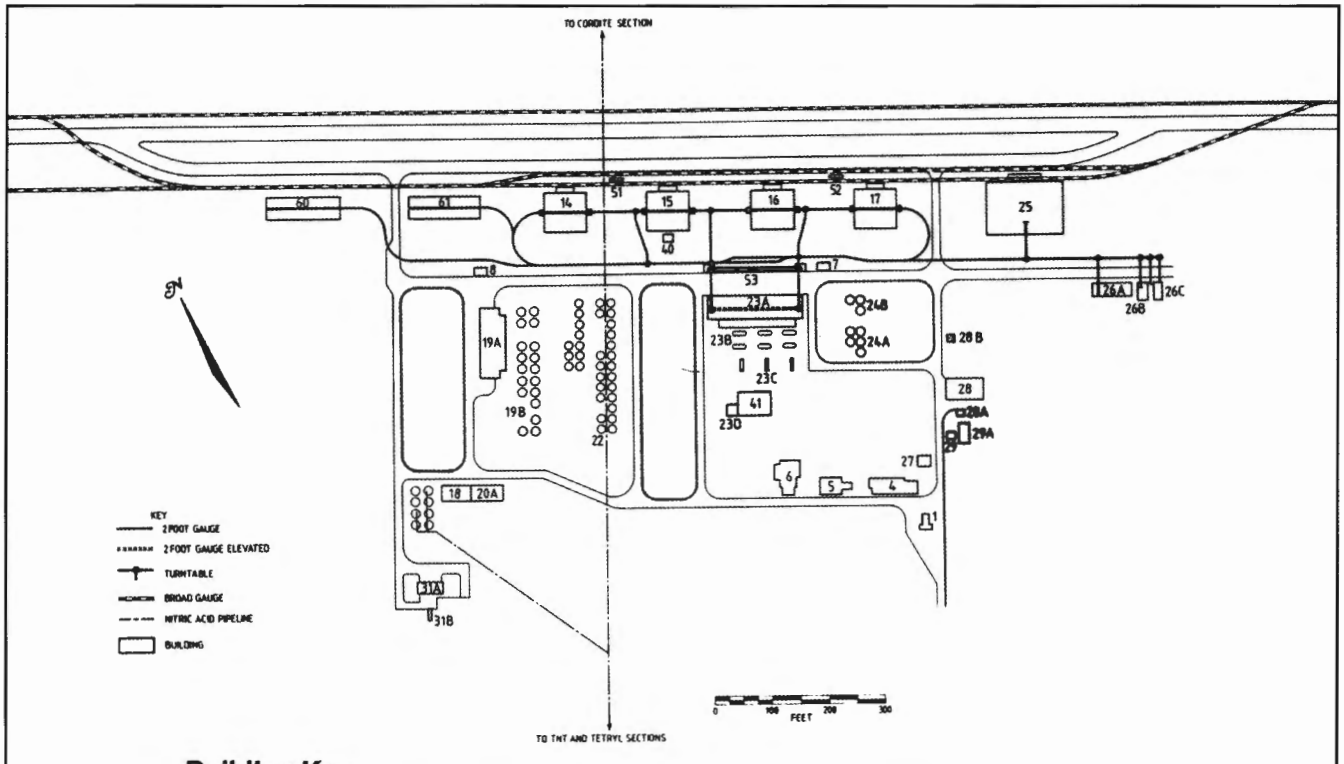
The major process carried on in the section was the manufacture of nitric acid by the reaction of oleum (concentrated sulphuric acid) with sodium nitrate in large retorts. Once again - as for TNT Section - this was a relatively inefficient Word War I batch process, but the imperative of getting plant quickly into production dictated its adoption over a more modern continuous process such as extraction of the acid from the atmosphere, a technique that would have necessitated time-consuming development.

Acid Section was served by a broad-gauge branch line, trailing off the Penfield line south of Penfield No. 3 Station, with its own loop sidings and shunting spur. The basic materials were railed into the Section over this branch. Oleum arrived in tank cars and was piped into storage in a tank farm prior to use in the nitric acid retorts. Chile nitre was brought in to four 80ft square, 2500 ton capacity, store buildings served by individual platforms abutting the Acid Section loop siding (Fig. 5). Initially the nitre arrived in bags, but after six months it was delivered in bulk.[16] From each platform it was shovelled onto an endless bucket conveyor that lifted it diagonally up to just below the centre of the store's roof from whence it was discharged onto the pile.

During the course of the war the need arose to stockpile even more nitre than the 10,000 ton capacity of the main stores. Two 2000 ton capacity stores, 134ft long and 44ft wide, were erected to the west of the original ones. Of somewhat less substantial construction, these stores were not directly served by the broad-gauge branch line.

A fleet of thirty-six 23cwt capacity bottom-discharging hopper skip trucks was used to transport the sodium nitrate from store to the retorts. They were hand-pushed, in common with all the tramway vehicles within the factory.

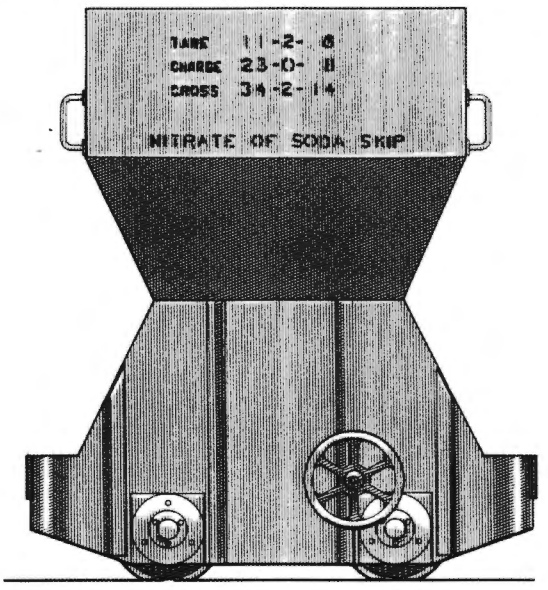
The sodium nitrate skip (Fig. 6), designed by the SAR in mid 1941, was essentially a welded hopper structure mounted on four wheels.[17] The hopper, of 3/16in mild steel plate, was 4ft 6in high, 3ft 9in square at the top and tapered to 3ft 9in square at the mouth. Two handles were welded near the top of the hopper to facilitate its hand propulsion. The hopper was welded to a mild steel plate and angle iron frame, its mouth covered by a horizontal sliding discharge

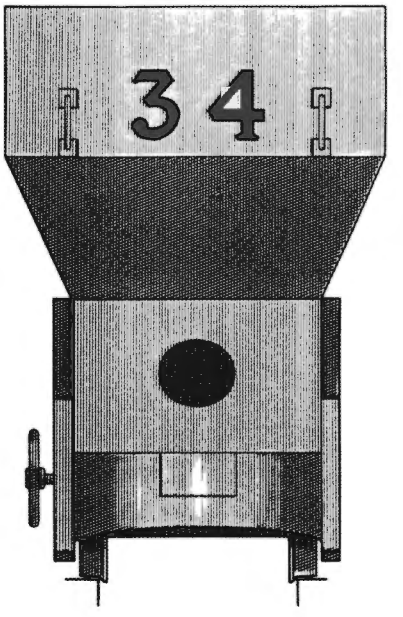


Building Key

14	Sodium Nitrate Store	26B	Reaction Section
15	Sodium Nitrate Store	26C	Purification Section
16	Sodium Nitrate Store	51	Unloading Platform
17	Sodium Nitrate Store	52	Unloading Platform
19A	Bamag Concentration House	53	Skip Truck Shelter
23A	Nitric Acid Retort House	60	Sodium Nitrate Store
25	Ammonium Sulphate Store	61	Sodium Nitrate Store
26A	Ammonium Nitrate Finishing Section		

Fig. 5. Acid Section Tramway





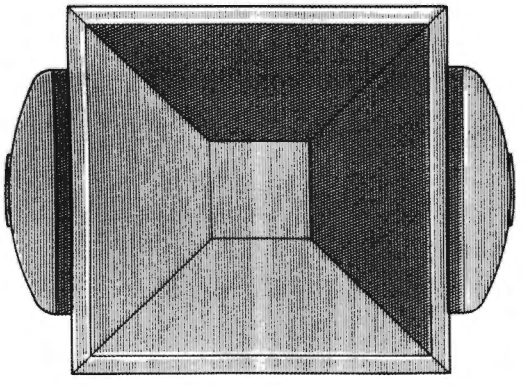


Fig. 6. Sodium Nitrate Skip Truck Acid Section Tramway

door actuated from the side of the frame by a 12in diameter cast iron handwheel that engaged with a cast iron rack and pinion. Overall height of the skip was 5ft 9in and it had a 2ft 3in wheelbase. Tare weight of the vehicle was 11½cwt and its gross weight with a charge of nitre was 34½cwt. To assist the operator the 11¾in diameter unsprung cast steel wheels were supported on Timken tapered roller bearings. There were no brakes on the skips, which were numbered from 1 to 36 at one end. They were normally stored in the 188ft long skip truck shelter opposite the retort house.

The tramway layout in the vicinity of the retort house was quite compact by virtue of the extensive use of turntables for interconnecting the tracks. This technique, combined with the tracks passing right through the main nitre stores, enabled up to ten entrances to the stores to be used to meet the demand for raw material.

Each skip was propelled into the nitre store where the nitre - which had previously been broken up by jack-hammer due to its tendency to solidify in storage - was shovelled in. Once loaded with the 23cwt charge the skip was propelled via a weighbridge at either end of the skip truck shelter to the retort house. Here it entered an electric skip hoist that lifted it to a 136ft track laid along the top of the six pairs of retorts. It was propelled to the appropriate retort and the charge of nitre was discharged directly into the unplugged mouth of the retort. The empty skip was then pushed to another electric hoist at the far end of the retort house whence it descended to ground level and repeated the cycle.

Chile nitre was also the basic ingredient required in the other Acid Section plant served by the tramway, namely the Ammonium Nitrate Plant. Ammonium nitrate was produced for use in the manufacture of the high explosive Amatol. One use of this substance, a mixture of ammonium nitrate and TNT, was to fill 3-inch trench mortar bombs.[18]

At Salisbury, ammonium nitrate was produced by a double decomposition process using sodium nitrate and ammonium sulphate.[19] The plant was situated to the east of the nitric acid plant and was served by an extension of the Acid Section tramway 'main line', with four spurs via turntables to the various buildings.

Bagged ammonium sulphate, a by-product of the coke industry, was brought in by broad-gauge rail to the Acid Section sidings and off-loaded into the large ammonium sulphate store, adjacent to the tracks and to the east of the nitre stores. Four-wheel flat trucks were hand-pushed into the store, loaded with bags of sulphate and then propelled to the Purification Section building, at the eastern end of the tramway.

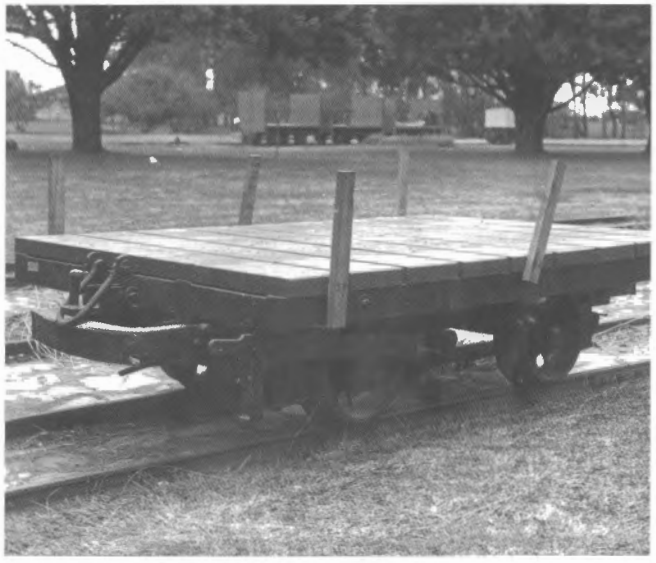
Five rigid-axle flat trucks were used in the Ammonium Nitrate Plant. They came from the Smithfield Magazine in early 1943, having been replaced there by an improved SAR design that had fully sprung axle boxes and roller bearings.[20] At Smithfield their relatively long un-sprung wheelbase had contributed to a spate of derailments, a singularly undesirable attribute given their working environment.[21] Also designed by the SAR, they had a pair of 5in by 2½in channel iron sills onto which was welded a braced rectangular angle iron frame of 2½in wide by 3in deep members, forming a 6ft long by 4ft wide deck planked with nine 7¼in by 1¼in timbers. Buffers with leather strips rivetted to their bearing faces were bolted to the sills. The trucks were fitted with link and shackle draw-gear and had a wheelbase of 33in. A drop-handle brake lever applied wooden brake blocks to all four un-sprung 12in diameter wheels.

In the Purification Section building the ammonium sulphate was purified to the required degree and then pumped in solution to the top of the adjacent four-storey building that housed the Ammonium Nitrate Reaction Section. The sodium nitrate required for the process was loaded into bottom-discharging drums in the nitre stores and brought over the tramway on the flat trucks. The loaded drums arrived on a spur track between the Purification and Reaction Sections where they were raised by hoist to the top of the Reaction Section building and discharged. Sodium sulphate, an unwanted by-product of the ensuing chemical process, was railed out of the building.

The ammonium nitrate was produced in crystalline form and piped as a slurry - using alcohol as the vehicle - from the Reaction Section to the adjacent finishing house. Here, the alcohol was evaporated off and the ammonium nitrate was washed, dried and bagged, being then railed out from the packing room on the flat trucks.

Because of the high level of alcohol fumes in the Reaction Section building and the finishing house stringent safety precautions had to be observed to prevent the possibility of a disastrous explosion. One interesting aspect of these measures was the fact that there were no electric lights in the buildings.

A sodium nitrate skip truck standing outside the skip truck shelter, Acid Section, 1972. *Photo: Brian Andrews*



A flat truck of the type transferred in 1943 to the ammonium nitrate plant, Acid Section, photographed at Smithfield Magazine, 1972. *Photo: Brian Andrews*

To provide light for the night shifts the buildings were furnished with very large windows and illuminated externally. This resulted in the amusing paradox whereby the whole of the Salisbury Factory operated throughout the war under the strictest blackout conditions, excepting the Ammonium Nitrate Plant, which was a blaze of lights visible for miles.[22]

The Acid Section tramway included no less than fifteen turntables in addition to five sets of points. Each turntable consisted of a cast iron base set in concrete, the turntable proper and a detent (locking) mechanism that engaged with the table to align it with the rails. Diameter of the turntable was 4ft and its surface was finished in a chequer-plate pattern. The points, designed by the SAR in mid 1941, were elegant affairs, virtually miniature replicas of broad-gauge practice with an actuating lever of the well-known South Australian cheese knob variety.[23]

The tramway was laid with 20lb/yd BHP flat-bottom rail in 20ft lengths, fastened with four-hole fishplates. The rails were spiked to 6in by 4in hardwood sleepers, 4ft long and spaced at 30in intervals. The standard track radius on curves was 50ft.

In the nitre stores the rails were set into the concrete floor to railhead height, the grooves formed in the concrete. Likewise, they were concreted in to railhead level in the vicinity of the two weighbridges and from there to the retort house. Within this building the ground level tracks were set in brick paving to railhead level. Inside the skip hoists the rails were welded to the steel floors. On top of the retorts the rails were laid in approximately 12ft lengths joined by four-hole fishplates. The rails rested on longitudinal 6in by 4in rolled steel joists. The webs of the rails were drilled to take clips that fastened them to the joists on alternate sides at 18in intervals.

The two weighbridges in Acid Section had decks 33in wide by 48 in long, were built by Hawke & Co. of Kapunda, SA, and had a capacity of 80cwt.[24]

No trace remained of that portion of the tramway serving the Ammonium Nitrate Plant when the author first inspected the site in the early 1970s. This area had been taken over by the then Department of Works as a depot in the mid 1950s and the tracks obliterated. Hence no details of track construction can be given.

A view of the weighbridge and turntable at the western end of the Skip Truck Shelter, Acid Section, 1972. *Photo: Brian Andrews*

Apart from the Ammonium Nitrate Plant, Acid Section survived in its entirety on a care and maintenance basis until mid 1972, after which it was dismantled and disposed of by public auction in November 1973, with the exception of the nitre stores.[25]

Acknowledgements

The research for this article was undertaken in the 1970s. From that time I am grateful to the Chief Administrative Officer of the then Defence Research Centre Salisbury (DRCS), which occupied much of the former Salisbury Factory site, for permission to research and publish this material. I also acknowledge the assistance of the then DRCS Historical Collections Committee which made facilities available for the production of maps, line illustrations and photographic plates. Finally my thanks to the many former Salisbury Factory and Smithfield Magazine employees who were so generous with their time and knowledge.

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25. These subsequently saw occasional use as temporary grain silos for Heidenreich's Flour Mills, Salisbury.

Emu Bay Railway Walker Brothers railmotor WG1, with trailer PT2, at Farrell Junction, where the EBR met the Tullah Tramway. Delivered in April 1940, WG1 was equipped with a 153hp Gardner diesel engine and seated 48 passengers, whilst PT2 could accommodate a further 12.

Recollections of visits to the West Coast of Tasmania

by Peter Ralph (photos by the author)

December/January 1952/53

My desire to visit the rugged West Coast of Tasmania came as a teenager after reading Geoffrey Blainey's famous book *The Peaks of Lyell* describing the mining activities and the unique railways systems built to convey ore, merchandise and passengers between Queenstown and the North West coast at Burnie. It certainly aroused my curiosity to the point that I decided to arrange a cycling tour of Tasmania, with a mate. This we did, during the 1952-53 Christmas holiday period. Our aim was to see as many of the scenic attractions as possible. This was achieved over a six week period and included riding the famous Mt Lyell Abt railway through scenic rainforest to Strahan.

I distinctly remember sleeping overnight on the platform at Queenstown to ensure we didn't miss the early morning departure. At Regatta Point we connected with the TGR passenger train to Zeehan, hauled by a CCS class 2-6-0 steam loco. At Zeehan we transferred to the Emu Bay Railway Walker Brothers railmotor to Burnie, all on the same day. By putting our bikes on these trains it enabled us to complete an entire circuit of Tasmania and was certainly a major highlight. It also aroused an interest to return in later years.

November 1955

On my next visit I retraced my journey over the three systems to Strahan. The justification for this trip was to hang a "TAA presents Australia" photograph on the wall of Hamers Hotel at Strahan. I stopped off at Farrell Siding to have a ride on *Wee Georgie Wood,* that ran to the isolated mining township of Tullah (though, as it happened, number 9 was deputising for *Wee Georgie* on the day), before returning on the EBR Walker Brothers railmotor to stay at Rosebery overnight. This was to enable me to catch the 10.00am ore train ex Zeehan, next morning, hauled by an Australian Standard Garratt (ASG) loco, number 16. I managed to secure a cab ride and in so doing was able to persuade the loco crew to stop the train on the down side of the original Pieman River Bridge to secure a shot of the train as it crossed. However, it came at a price. The crew were quite co-operative but said there was no way they could stop the train to pick me up as they had a 1 in 40 gradient to contend with after leaving the bridge and would have difficulty lifting the 230 ton load from a standing start. So upon grinding to a halt, I leapt down from the cab and sprinted across the bridge to take up a vantage point on the bank on the other side of the bridge. The train then stormed across the bridge and upon capturing the perfect shot I was quickly back at trackside preparing myself for the 'leap of my life' into the moving guards van as it passed. However it is a picture I will always treasure, as the original Pieman Bridge is now beneath the waters of the Bastyan Dam and ASG.16 has long since gone to the roundhouse in the sky!

During the Sixties

Over these years I managed to make several other visits to the West Coast both with my employment at TAA and in

later years with Shell, During one of the visits to Rosebery I was to learn about the EZ Company's spectacular haulage from Williamsford up to the Hercules mine, situated on the slopes of Mt Hamilton. This haulage was approximately a mile long and conveyed ore in 1.5-ton wagons down an average gradient of 1 in 3.2, a drop of 1642 ft. At the bottom of the incline the ore was dumped into buckets and conveyed on a continuous 4-mile aerial cableway to the EZ works at Rosebery. Prior to 1929 the ore from this mine was dumped into ore wagons for transport over the very scenic 2ft gauge TGR North East Dundas tramway to a smelter in Zeehan, which later closed. In 1909, the TGR secured two Garratt locomotives, K1 and K2, from Beyer Peacock in Manchester, to operate over this railway and prior to this an unusual 2-4-6-0T Hagans patent loco was used. K1 and K2 were the first Garratt locos to operate in the world and after closure remained in the loco shed at Zeehan for many years before K1, incorporating some parts of K2, was shipped back to the manufacturers, Beyer Peacock, at their Gorton works in Manchester for display at its birthplace. Following a long period of restoration it is, at the time of writing, about to enter service on the Welsh Highland Railway in North Wales.

January 1971

During the Christmas holidays period in 1970-71 it was decided to take the family on a caravan holiday of the Apple Isle. With the background of the mining activities around Rosebery in mind,. I decided to spend two nights in the Rosebery Caravan Park and attempt to achieve two things:

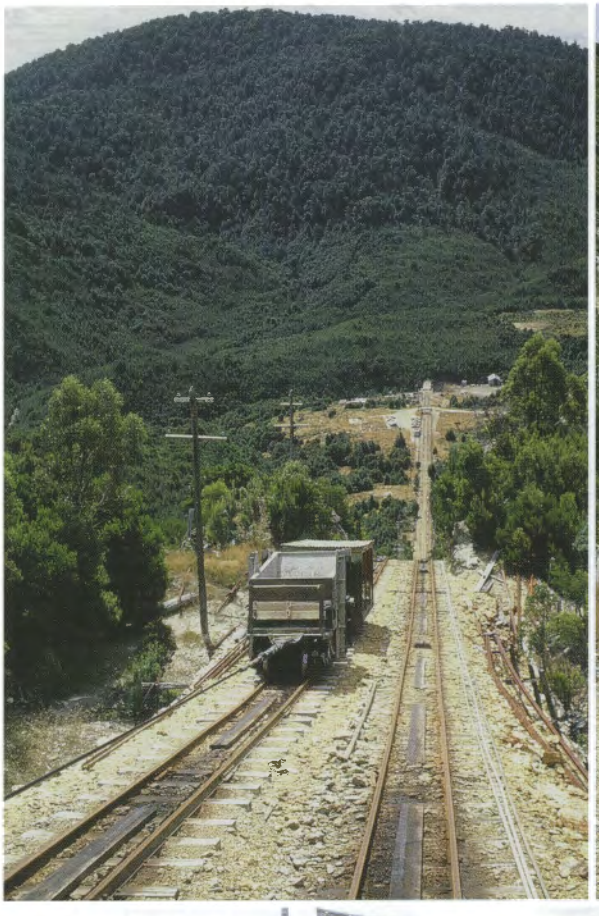
1. Secure a ride on the Hercules Mine haulage .
2. Retrace the old formation of the 2ft gauge North East Dundas Tramway from Williamsford down to the spectacular Montezuma Falls.

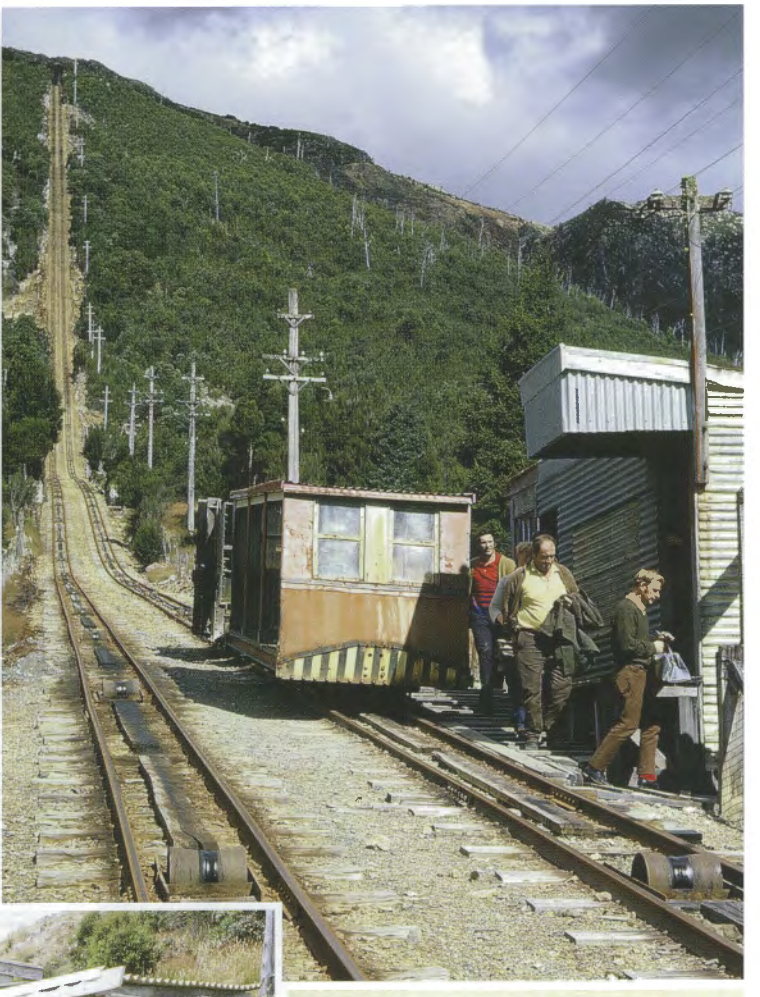
Krauss 0-4-0T No.9 (5988 of 1908), ex-Commonwealth Carbide, ex-Mt Lyell, about to depart Farrell Junction for Tullah, Nov. 1955.

Hercules Mine haulage

Upon arrival at Rosebery I called into the EZ administrative office to see whether I could obtain permission to ride on the haulage. After a little persuasion I managed secure the necessary written authorisation to travel on it that afternoon. This was achieved at break neck speed, as I was informed that the workers passenger carriage was being attached in half an hour to bring shift workers down from the mine. I found the 10 minute ride up and down the haulage both exhilarating and rewarding and well worth the indignation I received from my family, who had been left behind in Williamsford! The Hercules Mine closed in the mid-eighties. The rails for the haulage were lifted and the cableway or ropeway between Williamsford and Rosebery was dismantled.

Emu Bay Railway's ASG number 16 (Islington 86 of 1944) storms across the old Pieman River bridge with a 230-ton ore train.





Anti-clockwise from above: *Following their 10 minute ride from the summit, shift workers from the Hercules Mine disembark at the bottom of the incline at Williamsford.* ❑ *An ascending ore wagon and passenger car, seen from the front of the descending car.* ❑ *Shift workers seated in the carriage, about to descend the incline.* ❑ *The upper terminus of the Hercules Haulage at the mine site on Mt Hamilton.* ❑ *Buckets on the 4-mile long aerial cableway passing over the Murchison Highway at Rosebery.*

North East Dundas Tramway

The next day I was back at Williamsford again, this time to undertake the 4-mile hike down to the Montezuma Falls, which at 340 feet, are said to be highest in Tasmania. The old formation was easy to follow on a descending grade down to the waterfall, most of it being sheltered in deep cuttings and a little overgrown with rain forest in places. Remnants of rotting sleepers and protruding dog spikes were visible along most of the old formation. In fact, I retrieved a dog spike which serves as a paperweight in my office. At the base of the falls were remnants of some the five-span wooden trestle pylons, which were all that remained. One could only ponder at the necessity for passengers to close the windows of their compartment to avoid getting doused from the spray from the waterfall as the train was crossing the trestle bridge beneath - but what a fantastic sight this must have been after heavy rain!

Left: *The remains of a NE Dundas Tramway trestle bridge near Williamsford.* ***Right:*** *Montezuma Falls, seen from the tramway formation*

A return visit to the Tullah Tramway, on an ARHS excursion in the early 1960s, provided an opportunity to photograph Fowler 0-4-0WT WEE GEORGIE WOOD *(16203 of 1924) in action.*

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NEW SOUTH WALES

BLUESCOPE STEEL LTD, Port Kembla

(see LR 185 p.18)
1435mm gauge
Another locomotive is receiving a major overhaul at Steelhaven, English Electric Australia Bo-Bo DE D27 (A.040 of 1960). It is being suggested that Pacific National will take over the entire rail operation at Port Kembla.
Chris Stratton 12/05

QUEENSLAND

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 186 p.18)
610mm gauge
Com-Eng 0-6-0DH *JAMAICA* (B1112 of 1956) arrived from Moreton Mill on 11 November. It had been retained at the mill site in Nambour and it was believed that this was with a view to it being acquired by Maroochy Shire Council. Of the ex-Moreton Mill 0-6-0DH locomotives at Bingera, only *DUNETHIN* (Com-Eng H1022 of 1958, rebuilt QGR 1974) has seen much use, as workshop shunter and on navvy trains.
Bundaberg Foundry B-B DH *BOOYAN* (001 of 1991) emerged from the workshop on 18 November to travel back to Fairymead depot but was found to be suffering low oil pressure problems.
Ex Fairymead Mill Com-Eng 4wDH 72 (GA1148 of 1961 rebuilt Fairymead 1971) left the mill site on 13 December for private preservation in Victoria.
Lincoln Driver 11/05; Editor

BUNDABERG SUGAR LTD, Millaquin Mill

(see LR 186 p.19)
610mm gauge
It is has been rumoured that a $2m government grant will be received to build a new direct line from Millaquin bottom yard to the Burnett River ferry.
Lincoln Driver 11/05

Top: *The Junee Railway Workshops shunter is Goninan Bo-Bo DE* FOLLY *(051 of 1977), pictured on 5 November. Photo: Brad Peadon* ***Centre:*** *Ready to tip bin 8420, containing Bingera Mill's one millionth tonne of cane for the 2005 season, on 17 November. (L-R) Mark Prasser (Low Grade Fugal Operator), Adam Lynch (Weighbridge Assistant) and Lincoln Driver (Shift Tradesperson).* ***Above:*** *Bingera Mill's EM Baldwin 0-6-0DH* PERRY *(6/1576.1 8.66 of 1966) crosses a timber bridge on the ex-Fairymead Mill Moorlands line with empties on 28 August 2005. Photos: Lincoln Driver*

Industrial Railway NEWS

BUNDABERG SUGAR LTD, Innisfail
(see LR 186 p.19)
610mm gauge
Clyde 0-6-0DH 18 (56-83 of 1956) was transferred from Babinda Mill to Mourilyan on 9 November, following a series of failures of locomotive gearboxes that had been refurbished in Brisbane during the slack season.
On 27 November, Com-Eng 0-6-0DH multi-unit 1 *JOSEPHINE* (A1821 of 1957) and *RUSSELL* (A2027 of 1958) were observed working in the Babinda Mill area south of the Russell River. This pairing had been stationed at Silkwood in the South Johnstone Mill area for most of the 2005 season. By this day South Johnstone Mill had completed the crushing of rail cane, but Prof B-B DH *NYLETA* (PSL 25.01 of 1990, rebuilt South Johnstone 1993) was kept busy in the mill yard shunting bogie canetainer wagons of cane delivered by road.
Ex Innisfail Tramway Com-Eng 0-6-0DM 19 (B1111 of 1956) was being dismantled at Babinda Mill in early December. The engine and gearbox have been sold to the Illawarra Light Railway Museum Society while the wheelsets, running gear and final drive will be retained at the mill for further use. The old riveted chassis will go for scrap as it is not suitable for rebuilding. It is suspected that the remains of Baguley 0-6-0DM *FISHERY* (3387 of 1954) will also be scrapped.
Rob Stanier 10/05; Shane Yore 10/05, 11/05; Carl Millington & Paul Dove 12/05; Peter Lukey 12/05

CSR LTD, Herbert River Mills
(see LR 186 p.21)
610mm gauge
EM Baldwin 4wDH 8002.1 8.78 of 1978, known as *HAMBLEDON* but never having carried the name, had been completely dismantled at the Victoria Mill loco shed by 23 November.
A total of five pairs of 8-tonne bins have been joined together at Victoria Mill, with the work estimated to take 9 hours for each conversion. About 10mm side play is allowed on the axle-boxes of these vehicles with intention of enabling them to negotiate curves more easily but on trial at Macknade Mill in early December it was found that they tended to derail when being propelled in a rake.
At Macknade Mill, problems were encountered with the final drives of EM Baldwin B-B DH locomotives *BRISBANE* (5423.1 9.74 of 1974) and 19 (7070.3 4.77 of 1977), leading to them both finishing the season with one bogie powered on one axle only, reducing hauling power.
A test train was run by Victoria Mill on 12 December with EM Baldwin B-B DH *HOMEBUSH II* (6400.1 4.76 of 1976) hauling 240 full bins across the Herbert River bridge at Abergowrie. Both locomotive and bogie brake wagon 13 (Solari, 1997) were fitted with strain gauges to measure drawbar loads.
Victoria Mill's EM Baldwin 0-6-0DH *HOBART* (4413.1 7.72 of 1972) came across to Macknade

Top: *The remains of EM Baldwin 4wDH 8002.1 8.78 of 1978 at the Victoria Mill loco shed on 24 November. It is reported that it will be used in the construction of a brake wagon.* ***Centre:*** *Join two 4-tonne bins together, remove the inside wheelsets, add truss rods and you get an 8-tonne bin! Victoria Mill bin 9516 inside the bin shop on 24 November. Photos: Steven Allan* ***Above:*** *Victoria Mill has two ballast ploughs converted from ex-4wDM Motor Rail 'Simplex' locomotives. Here are (L-R) 10381 of 1953 and 3717 of 1925 outside the mill's navvy shed on 23 September 2005. Photo: John Browning.*

Clockwise from above: *Com-Eng 4wDH 72 (GA1148 of 1961 rebuilt Fairymead 1971) standing out of use at the Fairymead Mill site on 2 March 2005. This locomotive has recently been obtained for preservation in Victoria.* ❐ *One of three Eimco B-B DH locomotives built for Marian Mill, 18* GARGETT *(L255 of 1990) arrives at the headshunt at the mill yard on 16 October 2005. Photos: John Browning* ❐ *Macknade Mill's EM Baldwin 0-6-0DH 14 (6/2490.1 7.68 of 1968) shunting sugar boxes at the mill in RSU mode, 23 November 2005. The driver is back at the sugar bin loading the wagons and positioning the train via remote control. Photo: Brett Geraght* ❐ *On Friday 4 November 2005, Kalamia mill's B-B DH* KILRIE *(Walkers 632 of 1969, rebuilt Bundaberg Foundry DH50 of 1992) passes Airdale 1 with 82 empty five-tonne bins. Photo: Scott Jesser*

on 28 November to operate the bulk sugar train for a while after a ballast weight fell off the Macknade sugar loco, EM Baldwin 0-6-0DH 14 (6/2490.1 7.68 of 1968). *HOBART* reappeared at Macknade on 15 December to replace Clyde 0-6-0DH *INGHAM* (64-382 of 1964), which had broken down at the Macknade 4 Mile the day before. *HOBART* remained at Macknade after the end of the crushing season on 17 December, while *BRISBANE* and 14 went to Victoria Mill on 20 December, the latter for Remote Shunting Unit training. *INGHAM* was brought back to the mill on 21 December by road transport as the Herbert River bridge at Macknade had been closed off by noon the day before pending major works including bridge decking and a new floodgate on the mill side of the river, with an estimated total cost of $246,000.

Other significant work programmed includes new engines for Victoria Mill's EM Baldwin B-B DH *GOWRIE* (7135.1 7.77 of 1977) and Walkers B-B DH *CLEM H McCOMISKIE* (605 of 1969 rebuilt Walkers 1991 & Solari 2004), further development of the 8-tonne bin, and track relaying and yard extensions at Bambaroo.

Steven Allan 11/05, 12/05; Chris Hart 11/05, 12/05

CSR LTD, Kalamia Mill

610mm gauge

(see LR 186 p.21)

Although fitted with Invicta Mill couplers, Clyde 0-6-0DH *KALAMIA* (67-569 of 1967) has remained at Kalamia Mill and did not go on loan to Inkerman Mill as previously predicted. Over the Christmas period, this locomotive was noted parked at Romeo's Siding near the Bruce Highway at MacDesme.

Jason Lee 12/05

CSR PLANE CREEK PTY LTD, Sarina

(see LR 186 p.21)

610mm gauge

Standard gauge Walkers B-B DH 7336 has been removed from storage at the Bundaberg Foundry and was unloaded at the Shannon's Flat depot on 1 December. It had been stored in Bundaberg since 1996.

Tony Wells 12/05

HAUGHTON SUGAR CO PTY LTD, Invicta Mill, Giru

610mm gauge

(see LR 186 p.21)

During the forthcoming slack season at Invicta Mill, a new MTU 4-stroke V12 engine derated to 900hp is to be fitted to Walkers B-B DH *PIRALKO* (677 of 1971, rebuilt Bundaberg Foundry 1995), which will also be fitted up for remote shunting unit (RSU) operation. There are also reports of the possibility of up to two more similar engines being fitted, and up to three further locomotives fitted up for RSU operation. A new type of cruise control unit has been trialled in Walkers B-B DH *MINKOM* (710 of 1973 rebuilt Bundaberg Foundry 1996) which will eventually allow for automatic speed limiting as part of the RailSafe system.

The locomotive shortages of the 2005 season have led to some consideration of the conversion of another ex-main line Walkers B-B DH unit for Invicta Mill from among those stored at Plane Creek Mill.

Invicta was the last mill in the district to cease crushing operations, on 22 December, with the removable section of the Haughton River bridge being lifted the following day.

Jason Lee 11/05, 12/05

ISIS CENTRAL SUGAR MILL CO LTD

(see LR 186 p.21)

610mm gauge

The 2006 slack season is expected to see a new Caterpillar 3412 V12 engine installed into Walkers B-B DH ISIS No.3 (600 of 1968 rebuilt Walkers 1994). In addition, EM Baldwin B-B DH 11 (10310.1 6.82 of 1982) is expected to receive a new GM V12 engine.

Brian Bouchardt 12/05

THE MULGRAVE CENTRAL MILL CO LTD, Gordonvale

(see LR 186 p.22)

610mm gauge

Further to the notes in LR 186, only the bogie brake wagon is out of use. The others are in regular use as required. Number 2 (NQEA, 1972) is used with Clyde 0-6-0DH 14 (56-86 of 1956). This vehicle is non-radio controlled and so is used as a brake tender. Number 11 (ex Baguley 2514 of 1954) is used with EM Baldwin 0-6-0DH 11 (4413.2 8.72 of 1972).

The air compressor on the bogie brake wagon failed in the 2003 season and it was not repaired. It is believed that there are no plans currently to recommission it, and it has been rumoured that an enquiry has been received from a southern mill about its possible availability.

Trains to Redlynch always run with a brake wagon. The Walkers bogie locomotives are used on this run for half a season each and are normally used

Mulgrave Mill inherited the locomotive fleet of Hambledon Mill and here, on the left, is ex-Hambledon Clyde 0-6-0DH 18 (63-379 of 1963), fitted with a low-level cab for working under the QR bridge at Redlynch. On the right is 0-6-0DH 8 (A1926 of 1958), built for Mulgrave Mill, and consequently fitted with a raised cab. The locomotives are entering the full yard on 21 September 2005, with a 4-wheel 10-tonne bin behind number 18. Photo: John Browning

with EM Baldwin brake wagon 13 (7065.4 6.77 of 1977). The daily routine for Redlynch is for one of the low cab Clyde 0-6-0DH locomotives to leave the mill at 7am to work the lines beyond the low-level overbridge at Redlynch. On returning to Redlynch depot, the crew transfers to the Walkers locomotive that left the mill around 9am in order to return home by 3pm. The Clyde then goes across the Barron River to pick up another rake before returning to the mill by 5pm.
Com-Eng 0-6-0DM 2 (A1001 of 1955) was noted in late November having its wheels turned on the wheel lathe that was built by the mill. EM Baldwin 4wDM 10 (6/881.1 6.64 of 1964) is waiting for new sprockets and chains to be fitted. Motor Rail 4wDM (10450 of 1954) was noted behind the navvy shed, and is said to be out of use although still in good condition mechanically.
Ex-QR 3ft 6ins gauge Walkers B-B DH DH47 (629 of 1969), purchased in 1995, has been in store at the Bundaberg Foundry ever since. It was transported to the mill in early December and has been put into storage behind the loco shed.
Rob Stanier 10/05, 12/05; Tom Porritt 11/05; Carl Millington & Paul Dove 12/05;

TULLY SUGAR LTD
(see LR 186 p.22)
610mm gauge
EM Baldwin 0-4-0DH 1 (6/1082.2 2.65 of 1965) has been in the process of being rebuilt for more than 12 months as an apprentice project.
Carl Millington & Paul Dove 12/05; Roy Pease 12/05

SOUTH AUSTRALIA

AUSTRALIAN SOUTHERN RAILROAD, Whyalla
(see LR 181 p.22)
1435mm & 1067mm gauge
OneSteel is converting its Whyalla Steelworks from using haematite ore to magnetite, allowing haematite reserves to be sold for export. The magnetite will be concentrated at the mine site in the South Middleback Ranges and transported by a 62 kilometre slurry pipeline, but the haematite will continue to be hauled on the 3ft 6ins gauge railway which is operated for OneSteel by Australian Southern Railroad.
http://www.pir.sa.gov.au

WESTERN AUSTRALIA

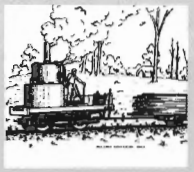
BHP BILLITON IRON ORE PTY LTD
(see LR 186 p.22)
1435mm gauge
The option to order a further ten Electro-Motive Diesel Model SD70Ace Co-Co DE locomotives in addition to the 13 currently in the process of being delivered has been taken up by BHP Billiton. They will be built in Canada and supplied through Downer EDI.
The National Competition Council has released a draft decision that would allow track access to the BHP Billiton rail system to other iron ore miners. The draft decision, in favour of Fortescue Metals Group is being opposed by BHP Billiton and the other iron ore railway operator, Pilbara Rail. BHP has offered to transport the Fortescue ore from the Mindy-Mindy ore deposit to Port Hedland but Fortescue insist they want to run their own locomotives and rolling stock on the BHP railway. The iron ore railway operators say that the decision, if confirmed, would put a brake on new investment in their rail systems and would lead to bottlenecks like those experienced with coal transport and shipping on the east coast.
David Bromage 11/05; *The Australian* 17/12/05 via Barry Blair

FMG CHICHESTER PTY LTD
(see LR 183 p.22)
FMG Chichester (part of the Fortescue Minerals Group) has taken the steps to trigger the Railway and Port Agreement it made with the State Government in 2004. This agreement deals with the development of an open access railway between the Chichester Ranges and Port Hedland and is separate to the Mindy-Mindy project proposals that are the subject of a claim for access to the BHP Billiton rail system.
Government of Western Australia Media Statement 1/12/05 via Barry Blair
http://www.fmgl.com.au/reports/asx/2004/182119.pdf

LEIGHTON / KUMAGAI JOINT VENTURE, Perth Metro Rail Tunnel
(seen LR 186 p.22)
900mm gauge
The Schöma 4wDH locomotive noted in October is builder's number 5280 of 1992. A second unit arrived on 8 November and was being prepared to go underground on 17 November with the number 2 crudely sprayed on the cab sides. It carries builder's number 5284 of 1992. Both locomotives are Model CFL-180DCL, delivered new to Dumez GTM for the Singkarak Hydro Electric Project, West Sumatra, Indonesia.
Industrial problems and tunnelling difficulties had caused the project to fall several weeks behind schedule by late December, raising the possibility of the opening of the Southern Suburbs Railway project being delayed.
Jeff Austin 11/05; *The West Australian* 30/11/05, 7/12/05, 20/12/05 via Barry Blai

GERALDTON IRON ORE ALLIANCE
Midwest Corporation Ltd, Murchison Metals Ltd and Gindalbie Metals Ltd have formed al alliance to co-operate in the development of infrastructure for the iron ore industry in the Geraldton area. This could include railway development.
Sydney Morning Herald 7/12/05 via Barry Blair; http://www.minebox.com/story.asp?articleId=6870

MINERALOGY PTY LTD
SHERLOCK BAY NICKEL CORPORATION
These two companies have agreed to develop an iron ore project in the Pilbara, with a port at Cape Preston, about 50km south-west of Dampier. Environmental approval has been received for a 150km rail line to connect the mines with the proposed port.
ABC News Online 20/12/05 via Barry Blair; http://www.minebox.com/story.asp?articleId=6928



LRRSA NEWS

MEETINGS

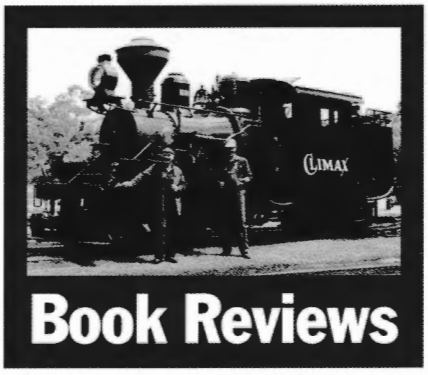
ADELAIDE: "Plan for 2006 - suggestions welcome"
There will be a discussion of plans for the coming year.
Location: 150 First Avenue, Royston Park.
Date: Thursday 2 February at 7.45pm.
Contact Arnold Lockyer (08) 8296 9488

BRISBANE: "Queensland Sugar Cane Railways in 2005"
Greg Stephenson will present an overview of the operations of Queensland sugar cane railways during 2005 .
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 10 February at 7.30 pm. Entry from 7 pm.

HOBART:
There will be no meeting in February

MELBOURNE: "Railways of Christmas Island"
2360 km north-west of Perth the Australian Territory of Christmas Island is not easy to get to. It had a 17 km standard gauge railway, and 2 ft gauge railways. There was an impressive roster of steam and diesel locomotives, including several Shay locos. Mike McCarthy has visited the Island, and found there is much more than has been previously published. He will present his findings at the February meeting.
Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.
Date: Thursday 9 February at 8.00 pm

SYDNEY: "Langley Vale Timber Tramway"
Len King will give a talk on the Langley Vale timber mill and tramway, on the NSW north coast, which he has been researching for many years. He will also show slides and a 22 minute video of historic footage.
Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).
Date: Wednesday 15 February at 7.30pm.



Book Reviews

Merthyr Tydfil Tramroads and their Locomotives

by Gordon Rattenbury and M.J.T.Lewis

Railway & Canal Historical Society, UK, 2004 ISBN 0901461520 Soft cover, 88 pages, 46 photos, drawings, maps, notes and references, index, £14.50

Many, many years ago my father gave me a copy of Bertram Baxter's *Stone Blocks and Iron Rails* (David & Charles, 1966) for my birthday. It opened up a hitherto unknown world, a place where there were primitive railways (many years before the Stockton & Darlington Railway); a place where, often, the flanges weren't on the wheels but on the rails – the world of plateways and tramroads.

I read and re-read that book, sometimes even whilst the LRRSA Council was meeting in the next room, at a time my father was on the committee.

It soon became apparent that one of the densest networks of plateways was in southern Wales and the Taff Valley. But one was hampered by lack of good maps in both Baxter's book and various subsequent publications. Certainly, some books have maps but all to often they were composite maps – all railways from "1790 to 1970" sort of thing, generation after generation of railways layered upon each other until it looked like the cat's ball of wool on a bad day. For one not conversant with the Welsh valleys it was very hard to fathom.

Enter 2004 and the bi-centenary of the world's first railway locomotive and the Railway & Canal Historical Society have published this fine book that commemorates not only that event but also the Society's 50th year. *Merthyr Tydfil Tramroads and their Locomotives* consists of two parts – the first by the late Gordon Rattenbury, containing his interesting researches into the history of the Merthyr Tydfil tramroad (called by some, incorrectly, the Penydarren tramroad). Famous names here - Dowlais, Cyfarthfa, Plymouth and Penydarren – the four iron companies, hamstrung by inadequate transport, decided upon a canal. Opened in 1794, the Glamorganshire Canal proved to be fine for Richard Crawshay of Cyfarthfa ironworks as it was on his side of the steep Taff valley. The others were left somewhat in the cold and jointly decided upon a tramroad – the Merthyr Tramroad (a plateway of 4ft 4ins gauge) which duly opened in 1802, from near the Penydarren ironworks to a canal basin at Abercynon, a distance of 9½ miles.

Forever made famous by Trevithick's 1804 locomotive (which wasn't the abject failure it is often made out to be), the Merthyr Tramroad and the ironworks' limestone quarry tramroads are mapped in this book such that they make sense. Gone are the subsequent mainline railways and their intricate layouts – here we get just the basic skeleton with each line labelled as to which company it belonged.

The second part of the book is a reprint of Dr Michael Lewis's paper originally titled *Steam on the Penydarren* that first appeared in the *Industrial Railway Record* in 1975. Carefully revised and expanded where necessary to include new material, all of the wondrous steam locomotive machines from the dawn of railways in the Taff Valley are covered, with delightful scale drawings, to be studied and absorbed. Here we have the double-funnelled *Perseverance*, the unpronounceable (unless you're Welsh) *Yn Barod Etto*, and *Mountaineer*. Some of them had an early rack mechanism for surmounting the grades between Penydarren and Dowlais and were the products of the Neath Abbey Ironworks. Gracing the cover of this book is a most evocative painting of the previously mentioned *Perseverance*, climbing Morlais Hill on a return journey to Dowlais Ironworks in about 1832. Highly recommended. Limited supplies, do not delay – see members' Sales List.

Phil Rickard

From Back Yard to Bennett Brook 1976-2005:

A history of the Western Australian Light Railway Preservation Association and the Bennett Brook Railway

by David Whiteford

Published by WALRPA, Malaga WA, nd. A5 size, 52 pages, 29 b&w photos; 9 colour photos, plus card cover. Price $15, plus $2 postage and handling in Australia or $4 overseas. Available from WALPRA, PO Box 3160, Malaga WA 6945 (cheque or money order).

The establishment, expansion and operations of the Bennett Brook Railway, located in Whiteman Park some 8km north of the Perth suburb of Guildford, have been regularly documented in *Light Railways* (and *Light Railway News*) over the years. Its parent, the Western Australian Light Railway Preservation Association (WALRPA), was formed on 26 April 1976 by a small group of dedicated enthusiasts with the aim of preserving the industrial railway history and heritage of Western Australia. The group was successful in obtaining its first locomotive, the Lake View & Star gold mine 1938 'Planet', in September 1976. Two locomotives and hopper wagons from the Maylands brickworks were acquired in 1981.

Several options were explored for an operating site for the society, with the future Whiteman Park being to the forefront from an early date. WALRPA was one of five proposals submitted to establish an operating railway in the park in 1977 and the Metropolitan Regional Planning Authority advised that its application had been successful on 16 August 1982. The Association was quick to 'cement its presence' in the park by depositing 50 sleepers at the site of the planned railway the following month.

The small band of WALPRA members – there were 10 of them in June 1983, one of whom lived in New South Wales – set about the task of building what was to become Australia's largest 610mm gauge heritage railway over the next two years. A Lotteries Grant and two 'Wage Pause Schemes' through the Government Employment Services enabled construction of a locomotive and carriage shed at what was to become the Mussel Pool Depot, and the laying of 1.2km of track to Central Station (now Whiteman Village Junction Station).

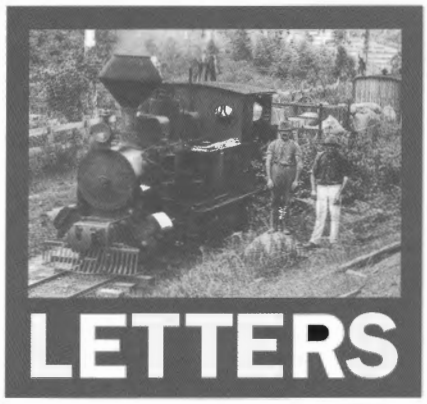
The Minister for Planning, Peter Dowling, was on hand on 8 December 1984 to officially open the railway by driving the first passenger train out of Central Station. Regular services commenced the following day. The reviewer's work took him to Perth on 12 December and the following afternoon, Lindsay Watson organised a visit to the Bennett Brook Railway to meet the small band of enthusiastic members actively conserving and maintaining the rolling stock. We inspected the depot and took a trip along the line through the bush of the undeveloped park while kangaroos watched our progress. That evening I joined a meeting of WALPRA members who were planning their future operations. It was very much the dawn of an exciting journey.

David Whiteford, a foundation member, has ably brought the story of those operations together in this neat little book. It tells the story of the society and the Bennett Brook Railway chronologically in seven chapters. It is a remarkable story with several notable achievements, among them the opening of the 4.5km Loop Line on 15 February 1986, the entry into service of the first of two ex-South African Railways NG class steam locomotives on 21 September 1986 and the introduction of mid-week operations in 1990. There were also down sides, notably numerous locomotive breakdowns and the need to relay much of the track to bring it to a suitable standard for steam operations.

There are also references to problems and conflicts within the WALPRA membership and the introduction of an 'open forum' to help solve these problems (p.37). Given that most preservation societies experience such problems sooner or later, it would have been helpful to provide more information on the lessons that WALPRA has learned in its quest to maintain such a strong and active membership base over the years. The group is clearly a model for success in an often turbulent railway preservation movement and it can be proud of its achievements.

David's account of how this was achieved is highly recommended. The only blemishes noted are the lack of an index or even a table of contents, together with a reference list for the many abbreviations used in the text.

Bob McKillop



Dear Sir,

South Australian Jetty Tramways (LR 142)

Recently, I received a copy of a book *The Jetties of South Australia – Past and Present*, by Neville Collins, published early last year.

In preparation for the book, Mr Collins undertook a considerable amount of research and the book contains many illustrations, a number of which show jetty tramways, which, despite my interest in the subject, I had not previously seen. It also included one tramway that I had not been aware of and had not appeared in my article in LR 142, nor in the follow-up correspondence in subsequent issues. This line was on the jetty at South Neptune Island.

South Neptune Island is situated southwest of Wedge Island and west of Althorpe Island, just below the entrance to Spencer Gulf. I do not have any details of the tramway, other than that the gauge of the track was 2 feet. The following brief history of the jetty was prepared from information in Mr Collins' book:

1901 Following at least two shipwrecks, dating back to 1840, the light at Wonga Shoal, near Port Adelaide, was moved to South Neptune Island, and the jetty was built in late 1901/early 1902. An iron screw piled structure; it had timber decking and was 195 feet in length.

1921 An inspection found that the jetty had suffered damage and did not appear strong enough to support the present crane. It was recommended that the length be extended by 20 feet.

1923 Again it was recommended that the jetty be extended, but there is no evidence that this was carried out.

1997 It was reported that the jetty was falling apart.

1999 Due to its poor condition, the jetty was demolished by the Army. An airstrip is now the only means of access to the island.

The Mundoora/Port Broughton Tramway

On the subject of Port Broughton, in his book referred to above, Mr Collins relied on information in the book *The Port Broughton Story 1871-1971* published by the District of Port Broughton. As a result, some of the information on the small tram, known locally as 'The Port Broughton pie cart', was not correct. Although it was very similar to a tram on the Goolwa-Port Elliot line, photographic evidence shows that they were different, and the Goolwa tram was 5ft 3in gauge whilst the 'pie cart' was 3ft 6in gauge. It is interesting to note that that a replica Goolwa tram, built at Islington Railway Workshops for the State's Centenary in 1936, is now on display at Goolwa. It should also be pointed out that the 'pie cart' was a small passenger-carrying unit that would not have been used to carry grain.

I have discussed the foregoing with Mr Collins, who assured me that this would be corrected in any future editions of his book. If any reader is interested in obtaining a copy of *The Jetties of South Australia – Past and Present*, it is available from Mr Collins at PO Box 12, Woodside SA 5244, for $30 plus $10 p&p.

Arnold Lockyer
Dover Gardens, SA

Dear Sir,

Orenstein & Koppel compound Mallet 0-4-4-0T steam locomotive (LR 180)

In my letter on this subject, published in LR 182, I asked if anyone knew of any Mallets, other than the three that came to Australia, that had their rear cylinders placed behind the rear set of driving wheels. I can now answer my own question! In *O&K Steam Locomotive Works List 1892-1945* by Bude, Fricke and Murray, there is a photo of another Mallet with its rear cylinders mounted behind the rear driving wheels. O&K Works No. 1358 of 1904, a 100hp 60cm gauge 0-4-4-0 built for the Bromberger Kreisbahn.

Despite the various (mostly cosmetic) differences, and the fact that the photo shows it after it had been converted to a tender engine, No. 1358 appears to have been built to the same basic design as the three Australian O&K Mallets, all of which are also listed as 100hp. There is only one other 100hp 60cm gauge 0-4-4-0T Mallet listed in the book, Works No. 3034 of 1908, which was also built for the Bromberger Kreisbahn, but there are no indications as to whether it or any other O&K Mallets were built with this cylinder arrangement.

Darryl Grant
Balwyn North, Vic

Former lighthouse keepers David and Tina Cinzio took this photograph of the jetty at South Neptune Island. *Photo courtesy Neville Collins*

Dear Sir,

Bullens 'Safari Express' Steam Outline Locomotive (LR 186)

Further to my series of photographs of the Bullens Lion Park railway, I can provide some additional information on the passenger carriages.

I could only find two coaches and only one was in use, as seen in the photo supplied. The other was a skeleton with line car bogies located near by. Their construction was of light RHS tubing. I would say that the coach in the photo was also on line car bogies, in all probability from the CSR Condong sugar mill as this mill always had plenty of bogies lying around.

As I reported, the locomotive had a Holden motor with automatic transmission and chain drive to the wheels. The driver told me he could only engage forward and reverse.

I looked at the coaches after the park was closed for possible use by ANGRMS at Woodford, but formed the opinion they would be too light for us to use on our railway.

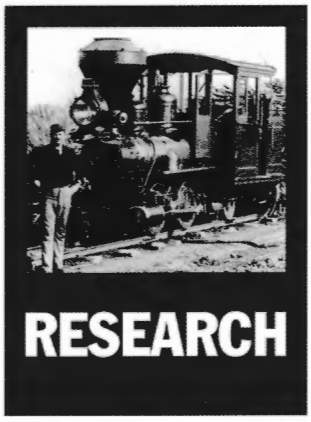
If any member has further information on this railway, it would be most welcome.

Bob Gough
(via e-mail)

CORRECTION

In the 'References' section at the end of the article *World War 2 and the Malcolm Moore V8 locomotive* on page 12 of LR 186, the name of the LRRSA's long-serving South Australian Secretary, Arnold Lockyer, was spelt without a 'y'.

Our apologies to Arnold. Just because South Australians routinely leave the 'u' out of 'harbour' is no excuse for us to leave the 'y' out of 'Lockyer'!



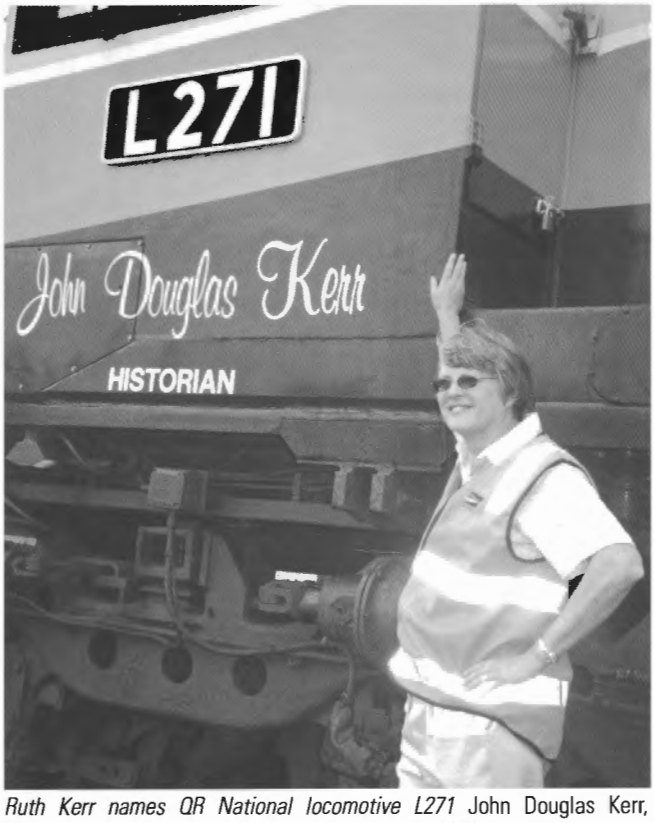
RESEARCH

Recognition of railway historian John Kerr

Noted Queensland rail historian and LRRSA member, the late John Kerr, has received recognition with the naming of a QR National locomotive in his honour. A small group of John's friends gathered at Newstead Colliery at Fassifern, a southern Newcastle suburb, on Wednesday 16 November 2005 to see Ruth Kerr unveil the name – *John Douglas Kerr, HISTORIAN* – on the cab side of the former Westrail locomotive L271 now owned by QR National (carrying the former Interail livery). QR National advise that the naming was undertaken in recognition of John's contribution to QR and his role in interpreting Australian rail history. As John's contributions were Australia wide, the opportunity was taken to name on of the 'big power' fleet beyond the traditional home of QR. Representatives of QR National, Centennial Coal Company, the Australian Railway Historical Society and members of the Kerr family attended the ceremony. Once L271 was named, the train then departed for the power station loop at Wyee, while QR National hosted the guests to a light lunch at the Newstead crew facilities.
John Shoebridge, David Burke and Greg Hallam (QR National)

Caldwell Vale locomotive at Sea World

Continuing the series of photos of Queensland theme park railways provided by Bob Gough (LR 186, p.25), we reproduce here a photo of a small steam outline locomotive taken at the Sea World 610mm gauge railway some years ago. This is believed to be a rebuild of a Caldwell Vale 4wPM locomotive formerly operated by a cane farmer near Chinderah on the Condong Sugar Mill tramway system in northern New South Wales. The editors are interested in hearing from any reader who is interested in researching and preparing an article on this interesting operation.



Ruth Kerr names QR National locomotive L271 John Douglas Kerr, HISTORIAN *at Newstead Colliery on 16 November 2005. Photo: David Burke*

The Caldwell Vale steam outline locomotive at Sea World as photographed by Jill Gough, with husband Bob, son Mark and daughter Kerrie observing proceedings

Can any reader provide additional information on this Commonwealth Engineering 0-4-0DM underground locomotive? (See accompanying item for details).

Bushwalking magazines

Reader GS Clark advises that he has come across a number of articles on light railways and their formations in old walking club magazines. He cites *The Melbourne Walker* (of the Melbourne Walking & Touring Club) for articles on the Fox Point Scenic Railway, a funicular at Mount Dandenong (Vol 27, 1956, p.64); railways of the Powelltown area (Vol 29, 1958, pp. 24-27); and the Puffing Billy Railway (Vol 34, 1963, pp. 70-72). *Walk*, the magazine of The Melbourne Bushwalkers, No 9, 1958 (pp. 35-37) describes bushwalks along tramway formations around Cape Otway, while *Skyline* (the Launceston Walking Club magazine) has a delightful article on the Tullah Tramway in its issue No 8 of October 1957.

Identification of Com-Eng underground locomotive

Ray Graf has provided the accompanying photograph of a Commonwealth Engineering Limited 3ft 6in gauge underground 0-4-0DM locomotive and is seeking further information on its identity from LR readers. The reverse carries the stamp of Douglas Baglin Pty Limited, 100 Pacific Highway, St Leonards, a well-know commercial photographer during the 1950s to 1970s period. The editors suspect that it might be B/N D1016 of 1957 built for Huntley Colliery, although this has previously been recorded as a 4wDM unit. Any information from readers on the identity of the locomotive and its subsequent history would be much appreciated.

Mittagong Ironworks archaeological dig

The development of the site of the Fitzroy Ironworks puddling furnace and rolling mills at Mittagong for a Woolworths supermarket led to an archaeological dig of the area by consultants Godden Mackay Logan (GML). This site is some 450 metres west of the location of Australia's first blast furnace of 1863, to which a 4km horse-worked tramway brought coal from Nattai Gorge. The dig uncovered the foundations of numerous buildings erected on the site during its various transformations, including

the former rolling mills and flywheel pit, and what are believed to be the remnants of one of Australia's first iron-making facilities, a Catalan forge erected in 1848, although no trace of the actual forge site remains.

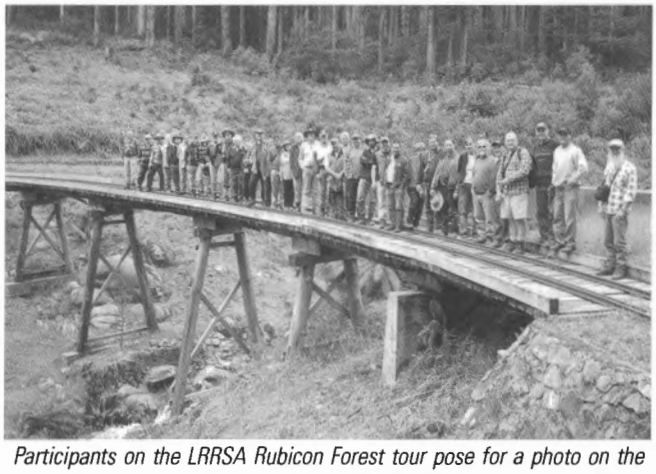
Woolworths held a Public Open Day on Saturday 5 November to enable the community to see the newly uncovered relics first-hand and to participate in free guided tours. The foundations of the puddling furnaces, tilt hammer and rolling mills were all clear to see, along with most interesting layout of air conduits to the cupolas, etc. and two large stone wheels from the Chilean mill used for grinding fireclay. As usual, all the movable scrap had been salvaged long ago, with a few minor exceptions, so there was only stone and brick-work to be seen.

Jerry Platt and Media Statement from NSW Heritage Office

Jerry Platt was on hand to photograph the archaeological dig at the old Mittagong Ironworks site during the open day on 5 November 2005. A large T-shaped structure dominates the remnants. At the top of the Tee is the deep pit wherein sat the flywheel of the rolling mill engine. The foundations of the rolling mill stands are at the leg of the Tee. The flywheel pit foundations were very deep and made of massive blocks of sandstone laid across one another. North of the flywheel pit is another 'hole', wherein sat the helve hammer for knocking puddles blooms into shape and also for forge welding smaller billets into larger ones.

LRRSA Rubicon Forest Tour

On the weekend of 12 and 13 November 2005, Peter Evans led a group of 37 LRRSA members and railway modellers to the Rubicon Forest, around 150km from Melbourne in northeast Victoria. This was the fifth tour to the Rubicon region, and follows the tradition started by Frank Stamford back in the late 1960s. This tour also included Victorian members of the National Model Railroad Association (NMRA) who had requested the LRRSA to arrange a tour that would provide 'field' experience in the layout of sawmills and tramways.



Participants on the LRRSA Rubicon Forest tour pose for a photo on the SECV Royston tramway bridge on 12 November 2005. Photo: Peter Evans

The group met at the Rubicon hydro power station, which is nestled in a sheltered valley and fed by a water pipe plunging down the mountainside in a cleared easement. The area is quite noisy with the background roar of the turbulent water exiting the power station in an open aqueduct.

We commenced the tour at the junction of the Royston Road, Quartz Creek Road and No. 5 track. From here it was a short walk to the ruins of the Clark & Pearce No. 4 mill, which was operational between 1937 and 1953. We first investigated the underfired multi-tubular winch boiler, and then the modest sawdust heap and mill boiler. Unfortunately the steam engine that drove the winch was stolen around 2001, and we were only able to see the old foundations. The tour followed the tramway formation past an old service car, a former locomotive boiler used for a winch, and a fire-dugout, to the only free standing building, which is obviously kept habitable by trail bike riders. Someone has even installed a modern copper flue to repair the chimney.

The group crossed the Royston River on a fallen tree and headed on to the site of the Clark & Pearce No. 5 mill, which was occupied by several different owners from 1931 to 1952. We investigated a number of workers' huts in various states of decay and finally reached a substantial sawdust heap for a well-earned lunch.

The group explored the extensive mill shed foundations and log yard. We then followed the old tramway haulage connecting the No. 5 mill to the No. 4 mill log tramway to the southwest. This haulage runs down a creek gully to the Royston River, and had several collapsed trestles leaving long sections of rail hanging in mid air. The group crossed the Royston River on a bridge stringer, and found a lot of track in-situ on the other side, including a set of hand-made points. It was here that Rod Hutchinson from the NMRA managed to recover Peter Evan's machete and the top of his own camera tripod, which were lost in the river weeks before on the pre-tour survey

After walking further along the Royston River Road, we investigated a number of different styles of tramway bridge along the No. 4 mill log tramway, with many sections of 30lb/yd rail still in position, as well as a trough for supplying water to the horses working the tramway. The group returned to the cars and drove to the Royston power station and viewed the nearby SEC sawmill, aqueduct, tramway and syphon. Nearby was the site of the Rubicon Lumber and Tramway Company sawmill which operated between 1910 and 1927 but, given the more recent hydro developments, not much remains except the sawdust heap. The more recent SEC sawmill was in excellent condition following reconstruction work carried out by members of the Alexandra Timber Tramway, and afforded a great photo opportunity.

While in the vicinity of the power station, the group decided to load-test the SECV tramway (see photo), and I can safely say it was capable of supporting over 30 personnel for the group photo. (*Tour leader's note: The bridge was built by the SECV to carry its heaviest locomotive, the Malcolm Moore, which weighs roughly two tonnes, and all of its weight has to be carried by each individual span of the bridge. The safe working load factor for natural fibre is six, so the bridge is probably designed to stop being a bridge and become a pile of firewood in the gully at twelve tonnes per span. There are 34 people on the bridge, so 34 x people @ an average, say, 80kg = 2.72 tonnes distributed over three spans = 0.906 tons per span. Therefore the tour group [most of whom are valuable members of the LRRSA and an asset not to be risked] is well within the rated carrying capacity of the bridge*).

As reported in the Heritage & Tourist Section (p.28), most tour participants attended a BBQ at the Alexandra Timber Tramway on Saturday night with a night train, followed by a steam operating day there on the Sunday. There was unanimous agreement that this was a most enjoyable and comprehensive tour. The weather was not overly hot, and the NMRA personnel photographed plenty of real examples of bush mills and related tramways.

Mention must be made of the plant gunzels, Owen Gooding and Barry Sheffield, who again provided an interesting botanical explanation of the flora. Our thanks also to the staff of the Alexandra Timber Tramway for the night loco running and excellent BBQ. Special thanks must go to Peter Evans for his thorough planning, expert leadership and comprehensive historical knowledge of the area, which he freely shared with us.

Simon Moorhead

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

The Golden City & its Tramways

Ballarat's tramway era
by Alan Bradley.
Published by Ballarat Tramway Museum Inc.

Using the wealth of the 1850s goldrushes, the founders of Ballarat built a magnificent provincial city. This book is not a dry technical history but describes how the citizens of Ballarat used the trams in their daily lives. It brings to life the difficulties experienced in the second world war, when lights were dimmed and petrol severely rationed. The book also addresses the technology, economics, politics, working conditions, and competition from other forms of transport. Many wonderful photos dating back to the 1880s. 144 pages, A4 size, hard cover, 119 photographs (15 in colour), 4 maps, bibliography, index.
$43.95 (LRRSA members $39.56) Weight 900 gm

The Mapleton Tramway

The line of the diminutive Shay locomotives
By John Knowles, published by the author
The Mapleton Tramway was an 18 km long 2 ft gauge railway, which climbed the steep ranges, west of Nambour, about 110 km north of Brisbane. In many places the line was located on shelves in the mountainsides with magnificent views over the coastal lands to the sea. It used steep gradients and very sharp curves, and reached 380 m. altitude. It was operated by two small Shay locomotives. It carried sugar cane, logs and sawn timber, fruit, cream, small livestock, as well as passengers and mail.
Includes seven scale drawings of the rolling stock and locomotives.
92 pages, A4 size, plus card cover, 81 illustrations, references, and index.
$28.50 (LRRSA members $25.65) Weight 480 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.

Mountains of Ash

A History of the Sawmills and Tramways of Warburton - by Mike McCarthy
Describes a network of over 320 km of timber 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.

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.

Bellbrakes, Bullocks & 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.

John Moffat of Irvinebank

A Biography of a Regional Enrepreneur, by Ruth Kerr
Published by J.D. & R.S. Kerr
296 pages, 243 mm x 172 mm, 3 maps, 47 photographs, references, bibliography and index.
Not a railway history, but a history of an Australian mining magnate who was very much involved with associated railways and tramways in North Queensland. He was seen as a "monument to honesty". Includes information on construction and operation of railways and tramways of Chillagoe, Mount Molloy, Mount Garnet, Irvinebank and Stannary Hills.
$45.00 hard cover (LRRSA members $40.50) Weight 950 gm
$30.00 soft cover (LRRSA members $27.00) Weight 820 gm

"Decauville" Portable Railway

Illustrated Catalogue No.105 January 1905
Reprint published by Karl Paskarb

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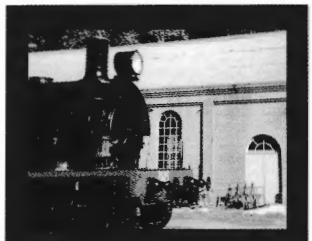

Heritage &Tourist

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.
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@optusnet.com.au

NEWS

Queensland

BUDERIM PALMWOODS HERITAGE TRAMWAY Inc.
762mm gauge
Restoration work to prepare the former Buderim-Palmwoods Tramway Krauss 0-6-2T locomotive (6854 of 1914) as a static exhibit continues at Buderim (LR 181, p.27). ABC Radio Sunshine & Cooloola Coasts reported in November that a dedicated group of volunteers headed by Garth Fraser is undertaking the work, which is expected to take a further 12 to 18 months to complete. It is currently planned to display the locomotive in a small park in the centre of Buderim near the original station, but this is subject to the outcome of a series of public meetings to be held in the town during 2006.
ABC Radio website, 16 November 2005, via John Browning

'ERROL DENNIS', Talara, Jambin
610mm gauge
Motor Rail 'Simplex' 4wDM 21623 of 1958 *PHAR LAP*, ex Farleigh Sugar Mill, was purchased at auction at Kabra, near Rockhampton on 3 December. The auction, conducted by Hassalls Auctions, was of old vehicles and machinery collected by Ron Bowes, proprietor of Zebra Truck Wrecking, Gracemere. The locomotive will be housed on a short circuit of track on the owner's property in the Callide Valley, 120km southwest of Gladstone. John Browning 12/05

HAMBLEDON GARDENS, Edmonton 610mm gauge
Cairns City Council
The ex Hambledon Mill Hudswell Clarke 0-6-0 (1549 of 1924) preserved at the former *Sugarworld* site was noted in late November 2005 with a freshly acquired coat of paint. In April 2005 it was reported that the locomotive had recently been repainted in bright, non-standard colours (LR 183, p.26). It was still coupled to a whole stalk cane truck.
Carl Millington/Paul Dove 12/05

DAVID JOHNSTONE, Julatten
610mm gauge
The ex Victoria Mill Hudswell Clarke 0-6-0 (1838 of 1950), latterly of the Ballyhooley Steam Express, has been moved to Julatten. It was noted in late November stored in the open and with various fittings removed. It is reported that this locomotive is for sale.
Carl Millington/Paul Dove 12/05

MAPLETON & DISTRICT COMMUNITY ASSOCIATION
610mm gauge
Maroochy Shire Council
As reported in LR 179 (p. 27), this group proposes to restore the former Mapleton Tramway and Moreton Sugar Mill Shay locomotive (Lima 2800/1914 with parts of 2091/1908) as a static exhibit. The Maroochy Shire Council retains ownership of the locomotive and the conditions for its relocation to an approved site at Mapleton were established at the Council meeting on 14 July 2005. The Shay is being restored by a subcommittee of volunteers under Council authority and provision is made to ensure that all work carried our does not prejudice or detract from the historical locomotive or significantly increase the cost of restoring it to its original state. If funds become available, provision is made for restoring the Shay to full working condition and relocating it to a site of Council's choice within the Shire.
Maroochy Council Minutes, 14 July 2005, via John Browning

New South Wales

BRONTE BEACH RAILWAY, Sydney 457mm gauge
Coleman & Sons Pty Limited
This amusement park railway was previously reported in LRN (Feb 1980), when operating at Hyde Park. On 13 November 2005, the railway was operating at Bronte Beach. The track was an oval, waisted in on the sides with a trailing connection to a carriage shed. The only straight track was to the shed, which provided storage for the locomotive and carriages. There was a sign that said the railway has been in operation since 1947, manufactured and operated by Coleman & Sons P/L. The locomotive at Bronte Beach was a petrol powered 4-6-2 streamlined '38 class' numbered 3802 with the name *THE ANDREW JAMES* on the valance. The train consisted of three bogie carriages. Ray Gardiner, 11/05

PETER EVANS, Newcastle
610mm gauge
Peter has acquired ex Goondi Mill Motor Rail 'Simplex' 4wDM 2117 of 1921 from Roger Anderson of Yungaburra in Queensland, together with some navvy wagons.
Peter Lukey, 12/05

RICHMOND VALE RAILWAY, Kurri Kurri 1435mm gauge
Richmond Vale Preservation Cooperative Society Ltd
The two Bo-Bo DE centre-cab locomotives Nos 53 and 54, acquired from the BHP steelworks in July 2002, have not operated on the RVR due to problems with their wheel profiles (deep flanges). To address this problem, RVR volunteers used their 'bush ingenuity' to construct a machine to turn the flanges out of various pieces of 'junk' laying around the museum, such as a motor and gearbox from the 1067mm gauge turntable at Aberdare East Colliery, some rail and beam sections from the diesel shop at BHP Newcastle, and a dovetailed slide from an underground roof bolting machine. The machine was tried on BHP 53 on 29 October 2005 and it was successful in returning the flange to a permissible profile. In early December, both flanges on one inner wheel set had been turned and the team was awaiting the turning of the locomotive in order to tackle the opposite inner wheelset.
Jeff Mullier, 10/05 and 12/05

STATE MINE HERITAGE PARK & RAILWAY, Lithgow
1435mm gauge
At the society's AGM of 11 December 2005 the membership voted to endorse a Board proposal to create a not-for-profit company that will be wholly responsible for managing the Lithgow State Mine Railway. Membership of the company will be through the purchase of shares and all profits will be retained for the benefit of the railway. It is anticipated that the new company will take over the leases on the State Mine Branchline and Eskbank rail yard and will lease sections of the State Mine that contain rail lines. The carriage shed at the State Mine will also be leased to the new company. The company will have its office and base of operations at Eskbank Railway Station. The City of Greater Lithgow Mining Museum Inc will retain ownership of most of its current assets, including the State Mine site, and will continue to develop a museum of coal mining.
This proposal was supported as a way to ensure that the diverse, yet complementary, interests of railway and mining museum are managed enthusiastically and carefully into the future by persons with interests specific to each area. The creation of a not-for-profit company to manage the railway will also assist this part of the organisation to take a more entrepreneurial approach than has been possible in the past. The mining section of the heritage park is proceeding with restoration and interpretation projects with a former Lithgow Valley Colliery transport now fully restored and on display on a specially made section of track in the Bath House. 2005 saw an increase in the number of retired miners actively involved in the project. The enthusiasm and expertise of these men has been welcomed by the museum. New interpretive panels on the communists in Lithgow and at the State Mine scheduled for installation in late January 2006. The museum is now seeking sponsorship to develop further panels on the wages and cost of living of miners in the late 1920s and on the 1949 coal strike. The museum held a jazz concert on 15 October featuring legendary jazz band Galapagos Duck. This was an excellent event that featured displays of vintage cars and motorbikes as well as working small engines.
The museum is currently developing a 'ghost tour' program which will be called 'The Dog Watch'. It is proposed to launch this program during heritage week in April 2006.
Ray Christison, 12/05

Heritage & Tourist

Victoria

ALEXANDRA TIMBER TRAMWAY & MUSEUM

610mm gauge

For the year 2004-2005, the ATTM achieved a slight increase in passenger numbers (3643 compared with 3554 the previous year) due to additional operating days from January 2005, but there was a significant reduction in coach tours and charters. This later trend has been felt across the tourist industry. The challenge of the additional running days on a small volunteer base has impacted on routine work tasks, with the task of restoring the Hudswell Clarke 0-6-0 (1098 of 1915) to operating condition being postponed again.

As noted on page 25, the LRRSA Rubicon Forest tour group visited the ATTM on 12 and 13 November. On the Saturday night a barbeque was held on the platform and a night train was operated by Kelly & Lewis 0-6-0DM 5957 of 1936. On the Sunday most tour participants returned to the ATTM for its steam-operating day. The museum volunteers made it a special experience for the visitors with the John Fowler 0-6-0T (11885 of 1909) hauling passenger trains on the loop line and everything else that could operate congregating on the tramway extension running various 'goods' trains. Motive power here included both Kelly & Lewis 0-6-0DMs, a lash-up of Malcolm Moores, Simplex 10058, the Matisa tamper and the Sewell loco from Waranga.

Simon Moorhead, 12/05; *Timberline* No.87, Dec 2005

RED CLIFFS HISTORICAL STEAM RAILWAY 610mm gauge

We have not had a report on the RCHSR since LR 165 in 2002. A visitor on 2 October 2005 found an enthusiastic and welcoming team of volunteers who were pleased to provide access to all areas of their operation. The main station at Karadoc is on a circle of track with the line to Thurla joining this via a wye. A two-road engine/carriage shed runs off this circle as well as a shed and spur for maintenance vehicles.

A diesel locomotive, ex-Racecourse Mill 2-2wDM *ROAD RUNNER* (EM Baldwin 6/2612.1.11.68 of 1968), has joined the 0-4-2T Ker Stuart Skylark locomotive *LUKEE* as an operating locomotive to provide greater operating flexibility, including the ability to run trains on days of Total Fire Ban and 'push-pull' operations to Thurla and return with the two units. The locomotive has been restored and rebodied by John Page and Russell Savage at Mildura. It has been painted green and carries the name *HARRY*. The diesel was not operating on the day of the visit, however, and *LUKEE* had to be turned on the small turntable at Thurla. A number of four-wheel hopper wagons are scattered around the site in various stages of repair Alf Atkin, 11/05; Mary Chandler 11/05

STRINGYBARK EXPRESS MUSEUM & HERITAGE PARK

610mm gauge?

GreenTrail Associates Group Inc. This group operates railway trikes and other vehicles over part of the ex-VR broad gauge Springhurst to Wahgunyah branch line, that served the Rutherglen wine-growing district until its closure in 1992. Operations are based at Wahgunya, with trips to the historic Rutherglen station precinct. GreenTrail Associates Group Inc (GTA) has announced that it had received an offer of some 610mm gauge rolling stock and will be undertaking a feasibility and environmental impact study to determine the viability of a project to regauge the line at the Wahgunyah end. The project, which would integrate railway operations with the extension of the Murray to Mountains Rail Trail along the Wahgunyah right-of-way, involves the regauging of a section of the existing track and an extension to the Murray River at Wahgunyah. The balance of the line from Rutherglen to Springhurst Road would be retained as 1600mm gauge track.

GTA press release, 5 December 2005.

WALHALLA GOLDFIELD RAILWAY 762mm gauge

Walhalla Tourist Railway Committee of Management

A visitor to the WGR on 6 November 2005 noted a recently acquired B-B DH locomotive on a siding painted in a two-tone green livery with red lining. This is Walkers Engineering 576 of 1963, which was number 1001 on the 1067mm gauge Emu Bay Railway in Tasmania. The engine was removed in 1998 and the loco was acquired by the WGR in 2000 for rebuilding. The 762mm gauge bogies appear to be locally constructed, possibly by Skilled Engineering in the Latrobe Valley. The drive has a tail shaft driving the inner axles via crown and pinion gears and the outer axles via side rods. The locomotive was not in service and local volunteers explained that more tests were required.

Bill Hanks, 11/05

Tasmania

IDA BAY RAILWAY

610mm gauge

The restoration and reopening of the Ida Bay Railway has been the big light railway heritage story of 2005. The situation there in November 2004 painted a depressing scene, but there was truth in the advice that the "train would resume in 2005 when new owners would take over" (LR 181, p. 29). That owner was Meg Thornton, a widow from New South Wales who, when visiting relatives in Tasmania, decided to drive to the

Coming Events

FEBRUARY 2006

4-5 Wee Georgie Wood, Tullah, TAS. 610mm gauge steam train operations, 0930-1600. Also operating on 11-12 and 19 February. Phone (03) 6473 2228 or 6473 1229 (AH).

12 Alexandra Timber Tramway & Museum, VIC. Narrow gauge steam trains 1000-1545 and museum displays. Diesel-hauled trains operate on 26th. Information: Bryan 0407 509 380 or Peter 0425 821 234.

12 Cobdogla Irrigation Museum, SA. Narrow gauge diesel-hauled train rides. Phone (08) 8588 2323.

13 Puffing Billy Railway, Belgrave, VIC. Valentine's Day Special Dinner Train. Departs Belgrave at 1900 for a romantic evening in the Dandenong Ranges with a 3-course meal at Nobelius Packing Shed. Bookings: (03) 9754 6800.

25-26 Puffing Billy Railway, VIC. *Day Out with Thomas*, featuring *THOMAS* and *DANIELLE* in steam performing in Emerald yard and *THOMAS* hauling special steam trains to Nobelius or Clemartis and return. Bookings (03) 9754 6800.

MARCH 2006

4-5 Puffing Billy Railway, VIC. Day Out with Thomas, featuring *THOMAS* and *DANIELLE* in steam performing in Emerald yard and *THOMAS* hauling special steam trains to Nobelius or Clemartis and return. Bookings (03) 9754 6800.

5 Wee Georgie Wood, Tullah, TAS. 610mm gauge steam train operations, 0930-1600. Also operating on 26 March. Phone (03) 6473 2228 or 6473 1229 (AH).

12-13 Alexandra Timber Tramway & Museum, VIC. Narrow gauge steam trains 1000-1545 for Moomba Festival. Diesel-hauled trains operate on 26th. Information: Bryan 0407 509 380 or Peter 0425 821 234.

18 Cobdogla Irrigation Museum, SA. Open day with narrow gauge diesel-hauled train rides and heritage engines. Phone (08) 8588 2323.

19 Illawarra Light Railway Museum, NSW. 'All Fired Up', special event with four locomotives in steam with all operational units running and steam machinery at Albion Park from 1100-1700. Phone (02) 4256 4627 or www.gghome.com/ILRMS

APRIL 2006

1-2 Puffing Billy Railway, VIC. *Day Out with Thomas*, featuring *THOMAS* and *DANIELLE* in steam performing in Emerald yard and *THOMAS* hauling special steam trains to Nobelius or Clemartis and return. Also on 8 and 9 April. Bookings (03) 9754 6800.

2 Wee Georgie Wood, Tullah, TAS. 610mm gauge steam train operations, 0930-1600. Also operating on 8-9 and 16 April (Easter Sunday) – last operating day of 2005-06 season. Phone (03) 6473 2228 or 6473 1229 (AH).

15-17 Alexandra Timber Tramway & Museum, VIC. Easter Gala event with narrow gauge steam and diesel trains (1000-1545) and museum displays. Also steam-hauled trains operate on 9th and diesel on 23rd. Information: Bryan 0407 509 380 or Peter 0425 821 234.

16 Cobdogla Irrigation Museum, SA. Open day with Humphrey Pump and narrow gauge steam train rides and heritage engines. Also Open Day on 16 April with steam train and in conjunction with the National Street Rod Rally. Phone (08) 8588 2323.

22-23 National Railway Museum, SA. *150th Anniversary of Railways in South Australia* celebrations. The NRM will be the focus of the celebrations with a special VIP re-enactment train from Adelaide to Port Dock, 1067mm gauge trains hauled by 0-6-0T *PERONE* and 457mm gauge steam trains. Phone: (08) 8341 1690; web site: www.natrailmuseum.org.au

NOTE: Please send information on coming events to Bob McKillop – rfmckillop@bigpond.com - or The Editor, *Light Railways*, PO Box 674, St Ives NSW 2075.

Sun, sand, surf and a miniature railway created this idyllic Australian scene at Bronte Beach on 13 November 2005. Ray Gardiner captured the image as the locomotive 3802 casually hauled its train with a small contingent of passengers around the track.

On 29 October 2005, Richmond Vale Railway volunteer John Rodham turns the flanges of ex-BHP Bo-Bo DE centre-cab number 53 on the machine he and fellow volunteers built for the task. *Photo: Jeff Mullier*

Former Emu Bay Railway B-B DH locomotive No 1001 (Walkers 576 of 1963) pictured in Walhalla yard on the Walhalla Goldfields Railway on 6 November on its new 762mm gauge bogies. *Photo: Bill Hanks*

Lune River Railway and saw the 'For Sale' sign on the complex. She purchased the remaining 17-year lease on the railway in January 2005 and set to work restoring and upgrading the track and rolling stock to operating condition with assistance from local enthusiasts. Accreditation was achieved on the 16 December 2005, so the railway was able to reopen as scheduled the following day.

The big day commenced with a guided tour of the facilities at Lune River for invited guests, followed by a welcome address by Meg to invited guests and thanks to her hardworking staff for their contributions towards the upgrading of the track, rolling stock and the accreditation, all of which contributed to the railway re-opening. Following the welcome speech, Pastor Michael Bailey performed a 'Blessing of the Trains' before Scott Gadd, Director of the Tasmanian National Parks & Wildlife Service, officially opened the railway. Guests then boarded the train for a trip to the Deep Hole where they enjoyed a light lunch.

Among the guests were people who have a history with the railway and with the area. The Open Day was a time for the older people of the local community to meet and reminisce about the past and to pass on information to the current owner and staff of the railway. Many guests supplied Meg with historical photographs and memorabilia. Plans are underway to have these many items placed on display throughout the complex.

Promoted as Australia's last original bush railway, trains operate over the 7km line from Lune River to Ida Bay Saturday through to Thursday each week (September – August). During the summer (September to April), trains depart Lune River station at 9.30am, 11.30am, 1.30pm, 3.30pm and, during the daylight saving period, a 5.30pm service also runs. The winter timetable (May to August) schedules trains at 10.00am, 12 midday and 2.00pm. Fridays will be dedicated to track maintenance work.

The Ida Bay Railway invites expressions of interest from school groups, business groups or social groups/clubs for group and concession

Heritage & Tourist

bookings. Contact: (03) 6298 3110; Email: idabayrailway@bigpond.com. Meg Thornton, 12/05; *The Mercury*, 13 October 2005, via John Browning; ABC Online Hobart, 17 December 2005, via Barry Blair

South Australia

COBDOGLA IRRIGATION MUSEUM 610mm gauge
Cobdogla Steam Friends Inc.

To assist with traffic demands on the line that is being extended towards Loveday, the Cobdogla Steam friends have acquired a second 'Simplex' 4wDM. This is Motor Rail 9861 of 1953 4wDM Model 20/28hp, 2½ ton with Dorman engine XD57886. It arrived at the Cobdogla Museum on Friday 16 December after having been purchased by auction at Kabra near Rockhampton on 3 December 2005. The locomotive will need a reasonable amount of work to bring it up to operating condition and it is likely that a new cab will also be built, as the current one has quite a bit of rust in the cab framework.

With the railway track still being extended towards the Loveday workshop, it is intended in the short-term to run the two Simplexes in a push-pull operation to utilise the longer line without the need for the turntable to be shifted. When the line eventually does reach Loveday, it is likely that two or even three trains will be needed to operate the longer distance. Five ballast trains were run recently to distribute ballast on the track laid in June. The new loco and carriage shed is virtually completed with only the doors to be fabricated and installed.

Denis Wasley 12/05; John Browning 12/05

Western Australia

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

The inaugural train on the Bennett Brook Railway was hauled by the ex-Maylands Brick Company 4wPM locomotive on 4 December 1984 with the Minister for Planning (and future Premier), Peter Dowling at the controls. The company built this locomotive (now named *MAYLANDS*) based on the design of its 'Planet' 4wPM locomotive *YELLOW ROSE* (FC Hibberd 2055 of 1937). Both these locomotives had been overhauled for the BBR 21st Anniversary celebrations in December 2005.

A progressive dinner for 120 members and guests was held at the railway on 3 December to celebrate the occasion. All guests were first transported from Whiteman Village Junction (WVJ) to Mussel Pool for appetisers and pre-dinner drinks. A shuttle service using a consist of the railway's original small stock of four-wheeled wagons sandwiched between the ex-Maylands Brickworks petrol locomotives *MAYLANDS* and *YELLOW ROSE* was utilised. This small train had not been used in revenue service for six years.

To emphasise the progress made over 21 years, a train of nine bogie wagons/coaches hauled by ex Isis Sugar Mill 0-6-0DM *ROSALIE* (J Fowler 411019/1950) and ex Lake View and Star Mine No. 1 Planet 0-4-0DM (FC Hibberd No 2150 of 1938) was marshalled to take the guests from Mussel Pool to WVJ via the Bushland Loop for the main course. The length of this train was approximately 100 metres.

After the dinner, WALPRA patron Cr Charlie Gregorini (Mayor, City of Swan) launched David Whiteford's book *From Backyard to Bennett Brook*. This is a history of the West Australian Light Railway Preservation Association and Bennett Brook Railway (see p.23). Another trip around the Bushland Loop was interrupted by a stop at Zamia station for sweets before returning to WVJ for coffee. The evening was most successful and a fitting way to celebrate the 'coming of age' of this unique light railway.

Robert Baker, 12/05

John Fowler 0-6-2T 11885 of 1909 was a star performer at the Alexandra Timber Tramway & Museum when the LRRSA Rubicon tour group visited on 13 November 2005. *Photo Owen Gooding*

Alf Aiken photographed the maintenance train at the Red Cliffs Historical Steam Railway on 2 October 2005. The regauged track vehicle, formerly owned by ANR and numbered 25, and its four-wheel wagon are on a siding within the wye, which can be seen in the background

In August 2005, Barry Blair photographed two former PWD locomotives preserved at Wyndham, Western Australia; 0-6-0PM "Kaiser" (Ruhrthaler 161 of 1912) and 0-6-0ST "Preston" (Hudswell Clarke 379 of 1891). "Kaiser" was the subject of an article in LR 184, August 2005.

❑ *Simplex 4wDM* BARNEY BULL *(Motor Rail 9861 of 1953 4wDM) departing Kabra near Rockhampton, Queensland, on 12 December 2005 for its new home at Cobdogla in South Australia. Photo: John Browning*

❑ *It's open! Scott Gadd, Director of the Tasmanian National Parks & Wildlife Service, has cut the ribbon with assistance from Meg Thornton to officially reopen the Ida Bay Railway on 17 December 2005. Two Malcolm Moore 4wDM locomotives stand ready at Lune River station with their trains to transport guests to Ida Bay for lunch. Photo courtesy Meg Thornton*

VINTAGE BUNDABERG

Green with red trim was very much the livery of choice at Bundaberg's Millaquin and Fairymead sugar mills when an unknown cameraman recorded these images around 1950. ***Anti-clockwise from left:*** *Millaquin mill's Perry 0-6-2T (1850.46.1 of 1946) brings a load of whole-stick cane into the mill yard. Transfered to Qunaba mill in 1961, it spent many years there, finally retiring in 1978 as No.2* SKIPPER. *It is now preserved at the National Railway Museum, Port Adelaide, in the city of its birth.* ❑ *Fairymead sugar mill's diminutive Baldwin 0-4-2T number 3 (58286 of 1925) reverses through the mill yard. One of three such locos owned by Fairymead (number 1 had been built in 1889 and number 2 in 1907), it lasted in service until the mid-1950s when, sadly, it was retired and scrapped.* ❑ *Fairymead mill also had a significant amount of 3ft 6in gauge trackage, including a line 7 miles long connecting the mill with the QR's north coast railway at Meadowvale, over which cane was transported from the isolated estates at Avondale and Goodwood. By the time these shots were taken, sole motive power on the broader gauge was 4-6-0 number 5 (Avonside 1399 of 1899). Purchased in 1935, it had once been number 2* JP LONERGAN *of Tasmania's North Mt Lyell Railway. When it became surplus to requirements in the late 1950s, due to a change in mill operations, number 5 was offered for sale in good working order, but failed to attract a buyer. It was later scrapped. Photos: Graeme Belbin Collection*