





From your editor

Over the last few years our leading articles have tended to get longer, and some have been the result of years of painstaking work. We cannot hope to achieve this standard with all articles, and I believe we should be prepared to publish incomplete articles on the lesser known lines, in the hope that they will encourage other readers to submit their own contributions so that the full story may eventually be pieced together.

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Our "Letters" section is a very valuable part of the magazine, because it is here that all members have the opportunity to offer their own information, and exchange comments with others. The magazine should not only provide members with finished research work, but should act as a means of exchange of information between members.

Contributions from non-members are also welcome, but if you are in the habit of purchasing your copy of LR from shops you should consider becoming a member. Members are not obliged to participate in Society activities, though naturally we are pleased if they do, but their subscriptions all help to contribute to the high costs of setting the magazine up for printing. Every member, even the most inactive, is therefore of value to us. If bookshop sales grow at the expense of membership growth, profits will be diverted to the bookshops, and in the long run this could be financially ruinous. At present our finances are quite sound, but we would like to build up a reserve for the future.

OUR COVER

Members of five years' standing will recognize the cover drawing as being that used on issue No.18, Summer 1966. It shows a Shay locomotive hauling logs and sawn timber on the Powelltown tramway. The drawing was made by John Thompson from an old newspaper print. As originally published it was duplicated on poor quality paper, but now we can do it justice with off-set printing.

For the past five years John has been responsible for designing all our front covers, many having been based on very poor photographs which could not themselves have been satisfactorily reproduced. These covers take several hours to prepare, and due to heavy involvement in his work, John has advised with regret that he can no longer afford the time to do these intricate drawings for us.

On behalf of the Society, the Council would like to thank John for the work he has done over the past five years. His covers, on the past 20 issues of the magazine, have become a very distinctive and unique feature of "Light Railways". President

TO OUR READERS...

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", errors may creep in. Additional information is being discovered all the time, and this sometimes contradicts previous information.

If you see any errors, or can add information, please contact the Editor, and so help us to record the full history of Australia's light railways.

Articles and News, Notes & Comments items are always welcome.

Historical references to sums of money in "Light Railways" are in Australian pounds (£). One pound equalled two dollars on changeover to decimal currency in 1966.

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MEETINGS - Second Thursday every second month at 8-00pm, room 11, Victorian Railways Institute, Flinders Street Station building, Melbourne. Next meetings 9th. December 1971, 10th. February 1972, 13th. April 1972, 8th. June 1972. Visitors are welcome.

<u>BACK NUMBERS</u> of <u>Light Railways</u> - Nos.13, 14 and 15 @ 15ϕ each (or the three, posted for 50ϕ). Nos.29, 31, 32, 33, 34, 35, 36 and 37 @ 65ϕ each, <u>plus postage</u>. Postage on one copy is 7ϕ ; two copies 12ϕ ; 3 or 4 copies 18ϕ ; 5,6,7 or 8 copies 24ϕ . All other copies are out of print. Available from - Stephen Martin, LRRSA Sales Officer, 7 Talaskia Road, Upper Ferntree Gully, Vic., 3156.

<u>OTHER PUBLICATIONS</u> available from the Sales Officer, include scale drawings of the Powelltown Shay locomotive, and a Baldwin 3-ft.6-in. gauge 0-4-OST locomotive of the type used in industrial applications throughout Australia. These are 50ϕ each or 90ϕ the two, including postage in a mailing tube. <u>Narrow Gauge Review</u>, published by the Light Railway Research Club of Queensland, Nos.1, 2, and 5 @ 30ϕ each, plus postage - on one copy 7ϕ ; two or three copies 12ϕ . Narrow Gauge Review includes articles on a wide variety of Queensland's light railways, well illustrated with scale drawings and diagrams. <u>Green over Red</u>, Australia's modern railway magazine, July/August 1971 @ 30ϕ , September/October 1971 @ 40ϕ each, plus postage on one copy -12ϕ , two copies -18ϕ . Copies of the <u>Industrial Railway</u> <u>Record</u> (UK) and <u>Railway Scene</u> (Sweden) are also available as advised on members' supplements to Light Railways.





Reminiscences of a fireman

ISIS CENTRAL MILL

By - G. H. Verhoeven

The author worked as a fireman on the 2-ft. gauge sugar tramways of the Isis Central Mill during the final years of steam operation. In this series of articles he presents a very interesting account of how the tramways operated between 1959 and 1961.

Back in 1959, looking for work, I went to Isis Central Mill. I was fortunate, being interested in railways, to get a job as fireman or "pointboy" on the locomotives that season. For those not familiar with seasons in the sugar industry, there are two - the "crushing" season, and the "slack". Broadly speaking, the crushing season is in the second half of the year, when the sugar mill is working or crushing.

Diesel locomotives

At the time I worked at Isis there were seven diesel locomotives, all of which were 0-6-0's. They were as follows -

Dl	Fowle:	r	B/No.20776	of	1932	or	1934
D2	Fowle:	r	4110019	of	1950		
D3	Clyde	GM	55-66	of	1955		
D4	11	н	56-113	of	1956		
D5	н	11	58- <u>191</u>	of	1958		
D 6	П	11	59 - 204	ρŧ	1959		
D7	11	11	61-220	of	1961		

The Fowler locomotives had manual gear shifts, and both had been re-engined by the Bundaberg Foundry - No.2 in 1954 with a GM motor, and No.1 in 1955, also with a GM motor. The Clyde GM locomotives were diesel-hydraulics of a type built specially for cane haulage in Queensland. In the centre of the cab bulkhead there is a panel with light switches and dials, giving engine temperature, revolutions, and brake air pressure; and the engine starter button. A bench in front of it runs the full width of the cab. In the centre of it is the airoperated reversing lever, whilst on each side are throttle and brake levers, and a lever to work the air-operated sanding gear. This dual control makes it easier for the driver to work the engine on either side during shunting. In the centre of the cab footplate there is a column with the handbrake. Stored under the bench are kerosene lamps, a grease gun, and tins of sand and grease. A seat is provided at each side of the cab, for the driver and his mate, while along the ceiling, for the full width of the cab, runs the whistle cord.

One feature of the Clyde GM diesels was that while pulling a heavy load up a grade, the driver has to watch the gauge showing temperature of the oil in the torque converter. When this gauge came to the red mark, the load had to be reduced. Otherwise the engine would switch itself off, and it was necessary to

Photograph opposite

Isis Central Mill No.4, a 2-ft. gauge Fowler 0-6-2T locomotive, B/No. 10886 of 1905, working on the weighbridge shunt at the mill, about 1960. Photo - Gerry Verhoeven.



wait until it had cooled sufficiently before restarting. Consistently driving with the temperature near the red mark resulted in damage to the oil seals.

The throttle had to be held over to move, otherwise it would return to the base position and the engine would only idle. To overcome holding the throttle on the long monotonous run through the wallum to Goodwood, some drivers resorted to the dangerous practice of using a forked stick to keep the throttle open, by jamming this stick between the front of the cab and the throttle. Needless to say, this practice was forbidden by the management.

D7 went into service for the 1961 crushing season, and was fitted with a bar and hooks to work 3-ft.6-in. gauge stock.

Steam locomotives

In 1959 the following steam locomotives were at Isis Central Mill -

2-ft. (610 mm) gauge

No.3	0-6-0T	Fowler	B/No. 7606 ? of
4	0-6-0T	Fowler	10886 of 1905 (or B/No.10336)
5	0-6-0T	Fowler	11855 of
6	0-6-0	Fowler	13325 of 1913 ?
7	0-6-0	Hudswell Clark	1098 of 1915
8	Reserved	for the ex-QGR '	'B13'' class No.185, which never actually carried
9	0-4-2	Sharp Stewart }	4432 of 1898 (but I am not certain (number "8".
10	0-4-2	Sharp Stewart	4619 of 1900 which engine was which)

3-ft.6-in. (1067 mm) gauge

No.185, 4-6-0 Dubs B/No. 1751 of 1883 (ex QGR "B13" class)

In 1959 No.3 stood forlorn near the sugar shed. She was condemned and was taken away during the 1960 slack on a transporter, to be placed in a playground at Maryborough. No.4 did most of the weighbridge shunting. It was extremely good on this job, where frequent reversing is necessary. When needing service she was relieved by No.5.

No.6 was kept at Huxley depot as a standby. However, on the only occasion I knew when they attempted to use her, the tubes were leaking so badly that she just made enough steam to move herself.

No.7 did not work in the 1959 season, and went in 1960 to Gin Gin Mill. I was told she was a very good engine to work, being good to fire and handy on the throttle.

The B13 class was condemned in March 1961, and scrapped before the 1961 crushing season commenced.

Nos. 9 and 10 were both former Tasmanian Government Railways "G" class 0-4-2T's, which had been converted to tender locomotives at Isis Central Mill. I worked on them in the 1960 season. At that time they were being worked two shifts a day, one engine at a time, changing over each week. Towards the end of the season No.9 developed a rent in the boiler near the dome. By welding it they kept her going until the end of the season, but with the inspection of March 1961 she was also condemned, and went to the "paddock". No.10 followed a year later, having done only day work during the 1961 season, 8-00am to 5-00pm, with a one hour break at lunch time. They were loveable lumbering giants for the two-foot, the biggest engines at Isis Mill. Working the steam locomotives

After having been an offsider on a steam or diesel locomotive for 26 weeks of 40 hours, you can sit for an exam to get a Ticket, which permits you to take charge of the loco. For the diesels this is a small practical exam, - put her into motion, reverse her, and answer some questions about the engine and safe conduct of its operations. For steam locomotives you have to sit for a written exam - $l_2^{\frac{1}{2}}$ hours; and also an oral one. I was lucky in being able to get my time in at both, first the diesel, and with some scraping, enough time for the steam. It was finished by then at Isis Mill.

So after 26 weeks I asked to go on the steam. This was easy, as most chaps had an aversion to the steam engine. Personally, I cannot think of a finer job. Here at least, skill, acquired over a long time, is necessary.

I also found that somehow, drivers on steam had more "feel" about the working of their engines and the tramways in general. It is physically harder work on a steam engine too. And dirtier - but all the mills have good shower facilities, so that took care of that.

It also seemed to me that a crew on a steam engine breeds a better team spirit. At that time one diesel at Isis was notorious for its junk on the footplate, and the layer of grime and grease all over the engine. On the night shift one crew member on a diesel could go to sleep on a long haul, while the other did the driving. This was only possible because the job was "easy".

I was fortunate in being able to get a few days firing on No.5. She was rather uncomfortable to work, there being only two small coal bunkers on each side of the footplate, the overflow of coal lying on the footplate. Being tall I had to stand and fire a little stooped when we set out, tramping around in the coal. She could still haul over 30 loaded trucks on one of the steeper lines.

The coal used at Isis Mill came from Burgowan (Howard Coalfield). It came in all sizes, from big lumps to dust. We occasionally got a truckload of Blair Atholl coal, but this was exclusively for the use of the weighbridge shunter, as it burned with very little smoke. The manager's residence and office were downwind from the weighbridge, and there were frequent complaints of smoke nuisance. It was always stressed to drivers on the weighbridge shunt to try to minimize this nuisance as much as possible.

I must admit that, if we had the chance, we pinched this Blair Atholl coal for our engine, as it fired beautifully.

On the Fowler engines we built the fire up fair in the middle of the firebox, like a hill, throwing the coal on with a shaking motion of the shovel. Nos. 9 and 10 were different; here it was necessary to fire on both sides of the box, letting the coals slope down from the back of the box towards the tubeplate, and from the sides down towards the centre of the box.

Steam engines seem like living beings, responding to the treatment they get. If you feed and water and oil them properly they do their maximum best. They are also different, each one like individuals. I was not on No.5 long enough to form an opinion of her, but Nos.9 and 10 I got to know well. One fired like a charm, but was difficult with the throttle; whereas the other was quite the reverse, she was easy to handle with the throttle, but tricky to fire.

Experience is the best task master in handling locomotives. Eventually you learn to add coal to the fire, put the injectors on or shut them off again, to get the best performance. It is necessary to take notice of all the sounds and shakes, as they all have a meaning to the crew. For instance, when barking

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began to sound hollow we knew that the engine was priming, whereupon the driver shut-off, and opened the drain cocks.

ROLLING STOCK

The trucks, of which there were 1,600 at Isis Mill, were of the type common to most sugar mills. The cast steel spoked wheels were manufactured in Queensland. The axles ran in bronze bearings, and the axleboxes were greased each time the truck left the tippler at the mill, after being emptied. The axle boxes tended to get dirt in them and developed hot boxes, causing journal breakages. In recent years they have rapidly been replaced with roller bearings. At Isis Mill the trucks were not sprung, it being believed that springing would cause more trouble when the trucks had to be jacked up after the fairly frequent derailments. The axleboxes were therefore bolted directly on to the solebar. A semi-circular wooden buffer, clad with iron, was fitted to each end. The drawbar, with a link and hook at each end, ran the full length of the truck.

On the top of the solebars was a platform with four stanchions. Fastened at one end, between the stanchions, was a long chain, while at the other end there was a cast steel drum, with a ratchet and pall. The cane was loaded on the trucks transversely between the stanchions, the chain being slung over the cane and hooked on to the drum, thus holding the cane down. In collecting loaded trucks it was part of the job to check that these chains are tight, although the responsibility lies with the farmers and cutters.

On long runs the shaking tended to settle the cane and spillage could occur, sometimes the whole load slid sideways off the truck, derailing it and following trucks. The truck number was painted on one of the stanchions on each side of the truck, and also on the buffer beam. In recent years reflectorized strips have been put on the stanchions, to make the trucks more conspicuous at night on road crossings. No brakes were fitted.

At the time I was working at the mill there were still 300 "iron" trucks in use, these having been made by Fowler, of Leeds, England. They had been taken over from the CSR's Huxley Mill, when that mill closed down in 1932. They were all right when run together as a rake, but when mixed with wooden trucks I found them very troublesome, as they were bad in overbuffering. If there was any trouble in a rake, one could be sure there was an iron truck involved. As they became due for repair they were set aside.

"Jap_wagons"

There were 34 of these 3-ft.6-in. gauge wagons used for internal transport of bagged sugar in the mill area. I have been told they came from Bingera Mill, where they were used in the transport of sugar mainly destined for Japan, hence the name. They were unsprung, the solebars were extended and clad in iron to form dumb buffers, and couplings consisted of a hook and four links. These wagons were used when the sugar-shed proper got full, to carry sugar to a shed near the loco shed, or to a shed along the Adies line for storage until it was carried away in QGR trucks.

<u>Photographs opposite</u>, <u>Top</u> - Sharp, Stewart 2-ft. gauge 0-4-2 loco, B/No.4432 of 1898, as finally rebuilt by the Isis Central Mill. Photograph - G. H. Verhoeven. <u>Bottom</u> - Prior to rebuilding the locomotive looked like this. Photographed at the mill in October 1944, by John Buckland. No.9 on the roster was similarly rebuilt, and they were both former Tasmanian Government Railways "G" class.

8.



THE 1959 CRUSHING SEASON

The loco crews started the day before the mill started, to take empty trucks to the fields, and later in the day, to bring back fully laden trucks to the mill, so that a supply could be built up for the mill to start its crushing of the cane. My driver was Les Dittman, one of the mill's older drivers.

During the 1959 slack an eight-mile extension had been built from a place called Cavan O'Neil's on the line to Goodwood. All places on sugar tramways, like loops, sidings and junctions, are named after localities or the local farmer.

The new extension was only going to be served in the day shift (8-00am to 4-00pm). It went through "Wallum" country, and being absolutely featureless for the whole eight miles it had mile and half-mile posts, so the crews would know where they were at any time.

A new diesel loco had been purchased to work this extension, but had not as yet arrived. So D5, a Clyde-GM 0-6-0, took its place until D6's arrival. So on that day we set out to "learn the road" with D5 and the three crews of the future D6. The cab was full of men, and a few were riding on the running board.

We went to the empty yard and hooked onto a rake of empty trucks. We counted off 80 empties, and how easily they can be miscounted, being all alike. At the same time it was ensured that all couplings were fastened, and that the chains were coiled properly around the stanchions so that they would not drag along and get caught in a point frog. The last truck was marked by putting an old bag over the stanchion, or tying a kerosene lamp to it at night.

Working at Goodwood

Coming into Goodwood from the mill there was an empty and a full line, each holding over 80 trucks, with a single crossover in the middle. At the end of the empty and full lines they converged, and then divided again to form a triangle for turning purposes (see sketch p.12). One end of the triangle's base divided to form an empty and full dead-end siding for the farmers. The other end of the base connected to a light tranway which ran for some miles to the Peirson Estate. On this tranway an old blitzwagon, which straddled the track, hauled trucks along.

The cane from Peirson's Estate used to go to Fairymead Mill, (near Bundaberg) by Government railway, but after the redistribution of the cane lands in the 1950's, this cane was assigned to Isis Mill.

With expansion of the sugar industry, blocks had been thrown open for development at Goodwood. Thus, with this new tramway connection, all the cane from Goodwood and Peirson's Estate could be carried on the mill's own tramway, instead of having to be carried over the QGR.

The track layout at Goodwood was very efficient for shunting purposes. Trucks could be placed and lifted with a minimum of movements. This shunting went as follows. On arrival of the tram in the empty line, the fireman jumped off before the crossover, and counted from the engine the number of trucks required for the farmers, waved the engine to a stop, uncoupled the rear portion of the empty rake and waved the front lot forward where it stopped past the crossover. The engine uncoupled, and ran around the front lot via the crossover. It pushed these into the farmers' empty line, and then went light engine via the base of the triangle, and picked up the fulls from Peirson's Estate. These it pulled into the bottom part of the full siding, the engine now facing the right direction for return. It then pushed the rear lot of empties into the line leading to Peirson's Estate, where the blitzwagon would be waiting. The engine then went to the farmer's full siding, and picked up the fulls there. It returned to the top part of the full siding, uncoupled, and by using the crossover, ran around the first



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lot of fulls, which had already been placed there. It pushed these back to couple with the second lot, and after greasing the engine, hauled the load back to the mill.

Both the farmers and the Estate delivered about 40 fulls each. About 80 were hauled to a spot near the $4\frac{1}{2}$ -mile post, where a steep pinch was encountered and half the rake was left behind. The front section was worked forward to Cavan O'Neil's, where it was handed over to another locomotive.

The engine would then return to pick up the second section left at the $4\frac{1}{2}$ -mile post, and the crew would have lunch at Cavan O'Neil's before carrying on to the mill.

Arrival of D6

12.

On the 15th. July 1959 locomotive No.D6 came into use. It had arrived a few days earlier by rail, and was unloaded from the bogie flat wagon by the overhead travelling crane in the engineer's shop at the mill.

Les and I were on the afternoon shift (4-00pm to midnight) and as each shift came on, they received a pep-talk from the Traffic Officer and Chief Engineer on how to handle the new engine. For the first fortnight of the 1959 crushing, the steam locomotives No.5 (Fowler 0-6-0T) and Nos.9 and 10 (0-4-2 Sharp Stewart) were worked by crews intended for the new D6. However as soon as D6 came into use, No.5 was used with No.4 (Fowler 0-6-0T) changing week by week on the weighbridge shunt. Nos.9 and 10 were taking turns week by week, with a day and afternoon shift throughout the season, the fire being banked down for the nightshift. We started with D6 on the afternoon shift. The fireman went to the traffic office before the shift commenced to get the loco book. In this book the Traffic Officer sets out what the locomotive was to do during the shift. The traffic office and Cane Inspector's office were both in the same building. The Cane Inspector advised the traffic office the number of trucks each farmer was to receive, and what was expected in tonnage from them. The traffic office planned the runs for each loco from this information.

An entry for a shift would go as follows - farmer Johnson 6 trucks, farmer Dickson 8 trucks,...etc., total (say) 45 trucks to be delivered. Return to Cordalba Hill and lift farmer Jackson, Morello,...etc. Thence return to David's and lift cane ex D4 for the mill. Empties to Huxley, lift from Formosa for the mill.

After checking the locomotive and the lamps, we went to the empty yard and hooked onto 45 trucks, and after getting a "line clear" from the weighbridge, we went to Cordalba Hill. The line between the mill and Cordalba Hill was dual gauge, 3-ft.6-in. and 2-ft. In fact the line was dual guage all the way to Cordalba station yard. The clerk on the weighbridge was required to watch the traffic on this line, and was in contact with telephone boxes at the exit of the empty yard, and at the yard at Cordalba Hill.

Up to the 1950's this line was the only entrance and exit for all the mill's rail traffic. In the early 1950's a deviation was built, leading direct into the full yard, which was called Roma Street. More about this later.

Cordalba Hill

Having got the "line clear" we were on our way. The fireman was required to see that the train did not divide, set the points, do the shunting, and collect the truck tickets. On arrival at Cordalba Hill the fireman telephoned the weighbridge at the mill, to advise that the train had arrived. Cordalba Hill had one 3-ft.6-in. gauge only loop line, and three 2-ft.gauge only loops, as well as a siding for the Hapsburg Estate. It was also the junction with the "old main line". Here there was a triangle for turning purposes.



The line then went through a deep cutting down to Cordalba station. This stretch was a fair climb, and an average load was about 40 trucks. But before the cutting was made, the line used to follow the contour of the countryside, the climb then being much steeper. Just recently I met a long since retired driver, who told me that during the first world war they tried an old Belmont tramway steam motor on

this section, which was flat out getting two or three loaded four-wheel QGR trucks up to Cordalba Hill. They then settled for a QGR B13 class 4-6-0, which could pull ten trucks. Incidentally this cane came from the QGR Booyal and Pialba lines. This working lasted until the redistribution of the canelands in the 1950's.

Before proceeding to Cordalba it was necessary to look down the line to



Mechanical mule used from weighbridge (B) to carrier in 1961 season. Capstan used prior to this.

For reproduction, please contact the Society

ensure that the Bl3 was not coming. If a loaded tram was coming towards you, it was necessary to stop in the loop. Looking for other traffic was a feature of the tram running in the days when there was no two-way radio. Drivers knew before they started their shift what the others were going to do, and made arrangements where to cross. However, delays easily threw this out of gear, especially near the mill where the lines, and thus the traffic, converged. Later in the season radio was



installed in the diesel locomotives; but the steam locomotives, being on the way out, were not fitted.

Beyond the cutting Brandt's line diverged to the left, and a little further on was Johnson's Points. Both sets of points were worked by ball lever, because the points had to always be normally set for the dual gauge, in order to avoid derailing 3-ft.6-in. gauge rolling stock.

The dual gauge track entered Cordalba QGR yard, but the 2-ft. Cordalba line continued and crossed the QGR just down from the station, the catchpoints and signals being worked by the station staff from a frame on the platform.

Johnson's Points

D6's job this day was to take Johnson's Points. With a long rake of empties you have to keep moving, so the fireman had to jump off quickly and run for the points to set them. In setting them, you had to ensure that the blade had closed properly, as there were always sticks of cane around, which could get caught in the blades.

From Johnson's Points the line curved right over a high embankment, made from the soil out of the cutting previously mentioned. The line then crossed the main road to Bundaberg, and the Cordalba to Childers railway line. This railway crossing was guarded by stop signals on the 3-ft.6-in. gauge line, and revolving discs and catchpoints at either side of the crossing on the 2-ft. gauge. It was all worked by one big lever, which had to be held down for the tram crossing. We had a length of rail lying there, much to the disgust of the railway ganger, which we leaned on the lever to keep it down if two trams were following



"D1", 2-ft. gauge Fowler diesel locomotive at the Isis Central Mill loco shed. 8th. September 1968. Photo - J. Armstrong.

one another, or if we were returning promptly. This was a bit dicey, as the rail could easily slip off - iron on iron - and open the catchpoints as the tram went past.

After the railway crossing the tramway parallelled the railway, and opposite Kowbi station was a loop for the Hapsburg Estate. On the afternoon shift D6 generally had to set down empties here for the next day's cutting on the estate.

Kowbi used to be called Hapsburg too, but during the first world war German names were not in favour, hence it was changed to Kowbi. Hapsburg Estate, a large undertaking, used to send their cane via the QGR to Fairymead Mill, but this cane had since been reassigned to Isis Mill. The Estate stretched on both sides of the railway, as far as the top of Cordalba Hill, and to the site of the old Knockroe Mill.

The internal transport of the estate was done on little four-wheel tramway trucks, similar to cane trucks, but they were sprung and had brakes, as they were hauled by horses. When these trucks had to cross the QGR line in the Kowbi railway yard, they put portable track over the railway line and placed a huge red disc on either side of it. This crossing was still in use every season, but the cane loading derrick in the Kowbi railway yard was out of use, and the sprung trucks were standing rusting away in high grass. There were also two giant steam ploughing engines, but they were cut up for scrap later in 1959.

The line continued until it came to the old main line at Sharman's, where there was a triangle. From Johnson's Points to Sharman's the line was fairly level, and more good hauls were made here. Over 100 could be lifted from Hapsburg to Johnson's Points, where the rake was broken up into sections of not more than about 40 each, to go up to the yard at Cordalba Hill. After delivering empties to Johnson's, Hapsburg and Sharman, D6 continued light engine a bit further up the main line. There was a steep pinch here, just after the triangle at Sharman's, at the summit of which was David's siding. Here there was a junction, a line going to the right towards Kelly's and beyond; and the other line going straight ahead to the site of the old Knockroe Mill, the remains of which could be seen from the right-hand side of the engine. A rake of loaded trucks had been placed on this line by D4, and D6 now collected this rake, and all the Hapsburg cane, and hauled it to Johnson's. It then hauled the load in batches of 40 to Cordalba Hill, taking the last lot right into the mill.

On one run up to Cordalba Hill, with 43 trucks, the coupling broke between the first truck and the engine. It felt as if the engine lifted six inches in the air. Luckily the last truck had just cleared Johnson's Points. I jumped off and grabbed some sprags, and started to put them in the wheels, but the couplings were all tight, and they soon started rolling down. After three sprags I was no longer in the race, however it steadied the rake as it rolled into the dip towards Cordalba station. We followed it, and buffered on to it very gently. We then had to shunt the first truck to the back, and couple it up with a chain we had for that purpose.

Another time at Cordalba Hill I sat on a point lever to let a rake into the loop. Halfway along the rake there were a few trucks with extremely long cane, and try as I might to hold the lever down, I was relentlessly swept aside by the slow-moving cane. I was trying frantically to attract the driver's attention with the lamp in my other hand. But I could not stand up while trying to hold that lever down with out-stretched hand. When I let go about four trucks went various ways before I could stop the rake. In this case we rang the mill for the navvies to come out and help us to put things right.

After the 8-00pm meal break

After the 8-00pm meal break at the mill, D6 carted out empties via Cordalba Hill, but this time went via the "old main line", through the junction with the deviation, and over the Eruce Highway. These highway crossings are a bit of a risk, especially if the visibility is hampered by high cane on either side of the line. An engine with a long rake, unable to stop quickly, can suddenly emerge out of the cane. Once when coming onto a level crossing cab first, a huge molasses tanker cleared his back wheels just inches from our buffer beam. Another time a car managed to pull up after violently swerving alongside the tramline.

After crossing the highway we had to increase speed to make the grade at La Rocca's. This was an extremely steep pinch, the grade however favours the load, but it needed some skill to negotiate going down. The tramway then followed higher country, although it was still undulating. There were plenty of sidings, loops, and branches. After passing Foreman's Points on the line to Huxley, we were in an area where cane formerly went to the old Huxley Mill, and most of the points face that way. On this shift, D6 took empties as far as Lynwood Siding, and then took fulls out of Formosa. The full trucks here had been placed by D1 (Fowler O-6-O diesel-mechanical) or D3 (Clyde-GM O-6-O diesel-hydraulic) which were both attached to the Huxley depot, and only worked this far towards Isis Mill. That is, if they were not running late. If they did run late, D6 might be required to run as far as Huxley with the empties and pull fulls from there to the mill. Tonight everything was alright, and we hauled from Formosa.

Going into the loop at Formosa we sanded the line lightly. After coupling up I went to the back of the rake carrying a lamp on a stake, and pushed this into the cane on the last wagon.

Walking back to the engine I looked over the rake. Frequently we had to decouple the trucks, to tighten the chains, as the cane had already travelled a

17.

long way. It tended to settle, making the chains loose. I collected the tickets which went with the rake from a box near the points, these tickets being in the same order as the trucks in the rake.

Formosa loop lies in a curve and a dip, and the engine had to work hard to get the rakes out. As we moved along I had to look back to see that all the rake was following, by observing the tail light on the stake in the last truck.

Over the summit at La Rocca's we slowed down to let the rake buffer up, you can feel this on the engine. At the bottom we had to keep moving to allow for the momentum of the rake, and so we crossed the highway at good speed. My driver had the habit, when coming to a busy road crossing, of switching the headlights on and off a few times, in addition to using the whistle.

Coming to the deviation points, I had to run ahead to set the points, as we were still travelling fairly fast. From here the line was downhill, and we braked all the way coming into the full yard. After looking out to see which of seven lines in the full yard were empty, I raced ahead to set the points. After coming to a stop in the yard, a sprag was put in the first truck and the engine was uncoupled. It then went to the locoshed, whilst I took the truck tickets to the weighbridge, and advised in which line the rake was standing. Before finishing the shift we fueled the engine, filled the sandboxes, and greased her. She was then ready for the night shift.

The night shift on D6 worked somewhat similarly to the afternoon - bringing in cane collected by D4; lifting from some farmers, like Sharman; bringing it to the mill; and then getting Huxley cane.

The David's to Foreman's Line

18.

Another line worth mentioning is that part which ran between David's and Foreman's. Before the 1950's all cane from North Isis came this way to the mill. There was a heavy down grade at David's, and we had to sand the rails coming down with a rake. At the bottom (Sharman's) there was a triangle, one leg of which went to Johnsons. The other leg crossed the QGR line, and after the catch points it climbed steeply up to Foreman's Points. Breakaways were frequent in the early days, and after the QGR had been blocked a few times by big heaps of cane, and trucks derailed at the catchpoints, a point was put in at the bottom of the hill with a line leading into a field. Any run-away would then be turned into the fields. This point had to be held over for the passage of trams. The crossing catchpoint levers were on the other side of the crossing. It can be imagined what running around the fireman had to do at this spot to enable a tram to pass. To avoid starting the train on a grade. At David's and Foreman's there were phone boxes to call the mill, in the days before radio.



There was a gadget in use for loaded rakes, called a Bloody Mary. It looked like a triangle made from three pieces of rail. In the centre of the base was a hole, so that you could hang this piece of equipment on the hook of the last truck. It dragged along the ground in between the track. If a rake broke apart, as it started to roll back this triangle was supposed to dig in the ground and sleepers, thus preventing the rake from rolling back further to destruction.

The drill for the fireman on approaching the crossing was to run ahead to the three-lever frame. If the QGR line looked clear the lever which unlocked the main-line signal-lever was pulled, and after the main line signals were at danger, the lever to close the catchpoints and turn the tramway disc signals could be pulled.

The tram then went across, and the fireman could reset the levers when the last truck was clear of the catchpoints. By this time the engine was already at the foot of the hill and it was wise to keep it going. In case it stalled and ran back a little, the point had to be kept closed. So, as the engine was slowly pulling, the driver jumped off and put a suitable piece of wood under the point lever to prevent the points opening.

After resetting the crossing levers, the fireman ran to these points, picked up the Bloody Mary and lugged it to the back of the slowly moving rake and hooked it on. As soon as the points were cleared he lowered the gadget onto the track, kicked the block of wood away from the point lever, and jumped on the back of the rake. Coming to the top of Foreman's, the tram stopped and the fireman undid the gadget and left it at the phone box, for the next empties tram to take back to the bottom of the hill.

Adies line

This line left the mill area between "Roma Street" and the highway, and served the canelands along the highway towards Gin Gin. It was one of the oldest lines on the system, and climbed steeply away from the mill.

Returning to the mill along this line we had to sprag a few trucks next to the engine, and then every 18th. truck, to have additional braking power.

Most of the Adies line was laid in 32-lb. rail, but towards the end there was a section in $4l_2^1$ -lb. rail. There was also a branch still laid in 25-lb. rail. I rode on this once on No.10, to pick up a few fulls, and felt the engine rolling, going very slowly of course.

There were only three short loops on the Adies line, hence D2 (Fowler O-6-ODM), which generally worked this line, had to push all her empties in front. The farmers left the loaded trucks on the running line, and they had to be pushed ahead to one of the loops when delivering empties. I once had a harrowing experience doing this. About ten of these trucks stood on the line, heavily loaded with overhanging and tangled cane, the couplings being almost impossible to get at.

It is the farmer's job to couple up the trucks in a rake. So I coupled what I thought to be the lot onto the engine, and sat on top of the cane on the leading truck, while the locomotive started pushing. I had to signal the driver when we encountered the next rake. When looking back going down a grade I found my truck and several others disconnected from the engine and making speed. My driver was frantically waving to "abandon ship", but this was not easy. I managed to slide off the cane on the side, and landed with a mighty leap in the paddock. The trucks thundered past and a couple of hundred yards further on, smacked into another lot standing on the line. I think about 16 trucks were off the line another job for the navvies.

Top and Bottom Settlements

D4 was used on the run to the Top and Bottom Settlements, which were in an area consisting of blocks of land opened up for soldier settlers. In order to ease the congestion of empty trucks at the mill, D4 came into the mill when the other engines were out. It then took about 80 to 100 empties out to Kowbi, where the crews changed shifts. The empties were delivered past David's on the line to Cullen's, and along the Kelly's line, and branches, as far as the Top and Bottom Settlements.

Not being under such close supervision, this engine and its crews seemed to me to be a bit of a "hairy lot". They were all young blokes, the only ones who had cars and motor bikes to get to the job, at Kowbi, in those days. They very seldom checked anything, and all the shunting was done in a hurry in order to save time and to get away early, or have a "snooze" on the job at night time. One day I followed the marks of a derailed truck all the way from the empty yard of the Mill to Cordalba Hill, where by some miracle it had climbed back on the track at the points. This was just after D4 had gone out.

(To be continued)



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News, Notes & Comments

QUEENSLAND

AUSTRALIAN NARROW-GAUGE RAILWAY MUSEUM SOCIETY (See LR 34, p.16)

As well as 12 acres of land which the Society has on lease at Ernest Junction, three miles west of Southport, on Queensland's Gold Coast, we are arranging to lease a few miles of the old QGR South Coast Railway where we intend to lay a 2-ft. gauge tramway to operate some of the locos.

So far we have three locos, they being -

1. Krauss B/No.6854 of 1914. O-6-2T. Formerly from the 2-ft.6-in. gauge Buderim tramway, converted to 2-ft. gauge for use at Bingera Mill. This locomotive is owned by our member Mike Loveday of Mareeba, who is lending it to the Society.

2. 2-ft. gauge Fordson petrol loco from the Caledonia Colliery. This was donated by another of our members, Gordon Yarrow.

3. A mill at Mackay has also given us a steam locomotive on the proviso that we remove it before Christmas.

4. We also have two 2-ft. gauge pumper trolleys ex the Luggage Point sewerage tramway in Brisbane.

The Society's annual membership fee is \$5-00, and a joining fee of \$1-00 is applicable to all new members. The Society's address is P.O.Box 270, North Quay, Qld. 4000. (David Mewes, Secretary, ANGRMS)

QUNABA SUGAR MILL, Bundaberg 2-ft. gauge.

A new loco shed has been constructed. It can accommodate four locomotives in two roads, compared with only two locomotives previously. The new shed has three drop pits for locomotive maintenance.

Locomotive No.2, "Invicta" Fowler B/No. 11277 of 1907, an 0-6-2T, has been fitted with new tyres, new pistons, and new brass bearings for the 1971 season. No.20, Perry 0-6-2T B/No.7967 of 1950 (ex Fairymead Mill) has been fitted with new brass bearings and is completely retubed. No.21 Perry 0-6-2T B/No.6160 of 1948 (also ex Fairymead) has been completely retubed. (ANGRMS "Stack Talk")

BINGERA SUGAR MILL, near Bundaberg 2-ft. gauge.

"Ralf", Bundaberg Fowler 0-6-2T was the only serviceable steam loco at this mill in June, 1971. "Kolan", also Bundaberg Fowler 0-6-2T, has been transferred to Gin Gin Mill, Wallaville, where it was being used daily since the commencement of crushing. (ANGRMS "Stack Talk")

Photograph opposite

In earlier years this Andrew Barclay 0-4-2T could be found on the Isis tramways. It was No.1 on the roster, and is shown at the mill in October 1944.

Photograph - John Buckland.



"Kolan", Bundaberg Fowler 0-6-2T B/No.7 of 1952, at Bingera Mill in July 1971. This locomotive has since been transferred to Gin Gin Mill. Photo - F. Stamford.

TASMANIA

TIMBER TRAMWAYS IN THE MAYDENA/KALLISTA AREA

Since moving over here I have come across a few interesting items. The most interesting is a wooden tramway put down in 1933 to a stand of sassafras in the Styx River valley near Gold Creek. Apparently the Pioneer Woodware Company, of New Norfolk, started production in 1927 of pegs made from sassafras. Consequently when this very good stand of sassafras was found in the Styx valley, the company put in a tramway to the stand from Kallista. Construction of the tramway started in 1933 and the tramway was wooden railed throughout, the rails being large **b**eams or logs, the gauge being 3-ft.6-in. According to one of the chaps who helped on its construction there were two tractors used to bring the sassafras into Kallista.

Recently I had to go into this area to do some assessment work and we had to reach a survey line put in for the proposed HEC transmission line, so we followed the tramway down to our destination, and found a branch running off it for a little way. The tramway is still in quite good condition, and is built up off the ground on logs for most of the way, and includes quite a few fair size bridges.

There was also a big sawmill owned by Gooley's (not sure of spelling) at Fitzgerald, and they had a wooden railed tramway out to what we know as John

23.

Bull, which is more or less towards Mount Mawson from Fitzgerald. From what I have heard only horses worked on this line.

I have been told that before the TGR extended the railway from Fitzgerald to Kallista (in 1936 - Ed.) there was a tramway, operated by Holmes and the Kallista Sawmilling Company, between these two places. Apparently the Kallista Sawmilling Company had a mill at Kallista, and Holmes had two mills, one to the north of Kallista, and one at Maydena. After a disagreement each one had their own line, so there were two tramways running parallel to each other all the way to Fitzgerald. Horses were used on both, but later one of the two companies used a tractor. (Wayne Chynoweth)

TRACTION ENGINE LOCOMOTIVES IN NORTH-WEST TASMANIA (See LR No.35, p.15)

I report on the result of a search my family and I undertook for two traction engine locomotives. We eventually found the site, but could only find one of the locomotives, however we were not well provided with slashing gear so it may be in some blackberries somewhere.

Just what locomotive we found I am not sure, but from the illustration in Light Railways No.35, p.15, it would appear to be that one. However it was well stripped, with no brass of any sort on it; the valve chest had been opened, the crankshaft had been removed, and numerous bits and pieces were lying around. As an aid to identification the plate running across the boiler through which the connecting and valve rods pass at the crankshaft end of the boiler was curved at the edges towards the rear (i.e. \int). (This plate can be seen in the photo against the edge of the flywheel.)

The smokebox is almost completely rusted away, the smokestack being little better, the drum across the front is rusted through, there appears to be no bogies and the canopy is gone. The timber frame is burnt through to the back of the smokebox.

I did not have LR with me and thus was not able to identify the loco (which now appears to be the Marshall). I had originally assumed that the loco we found was the Buffalo Pitts, and that some scrap lying near the road (which incidentally included a pair of Marshall front wheels) may have been the remains of the more obvious Marshall, although the scrap did not appear to be loco parts. What lead to this assumption was that the ground commenced to rise moderately fast (and certainly too fast for a rail track) very close behind the remains we found, and there just did not appear to be room for another loco. I can only assume that there is a track up the rise which we did not find.

A few points of interest -

- Certain parts of the remains appear to have been attacked only a few weeks before we got there as the exposed oil and grease did not appear weathered.
- 2. The frame included some grooved steel tramway rail.
- 3. The boiler, at least in the front, was held to the frame by heavy chain. This can just be seen in the photo at the rear of the smokebox, immediately below the front stanchion of the canopy.

(C. A. Bevan)

TULLAH TRAMWAY, 2-ft. gauge

A visit in April 1971 revealed that there were still a few sections of track in situ near the old mine at Tullah, as was some of the track leading to the currently operating mine. The two locomotives, Krauss No.9 and Fowler "Wee Georgie Wood" were locked away securely in their shed. There were no items of rolling stock intact, the most complete being the frame of a bogie vehicle on ex Zeehan & North East Dundas bogies. Numerous pairs of wheels and bogies were lying around, as well as one pair of loco drivers, a diamond stack, and the frame and cylinders of an 0-4-0 loco. I expect that before long most of these small items will be carted away as scrap. (Frank Stamford)

WARATAH

Emu Bay Railway Company, 3-ft.6-in. gauge.

Although the Waratah branch was closed in 1939, a large two span steel bridge parallel to the main road in Waratah township, remains intact, only the decking and side handrails having suffered.



Our illustration, from Winter's Studio, Burnie, shows the bridge when in use, with EBR No.3, a Neilson O-6-4T, B/No.3765 of 1888 shunting on the bridge, which was located just outside the station yard. Although it has been said that the Guildford - Waratah road was built on the railway formation, this is not correct, as the road is far too steep and sharply curved to have been a railway. The railway formation can however, be seen in various places parallelling the road.

WARATAH

Mount Bischoff Tin Mining Company, 3-ft. gauge.

The formation of this Company's electrified tramway, from the abandoned treatment works in Waratah township to the huge open-cut workings about l_2^1 -miles away, can still be clearly traced. At Waratah the loco shed still stands, being used as a garage by a local trucking company. Above the doors the slot for the overhead wire can still be seen. Also at Waratah township on the other side of the valley, is a derelict single-track incline tramway running from another abandoned treatment works near the bottom of the valley. This incline, which was quite short and very lightly constructed, was used to haul tin concentrates up to road level where a transfer was made to road vehicles.



At the Mount Bischoff open-cut workings, which have been abandoned for about forty years, it is still possible to find many of the old four-wheel wagons in an advanced state of decay. There are also a few rails still in location. This may change, as bulldozers have been at work, preparatory to the recommencement of mining operations. (Frank Stamford)

VICTORIA

GEELONG STEAM PRESERVATION SOCIETY

The Society has taken delivery of another locomotive, an 0-4-2T, Perry B/No.271 of 1927; which was donated by the Pioneer Sugar Mill, Ayr, Queensland. It was named "Klondyke" by the Pioneer company, and originally worked for the SR&WSC on the Hume Weir construction. Further details of its history can be found in LR No.23, p.17 and p.19.

Cab fittings have been replaced in Vulcan 0-6-OST No.4, and much mechanical work has been undertaken. The Society has an EBR "C" type goods truck (ex North Mount Lyell Railway) awaiting transport from Burnie, and has paid for SAR "T" class 4-8-0 No.251. A group of members is purchasing QGR railmotor No. 70, which should be on the site in the next few months.

(Belmont Common Railway Magazine, and David Beck)

A number of locomotives and passenger vehicles have been stored for the GSPS by various interstate railway systems, but unless payment is made for these before the end of the year, or shortly after, they will probably be sold for scrap. The equipment currently being held (in addition to the items mentioned above) include an additional SAR "T" class 4-8-0, a QGR "PBL5" class 4-6-0, four SAR passenger cars, a WAGR "DD" class 4-6-4T, a TGR "M" class 4-6-2, and two TGR passenger cars. For this equipment about \$13,000 is required, and LRRSA Coleman, President GSPS, 5 Highgate Grove, Ashburton, Vic., 3147.

members interested in making donations, or loans, should write to Mr. M. W.

MOONDARRA TRAMWAY

Ray Jude advises that since the item in LR No.35, p.25 on the above tramway was written, the route of the tramway has been bulldozed for at least some of its length. The full extent of the damage is not yet known, but much of the remains have been destroyed.

Illustrated at left is the remains of the single-log bridge which carried the Moondarra tramway over the Tyers River. Photographed by Ray Jude on 28th. June 1970.

STATE ELECTRICITY COMMISSION,

Royston Tramway, 2-ft.gauge.

A rough road has been made to the top of the SEC's haulage at Rubicon. This has resulted in much less use being made of the incline. However it has been retained, as in times of inclement weather, particularly snow, the incline provides the only means of access to the Royston power station.

The eight-wheel battery-electric railcar used on the raceline tramway has recently re-entered service after lengthy overhaul. It is now painted orange. (Frank Stamford)

LETTERS

NORTH MOUNT LYELL RAILWAY Re LR No.35, p.20, the body of the bogie hopper wagon is from the Mount Lyell Railway 2-ft. gauge section, and has no real connection with the North Mount Lyell. It was dumped there about three years ago.

Perth, Tasmania

Jack Shennan



RAILWAYS IN THE FAR SOUTH (LR No. 35, p. 14)

The Leprena Sawmill Tramway (4-ft. $8\frac{1}{2}$ -in. gauge)

I would like to add a few notes to the paragraph in the Autumn 1971 issue, about the old timber and colliery railways in the far south of Tasmania.

The formation of the line which crosses the road at 6.9 miles from Lune River, must be from the old Leprena sawmill. I visited the mill site in January 1950, and at that time there were several items of interest.

There was a home-made locomotive, consisting of a heavy timber chassis or frame on bogies. The boiler was of the loco type, possibly from a traction engine or portable. The engine unit was a two-cylinder steam winch with horizontal cylinders, right at the front end of the frame. It was standing on rails which were intact, at least as far as the road crossing.

Around the mill area, there was still a lot of machinery, including a very large diameter flywheel, which was still sitting in its bearings. My brother visited the site in 1955 by fishing boat. He noticed that a bush fire had been through and the wooden frame of the loco had been burnt through, and the whole lot had collapsed onto its side.

He also visited there about three years ago, and said that there then was no sign of any machinery at all on the site. Several years ago the road into the area was up-graded (bridges strengthened etc) thereby allowing the scrap merchants to get in.

During the same visit he rowed right up into the narrows of the Leprena River, and noticed the remains of a causeway across the creek, and the formation of a tranway running east from there.

He walked along the old formation for quite a distance, and saw alongside of it what he said to be the steel frame of a loco.

Cornelian Bay, Tasmania.

A. N. Hall

TREWHELLA BROS. TIMBER TRAMWAY, Trentham, Vic.

Some weeks ago I was visiting my old home district of Korweinguboora, near Daylesford, and by chance came across a brake shoe which had once been used on the horse tramway run by Trewhella Bros. of Trentham. I originally found this brake shoe on the route of the line in 1920, and carried it home. It has since been used by my brother as a small anvil.

The tranway ran from Trewhella Bros. sawmill at "old" Newbury, for about two miles in a southerly direction, then turned east for about three miles towards the settlement of North Blackwood. The "old" Newbury town does not exist now, although when the sawmill was there and mining was in full swing it boasted a theatre and three hotels. Some 30 years ago the Newbury post office was shifted



from "old" Newbury to Garlick's Lead, and the latter town then took the name Newbury. The Trewhella Bros. sawmill at "old" Newbury was closed before the turn of the century.

St.Leonards, Victoria

A. A. Gunsser

ROTTNEST ISLAND TRAMWAY

I am interested in the formation of your society, and was wondering if you knew about the Rottnest Island tramway, which was built on that island off the coast of Fremantle, Western Australia, to facilitate in the haulage of materials when the 9.2-in. coastal guns were installed there. I can not tell you the authority which built it, but when I saw it in 1944 it was 3-ft. 6-in. gauge, running from the wharf across the island, to the 9.2-in. fort, with a branch to Kingston Barracks.

The motive power was called "The Crab", it was a four-wheeled thing with a tractor engine, mounted crossways, and the driver sat out the side. There was also a four-wheeled trolley, which had a one-cylinder stationary engine as power; whilst a couple of flat top trucks made up the goods vehicles, although there were a lot of WAGR bogies, which I presume were used to support loads. The big gun barrels alone weighed 27 tons.

Some time in the 1920's I first visited the island, and remember a narrow-gauge horse-drawn tramway, which ran from the wharf to the settlement.

Junee, New South Wales

Frank G. Blackwell

STILL AVAILABLE

from the Sales Department,

"600" The Pacific locomotives of the South Australian Railways - \$2-25 incl. postage.

"<u>Proceed to Peterborough</u>", a farewell to South Australia's 3-ft.6-in. gauge main lines - \$2-49 incl. postage.

"Rails to the Burra" a well illustrated short history of

the SAR railway to the Burra copper mines, - \$2-14 incl. postage.

"The Mile End Railway Museum" - \$1-20 incl. postage.

The above publications are some of the best railway books produced in Australia, and would make ideal Christmas gifts. Write to - Stephen Martin, LRRSA Sales Officer, 7 Talaskia Road, Upper Ferntree Gully, Vic., 3156.



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From your editor

From time to time contributors inquire as to what constitutes a "light railway" for the purpose of items for publication in this magazine. "Light Railways" editorial policy in recent years has been to steer clear of the light lines of the various state government railways, in the belief that this type of material is more suited to some of the other Australian railway journals. For the same reason we have avoided publishing material on metropolitan tramways.

With very few exceptions - notably Western Australia's iron ore railways - we will accept contributions on any privately owned Australian railways, and also on all lines operated by government authorities other than the railways departments. Hence articles dealing with railways of Public Works Departments, electricity authorities, water supply authorities etc., are always welcome.

Also acceptable are articles on the narrow gauge lines of the state railways, 2-ft. gauge in Queensland and Tasmania, and 2-ft.6-in. gauge in Victoria. These are, after all, classic examples of light railways.

Railways of Papua New Guinea, Christmas Island, Ocean Island, and the Republic of Nauru also come within our scope, although reliable information on them is hard to come by.

Having given this broad outline of policy I look forward to receiving large batches of letters pointing out inconsistencies. For example, according to our editorial policy the Silverton Tramway is a light railway, but the Croydon - Normanton line is not; and the Koondrook tramway was a light railway up to 1952, when, on being taken over by the VR, it miraculously ceased to be light. These anomalies can be justified when it is remembered that researching the history of a privately owned line requires a quite special technique, due to lack of official records.

OUR COVER

Graeme Evans has volunteered to draw our front covers in future, to the great joy of the Council. His first cover, on this issue, shows "Tom Cue", a Hudswell-Clarke 3-ft.6-in. gauge 0-6-OST (B/No.378 of 1891) at Forrest, Victoria in the 1920's. This locomotive originally worked on the construction of the Midland Railway in Western Australia, then on the Mullewa - Cue line construction, before coming to Sanderson's Forrest - Barramunga timber tramway in about 1901. It had been replaced by Trail tractors by 1929, but was not cut up until after 1952.

- 2 -

TO OUR READERS...

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", errors may creep in. Additional information is being discovered all the time, and this sometimes contradicts previous information.

If you see any errors, or can add information, please contact the Editor, and so help us to record the full history of Australia's light railways.

Articles and News, Notes & Comments items are always welcome.

Historical references to sums of money in "Light Railways" are in Australian pounds (£). One pound equalled two dollars on changeover to decimal currency in 1966.

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The Thomson Valley Tramway

The Thomson Valley Tramway consisted of about 25 miles of well-built 3-ft. gauge steel-railed tramway running north-northwesterly from Erica station on the VR's 2-ft. 6-in. gauge Walhalla railway. This article is the first word rather than the last word on this very interesting area, and is presented in the hope that it will encourage further research.



This article will be confined to the tramways which fed into Erica and Knott's Siding from the western side of the VR railway. The numerous other tramways which operated in the area will not be considered at this stage.

In 1918 there were already tramways feeding into Erica and Knott's Siding. That from Erica served a mill on Hotel Creek, about three miles from Erica; whilst the Knott's Siding tramway served a mill a mile or so north of that siding.⁴ Logs for this mill were hauled by winch out of the valley of the upper part of the east branch of the Tyers River.² Both these tramways were wooden-railed using horse haulage.³

It would appear that the tramway into Knott's Siding was subsequently taken over by a Mr. Fullwood. In about 1922 the name of this siding officially became Knott's (Fullwood) Siding,⁴ and Fullwood had a wooden-railed horse tramway running north-north-westerly to Parker's Corner,⁵ with various branches and extensions into the bush. This tramway was probably an extension of the earlier tramway into Knott's Siding, referred to in the previous paragraph.

The firm of O'Shea & Bennett constructed a mill north of Fullwood's, and to serve this they built a horse tramway which made an end-on connection with Fullwood's line. O'Shea's traffic travelled over Fullwood's tramway to the VR line; but a seperate VR siding (named O'Shea & Bennett's Siding) was provided 17 chains on the Walhalla side of Knott's Siding⁶ for trans-shipment of the O'Shea timber. O'Shea & Bennett were apparently active as early as 1920, as it was in that year that O'Shea & Bennett's Siding was opened.⁷

The O'Shea mill and tramway was taken over by Mr. J. E. Ezard in 1932.⁸ O'Shea's mill then became known as Ezard's No.l, and O'Shea & Bennett's Siding became Ezard's Siding.

During 1937-38 Ezard built a new 3-ft. gauge steel-railed line commencing at his stacking yards (which were three miles from Erica)⁹. This line was about eight miles long and followed the Thomson River slopes of the Baw Baw Range to Talbot Creek.¹⁰ It was well graded and constructed with rails varying between 25 to 50-lbs,¹¹ and replaced the wooden-railed horse line.

The remaining three miles from Erica railway station to Ezard's stacking yards was wooden-railed, and owned by Monarch Sawmills Pty. Ltd. This was poorly laid and badly graded.¹²

Two Fordson kerosene tractors working in tandem on Ezard's Thomson Valley Tramway. They appear to be pushing, or pulling, an item of mill machinery or a winch.

Photo - G. Armstrong.

Forests Commission of Victoria joins in

In January 1939 vast areas of Victoria's forests were devastated by bush fires, many mill settlements being destroyed, with a large loss of life. Regrettably, despite the ferocity of the 1926 and 1932 fires, the provision of dug-outs at mill and winch sites did not become mandatory until after the 1939 fires.

Although these fires destroyed many tramways, and shortened the lives of others by literally killing their traffic, the Thomson Valley Tramway reached its full extent directly as a result of the fires.

The Forests Commission estimated that, prior to fires, reserves of 120 million super-feet of timber were located in the South Cascade to Bell's Camp area. Most of this was killed in the fires, but the FCV estimated that 80 million super feet could be salvaged, providing that it was not left too long.

Shortly after, the second world war broke out. Imports of paper and timber then became difficult, resulting in an increased demand for all grades of locally produced timber.

To extract as much of the Thomson Valley timber as possible, the FCV decided to use Ezard's line, and to extend it north of Talbot Creek. The wooden section at the Erica end was abandoned, it being replaced by a new steel-railed line direct to the State Sawmill at Erica.¹³ This section was constructed by Mr. Ezard.¹⁴

When operating for the extraction of salvaged timber the line extended 25 miles from Erica, the first $15\frac{1}{2}$ miles to the South Cascade bridge was owned by Ezard, the remaining $9\frac{1}{2}$ miles being owned by the FCV.¹⁵ (Another source states that Ezard's portion ended at Rocky Knob¹⁶).

Locomotives and rolling stock

Ezard originally operated his line with a geared steam locomotive which he had previously used on his Warburton tramway. This machine had an interesting history. In January 1928 Mr. Ezard purchased two 2-ft. gauge tank engines from Cameron & Sutherland of Melbourne. They originally came from the Goodwood Timber & Trading Company's tramway between Port Albert and Mullunding forest. They were an Orrenstein & Koppel 0-4-OWT and a Krauss 0-6-0T.

With the assistance of Messrs. George & George of South Melbourne for boiler work, and the Day Engineering Co. for alterations to framing, Mr. Ezard had a geared 3-ft. gauge engine constructed from these two. To some extent the new locomotive followed Climax practice. Two cylinders 10-in. x 12-in. with outside steam chests were mounted horizontally outside, below the frame. They worked a jackshaft arranged transversely, which by means of bevel gearing drove cardan shafts geared to the inner axle of each of the four-wheel bogies. The wheels of each bogie were coupled by external side rods. External pipes for steam and exhaust were connected to each steam chest, and the "dee" slide valves were operated by outside Stephenson valve gear worked off the jack-shaft. The bogie wheels were solid, with wide treads and deep flanges. Ordinary side tanks, cab and bunker were fitted. The whole ensemble weighed about $18\frac{1}{2}$ tons. The locomotive was out of

Photographs opposite

Top - Ezard's geared locomotive at No.1 Mill.

Bottom - A load of logs arriving at Ezard's No.l Mill. Note construction of the two log bogies next to the tractor. Outside frames on log bogies are most unusual. Photograph - G. O'Byrne.

6.



service at Warburton from about 1935, when Ezard's mill was burnt out; and was transferred to Erica about two or three years later. 17

After a few years Ezard replaced the steam locomotive with a Bo-Bo diesel unit, which was built at his No.1 Mill. It was originally intended to be a hydraulic drive unit, but on test the system failed to work, and the locomotive was rebuilt as a gear driven machine.¹⁸ Whether it saw much service is doubtful, and photographs of it are rare. Ezard also had several tractors, including at least two of the spur-geared four-wheeled Fordson-engined type.

The FCV used several Day's rail tractors with WD40 International diesel engines. They also had a tractor with a kerosene engine; but the total number of tractors is not clear, however it would appear to be three or four.¹⁹

The timber bogies were of the normal unsprung, wooden-framed variety with bell shaped wooden brake blocks between the closely spaced deep-flanged wheels.

Operations

There was a considerable amount of traffic over the line during the 1940's. Ezard hauled logs from the bush to his mills, then took the sawn timber to his stacking yard, or direct to Erica. The FCV hauled logs from the site of salvage operations to the state sawmill at Erica, and also carried the sawn timber from the mills of Alstergren and John Sharp & Sons to Erica.²⁰

Traffic control was not easily achieved, despite the provision of a Traffic Control Officer at Rocky Knob Loop, and telephone check points at Amors Junction, Narrows Loop, Ezard's No.1, Ezard's No.2, Rocky Knob Loop, Ezard's Winch, Little Boy Loop, and Forests Commission Winch. (Some of these locations are not shown on the map - Amors Junction was presumably near Fullwood's Mill, where the wooden-railed line diverged towards Amors; Forests Commission Winch



Ezard's diesel locomotive at No.2 Mill, Sept. 1945.

Photo -M.C.G. Schrader


Converted Morris van on the South Cascade bridge, approximately 70-80-ft. above the creek bed, and 400-ft. long. Compare this picture, taken in 1946, with that in LR 33, p.27; showing the bridge as it is now. Photograph - J. D. Gillespie.

may have been another name for Bell's Incline Camp; but this writer can offer no suggestions as to the location of Ezard's Winch.) Although collisions were not unknown, the most frequent accident was derailment, usually due to spreading of the track.

The FCV tractor crews left Erica at 5-00am or sunrise, and often did not get back to Erica until 6-00pm or 7-00pm. The cold and wet conditions of the Erica climate, without any shelter, were part of the job for these men for most of the year.

For the greater part of the journey to Erica the tractor was at the rear of the loads, the tramline being on a suitable falling grade for trucks to move by gravity. Up to five loads of logs (i.e. ten bogies) made up one rake; the brakes on the two front trucks would be operated by ropes by a brakesman who rode on top of a loaded truck; whilst the brakes on the two rear trucks would be operated by the tractor driver.

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All equipment required at the scene of logging operations was transported on the tramway, including crawler tractors. Transport of such machines presented considerable problems, and one of the most spectacular derailments involved an FD Cletrac tractor, which left the line in a narrow cutting. Another bulldozer had to be used to retrieve it.²¹

There was a converted Morris truck to transport food supplies to the FCV camps. There are also photographs of a different converted road vehicle, with a much older type of radiator and bonnet. Possibly this was owned by Ezard. A number of scooters of varying designs were used to transport employees of the FCV and mills.

In 1948 Ezard offered his section of the tramway to the FCV for $\pounds 10,500$; but the FCV declined. Early in 1950 Ezard lifted his tramway, leaving the FCV line isolated and forcing its closure. It is doubtful if it would have lasted much longer anyway, as most of the timber had by that time been cut out.

In January 1958 the FCV advertised for sale by tender - one WD 40 tractor at Rocky Knob; one McCormack Deering tractor (Serial No.828 DE) at Bells Creek, and approximately 600 tons of rails at various locations in the Erica area.

References and sources

This article was compiled by the editor from various sources listed below. In addition, R. Durr, G.L. Maynard, E.G. Stuckey, and N.E. Wadeson assisted with the provision of information and maps. Additional information from members will be most welcome.

1,2,3 - Victorian Parliamentary Papers, 1918, Vol.1, p.685. - E. A. Downs, Speed Limit 20, p.111, ARHS Vic. Div., 1963. 4 - From notes provided by N.E. Wadeson. 5 6,7 - As for 4. 8 - Letter from Ezard & Sons, addressed to G.L.Maynard. 9,10,11,12,13,14,15 - As for 5. - J.D. Gillespie "Timber Traffic on the Thomson Valley Tramway in the 16 1940's" in The Victorian Foresters' Newsletter No.22, June 1967, published by Victorian State Foresters' Association. - All information concerning the geared steam locomotive is from an article 17 by J.L. Buckland and the late W.R.B. Johnson in ARHS Bulletin No.82, p.16, August 1944. However, that article was in error in stating that the Krauss loco was an 0-4-0T. 18 - As for 5. 19 - Information on tractors is culled from reference 5 and 16, and from

- photographic evidence in regard to the Ezard tractors.
- 20 As for 16.
- 21 All information on operations is from reference 16.

R'A'ILWAY SCENE

An English language bi-monthly published in Sweden. Articles are of special interest to the steam and narrow-gauge enthusiast, and photographs are excellent. The first four copies for 1971 are now available at \$2-00 the set, including postage. Articles cover Argentina, Spain, Italy, Denmark, Ireland, Germany (east and west), Ecuador, Colombia, Czechoslovakia, Sweden, Jugoslavia, Poland, Rhodesia, England and Cyprus. Individual copies are 52¢ each, including postage.

LRRSA Sales Department, 7 Talaskia Road, Upper Ferntree Gully, 3156.

NOTES ON THE MAP (Pages 14, 15 and 18)

Tvers Valley, Thomson Valley and Walhalla, Victoria

The map has been divided into three sections. The main section appears on pages 14 and 15; whilst on page 18 two further sections are reproduced to show the northern end of the Thomson Valley Tramway.

<u>Sources</u> The basic reference, from which the locations of roads and creeks have been taken, is Forests Commission one inch/one mile map "WALHALLA 851" of 1966. Details of the Walhalla firewood tramways came from maps in LR 16, p.21; and LR 17, p.20 (these maps were compiled from "Walhalla - Report on the Walhalla Goldfields" by Hyman Herman, Victorian Mines Department Special Reports 1901, Vol.1.) Tramways which had closed by 1901, and those built between that date and closure of the Walhalla mines are not shown.

Details of tramways in the Thomson and Tyers Valleys have been obtained from Forests Commission 20 chain/mile map "Mt. Erica T-265" of 1940; with additional information for areas not covered by that map (north of Ezard's No.1 Mill and east of Tyers Junction) from maps prepared by N.E. Wadeson of the Thomson Valley Tramway (not published) and Tyers Valley Tramway (published in ARHS Bulletin No.255, January 1959).

Certain early tramways are not shown due to the lack of any maps showing their location. In addition, some temporary feeders are almost certainly not shown.

Inclines Where possible the locations of inclines have been indicated. However, due to lack of adequate information, not all inclines are shown.

<u>Roads on tramway formations</u> Where it is known that roads have been built on tramway formations, this has been shown by crosshatching the roads concerned. This information has been obtained by personal observation of members. In other locations, where roads and tracks are shown parallelling tramways, they may actually be on the tramway formation, but as this has not been verified by site inspections, they have not been cross hatched on the map.

Scale One inch equals one mile on all three sections of the map.



The Thomson Valley Tramway Today

By - Ray Jude

Ray Jude and Peter Annison have made about ten visits to the Thomson Valley Tramway over the past eighteen months. They have found most of the important locations along the tramway, but undergrowth still defies penetration in some places....

From the State Sawmill at Erica, the tramway heads approximately north after curving to the left. It crosses the Walhalla Road, and then the Thomson Valley Road near the junction of the two roads through the town of Erica, before entering private property. No trace of the tramway has been found at either road crossing, although the map shows the Walhalla Road turning to the right to cross the tramway, then turning to the left to resume its course.

Half a mile north-westward along the road from Parker's Corner the tramway crossing can be found, but it appears to have been bulldozed. In any case it can be followed for only a short distance on both sides of the road, as blackberry bushes prevent further progress. A further thirty-chains brings the tramway to the site of a high trestle-bridge over a creek. The logs of this have been bulldozed into the creek, along with several trees. This bulldozing was as recent as July 1971.

On the Erica side of this bridge, trees have been bulldozed down onto the tramway for a considerable distance. Beyond the bridge site, the formation has been bulldozed, apparently as far as Finn's Track. Near the bridge site, past thick undergrowth is a reverse curve in a cutting, filled with a thick growth of fishbone fern.

At the crossing of Finn's Track (shown as McLean's Road on Lands Department maps) the tramway enters a deep cutting on a left hand curve. Spanning this cutting is the derelict remains of the old road bridge. Finn's Track now crosses the formation on a lower level at the Erica end of the cutting. This location is apparent as being the first slight rise of Finn's Track since leaving the main road. Only a few fishplates and sleepers have been found in this section.

Beyond here the map shows the tramway as winding around quite a bit, following the contours of the hills. Much of this is as yet unexplored. Just on the Erica side of a location marked on the map as "The Road Crossing" the unbulldozed tramway is in a cutting full of tree ferns. Two lengths of rail, broken apart, were found here.



At "The Road Crossing" the tramway is in thick scrub, just at the western edge of the road. A bulldozed forest road cuts the tramway in two places, isolating the curve beside the Thomson Valley Road. A short distance further along, the tramway enters a cutting on a right-hand curve before crossing a

> Trestle bridge over The Little Girl's Creek, Thomson Valley Tramway. Note on the left hand side, the water pipe running across the bridge. 23rd. May 1971. Photo - Ray Jude.



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cleared swathe through the trees. Outside the cutting wall, on the outside of the curve are traces of a short siding. In the cleared area is an old boiler (not from a locomotive). Beyond here, the formation has been bulldozed, and a huge fallen tree lies along the cutting. Eventually the bulldozed track dips to the right of the tramway formation, and the level formation ends at the southern abutment of what used to be a long straight trestle-bridge at "The Narrows".

The main relics of this bridge are the abutments at each end. Downhill, to the west of the southern abutment, are the half-buried sleepers of a much older tramway, which leads northwards. This tramway is thought to have joined the main Thomson Valley Tramway formation some distance to the north. The older tramway was lost where trestle logs from the "Narrows" bridge have been bulldozed down the western side. At the northern end a few logs at the abutment are hidden in trees at a higher level than the road. From here, traces of a long loop were found, and it and the mainline curve to the left. Relics here are a point blade and point frog, both in heavy rail, and a coupling rod. A little further along the tramway, the other point frog was found on the downhill side.

The tramway formation continues through shallow, rocky cuttings and approaches toward the road 30 chains beyond "The Narrows". Near this spot, many sleepers are still in situ. Further on, the tramway twists sharply, before leading to a log loading site for road vehicles. At the back of this loading site are two level, formerly clear, areas; where the formation crosses the main road. The tramway are be followed the



main road. The tramway may be followed through scrub towards the site of Ezard's No.l Mill, but blackberries prevent reaching the mill site from this route.

Ezard's No.l Mill

At one point within the mill, traces of wooden rails indicate siding and main-line. Part of the mill site has been bulldozed. Just beyond the mill site, another short siding leads off in the Erica direction on the western side. Long sleepers at the site of the points still remain. In this area, wooden rails were placed on the outside of the steel rails, thus explaining the presence of wooden rails and dogspikes in the sleepers. Cavities were cut into the wooden rail, on the underside, to accommodate the outer row of dogspikes. The sleeper width (14-in.) seems very great in proportion to their length of 5-ft.6-in. for a gauge of 3-ft. However timber would have been cheap and plentiful, and this no



The bridge at "The Narrows" as it was, looking north. Photograph - G. O'Byrne.

doubt compensated for lack of ballast. Just beyond here, Brisbane's Road leads downhill from the main road and cuts through the formation. Sleepers at eye-level can be seen on the wall of the road cutting. (See sketch p.18).

From here, the next 🖁 mile is rich in relics of sleepers-in-situ and rails tossed to one side during dismantling. The latter are mainly lightweight. A log bridge only one or two feet above slush level was encountered on a right-hand curve. Following shortly after was a four-span timber bridge, with sleepers intact. This was interesting, as it featured three types of support - ordinary trestle; short trestle sitting on large cross-wise log; and two cross-wise logs on top of one another.

Along this section the old tramway telephone wire was very evident. In one spot a bent steel rail with insulator at one end had been placed in a hollow tree stump, to provide a rough and ready phone pole. Further on, rails dipped down into a hollow at the

left, while an embankment is situated at the right on the downhill side. Thick undergrowth here keeps it a mystery.

From here to Rum Creek, the map shows the tramway at the very edge of the main road. This appears to be incorrect, as the tramway is far enough into the bush to require it to be shown as distinctly seperate from the road.

On the section to Rum Creek the tramway passes through a cleared area, apparently a log loading site. Bulldozing of the tramway has occurred for a short distance beyond here, until a bulldozed track leaves the tramway downhill to the right. Then follows a short, low curved viaduct on a right-hand curve, and a cutting on a left-hand curve. This cutting is dark and dank, and rotting fern fronds give it an air of decay.

Progress was made along the tramway almost to Rum Creek, however a huge fallen tree blocked the way, and the Rum Creek bridge so far remains unknown.

17.



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Ezard's No.2 Mill

At the site of Ezard's No.2 Mill, blackberries abound and approach is difficult. A path down through the blackberries leads to a hut. Some of the earth steps leading down are reinforced with fishplates and boiler firebars. Surrounding the hut are three sets of tramway wheels on axles, a long medium-weight rail, two light-weight point blades, and a lightweight check-rail. Three levels were seen; two between the main road and the hut, with the hut itself standing on the third. The main tramway is presumed to join the main road about 100 yards north of here.

For the next $7\frac{1}{2}$ miles, much of the main road is on the tramway formation. One exception is at South Cascades Creek, with its wrecked trestle bridge (LR 33, p.27). Shortly beyond, where the road joins the tramway again, there is a log loading site on the western side, from where a branch formation leads off in the Erica direction above road level. Before Rocky Knob the main road has sleepers in it in two cuttings.

At Rocky Knob, a Forests Commission hut on the uphill side of the road overlooks a magnificent view over the Thomson River valley. The door-step of this hut is the top plank of a timber bogie, complete with steel plate with circular hole in it.

For some of the distance between Rocky Knob and North Cascades Creek, the tramway lies in thick bush to the west of the road, and at a higher level.

At North Cascades Creek (LR 33, p.24 and 26) the two precarious spans have fallen, leaving a rail with one sleeper to bridge the gap. In addition, a branch tramway has been discovered leading off in a westerly direction from near the northern end of the bridge.

The remains of a three or four span trestle-bridge are included.

Further along, a hut beside the road marks the site of Sharp's No.1 Mill. Large logs, formerly the framework of the mill structure, lie around in the bush behind the hut. Located $\frac{3}{4}$ -mile beyond here is the site of Sharp's No.2 Mill (LR 33, p.23).

Little Boy Camp

About l_4^1 -miles further on, the main road leaves the tramway formation, which is seen as a bulldozed formation leading off to the left. The remains of a tramway bridge can be seen a little way along this bulldozed track, which reaches the huts of Little Boy Camp, half a mile from the main road. The tramway is located between two groups of huts. Forests Commission caravans were seen here.



(Described on pages 16 and 17).



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Log tramway bridge at the southern end of Little Boy Camp, 25th. April 1971.

Photo - Ray Jude.

At the far edge of the camp area is a 7-ft. high timber bridge, constructed in typical timber tramway fashion of two layers of long bearer logs with short lengths of large logs placed crosswise between the two layers. Sleepers are intact on the bridge. After passing through three rocky cuttings, the tramway crosses the Little Boys Creek on a 32-ft. high, ll span timber trestle bridge on a right-hand curve. Thick growth of wattle trees crowd in against the bridge. One trestle support has slipped sideways, giving the bridge a very precarious appearance.

The tramway continues north-west from here. At one point there is a logging chute leading down to a loading site beside the tramway. Just beyond this, a bulldozed forest road descends steeply to the right. The tramway bears left on a more level formation. Next feature is a log bridge, of similar construction to the one at the edge of Little Boy Camp. This bridge carries a water pipe along the side of the decking. On it, the line of dog spikes are well inside the line of the bearer logs. This would presumably put a lot of strain on the sleepers, instead of the weight being taken by the bearer logs.

Beyond a shallow, curved cutting is a trestle bridge of about nine spans, over the Little Girls Creek, on a right-hand curve. The creek walley is thickly clustered with tree ferns, and a water pipe also goes over this bridge. The tramway is thought to rejoin the main road approximately $\frac{3}{4}$ -mile beyond the Little Girls Creek trestle, but a few trips along the main road have failed to reveal where the tramway goes off into the bush. Note that "Little Boys Road" does not lead to the tramway.

The main road rejoins the tramway formation for about half a mile, before the tramway leaves by an incline downhill. Along this half-mile section, another tramway on an incline crosses the road/tramway.

At a point approximately $2\frac{3}{4}$ miles beyond the road turn-off to Little



Logs descending Thomson Valley Tramway, October 1942. The tractor driver is riding on the logs, operating the brakes, whilst the tractor coasts down behind.

Photo - L. R. Williams

Boy Camp (NOT Little Boys Road), is a road to the right. This contains several sleepers of another tramway, and it crosses the creek on a former tramway bridge. Fallen trees may prevent further passage by car, but it is only a short distance to where the huts of Bell's Camp can be seen down-hill at right. A tractor locomotive (minus engine) was found here.

On the tramway, three or four bridges are located between Bell's Incline Camp and Bell's Camp, one bridge being near the bottom of the incline, but none on the incline itself. The tramway appears to have continued on beyond Bell's Camp.

ELECTRIC TRACTION

The August, September and October 1971 issues of this magazine contain illustrated articles on underground gold mining tramways in Victoria. Copies of the three are available at \$1-47 incl. postage from -

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LETTERS

2-ft. GAUGE MUSEUM RAILWAY IN ILLAWARRA AREA, NSW.

Fellow LRRSA members and other readers of Light Railways will be interested to learn of a scheme to construct and operate a passenger carrying 2-ft. gauge steam railway on the south coast of New South Wales. The south coast and the Illawarra area, in particular, has had a number of narrow gauge lines, mostly 2-ft., and at least four of these were steam worked. A number still remain, in the collieries and industry, although steam has gone.

Local tourist agencies and industries have shown interest in the proposal to form a public non-profit society to entirely administer and operate a working museum railway based on the 2-ft. gauge and using as many locally obtained exhibits as possible plus whatever may be available, of interest, from elsewhere.

On behalf of the society I have obtained a number of firm promises of help in the form of materials and equipment, from both large and small industries, and have also been given some rail and vehicles which a volunteer working party has reclaimed from the bush, and which is now stored.

Enquiries are being made to a number of possible sources of equipment, including the owner (private) of a steam loco which once worked a local line. He is not interested in parting with it for any consideration, except possibly to exchange it for a steam traction engine in equivalent or better order. As he is moving away from the area, together with his engine, the possibilities of obtaining it and returning it to working order are somewhat slim.

I am, however, endeavouring to obtain a loco in near working order from Queensland, to get the line operating with steam, until it can get some New South Wales exhibits working. Anyone knowing of a traction, or agricultural engine available within a reasonable distance of Wollongong, with no strings attached (so that we can swap it without hurting anyone's feelings) is asked to write to me please.

I would welcome enquiries, offers of help, and offers of sound, positive advice from those having experience of the pitfalls encountered by similar groups in other areas. I am sure that the society, when formed, would wish to engender a friendly association with other similar groups, working for mutual assistance rather than competition, a sort of "Great Little Trains of Australia" image.

Now concerning LRRSA, I am an avid reader of Light Railways and congratulate the contributors and editorial staff on doing a great and ever-improving job of the magazine, but I would like to see more New South Wales contributions on narrow-gauge history (So would I ! - Editor), as I am a comparitive

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newcomer to the state and find such information very sparse, and often non-existant, particularly regarding the whereabouts of tramways, whether still in existance or not.

3/1 Lewis Drive, Figtree, NSW, 2500.

A. M. Madden

NEWBOLD REFRACTORIES TRAMWAYS, near Ulladulla, NSW.

I am particularly interested in the light railways operated by Newbold Refractories near Ulladulla on the New South Wales south coast. I have done some interviewing of local inhabitants and obtained various photographs, but am lacking such things as dates etc. Gauge was only 2-ft., and they had at least two locomotives, one being the ex-NSWGR 2-ft. gauge Krauss. The line was several miles long, ran along the base of a cliff, and crossed quite a wide river by a low timber trestle.

P.O. Box 117, George Street North, NSW, 2000.

Peter Neve

CARDINIA CREEK TUNNEL CONSTRUCTION (LR 35, p.21)

The builder's numbers of the two Commonwealth Engineering locomotives in use are EC4586 and HC4596. Both of these underground locomotives were originally bought by Monier-McNamara-Hardeman for use in the Jindabyne tunnel contract in the Snowy Mountains. (References - Narrow Gauge Review No.3 and ARHS Bulletin No.407, September 1971).

TIMBER TRAMWAYS OF THE RUBICON FOREST 1916-1935 (LR 36, p.6)

Further to the comment that the Krauss 2591's date of arrival at Alexandra was unnoticed, there was a reference to this date in W. P. Fairlam's article "Cheltenham and Heatherton Tramway" in ARHS Bulletin No.366, April 1968. Mr. Fairlam said "it went to Rubicon on 28-5-1919".

Mount Waverley, Victoria

Peter L. Charrett

(The point I was trying to make in the Rubicon article was that I could find no original reference, made at the actual time of arrival of the locomotive at Alexandra, which would verify the date quoted above. Unless dates of this nature can be verified against original documentary evidence I am not prepared to accept them as being correct. - F.E.S.)

VAN DIEMEN LIGHT RAILWAY SOCIETY

Yesterday evening (16th. December 1971) the Van Dieman Light Railway Society was formed, and it is our intention to operate a combined 2-ft. and 3-ft. 6-in. gauge railway in the north of Tasmania. We have already purchased the Hunslet 2-ft. gauge locomotive from the Carbide Company works at Lune River and a 3-ft.6-in. gauge Fowler locomotive from the Transport Commission in Hobart.

We already have approval from the National Trust to operate a 2-ft. gauge railway around the perimeter of their nine acre property at Clarendon House, and we are currently negotiating for an adjoining property on which to run our 3-ft.6-in. gauge railway. It, is intended to run the joint railway as a major tourist attraction and there is every possibility of us extending our locomotive and rolling stock fleet in the near future.

32 Faulkner Road, Ravenswood, Tas.,7250 Ian Hall, President, VLRS



News, Notes & Comments

QUEENSLAND

BINGERA SUGAR MILL, near Bundaberg 2-ft. gauge.

With regard to the item in LR 37, p.21, I would like to correct a statement taken from our "Stack Talk" magazine in your "News, Notes & Comments". "Kolan" was transferred to Gin Gin Mill as stated, but unfortunately one of our members "jumped the gun" with a piece of news he thought at that time was correct, however the statement that "Kolan" had worked daily since the start of the crushing season was totally incorrect.

Gibson & Howes had transferred "Kolan" to Gin Gin Mill with the idea that it should be kept there as a standby locomotive in case one of Gin Gin's two big diesels failed. "Kolan" underwent a boiler inspection soon after the transfer and the boiler inspector declared her boiler suspect. The boiler had to be taken off the loco for a better inspection and, early during the crushing season, the Gin Gin Mill fitters had intended to do this work in their spare The mill received special permission on several occasions to use "Kolan" time. in the vicinity of the mill, when they had some breakdowns with their diesels, during the first few weeks of the crushing season. However by the time I got to Bingera Mill myself, during my annual holidays in August, "Kolan" had been transferred back to Bingera Mill. She had been placed in the workshops and was in the process of being stripped down preparatory to the removal of her boiler from the frames. At this stage the mill was prepared to do some minor repairs to the boiler and loco, if required by the boiler inspector. "Ralf", sister engine to "Kolan" was out of service at Bingera due to the arrival of a new E.M. Baldwin 0-6-0DH called "Oakwood".

I was back at Bingera a month or so later to find that "Kolan's" boiler had been condemned and that the loco fitters were now busily engaged in stripping down "Ralf" for similar inspection. One of the fitters told me that it was hoped to overhaul "Ralf" and use it as standby loco for both Gin Gin and Bingera Mills. If this were done it would be sent by road transport to whichever mill required its services and then left there until required again, to be transferred back to the other mill only in case of diesel failure.

(David Mewes)

AUSTRALIAN NARROW GAUGE RAILWAY MUSEUM SOCIETY

In November our Society had another 2-ft. gauge pumper trolley given to us. The Millaquin Sugar Company at Bundaberg donated this item, and a number of our members went up to collect it from the mill during that month. It is unusual in that it has outside roller-bearings (our other two pumper trolleys have inside frames with plain bearings).

On Wednesday, 22nd December our Society took delivery of No.3, Borsig

4-4-2T from Cattle Creek Sugar Mill, near Mackay. The mill had donated this locomotive to us on the condition that we remove it from the mill before Christmas Day. The loco is currently being stored in a road transport firm's yard in Mackay until they can remove it to Brisbane, we hope early in the new year. This locomotive is the same as that mentioned in Gerry Verhoeven's article on the Rocky Bluff section of the Stannary Hills - Irvinebank tramways in LR 32, except that the loco has now been converted to a tank locomotive rather than hauling a tender.

Currently we are trying to raise \$1,500 for the purchase of ten old red rail-motor trailers from the Queensland Railways. We intend to convert these to 2-ft. gauge for use as passenger coaches on the Society's proposed railway. The Queensland Railways have given us six months from about mid-November to raise this amount and to remove them from railway property. We feel that they would make ideal coaches and are far cheaper than constructing our own from scratch. We have a number of 2-ft. gauge bogies promised to us, and are currently trying to obtain more. Once the rail-motor trailers were mounted on the 2-ft. gauge bogies they would be very close to the ground and consequently quite stable, despite their 7-ft. width.

Donations (which if over \$2-00 should be claimed as a tax deduction -Ed.) should be forwarded to ANGRMS, P.O. Box 270, North Quay, Qld. 4000.

(David Mewes, Hon. Secretary, ANGRMS)

TASMANIA

ZEEHAN SCHOOL OF MINES MUSEUM

On a visit on 6th. November 1971 the Daimler railcar was observed in beautiful condition (like new) in a glassed-in room alongside the door out to the yard. It faces the yard, and so the front is not viewable, but the two sides and back are. The narrow-gauge rail mounted scoop mentioned in LR 35 p.19 is a "mucker", used to scoop rock up and load it on a truck behind. (Ray Graf).

VICTORIA

POWELLTOWN TRAMWAY, 3-ft. gauge

Progress has come to the Bump Tunnel area! The Forests Commission has been quite busy recently in this area erecting signposts indicating walking tracks, and, surprise, surprise, the track to Mackley Creek follows the route of the tramway back towards Powelltown. Much clearing has been done along the route, and in one spot some-chain saw artistry in the form of steps cut into a log which has fallen across the track. Several bridges in collapsed condition required vertical deviations in the foot track. Also seen were several lengths of approx. 50-lb. rail and some fairly well preserved but narrow cuttings. All in all a very pleasant way of filling in two hours or so without the scrub bashing which took place on the same route at the time of the Society's hike four years ago (see LR 24, p.5).

(Graeme Inglis)

TYERS VALLEY TRAMWAY 2-ft.6-in. gauge

Approaching Tyers Junction from Collins Siding, the last mile or two of the tramway formation has been bulldozed. The most interesting thing about this is a deviation to by-pass a rather interesting and well-preserved trestle of somewhat peculiar construction. An extra set of piles had been provided in the long central span. Perhaps this dates from efforts to run a VR[°]NA["] class locomotive (believed to be 14A) over the line to test the feasibility of using such engines. It is more probable that the strengthening was needed to cope with the axle-loading of the Climax and Harman locos, the latter especially having a much higher axle-load than specified when the loco was built.

Tyers Junction is now a Moe district scout camp, although "Keep Out" signs do not bid the railfan welcome. We did not come all this way to be worried by such a sign.....

As the area has been cleared, the tramway installations and layout are quite easily distinguished, with two tramway bridges still in service within the camp and the remains of a third fairly well preserved. An attempt was made to walk to Ten Acre Block along the route of the tramway which followed the Eastern Tyers River fairly closely. In some places the tramway twists and turns considerably. In the distance covered (about two miles) we encountered four bridges in various stages of collapse but still able to be crossed without difficulty. The last bridge we crossed before being completely blocked by the "jungle" was something unique in having 20-30-ft. long stone embankments as approaches on each side of the river, which was crossed almost at right angles. These may have been built to minimize flood damage but this is only a surmise.

Many old sleepers and dogspikes are still in situ which is a good thing, as without them the route would be absolutely impossible to find in certain places, and we would probably have got quite lost in this primeval, ferny bush. If you do wish to follow this line, take a machete to make your path clearer than ours, for finding the way in one direction was quite easy. Finding our way back through bush that had sprung back into place and with utterly different lighting was another matter

From Western Tyers to Growlers Creek the road follows the route of the tramway along its formation for most of its distance. Being close to the river and therefore probably subject to periodic flooding, the road was wet generally and very wet and muddy in a few places. Although generally level, many curves were encountered - some being quite sharp. Growlers Creek was mosqito ridden marshy and completely desolate, the only relics in evidence were a large pile of sawdust on an old mill site, and an expansion link - probably from a steam winch. At Western Tyers, Morgan's timber mill has closed and been dismantled.

Beynon's Road, from Western Tyers to the Tanjil Bren road, was of some light railway interest in that a length of rail was spotted by the roadside, giving some tangible evidence that the road was built on the formation of a tramway known to have been in this area. The rail had been exposed to the elements for so long that the web had rusted through completely. It was judged to be about 20-30-lbs. per yard.

(Graeme Inglis)

WALHALLA & THOMSON RIVER STEAM TRAMWAY COMPANY PTY. LTD. 2-ft.6-in.(762mm.)gauge C/- Ferris's General Store, Walhalla, Vic., 3825.

A visit to Walhalla was made on 28th. December 1971 where we found that the boiler for the 2-4-2ST locomotive had recently arrived. This was in the process of being fitted. The locomotive was rolled out of the shed so that it could be photographed for "Light Railways". At present the leading and trailing trucks are not fitted, and naturally many other fittings cannot be attached until the boiler is installed.

The former NQ wagons at the Erica state sawmill are now being moved to Walhalla. Readers familiar with these will know that they have tremendous sags in the middle. However Ron Kain has found a method of straightening these, and one of them has already been successfully treated.

The TACL tractor from Erica state sawmill has also been obtained. At present the counterweights are missing, and parts of the engine have been removed for overhaul. This four-wheeled unit was, I believe, formerly used on the Tyers Valley Tramway, and is similar to the tractors illustrated on page four of this issue. The wheels are of railway profile for use on steel rails.

(Frank Stamford)



2-4-2ST locomotive at Walhalla, with the boiler temporarily placed in position. 28th. December 1971. The locomotive is built on the frames of an ex-West Melbourne gasworks 0-4-0 Couillet locomotive, B/No,861 of 1886. Leading and trailing trucks have not yet been fitted.

Further to the item in LR 35, p.25; and LR 37, p.26,the tramway has been bulldozed from the mill site to the Tyers River, and on the other side leading towards a house. The log bridge is still as it appears in LR 37, although the clearing being undertaken seems to indicate that a new bridge will be built at this site. This may mean the removal of the former tramway bridge.

The tramway may also be located approximately 100 yards from where Senini's track meets the Walhalla road. The tramway climbs a steep grade on this section, but the wooden rails are in a very advanced state of decay and are in nowhere near as good condition as those at the second crossing



of Senini's track (mentioned in LR 35), where the tramway is also still intact. (Mike McCarthy and Ray Jude) ERICA

Most railway enthusiasts on entering Erica usually look at the old station site automatically, so those who have been there recently will have noticed the large log on bogies no less! The gauge of this historic display is 3-ft.(914mm). Another pleasant surprise was the discovery that the timber bogies had been rebuilt recently with new woodwork. This exhibit has been set up by the Forests Commission.

(Graeme Inglis)



GEELONG STEAM PRESERVATION SOCIETY 3-ft.6-in. (1067mm) gauge. C/- Town Hall, Geelong, Vic., 3220.

A quick visit was made to Belmont Common on 31st. January 1972, to find the Vulcan 0-6-OST locomotive in steam and running a passenger service to the Golf Course. The Vulcan was put back into service early in December, and on the day of my visit the Hudswell Clarke 0-4-2ST was also in steam. The South Australian passenger coach is now in use, and other recent arrivals are an ex-QGR 45-hp AEC rail-motor, and an ex-SAR "T" class 4-8-0 locomotive.

The Vulcan locomotive is now fitted with an ex-Baldwin whistle, which is on permanent loan from the LRRSA. This whistle was donated to the LRRSA by Mrs. A. Trew of Lorne. The whistle was originally fitted to the Baldwin 0-4-OST (B/No.7108 of 1884) used on Sanderson's timber tramway at Forrest. It was subsequently used by the late Mr. A. Trew at various locations in the Otways, where he operated stationary boilers in sawmills. Our member Reg Wilson, of Gerangamete, reconditioned the whistle before it was handed over to the LRRSA for preservation some years ago.

The GSPS now has until June this year to raise the finance to obtain a QGR "PB15" class 4-6-0 locomotive. Donations should be sent to the address above. The formation of a further extension of the line is currently being built up with filling, but it will not be possible to lay more track for some time, as road vehicles are using the present formation to cart filling for the line.

BALLARAT TRAMWAY PRESERVATION SOCIETY 4-ft.8 $\frac{1}{2}$ -in. (1435mm) gauge. P.O. Box 632, Ballarat, Vic., 3350.

Work on the foundations of the new depot has commenced. A Community Advancement society named BTPS Co-operative Limited has been registered, and is now allotting shares, at 10ϕ deposit per share. When all shares are allotted BTPS Co-op.Ltd. will be able to obtain a bank loan to pay for the depot.

Registered for posting as a periodical - category B.







Editorial from the President

It is commonly held in railway circles that two locomotives can shift a greater tonnage than a single machine. The same principle applies to the running of this Society. The situation is rapidly approaching where the amount of work to be done is beyond the capacity of the very small Council to deal with efficiently, or even adequately.

This is particularly so in the publishing field, which is, of course, our main activity. Without the single-minded dedication of Frank Stamford this magazine would be nowhere near its present high standard, and consequently the image of the Society would be less. However the magazine is a full time job, which means that Frank is unable to devote much time to considering other publishing projects which we have had in mind for some time.

Help is urgently needed so that publications of this Society can continue to improve and expand.

In particular we would like to hear from someone willing to learn the whole process of setting up material for the printer, but offers for help in other tasks would be most welcome. Addressing 330 envelopes is a tedious and time consuming task when undertaken by two members - ten could do it in a few minutes. Offers of help with typing would also be appreciated, as would organization of excursions.

If you feel you can assist in any way, please come forward and offer your services.

OUR COVER

l6th. April 1972 saw the end of the Bendigo (Victoria) tramway system, when the Eaglehawk to Quarry Hill route closed. The North Bendigo to Golden Square route had already succumbed on 5th. March 1972. Graham Evans' drawing shows one of the familiar Birney cars on the North Bendigo route. The standard gauge tramway system had its beginnings in 1890 when a short-lived battery tram service began. This was soon replaced by a successful steam service, electrification taking place in 1903. Several of the displaced Baldwin and Phoenix steam tram motors found their way to timber tramways. The final closure of the system marked the end of the era of provincial tramways in Australia. The very active Ballarat Tramway Preservation Society is however, working rapidly towards the re-opening of .85 mile of tramway in the city of Ballarat.

- 2 -

TO OUR READERS...

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", errors may creep in. Additional information is being discovered all the time, and this sometimes contradicts previous information.

If you see any errors, or can add information, please contact the Editor, and so help us to record the full history of Australia's light railways.

Articles and News, Notes & Comments items are always welcome.

Historical references to sums of money in "Light Railways" are in Australian pounds (\pounds) . One pound equalled two dollars on changeover to decimal currency in 1966.

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ANNUAL SUBSCRIPTION - \$2-90 (\$1-45 if under 17 years) for year ending 31st. May 1973.

<u>MEETINGS</u> - Second Thursday every second month at 8-00pm, room 11, Victorian Railways Institute, Flinders Street Station building, Melbourne. Next meetings 10th. August 1972, 12th. October 1972, 14th. December 1972, 8th. February 1973. Visitors welcome.

<u>BACK NUMBERS</u> of <u>Light Railways</u> - Nos.13, 14 and 15 @ 15ϕ each (or the three, posted for 50ϕ). Nos.31, 32, 33, 35, 36, 37, 38, and 39@ 65ϕ each, <u>plus postage</u>. Postage on one copy is 7ϕ ; two copies 12ϕ ; 3 or 4 copies 18ϕ ; 5,6,7 or 8 copies 24ϕ . All other copies are out of print. Available from - Stephen Martin, LRRSA Sales Officer, 7 Talaskia Road, Upper Ferntree Gully, Vic., 3156.

OTHER PUBLICATIONS available from the Sales Officer, include scale drawings of the Powelltown Shay locomotive, and a Baldwin 3-ft.6-in. gauge 0-4-OST locomotive of the type used in industrial applications throughout Australia. These are 50ϕ each or 90ϕ the two, including postage in a mailing tube. <u>Green over Red</u>. Australia's modern railway magazine, March/April 1972; Jan./Feb. 1972; Nov./Dec. 1971; Sept./Oct. 1971 - all 40ϕ each. Earlier back numbers from Nov./Dec. 1969 are available @ 30ϕ each. Postage - 1 or 2 copies - 7ϕ , 3 to 5 - 13ϕ , 6 or 7 - 20ϕ , 8 to 11 copies - 28ϕ . <u>Electric Traction</u>, containing articles on electrified mining tramways in Victoria and Tasmania - Aug. 1971, Sept. 1971, Dec. 1971 @ 45ϕ each, plus postage @ 7ϕ on 1, 2 or 3 copies - 7ϕ . <u>Industrial Railway Record</u> (UK) @ 65ϕ each, plus postage @ 12ϕ .



The Catherine Hill Bay Railway

By - H. J. Wright.

New South Wales has had numerous standard-gauge private railways serving coal mines. One of the least known of these is described in this article – an isolated railway 2½ miles long connecting several mines with a jetty at Catherine Hill Bay, about 20 miles south of Newcastle.

The village of Catherine Hill Bay is situated slightly over five miles by road south of Swansea, the latter being the southernmost limit of the City of Newcastle. The original or native name, was Toolouweraraba, which does not appear to have any meaning in our language. However, the present name was applied some time after 21st. June 1867, on which date the schooner "Catherine Hill", bound from the Richmond River to Sydney with a cargo of timber, was beached by her skipper on the sandy shore here, after having begun to leak badly from being in a heavy gale while on passage past Newcastle, and along the coast "past Bird Island". Two crew members were washed overboard while the vessel approached the beach, but the remainder, all of whom reached shore safely, were rescued from the cold and wet vicinity, without food or clothing, the next day.

A Mr. Pembledon appears to have been the first person to discover coal in the locality, possibly early in 1873, and he suggested the formation of a public company to mine the coal. This came into being in April 1873 under the name of the New Wallsend Company.

This Company, which mined what became known as the Great Northern seam, seems to have had fluctuating fortunes during its existence. About July of 1873 a tunnel had been driven on the edge of the beach, and within a further six months it was reported that 70 men were employed, 45 of whom were miners, production having reached 300 tons weekly. (Some years later this tunnel is said to have been used for a boat shed). The Newcastle Chronicle of 19th. November 1874 reported that production had risen to 800 tons weekly.

Mining was suspended for three or four weeks after July 1875 following the loss of the Company's ship. From that time the formally "flourishing" company (so reports state) seems to have changed for the worse, as shipping became somewhat irregular, and perhaps maintenance and other important matters may not have been all that they should - for on 4th. March 1876 the shareholders met and decided to wind up their operations. No reasons appear to have been made public but this lead to final abandonment of their workings on 15th. March 1877, and from this time the populace departed to seek work elsewhere.

Other groups appeared interested in the area, but it was Messrs. Pope and Hardie, working under the name The Lake Macquarie Coal Company who commenced the second undertaking, in 1877, at the 250-ft. depth; having taken 18 months to reach a 12-ft. sea; at that level. For reasons unknown, they also faded out - during 1877.

Photograph opposite - "Kathleen", Fowler 0-6-OST, B/No.11225 of 1906, with about 16 hoppers moving along the jetty at Catherine Hill Bay.

Photo - R. G. Preston.



The Village of Catherine Hill

Press reports state that by 1874 the village consisted of "...20 houses, plus tents, a butchers shop and store, but no public house." With increasing population, the mine manager petitioned for a post office for the town, this being opened on the 15th. November of the same year. Initially, all mail reached this office on horse-back from Coorumbung (known as Cooranbong today). In 1876 a resident police officer was stationed in the village.

When mining ceased in 1877 the people moved elsewhere, many to Pelican Flat near the Lake Macquarrie entrance. The post office and post-master were also transferred to Pelican Flat on 1st. December 1879, being the last but one to leave the village, notwithstanding that the store closed 21 years earlier in February 1877. Thus, in December



1879, apart from its empty buildings the town was to all intents and purposes, non-existant.

THE WALLARAH COAL COMPANY LIMITED

The Wallarah Coal Company Limited was formed in London in 1888 by the issue of 10,000 shares at £10 each, whilst authority for the commencement of various projects was cabled from London to local official representatives so that work could start immediately.

Three hundred acres of land were used according to early reports, presumably also including the village, while later on the Company held 3,500 acres of freehold land for mining purposes. As the Company constructed and owned its own jetty and railway, as well as having its own ships, it enjoyed many privileges not available to other companies, and this, together with the quality and quantity of coal available, no doubt accounted for its prosperity and long life of almost 70 years.

With the revival of work by the new company, the population began to increase again from 1889 onwards. By 1891 some 164 men were employed, and in 1893 the population was reported to be 440 persons, of whom 100 were attending school, and reports stated that "...huts were springing up nearer to the mine" - a $2\frac{1}{2}$ -mile walk being required to reach the working location from the original village. In 1894, when other mining communities were reported as being povery stricken due to strikes and lock-outs, Catherine Hill Bay, as well as Teralba, were said to be flourishing communities. The Newcastle Morning Herald : Miners Advocate of 7th. February 1890 stated that the company had spent £40,000 in 13 months on housing for its employees, building where once "was wilderness".

Coal_output and wages

The Wallarah Coal Company's first source of coal was No.l Tunnel ("A" Pit), located some $2\frac{1}{2}$ -miles from the Bay, near what is now known as "Mine Camp". I have heard this referred to as a "burning pit", and this could be one explanation for the removal of overburden at the rear of the settlement. The entrance to the pit was located 100-ft. up the hillside above the railway loading screens, the descending loaded skips being used to haul the empty ones up an incline and into the tunnel.

6.

No.2 or "B" Fit was located on the opposite side of the valley, slightly above the motor road known as Flowers Drive. Due to growth of trees and undergrowth the entrance is hard to locate except after bush fires, mainly due to the road level cutting through and down into the outside working level. One can still enter a few feet inside this pit, although some subsidence has occurred, but "A" pit entrance is sealed over with earth.

"C" Pit was located in another gully on the same side of the hill as "A" pit, but nearer to the bay, while "D" pit was located almost on the bay.

Press reports of 1890 state that "...the coal was cropping out on either side of the hill", and that a seam 8-ft. thick was easy to hew..". Horses were used in the pit, while 120 men and youths were employed, 60 as miners who were paid ten shillings for eight hours work. After 10th. March 1890 miners were paid a hewing rate of three shillings per ton, and wheelers eight shillings for eight hours. The same reports also indicate that there were industrial disputes in those days, just as there have been in this industry in our lifetime.

Six hundred tons of coal had been shipped initially by the third week of January 1890, and 2,000 tons had been mined to the second week in February. Pit timber was cut on the company's property - gum, cak, blackwood and mahogany abound. The company built its own sawmill to handle all timber requirements, for underground workings, for building construction, and all other purposes. Maps do not pinpoint the location of the sawmill.

The coal was reported as "not being true bituminous, not good gas producing coal, but equal to any steaming coal in the district". Perhaps this is why most was sold to a steam ship company, at the then good price of 7s.6d. per ton, at the jetty. Production in 1891 was recorded as 54,800 tons, rising to 59,264 in 1892, then to 81,400 tons in 1893.

Further reports in 1894 state that four seams with a total thickness of 40-ft. were being worked, only 150-ft. underground, and that it was "of superior character", and its quality "for household and steaming purposes is unequalled". In one week in June 1894, the miners worked $6\frac{1}{2}$ days, and then 7 days the following week, thus giving some idea of the working conditions as well as the demand for coal at that time.

Somewhere about, or before 1906, a fifth working location known as "E" Pit was brought into operation, located near what was later to become known as "Federal City", for in the year 1906 production from B and E pits was recorded as 1,000 tons per day with 320 men employed. New screens for train loading operations were built at this location while those near A and B pits were removed, and the railway to them dismantled. E pit thus became the main coal producing location for many years until the miners commenced their annual leave at the end of 1963, from which time the railway also closed down.

There were three coal seam levels, the top being known as the Wallarah seam, the second - mainly mined by the New Wallsend Company was the Great Northern seam, while some 7,000-ft. down, descending at an angle of 1 in 20 was the Borehole seam.

Today the main source of coal is a drift type mine located between the Pacific Highway and the eastern shore of Lake Macquarie, the commencement of which dates back to 1958. Motor vehicles are used to transport its output to the coal washing plant, and stack area, on the hill overlooking the jetty. Motor vehicles also transport some coal daily to Wyee railway yard where rail wagons are loaded for despatch to various parts of the state in fulfilment of specific orders.

L.

By way of interest and comparison, coal production for 1939 was 235,854 tons, increased to 251,230 tons in 1950 and up to 302,800 tons for 1963.

THE RAILWAY

A 4-ft.8 $\frac{1}{2}$ -in. (1435mm.) gauge railway was built by the Wallarah Coal Company during 1889 to bridge the gap from the producing mine to the ship which then conveyed the coal to the purchaser. The Newcastle Morning Herald & Miners Advocate of 7th. February 1890 reported that "...the railway is now completed right from wharf to colliery, and is one of the best in the Northern District, laid with 70-lb. rail, well ballasted and secured..." The report also states that the line is "...2 $\frac{1}{2}$ miles long, runs between two hills and so there will be no necessity to shift it". A further report in the same paper in 1894 stated that the screens had been erected over the railway which is midway between two tunnels (pits) with coal being moved to the screens by skips which gravitate through a fall of 100-ft.

Although the location of this original portion of the railway can still be traced - indeed can be walked upon all the way, the passage of time has obliterated much detail - such as number and length of sidings at the screens. The roads at the original screens appear to have been on a slight falling grade with the load, the sidings ending somewhere near Flowers Drive roadway of today. The line then continued with an easy falling grade, turned through about 60 degrees on a left hand curve, followed by a short straight, and another left hand curve, again of over 60 degrees, and recrossed the present Flowers Drive roadway, where the short loco shed branch was located. Just beyond here on a short straight - which now climbed on an easy grade - was the junction with the line to the second screens, (E pit) also on the right.

After the short straight the line turned very gently through left then right hand curves to enter a cutting which deepened sufficiently to pass under a road bridge, giving road access to the cemetry on the left hand side of the line. Emerging from this cutting the line faced in a general southerly direction as it reached the Weighbridge or Exchange Sidings.

Leaving these sidings the line continued almost straight, and was located on solid ground about 10-ft. above the good long sandy beach, within a short distance reaching the sidings which once served D Fit. After passing over the "Skelty" bridge (actually two parallel bridges carrying two tracks across to form a loop) the line curved slightly left, then right as it gained a few extra feet of height on a rocky ledge cut into the cliff face, then again turned left through slightly more than 90 degrees to come onto the jetty.

E Pit

A press report in 1906 stated that tenders were being called for new screens to be built at the location of E pit, near what became known as Federal City. These would probably have been completed in late 1906 or early 1907, the yard associated with these screens consisting of three loading roads under the scraper and smalls boxes, and three roads under the "Marcus" screens, together with a run-round road, which also served as an arrival road, along which the train arrived before entering the neck in order to place the wagons in their required road for loading. The locomotive then used the arrival or run-round road again to proceed to the departure end of these sidings to collect its rake of wagons destined for the jetty.

Photograph opposite

"Kathleen", Fowler 0-6-OST locomotive, with the name of her company proudly displayed on her saddle-tank, standing in the Weighbridge/ Exchange sidings. Photo - R G. Freston.

8.

9.



Running off the smalls, outside road, not far from the shunting neck, a short spur lead off then forked to provide two short roads outside as well as inside the locomotive shed.

The six screen roads; and the run-round road, while curving left converged as a main-line and then immediately curved right, crossed the old highway which is in effect still the main street (Flowers Drive) on the level, and then continuing to turn joined up with the original line not far past the level crossing.

There was no system of safe-working, but possibly the one-engine-in-steam rule applied for the sections - colliery (whether A or E pit) to weighbridge; and weighbridge to jetty. Whatever the rule applying, the fact remains that there were



no fatal accidents on this railway whilst it was in operation - about 74 years - certainly an excellent achievement.

The sidings en-route

Near the original engine*shed siding, only a few yards towards the original screens, an early map shows "Powder Magazine" but no siding is indicated, so perhaps this was some solidly constructed building beside the track. Only a small tin shed - hardly larger than the proverbial country toilet - was to be seen in this locality in the 1960's.

There were seven roads in all at the Weighbridge, or Exchange Sidings, five of which were for holding, or storage, these having a total capacity of 223 wagons. The other two roads were the main line on which was located a "Poley" water-balance weigh-bridge over which all wagons had to pass to weigh their contents, and a by-pass road - obviously used mainly for engine movements, running round etc.



The sidings which served D Pit consisted of four roads, and the main-line, with a holding capacity of 110 wagons. Their site can be located by first finding the remains of two parallel wooden, single tracked bridges, side by side, over a small stream flowing into the bay, after passing between two steep hills. These bridges (nick-named the "Skelty" bridge) carried the main-line, and No.1 Siding, which also served as a loop siding.

I had thought that the D Pit sidings were out of existence when I made a visit before 1961 for I do not recall seeing them, but I am assured by an officer of the Company that they remained until the line closed. Certainly, all other sidings remained in use right up to the last operating day.



The two jetties

The New Wallsend Company constructed a jetty adjacent to its pit, which opened almost onto the beach. Horses were used to move loaded coal skips onto the jetty where they were emptied into a chute which allowed the coal to flow directly

LIGHT RAILWAYS

into a ship. The first coal shipment was made on 17th. December 1873, and thereafter the jetty was in almost constant use, for this was the only outlet for the mineral won at the coal-face.

The Wallarah Coal Company set about building a completely new jetty in the lee of a small peninsula so that shipping would be protected from the strong southerly winds encountered along this part of Australia's eastern coast line. Due to the rocky bed of the bay here, divers had to be employed during construction to drill into the rock to locate the piles. In 1890 the jetty was 1,020-ft. long, the deck planking was 30-ft. above high water, while depth of water alongside wis 25-35-ft. at low water, for 600-ft. Even at this time plans were in hand to extend the length by another 40-ft., and although this was eventually carried out, the exact date is not known. For greater strength in rough weather the jetty is secured to the cliff on the shore end by heavy cables.



There were two tracks on the jetty, laid with 100-lb. rail, to reduce, or resist, the corrosive action of the sea air and spray. Only light weight locomotive was permitted on the jetty. The locomotive hauled its rake of loaded wagons along the northern track, detached short of the dead-end neck then reversed onto the southern track to propel the empty wagons away for reloading. Rope haulage was then used to move a few wagons at a time into the dead end for unloading through the hopper base into a chute which guided the coal directly into the ship's hold.

Since the railway operations ceased the tracks have been left in place on the jetty and are now used by a small trolley type vehicle to set up the present conveyor belt system for operation. This conveyor system is interesting. Coal is conveyed from the top of the cliff-face down to the shed at the landward end of the jetty by permanently-installed conveyor-belt. The conveyor from the shed to the loading chute on the jetty is retractable, when not in use being housed in the shed.

Shipping

With the advent of the Wallarah Company, their first shipment was of 600 tons by the steam collier "Woonona" during the third week of January 1890. This was to have been followed by the steamer "Riverina" but before arriving at Catherine Hill Bay it was wrecked. Its intended cargo was stacked and by the end of February 1890, some 800 tons was awaiting shipment.

Press reports on 23rd. January 1894 stated that the company owned two colliers and that during 1893 bad weather had prevented the loading of shipping on only two occasions. During this period coal had been supplied to the Blue Anchor line and the Ducal line to cater for all their requirements, and also in part to Messrs. Howard Smith & Sons, and others as well. Some supplies had also been sold to the South Australian smelting trade, and there had been some demand from the northern sugar refineries.



The 1,750-ton "Stephen Brown" being loaded at the jetty, Catherine Hill Bay. 30th.August 1961 Photo -H. J. Wright.

On 23rd. June 1894 it was reported that "The following large steamers having been successfully loaded and given quick despatch during last fortnight should be sufficient proof not only of the quality of the coal and the perfect shipping appliances, but the increasing and ultimate success of this young colliery, "Fiado", "Gabo", "Barrabool", and the "Taieri" with 1520 tons for New Zealand, also the company's two colliers, and a large number of coasters, "Malcolm", "Monarch", "Isabella", and others".

A further report in 1906 stated that 500 tons, without trimming, could be loaded in less than two hours, and that on one occasion the "Wallarah" arrived at 12.30pm and departed at 4.00pm having loaded 700 tons. Over the intervening years, in all weathers, many vessels have called in at "The Bay" to load the precious black diamonds. These have included the 200 ton "Helen Nicol", the "Koolinga", "Kooyong", "Abersea" and the "Bellambi" (formally the "South Bulli"). The 3,300 ton "Teralba" is now out of service, but the R.W.Miller owned "Liza Miller", 2,600 tons, may still be seen occasionally at the jetty taking coal.

Another caller was the "Coolana" which required anything from 12 to 21 hours to load her 2,980 tons, but it is said the port record goes to "Coondah" for loading 2,000 tons in seven hours. The Company vessels have moved almost countless tonnage to their depot at Balls Head, on Sydney Harbour, from where it is today conveyed by motor lorry to Sydney customers as well as being reloaded into other ships to go inter-state, one customer being Australian Portland Cement at Fyansford, Victoria; although it is understood this firm is soon to change over to natural gas.

One vessel owned by the Wallarah company was the "Munmorah", now scrapped, but which was taken over by the Defence Department during world war II, Another company owned vessel is the "Wallarah", of 1,500 tons, now laid-up, possibly to be scrapped. About the only Company (Coal & Allied) owned vessel remaining is the "Stephen Brown" of 1,750 tons.

It is necessary for a larger vessel, after loading one side, to cast off, turn, and resecure the load evenly on its other side. Thus during the period of the miners' stay-in strike, the "Wallarah" began this manoeuvre in a heavy swell while a heavy sea was running, and being let go for'ard and held by a stern line she was hurled about and run aground before any preventive or corrective action had effect. As over 1,100 tons had already been loaded she was held fast in the grounding and to lighten ship some 600 tons had to be shovelled into an improvised flying fox, and dumped into the sea before she floated free, and was again berthed at the jetty.

When the weather is exceptionally rough and shipping cannot safely be secured to the jetty, ships are diverted to Newcastle harbour for loading, the coal being conveyed by motor lorry. This could also occur during the miners¹ Christmas vacation as during their 1969 vacation Wallarah coal was noted in rail wagons at Bullock Island, apparently coming from an "at grass" stack, transported to Port Waratah and placed into rail wagons for ease of handling by the Maritime Services Board's coal loader.

Shipping, and in time past, no doubt rail movements also, at the jetty, is controlled by a Jetty Master, who is a member of the Miners' Federation, the only such classification in that union, being specially provided for in their award, and applying to Wallarah colliery only.

Hopper wagons

The Company started off with 100 non-air, wooden four-wheeled hopper wagons which had been made in the United Kingdom and sent out in pieces for assembly in the Company's own workshop. These wagons were "exceptionally large", of 12 tons capacity which in a further press report of four years later, 23rd. January 1894, was quoted as being 10 tons capacity. This report also stated that 50 additional wagons were being landed at that time.

Ultimately, about 300 wagons were in constant use, and this number would vary over the years, as in typical private company fashion when sole-bars or head-stocks broke, or for other reasons such as serious derailments, the more badly damaged ones would be cast aside, there to remain unless some parts were in short supply, or were easily salvaged. No accident or wrecking crane was available to reclaim any damaged vehicles.

The original wagons were of unusual design in that they did not have removable hoppers tapered on all four sides - instead they were designed and built specially to suit Wallarah conditions. They were tapered on only three sides, the fourth (which was almost vertical) was the side nearest to the vessel being loaded. The under-side door was of the swinging variety, opened by the releasing pin and lowered so as to discharge its load into a chute from which the coal fed directly into the ship's hold. These doors were not always tight and thus there was a buildup of fine and small coal to one side, along the permanent way, but within the four-foot.

All wagons were dumb buffered and coupled by the standard three-link coupling, each having a lever-operated hand-brake, consisting of wooden brake blocks on the inner-side of the two wheels on the lever side only. All also had heavy gusset plates stiffening up the hopper sides for extra strength.

As the company had its own sawmill it is possible that much, if not all, of the timber in later constructed wagons came from this mill. Certainly, all repairs replacement timber was supplied from this sawmill. Due to the wastage mentioned above, it became necessary to obtain some additional wagons, but with thoughts of closure in mind, combined with a statewide surplus of this type of wagon as collieries closed down, second-hand hopper wagons were far cheaper. In September 1962, some 50 wagons were purchased from South Bulli Colliery, on the south coast, and were hauled over NSWGR metals as two non-air trains to Wyong and thence were conveyed by road transport to their new working location.

These were slightly smaller than the company's original wagons, also having removable hoppers with all four sides equally tapered, but the bottom discharge door was in two parts, hinged lengthways, through the centre-line, which thus permitted opening in two sections, half to each side of the wagon. This reduced their popularity with unloading gangs of the Catherine Hill Bay railway.

No brake vans (guards vans if you wish) were employed on this railway, thus it would appear that no person rode at the rear of trains. Perhaps a shunter accompanied each train - if so we can assume that he rode in style on the locomotive where he also may have assisted with firing occasionally.

Locomotives

"Two of Fowler's best locomotives are to do the work of hauling from the mine and as there is a gradual (falling) incline towards the wharf the trains will be unusually large"... so said a press statement giving the first details of activity on the railway. These "best" locos were road Nos. 1 . 2, built by John Fowler in 1889, being 0-6-0 saddle tankers, on whose shoulders fell the duties of hauling construction trains as well as hauling the first revenue trains. A study of the locomotive list leads one to the conclusion that they remained in service until about 1947.

However, they were assisted from 1906 by "Kathleen" - a slightly larger 0-6-OST, which had also been built by the well-known firm of John Fowler in 1906.



14.

Unlike the two earlier locos, this one, No.3, had a steam dome on top of the boiler.

In 1947 the fourth locomotive was purchased, this time a second-hand machine, being obtained through Mr. J. Kennaway, a Newcastle machinery dealer. Very little is known about it other than that it was another 0-6-OST which had been built by Hudswell-Clarke, reportedly for the Electricity Commission, from whom it is thought Mr. Kennaway obtained it.

As there were no grades to speak of, these locos did not have either steam or air brake, but relied entirely on a screw type hand brake which put wooden brake blocks against the driving wheel rim, this proving to be sufficient retarding force on this railway.

All locomotive repairs, large and small, were effected by the engineering department. This section was responsible for all machinery maintenance - surface On a visit to the railway in 1962 No.3 Kathleen was stored, and underground. complete; but little more than the frame, wheels and coal bunker of No.1 remained, while only the frame and one wheel and axle set of another loco was to be found. This could have been the remains of either No.2 or No.4. On a further visit in 1965 there was no trace of any of these, so that it seems certain they had been sold for scrap.

There are unconfirmed reports of other locomotives having worked here, but no exact details are available. It is a possibility that one, or more, could have been hired for short periods when a company loco was to undergo lengthy repairs.

When in August 1957, the Wallarah Company was taken over by J. & A. Brown, Abermain Seaham Collieries Limited, their small 0-4-OST, No.27 was sent by lowloader road transport to the Wallarah railway to take over the working at the jetty end, where only very light locomotives were permitted. Its actual arrival date would appear to have been about October of that year, for it arrived very shortly after the USSR created history with their launching of the world's first man-made satelite which became known as "Sputnik". This name was promptly attached to No.27 at its new location and some enterprising character thereupon emblazoned the word "Sputnik" with chalk in large letters on the back of the bunker, and thereafter it was "officially" known by that name until its departure some years later.

In July 1962, when this locomotive failed, and the others were too heavy to work the jetty, the only suitable light-weight loco able to take No.27's place was the NSWGR's Manning Wardle 0-4-OST - No.1021 - which was promptly hired, being brought in, and later taken out, by road low-loader.

When the new owners took over in 1957, new, or other, motive power was also required for haulage from the mine to the weighbridge sidings and they purchased two 0-6-0 tank locomotives from the NSWGR on 20th. November 1957 (nominal date only). Both departed under their own steam from Port Kembla on 19th. November, en route light engine to Wyong, from which point road transport was required to get them to their new sphere of operation. These locomotives, Nos.1801 and 1806, were both older than the railway on which they were to work for the next six years, having been built by Vulcan Foundry, Leeds in 1884.

Both were used in coal train haulage from the screens to the weighbridge

Photograph opposite - A busy scene at the jetty end of the Weighbridge/Exchange Sidings, Catherine Hill Bay Railway. The loaded wagons on the right are standing on the mainline to the Jetty. The locomotives are "Kathleen" and former NSWGR No.1801. Photo - R. G. Preston.

sidings, to return with empty wagons brought from the jetty by No.27 or 1021 when on hire. All three locos obtained in 1957 retained their original numbers - i.e. 27, 1801 and 1806 - the whole time they worked at Catherine Hill Bay.

The two ex-18 class each conveyed about 12 loaded hoppers per trip from the screens (close to 200 tons gross) and if for any one of a number of reasons the train stuck on the grade approaching the weighbridge sidings, it would whistle up the other engine at the weighbridge to come and assist. Thus with two engines, when sufficient momentum had been gained a shunter riding on the front buffer beam of the train engine would uncouple to enable the leading loco to run ahead and jiffy itself into another road for the train to arrive.

On the final day of operations 1801 worked the last train from the screens to the exchange, or weigh-bridge sidings, where 27 took over, and later returned the empties to the screens. No.27 later assisted in the removal of the rails from the main-line and screens area, thus leaving the locos trapped within their shed, with but a few feet of rail remaining outside, down to where both shed roads converged into one.

Here they remained until No.27 was taken away by low-loader in November 1965 for loan to Stewart : Lloyd's, Newcastle, while their loco "Corby" was fitted with a new boiler. The following month No.27 was sent to Hexham Engineering's


yard and placed in store down by the Hunter River bank where it has remained ever since.

1801 and 1806 remained isolated but received many visits from interested parties, until when the author and his family paid a regular courtesy call on Sunday 21st. September 1969 - alas, only a cab roof and an odd small valve wheel, plus unmistakeable signs of the use of oxy-cutting equipment, were all that remained. Subsequent enquiries revealed that cutting up had been completed during the week ending 12th. September 1969, the locomotives having been purchased by the Wallsend scrap metal firm of Balcombe.

It is reported that sometime in 1916 a washaway occurred on the main jetty line section and that a light type loco came to rest at the beach level, fortunately no one being injured. The same portion became unsafe in 1953 and remedial action was taken before any similar mishaps occurred. A large steel cylinder was placed under the track to carry away all water. It is worthy of note that only tank locomotives worked on the line.

No.	Builder	B/No.	Year built	Туре	Boiler Pressure p.s.i.	Wheel diam. (ins.)	Cylinders (inches)	Tractive Effort (pounds)	Notes
1	J.Fowler	6044	1889	0-6-0ST	120	36	13 x 18	7,372	a.
2	J.Fowler	6045	1889	0-6-0ST	120	36	13 x 18	7,372	α.
3	J.Fowler	11225	1906	0-6-0ST	?	?	14 x 18	9,408	ь.
4	Hudswell Clarke	1530	1926	0-6-0ST	?	7	14 x 20	?	с.
27	Avonside	1415	1900	0-4-0ST	?	?	14 x 20	?	d.
1801	Vulcan Foundry	992	1884	0-6-0т	140	48	15 x 22	11,550	e.
1806	Vulcan Foundry	997	1884	0-6-0т	140	48	15 x 22	11,550	e.
1021	Manning Wardle	1896	1916	0-4-0вт	?	?	?	?	On hire

Locomotive Roster

Notes - a. Purchased new - withdrawn about, or before 1957, cut up after April 1962. b. Named "Kathleen", noted out of use 1962, perhaps withdrawn about 1957, cut up after April 1962.

c. Purchased second-hand, reportedly from Electricity Commission through J. Kennaway, about 1947, scrapped before 1962.

- d. Transferred by new owners from their Hexham railway in 1957. Stored December 1963 until November 1965. Then hired to Stewart & Lloyds. Returned to Hexham and stored December 1965.
- e. Purchased from NSWGR, 19th.November 1957, stored December 1963, cut up September 1969.

Photograph opposite - Former NSWGR 18 class 0-6-0T steams away from E Pit screens, on the Catherine Hill Bay Railway, with a load for the Exchange Sidings.

Photo - R. G. Preston.

18.



Winding engines and boilers

In 1894 The Newcastle Morning Herald and Miners Advocate reported that "underground haulage is very complete...steam power operates a single rope..." then later another report states that there "is a small haulage engine near the screens. The cost of this engine, which also drives a sawmill, could not have exceeded £400, a sum which would not purchase the fly-wheel of the costly plants to be seen at such mines as Wallsend, Australian Agricultural Company, Newcastle, or Hetton Collieries".

The above obviously refers to the boiler which was embedded in concrete, which has the numbers 2786 still discernible above the firehole door (see photograph of remains, p.19). The question is, where did this boiler come from and who built it.

The same newspaper in 1906 stated that there were "three boilers now in use, the latest is a Babcock & Wilcox built boiler..." This boiler would seemingly be at the then new E Pit. The other of the three boilers must have been the winding engine used at B Pit, - a photograph of which appears on p.20. This was used to haul skips, not only out of that pit, but to return the empty skips back across the gully from the screens and up the rise to the pit entrance.





A 1971 view of the remains of a boiler set in concrete near the original screens. This appears to be the boiler reported as having cost £400, and drove a sawmill and haulage ropes.

Photo - H. J. Wright.

Within a few feet of the front of this engine, but on a lower level, the roadway (Flowers Drive) passes the location seen in the photo (p.20). The engine was undoubtedly portion of a box-tank locomotive, typical Manning Wardle. It has been said that the name "Driver" can be discerned on the side of the tank, which would make it No.2 of the former Auckland : Drury Railway, New Zealand (Manning Wardle B/No.201 of



1866). The photo also shows a special canopy - noted in the Manning Wardle engine register as having been attached to their No.201 of 1866.

This engine was sold by the Auckland E Drury Railway to Brogden, contractor for building the Parnell tunnel, Auckland; after which, together with sister engine, No.1 (MW B/No.162 of 1865) they both went to the Bay of Islands Coal Company, near Kawa Kawa where they were in use until the line was rebuilt to 3-ft. 6-in. gauge about 1876. Then one (B/No.162) was rebuilt as a winding engine for use at that mine while the other (B/No.201) was also converted to a winding engine and went to a gold mine at Coromandel, NZ, and then vanished. Rumours suggest that "an engine" later went to New South Wales.

Only one other possible identity remains - that it was from ex-NSWGR No.66, a Manning Wardle 0-6-OST built in 1865 (or is it the boiler of this engine set in concrete at the screens?).

Water Supply

Even in 1972 the town of Catherine Hill Bay does not have a water supply of its own - most people are dependent upon rainwater kept in the old style household tank for all their needs. However some houses occupied by Company officers are connected to a system which pipes water from Moonee - south of the town.

It is said that, in later years anyway, this pipeline also supplied the locomotive watering points which were 3-in. stands (water column - water plug), one each at the run-round road at E Pit opposite the loco-shed; on the jetty end of the weighbridge sidings; and on the cliff top before turning onto the jetty.

Possibly in earlier days another stand existed at or near the original loco-shed, or alternatively somewhere near the original screens. Sometime after 1900 - as it is not shown on a map of that date - a dam was built across the stream in the gully between the locations of E Pit and A/B Pits, and in all probability this served to supply all locomotive, winding engine and other boiler requirements; as well as horses and other pit requirements, until perhaps better water, from Moonee, came through to replace it.

Closure of the railway

Towards the end of the railway's life, some of the rail tracks under the screens were filled in, or levelled, with various types of mine waste - stone, shale etc., to permit road motor vehicles being loaded under the screens, to deliver coal to such places as the Newcastle area for local sales, Wyee for rail movement, and Port Waratah for shipment.

On a few occasions when the weather was exceptionally bad and shipping could not tie up safely at the jetty, coal was transported by road to Belmont rail yard for loading into other private non-air hoppers for rail movement to Port Waratah and thence shipment, but this procedure has not been adopted since late 1966 or early 1967.

The mine workings of E Pit, and the railway ceased operations as from the miners going off duty to commence their annual leave for the Christmas vacation on Friday, 20th. December 1963. As the rolling stock was then no longer required, the hopper wagons, it is said, were all placed in the yard at the screens and



Locomotive boiler and frames, in use a a winding engine at B Pit, Catherine Hill Bay Railway, 1894. unceremoniously burnt. On a visit to the location in the second half of 1965 there were unmistakeable signs of a fire having burnt over a wide area - plenty of ash and some charcoal. No metallic thing remained, indicating that the local scrap metal merchant had collected everything of value.

However "much metal" remained trapped in the confines of "loco", in the form of three small locos - these remained there for many months pending the disposal mentioned earlier on.

Several years after the railway operations ceased, a mineral sand mining concern worked all the sandy area around the beach front, so that most of the location of the weighbridge, or exchange sidings have been obliterated and the layout cannot now be traced. Similarly at the D Pit location, filling to level the area for car parking for those making the most of the fine beach has completely obliterated all trace.

The formation from the original screens has in parts been used as tracks for motor vehicles, while elsewhere young trees grow to all heights and even between the second screens and weighbridge sidings, young trees and brush have taken over. Dressing sheds have been erected beside the line at the "Skelty" bridge, which still remains. In 1972 only the weighbridge watering facilities remain, and all trace of the screens, stables, loco and other sheds have been completely erased where once was the busy E Pit.

Acknowledgements and Sources

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My thanks also must go to the Editor of the Newcastle Morning Herald and Miner's Advocate for permission to research in their early editions and to use that information, and also to the books -"Reid's Mistake" by Keith H. Clouten, and "The Newcastle Lifeboat - shipping disasters off the Newcastle coast" by W. J. Goold, and to those who have assisted with photographs.

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To Kelly Basin...

By - C. W. Jessup



The North Mount Lyell Railway consisted of 28 miles of wellengineered 3-ft. 6-in. gauge main-line, through wild mountainous country, where annual rainfall exceeds 100 inches. It connected Pillinger, on Kelly Basin, with smelters at Crotty, and terminated near the rich North Mount Lyell copper mine at Linda. The last train left Kelly Basin on 13th January 1925. Not surprisingly, Kelly Basin is now rarely visited by railway enthusiasts.

A party of eight people participated in a hike along this railway to Kelly Basin, on 19th and 20th. February 1972. We travelled in by car the first 15 miles along the old North Mount Lyell formation, to Purgatory Gap where the road was blocked by a landslip. Four-wheel drive vehicles could negotiate this obstruction. This road is part of a Hydro Electricity Commission road to the Franklin River, and turns off the railway formation about two miles beyond Furgatory Gap.

About 200-yards past Purgatory Gap cutting the road passes a rotting wooden water tank situated on the west side of the road about 20-ft. above it. A rough vehicular track runs along the railway formation from where the HEC road leaves it. (See LR 35, p.20 for another report on this section of the line).

Without the break of a wide road in the forest, trees formed a crown over the railway formation dimming the light to a gloom, in which the party soon discovered leeches thrive. In this country it is extremely hard to judge how far one has travelled as there are no outstanding landmarks. Between about half and $l_2^{\frac{1}{2}}$ miles along this track there have been two landslips which would make further vehicular penetration a very risky business indeed.

The formation is easy walking to the Bird River bridge; in one or two parts short deviations must be made to avoid waterlogged cuttings. The Bird River bridge is in very sound condition and appears to be made of cedar wood (Huon Pine). It is the first location in from the HEC turnoff where a camp could be set up. Immediately beyond the bridge and branching from the Kelly Basin end to the west was the remains of a spur, about 50-yards long. Above the spur were the remains of

	Nora River Bridge	o To Kelly Basin
← To Lînda	Pair of wheels	Steel tanks
	 ↓ Remain	s of 2-ft. gauge tram₩ay.

a platform on which was still laid in places a 2-ft. gauge steel rail tramway. There was insufficient time to follow the tramway formation any distance. It was considered that this was a firewood loading point. Firewood was the principal traffic in the line's final years of operation.

Beyond this point the formation is in a bad state of decay. In places where the line followed high above the Bird River the permanent way has proved to be not so permanent, and the formation has collapsed 50-ft. or so into the Bird







NORTH MOUNT LYELL RAILWAY

19th. February 1972

Top left - Rails still in situ at Pillinger, terminus of the NMLR. Top right - One of the party takes advantage of

the burnt out remains of the Kelly Basin pier to remove leeches. Bottom - The Bird River bridge, still intact after almost 50 years neglect.

All photographs -C. W. Jessup.



Remains of the jetty at Pillinger.



NMLR brakevan body at Kelly Basin. Both photos

Both photos -C. W. Jessup. River. Negotiating these landslips is dangerous as the hillsides along the river are slippery.

A little further along a wooden water tank was discovered, in near perfect condition, sitting above the track on the western side. At one point the line cut through a high spur in a 45-50-ft. deep cutting. The uphill side of this cutting has collapsed and a huge jumble of broken trees and rocks forms a barricade 25-ft. high in the cutting. Deviations around these blockages were time consuming.

Shortly after this blockage the line looses the almost constant downhill grade it has been following since Purgatory Gap, and levels out. The formation swings away from the Nora River valley and crosses the coastal plains towards Kelly Basin. After traversing a grassy clearing and further beech forest the line arrives at Kelly Basin.

Remains here consist of a few yards of laid siding, a pier with rails still intact, and a large brick chimney. A North Mount Lyell guards van: looking like a Hollywood movie set, is tucked away in the ferns.



Along the shore line from this point are several good camp sites. Inland the area is swampy, overgrown with a tangle of ferns and creepers and hard to explore. Beyond to Pillinger the formation closely follows the shore line, and in several locations has been eroded badly by wave action. In this section one bridge over a sizeable creek is in a state of collapse, and skilfull manoeuvring is required to cross on it. The line is also badly overgrown on this section.

Arrival at Pillinger is sudden. The first sign of human settlement stumbled upon is "Reindeer Lodge", a free camping shelter of six bunks, which can be used by anybody. It is a converted North Mount Lyell guards van with appropriate fittings.

Pillinger site is covered by several acres of scrub and must have been quite a large town. The usual relics of "civilization" litter the site - broken bottles, galvanized iron, bricks (stamped "NML"), and timber. Of interest to the railway historian are axles, wagon wheels, horse harnesses, point bars and a short section of laid rail. The pier and jetty, both in an advanced state of decay, would have been considered large when they were in use. The pier was over three rail tracks wide and about 100-yards long. The jetty was of even larger surface area.

Several sets of wheels of 3-ft.6-in. gauge, and also some which were apparently 2-ft.6-in. gauge, lay around the site. Judging from the entries in the Visitor s Book at Reindeer Lodge, we were the first rail fans into Pillinger since the book's commencement in 1964. Most people come in by boat.



The drawback to walking this line is that, unless a boat is arranged, one must tramp out again. This most definitely makes it a two day trip. I would advise anyone contemplating walking the line not to venture beyond the Bird River bridge, unless they are in a well equipped walking party, preferably of at least four people. A walk along this line is not to be taken lightly, tiger snakes are numerous, the leeches are ravenous, and mosquitoes are swarming in the coastal swamps.

Approximate	timings	- Purg	atory	Gap to	HEC road	l turnoff	-		50	mins.
		HEC	turnof	f to E	Bird River	bridge	-	1	hr.25	mins.
		Bird	River	bridg	e to Kell	y Basin	-	2	hr.30	mins.
		Kell	y Basi	n to F	illinger		-		35	mins.
National Acard Conception of Acard Acard Conception of	the state of the s	Addition Reported	COLUMN DATASET	Service Street Street	service and in some diversion of the second	the second s	our statements	and the second	And in case of the local division of the loc	



Pillinger at the turn of the century. The locomotive is a 4-6-0 built by Avonside.

Photo -Winter's Studio, Burnie, Tas.



News, Notes & Comments

No.8 0-6-0DM Fowler B/No.20827

- 0-4-0 Simplex

9 0-4-0DH E.M.Baldwin B/No.6/1792

NEW SOUTH WALES

<u>CONDONG SUGAR MILL</u> 2-ft. (610mm.) gauge. Locomotives (all diesel) at this mill at 7th. August 1971, are -

No.2 0-4-0DH E.M.Baldwin B/No.6/1466 6 0-4-0DH Ruston & Hornsby 7 0-6-0DM Fowler B/No.16830

And at Crabbes Creek -

No.4 0-4-0 Simplex - 0-4-0 Ruston & Hornsby B/No.279567

At Crabbes Creek the locomotives haul cane to the NSWGR siding, from where the NSWGR hauls it to Condong Mill. (ANGRMS "Stack Talk")

ILLAWARRA LIGHT RAILWAY MUSEUM SOCIETY (See LR 38, p.22).

A public meeting, held in Wollongong on Wednesday 15th. December 1971, resulted in the formation of the Illawarra Light Railway Museum Society, and the first General Meeting was held on 16th. February 1972. Membership is now 16, and is expected to increse to about 30 within a few months.

Prior to the first meeting, two specialized 2-ft. gauge mine trolleys and 600-ft. of assorted 25-lb. to 45-lb. rail were retrieved by a handful of prospective members, from the fate of the blast furnace, from Mount Kembla colliery, with the permission of Australian Iron E Steel Pty. Ltd.. Work was begun in earnest on Saturday, 17th. March when various light railway items were obtained from near the foot of the onetime 2-ft. gauge cable incline at Corrimal Colliery. These items, also donated by A.I.E S. Pty. Ltd., included a 3-ft. gauge fourwheel side-tip ballast wagon built by the Western Wheel E Scraper Company of Aurora, Illinois, USA., a pair of crossing gates and associated material.

A.I.E S. has also granted permission for the Society to recover the track from the former 2-ft. line, running for approximately a mile through the bush between the head of the 2-ft. incline and the present pit top, and permission to retrieve a rake of coal skips to form a representative train.

Weekend work over the coming months will be concentrated on track lifting transportation out of the bush, and stacking the materials on property loaned for the purpose by Mr. Ken Franks of Balgownie.

The aim of the Society is to establish, in or near Wollongong, a 2-ft. gauge railway - preferably steam-worked - on which tourists may ride and those inte**re**sted can view light railway items used on industrial networks in the Illawarra and other areas. Negotiations for a permanent site for the museum are in progress with Wollongong City Council, and appear to be receiving sympathetic consideration. An operational 2-ft. gauge steam locomotive has been promised by a Queensland sugar mill and free transport by sea has been offered by a shipping line to bring a loco to Wollongong, but it will be, at best, several months before this transfer is effected.

The railway being reclaimed at Corrimal, operated in all, four steam locos between 1908 and 1967 hauling coal from the present pit top to the 2-ft. incline built to serve the original adit (which closed in the early 1900's). This system was superseded by a 3-ft.6-in. gauge funicular line commencing at the present workings, and after September 1955 the 2-ft. gauge line saw very limited use.

Under the system in use up to 1955 coal was discharged from the 2-ft. skips at the bottom of the old incline into hoppers and passed through screens. The screened coal was loaded into standard-gauge wagons and hauled by the Colliery's own locomotives to the NSWGR tracks at East Corrimal. The 3-ft. gauge side-tipping wagon was used, hauled by a horse, to dump the stone screenings from the coal, and its line crossed, on the level, the standard-gauge tracks and was about 100-yards in length.

The horse-worked line fell into disuse about 1954 when the screens were dismantled and the standard-gauge line extended about half a mile to the southwest, to link up with the newly constructed 3-ft.6-in. gauge incline and washery.

Those requiring further information about the activities of the Society should contact the Secretary - Operations Manager, Mr. Tony Madden, P.O. Box 1741, <u>WOLLONGONG</u>, NSW, 2500; or telephone (042)61-2523.

(A.M.Madden, Secretary, ILRMS)

HILLGROVE, 3-ft. (914mm.) gauge.

Hillgrove, near Armidale in the New England tablelands, was an important mining centre in the 1880's, with several gold mines with their own cableways and tramways. The gold was to be found deep underground and tramways descended from Hillgrove to the bottom of Baker's Creek gorge to mine the gold. The longest of these was the Baker's Creek mine, which was served by a balanced funicular (three rails) descending 1,500-ft. from the top of the gorge to the mine entrance.

Today Hillgrove is only a shadow of its former population of over 3,000, with most mines abandoned and boilers and mine skips lying around the area. One mine is still operating however, mining antimony and operating a 1,300-ft. single track incline tramway. At the top is a modern electric winch-house with a generator nearby. This pulls a single car up the 3-ft. gauge line to a tippling arrangement from where the ore can be tippled into road trucks. It is also used for transporting men and materials to the mine. The grade is far steeper than at Williamsford, Tasmania; and Rubicon, Victoria; but the extremely low speed



29.

of the car gives one the impression you could jump off if you had to. A system of bell codes is used to control the car. The track is laid on wooden sleepers set in concrete, as the sleepers would probably not hold on the slope if just placed onto the earth directly. (Mark Plummer)

QUEENSLAND

BABINDA SUGAR MILL, Babinda 2-ft. (610mm.) gauge

	The locor	notive fle	eet, as	at Oct	ober	1971, i	s as	follows	; -	
1.	"Fishery"	0-6-0DM	RMP Bagu	ley	B/No.	3387	of		Sky blue	
2.	"Josephine"	0-6-0DM (Com-Eng	(Qld)		A1821		1957	Green	
3.	"Russell"	0-6-0DM (Com-Eng	(Qld)		A2027		1958	Blue	
4.	"Allison"	0-6-0DH (Com-Eng	(Qld)		C2234		1958	Pinkish	
5.	"Harvey"	0-6-0DH 0	Com-Eng	(Qld)		AD1138		1960	Yellow	
6.	"Morrison"	0-6-0DH (Com-Eng	(Q1d)		AD1239		1960	Pink	
7.	"Brampton"	0-6-0DH (Com-Eng	(Q1d)		AH2460		1962	Yellow	
8.	"Bartle-Frere"	0-6-0DH (Com-Eng	(Q1d)		AH3979		1964	Cream	
19.		0-4-0DM N	Malcolm	Moore					Green and	red
20.		0-4-0DM 1	Malcolm	Moore					Green and	red

The Malcolm Moores were originally fitted with eight-cylinder petrol engines, but have been re-engined with six-cylinder Ford diesel engines. They are used by the fettlers. The diesel-mechanical locomotives are powered by eight-cylinder Gardner 8LW engines, and the diesel-hydraulics by six-cylinder Rolls Royce engines. As can be seen, the locos are painted different colours, but all have red siderods and counterweights, red and green trim, and are well kept.

BINGERA SUGAR MILL, Bundaberg, 2-ft. (610mm) gauge

On 20th. July 1971 this mill took delivery of a new E. M. Baldwin 0-6-ODH locomotive, model DH20 MK 1, B/No.3875/1 of July 1971.

FAIRYMEAD SUGAR MILL, Bundaberg, 2-ft. (610mm.) gauge

A second-hand diesel locomotive, Com-Eng 0-4-ODH, B/No.GA 1148 of 1961, was delivered to this mill in August 1971. The locomotive came from the NSW Department of Supply, having formerly been used at St.Marys, NSW.

HAUGHTON SUGAR MILL, Giru, 2-ft. (610mm.) gauge.

All bulk sugar bin wagons and diesel locomotives are now fitted with Willison type automatic couplers.

INKERMAN SUGAR MILL, Home Hill, 3-ft.6-in. and 2-ft. (1067mm. and 600mm.)gauges. The 3-ft.6-in. gauge Hunslet 0-6-OT "Inkerman No.1" is now out of service. All 3-ft.6-in. gauge sidings in the mill have been completely relaid to allow QGR diesels to enter the yard, whilst the QGR wagons are now pulled through the loading areas by a system of winches. "Inkerman No.1" is to be preserved at the mill, whilst the mill's last 2-ft. gauge steam locomotive "Carstairs" (Perry 0-6-2T) is also to be preserved in the district.

MILLAQUIN SUGAR MILL, Bundaberg, 2-ft. (610mm.) gauge.

No.8, Bundaberg Fowler B/No.3; 0-4-2T is to be fitted with new side tanks during the 1972 slack season.

PLANE CREEK SUGAR MILL, near Mackay, 2-ft. (610mm.) gauge. All remaining steam locomotives have been scrapped.

RACECOURSE SUGAR MILL, near Mackay, 2-ft. (610mm.) gauge.

The Fowler 0-4-2 tender locomotive has been "preserved" at Mackay Outer Harbour, in place of a Fowler saddle-tank from Pleyestowe Mill, which had succumbed to the salty sea air, and was very badly rusted away. In the process of removal from Racecourse Mill, the 0-4-2 lost her trailing truck, and now sits forlornly as an 0-4-0 less tender. (All Queensland items - ANGRMS "Stack Talk")

TASMANIA

VAN DIEMEN LIGHT RAILWAY SOCIETY P.O.Box 887, LAUNCESTON, Tas.7250.

Further to our report in LR 38, p.23; the Hunslet locomotive (from Lune River) was moved from the National Trust property on 18th. March, following a decision to accept an offer from the St.Leonards Council of facilities to build a railway of up to five miles in length along the banks of the North Esk River. The offer included the use of a bull-dozer and other Council equipment, which together with an offer from the Army to construct a trestle bridge as an army exercise proved the new site to be a far better proposition to the restricted nine acres of our original site at Clarendon.

We are unable to move into our new site until leases etc. have been signed, and for the time being the locomotive and rolling stock are being temporarily stored on a member's property. We have taken delivery of two Zeehan : North East Dundas flat cars from Lune River, and immediately we set up our headquarters, we will commence building passenger cars on the old underframes.

The Hunslet loco has undertaken its preliminary boiler examination and the Boiler Inspector indicated that the boiler was in excellent condition. Following the inspection, we steamed the locomotive along 72-ft. of test track and featured on the ABC Tasmanian News with a film, which has since been donated to the Society. We are still receiving excellent publicity, and an article has even appeared in the Australasian Post.

We have applied for incorporation of the Society, and by the time this report appears in print we hope that incorporation will be completed. Although our new site will facilitate the construction of a mixed gauge railway, we are concentrating on the 2-ft. at this stage, as we are now committed to have something running by next tourist season, and any 3-ft.6-in. stock will be stored at our headquarters until we are able to extend our works. (Ian Hall, President VLRS)

TERRITORY OF PAPUA NEW GUINEA

HARRISON & CROSSFIELD'S OIL PALM FACTORY, Navaho, New Britain. 2-ft. (610mm.)gauge. Papua New Guinea has an operating railway once more. The oil palm factory at Navaho, west New Britain, which opened in July 1971, has a small 2-ft. gauge industrial railway system. The railway is made necessary by the need to cook the food under pressure in the oil extraction process. For this stage, steel bins with a capacity of 2.7 tonnes are mounted on four-wheel railway trucks and run directly into the pressure chambers for cooking. Winches are used to move the trucks at this stage, but a small Lister diesel locomotive is used on the ballooon loop between the loading chutes and the factory. It is of about twenty

horse-power, but the company officials say it is underpowered for the task. There are 40 bins and trucks in service. (Bob McKillop, courtesy "Green over Red").

VICTORIA

ADA VALLEY REPORT (See LR 31,p.17; LR 29,p.22; LR 24,p.5; LR 19,p.25)

The Australian Radio DX Club, Victorian Branch, - in an effort to prove that DX-ers are not just a lot of lazy people who sit and dial twiddle radio receivers, organized a hike on Saturday 18th. December 1971. (For the uninitiated DX-ers send reception reports to distant radio stations, in an effort to receive verification cards or letters, from the stations confirming the reports).

Ten members took part in the hike, which left Starling Gap at 10.30am, and headed east along the Federal Tramway formation, then turned north to New Ada Mill, arriving there for lunch at 12.30pm. Leaving the mill at 1.30pm we returned to Starling Gap at 2.30pm, via the jeep track north west of the mill and Big Creek Road.

Almost six years earlier, in February 1966, Ken Macleod, the late Geoff Thomson, and I went as far as the second trestle bridge from Starling Gap, on the Federal Tramway. Both the bridges were standing and were crossable then. How different now...

Before coming to the first trestle-bridge, a low make-up, only a few yards long, is encountered, and this is easily crossable on the remaining beams. However the first and second trestle-bridges are now both wrecked, and like all four trestles we came upon, are passable by going down and across the creek at (under!) water level. The second bridge had a very slippery and steep embankment to climb on the eastern side. The third bridge was quite a long one, and is not crossable. Some deep cuttings are in this area and several sections of the track are very slushy. The fourth trestle - also wrecked - was quite a big structure, and it was very difficult to cross the creek below, due to the slush and width of gaps between logs.

From here east the track has now been bulldozed, and there were recent tyre tracks in the mud. Bridge 29, as shown in the map in LR 31,p.18; appears to have been obliterated by the bulldozers. It could have been the fourth bridge we encountered, but this appeared to be further west. Bridge 28 on the same map is now only a deep gully in the jeep track.

Between the Ada No.l Mill crossing and the New Ada crossing there are two dips where bridges were. Between these two gullies there was a long pool of muddy water the full width of the track, which had to be passed by climbing the south embankment.

On the New Ada line, the winch, hut and boiler illustrated in LR 31,p.23, still remain. About half-way to New Ada there is still a siding off to the right on a slight curve. This is partly wooden rail, but the right-hand rail remaining near the junction is light steel rail. Some bent steel rail and cable were on the hain-line" formation.

The jeep track actually swings left just before the New Ada Mill itself, not to the right of the mill as indicated in the map in LR 31. The mill site is now a mass of fallen log beams and some concrete. The only building standing was a small "telephone box size" office with a seat and bench. Some wooden rails remain near this.

The jeep track back to Big Creek Road gives fairly easy walking, although mostly uphill. The Federal Tramway from Starling Gap to the fourth



Ken Macleod (left) and the late Geoff Thomson on the second trestle bridge east of Starling Gap, on the 3-ft. (914mm) gauge Federal Tramway, as it was on 13th. February 1966. This, and other bridges in the same area have been wrecked in the last few years.

Photo-- Ian Stanley.

bridge, where the jeep track now starts, has many trees across it. Some must be climbed over, but this is often helped by footholds cut into them. Others can be got under. The track was clearly defined, except at creek crossings, without too much foliage obstructing the way. Quite a number of sleepers and dog spikes, particularly for the south side rail, remain in this section.

I would recommend that anyone interested in hiking this section of the Federal Tramway do so in the direction the DX Club did it - to get over the difficult parts first. (Ian Stanley)

HAYDEN'S TRAMWAY, Barwon Downs. 3-ft.6-in. (1067mm.) gauge.

The remaining quarter-mile of Hayden Bros. once extensive timber tramway ceased operating in mid 1971. This was the section of the tramway from the sawmill down the hill to the yard at Barwon station, on the VR's now-closed Birregurra -Forrest branch.

The track had been gradually deteriorating as there had been no maintenance for at least 25 years, and it finally became **to** rough to be safely used.

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The track nearer the mill had also gradually sunk into the earth, and when wet, the mud had made operations difficult.

The line is still intact, but bogies are now only run a short distance out from the mill, and the timber is removed by a mobile crane and taken to the station yard for sorting. Seven ordinary inside-frame timber bogies remain at the mill; four with timber frames, and three modern "all welded" bogies constructed from lengths of rail.

(Michael J. F. Menzies).

VICTORIAN RAILWAYS, WELSHPOOL - PORT WELSHPOOL TRAMWAY, 2-ft.6-in. (760mm) gauge.

The Association of Railway Enthusiasts organized a walk along this horse-worked tramway on 29th. April 1972. The $3\frac{1}{4}$ mile (5.2km) tramway, which closed in 1940, was dismantled about 18 years ago. Earthworks are very light, consisting of a very low embankment, and no remains of the Welshpool terminus survive. The northern section of the tramway is clear of undergrowth, but most of the way the formation is heavily overgrown, and in some places very difficult to find. A number of dogspikes, fishplates and sleepers can still be found, as well as a small wooden culvert about a mile north of Port Welshpool. At Port Welshpool no track is left on the jetty, and although a small four-wheel trolley can be found on the jetty, it is not from the VR tramway, as its gauge is 3-ft. (914mm.)

(Frank Stamford)

WESTERN AUSTRALIA

MALLET COMPOUND LOCOMOTIVE IN PERTH, 2-ft. (610mm.) gauge.

The photographs opposite show a mallet type locomotive I found on a private property behind Caversham, Perth. It is slowly being worn out by rust and children, however I believe that the ARHS WA Division is trying to obtain it for preservation at Ashfield. The cab is lying upside down on the ground toward the rear, and I could not find a funnel. The loco itself is an 0-4-4-0T and the movable front (inside type) frame has a wheelbase of 39-in. The rear (fixed) frame is of the outside type - probably to house the large firebox - and has a wheelbase of 52-in., giving a total wheelbase of 10-ft.2-in.. The front frame carries the larger (low pressure) cylinders. Width of the loco is 6-ft.7-in., the boiler being 38-in. in diameter, and the coupler height above rail 16-in. On noting the dimensions the locomotive could have run on the Lake View 3 Star tramway at Kalgoorlie, as some people seem to believe, but as yet I cannot find anything concrete on this.

According to Singleton f Burke's "Railways of Australia", the Port Douglas Shire Tramway in Queensland had the only narrow-gauge mallet in Australia. If this is so, where did the locomotive at Caversham come from?

(Geoff Murdoch)

(Editor's comment - According to C. S. Small's list of locomotives of the private railways of Tasmania [in the Society's archives] two "Koppel" 0-4-4-0T mallet compound locomotives, built in 1902, were used on the 2-ft. gauge Mount Magnet tramway, near Waratah, Tasmania. They had cylinders $8\frac{1}{4}$ -in. and 12-in. by 12-in., and 24-in. driving wheels; and were sold about 1932 to the Great

<u>Photographs opposite</u> - <u>Top</u> - 0-4-4-OT Orenstein : Koppel 2-ft. gauge Mallet compound locomotive as recently photographed near Caversham, Perth. Photo - Geoff Murdoch. <u>Bottom</u> - The same, or sister locomotive, at work on the Mount Magnet tramway, near Waratah, Tasmania, probably about 1910. Photo - Winter's Studio, Burnie.





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AUTUMN 1972

Boulder Mining Company, Western Australia. One was used by the Great Boulder Company until 1962 according to Mr. Small, whilst the other was never operated in WA, but was cannibalised. The engine now at Perth would be one of these. There are also reports that the Port Douglas Shire Tramway obtained a similar locomotive in 1903 - see "Stack Talk" February 1972, p.21 - also from Orenstein & Koppel. To the best of my knowledge, no other mallet locomotives worked anywhere else in Australia. "Industrial Railway Record" No.40, December 1971 [available from LRRSA Sales Department, 72; posted] has a builder's photograph of a locomotive differing only in very minor detail, of 2-ft. gauge, weighing 18 tons, with a plate on the cabside reading "ORENSTEIN & KOPPEL Ltd LONDON-BERLIN GENERAL AGENTS THE 'CENTRAL' MINING & TRAMWAY APPLIANCES PROPRIETARY Ltd 40, HUNTER STREET, SYDNEY". This was shipped to Sydney, and would have either been one of the Mount Magnet locos or the Port Douglas one. Any further information would be welcome - FES).



<u>Above</u> - Orenstein E Koppel 2-ft. (610-mm) gauge Mallet compound locomotive, showing - at the left of picture, the front inside frames, and at the right the rear outside frames and small (highpressure) cylinders. <u>Right</u> - Unusual adjustment on valve gear of the Mallet locomotive. This shows the third pair of wheels from the front; the front set of drivers has a similar adjustment.

Both photos - Geoff Murdoch.



From your editor

I must apologize to those contributors whose items have not been published in this issue. Although eight extra pages have been added, many items have been held over to LR 40, but I can still make room for topical news items and letters for that issue. To help accommodate the material, an increase in page size to 232mm x 166mm is being considered - the present size being 200mm x 166mm. This change would take effect from LR 41. Any members not favouring the change should promptly contact a council member, to enable their viewpoint to be considered by the council.

Registered for posting as a periodical - category B.



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Light	Railways					
No. 40	VOL. X					
WINTER	1972					



Editorial

In recent years there has been a remarkable increase in the number of preservation schemes. Whilst this is very good news, it seems the time has come for the various groups to co-operate with each other, possibly in some form of loose "federation", so that the finance and labour available can be put to the greatest use.

To our knowledge there are currently at least 16 groups or individuals in Australia owning narrow-gauge steam locomotives which they intend to operate. Victoria and New South Wales each have at least six such groups, Tasmania has two, and Queensland and Western Australia have one each. Many preservationists have looked inter-state for rolling-stock, and Queensland, in particular, has been the major source of locomotives.

This is most encouraging. We would far rather see a locomotive well cared for by enthusiasts than abandoned in a park to be desecrated. But in many cases (and usually unintentionally) societies seem to be engendering ill-feeling between each other by grabbing locomotives which other groups considered rightfully "theirs". In addition some individuals have paid fantastic amounts to import locomotives from Queensland, apparently for their own private use. In so doing they have artificially inflated the value of what is intrinsically scrap metal, to the mutual detriment of all the preservation organizations.

There are probably enough locomotives to go round. The first aim should be to preserve a representative example of locomotive types in the State in which they operated. After this has been achieved, there is every reason to encourage interstate (and even international) transfers of locomotives, providing the groups aquiring them are fully aware of the difficulties and costs of looking after them.

We heard recently that American interests are planning to rescue "Felin Hen" from the park in which it has been abandoned at Bundaberg, to take it back to the USA, where it was built. Who can blame them? Ideally this locomotive should be preserved in Queensland, but if this cannot be done nobody should object to its repatriation to the USA. It certainly is not preserved now (see photographs in LR 34, p.27).

OUR COVER

Graham Evans' drawing shows the Gin Gin (Queensland) sugar mill's Krauss 2-ft. gauge 0-6-OT locomotive, B/No.4296 of 1897, with home-made tender, at the mill, Wallaville.

TO OUR READERS...

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", errors may creep in. Additional information is being discovered all the time, and this sometimes contradicts previous information.

If you see any errors, or can add information, please contact the Editor, and so help us to record the full history of Australia's light railways.

Articles and News, Notes & Comments items are always welcome.

Historical references to sums of money in "Light Railways" are in Australian pounds (\pounds) . One pound equalled two dollars on changeover to decimal currency in 1966.

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<u>MEETINGS</u> - Second Thursday every second month at 8-00pm, room 11, Victorian Railways Institute, Flinders Street Station building, Melbourne. Next meetings 10th. August 1972, 12th. October 1972, 14th. December 1972, 8th. February 1973. Visitors welcome.

<u>BACK NUMBERS</u> of Light Railways - Nos.13, 14 and 15 @ 50ϕ for the three, including postage. Nos. 31, 32, 33, 36, 37, 38, 39 and 40 @ 70ϕ each, including postage. All other issues are out of print. Available from - Stephen Martin, LRRSA Sales Officer, 7 Talaskia Road, Upper Ferntree Gully, Vic., 3156. Please make remittances payable to the LRRSA.

<u>OTHER PUBLICATIONS</u> available from the Sales Officer, include scale drawings of the Powelltown Shay locomotive, and a Baldwin 3-ft.6-in. gauge 0-4-OST locomotive of the type used in industrial applications throughout Australia. These are 50ϕ each or 90ϕ the two, including postage in a mailing tube. <u>Green over Red</u>. Australia's modern railway magazine, March/April 1972; Jan./Feb. 1972; Nov./Dec. 1971; Sept./Oct. 1971 - all 40ϕ each. Earlier back numbers from Nov./Dec. 1969 are available @ 30ϕ each. Postage - 1 or 2 copies - 7ϕ , 3 to 5 - 13ϕ , 6 or 7 - 20ϕ , 8 to 11 copies - 28ϕ . <u>Electric Traction</u>. containing articles on electrified mining tramways in Victoria and Tasmania - Aug. 1971, Sept. 1971, Dec. 1971 @ 45ϕ each, plus postage @ 7ϕ on 1, 2 or 3 copies - 7ϕ . <u>Industrial Railway Record</u> (UK) @ 65ϕ each, plus postage @ 12ϕ .



Reminiscences of a fireman

ISIS CENTRAL MILL

By - G. H. Verhoeven

The author worked as a fireman on the 2-ft. gauge sugar tramways of the Isis Central Mill during the final years of steam operation. In this series of articles he presents a very interesting account of how the tramways operated between 1959 and 1961.

(The first part of this article was published in LR 37)

I will now describe what the Sharp Stewart engines (Nos.9 and 10) did in their last years, referring always to No.10, as she was the favourite.

The crew started at 8-00am, the locomotive having a full head of steam by then, as the crew of D6 (all of whom had steam tickets) attended to her at night. Sometimes the fire was banked for the night, otherwise it was freshly lit between 3-00am and 4-00am. Lighting the fire was done at the loco shed. Old sleepers, partially cut up, were piled in the firebox, sprinkled with kerosene or dieselene, and a piece of cotton waste soaked in kerosene was lit and thrown in. When the fire got a good hold more sleepers were thrown in, and once they were burning well, coal was thrown in, so that by 8-00am she was rarin' to go.

We moved her out gently to the road crossing, reversed and stopped at the traffic office, where we got our instructions for the day. Then we moved her slowly to the coal line. The mill dam is next to the coal line here, and the boiler drain cock was opened, to remove any dirt that had settled in the bottom of the boiler during the long stay at night. Hence, our moving so gently in order not to disturb that sediment. The water came out with a mighty roar, immediately flashing into steam, and spouted halfway over the surface of the dam. After a few minutes of this, the pressure fell greatly of course. We closed the drain cock, and "pinched" a bit of Blair Atholl coal and built the fire up. Then we loaded up the tender. Frequently this was done by end-loader, but sometimes we had to shovel it in.

By this time the diesels had taken their quotas of empties and were on their way. We then pulled some empties out of the yard, and coupled them on to the back of D2 (D2 worked on the Adies line with empties both in front, and behind, to facilitate shunting). By then the yard was pretty well empty, and we sometimes had to wait to get our quota - generally 20 to 30 trucks. Once we got the line clear we were on our way.

At times we would be asked to assist the 3-ft.6-in. gauge Bl3 up the hill with loaded QGR wagons. If we were doing this both of us would be watching the front of No.10 in case she overbuffered. This run up the hill created a good pull on the fire, and by the time we came to the top it would be burning nicely all over the box.

<u>Photograph opposite</u> - Clyde-GM 0-6-ODH locomotive No.D6 of Isis Central Mill, August 1959. Being new the number had not been painted on the loco. On the right is driver Les Dittman, on the left Frank Pio - the driver of the following tram. The disc signal protects the QGR crossing, between Kowbi and Cordalba in the section of tramline that runs from Hapsburg Plantation siding to Johnson's Points. Photo - G. Verhoeven.



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At Cordalba Hill we had to turn the engine. As the yard there was frequently full, the empties were left on the main line, before coming into the yard. In order to prevent them rolling back, a strong chain was strung through the spokes of the third truck, and firmly anchored on to a sleeper. From experience the driver knew where to stop, and as the trucks buffered up I slung the chain through the wheel. The rake soon rolled back and the chain tightened. The engine was then uncoupled and turned on the wye. Coming back to the rake, the engine was worked on the brake. It could then be stopped anything up to a foot away from the rake, and slack in the couplings of the first three trucks was used to draw the first truck forward and couple up again.

We had to be careful not to bump the rake, as the tension of the rake hanging on the chain would throw quite a few trucks off the line inside the curve.

When we started to move again I phoned the weighbridge to advise that we had cleared this section, and we then set out on the "old main line". A mile further there was a long siding on the right-hand side, called McKenzies. This siding climbed fairly high, and in the days when there was no deviation the driver of an engine hauling a load of empties, on seeing a loaded tram approaching in the distance, had to take refuge there. The driver could not proceed until he was sure there was nothing coming down from La Focca's, which could be seen in the distance.

A small distance beyond McKenzie's Points was the junction with the deviation - in 1961 a leg was thrown off the "old main line" and traffic from Cordalba Hill used this to go into the full yard (Roma Street), instead of going direct to the mill.

There were two level crossings with the Bruce Highway here, and when we were pushing empties in front, I had to run ahead to warn road traffic. I then kept riding up front, uncoupling as we went along, and running ahead to set the points into the sidings.

The engine then accelerated briefly and the trucks coasted into the siding, and I threw the points back before the tram came to them. By the time we got to La Rocca's we only had empties at the back of the engine. At Kendal's we sometimes had to go into the loop, to let a diesel with fulls pass. At Adams we took one or two empties down Wood's line, leaving the rest on the main line. Wood's line was very steeply graded, and at the bottom there was a farmer who always had one or two fulls for us to collect. He was generally waiting for us, and after writing out tickets for the trucks, we unhooked the empties, and they rolled into the empty siding. The farmer then loaded them on to his road truck, piggy-back fashion. These trucks had a set of rails on the back with a small capstan, a hinged section of track being lowered on to the track. A full truck was then lowered down, or an empty hauled up. The tramway trucks were delivered in this way to more distant fields away from the line.

No.10 really had to show her worth climbing back to the main-line with two fulls. These were then put in Adam's loop to be picked up later. I left the truck tickets in a box for that purpose at the point lever for the loop. We attached our empties and continued on, all the way to the empty yard at Huxley. Most of the way the line followed undulating high ground.

On the way we passed Foreman's Points, where in former years, all cane from North Isis used to come through - until the 1950's, when the cut-off line via Hapsburg and Johnson's was built.

A little further on, we came to the territory of the former CSR Huxley Mill. Before the 1930's there was no connection between these two systems. We

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then passed Lynwood Road, Formosa and Lynwood, with the QGR line below us on the left. After passing Bosanque's siding and McGibbon's line the line turned left, and crossed the QGR by overbridge. An embankment on the other side brought the line to ground level.

At this stage we set up a good pace with about 30 to 40 empties behind us, and the engine running tender first. I have never been keen to speed when running tender first, especially with this engine, as it has a huge hinged footplate, which I suspect would fold back in a derailment of the tender, and cut you in half if you were in the way. But the large bogie tender runs along very well, and the only derailments caused by the engine, have been the result of badly adjusted or faulty springs. Quite a few times we broke driving-wheel spring hangers. These used to break with a loud report. We carried a wedge and spare spring hangers to repair breakages. It was difficult to get the wedge under the wheel, or rather to move the engine so that it stopped just at the highest point. Having achieved that, we could then put the new spring hanger in.

Whether it was the lack of proper all-round equal tension in the spring, or some weakness in the making of them by the blacksmith, I do not know; but every now and then we had this trouble. There was also some rivalry between us and the other crew, trying to outdo one another in pulling the longest rake. For this reason, the engine drivers were often tinkering with the springs - easing them on the trailing truck in the hope that more weight would be thrown on the rear driving axle. Once there was so little weight on that trailing truck, that one day when standing at the traffic office waiting for instructions, and looking over the engine, I noticed the left hand tread half an inch off the surface of the rail. The locomotive was standing on a curve. Some months later we had a derailment for the same reason.

Continuing through undulating landscape, with canefields as far as the eye could see, we passed Merano's - a short branch line - and came to Noake's loop. This was situated in an awkward spot, right in a curve and quite blind when the cane is high, so that when a farmer left the mainline points in the wrong position, a lot of trouble was caused when we had to stop suddenly with a long rake of empties. I strained my back once here, on a wet night heaving empties back on the line, the Childers red soil being as slippery as ice.

These days, with cane carried in bins the line is covered with vegetation, but in the days of whole stalk cane the line was bare from the continual scraping of sticks along the ground. As no ballast was used, in wet weather on red soil the ground was pretty greasy.

After Noake's, we pass Parrick's line, also a short branch, this being shunted by the Huxley engines, the point trailing to Huxley. We then crossed the QGR again by overbridge, the QGR being deep down in a cutting. Just after this bridge was the entry point to the Huxley empty yard, and the fireman had to be pretty cautious, especially at night, lest he fell down into the cutting whilst running ahead to set the points. This bridge, and the one previously crossed had a wide and full decking to help prevent this sort of thing happening. It also stopped any derailed trucks or loose cane falling on the QGR line.

Huxley Depot

Huxley empty and full yards both had three-way points before 1960. I never had much trouble with them, but there were some chaps who could never see quick enough where they were going. If the tram approached a bit fast they sometimes found themselves going down the wrong line. The curves were also very sharp, so that hauling a load out was rather difficult. This was the layout as taken over from the CSR Huxley Mill. The foundations of that mill were next to the yard.

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There was also a dam, from which water was now piped to Isis Central Mill. Up to 1960 a QGR 3-ft.6-in. gauge siding came as far as the full yard. It was pulled up during the 1960 slack.

I have seen photographs of this old mill complex, and in the heyday of the Huxley Mill, cane was brought here by the QGR. The siding came off the loop line at Huxley, where there was a small building for the QGR employee to account for the traffic going into the mill.

By 1960 the yard was modernized for the cane traffic, there being three long loops for empty and full wagons in each yard. There were three engines at the depot, D1 and D3, with steam loco No.6 as a standby, but she was never to run again. The Huxley based engines worked to Childers, and beyond to South Isis and Doolbi. There was a small pile of coal in case we ran short, and there was still water for the tender. They also had a drying oven for sand - a wonderful place for a snooze on a cold night shift.

There were facilities for the two diesels, and a small pit. During the slack, portable track was being repaired in the back of the yard. A navvies gang also operated from here. Huxley was under the supervision of a "depot-master", who was in contact with Isis Mill by telephone.

After stowing our empties in one of the empties lines, we parked the engine in front of the office, the full yard generally being empty then, and we had our smoko there. D1 and D3 would be out collecting cane at South Isis or Doolbi. If these engines were running early we might lift empties from Varso's,



The loco-shed at Huxley depot, in 1968. At that time two Clyde diesel locomotives were stationed there. Photo - J. Armstrong.

otherwise we would lift from PM siding or Persky's. After smoko we would clean the fire of clinker, build it up again, take water, and oil the engine. For the latter we had a set procedure, the driver doing the slidebars and rods, while I did the axleboxes of the engine and tender. I also did the cylinder lubricator, which was located in the cab. The condensed water had to be drained off first, the plug replaced, and the lubricator refilled. When the engine was in motion, the lubricator had to be observed through a little glass window, to see that the cylinders were being properly fed with oil. It was always hot to handle.

After getting our instructions from Huxley we would go light engine towards Childers. I always liked this part of the run. In those days it went alongside the Bruce Highway, crossing it four times from one side of the road to the other, past Varso's, Ruddy's, Thomson's and Grange's loops and sidings, crossing the highway at Childers into Goomeri Road. Most of that part of the highway has now been deviated. The tramway has also been changed greatly, and it would be interesting to know how it is now laid out. I believe it runs through Childers on the formation of the closed QGR line as far as Persky's.

However, in my days, we went from Goomeri Road, where there was a branch called the "Head of the Road". The main-line went into Macrossan Street - fair in the centre of the road.

When first laid this was some distance from the township, however successive expansion of the town had brought the line right into the built up area. Next we went to PM siding, where a branch called Well's line diverged, and snaked down into a gully. We generally pulled fulls from PM, but sometimes we were required to go a little further, to Persky's. A long branch ran from here to the South Isis area. Another branch went across the QGR line to the Doolbi area, which was worked by Dl. The lever at the crossing had to be held over to close the catchpoints for the tram to cross.

At Persky's there were three loop lines and a siding. Here we stoked the fire, oiled the engine again, and coupled onto a full rake, generally of 35 to 45 trucks. It was always a problem to find something to put on the cane of the last truck. We generally used a long stick of cane with leaves on, and pushed it in on top of the load, which was not easy. Why no one ever thought of a 6-ft. halfinch road with a flag I do not know. Perhaps because of the changing shifts it would be frequently mislaid.

We would go through Macrosan Street very slowly, and use the whistle freely at all intersections. Coming into Huxley, the line was on a slightly falling grade, where it crossed the highway. It was at this crossing that No.10 once turned on its side - when driven by the other crew. As they approached the crossing with 43 fulls they spotted the navvies clearing the grooves in the road, but could not pull up in time. The load kept pushing them on, and the engine derailed, ran across the bitumen, and slew aside in the soft edge of the road. It then started to keel over very slowly, giving the crew plenty of time to "abandon ship".

During the run to Huxley we could feel how the rake ran. If it ran light we would go straight through to the mill, otherwise we would reduce the load to about 35 fulls. If we went straight through we would shout to the depot-master at Huxley - "(so) many on", and then on the straight section past the empty yard the engine would go flat out, to get sufficient speed to tackle the grade ahead.

By this time we would have the injector on, and sometimes we managed to get it just right to deliver water as we used it in steam, shutting it off on a downhill stretch, and on again going up. After practice I learnt when and where to put a shovelful of coal on the fire, to keep everything just right. We would have a clear run to the mill at this time of the day, as there would be nothing coming our way.

In the afternoon shift we had to work differently. D5 and D6 were around then, and we had to ascertain beforehand where they were and what they were doing. The fire also had to be worked differently.

Going down LaRocca's, we would go over the top very slowly. The ganghandle would be in mid-position and steam shut-off. I would then start to screw down the brake, leaning out of the cab to watch that the wheels were not slipping. The first half balanced with the second over the crest, but from then on we had to "feel" them closing up. They all began to gather momentum. At the bottom we went through a curve, and then the engine had to open up to take up the momentum of the rake. By this time the brake was off again.

No more coal would be thrown on the fire. After the deviation points we could roll a smoke, and from then on we had to brake her all the way into "Roma Street".. The engine would go to the loco shed and take water, while we had lunch. After lunch I would clean out the clinker while the driver oiled her. We would then take empties out to Lynwood loop, return light to Formosa, and haul from there.

Pulling from Formosa with No.10 was always exhilarating. We sanded the

10.

line going into the loop, then got plenty of steam up with a good fire. She would be at her maximum effort getting away from here, and coming to the top of the rise would frequently slip a few times, needing sand to steady her.

The sand boxes on Nos.9 and 10 were located fairly high on the engine. Filling them with an old five gallon drum was back breaking work.

On the last run of the day into the mill from LaRocca's, I fired on only one side of the firebox. By the time we came to the shed, I would have cleaned the other side, by shovelling it right out. I then turned the fire onto the clean side, and cleaned the rest of the grate.

The burning coal would then be spread all over the grate again, and fresh coal put on. The ashpan was hosed out, access being by a door in the footplate above the trailing truck. The smokebox door was then opened and the ashes shovelled out, and, if the tubes looked a bit furry, a tube cleaner was pushed through them. This was hot and dirty work. With this finished it would be about four o'clock and the new shift would come on.

> Fowler 0-6-0T, Isis Central Mill No.2, at the mill, October 1944. Photo - John Buckland.



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Fowler 0-6-0DM, B/No.20776 of 1935, approaching Isis Central Mill in October 1944. This loco is now No.Dl, but was formerly No.8 in the same series as the steam locos. Photo-- John Buckland

The afternoon shift would ensure that they had clean and well filled kerosene lamps to hang on the last vehicle. Generally the glass had to be cleaned of soot, and the wick trimmed. A lot of people do not realize that the flame gets bigger after a while. If the wick is turned up too high when the lamp is lit, it starts to smoke and the glass gets covered with soot. At night the fireman used an ordinary bicycle torch for shunting signals. Swinging it sideways meant "come towards me", and up and down "go away from me". The light held steady meant "stop".

In the afternoon shift No.10 generally ran straight to Huxley with a rake of empties and returned with a rake of fulls. As D5 was also on that line, frequently it was necessary to wait in Kendal's, Adam's or Lynwood loops for a crossing.

On the return to the mill they had smoko, and then there was a run with empties to Lynwood, and return with fulls from Formosa. On this last return, a good fire was kept on one side of the box, and after cleaning, fresh coal was put

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on in a thick layer to bank it down for the night. The injector was put on until the boiler was full to the top of the glass. It would stay that way until the next morning. The nightshift crew of D6 would have a look at her at about 4-00am, poking the fire up a bit, and opening the blower a little - just a "crack". Talking of the blower, this had to be worked pretty carefully, especially after the engine had done some fierce pulling, and steam was suddenly shut-off when there was plenty of fresh coal on the fire. If the blower was not on then, gases could suddenly blow back into the cab if the firebox door was opened.

Diesel breakdowns

If one of the diesels broke down, D2 would take the diesel's run, and No.10 would take D2's place. Thus I visited Brandt's line and the Cordalba line a few times. Both were like the Adies line, with only a few short loops, so we often had to run with empties in front, and we encountered loaded trucks on the running line.

The Cordalba line came down steeply to the QGR station crossing. In my time the QGR section, Cordalba to Booyal was already closed to traffic, but Les Dittman told me that he once came down that line, when one of the station staff opened the catch points in front of him. As the engine derailed and came to a stop, loaded trucks shot past on both sides. It would have been a lovely mess, especially as the line was in a cutting.

The night shift cleaned the engines early on Saturday morning. On the diesels, the driver cleaned above the footplate, and the fireman cleaned the motion work with dieselene, later hosing the whole engine with water. On the steam locos, the fireman cleaned all the tubes, and emptied the firebox and ashpan. He then helped the driver finish cleaning the motion work. The whole loco was then hosed down. The drivers came back on Saturday afternoon or Sunday morning, after the engine had cooled down, to empty the boiler and open the washout plugs. They then hosed the boiler out, to clear it of any sediment around the stays and tubes. Then they filled it again, and replaced the wicks in the oil cups of the slide bars, and the wicks of the axleboxes.

Now that the steam engine has practically disappeared from the scene, many people would be surprised to know that there are many different kinds of water which can affect the boiler. Many drivers had their own ways of combating this problem. One kept a log of a certain kind of timber in his tender, as he claimed that the properties of the tan in the wood kept the tubes clean. Others kept a bar of zinc to combat some different chemical reaction.

In cleaning the tubes, I was once told to hold a shovel with clean sharp sand in the firebox door while the engine was working hard, the scouring action of the sand on the tubes having a cleaning effect. When we had a spell of trouble with leaking tubeplates, it was suggested to introduce some horse-manure into the boiler on wash-out days to cure this.

(To be continued)

ISIS CENTRAL MILL LOCOMOTIVES, (See LR 37, p.5 and 6).

George Bond has provided the following additional information and corrections concerning the Isis Mill locomotives. Fowler diesel "D1" was built in 1935 and was originally No.8 in the steam roster. Of the steam locomotives Fowler No.3 was B/No.11465 of 1908; Fowler No.4 was B/No.7607 of 1896; Fowler No.5 was B/No. 11855 of 1909; Fowler No.6 was B/No.13325 of 1913; Sharp Stewart No.9 was B/No.4619, and Sharp Stewart No.10 was B/No.4432.





Top - Lune River depot, morning of 3rd.November 1971, looking towards the quarry. Locomotives are, left to right, Nos.5, 3 and 2. No.5 is helping 3 lift the loaded train out of the yard, where it had stabled overnight.

 $\frac{\text{Left}}{B/No.1844} - \text{Hunslet } 0\text{-}4\text{-}2\text{T loco}, \\ \overline{B/No.1844} \text{ of } 1936 \text{ at Lune} \\ \text{River, lst. November } 1972. \\ \end{array}$

Both photos - Ray Graf.

More from Lune River

By - Ray Graf.



Since publishing the article in LR 35, p.5, Ray Graf has submitted additional information, following visits to the line in February and November last year.

According to a fitter at Ida Bay, and the Tasmanian Survey Map, the railway runs through the town of Ida Bay, approximately 1.3 miles south of the Lune River township and post office. The postal address is C/- Lune River Post Office, but the line is known as the Ida Bay Railway, not Lune River Railway.

Between the junction of the line to the old jetty and the present jetty the line goes up and down numerous times, across at least one swamp and around the water's edge. According to local hearsay it was carved out by a bulldozer, with six weeks to prepare a formation, but was done in three. It is definitely not as well engineered as the trackage from the old jetty to the present quarry. This section of track appears to be on a continuously falling grade with the load. On the newer section to the jetty the locos are worked hard, up and down through the gears, struggling up one grade and braking down the other side to stop the train running away, yet still retaining momentum for the next grade just around the corner. On this section the longer and heavier rails that occur in spots towards the jetty enable the trains to be worked harder than on the lighter rails nearer to the Ida Bay township.

The galvanized iron shed between the township and the quarry (see LR 35,p.6) is adjacent to what was the original quarry, about $\frac{1}{4}$ to $\frac{1}{2}$ -mile short of the present quarry. This quarry was apparently abandoned because of poor quality stone. (This means that what was referred to as the original quarry in LR 35 was in fact the second quarry, and the present one is the third quarry - Ed.). The single blade point leading to the rail-motor turntable (LR 35,p.6) is about 100 yards from the quarry terminus, and reputedly was until about the middle of 1970 used for turning locos and the rail-motor, as there was apparently no turntable at the present site.

Between February and November 1971 the right-of-way through the cutting, and the cutting itself, leading to the old quarry; beyond the present quarry, has been obscured by treees cut down for road improvements. Referring to the plan in LR 35, p.10, at the present quarry there is an additional point on the south loop, leading towards the road up into the quarry, but it is covered with earth. The youth who fits the lifting chains onto and off the "boxes" on the wagons, also fills the axle-boxes of the wagons with oil - from a four gallon drum with a hand pump and hose.

The drivers told me that at the old (second) quarry, stone was hand loaded into the wagons, and hand loaded into the boats at the old jetty. The use of "boxes" for carrying the limestone apparently began with the opening of the present quarry, which would also seem to be when the present jetty came into use.

Locomotives

The Malcolm Moore builder's numbers are - road No.1 - B/No.1010; road No.2 -B/No.1017; road No.3 - B/No.1038; road No.4 - B/No.1052; road No.5 - B/No.1056. The engines are side-valve Ford V8 "Mercury", coupled to a Ford gear-box with four forward gears and one reverse, but on some locos reverse has been disabled. This in turn is coupled to a Malcolm Moore forward/reverse gear-box. This gear-box, which gives some reduction in reverse, is used for direction control; and is located under the driver's seat. It is chain coupled to the second axle, with chain coupling to the front axle. - the hood (radiator) end being the front. The locomotives are fitted with two sand-boxes, with four outlets, but there are two seperate controls; for front or back according to direction of running, sanding only one rail. Sanding is by gravity, but tends to block up in winter; the remedy being to stop and belt it with a hammer.

At least two of the locomotives were fitted with PBR truck-type vacuum brakes, and they still have the brake "pedestal", but they have been inoperative for a long time. Railcar (No.7) has a Chevrolet motor and part of a Daimler gear-box only two gears, forward and reverse - driving to both axles. No.6 is definitely a road vehicle. On the occasion of my visit in February 1971 the railcar had failed, and No.2 had hauled the carriage up to the quarry. The railcar is apparently becoming unreliable, and while there was no intention of superseding it, it is quite possible that the bus from Dover (providing workmen's transport one way, school transport the other) could quite readily be extended up to the quarry. It has some time to wait for the railcar to arrive at the township in the afternoon.

In November the Hunslet steam loco had been removed from its shed, to the "railway ramp". Its shed has been enlarged and converted to a garage. (This locomotive has been purchased by the Van Diemen Light Railway Society for preservation as a working exhibit - Ed.)

Rolling Stock

At the end of the day on 2nd. November 1971 the number of flat wagons for carriage of boxes totalled 104, made up as below -

Jetty – 5 rakes of 12, loaded	= 60
- 2 rakes of 12, waiting for boxes	= 24
- 7 additional loaded trucks	7
Ida Bay townsip	
- 2 trucks under repair	2
- 2 trucks empty	2
Quarry	
- 9 trucks, loaded	9
	104

These trucks have over-riding brakes, apparently so out-of-adjustment as to be useless. They have solid drawbars running through the truck, with male and female ends; collars are provided which go over the drawbar ends to enable the trucks to be shunted backwards on the level or uphill. These are necessary for shunting at the jetty, and for hauling the trucks back to the quarry, to prevent the brakes being applied during these movements.

Apart from the special vehicle used for heavy machinery transport, the bogie wagons fall into three major groups classified by myself according to type of bogie.

i. Wooden bogies. These have an eye for the drawbar mounted on the end of the bogie. They have a large squared tapered shaft protruding from the bogie, apparently for the brake lever. There is provision for them to carry three boxes, and in one corner there is an iron frame (hand rail) for the brakeman to stand and work the brakes.

<u>ii. Archbar bogies.</u>(ex North East Dundas Tramway). These vehicles are steelframed, with a horizontal slot (i.e. link and pin) type coupling attached to the frame of the vehicle.




- Top Left Boiler used for tramway winch, at an abandoned sawmill site, alongside the Lune River/Ida Bay Railway, near the quarry.
- Bottom Left Single blade points at the guarry on the 2-ft. gauge Lune River/Ida Bay Railway.

Top right - Lune River/Ida Bay Railway wagon underframe, (inverted), showing the brake rigging. Under repair at the workshop.

All photographs - Ray Graf, November 1971



iii. Third type (Passenger bogie?). These are fitted with steel bodies and standard chopper couplings. (This amends the comment about couplings in LR 35, p.14, lines two and three). I do not know the name of the bogie type, but it is possibly a passenger bogie. At least one of these was formerly an open gondola with drop doors and a deep steel underframe. Another of these was was formerly fitted with vacuum brakes (PBR truck-type) for hauling machinery to the quarry. (It has been said that some

of the bogie wagons came from Catamaran colliery. If so, these would probably have been the type i. wooden-bogie variety - Ed.)

The special truck now used for hauling machinery has wooden-framed bogies, and is built entirely out of wood; with 8-in. x 8-in. main longitudinal members. On 11th. November 1971 the bogie vehicles were located as follows -

18.		WINTER 197	LIGHT RAILWAYS		
Туре	Jetty Disconnected Jetty line to old jetty.		Ida Bay township	Quarry	
i.Wooden bogie	2	1	-	-	Of the total of twelve
ii.Archbar	4	1	1	-	one (the heavy
iii.Passenger bogie ?	2	-	-	-	machinery one) sees even intermittent service.
Special heavy machinery	-	-	1	-	

Train operation

Over a three day visit, some variation in the number of trains run was noticed. On one day $6\frac{1}{2}$ trains were run. Train running is dependant on the previous day's operation; and on which boat is being loaded, as the capacity and loading times vary.

On Tuesday 11th. November, at knock-off time, there were 24 empty trucks without boxes, and 67 loaded trucks; whilst there were only nine trucks at the quarry. Next morning three locos went to the jetty (the pilot and two road engines); waited for the boat, and then the first train of empties could leave for the quarry

The turntables are in constant use, all trains running with loco bonnet first. One ride in a loco going backwards (despite the rear vision mirror) was sufficient to show why.

The future of the railway cannot be considered good. Limestone is now being carried by road from the quarry to Hobart at the rate of 2,500 tons per month. The railway and boats are currently handling about the same quantity for delivery to the carbide works at Electrona.

Lune River Timber Tramways

Just east of the quarry, the railway crosses the formation of a timber tramway, apparently steam winch worked (see map, LR 35, p.6). On the uphill (south) side of the railway, longitudinal timbers remain, which may have carried the sleepers, or may have been the rails themselves. In this area the 2-ft. gauge railway has reputedly been relocated uphill from its original location - only a few feet, if anything, I would think.

A little further along the railway a loco boiler was found amongst the remains of a timber mill scattered on both sides of the track. It was used to drive the mill machinery.

Ida Bay Area

The old limestone jetty was further round towards the south than the map

Photographs opposite

<u>Top</u> - Lune River Railway. Malcolm Moore 2-ft. gauge petrol locomotive is seen hauling an empty train back to the quarry, about one mile from Ida Bay township. 1st. November 1971. <u>Bottom</u> - Loco No.3 or 5 hauls an empty train from the Jetty - on the section of track between the old and new jetties. 1st. November 1971. Both photographs - R. J. Graf.



in LR 35, p.6 would indicate. Further to the south in the bay, is the remains of a jetty for a timber mill. I do not know at this stage if the mill had a tramway - quite possibly it did. (I have been told that there was a "pole road" in this area, which crossed the present route of the quarry railway. This may have terminated at this jetty - Ed.). Near this jetty is the remains of a limestone boat that caught fire and was towed here and left.

Leprena and Catamaran (See LR 35, p.14; LR 37, p.27)

South of Lune River/Ida Bay I visited the spot where the Catamaran road is crossed by a row of standard-gauge sleepers. In the nearby remains of a sawmill, very little machinery was left. I found a four-wheel truck, the wheels of which I measured -



The two axles each had a sprocket on them, but on opposite ends.

At Catamaran a locomotive frame was discovered. (From the photograph this would appear to be one of the 2-ft. gauge Krauss locomotives which worked at Catamaran colliery - Ed.) The railway was on a low embankment, 3 to 4-ft. high near the road, but has now been bulldozed away. The right-of-way is clear for some distance each way.

Below- Hunslet 2-ft. gauge 0-4-2T locomotive, B/No.1844 of 1936 at Ida Bay town-
ship, 1st. November 1971. This locomotive has now gone to the Van Diemen
Light Bailway Society.Light Bailway Society.Photo - R. J. Graf.



20.





For reproduction, please contact the Society

Nauru Mystery

The Republic of Nauru is an 8¼ square mile island, just south of the equator, east of New Guinea. It has a population of approximately 6,000. It is accepted that the two "main-line" locomotives of the Powelltown tramway – "Little Yarra" and "Powellite" were sold after closure of that tramway for use on the British Phosphate Commission's railway at Nauru. Did they ever get there? This question has never satisfactorily been answered



The Railways of Nauru

The information contained in this article is based on a letter (written about seven years ago) from Mr. F. Avery of the Engineering Department, British Phosphate Commission, Nauru. It is published through the courtesy of our member Harry Wright of Newcastle.

All figures and dates are approximate - they rely to a large extent on the memory of employees of the BPC, including Mr. Avery.

In the early days of phosphate production 2-ft.(610 mm.) gauge railways were used, with three Orenstein & Koppel locomotives named "Emma", "Anna", and "Gertrude". They hauled up to 40 one-ton side-tipping cars which were hand loaded using carry pole and basket. The actual date of commencement cannot be pinpointed, but was probably around 1913. In 1936 the BPC decided to replace the 2-ft.gauge with 3-ft. (914 mm.), once again purchasing Orenstein & Koppel locomotives. There were five of these, all oil burners, the 2-ft. gauge locos having burned coal. (A booklet published by the British Phosphate Commission states that phosphate production commenced at Nauru in 1906, operations being carried out by the Pacific Phosphate Company Ltd. until the BPC took it over in 1920. The BPC's activities at Nauru have since been taken over by the Nauru Phosphate Corporation, owned by the Republic of Nauru).

In 1945 (or thereabouts) these locomotives were joined by a Hudswell Clarke and a loco known as "Powellite". The latter had to be converted from wood to oil firing. The Hudswell Clarke (B/No.1711 of 1940) was an 0-4-0T (or well tank) and went into service in 1946, and gave continuous service until it and the Orenstein \mathcal{E} Koppel's were replaced by three Clyde 0-6-0 diesel hydraulic locomotives on 20th. December 1956. The "Powellite" loco was not a huge success on Nauru and saw very limited service, in fact when Mr. Avery arrived on the island in August 1948 it was out of service with its boiler in Australia for a complete rebuild, but never ran again, not being reassembled. All the steam locomotives were cut up for scrap after dieselisation, and the remains were exported to Japan.

Diesel era

Diesels were first mooted in 1955, when quotes were obtained from various firms, such as Hunslet Engine Co., Orenstein & Koppel, and Clyde Engin-

Photograph opposite

The official builder's photograph of "Powellite", the 3-ft. gauge 0-6-0 which was ordered by the Victorian Powell Wood Process Co. Ltd. from W.G. Bagnall Ltd. in June 1912. It was shipped from Liverpool during 1913.

eering. It was decided to purchase three Clyde DH-71 series locos fitted with Allison torque convertors. One very important consideration for the selection of these locomotives was that they were powered by the 71 series GM two-stroke diesel engines - this meant that they required only a very small quantity of engine spares, as spares for similar engines were already held on the island.

These locos arrived in Nauru early in November 1956, and were placed in service on 20th. December 1956. During acceptance checks they hauled 350 tons up a grade of up to 1 in 200.

The haul from the loading bridge to the drying plant and return is 2.69 miles (4.33 km.), rolling stock consisting of 6-cubic yard (4.587 m³) side opening vee-bottom cars. The diesel locos hauled approximately 13,250,000 tons of phosphate in their first $8\frac{1}{2}$ years of operation. In this period two of the three locos had been given major overhauls. In both cases new pistons, liners, valves, and crankshaft bearings were required, but the torque convertors required no work at all. The locomotives did approximately 6,500 hours service each without overhaul, which Mr. Avery considered an outstanding performance.

Orenstein & Koppel 3-ft.gauge locomotive, B/No.12888 of 1936, Road No.A2, derelict at Nauru, about 1965.



THE McIVOR 5-ft.3-in. gauge TRAMWAY - HISTORICAL NOTES & MAPS

The LRRSA now has available a new publication consisting of four pages of off-set printed maps at 2-in./mile scale, and 11 pages of duplicated type-script relating to this Victorian timber tramway which used VR rolling stock. Page size is $11\frac{3}{4} \times 8\frac{1}{4}$ -in., the price being 60¢ including postage. Available from-Sales Dept.LRRSA; 7 Talaskia Road,Upper Ferntree Gully 3156.

24.

Name or Number	Builder	B/No. & Date	Wheel Arrangement	Notes	
2-ft. (610	mm) gauge		-		
Emma	Orenstein & Koppel	? approx.		Probably 0-4-OT or 0-4-OWT. Described as 20-hp., scrapped c.1936.	
Anna	Orenstein & Koppel	ditto		ditto	
Gertrude	Orenstein & Koppel	ditto		ditto	
3-ft. (914	mm) gauge			<i>0</i> ,	
A 1	Orenstein & Koppel	12887 1936	0-4-OT ?	Weight 18 tons, described as 140-hp.	
A 2	Orenstein & Koppel	12888 1936	0-4-0T ?	ditto	
A 3	Hudswell Clarke	1711 1940	0-4-0T	Possibly well tank. Weight 18 tons. Described as 140-hp. See note 1 below.	
A 4 Powellite	Bagnall	1965 c.1912	0-6-0	See note 2 below.	
B 1	Orenstein & Koppel	12889 1936	0-4-0T ?	Weight 9.6 tons. Described as 50-hp.	
в 2	Orenstein & Koppel	12890 1936	0-4-0T ?	ditto	
В 3	Orenstein & Koppel	12891 1936	0-4-0T ?	ditto.	
1	Clyde En- gineering	56/108 1956	0-6-0DH	In service 20th Dec 1956 Model	
2	Clyde En- gineering	56/118 1956	0-6-0DH	DH 1-71; 170-hp.	
3	Clyde En- gineering	56/121 1956	0-6-0DH		
4	Clyde En- gineering	67/539 1967	0-6-0DH	Model DH 1-71, ordered 1966.	
5	Clyde En- gineering	67/540 1967	0-6-0DH	Model DH 1-71, ordered 1966.	

Locomotive Roster, British Phosphate Commission, Nauru.

Note 1. Hudswell Clarke records show their Nos.1710 and 1711 were built in 1940 for Nauru Island, but 1710 apparently never got there, either being diverted elsewhere or lost en-route as a result of enemy action. It appears that 1711 may have been stored in Australia until 1945, due to war time cessation of phosphate production at Nauru. Note 2. It has been believed by railway enthusiast circles that both "Little Yarra" and "Powellite" were sold through Cameron & Sutherland of Melbourne for the BPC, Nauru. Mr. Avery mentions the "Powellite" locomotive, which presumably is the Bagnall (B/No.1965 of 1912 or 1913); but makes no mention of the Baldwin 2-4-0 "Little Yarra". As both Powellite and Little Yarra were in very poor condition when the Powelltown tramway closed, it is to be assumed that Little Yarra was in such poor condition that the BPC decided against shipping it to Nauru. Mr. Avery was under the impression that the Hudswell Clarke B/No. 1711 also came from the Powelltown tramway, as this loco apparently arrived in Nauru at the same time as Powellite - hence although it has been said that two locomotives arrived in Nauru from the Powelltown tramway; it appears that only Powellite made the journey and then saw very little service. Naturally, we would be very pleased to hear from any reader who can help solve this mystery.



26.

News, Notes & Comments

NEW SOUTH WALES

MARSDEN MUSEUM OF HISTORIC ENGINES, GOULBURN

Recent locomotive additions to this museum, operated by LRRSA member Bruce Macdonald are three 2-ft. gauge steam locomotives from Queensland. Early in March "Jack", the Krauss 0-4-OT of Burrinjuck Dam fame, arrived ex the late E.M.Baldwin's Sydney collection. This loco will undergo full restoration and be used in conjunction with Krauss (B/No.3423) "Stella" ex Gin Gin sugar mill over the museum's line. In addition, two more locomotives arrived by semi-trailer on 14th. March 1972. They are a domeless Fowler, last in use as No.5 on Gin Gin's roster (had formerly been No.5 at Central Isis); and a Baldwin 0-4-2T locomotive of 1889, removed in poor condition from a sea-side children's park at Bargara, Queensland. (This locomotive was illustrated in LR 33, p.2). There are now seven engines at the museum, as well as the frame of the last Krauss to come to Australia. (New South Wales Digest)

MEGALONG VALLEY TOURIST RAILWAY

Mr. K. Duncan, sawmiller and tea-room proprietor of Megalong Valley, Blackheath, has aquired two steam locomotives and 15 cane trucks from the North Eton Sugar Mill at Mackay, Queensland. The engines, which were built by Perry of South Australia, and rolling stock were transported by low-loader. The locomotives are 0-6-2T's, former North Eton Nos.6 and 7. Although the locomotives have not been used since 1965, they are reported to be in very good condition. It is understood that Mr. Duncan intends to build a line in the foothills of the valley using converted cane trucks as passenger vehicles.

(New South Wales Digest)

VICTORIA

TRAMWAY INCLINE, BARRAMUNGA 3-ft.6-in.(1067 mm.) gauge.

This 3-ft.6-in. gauge incline of about 200-yards in length descends into the West Barwon River valley beside the Forrest - Apollo Bay road about a mile past Barramunga.

It is wooden-railed throughout, apart from some 30-lb. steel rail from the top down to the points (see diagram) and is powered by a "Harman 80" diesel winch. A small hand winch is sited at the end of the siding on the south side to haul the trolley the final few feet up to road level once the diesel winch cable can no longer be practicably used.

Rolling stock consists of two "bush-carpentered" elongated four-wheeled trolleys. The wheels were salvaged from old timber bogies probably obtained from Bennett's Mill at Birregurra, as was the rail.



WINTER 1972 28. LIGHT RAILWAYS

Photograph, right -

Taken from the bottom of the incline near Barramunga, this photograph shows the full length of the incline, and one of the wagons.

Below- Pointwork at the top of the incline.

Both photographs -Norm Houghton, May 1972.



The remarkable feature of this incline is that it was built only twelve months ago - by Mr.Dave Tippetts, with bulldozer assistance.

It was designed to haul up the pulpwood that was split at the foot of the incline, during winter months when logging roads are impassable. But it was not very successful. The trolleys were prone to frequent derailment due to the unsuitability of their long rigid wheelbase on the rough wooden rails, and the purpose of the incline was superseded through recent developments in the pulpwood industry. Logs from the area are now sent direct to a plant in Melbourne where they are cut up, thus eliminating the need to do this in the bush.

The incline is intact at the moment apart from a buckle or two and a dirt track across it, but it is doubtful if it will operate again. The siding on the south side has rails missing and is partially covered by a log supporting a rubbing plate (a fishplate) for the cable attached, permanently it appears, to one trolley. This could indicate that the other trolley was used very little if at a11

(Norm Houghton)



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