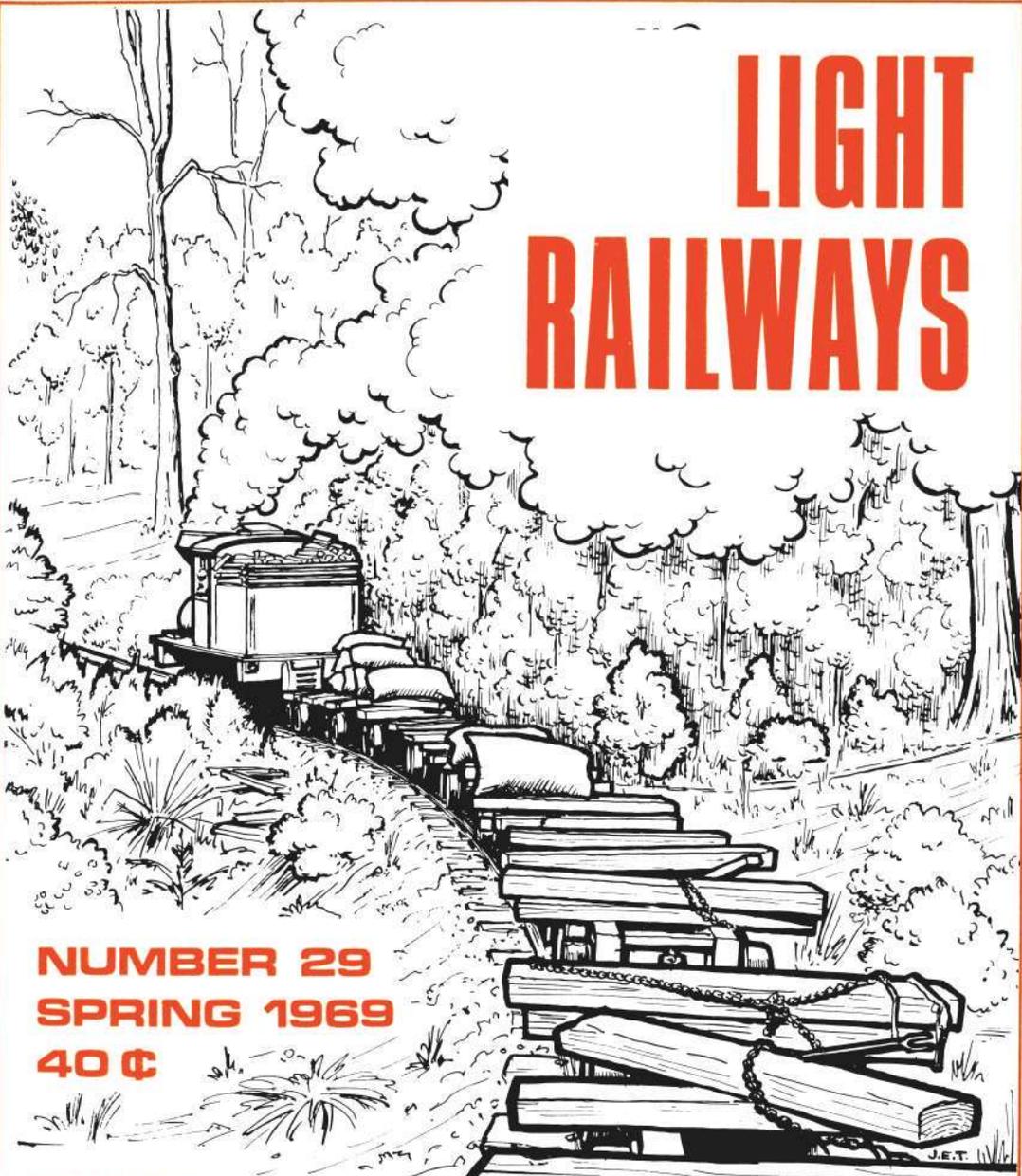


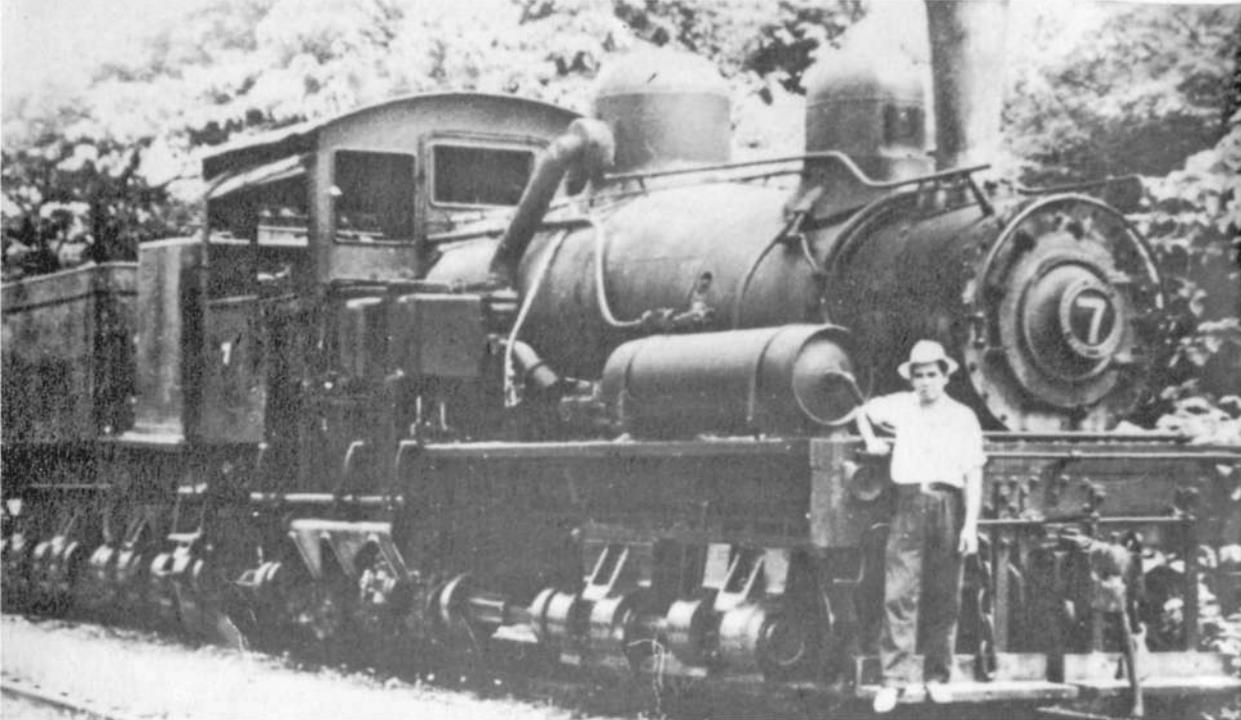
LIGHT RAILWAYS



NUMBER 29
SPRING 1969
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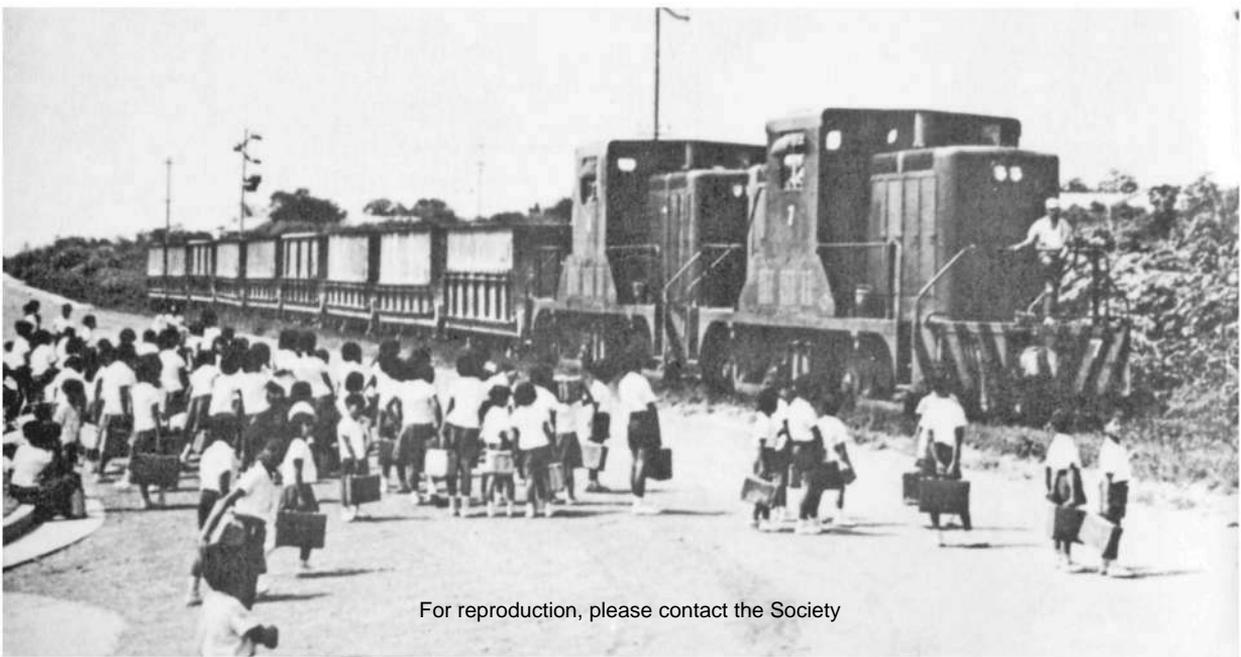
PUBLISHED BY

THE LIGHT RAILWAY RESEARCH SOCIETY OF AUSTRALIA



Above Three truck "Shay" locomotive at Christmas Island.

Below Phosphate train hauled by two Whitcomb diesel locomotives, Christmas Island.



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LIGHT RAILWAYS

No. 29

SPRING 1969

Vol. VIII.

From the Editor

It is pleasing to report that we have had many contributions to "Light Railways" on many diverse topics, which should ensure a varied content in future issues. We are always happy to receive News, Notes & Comments items, please keep them coming in.

Feature article of the Summer issue will be Queensland's Stannary Hills - Irvinebank tramway, with multi-colour maps. Incidentally, the map on page 13 of the last issue took about forty hours to prepare, this partly explaining the lack of coloured maps in this issue. We would like to hear from any members who would like to assist in the preparation of maps.

THE LIGHT RAILWAY RESEARCH SOCIETY OF AUSTRALIA

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ANNUAL SUBSCRIPTION - \$1-50 (\$1-00 if under 16 years) for year ending 31st. May 1970.

MEETINGS - Second Thursday every second month at 8.00pm, room 11, Victorian Railways Institute, Flinders Street Station building, Melbourne. Next meeting 11th. December. Visitors welcome.

BACK NUMBERS of "Light Railways" - No. 13 @ 15c, No. 14 @ 20c, No. 15 @ 10c, Nos. 21, 22, and 23 @ 25c each, Nos. 24, 25, 26, 27 @ 35c each, No. 28 @ 40c, available from the Editor. Postage is extra - on one copy 5c, two copies 9c, 3 or 4 copies 13c, 5 or 6 copies 17c, 7 or 8 copies 21 cents, 9 or 10 copies 25 cents.

Cover - A Shay locomotive hauls provisions, and empty log bogies, out to the bush mills east of Powelltown, Vic., in 1933. (Drawn - John Thompson).

Opposite - Our two Christmas Island photographs came from the British Phosphate Commission, courtesy H.J. Wright.

RAILWAYS OF THE TERRITORY OF CHRISTMAS ISLAND

By - H. J. Wright

Christmas Island is an external Australian territory, located in the Indian Ocean about 350 miles due south of Java. Its population consists of about 2,000 Chinese, 1,000 Malays and 200-250 Europeans, and it has an area of 250 square miles.

The railway system was built by the British Phosphate Commission between 1914 and 1920 to standard gauge for rolling stock, and 4-ft. 9-in. for rail gauge to reduce wheel resistance on sharp curves. A single line approximately 11-miles long, with two crossing loops, runs from Drumsite, near a large settlement on Flying Fish Cove on the north-east side of the island, to South Point Settlement on the southern shore.

A connection from Drumsite to the Phosphate Works was constructed in 1957/58 and an extension of approximately one mile to Phosphate Hill was completed in 1961. Prior to the transfer of the drying plant to Drumsite in 1958 phosphate was lowered from the 800-ft. level by a 1 in 6 haulage system. About the same time a short isolated railway from Staff Quarters to and past the Malay Kampong was also dismantled. One of the Lima 0-6-0T's (see locomotive details below) operated this line.

Japanese forces occupied the island during the second world war, but the railway rolling stock and locomotives appear to have suffered little damage from this occupation, apart from one Shay locomotive (number unknown) damaged by allied aircraft on a strafing mission. This locomotive saw no further service, being finally sold to Hong Kong scrap dealers in 1960 with the other steam locomotives.

Shay locomotives hauled ten car loads at speeds up to 12mph as well as performing shunting duties at terminii, and were taken out of service in 1955. Between 100 and 120 bogie wagons with a tare weight of 15 tons and a gross weight of 41 tons are used in phosphate service.

The steepest gradient is reported as being 1 in 100, easing to an average grade of 1 in 180.

Locomotives

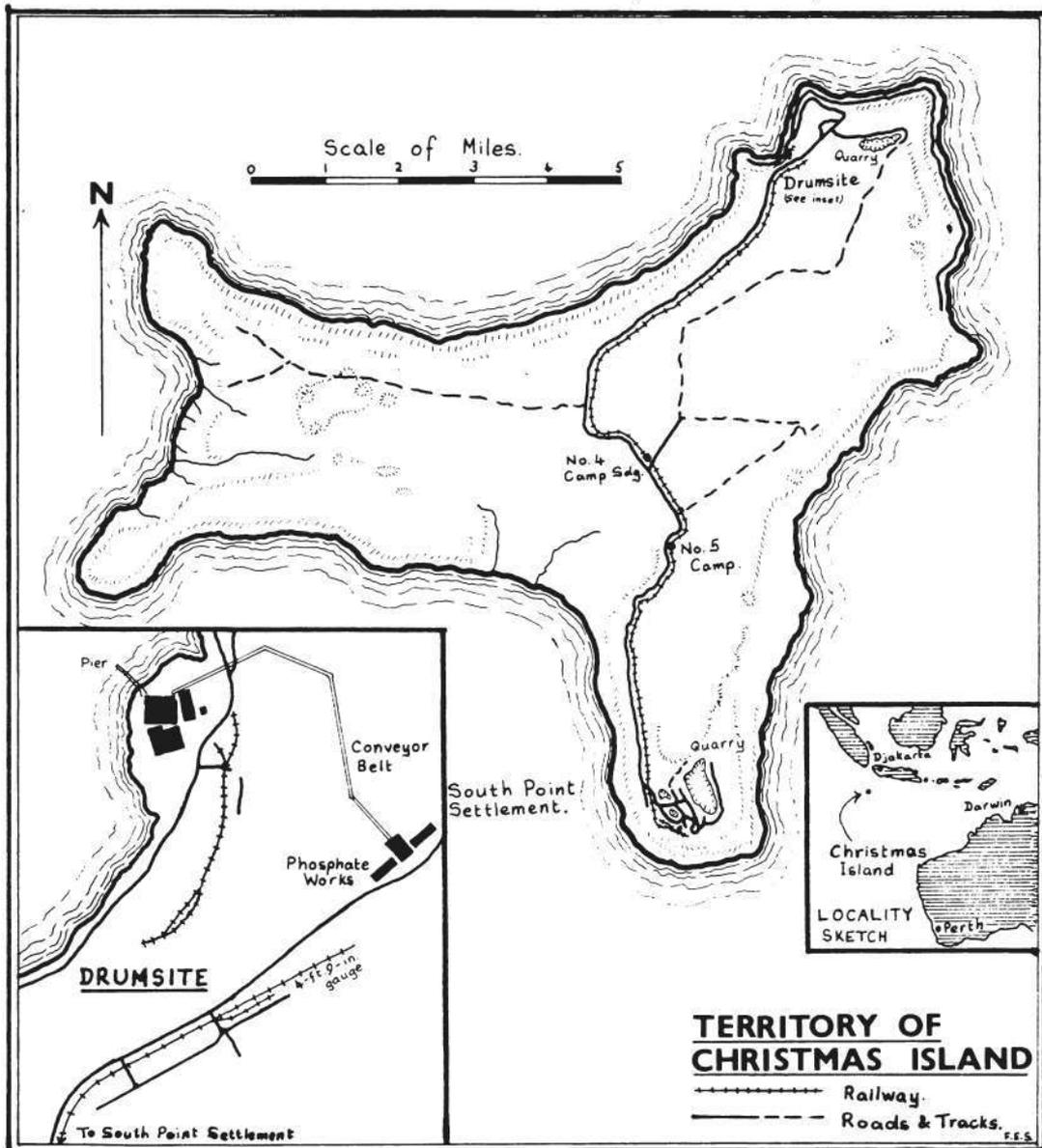
All records pertaining to the steam locomotive era seem to have been destroyed, which leaves some questions remaining unanswered.

Locomotive details in 1947 were -

No. 1	Lima	B/No. 1328 of 1913	0-6-0ST	Cyls. (2)	12-in. x 18-in.	D. Wheels 39-in.
2	Lima	5109 of 1916	0-6-0ST	(2)	12-in. x 18-in.	?
3	Lima (Shay)	2742 of 1914			12-in. x 15-in.	3-ft.
4	Lima (Shay)	2822 of 1915			12-in. x 15-in.	3-ft.

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No. 5	Lima (Shay)	B/No. 3278 of 1925	Cyls. 12-in. x 15-in. D. Wheels 3-ft.
6	Peckett	1824 of 1931 0-8-0	(2) 18-in. x 26-in. 4-ft.
7	Lima (Shay)	(See notes below)	
? R. Stephenson & Hawthorne		6961 of 1938 0-4-0ST	(see notes below)



Both Mr. G.S. Moore, of Beckenham, Kent, U.K.; and Mr. C.S. Small, of Connecticut, U.S.A., agree on locomotives Nos. 1 - 5, but disagree as to whether No. 6 was a tender or tank locomotive. However, in a personal interview with Mr. Bailey, an engineer who worked on Christmas Island, he stated that this was a tender locomotive, and this is confirmed by an article in "The Locomotive" magazine in about 1937 dealing with this particular locomotive.

The details of steam locomotives are further complicated as only six locomotives are listed in official records, but Mr. K. Lourey, Manager on Christmas Island, sent me a photograph of a Shay loco distinctly displaying the number "7" on cab side and smoke-box door tightening wheel - indicating either a fourth Shay or renumbering of one of the others to make way for the diesels entering service. Questioned on this matter the Manager advises that only a "fleeting knowledge of the steam locos now remains" and he is unable to throw any light on the matter.

The R. Stephenson & Hawthorne locomotive is listed in some records as being formally in use at Singapore Naval Base as their No. 3. It is not known whether this locomotive was removed to Christmas Island by the British, or during the Japanese occupation. It was cut up about 1959.

Diesel-electric centre cab locomotives are now used in main line service - two units working in multiple haul 20 wagons at speeds up to 30mph, loco speed being governed to 35mph. End cab diesel-hydraulic locomotives are used in shunting duties, with a maximum speed of 15mph in the case of No. 5, and 17mph for No. 4.

These locomotives are -

No. 1	Whitcomb Locomotive Co. U.S.A.,	B/No. 60687 of 1947	Bo-Bo	44 tons	D.wheel	33-in.
2	Whitcomb Locomotive Co. U.S.A.,	60688 of 1947	Bo-Bo	44 tons		33-in.
3	Whitcomb Locomotive Co. U.S.A.,	61102 of 1950	Bo-Bo	44 tons		33-in.
4	Orenstein & Koppel, Germany	21183 of 1938	C	36 tons		42-in.
5	Orenstein & Koppel, Germany	21058 of 1938	C	27½ tons		33-in.
6	Canadian Locomotive Coy.	2978 of 1957	Bo-Bo	44 tons		35 -in.
7	Canadian Locomotive Coy.	2979 of 1957	Bo-Bo	44 tons		35-in.
8	Canadian Locomotive Coy.	3045 of 1966			See below.	

Nos. 1 and 2 have two Caterpillar 170-180hp engines, No. 3 has two Caterpillar 170-190hp engines, and these three locomotives have an overall length of 28-ft. 6½-in. No. 4 has a 360hp Motorenwerke-Mannheim diesel engine, and an overall length of 30-ft. No. 5 is the smallest locomotive in use, with a 180hp Orenstein & Koppel diesel engine, and a length of 25-ft. Nos. 6 and 7 each have two Caterpillar 184hp engines, and an overall length of 34-ft. 2-in. No. 8 is presumed to be similar to previous CLC built units.

Railcars

A passenger service is operated by the Commission, using two Wickham railcars and three trailer cars, with train speed governed to 35mph. These were placed in service in June 1956 and December 1963. Power comes from a Perkins 6.305 litre diesel engine, driving through a Ford Thames four speed gearbox, vacuum operated for forward and reverse.

Details are as follows -

No. 8 Wickham & Co.

	Ware, Herts. England	Built 1956	80hp.	24 seats	3 tons	14-ft. 9-in. long.
9	" " "		Trailer	24 seats		14-ft. 9-in. long.
10	" " "		Trailer	24 seats		14-ft. 9-in. long.
11	" " "		Trailer	24 seats		14-ft. 9-in. long.
12	" " "	Built 1963	80hp.	24 seats	3 tons	14-ft. 9-in. long.

Acknowledgements

Acknowledgements are due to Mr. K. Lourey, Manager, British Phosphate Commission, Christmas Island, and Mr. Bailey who served as engineer there; for their notes and recollections of train working; and to Mr. Moore and Mr. Small for their assistance regarding details of locomotives now scrapped.

POVERTY POINT BRIDGE

Long Tunnel Gold Mining Coy., Walhalla, Vic.

We reported in LR No. 28, page 20 that this 158-ft. long prefabricated steel bridge was believed to be in danger of destruction, and that the Society had made a submission to the National Trust regarding its possible classification. We have since been advised by the National Trust that holding action has been taken to prevent its destruction, and that it will be considered for possible classification by the Trust's Twentieth Century Building Sub-committee, which has only recently been formed.

Considerable difficulty was experienced in finding the actual date of the bridge's construction, and the name of the builders, however evidence in many references indicated that the bridge was built in either 1900 or 1901. It was therefore necessary to go through the pages of the "Walhalla Chronicle" to find further information. On 13th. April 1900 it reported that material for the bridge was being delivered to the site, and its issue of 22nd. June 1900 reported that the Long Tunnel Company had just completed the bridge.

In the same newspaper the bridge was described as being of half-cantilever construction with wooden decking, side handrails, and gates at each end. The designer was Mr. Timmins, formerly a bridge engineer with the Victorian Railways. The steel portion was manufactured by Messrs. Dorman & Co., of London, and the contractors for the bridge's erection was the Austral Otis Coy., then of South Melbourne.

From this information we attempted to find further details of the bridge. It was found that Otis Elevator Company - also of South Melbourne - has no connection with Austral Otis, and that Austral Otis changed its name to FMC (Aust.) Ltd. about two years ago and moved to Clayton. When this move took place practically all the old records were destroyed, although some records went to Melbourne University. However these consisted mainly of minutes of Directors' meetings, and made no reference to the Poverty Point bridge.

It is believed that the bridge was assembled at South Melbourne, construction numbers being painted on it at that time. It was then probably dismantled, transported to the site by

rail, road, and horse tram, and then reassembled, using the construction numbers as a guide. However we have been unable to verify this.

In 1900 the General Manager of the Long Tunnel Gold Mining Company - Robert Erskine Dawson - advised the Parliamentary Standing Committee on Railways that the bridge cost \$1,496, although it could be put up in Melbourne for \$856. The difference was the cost of transport.

Even before the bridge was constructed, about six miles of tramway on the opposite side of the Thomson River had been pegged out, and was under construction. The Walhalla mining tramways were described in LR Nos. 16 and 17.

References -

"Walhalla" by Lauris Collins, Gippsland Printers, Morwell, 1965.

"Old Walhalla" -Portrait of a Gold Town, by Raymond Alexander Paull, Melbourne University Press, 1963.

"Walhalla, -Report on the Walhalla Goldfields" by Hyman Herman, Victorian Mines Department, Special Reports 1901, Vol. 1.

"Victorian Geological Survey Bulletins, No. 39, The Long Tunnel and adjacent mines, Walhalla" by W. Baragwanath, 1918.

Minutes of Evidence published with the Report from the Parliamentary Standing Committee on Railways on the question of Railway Connection with Walhalla, 27th. June 1900

Australian Mining Standard, 1900-01

Walhalla Chronicle, 1900.

Acknowledgements -

Miss Close, Melbourne University, Archives section.

Mr. W. Blaidon, FMC (Aust.) Ltd.

Mr. L.C. Davis, FMC (Aust.) Ltd.

Mr. J. Brown, Otis Elevator Company.

MMBW SOUTH-EASTERN SEWER PROJECT East Malvern, Vic.

As reported in LR No. 23, p.33, the Melbourne & Metropolitan Board of Works is using 2-ft. 6-in. gauge railways, both on the surface and underground, in the south-eastern sewer project, which involves the construction of a 12-ft. 8-in. diameter sewer from Kew to Carrum. The main worksite is located at East Malvern, on the alignment of the old Darling - Waverley Road railway. At the present time tunnelling is being carried out in a southerly direction from East Malvern, about 1½ miles of tunnel having been bored. The boring equipment is suited to hard rock, and the tunnelling is being retarded due to the difficulties of dealing with soft rocks - extensive shoring-up of the tunnel walls being necessary.

Most of the rolling stock in use consists of high-sided steel open wagons to carry spoil from the tunnelling mole, but flat wagons to carry rails and sleepers, and special wagons to carry steel segments used in shoring up the walls, are also in use.

Motive power consists of four Gemco-Funkey eight-ton four-wheel diesel locomotives, and two (or possibly more) four-wheel battery-electric locomotives. Only one of the latter is in use. A large lift carries locomotives and rolling stock from the surface down to the tunnel.

The Gemco-Funkey locomotives are fitted with flashing red lights on top, headlights, brass bells, and two-tone sirens similar to those fitted to ambulances.

Trains are generally made up of three vehicles, although twelve ton locomotives are to be obtained later to work longer trains at higher speeds. As the tunnel will eventually be about 12 miles long, the speed of overburden removal will directly affect the rate at which tunnelling can proceed - hence the desire for more powerful locomotives.

Rails are 60-lb. to the yard, and a single line is laid in the tunnel, with a passing loop. The latter is a pre-fabricated unit, called the "California Switch", and is moved further down the tunnel as tunnelling progresses.

An additional item of rolling stock is an end loading passenger coach, which has back to back wooden seats, and a wire mesh body. This seats about twenty people. On 13th September, 1969, 16 members took part in the LRRSA's visit to the East Malvern worksite, and saw the surface and underground workings. The passenger coach was attached to a Gemco-Funkey locomotive, to form the LRRSA Special, which took us to the rear end of the tunnelling machinery, a distance of about 1¼ miles.

Below Gemco-Funkey locomotive on LRRSA Special, in the South Eastern Sewer tunnel, East Malvern. (Photo - Arthur Straffen)



RECENT RESEARCH DISCOVERIES

(This is intended to be a new regular feature, where we will record details of previously unknown lines, in the hope that members will be encouraged to search deeper into the history of tramways listed. Contributions for this section will be welcomed from members in all states).

PIONEER GIPPSLAND TRAMWAYS (Victoria)

Even prior to the turn of the century many timber tramways were in operation in the Gippsland area, which was at that time being cleared of timber, and slowly developing into a farming area. Due to the abundance of timber, and shortage of stone for roads wooden railed tramways became an important means of transport. Although primarily intended to carry timber most of these tramways also carried produce to the main railway line. In this way pioneer farmers were assured of year round income.

We list a few of these lines below. Copley's Darnum - Elinbank tramway was another (L.R. No.21). There were others, of which we know nothing.

Suggested further research - Local newspaper files of the period should give more details. These can be seen in the Latrobe Library, Melbourne. If you wish to follow any of these up, let the Editor know, so that we won't have several members working on the same area.

YARRAGON - SOUTH GIPPSLAND TRAMWAY

A "wide gauge" (presumably 5-ft. 3-in.) tramway ran for about seven miles south of Yarragon station, although due to a recession in the timber industry it was not in use in 1890. The line was built by John Rollo with steam operation in mind (which almost certainly means it was laid with second hand iron rails) but apparently horses were used before 1890. It cost about \$2,400 a mile to build. Although built as a timber tramway, the line also carried potatoes to the main Gippsland railway. At this time roads in the area were impassable in the winter, and tramways could be built more cheaply than metalled all weather roads. It is not known whether the line was re-opened after 1890.

Ref. - "Second Report of Select Committee upon Tramways constructed under country Tramways Trust Fund" - Victorian Parliamentary Papers 1890.

LONGWARRY - JINDIVICK TRAMWAY

In 1890 a wooden railed tramway about six or seven miles long ran northwards from Longwarry station to Jindivick. The tramway is said to have cost \$200 a mile to build, and was alleged to have "an engine of about 5 h.p." (Ref. - Same as above).

MIRBOO NORTH TIMBER TRAMWAY

Between 1886 and 1890 a five mile timber tramway was built from Mirboo North station by Charles Sergeant, a timber mill owner and Member of Parliament. The line was laid on a continuous bed of timber, 5-ft. wide, with sleepers on top at 3-ft. intervals. The first two miles were laid with 60-lb. iron rails, to suit steam locomotive operation, the rest was laid in wood. The line had about 12 bridges, from 3½ to 7 chains long, the average grade was 1 in 20, the maximum grade 1 in 16.

Up until 1890 horse traction was used on this line, and it is not known if steam locomotives were ever used. The tramway crossed two bush roads, and in order to protect the Woorayl Shire from any action in the event of level crossing accidents, the owner had to give a \$2,000 guarantee to the Shire. Had the line been worked with steam locomotives, as originally intended, a \$4,000 guarantee would have been required. As it was it took nine months before the guarantee agreement was finalized, due to the many government departments that it was shunted through.

Two loads of timber a day were taken along the tramway, each of about 11 tons, and drawn by four horses. The gauge was probably 3-ft. or 3-ft. 6-in. (Ref. same as above).

THE FORESTER TRAMWAY (Tas.)

By - T.C.T. Cooley

(Bridport tramway)

This line was constructed by the Forester Timber & Tramway Company, later taken over by the IXL and Chesterman group. Originally the line ran from Bridport to the Company's mill at the Great Forester river, a distance of about 15 miles. The first shipments of rails were unloaded at the Company's jetty at Bridport from the schooners "Heather Belle" and "Gladys". The line left the jetty and ran along the foreshore, crossed the Brid river, skirted the Forester river for nearly a mile, then turning inland, passed through fairly level country, crossing Muddy Creek and Tuckers Creek, six miles out. The latter was spanned by a bridge of 130-ft. length. Here was situated an elevated water tank for the locomotives. Twelve miles from Bridport the line ran around a six chain curve, crossed the Lyndhurst road, and a few miles further ran into the township of Forester.

This line was taken up during the 1920's and the rails and locomotives moved further on to extend the IXL and Chesterman's group's line from Warrentinna into the Mount Horror timber leases.

This 2-ft. gauge tramway had two locomotives. I have a photo of one - "Edith" - which looks very much like an 0-6-0 Krauss, but it also has some of the characteristics of a Kerr Stuart. It is believed that these locomotives later finished up on the Camden tramway of the IXL Chesterman Company's timber leases, where bits and pieces can still be found rusting away in the bush.

Investigations carried out by the late Rev. Wm. MacFarlane and myself have failed to locate any photos of the second locomotive, nor could we locate photos showing the line in operation, or any records giving information regarding the builders of the locomotives.

INTERESTING PROPOSALS

(2) ELECTRIC CEMENT TRAMS

Before the North Geelong - Fyansford 5-ft. 3-in. gauge railway was built, cement was carried from the Fyansford Cement works to Geelong station by horse lorries, each carrying 4 to 8-cwt. and hauled by five horses, an additional three being needed for the climb up Herne Hill. Each lorry made two return trips daily. The cement company suggested that the Geelong and

Newtown standard gauge electric tramway be extended to Fyansford, and that electric freight cars loaded with cement and coal be run between midnight and 6-00am. The Melbourne Electric Supply Co., which ran the Geelong tramways, turned the proposition down, as it did not like the idea of paying \$34,000 for the extension.

(From Parliamentary Standing Committee Report, 1916).

LETTERS

Roger Seccombe writes -

HUME RESERVOIR CONSTRUCTION (LR No. 23, p. 3)

On 11th. January 1927 the "Castlemaine Mail" reported that the Chairman of the State Rivers & Water Supply Commission (Mr. M. Cattnach) had defended the action of the Commission in declining the lowest tender for the supply of four 13 ton steam locomotives for the Hume Reservoir construction project. Although Welch, Perrin & Co. Pty. Ltd. had submitted a tender for \$17,760 the Commission had accepted the tender of the Perry Engineering Co. of Adelaide at \$21,360.

The locomotives for which Welch, Perrin had tendered would have been built by John Fowler & Co. Ltd. of Leeds, England. Mr. Cattnach defended his decision by saying that the Commission had always tried to give reasonable preference to Australian built locomotives (as they desired locomotives similar to those already in use and giving satisfaction) in order to standardize spare parts and simplify repairs.

Peter Charrett writes -

HUME RESERVOIR CONSTRUCTION (LR No. 23, p. 3)

Further to Roger Seccombe's item above, I found other tenders for locomotives whilst I was researching.

In October 1919 Chas. C. Deland of Adelaide quoted for one 3-ft. 6-in. gauge locomotive ex Timms, for \$1,300. In March 1920 J. German tendered for three second-hand 3-ft. 6-in. gauge locomotives. In July 1922 J.E. Toole of Sydney tendered for one 3-ft. 6-in. gauge locomotive - second-hand - and also for log timber trucks. In September 1923 Moller & Forrester tendered for one second-hand locomotive - 3-ft. 6-in. gauge. In October 1923 Forrester & Drew tendered for one 3-ft. 6-in. gauge locomotive. In September 1924 the Secretary of the Irrigation Commission, Adelaide, said they were unable to sell one Decauville locomotive at Jervois to the SR&WSC. In November 1924 Stafford & Myers tendered for one steam locomotive for Hume Reservoir. In December 1924 Lyell Scott of Sydney tendered for one petrol locomotive.

John Buckland writes -

SILVERTON TRAMWAY (LR No. 26, p. 3)

Having read with interest Mr. John Davies' article on the Silvertown Tramway I would like to make these observations -

- (1) By no possible stretch of the imagination can this most remarkable and successful of

Australia's private railways be rated as a "light railway".¹ In point of fact it has always been more truthfully a heavy main line than many lines so described which are operated by the Government railways in the several states, notably those of 3-ft. 6-in. gauge.

I would class it as the very antithesis of the QGR Etheridge railway, which was and always has been, a light railway in every sense of the term, although now strengthened to carry 60 ton diesels.

(2) Broken Hill observes Adelaide (i.e. Australian Central Standard Time) which is 30 minutes behind Eastern Standard Time, observed in Queensland, New South Wales, Victoria, and (except for four months in Summer) in Tasmania. Incidentally I doubt if it ever took 21 days by Cobb & Co. coach to travel from Adelaide to Broken Hill.'

(3) The reference near the top of page 5 inferring that the company's right-of-way is so narrow as to require a concrete walled cutting is completely at variance with the facts. Without having the details before me, I would guess that the railway operates through a land reserve of at least two chains width through-out its length. The cutting referred to is probably constructed to prevent either slipping from a fault in the rock, or in wet conditions, seepage aggravating the trouble.

(4) The writer has got his facts a bit mixed up about the alleged rebuilding by STC of Y class Nos. 5 and 6 as 2-6-2T engines. The "rebuilding" of two Y class (Nos. 15 and 16) comprised adding side tanks to increase their water capacity for working the Tarrawingee tramway. Nos. 5 and 6 were supplied as 2-6-2T by Beyer Peacock & Co., which firm built all STC steam power save only Y 3 (second) which was taken over from the Tarrawingee tramway, which the STC worked after its first year. This engine was built by Jas. Martin of Gawler, South Australia.

(5) Finally, the 0-6-0 diesel-mechanical No. 26 was acquired by STC in 1958 from Zinc Corporation Ltd., Broken Hill, which imported new from Andrew Barclay & Sons, Kilmarnock, Scotland (B/No. D391 of 1953). It was not an unqualified success, and was very little used by Zinc Corporation. STC uses it for some of the lighter shunting.

Y 1 is preserved (or to be preserved) at Broken Hill, while both Y 12 and A 21 are in the ARHS (SA Div.) Railway Museum at Mile End, Adelaide.

Bill Pearce writes -

YARRA JUNCTION STATION (LR No. 28, p. 19).

With regard to Yarra Junction station it might be worth noting that it is not the original station at this site, but could have been at Lilydale. The station building has obviously had an entrance through its centre, as indicated by the external gable on the road side, and it is probable that the booking office was in this entry, and not in its present location at the end of the building under the platform awning. An early photo of Yarra Junction shows a small shed like building on the platform. The architectural style of the present building is not that of 1901, the date of the opening of the line, but is more that of the 1880's, the date of arrival at Lilydale.

VICTORIA DOCK CONSTRUCTION

By - Wayne Chynoweth.

Regarding Mark Plummer's interesting article (LR No. 27, p. 16) on the Victoria Dock construction, there are some facts that I would like to add.

There were six miles of 2-ft. gauge track laid in short lengths, worked by six Krauss locomotives. The lines were first laid with 14 pound per yard rail, but owing to the soft nature of the road-bed in the dock, and the necessity for running over newly laid embankments, the sleepers sank into the mud unequally, and so caused the crippling of this light section of rail. Subsequently additional lines were laid with 20 pound rails, and this section proved quite sufficient to withstand the weight of the 6½ ton locomotives used, both in the dock and upon the reclamation banks. Latterly as the system of lines extended, 40 pound rails were used, not because they were required, but because the contractor (who was actually John Robb's son) had a surplus stock of this class of rail on hand.

The sharpest curves, as stated at two chains radius, were adopted on what may be termed the "main lines" leading from the excavations, over which the trains travelled at a speed varying from four to 15mph, according to the load taken and direction of the gradient. However, curves ranging from 40 to 70-ft. existed in many places in the excavations, where the locomotives were not required to run at fast speed.

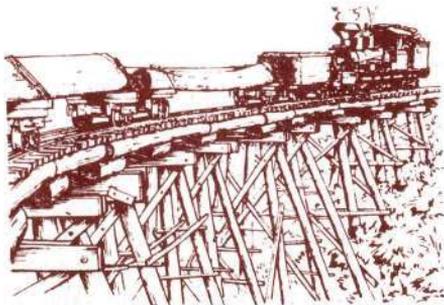
The average load taken by the 6½ ton engines up gradients of 1 in 66 - a minimum length of about 30 chains - was sixteen trucks, which with their loading equalled approximately a gross weight of 30 tons. The average speed with this load on the up gradient was about 8mph.

The material removed from the West Melbourne Dock amounted in the aggregate to approximately 3,200,000 cubic yards, equal to about 4,800,000 tons weight. Of this quantity about 1,800,000 tons were removed by the six 2-ft. gauge locomotives and trucks; the average run from pits to embankments was nearly 70 chains, and the average train consisted of 16 trucks, each containing about one cubic yard. The six locomotives combined, therefore, during the three years of their employment on the works, travelled with full loads a distance of about 39,400 miles, or including the return journeys with empty trucks, a total distance of 78,800 miles.

The lines were not ballasted in any way, the foundation of the roads was extremely treacherous, and the rails were more or less greasy with mud. The trucks sometimes came off, but that was mostly because they were triangular in shape, and used to rock and topple off. Notwithstanding all these adverse circumstances, the narrow gauge lines carried the enormous traffic outlined above, with surprising success.

The 5-ft. 3-in. gauge line was laid throughout the bottom of the dock, the sharpest curve being eight chains radius. The 5-ft. 3-in. trucks were going onto the Government railway where they were taken to North Melbourne.

(Ref. - Victorian Parliamentary Papers, 1895-96, Vol. 2, Report on Narrow Gauge Railways).



NEWS, NOTES & COMMENTS

QUEENSLAND

Moreton Mill, Nambour, Qld.

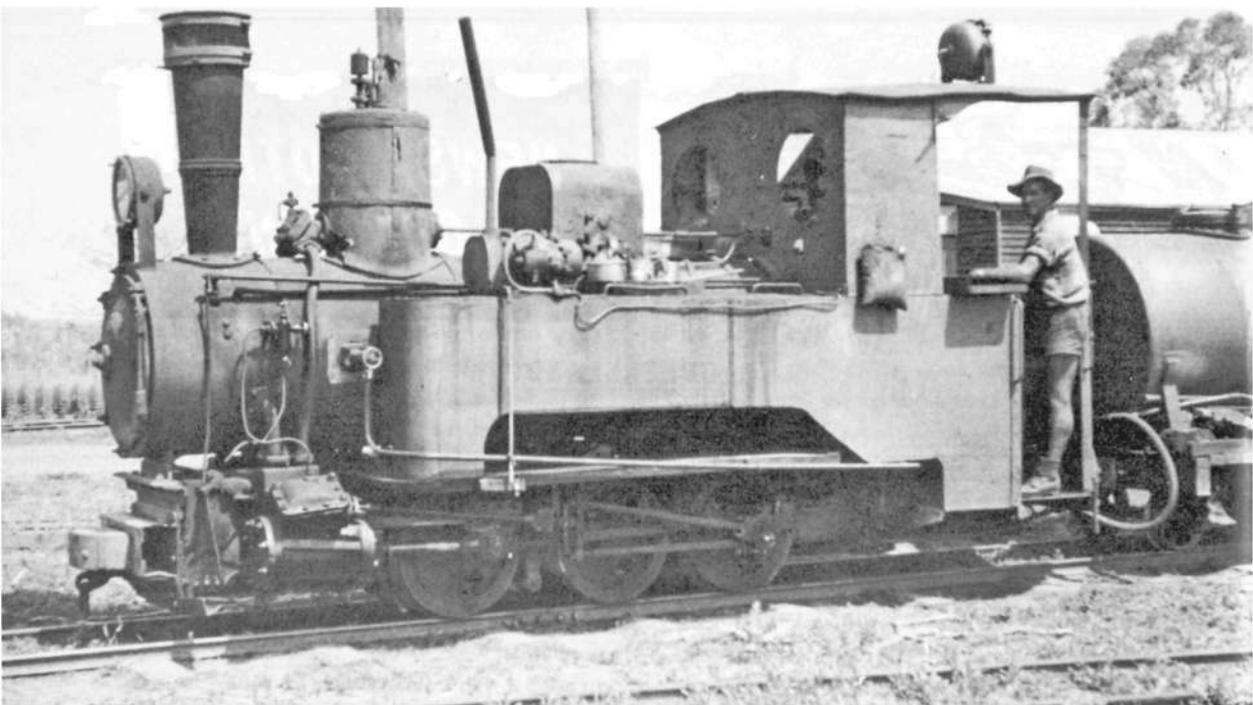
Locomotives at this mill at the present time, are as follows -

MORETON	Clyde	B/No. 63.289 of 1963	0-6-0DH
BLI BLI	E. M. Baldwin	B/No. 1257 of 1965	0-6-0DH
PETRIE	E. M. Baldwin	B/No. 6/2300 of 1968	0-6-0DH
MAROOCHY	E. M. Baldwin	B/No. 6/1064/1 of 1964	0-4-0DH
VALDORA	E. M. Baldwin	B/No. 6/1258	0-4-0DH
DUTCHY	Malcolm Moore	B/No. -	0-4-0 diesel
JIMPY	Malcolm Moore	B/No. 1058	0-4-0 diesel
JOE	Malcolm Moore	B/No. 811	0-4-0 diesel
SANDY	Malcolm Moore	B/No. 1051	0-4-0 petrol
RUSTY	Ruston & Hornsby	B/No. 223725	0-4-0 diesel
SIMPLEX	Simplex	B/No. 1811	0-4-0 diesel?
EUDLO	John Fowler	B/No. 16207 of 1925	0-6-0T standby.
COOLUM	John Fowler	B/No. 16036 of 1923	0-6-0T derelict, mill yard.
MORETON	Krauss	B/No. 4687 of 1900	0-6-0TT derelict, mill yard.
PETRIE	John Fowler	B/No. 19930	0-4-2T derelict, mill yard.
VALDORA	Dick Kerr	B/No. 191	0-4-0TT derelict Howard Street yard.
SHAY	Lima	B/No. 2091 & 2800	Shay preserved mill yard.

Fairymead Mill, Bundaberg

This mill has two steam locomotives working. They are two of the few locomotives in use on the 2-ft. gauge tramways to have straight stacks, all the rest have "plantation" or balloon stacks.

No. 6	Clyde	0-6-0DH	No. 21	Perry	0-6-2T
19	E. M. Baldwin	0-6-0DH	26	Clyde	0-6-0DH
20 "Delta" Perry		0-6-2T	54	Clyde	0-6-0DH



Above Orenstein & Koppel 0-6-0T at Gin Gin mill, Wallaville, Qld., 1964. (F. Stamford)
Below "Homebush" 0-6-0 Hudswell Clarke at Victoria Mill, Ingham, Qld., 1964. (F. Stamford)



For reproduction, please contact the Society

Plane Creek Mill, Sarina

This mill has a mixture of Clyde and Com-Eng. diesels together with a Fowler diesel. The isolated Carmila tramway has an E. M. Baldwin as regular motive power, with a Krauss-Maffei 0-6-2TT called "Polly" as standby.

North Eton Mill, Eton

There are two steam locomotives working regularly at this mill - No. 6 Perry 0-6-2T, and No. 7 Perry 0-6-2T.

Racecourse Mill, Mackay

This mill is completely dieselized, locomotives are as follows -

No. 1	Rosella	Clyde	B/No. 64/317	0-6-0DH	Model DHI-71
2	Munbura	"	67/570	0-6-0DH	" "
3	Racecourse	"	65/440	0-6-0DH	" "
4	Sunnyside	"	57/1/60	0-6-0DH	" "
	Homebush	"	55/58	0-6-0DH	" "
	Chelona	"	59/201	0-6-0DH	" "

Pleystowe Mill, Mackay

This mill is also completely dieselized. Locomotives are -

Pleystowe	Clyde	B/No. 64/321	0-6-0DH	Model HG-3R
Palmyra	"	63/273	0-6-0DH	" "
Habana	"	60/215	0-6-0DH	" DHI-71
Victoria Plains	"	66/490	0-6-0DH	" HG-3R
Te Kowai	"	56/103	0-6-0DH	" DHI-71
5	Bundaberg Fowler	5 of 1952	0-6-2T	Standby
Seaforth	Hunslet	1026	0-4-2T	Preserved in mill yard.

Marian Mill, Mackay

A Perry 0-6-2T is in use shunting in the mill yard, a Fowler 0-6-2T has just been overhauled, and an Avonside 0-6-0T is standby engine.

Proserpine Mill, Proserpine

Bundaberg Fowler (B/No. 8 of 1953) is standby at this mill.

Inkerman Mill, Home Hill

3-ft. 6-in. gauge Hunslet 0-6-0T "Inkerman No.1" is in use shunting bulk sugar and molasses wagons the couple of hundred yards from the QGR Carstairs railway station to the mill. 2-ft. gauge 0-6-2T "Carstairs" built by Perry, is on standby.

Pioneer Mill, Ayr

This mill has only 3-ft. 6-in. gauge tramways and is completely dieselized except for the weighbridge shunt.

Kilrie	Perry	0-4-2T	Maidavale	Clyde	0-6-0DH
Klondyke	Perry	0-4-2T	Airdale	Clyde	0-6-0DH
Macdesme	Clyde	0-6-0DH	Pioneer	Clyde	0-6-0DH

Both the Perrys are oil burners, used alternatively on the weighbridge shunt. The diesels are scaled up versions of the Clyde Model DHI-71 in use on the 2-ft. gauge.

Farleigh Mill, Mackay

This mill is fully dieselized, mostly with Com-Eng diesels. "Allison", a Fowler, is on standby.

Haughton Mill, Giru

Fully dieselized. A Decauville 0-4-2T is preserved in the nearby state school.

Ingham District

The Ingham district, supporting the CSR Company's Victoria and MacKnade Mills, is the last area in which steam may be found in the far north. Victoria Mill's locos are painted green, and burn coal, while MacKnade Mill's locos are maroon and burn oil. They are all Hudswell Clarke 0-6-0 tender locos with eight wheel tenders. They have polished brass domes, boiler bands and piping.

Victoria Mill, Ingham

Homebush	Hudswell Clarke	0-6-0	B/No. 1067 of 1914	(photograph on page 16).
Townsville	" "	0-6-0	1099 of 1919	
Melbourne	" "	0-6-0	1701 of 1938	
Cairns	" "	0-6-0	1706 of 1938	
Sydney	" "	0-6-0	1838 of 1950	

There are many diesels, mostly Clydes, with some Drewrys. They have such names as - Adelaide, Centenary, Ingham, Victoria, Lucinda etc. Another Clyde, model HG-3R (273hp) is on order for the 1969 season.

MacKnade Mill, Ingham

No. 1	Hudswell Clarke	0-6-0	B/No. 1653 of 1934	
4	Hudswell Clarke	0-6-0	1553 of 1925	
5	Hudswell Clarke	0-6-0	1548 of 1925	
6	Hudswell Clarke	0-6-0	1862 of 1953	
9	Hudswell Clarke	0-6-0	1863 of 1953	
10	Ruston & Hornsby	0-4-0DM		
11	Clyde	0-6-0DH	65/383	Model HG-3R
12	Clyde	0-6-0DH	65/434	Model HG-3R
	E. M. Baldwin	0-6-0DH		

(All Qld. items - David Mewes).

THE LIGHT RAILWAY RESEARCH CLUB OF QUEENSLAND was formed in February this year to research the history of light railways and tramways in Queensland. Meetings and outings are held regularly. For details contact the Secretary - Ron Aubrey, 17 Avon Street, Leichhardt, IPSWICH, Qld. 4305.

NEW SOUTH WALES

Burrinjuck Tramway Locomotive Restored

Each year the NSWGR includes a display in the Sydney Royal Show, and the 1969 Show was no exception ... except for the nature of the exhibit. Instead of the more usual diesel theme of modernization, the 1969 display could almost have been mistaken for one held half a century before. Centre of attraction was a beautifully restored 2-ft. gauge Krauss 0-4-0, B/No. 6063 of 1907, imported in 1908 by the New South Wales Water Conservation and Irrigation Commission, being one of four intended for use on the Goondah-Burrinjuck tramway in connection with the construction of the Burrinjuck dam. (See photograph page 24).

After some 20 years of service on the Burrinjuck tramway, "Archie", as the locomotive had been named, passed into the hands of a second-hand merchant in December 1929, and finally ended up at Farleigh sugar mill in north Queensland. After being noted out of service at the mill in 1965, approaches were made by the NSW Rail Transport Museum to obtain this locomotive for display in the Railway Museum to be set up at Enfield. Narrow gauge railways were not as common in NSW as in some other states, however it was considered that this aspect of railway history should not go unnoticed. Negotiations with the sugar mill proved very successful, and the locomotive finally arrived at Petersham Siding on 16th. December 1966. Work on restoring the locomotive was not commenced immediately, owing to other jobs in hand.

Early this year the NSWGR made a sudden decision to include the locomotive in the Royal Easter Show; accordingly restoration work which would have taken unskilled volunteer labour many months of painstaking work was completed in almost as many days. This included straightening out the worst of the buckles received in the years of service, completely cleaning down and repainting the locomotive, manufacturing new nameplates and builder's plates etc. An excellent job was done, and the locomotive was a major drawcard at the show, standing on a short length of specially laid track. After the show "Archie" was transported to Enfield No. 3 Roundhouse, in preparation for final display with other items retained for the museum.

Ex - BHP Porter Locomotive Overhauled

Following the closure of the standard gauge railway operated by the Emu & Prospect Gravel and Road Metal Company Ltd. at Emu Plains on 1st. April 1967, the NSW RTM negotiated the purchase of one of the two Porter type 0-4-0 locomotives which had been used on the line. The locomotive, B/No. 6596 of 1920 had been built for the Broken Hill Proprietary Co. Ltd., and saw use at Newcastle as their No. 16, being sold to the gravel company in 1962.

No. 16 was removed from Emu Plains on 23rd. January 1968, but a troublesome hot-box resulted in the 0-4-0 being stowed at St. Marys until emergency repairs could be made. On arrival at Enfield a full inspection was made and a repair sheet compiled. After a stay at Eveleigh workshops, it was decided that the locomotive could best be overhauled at Enfield, with the Museum contributing a substantial amount. This work, which included the manufacture of a new bunker (made from the back sheet off a 38 class tender), was completed late in August, and the Porter was steamed for the first time for several years on 29th. August. It is anticipated that the locomotive, which will be restored to BHP colour scheme, will be utilised for shunting Museum display items as required on open days at Enfield.

Commonwealth Portland Cement Co., Portland

A reduction in output from the CPC Co's works at Portland, on the Wallerawang - Mudgee branch, has resulted in reduced use being made of the mile long private railway linking the works with the NSWGR line. Whereas it has been the practice to either double-head or bank in the rear loads from the works, now only one locomotive is required to be in steam, on Mondays to Fridays only.

Three standard gauge steam locomotives remain on the Company's roster, and all are in working order. These are -



No.3 0-6-0T Andrew Barclay, B/No.1234 of 1911. No.5 0-6-0T Andrew Barclay, B/No.1470 of 1915.

2605 2-6-2ST Dubs & Co. B/No.2794 of 1892 - Purchased from NSWGR, 12th. January 1966, not renumbered.

Hoskin's Steelworks Engine Returns Home

Following approaches by the Lithgow Historical Society, "Possum", an 0-4-0ST locomotive built by Manning Wardle & Co., (B/No.1802 of 1912) and lately located at the Port Kembla works of Australian Iron & Steel Ltd., has been donated to that organization for preservation.

"Possum" was one of the locomotives which had been used at the original Hoskin's steel-works at Lithgow, being transferred to the then new Port Kembla works in August 1928. It had been taken out of regular service in November 1964, but remained on standby until laid aside in March 1966.

"Possum" was loaded into a well-wagon for transfer by rail from Cringila to Lithgow on 12th. August 1969. The locomotive has been repainted in a light green livery with yellow lining. "Possum" will thus remain to allow the people of Lithgow to remember the major part played in the earlier years of the Lithgow Hoskin's Steelworks.

Another engine formerly in use at Lithgow is preserved by AIS at their Visitors' Reception Centre at Cringila, near Port Kembla. This is "Wallaby", built by R.W. Hawthorn Leslie & Co. in 1913.(B/No.2988), and used at Lithgow until August 1932. It has been on display at the Visitors' Centre since June 1963.

Coal & Allied Industries (J. & A. Brown, Abermain Seaham Collieries Ltd.)

Further to the report in the last issue of "Light Railways", R.O.D. 2-8-0's available for service on the line from Hexham to Stockrington Colliery are (as at August 1969) Nos. 13, 15, 23 and 24. All except No.15 have received overhaul in recent years, either at the Hexham Engineering Works, or at the East Greta Workshops of the South Maitland Railways. (also a unit of Coal & Allied Industries). R.O.D. locomotives out of service are 16, 17, 19, 20, 21 and 22 at Hexham, and 12 and 18 at Pelaw Main. No.18 is stored frame only.

2-8-2T Kitson No.9 (B/No.4567 of 1908), "Pelaw Main" was at East Greta Workshops for a mechanical overhaul from 24th. February 1969 to 10th. July 1969, following which No.10, another Kitson 2-8-2T (B/No.4798 of 1911) "Richmond Main" is scheduled for similar treatment at East Greta.

No.5, one of the 0-6-4 Mersey tank locomotives, has been removed from the storage line across the swamp, and stands in the exchange sidings at Hexham in a clean condition, having been prepared for possible preservation. No.5 was built by Beyer Peacock, B/No.2604 of 1885. A second Mersey tank loco is stored at Pelaw Main sheds - this is No.8, Beyer Peacock B/No.2603 of 1885.

(All NSW items - Peter Neve)

Left - Commonwealth Portland Cement Company, NSW, Andrew Barclay 0-6-0T and Dubs 2-6-2ST double heading at the cement works. (Photo - Peter Neve).

TASMANIA

Zeehan School of Mines Museum

The locomotives here are being well maintained. The ex TGR 2-6-0 Beyer-Peacock "C1" has been freshly painted in black livery with minor red trimmings and silver headlight and marker lights. A new fence has also been built around the collection since my last visit, and a signal has been erected.

Lake Margaret Tramway

The ex Lake Margaret rail-bus still lies under a large pine tree in the front of a house, showing definite signs of rust and deterioration due to its outside storage.

(Tasmanian items - Ralph Proctor)

VICTORIA

Powelltown Tramway

Because of the activities of bulldozers, the previously isolated tramway remains in the Ada River area are rapidly losing their attraction, and anyone intending to visit the area should do so before it is too late.

The New Ada Mill can be reached by travelling east from Powelltown, then north along Big Creek Road to Starlings Gap - about six miles from the Powelltown - Noojee road. About two miles past the Gap a road to the right has "New Ada" written on the sign post. Proceed down this road, ignoring overgrown tracks, and take the left fork after about half a mile and the right fork about a quarter of a mile further on. Another half mile, mostly down hill brings you to the New Ada Mill, although the road may not be suitable for cars after rain.

At the mill turn right and follow the track which runs south along the tramway formation. After about 3/8 of a mile the head of a gully appears on the right, and at this point a tramway curves in from the east. One rail is still in position and can be followed for a short distance to a platform of large logs. Further down the main track can be seen a boiler and winch near a small hut. The track becomes steeper here, and soon crosses the Federal tram formation. To the east this remains undamaged, but to the west it has been bulldozed to form a road. Anyone familiar with the locality will agree that this is a great pity - it was done some time between December 1968 and May 1969.

The track continues south toward the Ada No. 2 Mill. From here it is possible to continue south across the Ada river on a long low trestle, finally coming out on Doweys Spur road, about half a mile further on.

(I. A. Cutter)

A visit to the High Lead area at Easter revealed that many of the old tramway formations are being bulldozed and opened as jeep tracks or logging roads. From the Doweys Spur the formation of the Powelltown tramway has been opened up southwards to the summit and continues down the High Lead (distance unknown).

Beyond Ada No. 2 Mill the formation has been cleared from the upper end of the trestle bridge above the mill to the summit of the incline and on towards New Ada Mill (distance unknown)

but suspect that it would link up to the road coming in from the other side of the New Ada Mill).

From the crossing of the New Ada Mill line with the Federal tram, the Federal line has been bulldozed to a point about 100-ft. short of the Ada No. 1 Mill line crossing, where the bulldozers have headed downhill and pick up the formation of the Ada No. 1 Mill line just on the Powelltown side of the trestle bridge at the foot of the hill. The bulldozers have widened the formation of this line for about a quarter of a mile before turning to the right and heading uphill.

Along the Federal line (west of New Ada Mill crossing) embankments have been built to cross several gullies which would appear to have been crossed by trestle bridges in tram days.

(E.R. Godwin)

Steel-framed Tramway Bogies at Neerim South

W.W. Gunn purchased rail and a number of flat bogie trucks from a tramway in central Victoria about 1900. The bogies were removed from the trucks and fitted with wooden swivels for log carting. A pair of these bogies has been saved from the scrap merchants by a resident at Neerim South, where they will eventually be set up on a section of track for display. At present they are located in his garden adjoining the local hall. (See photograph below)

The bogies are solidly constructed of steel sections (3½-in. x 1½-in.) with leaf springs centrally mounted, and acting through equalizing bars onto axle boxes. One bogie has solid disc wheels, the other has ten-spoked wheels. There are no identification marks visible on the bogies.

The dimensions are as follows -

Gauge - 3-ft. 6-in.

Wheelbase - 3-ft. 9-in.

Wheel diameter - 2-ft. 6-in.

Tyre width - 5-in.

Flanges - 1¼-in. x 1-in.

Frame width - 5-ft. 6-in.

Frame length - 7-ft.

Bolster width - 16-in.

The origin of these bogies is not known to me, any information would be appreciated.

(Ted Stuckey)



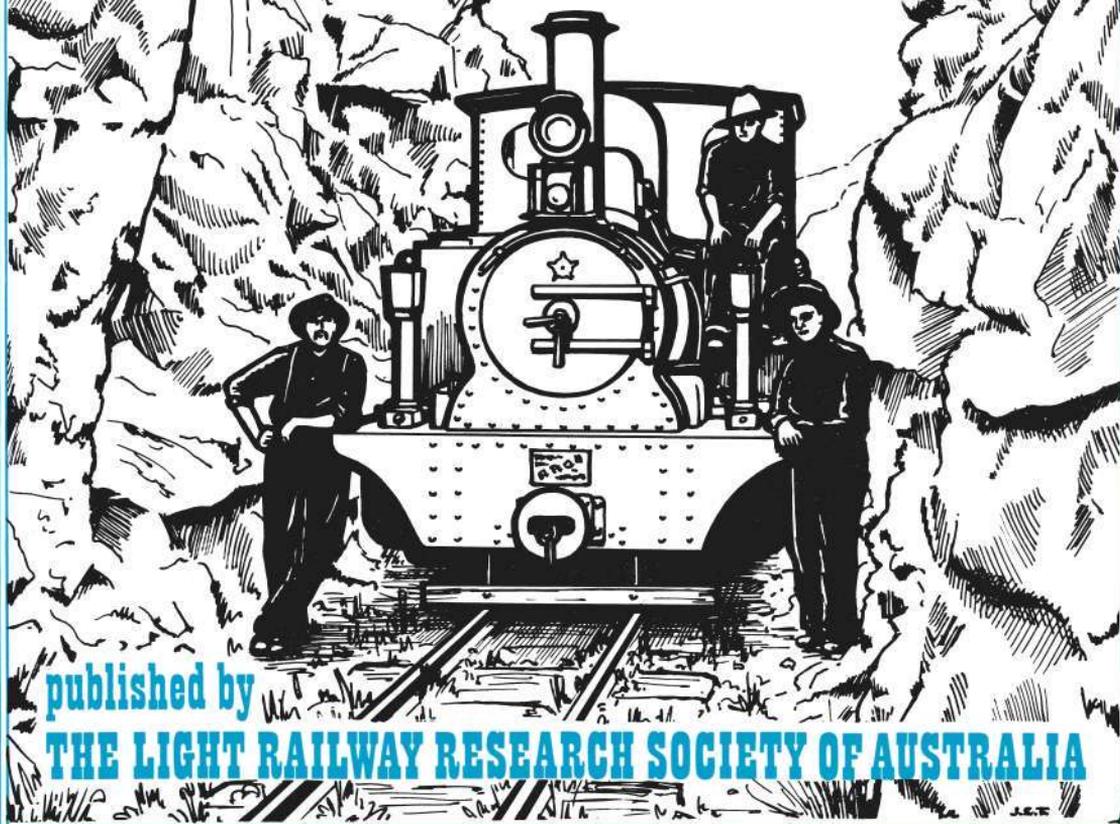


Burrinjuck tramway, New South Wales, showing Krauss locomotive (possibly "Jack"), a brakevan, and two passenger coaches. See page 19 for a report on the preservation of one of the locomotives which worked on this line.

(Photo - P. Neve collection)

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LIGHT RAILWAYS

No. 30

SUMMER 1969-70

Vol. VIII.

From the Editor

One of the most useful ways in which members can help the Society is by publicising its existence, thus assisting us to gain more members. Only through membership growth can we continue to improve the magazine.

Publicity is also important for another reason. From time to time we are horrified to hear of old photographs being destroyed, because their owners did not realize their value. To minimize this destruction it is important that as many people as possible know of the Society's activities. Every member can help in doing this, and it will cost you nothing.

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BACK NUMBERS of "Light Railways" - No. 13 @ 15c, No. 14 @ 20c, No. 15 @ 10c, Nos. 21, 22, and 23 @ 25c each, Nos. 24, 25 @ 35c, Nos. 28 and 29 @ 40 c. available from the Editor. Postage is extra - on one copy 5c, two copies 9c, 3 or 4 copies 13c, 5 or 6 copies 17c, 7 or 8 copies 21 cents, 9 or 10 copies 25 cents.

Cover - Irvinebank 2-ft. gauge tramway locomotive No. 3 "Old John", an Avonside 0-6-2T built in 1907. (Drawn - John Thompson).

Opposite - Stannary Hills 2-ft. gauge tramway locomotive No. 2, 2-6-0T, at Boonmoo, northern Queensland. This locomotive was derelict at Irvinebank in 1952, but by 1968 had gone.

STANNARY HILLS AND IRVINEBANK TIN MINING TRAMWAYS

By - G. Verhoeven

Queensland's 2-ft. gauge sugar tramways are well known. Not so well known are the two inter-connecting 2-ft. gauge tin mining tramways which once served Stannary Hills and Irvinebank on the Atherton tableland, in north Queensland. This article publishes some recently discovered facts on these remote tramways.

Before the coming of rail transport this area was served by a Cobb and Co. coach route from Port Douglas, drays and pack animals doing the carting. It was not until the Queensland Government Railways completed the railway from Cairns to Mareeba in 1893 that things really started moving on the Tableland.

The Chillagoe Railway and Mines Co. began building a 3-ft. 6-in. gauge railway south-westerly from Mareeba, to Lappa, Lappa being reached in 1900. At the 35 mile peg, reached in 1899 or early 1900, a rail-head was established. Originally named "Head of Line", this station became Boonmoo when the line was opened to Lappa, and up and down trains crossed here. Boonmoo was the nearest station to the tin mines around Stannary Hills and Irvinebank, and coaches and teamsters plied from here, until the Stannary Hills tramway was built. A dining room was provided at Boonmoo, but this later became a refreshment room.

The North Queensland Tin Mining Corporation Ltd. had mines and leases at Watsonville, Stannary Hills, and Rocky Bluff. Early in 1900, after changing their name to The Stannary Hills Mines and Tramway Company Ltd., this Company began construction of a 2-ft. gauge tramway from Boonmoo, along Eureka Creek towards Stannary Hills and Rocky Bluff.

The Company took advantage of the Mining Act Amendment Bill, which was passed in April 1902, this permitted the carriage of goods and passengers on mining tramways. The line was originally intended to go to Watsonville (see map, page 12), but actually never reached there, being diverted to Rocky Bluff, 21 miles from Boonmoo. Public traffic to Stannary Hills commenced on 9th. May 1902, and to Rocky Bluff on 18th. November 1902. Rails were 30-lb. per yard, and 2,000 half-rounded sleepers were used for each mile of track.

With the opening of the Stannary Hills tramway, the coaches and teamsters now plied between Stannary Hills and Irvinebank. This type of transport was inefficient, so John Moffat, of the Irvinebank Mining Co. Ltd., decided that Irvinebank should have its own tramway.

Consequently in 1906, the Irvinebank Mining Co. Ltd. commenced construction of a 2-ft. gauge tramway from a point $1\frac{1}{2}$ miles east of Stannary Hills to Irvinebank. This tramway was officially opened on 29th. January 1907.

Stations and Sidings

At Boonmoo the station master, a CR&M Co. man, also acted as the station master for the Stannary Hills Mines and Tramway Company. Traffic from Cairns to Irvinebank was subject to four sets of rates or fares - QGR, Cairns to Mareeba; CR&M Co., Mareeba to Boonmoo; SHM&T Co., Boonmoo to Irvinebank Junction; and IM Co., Irvinebank Junction to Irvinebank. All material for the construction of the tramways came through Boonmoo, bringing a lot of traffic in 1901-02 and 1906-07.

For the first ten miles from Boonmoo comparatively easy country is traversed, following Eureka Creek. Six miles from Boonmoo a firewood siding or loop was located, and in 1909 a new crossing loop was built here. At ten miles another firewood siding was located, with crossing loop, brick kilns and telephone.

The line then went up Bock's Creek, a horse-shoe bend being located at the 11 mile peg, from whence it turned into the Eureka Creek gorge. The horse-shoe had a route length of 13 chains, the tracks being 66 yards apart across Bock's Creek, with an 8-ft. difference in elevation. Three further sidings followed - Kitchener Mine (see diagram, page 13), Ivanhoe and Ivanhoe Extended Mine, and Eclipse Mine, before the Eureka Creek was crossed. After crossing the Eureka Creek, Stannary Hills station yard was immediately entered (see diagram, page 13).

On the left were the tramway workshops and the station. A little further towards Rocky Bluff there was a goods shed on the right hand side. A road went from here for about half a mile to the township of Stannary Hills. According to the Queensland Mining Journal, September 1909, Stannary Hills station building was moved at that time, increased accommodation for goods and a carriage shed being provided at the same time.

At 14 $\frac{3}{4}$ miles was the Black Bridge. This bridge was about 42-ft. high, and about 208-ft. long, and was a double deck trestle, i.e. one set of piles rested on the head sills of the bottom set of piles. A sharp curve on the Rocky Bluff end of this bridge imposed a speed restriction of 3 mph.

The Chief Engineer of the QGR furnished me with a "Plan and Section" of the Stannary Hills tramway, signed by Charles I. Stephens, B.E., Assoc. M. Inst. C.E., of Cairns - the Engineer who built the line. According to this plan, the sharpest curve was at 12 miles 22 chains - in the Eureka gorge - being 1 $\frac{1}{2}$ chains radius, on a 1 in 50 grade for an 87 degree 50 minute angle. The Eureka Gorge abounded with two chain curves, and grades of 1 in 40, 1 in 44, and 1 in 50.

After crossing the Black Bridge there seemed to be plenty of grades of 1 in 33, but as this part was not built until after 1906 (to Hale's Siding) it may be doubtful if this survey was used for this section.

Stannary Hills - Rocky Bluff section

At 15 $\frac{1}{4}$ miles another firewood siding was located, this was put in in 1903, and was later moved to 15 $\frac{1}{2}$ miles. Next stopping place was "The Junction", this being the junction (after 1906) for the Irvinebank tramway, then followed Gladstone Mine siding, another firewood siding at 16 $\frac{1}{2}$ miles installed in 1903, and another at 16 $\frac{3}{4}$ miles installed in July 1906. Arbouin Bin siding was located at 18 miles, where an ore bin was provided for the Arbouin Mine. A

deep gully separated this mine from the tramway, and ore was taken along one mile of horse worked tramway from the mine, to a 600-ft. aerial ropeway which terminated at Arbouin Bin siding. This siding was put in on 31st. March, 1906.

The line terminated at Rocky Bluff, 21 miles from Boonmoo. A stamp battery and treatment works was located here on the Walsh River, about 900-ft. below the tramway, and a cable operated three rail funicular connected the tramway terminus with the battery. At the turn of the century Rocky Bluff had a population of 200, and was supplied with electricity and water from the stamper mill.

So far I have been unable to find any information on the track plans of the Rocky Bluff section. A total of 31 bridges were built between Boonmoo and Rocky Bluff.

Irvinebank Tramway Sidings

After leaving "The Junction" both branches of Jubilee Creek were crossed, then Gap cutting or Yorkies cutting is entered. A long siding, or branch, was found in this area. It was for firewood, and also served the Pompeii mine. If continued it would have reached Bakerville and Watsonville. Then followed Hale's Siding, in the vicinity of "Bettyville", where a 10-ft. platform and unattended shelter shed was provided.

Weinert's Siding, and Humbug Mine Siding followed, copper ore from Humbug mine went to Chillagoe for smelting. Chinaman's Creek bridge was crossed; followed by Victoria Siding, where a 10-ft. earth platform, and unattended shelter shed was provided. In 1925 additional siding accommodation was added to provide for increased traffic from Montalbion mine. (See page 8).

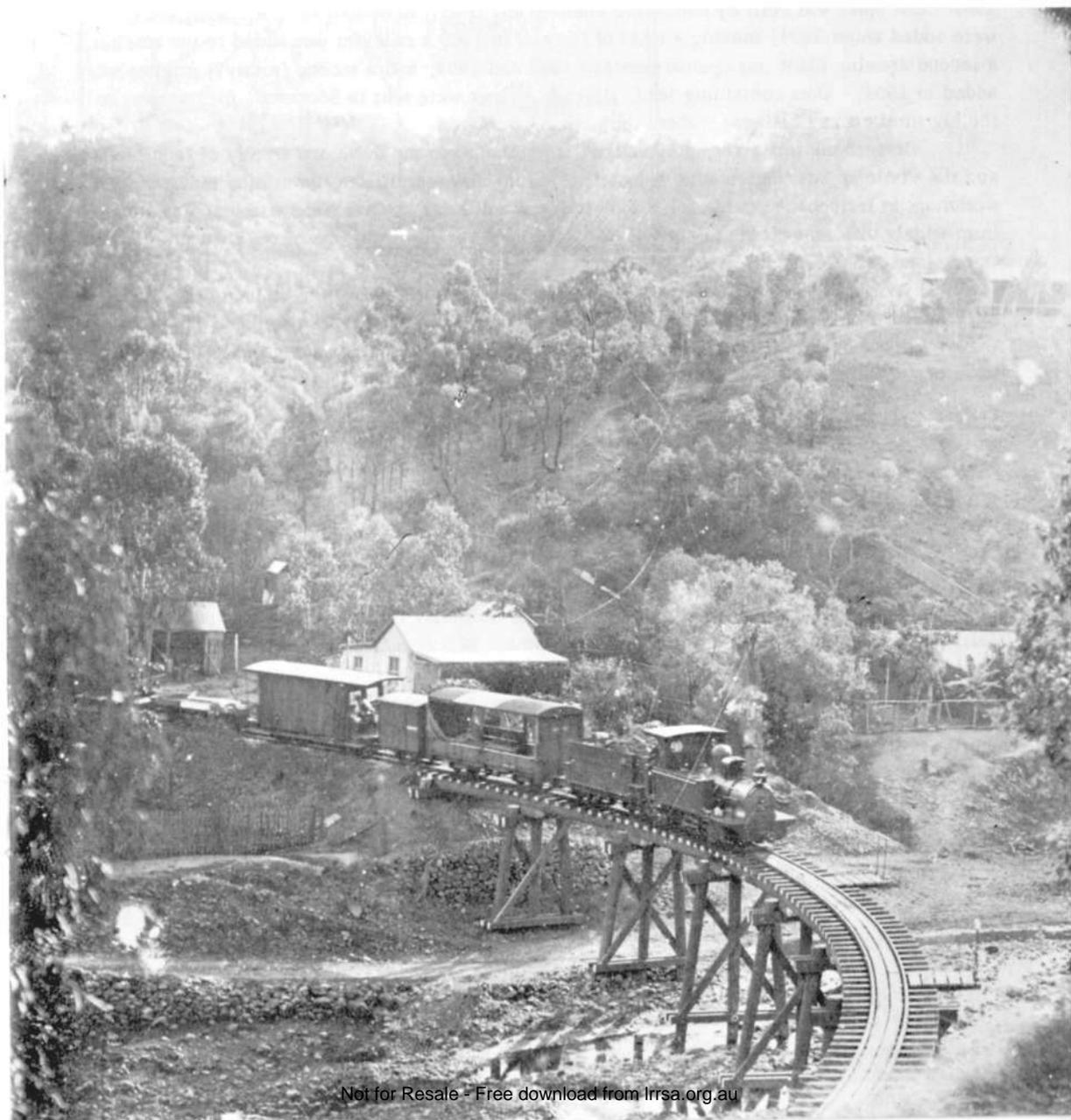
Two miles before Irvinebank, a temporary terminus named "Allbut" was reached. This was situated on a flat below Fireclay Gully, in the vicinity of a picnic ground. Approaching Irvinebank, "Closeup" was reached. Closeup was located above the Irvinebank cricket ground, and below the outflow of the dam. (See diagram, page 12). This was a temporary terminus until Gibb's Creek bridge, on the outskirts of Irvinebank, was opened on 24th. April, 1907.

The last mile or so coming into Irvinebank was quite remarkable, as the line turned in different directions to gain height, and the treatment works was sited on the various levels through which the line went, to make efficient use of the different levels in the handling of materials. Looking at the diagram, on page 12, a tram coming from Stannary Hills would curve across Gibb's Creek and the Coolgarra road, past a triangle and loco shed, then make its way through the yard between the ore bins and stamper mill below it, and continue climbing, turning to the right around the Office and John Moffat's residence, until it reached the goods shed and station at the top of the hill.

Lines went from here to the top of the ore bins, coal bins and smelters. Just before coming into the station yard was a landing alongside the line, from which goods could be wheeled to a store in Jessie Street by a long catwalk. At the middle level, so to speak, a branch went off to the bottom part of the smelter, and another went in a zig-zag fashion down to the carpenter's and blacksmith's shop. Coal bins at the loco shed were fed from the line above it.

All ores were brought to the top level - the terminus. They then went either to the

"Old John", Irvinebank No.3 0-6-2T crosses Gibbs Creek, near Irvinebank in 1914. (G. Bond collection).



smelters, or the treatment works, which were both on a lower level, and along which the main line passed on its way up to the terminus.

A five head mill was installed at the treatment works in December 1884; ten heads being added after 1893; five more being added after 1900; a further ten being added after 1901 - this plant was built by Bundaberg Foundry and is still in operation. A further ten heads were added about 1904, making a total of forty. In 1900 a calciner was added to the smelter, a second dressing plant was opened between 1902 and 1904, and a second (rotary?) smelter was added in 1904. Ores containing lead, silver or copper were sent to Boonmoo, for transport to the big smelters at Chillagoe, where they could be treated.

Irvinebank was a very progressive place, thanks to the drive and energy of John Moffat, and the whole country surrounding it benefitted from his enterprise in the mining industry. The workshops at Irvinebank could tackle almost any job offering. Ores were tested and treated from widely different places in north Queensland, and the town was one of the first in north Queensland to have electricity.

Irvinebank was the headquarters of the tramway system after the Stannary Hills Company closed down, and was always the headquarters of the Irvinebank Company.

Some doubt still surrounds the locations and names of sidings along the tramways. At some of the sidings stub points were used.

Traffic

Apart from supplies, machinery, and so forth, there was a lot of traffic in firewood. Firewood sidings were put in, and shifted as the areas were cut out. Yorkies Cutting was the demarcation line, for the firewood to go to either the Rocky Bluff mill or the Irvinebank mill. The main traffic was of course, ores, concentrates, and fluxes.

In later years when the firewood had been almost cut out, coal was brought in from the mines at Mount Mulligan, another of John Moffat's enterprises.

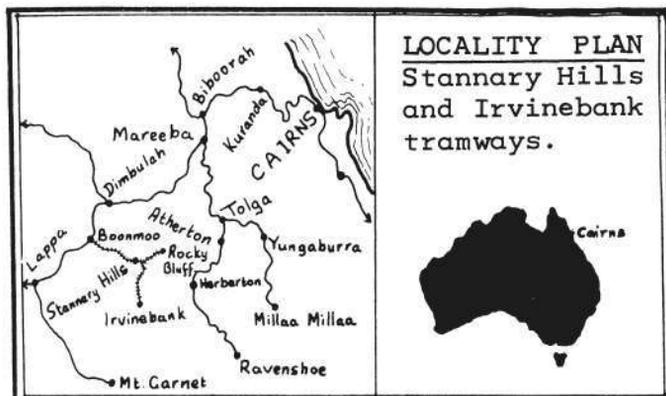
In the 1920's a lot of the slag from the old Montalbion smelters was transported to Chillagoe for retreatment, to obtain silver and lead. Montalbion was situated some four miles roughly west of Irvinebank, and was a big mining centre before Irvinebank took over. By the turn of the century it had ceased operations.

Timetables

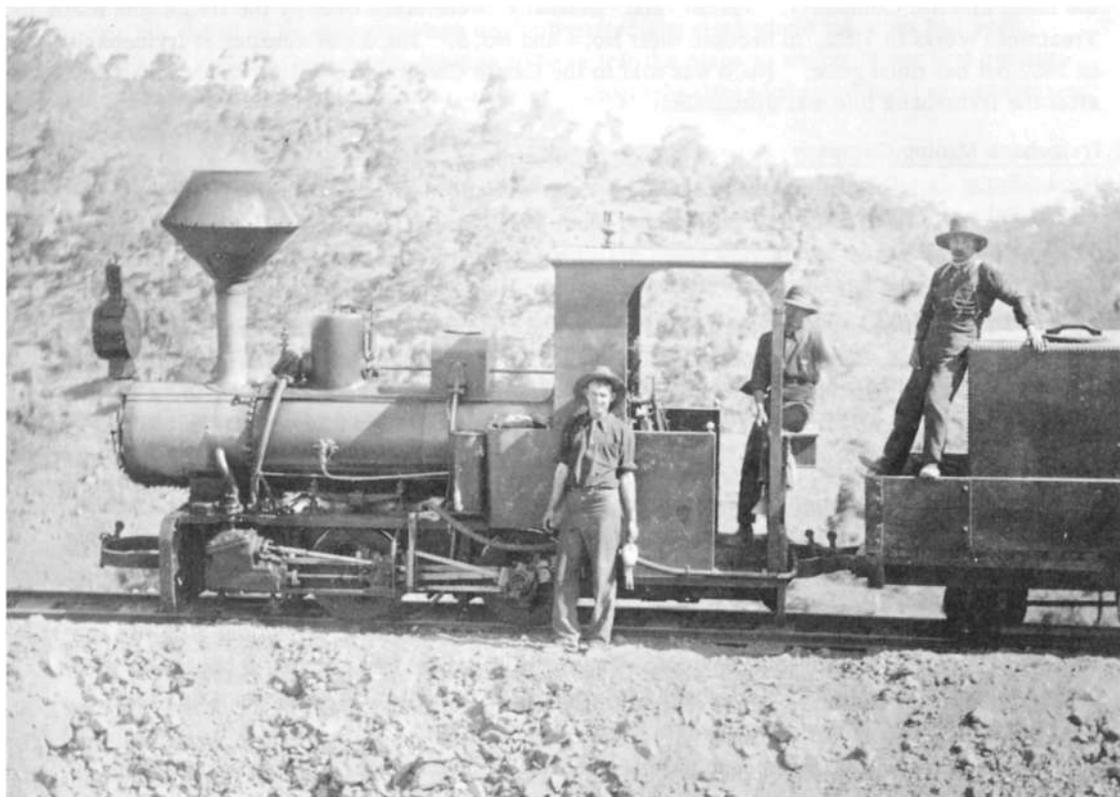
Timetables show that prior to 1911, two passenger trains a day were worked each way between Irvinebank and Stannary Hills, and between Stannary Hills and Boonmoo. During 1911 this service was reduced to one service a day, connecting with CR&M trains to Mareeba and Chillagoe.

In 1919 the Irvinebank treatment works was taken over by the Government - as it had become unprofitable - and, together with the Irvinebank tramway, was placed under the control of the Irvinebank State Treatment Works.

In 1922 the Stannary Hills Mines and Tramway Company closed down, and the section of tramway between Boonmoo and The Junction was then also taken over by the Queensland Government. The tramway between Boonmoo and Irvinebank was then worked as one section, and the section from The Junction to Rocky Bluff was dismantled in 1926.



"Baby", Irvinebank No.2 0-4-OWT near Irvinebank in 1907.
 Driver - Bob Bliss, fireman - Jack Brougham, guard - Jim Ciferentes.
 (G. Bond Collection).



By 1934 the train service had dwindled to one a week, which ran on Wednesdays. Closure followed in 1936. The tramway was dismantled in 1941-42.

Locomotives and rolling stock

Stannary Hills Mines and Tramway Company Ltd.

No. 1	Pompey	0-4-0WT	Krauss	B/No. 2196 of 1889	Locally built tender.
2		2-6-0T	Falcon Engine & Carriage Co.	292 of 1897	Locally built bogie tender.
3		2-6-0T	" "	293 of 1897	
4	Germany	4-4-2	Borsig	About 1907	

No. 1 was purchased second-hand from the South Australian Government in 1900, having originally worked on the Victoria Dock Construction, Melbourne. (See LR No. 27 p. 16 for details). It had 6-in. x 12-in. cylinders, and 24-in. diameter driving wheels, and was condemned in 1912, but was still in existence in 1938.

Nos. 2 and 3 had 10-in. x 14-in. cylinders, 24-in. diameter driving wheels and weighed 15 tons. One was taken out of service in about 1912, to provide parts for the other. The remaining engine was known as "Brush". (The Falcon Engine Works were a subsidiary of the Brush Electric Company). "Brush" and "Germany" were taken over by the Irvinebank State Treatment Works in 1922, to become their No. 4 and No. 5. No. 4 was derelict at Irvinebank in 1952 but has since gone. No. 5 was sold to the Cattle Creek sugar mill in the Mackay area after the Irvinebank line was dismantled.

Irvinebank Mining Company

No. 1	Betty	0-6-0T	Koppel	B/No. 5261 of 1905	Locally built bogie tender.
2	Baby	0-4-0WT	Krauss		
3	Old John	0-6-2T	Avonside	1539 of 1907	Locally built bogie tender.

These three engines were taken over by the Irvinebank State Treatment Works, becoming their Nos. 1, 2, and 3. No. 1 had 9-in. x 12-in. cylinders and was sold to the Innisfail tramway in 1922. No. 2 was condemned and abandoned in 1922. No. 3 had 10-in. x 16-in. cylinders, and 3-ft. diameter driving wheels, and was sold to Marian Sugar Mill in 1938.

Rolling Stock

During construction of the Stannary Hills tramway, eight four-wheel tipping wagons were used, one of which was converted to a passenger coach, by fitting seats and a roof. By January 1902, the Company had built two 10-ton bogie wagons, and fifty 3-ton four-wheel trucks were in use.

Between April and September 1902 the Company's workshops turned out a 24 passenger bogie saloon coach, a four-wheel explosives van, 4 four-wheel box wagons, 3 bogie flat trucks, 30 four-wheel ore trucks, 17 four-wheel firewood trucks, 4 bogie low-sided trucks, 3 four-wheel timber trucks, and one four-wheel covered goods truck.

In October 1902 the second passenger coach, a 26 passenger bogie saloon, was put in service. The four-wheel passenger coach was now scrapped. The General Manager's report

for June 1903 listed the following rolling stock - two passenger cars, one explosives van, four box wagons, three bogie flat tops, 30 ore trucks, eight ballast trucks, 17 firewood trucks, four bogie low-sided trucks, three timber wagons, five firewood trucks under construction, three bogie low-sided trucks under construction, and 20 spare hoppers. Further rolling stock was constructed in later years.

The Irvinebank Company also constructed its own rolling stock, but details are not known.

The tramways today.

This area is well off the beaten track, and most roads are atrocious, although certain stretches are being upgraded now that small time mining is developing. Intending visitors should be well equipped, preferably in a party, with first aid kit, good shoes, long trousers or leggings, plenty of water and food as you are miles from anywhere; and rope, as in some places rock fall has come over the formation, and it is necessary to negotiate a section of steep mountain side. A lamp may come in handy to visit some of the diggings.

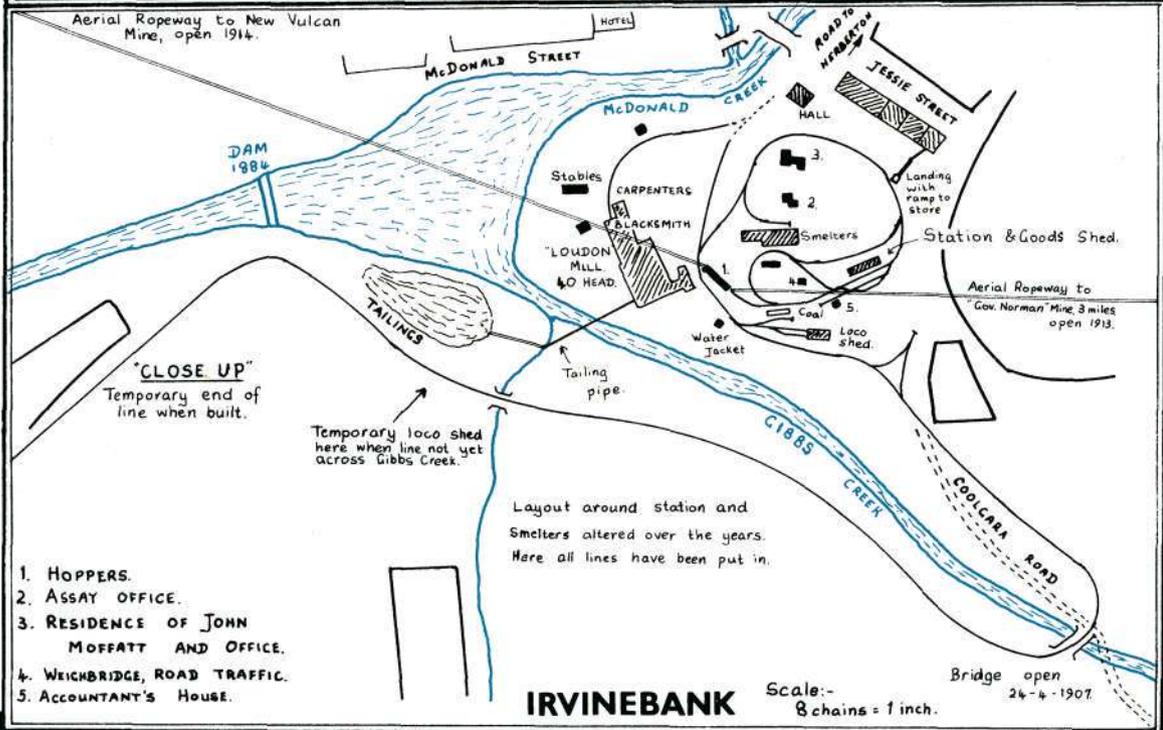
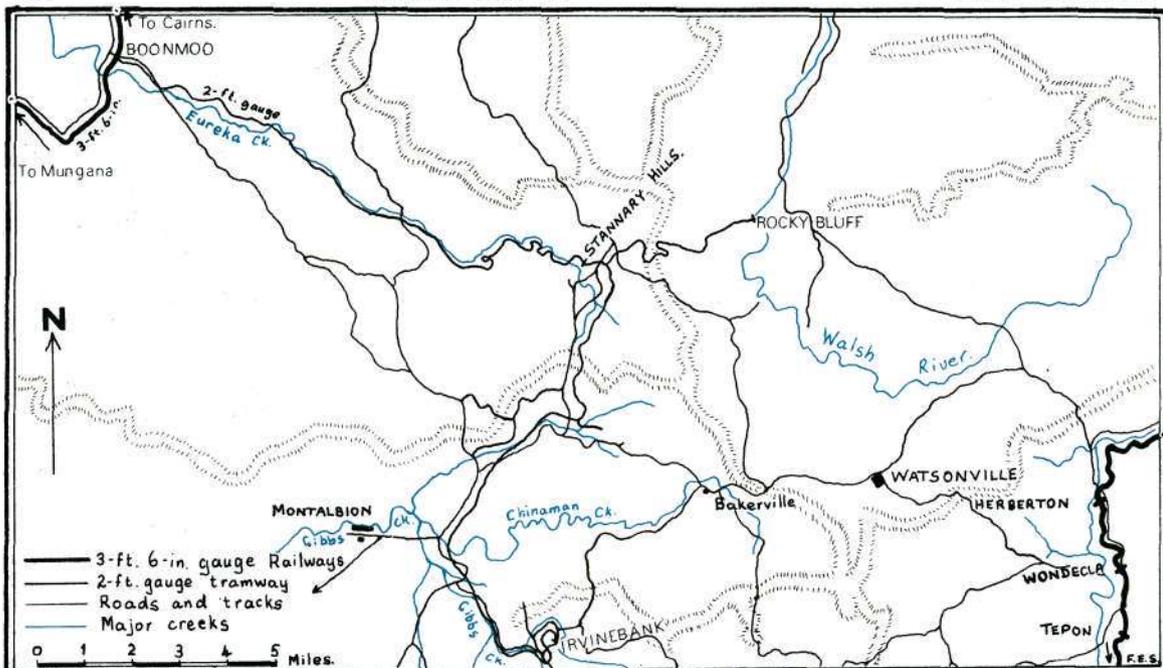
The following is a description of several visits made to the tramway since Easter 1968. At Irvinebank there is still a small population, as the treatment plant is still working for "tin scratchers" in the area. Ed Hancox and I found the old station building and a timber framed bogie, but the changes over the years had obliterated any signs where the lines had been. Being Easter, most of the people seemed to have left the place so we could not find out anything that way either. Later examination of photographs showed that we had been at the very end of the line.

On the 4th. May 1968 we set out to visit Stannary Hills. At Hale's Siding we soon picked up the formation from the road, and came to a 20-ft. deep cutting and an embankment. We thought this to be Yorkie's Cutting. We found some dogspikes, the metal of which was in excellent condition after about 70 years, the climate being very dry of course. We also noticed that they must have had experts on the hammer, as the spikes showed hardly a sign of being hit, only a mark where the foot of the rail had rubbed against the spike. Further on we found spikes by the hundred in similar condition.

The line veered away and we continued along the road until we came to a miner's camp, which we took to be Stannary Hills. After unsuccessfully searching for the tramway we found a man who told us that this place was called Stannary Hills, but that the original place was some miles away and more westerly.

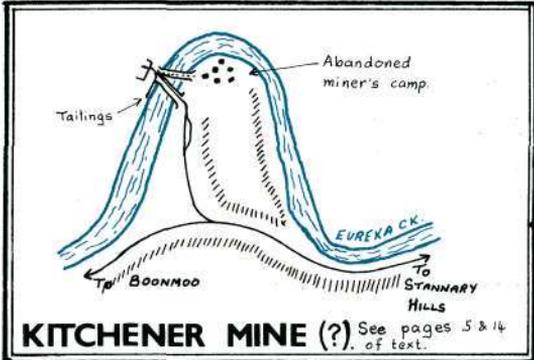
We followed a road which we took to be in the direction of the old tram line, and after some miles the country became more open, and I noticed remnants of tank stands. We pulled up on a sidetrack to camp for the night. As we were making camp a man appeared, and after we had explained what we were after, he told us that we were not very far away from the site of the Stannary Hills railway station.

The next morning, he pointed out to us the site of the railway station, and the directions to various old mines. This once busy town Stannary Hills, is now an open spot in the bush, and indeed the man we saw was the only man living here. Only a raised platform remains at the station site, and we started to follow the formation towards Boonmoo. A few

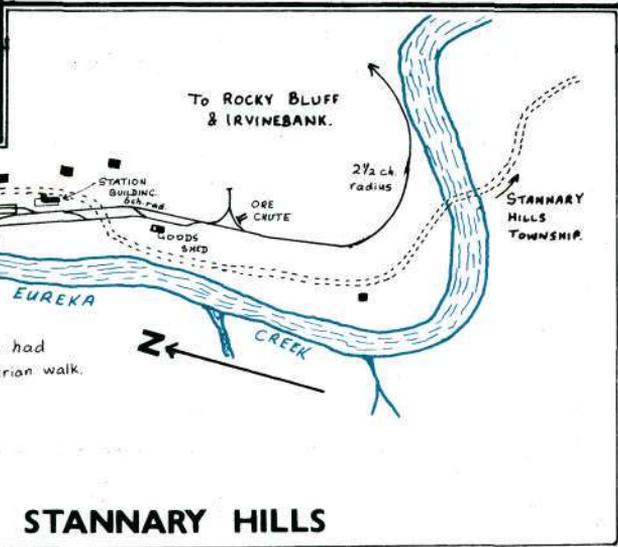


STANNARY HILLS & IRVINEBANK TRAMWAYS.

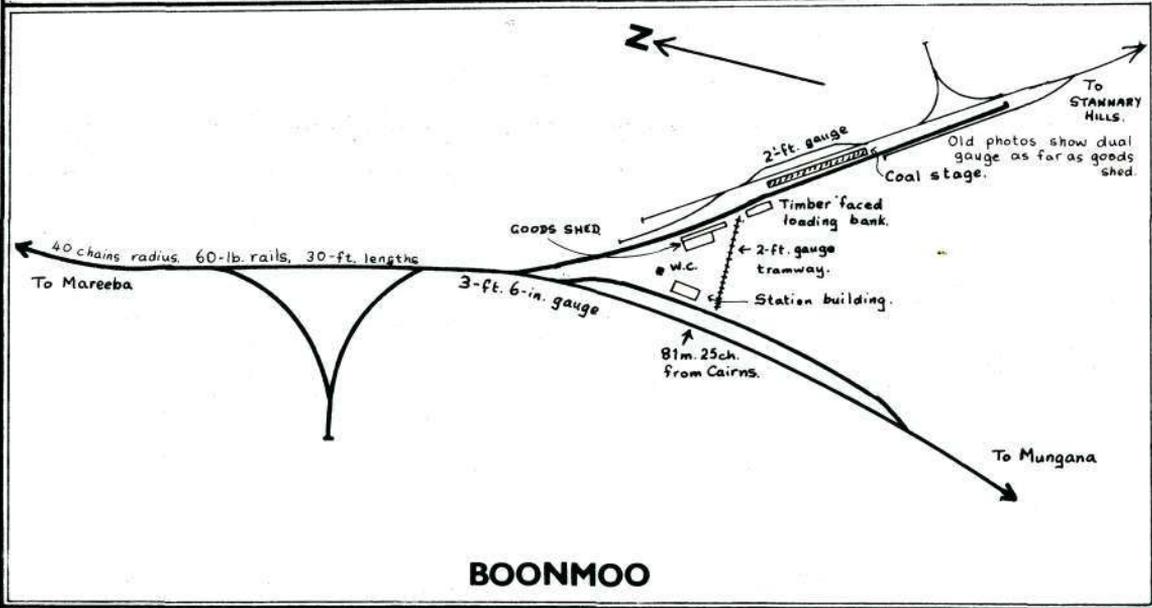
Drawn - G. H. Verhoeven
Traced - F.E.S.



KITCHENER MINE (?) See pages 5 & 14 of text.



STANNARY HILLS



BOONMOO

trestles of the Eureka Creek bridge are still standing. From here the valley narrows, the tramway formation being on the left bank of the Eureka Creek (looking towards Boonmoo), and in the steep hillside on the left of the tramway we saw a large mining complex - Eclipse Mine.

We then came to the site of the Ivanhoe Mines, and many relics were found here - old flywheels, mineshafts, concrete foundations, and a dam in the creek bed. Lying around here and there were hoppers made by "Arthur Koppel, Berlin".

The formation follows the Creek in a most spectacular way for a few miles in the narrow valley. At some places it goes for a few chains on a ledge hacked out of solid rock. In other places it had to go through deep and narrow cuttings. We found a branch to what we took to be the Kitchener Mine (see diagram, page 13). There was much rail lying about here, all still in pretty good condition considering that it was rolled in 1901 and 1902 by AHAV, whoever that was. The latter part of the branch had a different type of spike used, much smaller than was found on the tramway, and was presumably laid by the mine. Apart from what looked like a set of locomotive bogie wheels we found sets of wagon wheels, a Continental skip of 60-cm. gauge and the chassis of a four-wheel truck made by "Koppel" of Berlin. But for the smashed axle-boxes it was in a beautiful state of preservation. One set of wheels was 60-cm. gauge (1-ft. 11-5/8-in.) and the other set was 2-ft. gauge. It was fitted with a ball lever brake. We also found the components of a bogie truck, of which we managed to salvage the link and pin buffer with its spring pocket.

On another visit to Stannary Hills station site I had a look over the workshops site. I found hardware for wagons, like corner straps, etc., aplenty. A set of locomotive driving wheels was also found in the creek bed, and these have been recovered by Mike Loveday, with the help of Mareeba Boy Scouts and the permission of the Mines Department. With the aid of tackle the Scouts hauled the set of wheels up the bank and on to Mike's truck. They also recovered a new smokebox front at the site of the Irvinebank locomotive shed.

References and Acknowledgements

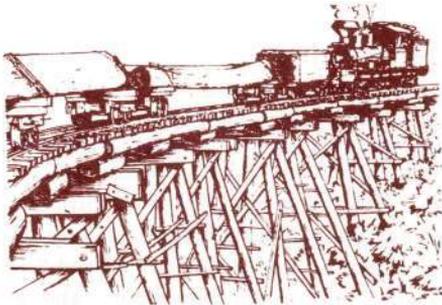
Papers, timetables and correspondence from Mr. A. F. Waddell, in the possession of G. Bond. Plan and Section of the Stannary Hills Tramway, signed by Charles I. Stephens, B.E., Assoc.M. Inst. C.E., Cairns, north Queensland.
Mines and Lands Department Maps.
Ordnance Survey Maps.

The Stannary Hills and Irvinebank Mining Tramways of North Queensland by G. Bond, in Bulletin No.302, December 1962, of The Australian Railway Historical Society.

The track layout of Boonmoo was copied by E. Hancox from a drawing obtained from the Queensland Government Railways.

In compiling the other track layouts I examined photographs held by Mr. G. Bond, using various magnifying devices for the results.

I would be grateful if anyone who has additional information, or possible sources of information would let me know. (The author's address is - Staff, Post Office, INGHAM QLD. 4850).



NEWS, NOTES & COMMENTS

QUEENSLAND

Racecourse Mill, Mackay

Re the item in LR No. 29, p.17, Homebush and Chelona are Nos. 5 and 6 respectively. No. 2 is Munburra, not Munbura as shown in LR No. 29. On a visit to this mill this year I also noted two Simplex four-wheeled petrol tractors, which were not listed in LR No. 29.

(John Buckland)

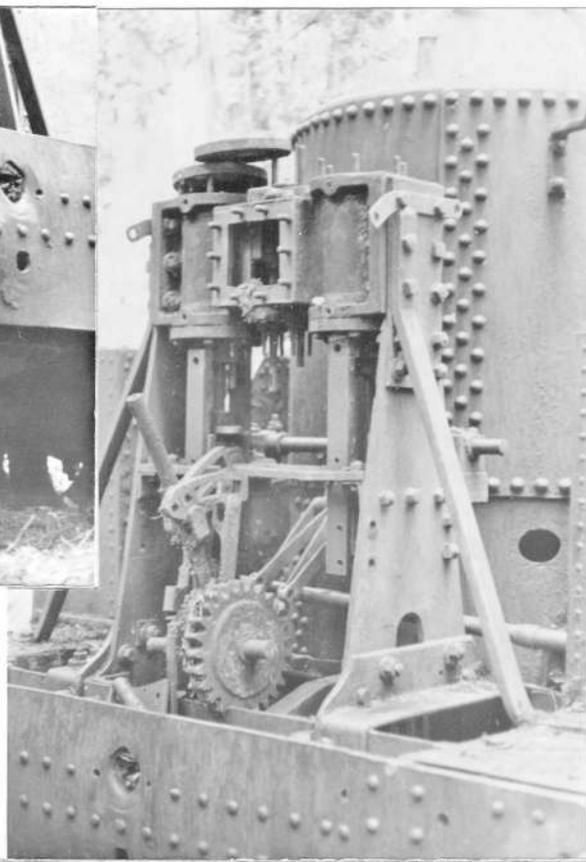
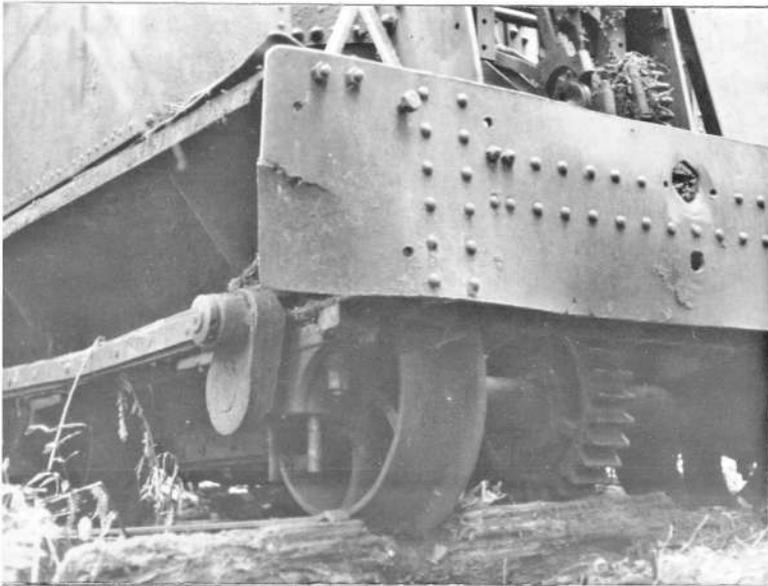
Farleigh Mill, Farleigh

Following is a complete roster, at 30th. June 1969, of this mill's diesel locomotives.

PIONEER	0-6-0DH	Com-eng	B/No. A12358	of 1962	Weight 18 tons.
CARLISLE	0-6-0DH	"	A13271	of 1962	" " "
RICHMOND	0-6-0DH	"	A1308	of 1956	" 16 "
ASHBURTON	0-6-0DH	"	A1614	of 1956	" " "
CONNINGSBY	0-6-0DH	Clyde/GM	61/232	of 1961	Model HG3R, 263 hp.
ST. HELENS	0-6-0DH	"	61/234	of 1961	" " " "
SEAFORTH	0-6-0DH	"	61/233	of 1961	" " " "
LACY	0-6-0DH	"	65/409	of 1965	" " " "
BASSETT	0-6-0DH	"	67/596	of 1967	" " " "
-	0-4-0DH	E. M. Baldwin	774/64	of 1964	" DH5
-	0-4-0DM	Ruston & Hornsby	218002	of ?	" 20DL.
-	0-4-0P	Simplex	?		
-	0-4-0P	"	?		

The Ruston & Hornsby unit bears a plate - "Marr & Sons P/L, Sydney, No. B5782". This mill has an 0-6-2T Fowler, B/No. 16194 of 1923 nominally on standby, but it has not been steamed for about three years past. Abandoned nearby are remains of a Dick Kerr 0-4-0T and an Avonside 0-4-0ST. Another of the latter, B/No. 1909 of 1922, is preserved in the mill play-ground.

(John Buckland)



Mount Isa Mines Ltd.

Greenwood & Batley Ltd., of Albion Works, Leeds, England, have just completed two remotely controlled electric locomotives for Mount Isa Mines. The locomotives are combined overhead wire pick-up and battery jobs, and have single end cabs. They will run back to back in tandem when hauling the normal 16 wagon trains weighing 520 tons. The maximum speed is 15 mph, with power supplied at 440 volts from the overhead, to two traction motors, each of 75 hp. The locomotives are of 3-ft. 6-in. gauge.

("Railway Gazette" 20th. June 1969, via "Narrow Gauge News")

TASMANIAChesterman & Company's Tramway, Locomotive found in Derwent Valley

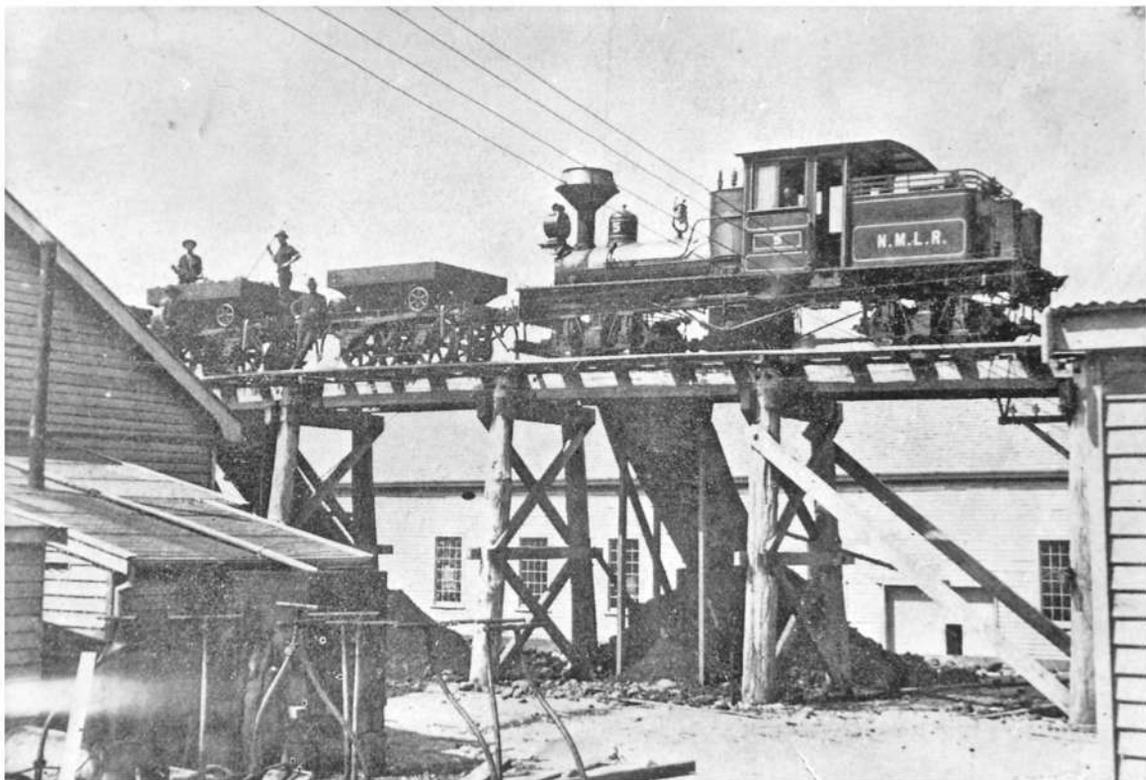
Light Railways No. 27 carried a letter and photograph from me regarding a vertical boiler locomotive which once worked at Hythe, Tasmania. I now have a follow up which adds just a little more to what has already been published. On Saturday, 1st. November, following up the few clues we had, three fellow steam types, my daughter, and myself made a sally into the bush in the upper Derwent Valley, from a place named Sharp's Siding.

After the expenditure of a great amount of energy, blood (leeches), sweat and boot leather, we eventually found a vertical boilered locomotive, and after cutting away as much growth as we could, we inspected and photographed it. The locomotive we found is definitely the one shown on the old postcard (LR No. 27, page 13) as it has the same bumps and dinges in the end plates. The boiler, however, is not the same as the one shown in the postcard, which indicates that it has been reboilered, this also checks with the boiler still lying near the road at Hythe as being the original. The locomotive is still fairly complete, only brass boiler fittings and a few other small parts have gone, unfortunately the builder's plates are amongst these, and although we searched no number seemed to be stamped in any of the likely spots.

The locomotive is stranded at the end of what was once a logging tramway running from Chesterman & Co.'s sawmill at Sharp's Siding on the Tasmanian Government Railways Derwent Valley line. Approximately 25 years have passed since the mill closed, and the tramway was abandoned with the engine at the wrong end of the line.

The locomotive is of 3-ft. 6-in. gauge, with a two cylinder vertical engine geared to the front axle. Outside plate frames are fitted, with fixed axle bearings and no springs. Coupling rods are long and narrow with plain bushes, the right hand rod has been damaged at some time, as it has been plated for almost its full length. Some of the engine unit has been dismantled, but not removed - cylinder heads, valve chest cover, etc.

The driving wheels appear to be one piece castings, without balance weights. The treads are fairly wide with moderately deep flanges, for use on wooden or metal rails. Visible remains of track near the locomotive are mostly wooden rails. Buffer beams at both ends show signs of heavy use, and the draw bars are missing. Both side tanks are still half full of water with the lids missing. Hand brakes only are fitted.



Gems from the Archives

Our photograph shows the North Mount Lyell Railway's 3-ft. 6-in. gauge Shay locomotive - No. 5 in the NMLR roster - at work in the vicinity of Queenstown, Tasmania, circa 1904. The locomotive was built by the Lima Locomotive Works of Ohio, USA, in 1902, and had their builder's number 697. It weighed 15 tons and had two 9-in. x 8-in. cylinders. It was sold to Lahey Bros. of Canungra, Queensland, circa 1906 for use on their timber tramway. LR No.20, page 24 illustrates the locomotive in use in Queensland.

(Photo - Winter's Studio, Burnie, Tas.)

We still do not know if this engine is the "vertical boiler and stationary engine" mentioned in the Chas. Small list. For the benefit of anyone who may have a desire to see this engine, do not take the job of getting into her too lightly. The bush is typical Tasmanian rain forest, very thick and the going is very hard - expect to progress at about four hours to the mile in the very good places - we came out the next day after it had rained all night.

(Jack Shennan).

VICTORIA

Geelong Steam Preservation Society, Belmont Common.

The activities of the Geelong Sub-division of the ARHS in preserving items from Fyansford were briefly reported in LR No. 27, p. 29.

With the consent of the ARHS a separate organization has now been formed to continue this worthwhile scheme. The new group is known as the Geelong Steam Preservation Society. At Belmont Common track has now been laid on new earthworks almost across the swamp, virtually completing an "S" curve. Locomotive No. 6 runs nearly every Saturday and Sunday. The steel framework for a new loco shed has now been erected, but as at 12th. December the cladding had not been fitted.

Visitors are always welcome, as are volunteer assistants in the big construction job. Plans are afoot to augment the rolling stock with some interesting items from South Australia. Naturally this costs money, so it is up to railway enthusiasts to help the project along with financial or physical contributions.

(John Scott, Max Coleman, and Editor)

Decauville locomotive at Echuca

A Decauville 0-4-2T locomotive, builder's number 246, is now at Echuca, where it is apparently able to be steamed on a section of 2-ft. gauge track.

The locomotive originally worked at Invicta sugar mill. It then went to Millaquin sugar mill, and from there went to Qunaba sugar mill. All these mills are in the vicinity of Bundaberg in Queensland. The locomotive came to Victoria from Qunaba mill, possibly early this year.

(Wayne Chynoweth and Editor)

LRRSA Visit to Waranga Reservoir tramway, 4th. October 1969

Seventeen members participated in this trip. We first visited the State Rivers & Water Supply Commission's pre-stressed concrete beam works at Tatura, where we saw a cableless Ruston & Hornsby diesel locomotive on a short section of track. We then went to Waranga reservoir for lunch and inspected the tramway around the quarry and along the dam wall.

On the return trip we visited the old mine workings at Whroo, saw the remains of a recently abandoned gold mine at Costerfield and followed the formation of the 5-ft. 3-in. gauge Mc.Ivor timber tramway for a few miles. We then deviated via Lancefield to see the formation of the VR's Clarkefield - Lancefield - Kilmore line.

RECENT RESEARCH DISCOVERIES

MOSQUITO CREEK TRAMWAY, (Near Moe, Vic.)

A tramway ran from a sawmill on the Mosquito Creek for about $3\frac{1}{4}$ miles to the Gippsland railway. This tramway was worked by horses and owned by a Mr. Dockendorf. Mosquito Creek appears to be between six and eight miles on the Melbourne side of Moe, and the tramway ran from the south side of the railway.

Ref. - "Gippsland Times", Monday, 15th. January 1877.

BOOLARRA TRAMWAY (Vic.)

Appleton, Edwards & Bates, proprietors of "Boolarra Steam Sawmill" had $1\frac{1}{2}$ miles of tramway to Boolarra station on the Mirboo North railway, which was then under construction, and was already opened to traffic as far as Darlimurla.

Ref. - "Morwell & Mirboo Gazette" 13th. October, 1885.

GRAVEL PITS TRAMWAY, Traralgon, (Vic.)

The "Traralgon Record" of Friday, 22nd. February, 1884 has a vague reference to a three mile tramway to gravel pits on the Latrobe river, about four miles from the Gippsland line.

WARRAGUL TRAMWAY (Vic.)

The "Morwell and Mirboo Gazette" of 10th. November 1885 carried a reference to one mile of tramway at Warragul, owned by Mr. Sergeant. It was worked by one man and one horse, and carried 14 tons a day. The Mr. Sergeant referred to was probably the same person that owned the Mirboo North tramway, (see LR No. 29, p.10) as he apparently had extensive timber milling interests in Gippsland.

(All the above reports are from C. W. Jessup).

LETTERS

John Buckland writes -

STEEL-FRAMED TRAMWAY BOGIES AT NEERIM SOUTH (LR No. 29, p.23).

In answer to Mr. Stuckey's query I would suggest that these 3-ft. 6-in. gauge bogies are some of the ex-SAR narrow-gauge bogies formerly employed on Gunn's Tramway ex Cross-over. Years ago, accompanied by Ray Pearson, and others, we were stalking deer in this vicinity and came across one of these same bogies miles out in the bush, on a section of heavy railed track burnt out and suspended over a gully. I recall quite distinctly noting "SAR" on the axle-box covers. We pushed/rode on one for perhaps half a mile. Presumably they were used for log haulage from the bush to the mill at Neerim East, which had an ex-VR O class 0-6-0 boiler and chassis to provide power for the mill machinery, which was then (circa 1933) in the process of being cut up for scrap.

Allan Watson writes -

SILVERTON TRAMWAY (LR No. 26, p. 3, LR No. 29, p. 12)

I would like to comment on part of a letter from Mr. Buckland published in LR No. 29, p. 12, concerning a concrete lined cutting on the Silvertown Tramway. After leaving Silvertown "yard", heading towards Burns, the line passes through Silvertown township (or what is left of it) and shortly afterwards enters a cutting. At this point the fences on both sides of the line are situated at the minimum distance that allows a train to pass. This situation continues into the cutting, which is lined by vertical walls (both sides); the fences following the top edges of these walls. About halfway along the cutting the fences swing away from the railway and the concrete walls abruptly end, the cutting continuing in a more conventional manner.

The story as told by Mr. Davies in his article in LR No. 29 is one that is related in Broken Hill and although it sounds unlikely, is more in agreement "with the facts" than the alternatives suggested by Mr. Buckland. I would doubt if the tramway company would have resorted to building a vertical wall when a banked one would have easily sufficed (if the land reserve was two chains wide) or since it has no lining at all further on into the same cutting. The situation of a fence running next to a railway is not unique in New South Wales, as it occurs on several country branch lines (although not in cuttings) as well as for more acceptable reasons in built up areas. Maybe the "tramway" classification of the Silvertown line legally allowed the local landowner to insist on such arrangements.

This cutting can be visited today by car - the land on the north side is now used as a rubbish tip, and one can drive all over it as it is not fenced from the nearby road.

George Bond writes -

GIN GIN MILL, WALLAVILLE (LR No. 29, p. 16).

The caption to the photograph of the 0-6-0T loco refers to it as an Orenstein & Koppel, whereas it was in fact a Krauss locomotive - their No. 4296 of 1897 - long before the firm of Orenstein & Koppel was established. The error first arose, I believe, through the fact that the two Krauss locomotives for the Gin Gin mill were supplied through the merchant A. Koppel, and his plate was attached to his locomotives.

NOTICE

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", we cannot be sure that errors have not crept in. Additional information is being discovered all the time, and this often 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.

If you are engaged in research yourself let the Editor know. In this way duplication of effort will be avoided, and we may be able to assist you with basic historical information on the tramway which interests you.

Jack Shennan writes -

THE FORESTER TRAMWAY (LR No. 29, p. 11).

I feel I must make some comment about the article in Light Railways No. 29 concerning the Forester Tramway (Tasmania), by T. C. T. Cooley.

This line was of 2-ft. 6-in. gauge, not 2-ft., and the two locomotives mentioned by Mr. Cooley were Krauss 0-6-0 well tank No. 6486 of 1912, and Orenstein & Koppel 0-4-0 well tank No. 4631 of 1911. Both locomotives were advertised in the Launceston "Examiner" as for sale in good order, this was in about 1949 or 1950, and I was just lucky enough to get up to Warrentinna and had a look at what offered.

Warrentinna mill site at that time presented a rather dismal picture, it was really only a big clearing in pretty thick scrub, with the remains of a large sawmill that had been burnt out, all except the mill office that is. In the mill yard the two locomotives stood on rails, but most other rails had been pulled up and timber bogies and other pieces of rolling stock stood around at all angles. Some of the timber bogies were steel framed with springs, and in fact were 2-ft. 6-in. gauge versions of the type used on the Rubicon tramway as shown in Light Railways No. 28, page 18.

On visiting the small shed which had served as office and had somehow escaped the fire, I found the mill log book still there, the very last entry reading - "Steam to kilns turned off 12 a.m. Mill burnt down, 20-11-41." The locomotives had apparently operated after this date, perhaps to bring in a few logs which were taken out by truck, and definitely to pull up the rails.

Several weeks after my visit to Warrentinna I heard that both locomotives had been sold to a Launceston scrap dealer, who cut them up on the site, presumably with most of the timber bogies; as on a return trip to the spot not so long ago, I found the whole of the mill area cleared, ploughed, and sown down to pasture, the only remains of the mill being the concrete drying kilns now used to store bailed hay. However there were still signs of earthworks leading off to where a trestle once crossed the river. There remained also, two steel frames from timber bogies, and last but not least both well tank underframes from the two locomotives - stripped of wheels and everything else - are still lying together under a large tree.

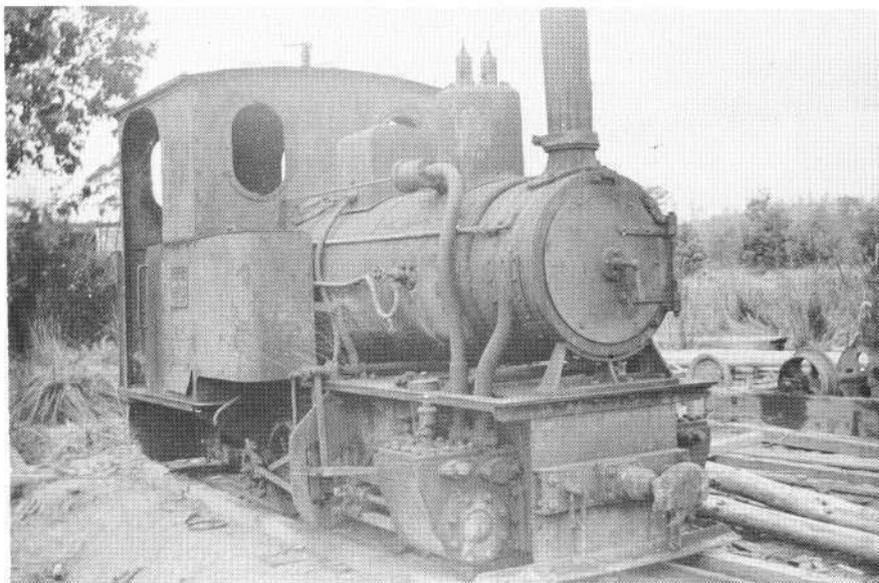
And so that is what happened to those two locomotives, they were never at Camden and would never have been much use there because of their being 2-ft. 6-in. gauge, while the track at Camden was 3-ft. The locomotive remains at Camden mentioned by Mr. Cooley are all that is left of an ex Beaconsfield tramway locomotive, which tramway was also 3-ft. gauge.

Photos of both locomotives in use do exist, but are pretty rare, and not too good. I have seen one showing the 0-4-0 O&K running with a homemade four-wheel tender.

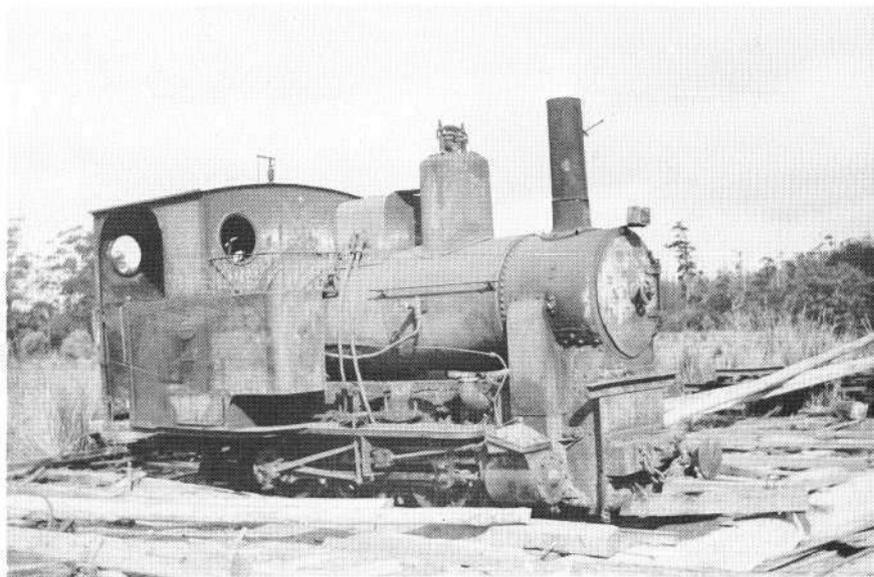
All that remains of these two locomotives are the well tank frames up the scrub, the builders' plates, in very careful hands, and the rails from the tops of the side bunkers of the Krauss. These have been preserved in view of their possible use on a 2-ft. gauge Krauss being rebuilt and now nearing the final stages of completion near Launceston.

Photo, back page - Irvinebank 1913, showing ropeway from Governor Mine tramlines.

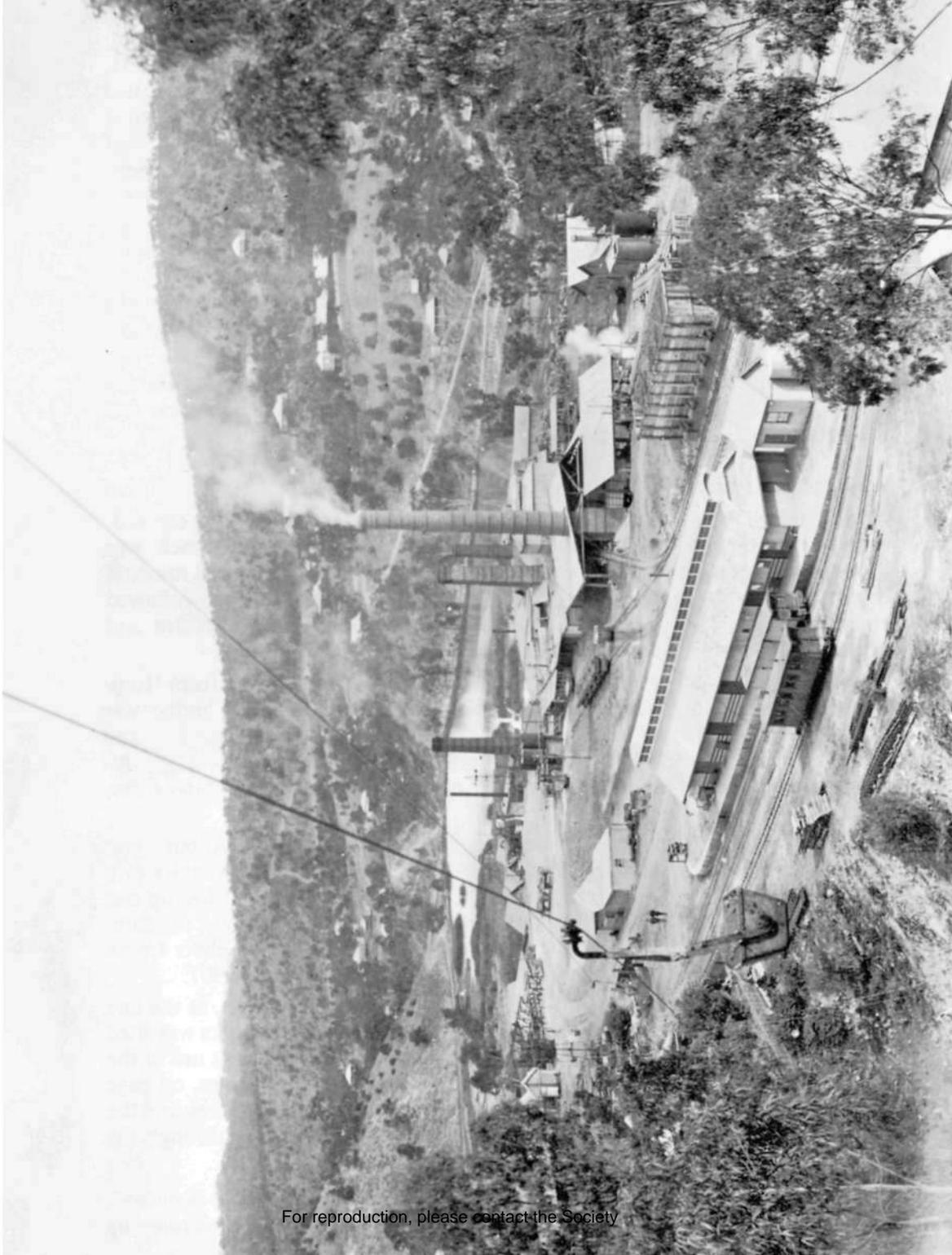
(G. Bond collection)



Orrenstein & Koppel 0-4-OWT, B/No.4631 of 1911 at Warrentinna circa 1950.



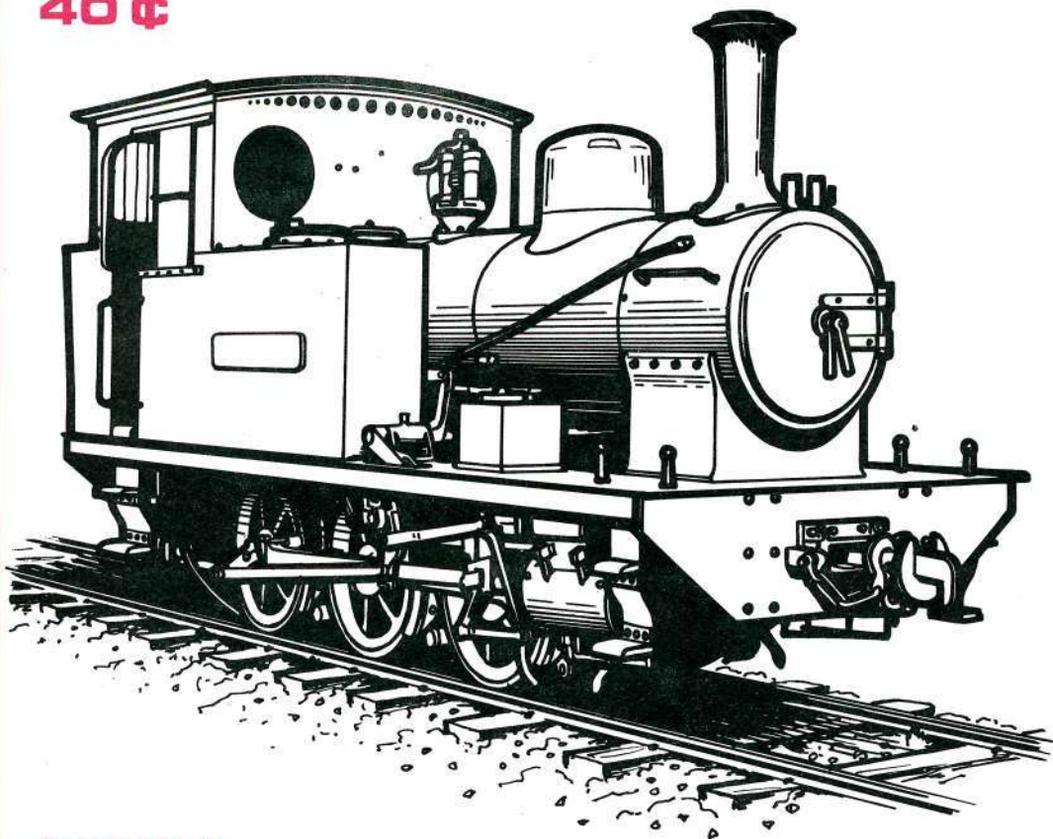
Krauss 0-6-OWT, B/No.6486 of 1912 at Warrentinna, circa 1950
(Both photographs - Jack Shennan).



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LIGHT RAILWAYS

NUMBER 31
AUTUMN 1970
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THE LIGHT RAILWAY RESEARCH SOCIETY OF AUSTRALIA



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LIGHT RAILWAYS

No. 31

AUTUMN 1970

Vol. VIII.

From the Editor

In this issue we publish an extensive report on the Ada Valley of Victoria, one of the most interesting timber tramway centres in this state.

Twenty years have passed since the closing of the last tramway in the Ada Valley, and time is running out to record the reminiscences of the people who worked this area in its heyday.

Such stories are an important part of Victoria's history, and they should not be lost to posterity. So, members, start interviewing and recording.

THE LIGHT RAILWAY RESEARCH SOCIETY OF AUSTRALIA COUNCIL

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MEETINGS - Second Thursday every second month at 8.00pm, room 11, Victorian Railways Institute, Flinders Street Station building, Melbourne. Next meeting 11th June. Visitors welcome.

BACK NUMBERS of "Light Railways" - No.13 @ 15c, No.14 @ 20c, No.15 @ 10c, Nos.23,24, and 25 @ 35c each, Nos. 28, 29 and 30 @ 40c each, available from the Editor. Postage is extra - on one copy 5c, two copies 9c, 3 or 4 copies 13c, 5 or 6 copies 17c, 7 or 8 copies 21c, 9 or 10 copies 25c.

Cover - 3-ft. 6-in. gauge Andrew Barclay 0-6-0T locomotive "Peronne" of 1919; formerly of Broken Hill Associated Smelters, Port Pirie; now preserved at Mile End, South Australia. (See LR No.22 p.14 for further details of this locomotive). Drawn - John Thompson.

Opposite - Ex Wallaroo & Moonta 0-4-2ST Hudswell Clarke locomotive, B/No.803 of 1907, at work for the SEC of Victoria at Yallourn, on overburden disposal work. The locomotive is 3-ft. 6-in. gauge, and the date - about 1928.

AERIAL PHOTOGRAPHY AS AN AID TO TRAMWAY RESEARCH

By - C.W. Jessup.

Archaeologists have used aerial photography successfully overseas in finding such things as Roman roads and old trackway routes. The author decided to try finding light railway relics - such as winch sites, inclines, tramways, and mills - using Victorian aerial photographs,

Most of Australia has been photographed from the air by the Department of National Development, Mapping Division. These photographs are available to the public, and may be ordered from their office at 497 Collins Street, Melbourne. The photographs are black and white, taken at an elevation of 25,000-ft. and each covers about 100 square miles of land surface. They cost 50 cents each and orders take about three weeks to fulfill.

Aerial photographs by the Lands Department are also sold to the public from their office in Treasury Place, Melbourne. Their photographs have been taken from many different heights and cover cities and towns.

Aerial photographs are produced so that they may be used under a stereoscope, which produces a three dimensional effect from two similar overlapping photographs. To produce the three dimensional image photos have an overlap of 60 - 80%. If buying photographs for use under an ordinary magnifying glass, only one photograph in every three or four taken from the aircraft is needed to produce a photographic view that runs in a continual strip.

Photographs from the Tyers-Thomson Valley; Warragul; and Walhalla areas were used, these areas being chosen because they provided tramways that had been operating at different periods of time. Most tramways in the Tyers-Thomson Valley area did not commence operations until after the opening of the VR 2-ft. 6-in. gauge line in 1910, and the last of them closed in the early 1950's. Tramways in the Walhalla area opened as early as 1866, and declined rapidly in the first decade of the twentieth century. The Darnum-Elinbank tramway in the Warragul area closed in 1903.

The Darnum-Elinbank tramway was included in this investigation because its route now runs through cleared land, and would therefore make an interesting comparison with the Walhalla mining tramways, which closed about the same time, but operated through what is now dense forest.

Aerial photographs had to be closely related with maps showing the old tramway routes. The photographs were studied with a stereoscope and magnifying glass.

Only slight traces of the Walhalla tramways were revealed. The North Long Tunnel tramway route was found, having been converted to a jeep track for part of its route. In the sixty years since these tramways were closed vegetation has had a good chance to obliterate the formations from aerial viewing. The Darnum-Elinbank tramway, running through cleared land, could be traced for perhaps about half its length. Tramways that were closed around the turn of the century may therefore be impossible to pick up from aerial photographs, unless they ran through land which has been cleared.

Other factors would also be important. Tramways with heavy earthworks would tend to leave the vegetation pattern disturbed for a longer time than those with light earthworks. Tram-

ways with gravel or stone ballast would remain obvious from the air for a long time, as the ballast would decrease the fertility of the soil, thus retarding vegetation growth. Bushfires sweeping through forests may reveal old tramway routes, which might otherwise be overlooked.

Tyers-Thomson Valley Area.

The Tyers-Thomson Valley area contained the most recently closed tramways, and these showed clearly on aerial photographs. All mill sites known to the writer were found. They stood out from the dark vegetation as white blobs about one tenth of an inch across. A fair proportion of tramway routes marked on the map used were picked up. Several markings were found on the photographs which looked like tramways, although they were not shown on the map. These will now have to be investigated on the site, to see if they were in fact tramways. Many of the old tramway routes spotted on the photographs were closed over 25 years ago, and are easy to pick up.

Timber mills are easy to trace because of the large mounds of sawdust, which is too infertile for vegetation. Only when sawdust has completely decomposed would vegetation obliterate a mill site, and this decomposition may take up to 100 years. Most Victorian sawmill sites should therefore be identifiable from the air.

Aerial photographs used - Various shots from Warragul runs. Warburton run 9, shot 81; and run 10, shots 148 and 151.

Maps used - were taken from Light Railways No.16, page 21; No.21, page 9; and ARHS Bulletin No.255, January 1959, page 3.

A good general reference to aerial photography is "Geography from the Air" by F.Walker, Methuen & Co., 1953.

LETTERS

Mr. C. R. Weaver, of Warwickshire, England, writes -

RAILWAYS OF CHRISTMAS ISLAND (LR No.29, p.4).

I am currently engaged on the compilation of a history of Baguley Cars Ltd., and Baguley Engineers Ltd. of Burton-on-Trent, who supplied locomotives, railcars and inspection trollies to most parts of the globe, including Australasia. Some of these were sold under their own name, but most of the locomotives carried the names of McEwan Pratt & Co. or the Drewry Car Co. or, in the case of their few steam locomotives, Light Railways Ltd. The railcars were almost all Drewry.

One small locomotive supplied by Baguley was built for the Christmas Island Phosphate Co. in 1929. The details of this locomotive are as follows - from the builder's records:

Locomotive ordered through Drewry Car Co., date of final order 10th. June 1929. Drewry placed there order No.3498 with Baguley Engineers Ltd. on 12th. June 1929, outlining certain requirements passed on by their clients.

The locomotive was Baguley No.1773, a 15-hp. four-wheel petrol-mechanical on 2-ft. gauge, basically to their new petrol tractor design but modified in the following way to meet CIP Co. requirements - wheelbase shortened from 3-ft. 6-in. to 3-ft. because of sharp curves; overall length reduced from 9-ft. 4-in. to 8-ft. 6-in. The CIP Co. wanted the locomotive to be as compact as their Orenstein & Koppel "Montania" internal-combustion locomotives, which had 2-ft. 7½-in. wheelbase and 8-ft. 4¾-in. length,

The cab roof was angled downwards front and rear, and taken outside the footplate to improve protection from sunlight and sudden showers of rain. The cooling system was of larger than usual size to permit continuous operation in tropical climates.

The locomotive was fitted with a two cylinder Baguley petrol engine of 4-in. bore, and 6-in. stroke, rated at 15 b.h.p. at 900 rpm. A two speed Baguley transmission provided two speeds in each direction, 3 mph. and 6 mph. at 900 engine rpm. Rated tractive efforts were 1,250-lbs. at 3 mph., and 625-lbs. at 6 mph. Weight in working order was 2½ tons. Wheels were 20-in. in diameter, and transmission was by chain from the gearbox to each axle. The locomotive was outshopped on 30th September 1929 and shipped on the S.S. Diomeo.

If anyone can provide the subsequent history of this little machine I would be interested to hear what happened to it. I would add that there was a Baguley/Drewry railcar on Christmas Island, but not having plunged into the railcar side of the firm yet I can not tell you anything about it.

Another Baguley locomotive to go to a Pacific Island was B/No. 1046 of 1921, a 20-hp. four-wheel petrol-mechanical which went to the Pacific Phosphate Co. and was shipped to Sydney. Does anyone know where this would have gone?

BAGULEY STEAM LOCOMOTIVES IN AUSTRALIA

In 1922 Baguley supplied three 3-ft. 6-in. gauge 0-4-0ST's to Light Railways Ltd., these being shipped to Australia. The works numbers were 2025/6/7, 2026 being named "Kangaroo". Is there any record of these on your side of the world? If there is, were there any similar locomotives by another builder at the same location? I ask this because this design was completely unlike the standard Baguley "Flanders" 0-4-0T and I suspect that they were asked to copy an earlier design - this certainly happened in the petrol locomotive field. Whereas the equivalent "Flanders" had side tanks, a marine pattern boiler identical with that fitted by W.G. Bagnall (E.E. Baguley was actually the draughtsman responsible for this standard Bagnall design), and modified Baguley valve gear; the "Kangaroo" was an 0-4-0ST with an orthodox locomotive boiler but retained the modified Baguley gear. They were fitted with wood fuel racks. Cylinders were 6½-in. x 9-in., boiler pressure 150 psi., and wheels probably 20-in. diameter.

I hope that my information on the Christmas Island locomotive will be of some use, and that my other queries may strike some note of recognition.

(Editor's Note - The Christmas Island Phosphate Company, referred to above, worked the phosphate deposit on Christmas Island from 1897 to 1948, and was responsible for building the railways on the island. The comment in LR No.29, p.4 that the British Phosphate Commission built the railway system is therefore incorrect. In 1948 the Company was purchased by the

Australian and New Zealand governments, the Christmas Island Phosphate Commission then being formed - the operation of which has been managed by The British Phosphate Commissioners under an agency agreement. It would seem likely that the 2-ft. gauge locomotives referred to above were probably used on temporary lines around the actual phosphate workings.

The Pacific Phosphate Company also mentioned above, worked the Nauru and Ocean Island phosphate deposits up to 1st. July 1920, when the Company was purchased by the British, Australian and New Zealand governments, and The British Phosphate Commissioners was set up.)

T.C.T. Cooley writes -

THE FORESTER TRAMWAY (LR No.29, p.11; LR No.30, p.22).

A correspondent of "The North Eastern Advertiser" of 3rd. December 1912 quoted the gauge of this line as 2-ft., and not 2-ft.6-in. as stated by Mr. Shennan. However, knowing Jack's tendency to be exact I do not think that he would make such a mistake. Although most of the Krauss that came to Tasmania were built for 2-ft. gauge, the Forester Timber & Tramway Company could have imported 2-ft.6-in. gauge locomotives and the "Advertiser" corres-

Below - 2-ft. 6-in. gauge Krauss 0-6-0WT "Edie", B/No.6486 of 1912, on the Forester tramway, Tasmania, when the locomotive was new.

Photo - Courtesy T.C.T. Cooley.



pondent could have been in error. I could not see the IXL and Chesterman group converting the locomotives to 2-ft. 6-in. gauge if they were originally 2-ft. gauge. It would probably be cheaper to change the gauge of the line at Warrentinna.

My information that the Forester locomotives were believed to have finished up on the Camden tramway came from an old employee of one of the mills in that district, and from a Mr. Mattingley. Apparently they got the Beaconsfield and the Forester tramway locomotive mixed up.

Jack Shennan's article is very informative and discloses the fate of these locomotives, and also dispels a story that appeared in a local newspaper that the rails and locomotives of the Forester tramway were exported as scrap to Japan before World War II. I had read the article but I had also been informed by a director of the IXL Chesterman group that they had taken over the tramway and rolling stock and used it at Warrentinna until their mill was destroyed in the early years of the war, and based my article on this information.

I have enclosed a photograph of Krauss 0-6-0WT, B/No. 6486 in her heyday, and although the caption on the bottom of the photograph reads "The Locomotive Edith" it will be seen that its name is "EDIE" in big letters between the cab handrail and the maker's plate. The location of the photograph is not known, and could be either at Bridport or Forester, although the scrub looks more like that close to the coast at Bridport, and not thick enough for Forester at that time.

Gerry Verhoeven writes -

STANNARY HILLS AND IRVINEBANK TIN MINING TRAMWAYS (LR No.30, p.4).

The following corrections to the article should be noted - page 6, the sixth line from the top should read "a cable operated four rail funicular..."; page 10, under the locomotive list of the Irvinebank Mining Company the No.1 locomotive "Betty" was built by Krauss, not Koppel; page 9 photo caption, the Guard is Jim Cifuentes. I now have a photo of the funicular, and have seen the site. G. Bond informed me of the error re the Irvinebank No.1 locomotive, this was also wrong in the ARHS Bulletin article.

LOCOMOTIVE DRAWINGS

Have you ordered your scale drawing of the Powelltown Shay locomotive yet?

Priced at 50 cents, including postage in a mailing tube, this $\frac{1}{4}$ inch to the foot drawing shows elevations of both sides, and front and rear of the locomotive.

Also available, at 50 cents, is a larger scale drawing of a Baldwin 3-ft. 6-in. 0-4-0ST locomotive, of the type used in industrial applications through-out Australia. Both drawings, ordered at the same time, are available for 90 cents.

Order from - LRRSA Sales Department,
9 McGregor Street,
CANTERBURY, Vic. 3126.

THE GLENELG BREAKWATER CONSTRUCTION TRAMWAY (South Australia)

By - C. A. Andrews.

History and development.

Glenelg, the "birthplace of South Australia" had grown from the few tents and rough houses of its first settlers to a town of appreciable size by the turn of the century. As early as 1850, the necessity for some means of protection to vessels anchored off-shore in the relatively unprotected waters of the Gulf had been realized, and a succession of schemes were provided for between 1850 and 1907, none of which were to progress beyond the initial construction stages. Following the failure of the third scheme in 1909, tenders were called in 1914 by the Board of the Department of Marines & Harbours, South Australia, for a new structure of reinforced concrete or timber, some 1,400-ft. in length, to be located near the existing jetty. The tender of Messrs. Stone & Siddeley of Sydney was accepted, being for the sum of \$64,000.

Unfavourable weather was experienced in the early stages of construction, and on 15th. May 1915 a severe storm accompanied by an unusually high tide wrought considerable damage to the seaward works. This in turn led to further discussions between the contractor and the Government and as a result, a new contract was entered into on 21st. August 1916. This provided for a new structure 2,000-ft. in length, which it was believed would overcome the failings of the earlier plan.

Work progressed slowly and on the 18th. July 1917 another severe storm occurred, resulting in further damage to the seaward works and uncompleted part of the breakwater. The Contractor refused to continue with the work.

A claim was laid against the Board and all work abandoned, the matter finally being settled out of court in 1921. As the Government had no intention of completing the scheme, all machinery etc. was sold, the remains of the breakwater being demolished in 1948.

The Tramway.

To provide for the haulage of stone, rubble and prefabricated sections, and other constructional materials, a 2-ft. gauge tramway was laid from the shoreworks to the breakwater site. The line commenced on the beach near the overhead loading gantry (see diagram, page 11), and ran in a westerly direction for some 200 yards to the commencement of a temporary jetty constructed for the purpose. The line continued along the jetty to approximately 1,700-ft. from the shore where it diverged to the left and ran in a southerly direction for approximately 1,400-ft., terminating at the southern end of the breakwater.

This structure consisted of rails laid on large logs resting in turn on piles driven into the seabed, and was severely damaged in the storm of 1917. Motive power was provided by an 0-4-0 saddle tank locomotive, a Bagnall product, B/No. 1801 of 1906, originally constructed for Messrs. Mussabin & Co. Prior to 1914 it was used to haul firewood for the Long Tunnel

Extended Company's Mine at Walhalla, Victoria, (see LR, No.16, p.19; No.17, p.15; No.18, p.26 and 27), later being sold to Stone & Siddeley for the construction of the breakwater.

Upon the disposal of all assets in 1921 it was acquired by Forward Down & Co., Machinery Merchants who subsequently sold it to the South Australian Government in 1922 for use at the Hume pipeworks on the Murray River. The latter works were closed in February 1923 and the locomotive stood in the yard of the Cobdogla pumping station until 1959 when it was placed in a children's playground near the shores of Lake Bonney at Barmera, where it was still in existence in May 1969.

Rolling stock consisted of rather primitive trolleys, wooden frames mounted on cast iron tramway wheels. Further details are revealed in a list of the assets for the project, published in the Parliamentary Papers and Plans for 1st. June 1917 -

Plant at Glenelg, as at June 1st, 1917, (extract).

8 pairs of truck wheels and axles	£ 16, 0. 0
8 small truck wheels	8, 0. 0
1 locomotive	350, 0. 0
50 C.I. truck wheels 10"	136, 0. 0
Cast steel and iron wheels	
bearings and axles	667, 10. 0

Mention must also be made of the two large mobile pile drivers in use for the construction of the temporary jetty which were mounted on 2-ft. gauge trucks and hauled along the jetty when required. Subsequent fate of the rails, rolling stock, etc, is not known.

References and Acknowledgements.

The author gratefully acknowledges the assistance of Mr. V. Childs, the South Australian Department of Marines & Harbours, and the State Library of South Australia.

References consulted were -

"Glenelg, Birthplace of South Australia", by W.H. Jeanes O.B.E., 1955

Parliamentary Papers and Plans, 1916.

The Register, Adelaide.

The Observer, Adelaide.

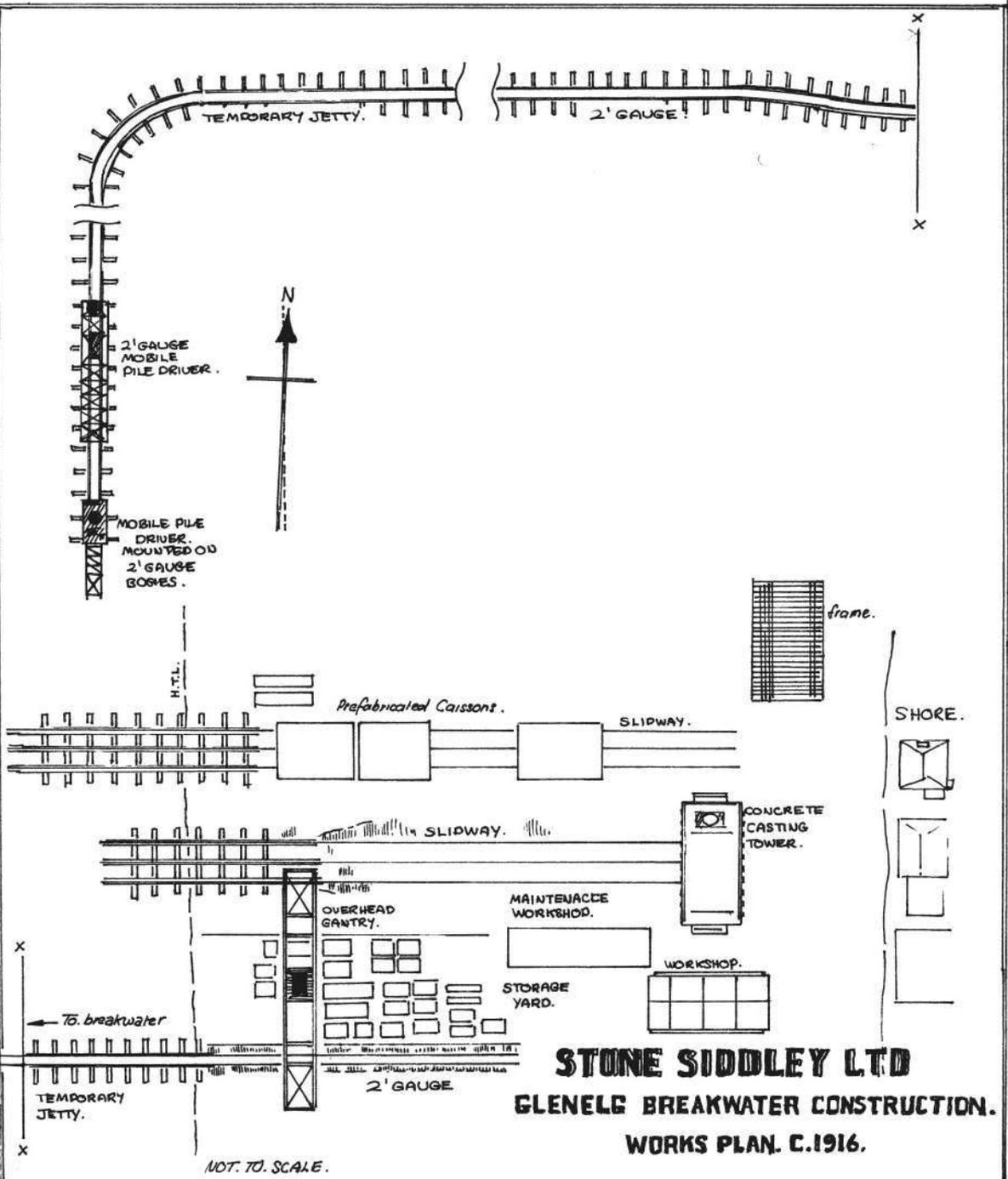
Annual Reports of the Department of Marines & Harbours, 1915, 1916, 1917.

NOTICE

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", we cannot be sure that errors have not crept in. Additional information is being discovered all the time, and this often 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.

If you are engaged in research yourself, let the Editor know. In this way duplication of effort will be avoided, and we may be able to assist you with basic historical information on the tramway which interests you.



STONE SIDDELY LTD
GLENELG BREAKWATER CONSTRUCTION.
WORKS PLAN. C.1916.

NOT TO SCALE.



Works train on the temporary jetty, locomotive at far right.



Works train and temporary jetty looking south-west.

GLENELG R

CONSTR

(South Au

All phot
taken in
are from
Departmen
Marines 8

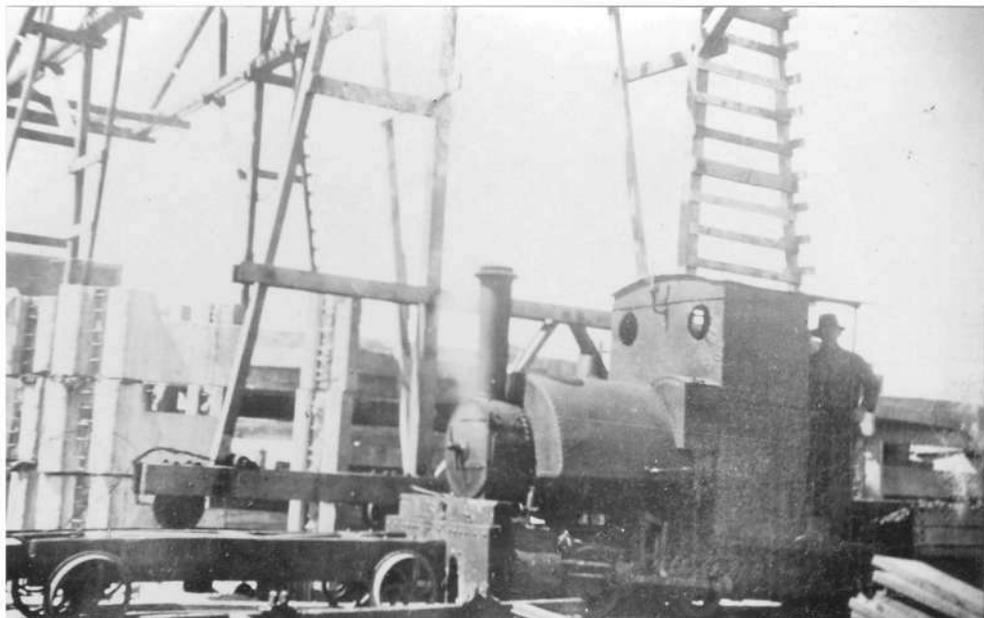


View of te

BREAKWATERCONSTRUCTION

(Australia)

Photographs
 1916 and
 the S.A.
 Department of
 Harbours.



Bagnall locomotive near the storage area.

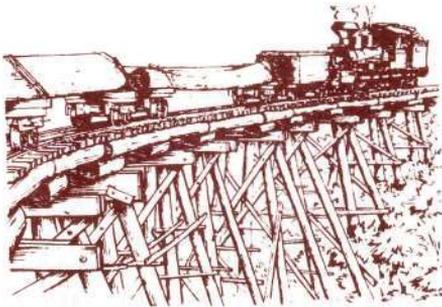


Bagnall locomotive B/No.1801 of 1906
 preserved at Barmera, May 1969.

Photo - C. Andrews.



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NEWS, NOTES & COMMENTS

We have had very few reports over the past three months, and would remind members that news of visits to operating and defunct light railways in all states is always welcome, especially if accompanied by photographs. We are interested in publicizing the activities of the various preservation groups - at Belmont Common, Walhalla, Echuca, Frankston, Goulburn and elsewhere - but can only do this if we receive reports. If you are assisting with any preservation project which involves light railways or narrow gauge equipment, you can assist your organization to get more publicity, and at the same time help us, by forwarding news of latest developments to the Editor.

NEW SOUTH WALES

South Maitland Railway Co. Pty. Ltd.

On a visit to this Company's depot at East Greta Junction on 9th, March 1970, I was fortunate in being able to inspect the workshops where the SMR's Beyer Peacock 2-8-2T's undergo major overhaul. In the workshops were 2-8-2T No.17 being reboilered, with a boiler made at the Company's workshop from plates rolled in the UK. 2-8-2T No.31 was also in the workshop for major overhaul. I was told that three more 2-8-2T's are to be reboilered.

In the loco shed 2-8-2T's Nos. 26, 27, and 28 were unserviceable, No.27 being without boiler.

(Frank Stamford)

VICTORIA

State Public Offices, Melbourne.

I was quite surprised when I looked out of my father's new twelfth floor office at the State Public Offices to find on the accompanying four storey block a new use for a light railway - namely for external maintenance. It is complete with turntables, and a motorized trolley which is controlled from the window cleaner's cage. The 13 storey block is similarly equipped. (See photo, page 24).

(John Gardner)

Photo - opposite Siemens Schuckert/Henschel 90cm. gauge Bo-Bo electric locomotive, built in 1928, at work in the Yallourn open cut brown coal mine, Victoria, in the 1930's. This was one of a class of 24 46-ton locomotives, all of which are now out of use. Photo - State Electricity Commission of Victoria.

AETA/LRRSA Yallourn-Morwell Tour, 30th, March 1970

About 50 people participated in this trip, transport to the Latrobe Valley being in a four-car walk-through "Harris" train, which gave a very impressive fast run in both directions.

At Yallourn we transferred to buses, visiting the loco shed of the SEC's extensive 90cm. (2-ft.11-7/16-in.) gauge electric railway system. Here we saw various types of 60 ton Bo-Bo electric locomotives, including one of the latest Japanese built Hitachi units (see LR No.20, p.33; and LR No.21, p.8). Also seen were two of the Fowler 0-6-0 Diesel-Mechanical locomotives, and various types of specialized rolling stock, used mainly in maintenance work. These included a number of four-wheel ballast hoppers.

Various parts of the system were visited, to see the locomotives at work. The centralized traffic control room was also seen, this giving a good idea of the complexity of the network. All locomotives have radio telephone contact with the CTC room.

We then visited Morwell, where the abandoned tracks of the overburden disposal trains were seen. Conveyor belts are now used on overburden disposal, with the result that all 24 of the 46 ton Bo-Bo locomotives are out of service, and for sale. Also for sale is the track, overhead, and overburden wagons. The 24 locomotives in the 46 ton group were built between 1927 and 1946, ten by the SEC at Yallourn, and seven each by Borsig and Henschell, with electrical equipment for all the German engines by Siemens Schuckert.

Despite the closure of the overburden disposal railways, there is still very heavy brown coal traffic on the railway system, which must be one of the most advanced narrow-gauge railways in the world.

Thanks for a very enjoyable and successful trip must go to the Organizer, John Prideaux, and the various members of the SEC staff at Yallourn and Morwell, for giving up part of their Easter Monday holiday to show us over the railway network. A fast run back to Melbourne in the "Harris" train brought us to Spencer Street ahead of schedule, and although there were only about 12 passengers per car, the trip made a small surplus.

ONLY ONE SURVIVES

The sole survivor of the once numerous steam narrow-gauge railways which operated in Victoria is the Belgrave - Emerald "Puffing Billy" line which was only saved by the work of volunteers.

You can help ensure that "Puffing Billy" continues running by spreading the word of its existence amongst your friends, neighbours and workmates, or by becoming a volunteer worker.

You will then help to ensure that the sole survivor survives.

ADA VALLEY REPORT

In LR No.29 p.22, we advised of the bulldozing of several tramways in the Ada River Valley. We believe this area is to be completely cleared and replanted. In the continuing process of clearing, many relics are being uncovered, but inevitably most of these will be destroyed before long. So far clearing has been confined to the area between bridges Nos.11 and 22 shown on the map on page 18.

The map gives a fairly clear indication of what has been found during 1970 in this area. The approximate location of each trestle bridge is shown, and bulldozed jeep tracks on the tramway formations are also shown. Many of the tramways shown as broken lines have not been sighted in recent years, and some may be very difficult to trace. Many other jeep tracks and logging roads exist, but are not shown on the map.

Background Information.

For those unfamiliar with the area some background details may be worthwhile. The line from Powelltown to Splitter's Camp was steel railed and operated mainly by Shay locomotives. From Splitter's Camp the steel rails headed up an average grade of about 1 in 4 for about one mile to the point marked "High Lead Summit" on the map. On this section there were three rails, with a four rail passing loop half way, the line being worked as a balanced cable haulage, with steam winches at High Lead Summit, remains of which can still be found. From this point the line headed downhill as a single track steel-railed cable incline to Ada No.2 Mill, but for some distance three rails headed in this direction, this stretch actually being two parallel tramways with a common centre rail.

Bridge No.22, which has been wrecked, was built as a three rail bridge, this being clearly evident from its remains. North of the bridge the three rails became four, and the two tramways separated, one being the main cable worked line to Ada No.2 Mill, the other going off westerly as a short siding (or possibly forming the Ada No.1 Mill line, the exact junction arrangements being not at all clear).

From Ada No.2 Mill a third cable incline began on a rising grade, this being a single line incline terminating at the point marked "winch" on the map. This was partly wooden and partly steel railed, and continued on to the New Ada Mill as a horse worked line, but it would appear winches may have been used for the last stretch into New Ada Mill.

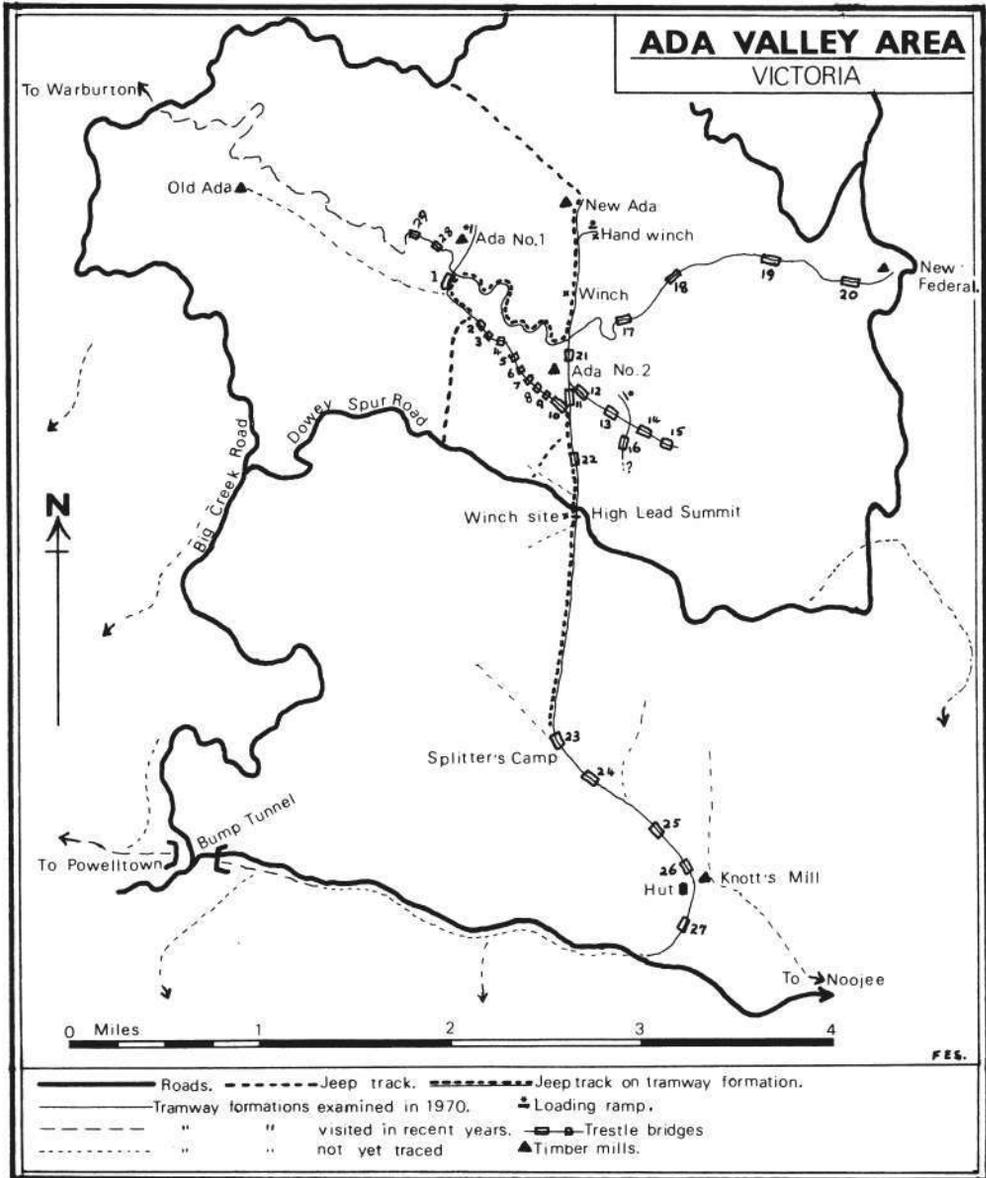
The last section of the Ada No.1 Mill line (from bridge No.1 northwards) was very steep and must have been worked by winch or horses, but the rest was worked by a Fordson rail tractor in later years. In earlier years one of the Powelltown tramway's small tank engines was used on

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this line, probably when the line ran to Old Ada Mill.

The line between Warburton and New Federal Mill was a mixture of steel and wooden rails, and was operated by six-wheeled coupled Fordson rail tractors. The New Federal Mill line, and the line between New Ada and Ada No.2 Mills were both put in after 1934.

Other lines shown on the map were worked either by winch or horse, with the exception of the 3-ft.6-in. gauge steel railed tramway from Knott's Mill to Noojee, which was operated by steam locomotives, and a Fordson tractor.

The Ada Valley today.

At Ada No.2 Mill two large stationery boilers still remain, one being set very firmly in brick foundations. A large winch cable drum is still here, as well as the saddle tank of the Powelltown tramway's Andrew Barclay 0-4-2ST loco, now very badly rusted. Three years ago steel rails were still in situ at this mill site, but these were removed sometime in 1967 or 1968. Ada No.2 Mill can not be reached by road, hence the various relics have remained there.

From Ada No.2 Mill the branch line leading south-easterly for about three quarters of a mile is still easy to follow. This was a wooden railed line, and it appears no attempt was made to remove the rails. It is one of the most interesting and best preserved lines in the area, although vegetation growth and natural decay has wrought havoc.

The four trestle bridges on this line (Nos. 12, 13, 14, and 15 on the map) are long low bridges, with the closely spaced sleepers forming a very rotten decking. In cuttings the rails have been completely buried by earth and leaves, and elsewhere vegetation has grown up through the sleepers and pushed the rails aside. The trestle bridges are the best preserved parts, as the vegetation has not succeeded in damaging these in the quarter century that the line has been inactive.

The terminus of this line is heavily overgrown, but it would seem that there were several timber chutes here, up which logs were winched. Near the crossing, between bridges Nos.13 and 14, two large trees have fallen across the line, but obviously these fell before the line closed, as they have been cut through where the tramway ran. They are probably a relic of the 1939 bushfires. The tramway shown on the map as crossing this line would appear to have closed some years earlier, as there are no signs of rails, and the trestle bridge (No.16 on the map) is in poor condition and completely lacks decking. It is possible that this line was burnt out in the 1939 fires and not rebuilt. South of bridge No.16 the formation peters out in very dense undergrowth. We do not know if the tramway ever went far beyond this point.

A short distance south of New Ada Mill a short branch, with rails still in position, runs off easterly to a timber loading ramp. At this spot an old two-speed hand winch can still be seen, this obviously having been used to haul the logs on to the log bogies. Running easterly from here down a steep grade is a timber chute, which is quite long, and up which logs must have been winched. A gasket and water piping was found here, indicating that a steam winch was used.

On the Ada No.1 Mill line, which includes trestle bridges Nos.1 to 10 on the map, most trestle bridges remain in position, although badly decayed. Bridges Nos. 1 - 16 are all fairly low, and are mostly fairly long, being designed to keep the tramways out of the slush surrounding the Ada River. Between trestle bridges the Ada No. 1 Mill line is still fairly easy

to trace, although heavily overgrown. All rails have been removed, as this line had steel or iron rails. Bridge No.2 on this line is a long "S" shaped bridge, and another smaller bridge was found parallel to this on a lower level, probably being part of a short timber loading siding.

So far we have had no recent reports of anyone finding the formation of the Old Ada Mill line, or the site of Old Ada Mill itself. This line was closed many years before the others in this area.

Each visit to the Ada Valley reveals further interesting discoveries. The bush is so thick that you may be only a few feet from some relic, and yet miss it. Careful examination reveals many signs of bridges, timber chutes, cuttings etc. off the main tramways. These suggest that there were many short feeder lines to loading ramps, and it would be virtually impossible to locate all these minor lines.

Wayne Mills provided most of the information for the map, and also details of the present condition of the trestle bridges, which we list below. We hope other members who visit the Ada Valley will keep us informed of their discoveries.

Details of trestle bridges in Ada Valley Area, (see map, page 18).

1. Wrecked	8. Crossable (a)	14. Crossable	22. Wrecked
2. Crossable	9. Crossable	15. Crossable	23. Crossable
3. Wrecked	10. Overgrown with	16. Crossable (b)	24. Wrecked
4. Crossable	trees.	17. Wrecked	25. Wrecked
5. Crossable	11. Crossable (a)	18. Crossable	26. Crossable
6. Crossable	12. Crossable	19. Crossable	27. Crossable
7. Crossable (a)	13. Crossable	20. Crossable (b)	28. Wrecked
		21. Wrecked	29. Crossable (b).

Notes - (a) Wrecked in places. (b) No decking.

LRRSA "Upper Yarra Spectacular" Tour, 12th. April 1970.

Nineteen members participated in this unusual trip, which was the Society's third visit to this area, following our bus tour in December 1967 and our Easter hike in 1968. (See LR No.22, p.18; and LR No.24, p.5).

At 9.32am a convoy consisting of a Haflinger light four-wheel drive vehicle, a Mini Moke, a short-wheelbase Land Rover, and two long-wheelbase Land Rovers; driven by members Allan Stebbing, Arthur Straffen, Ralph Cleary, John Withers and Bob O'Connor, set out from Yarra Junction station and headed down the Britannia Creek road.

Our first visit was to the site of Cuming Smith's wood distillation works (described in LR No.25, p.3) where the concrete foundations of this large enterprise still remain. The wagon turntable pit was found, together with the site of the drying kilns and traverser. The base of the tall chimney, a large steel fan housing, and some very extensive earthworks where the timber was stacked to dry, also remained. An interesting four-wheeled wagon with straight-spoked wheels was also seen. These wheels were checked for gauge, which was 3-ft.

We then headed along the Britannia Creek road, stopping at a point where the road paralleled the tramway, at the top of the double track incline near Britannia falls. Sleepers remained

Evidence of a tramway feeding this mill was found, together with various junk, including a boiler.

We then walked westerly along the formation of the Federal tramway, over a section which has not been bulldozed, through deep moss lined cuttings, across the bed of a creek where a trestle has collapsed, and on to a high curved trestle which is intact but without decking. Some members crossed this on the very slippery stringers, others went through the slush underneath. (This was trestle No.29 shown on the map on page 18).

Returning to the vehicles, we followed the bulldozer track and took up the formation of the Ada No. 1 Mill line for a short distance between bridges No.1 and 2 on the map on page 18. Bridge No.2 is intact although right near the bulldozer track, which then veered away from this tramway, and we struck trouble in some deep mud and a steep slippery grade. With many willing assistants pushing, we got through, about half an hour being spent in the process. Everybody apparently enjoyed this minor excitement.

By now it was too late to visit any other tramway sites, so we headed back to Yarra Junction via the steep and winding Mississippi track and Big Pat's Creek, finally getting into Yarra Junction after 7.00pm, about two hours later than expected. Everybody seemed to think the extra time was well spent, however.

The entire party seemed agreed on one point - we must have more four-wheel drive tours. One Land Rover was hired, being ably driven by Ralph Cleary, the other vehicles being provided by members, whom we must thank for their assistance and co-operation in making this trip possible. Although the writer acted as "Tour Co-ordinator" its success was largely due to the careful planning and organization of Allan Stebbing and Bob O'Connor, whose vehicles were the convoy's "Pilot" and "Guard's Van" respectively.

We intend to run more trips of this type, but not until sometime in Spring, after the slush and mud has dried out a little. (Frank Stamford).

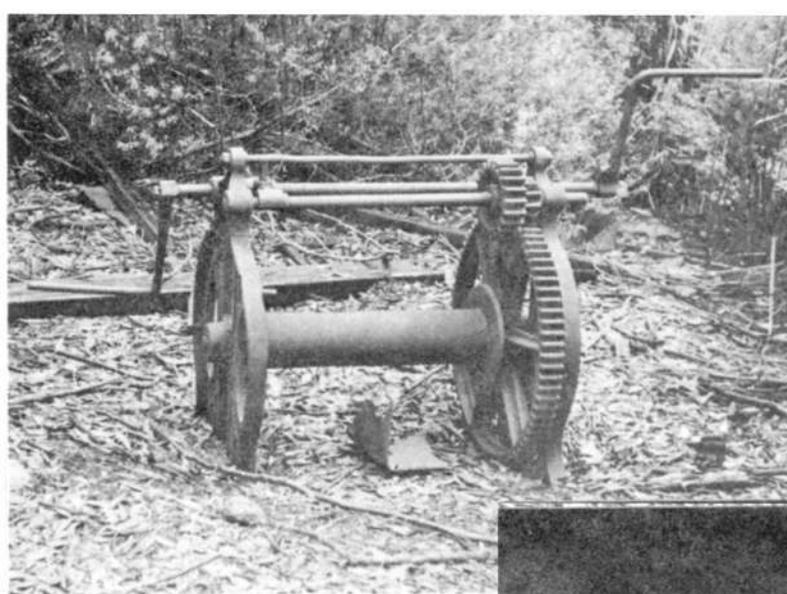
Photographs opposite

Top - One of the best preserved trestle bridges in the Ada Valley is this one (No.14 on the map on p.18), on a branch running south-easterly from Ada No.2 Mill. The closely packed sleepers formed a sound decking for horses, but are now very rotten. At the end of the bridge the rails disappear under the vegetation. 19th. April, 1970.

Bottom - A boiler, steam winch, and hut on the New Ada Mill line, looking south towards the Federal Mill line crossing and Ada No.2 Mill, which is about a quarter of a mile away, with a high trestle bridge (No.21) in between. This trestle, which was built on a grade has been wrecked. The Land Rovers are on the tramway formation, which goes down through the gap in the trees. The location of this photograph is shown on the map (p.18) by the word "Winch". 12th. April, 1970.

Both photographs - Frank Stamford.



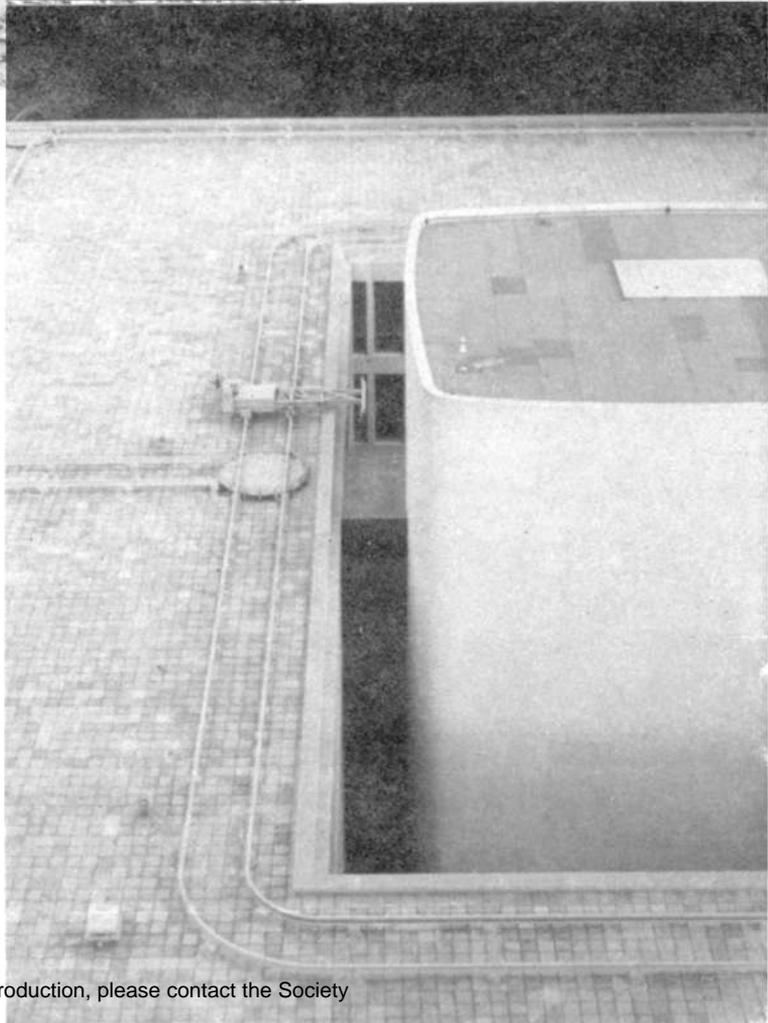


Left - Hand winch found at the end of a siding leading to a timber loading ramp south of New Ada Mill.

Photo - Frank Stamford.

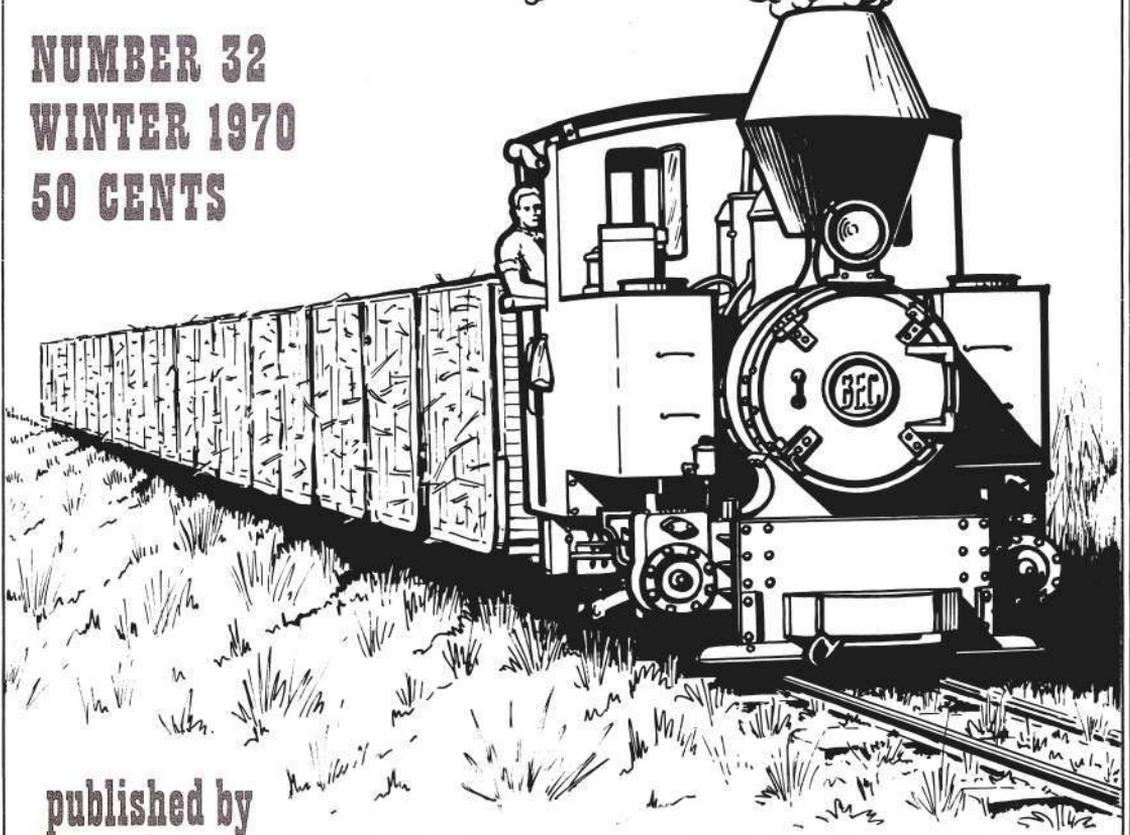
Right - A new use for a light railway! A maintenance railway with motorized trolley on the top of the new four storey building forming part of the State Public Offices. See item page 15.

Photo - John Gardner.



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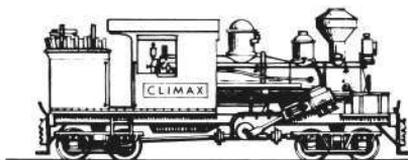
Light Railways

No.32

VOL. VIII

WINTER

1970



Editorial from the President

We all love our little engines, there is no doubt about that. Each issue of "Light Railways" contains further evidence of diligent research by one or other of our members on the ancestry, vital statistics and ultimate fate of some locomotive whose very existence was previously unknown, except to a handful of people. Such application to the unearthing of facts is highly commendable, whether it takes the form of searching through the files of company or manufacturer's records, or old newspapers; of shifting scrap iron in junk yards, or of getting wet feet or worse at the bottom of some mountain gully. We need to know accurately and unequivocally, these locomotive details.

But there is so much more to light, and indeed, to heavy railways, than the locomotives which operated on them. Glamorous or quaint as they may be we should keep our perspectives clear and realize that, after all, locomotives are only a means to an end, the end being the movement of people, goods or raw material.

This love of the locomotive to the exclusion of all other aspects of the operation is a common enough failing among rail fans and the magazines catering to their interests, but it is a failing which "Light Railways" has managed to avoid - just.

Several of our contributors are to be congratulated for the background information that they manage to include in their articles : such as G. Maynard's excellent account of the wood distillation process at Britannia Creek (LR No.25) and G. Verhoeven's very comprehensive and well balanced article on the Stannary Hills - Irvinebank tramways (LR No.30). These, among others, put the railway in its true place in an industrial, social and economic situation.

Besides locomotives and track locations we in this Society need to consider the place each light railway held in its community, why it was built in the first place, and its effect on life in the area. We need a writer who can tell us what it was really like to be a saw-miller working at Ada No.1, for instance, or to describe the social life of Powelltown during the peak of its prosperity, and we could certainly do with first hand accounts of "riding the rails" such as that magnificent piece in LR No.19. How was feed for the hundreds of horses and bullocks working in the forests brought to them, and how much did it cost? What help was available for an injured man at an outlying camp? These questions, and many others like them, are just as important to our studies and the aims of our Society as are the cylinder dimensions of "Coffee Pot", and I respectfully suggest, of rather greater general interest.

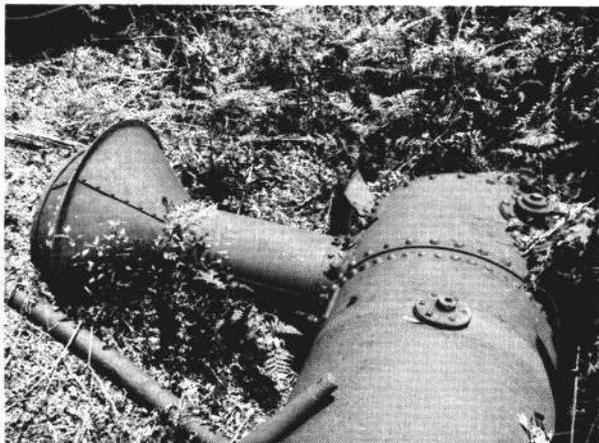
I sincerely hope that, by the efforts of our editor and the dedicated, hard working research of our contributors, this magazine will become ever more widely known and respected, not only for the accuracy and interest of its railway content, but for its valuable contribution to the social and economic history of the out-of-the-way places that we all seem to find so fascinating.

TO OUR READERS . . .

Whilst every effort is made to ensure the accuracy of articles published in "Light Railways", we cannot be sure that errors have not crept 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.

**LOCOMOTIVE DEATHBED →**

(See page 26)

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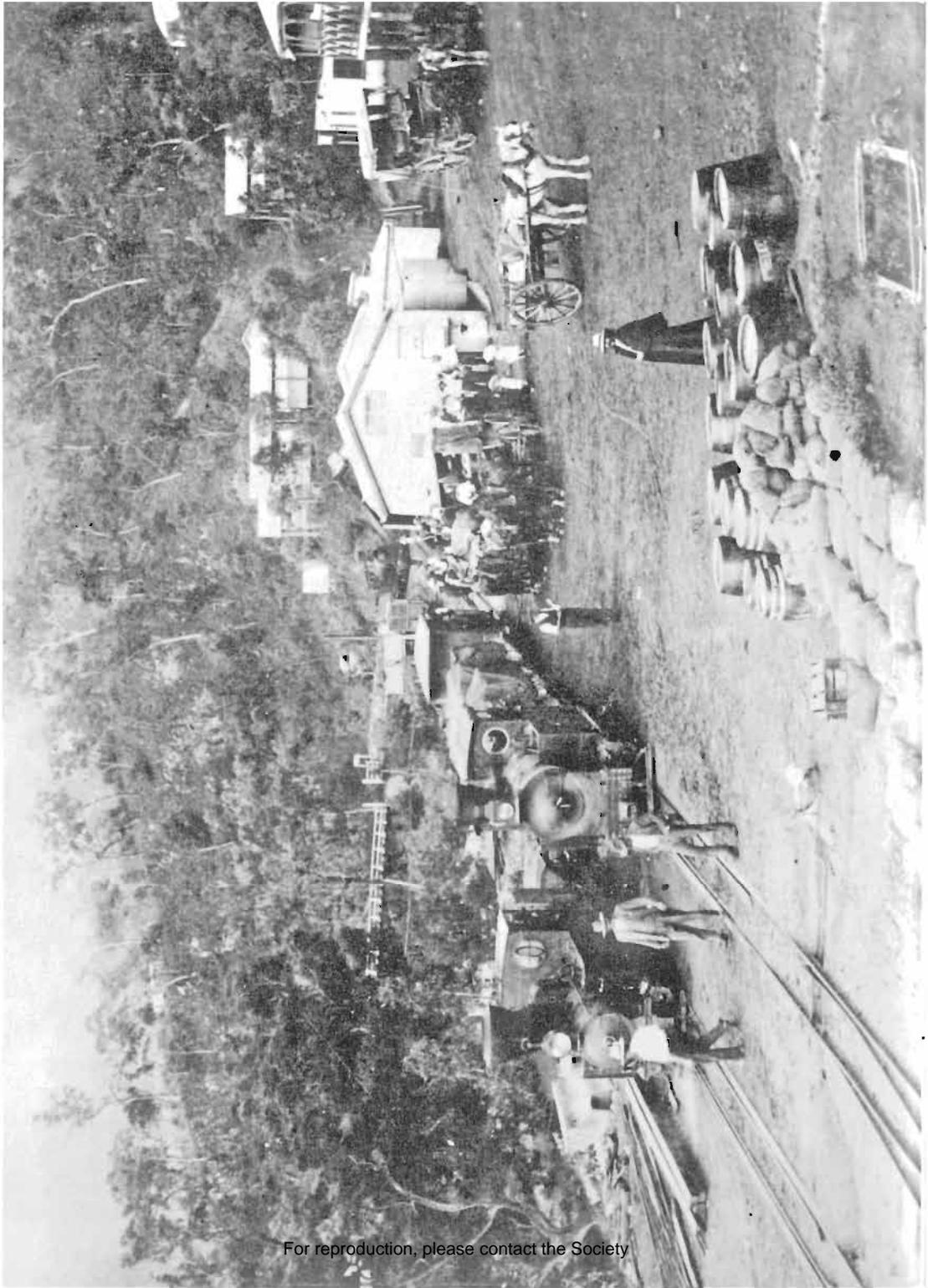
ANNUAL SUBSCRIPTION - \$2-00 (\$1-00 if under 17 years) for year ending 31st. May 1971.

MEETINGS - Second Thursday every second month at 8-00pm, room 11, Victorian Railways Institute, Flinders Street Station building, Melbourne. Next meeting 8th. October. Visitors welcome.

BACK NUMBERS of "Light Railways" - No.13 @ 15¢, No.14 @ 20¢, No.15 @ 10¢, No.25 @ 35¢, Nos.29 and 31 @ 40¢ each, available from the Sales Department, P.O. Box 21, Surrey Hills, Vic., 3127. Postage is extra - on one copy 6¢, two copies 12¢, 3 or 4 copies 18¢, 5,6,7 or 8 copies - 24¢.

Cover - Bundaberg Fowler 0-6-2T loco, No.6 of 1952, approaching Millaquin Sugar Mill, Bundaberg, with a train of machine cut sugar cane. July 1970.

(Drawn - John Thompson)



To Rocky Bluff...

By - G. H. Verhoeven.

Following the very popular article on the Stannary Hills and Irvinebank 2-ft. gauge tramways in LR No. 30 the author now presents a report on the Stannary Hills - Rocky Bluff section. From careful and persistent investigations at Rocky Bluff, Gerry Verhoeven has reconstructed the layout of this remote Queensland tin mining town.



For some years I have been attracted by the fact that no roads lead to Rocky Bluff. As the tramway to the smelters at Rocky Bluff had been pulled up in 1926 I imagined that the formation would be hard to find and in any case heavily overgrown.

When an opportunity arose to make this hike on Boxing Day 1969, we (a nephew and I) went well prepared. In the event we need not have worried, there was hardly any growth on the formation and it was fairly easy to follow.

We picked up the formation of the Stannary Hills to Irvinebank tramway below Loloma mining camp, which seems to me to be located on the old football and picnic ground of "The Junction", as I found the junction of the tramways right behind it. The formation to Rocky Bluff branches off to the north across Eureka creek, and after going through a few cuttings we came to a countryside completely routed up by open cast mining, effectively obliterating any signs of the formation. Bordering this area and in the general direction of the tramway was a large dam. My ordnance map's contours showed that the tramway formation went through this dam, so we decided to circle it on the eastern side heading north until we found the formation again. We drove along a miners' track which went in that direction, until it petered out near some diggings. We then went on foot across a creek which fed into the head of the dam. We immediately picked up the formation again, now heading in a general easterly direction.

Gladstone Mine Siding must be somewhere under the waters of the dam. For a short distance the formation follows one of the headwater creeks that feed into Eureka Creek via the dam, and hugs the hillside with a shallow cutting here and there. The bridges are all gone on this formation and one has to cross the rather deep run-offs from the hillside into this creek. At the third such crossing (from the head of the dam) we saw signs of a siding near where the bridge had been, after which the formation went into a cutting. The top of this cutting was littered with bottles of a rather large type with a bottom akin to a champagne bottle. The formation gains height along the hillside and in a few places is hacked out of rock with the creek far below.

The formation then crosses the divide between Eureka creek and the tributaries of the Walsh river. The countryside is very hilly and steep, open bush and very quiet. The divide is crossed through a heavy rock cutting. We came to the site of Arbouin Mine Siding, 18 miles from Boonmoo and put in on 31st. March 1906. There was a lot of ironwork lying about here from the ore bins, all the

Photograph opposite

Stannary Hills, circa 1910, looking towards Boonmoo. The locomotives in the foreground are, on the left, "Betty" - a Krauss 0-6-0T (B/No. 5261 of 1905) owned by the Irvinebank Tramway; and on the right, a Brush 2-6-0T of the Stannary Hills Mines and Tramway Co. Ltd. In the background is another Brush 2-6-0T of the Stannary Hills Company. See LR No.30, p.13 for track layout of this location.

Photo - Courtesy G. Bond.

woodwork having been burnt. Heavy bolts and nuts, hinges, hopper doors with long handles remained, and above the formation was the tension gear of the aerial ropeway that existed here. The heavy steel cable, once 600-ft. long across the creek, snaked down the very steep side and half way up the other. Level with us but on the other side of the valley we saw a large iron wheel of the ropeway and halfway to our right we noticed a formation we thought to be the one mile horse tramway to the Arbouin Mine, which fed the hoppers we were examining.

The creek valley is very deep and the slopes are a little less than perpendicular, so anyone wanting to explore this might do well to come well equipped and be prepared to stay for the night, as it seemed to me that a trip along that horse tramway would take the best part of a day. At Arbouin Mine Siding we found the only piece of rail along our whole hike - it measured 3-in. high, $2\frac{3}{4}$ -in. over the foot and $1\frac{1}{2}$ -in. over the head. (This would probably be about 28-lbs. per yard -Editor). A solitary hopper without a frame made by Arthur Koppel, Berlin and a lot of dog spikes completed the scene.

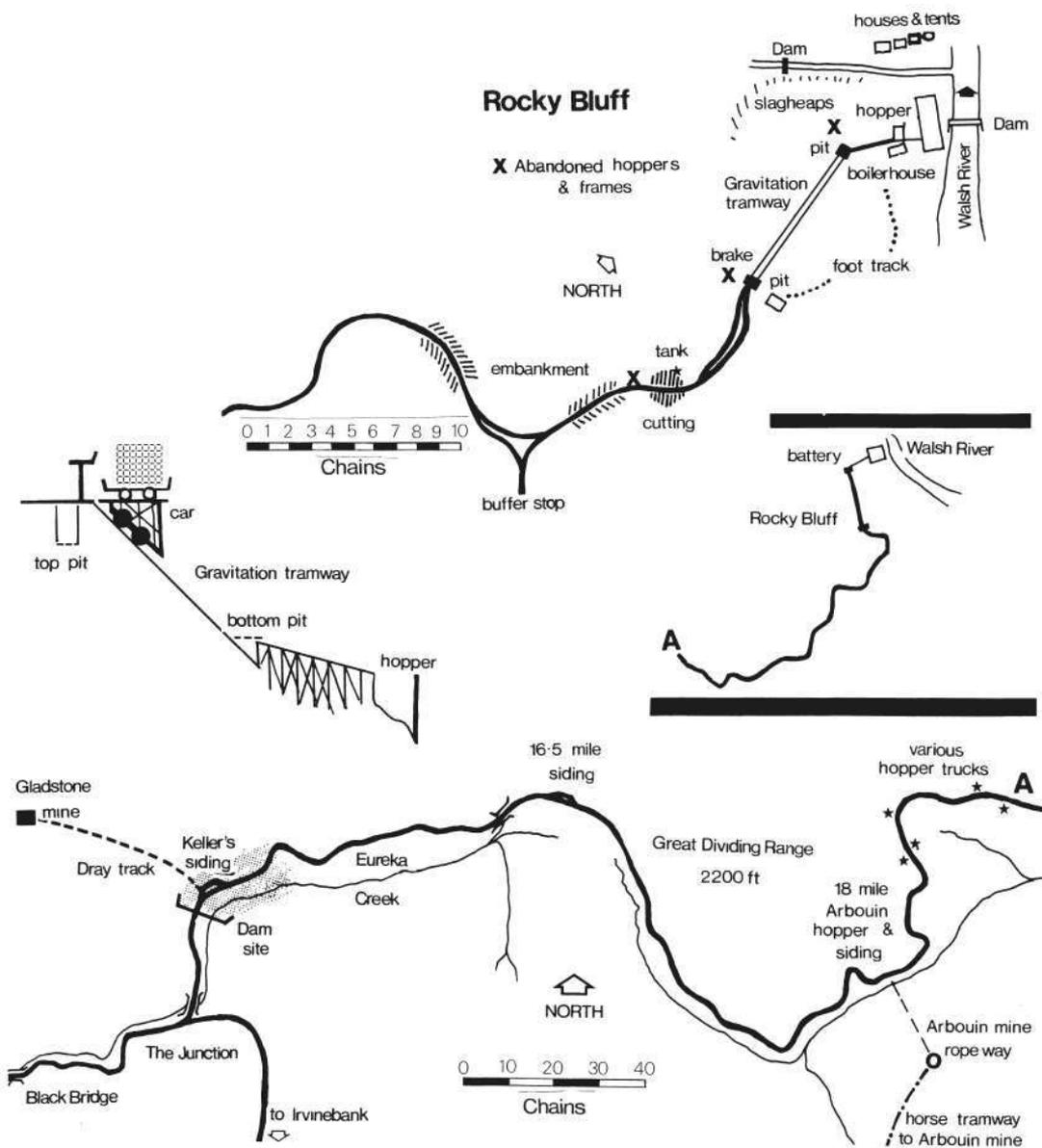
From here to Rocky Bluff the going was exceptionally easy, although in short patches there was some sort of waist high growth. We had to cross three more gullies, one of which was fairly difficult. Altogether we saw seven hopper wagons lying beside the formation, their load of tin ore spilt beside it. Six had brakes activated by a side lever, they were all sprung, with wooden frames and link and pin couplings. Some wheels were lying about, and one was marked "JUNES AND SONS ADELAIDE SA STEEL". The hoppers themselves were made by Arthur Koppel, Berlin, and measured 5-ft. x 5-ft. x 3-ft. deep. We also found a steel underframe with a ball lever brake. This had axle boxes marked O1087.

ROCKY BLUFF

Coming to the head of the Walsh River valley the formation runs across a few embankments which had been made very neatly with stones, somewhat akin to what one sees in pictures of the Welsh Tallylyn railway. The countryside now gradually opens out. The formation becomes double track and curves to the left (see diagram, p. 7). The right hand track then curves away and forms one leg of a triangle, being about 30 yards long. At the apex is a dead-end about 40 yards long with a timber buffer stop, no doubt to prevent anything crashing down the valley into the Walsh River deep down below. I could not see whether there had been a crossover in the double line near the triangle, but one is inclined to think that this is obvious. After the triangle the line continues as a single line, curving to the right across an embankment and then entering a low cutting. A small wooden frame of a four-wheel truck was lying here.

On top of the cutting is a tank stand, and some ashes lying about made me think that this was "loco" at Rocky Bluff. After the cutting the line turned left and became double. At the end of the curve both lines turned sharply to the right over a pit, with remnants of the hauling gear of the funicular. The wheels of the hauling gear were marked "Smellie & Co. Brisbane". A hopper was lying at the top of the incline. To the right of the pit was a concrete foundation, of the engine house I presume.

The incline is double track all the way and I estimated at about 45 degrees, the steel rope was still lying there. At intervals it had wooden cable-guide-rollers with steel axles. The incline goes down a considerable distance - I thought about 300 to 400 feet. At the bottom was a concrete pit with a small hopper lying nearby. We held on to the cable going down the incline. To the right of the pit at the bottom of the incline, and still lower down at various levels, were the remains of the smelters, consisting of large foundations of ovens, stacks, and many large round structures, like tanks with paddles in them. In the Walsh River there is a dam below the works. The houses we had seen in a picture



(Drawn - G. Verhoeven, Final artwork - Stephen Reynolds)



For reproduction, please contact the Society

were all gone. A formation ran for a hundred yards or so from the bottom of the smelters to a slag dump. I managed to carry a cable-guide-roller back with me, but I was heartily sick of the thing by the time I got back to the utility.

Working the incline

After this trip I had the good fortune to meet in Cairns Mike O'Calaghan and Frank Calaghan (no relationship). Mike had been a Shire Clerk of the Walsh Shire, when it still had its head office at Irvinebank. Frank had worked at the Rocky Bluff smelter for some years, and told me how the incline tramway worked.

It was called a gravitation tramway, with one car on each track. These cars were balanced by a steel rope via a huge wheel at the top, where a man worked the handbrake. Trucks of ore, firewood or supplies for the smelter, were pushed on to a sort of turntable at the top, the truck then being pushed onto whichever car was at the top of the incline. (See diagram, p.7). Meanwhile at the bottom an empty truck was being moved onto the car there. At the signal from the bottom, the brake was released and the car started its journey down. At the bottom, the truck ran onto a turntable and over a high trestle to a hopper, to be emptied and returned to the car on the incline. The smelter, although worked by steam, was originally intended to be worked by water power from the Walsh River, hence its location.

Locomotives of the Stannary Hills tramway

In my article in LR. No.30, p.10, and in all previous references to the Stannary Hills tramway, the builder's number of the tramway's locomotive No.1 "Pompey" is shown as 2196. Examination of some recently found photographs shows that the builder's number of this Krauss 0-4-OWT is in fact 2198.

Disposal of Irvinebank tramway parts.

Mr. M. Loveday, former driver and maintenance fitter of the Douglas Shire Tramway, informs me that during the second world war the Douglas Shire Tramway bought ironwork from the Irvinebank tramway for \$100. This consisted of approximately 18 diamond frame bogies, also Fox pressed steel bogies, wooden frame bogies, bogies of a pattern used on the QGR, a frame of a passenger car, and couplings.

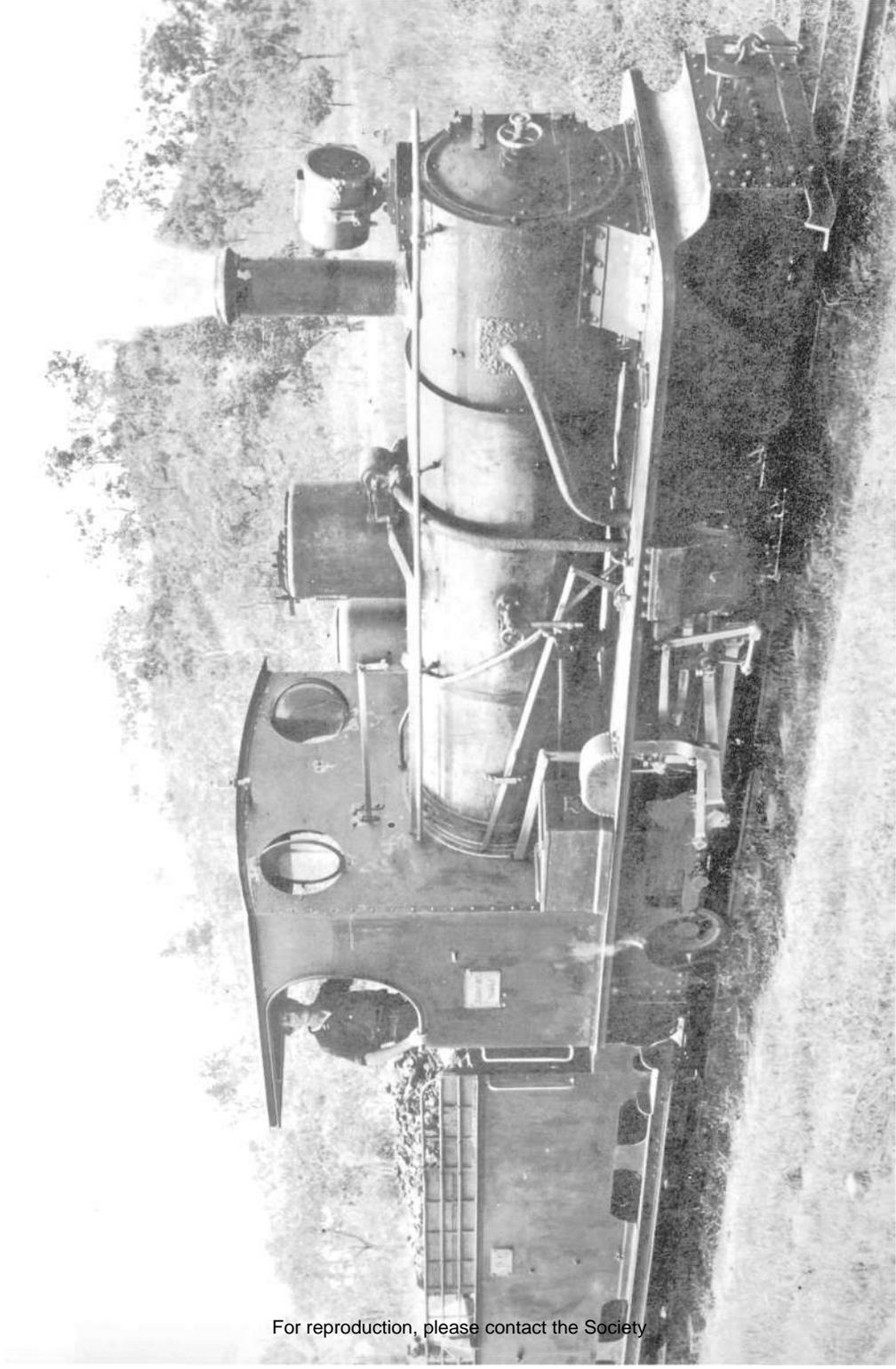
It was noted then that wheels were set at either 2-ft. gauge or the continental 60-cm. (1-ft.11-5/8-in.) gauge. In the latter case the flange received a weld which was ground to make the set fit for 2-ft. gauge. Shipping costs of this material to Port Douglas were \$300.

Some of this material is still in use at Mossman Mill, the Port Douglas tramway having ceased operations in 1959, and the rolling stock was taken by that sugar mill.

(The Light Railway Research Club of Queensland's magazine "Narrow Gauge Review" No.3 contains a reprint of a visitor's impression of a ride on the Stannary Hills and Irvinebank tramways in 1908. Also included are 3½-mm.= 1-ft. scale drawings of the three types of locomotive which worked on the Stannary Hills tramway. Copies are available from LRRSA Sales, PO Box 21, SURREY HILLS, Vic. 3127 at 35¢ each including postage.)

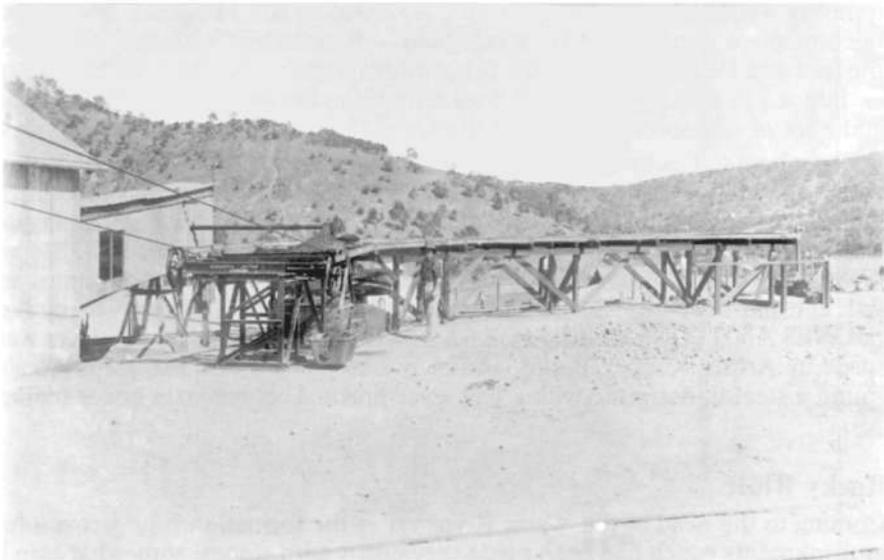
Photograph opposite

Stannary Hills tramway 2-6-OT locomotive, built by the Falcon Engine & Car Works of the Brush Electrical Engineering Co. Ltd., - B/No.293 of 1901. The photograph is dated May 1907. There were two locomotives of this type which worked between Boonmoo and Rocky Bluff. See LR No.30, p.10 for details. (G. Bond Collection).



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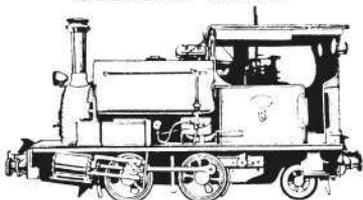
- Photograph, left - Stannary Hills 2-ft. gauge tramway locomotive No.4 "Germany", a Borsig 4-4-2 locomotive built about 1907, photographed at Boonmoo in 1922. (See also LR No.30, p.10).
- Below - Unloading station on the Governor Norman Mine cableway at Irvinebank in 1913. This cableway can be seen in the photograph of Irvinebank in LR No.30, p.24. (Both photos - G.Bond Collection).



HELP!

THIS YEAR SEES THE END TO MUCH INTERESTING
NARROW - GAUGE EQUIPMENT.

GEELONG STEAM



PRESERVATION SOCIETY

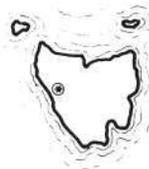
The Geelong Steam Preservation Society is fighting to save what it can for operation on the Belmont Common 3-ft. 6-in. gauge railway. Queensland Railways PB15 No.454, South Australian "T" class locomotives Nos.200 and 251, four carriages and two brake-vans have been temporarily held from the torch, BUT at least \$10,000 is needed within weeks to secure this equipment.

IT CAN BE DONE.

Give generously and quickly to Hon. Secretary,
Geelong Steam Preservation Society,
Mr. Ian McDonald, 8 Merralyn Street,
BELMONT, Vic. 3216.

The Oceana Tramway

By - Wayne Chynoweth.



Tasmania's mountainous west coast has been served by innumerable tramways, each relying on the mining industry for its traffic. One of the least known was the 2-ft. gauge Oceana tramway, which served a silver mine near Mount Zeehan.

History and Development

Silver ore was first discovered at Zeehan, situated on the west coast of Tasmania, on the afternoon of 8th. December, 1882. However it was not until 1887 when, due to the excitement caused by the mines of Broken Hill, a renewed impetus in silver mining began in Tasmania and many sections were taken up, until in 1891 nearly ten square miles had been pegged out for mining purposes. It was upon one of these sections, two and a half miles south of Zeehan, that the Oceana Silver Mining Company started work early in 1891.

The Oceana Company's claim occupied a hollow, almost under the shadow of Mount Zeehan, and received the drainage of the surrounding country on three sides. Consequently the ground was decidedly wet and steam pumps had to be kept busy day and night so that efficient work could be carried out underground in the mine. The site of the main shaft was situated near the head of Powell Creek (now Pyramid Creek), the creek running down a narrow valley to the Henty River. It was along this valley that a surveyor, Mr. T. M. Atkinson, under contract to the Oceana Company, surveyed a suitable route for a tramway from the mine to a point on the Government railway from Zeehan to Strahan. Having completed his survey, Mr. Atkinson handed in the final plans on 2nd. April 1891, and the company then advertised for tenders for the construction of the tramway.

In September 1891, the directors decided to use one of the Bochum Union mineral tramways, and so the contract for the construction of the tramway was let to Bloomfield Brothers of Melbourne, who were the sole agents for this material in Australia. The contract price was £4,180 (\$8,360) which included everything needed for working the line, such as rolling stock, sleepers and rails. The Bochum Union type of tramway had already been proved suitable for the Zeehan district, as it was being used by Reynolds and Company, contractors for the Strahan - Zeehan railway, and also by Leslie and Ross, contractors for the Zeehan - Dundas railway.

Construction

Construction started from the railway end on Thursday, 1st. October 1891, with Mr. J. K. Batchelor, Manager, and Mr. Lewis, Engineer, in charge of the work, both men having had experience in railway construction in Victoria. At this stage the position of the railway siding had not been determined by the Government engineers, and so the construction initially began at the 25 chain peg and worked towards the mine. Thirty men were put on the job, and as no difficult work needed to be overcome, the work progressed satisfactorily. On 19th. October 1891, 800 rails of 20-lb. per yard, were landed at Strahan for the tramway, being shipped from Melbourne and brought up to the works where laying commenced. The sleepers used were all Tasmanian bluegum obtained from the Huon district in the south-east of Tasmania and were 4-ft. 6-in. in length, the gauge of the tramway being 2-ft. On 2nd. November a further shipment of plant was landed at Strahan including

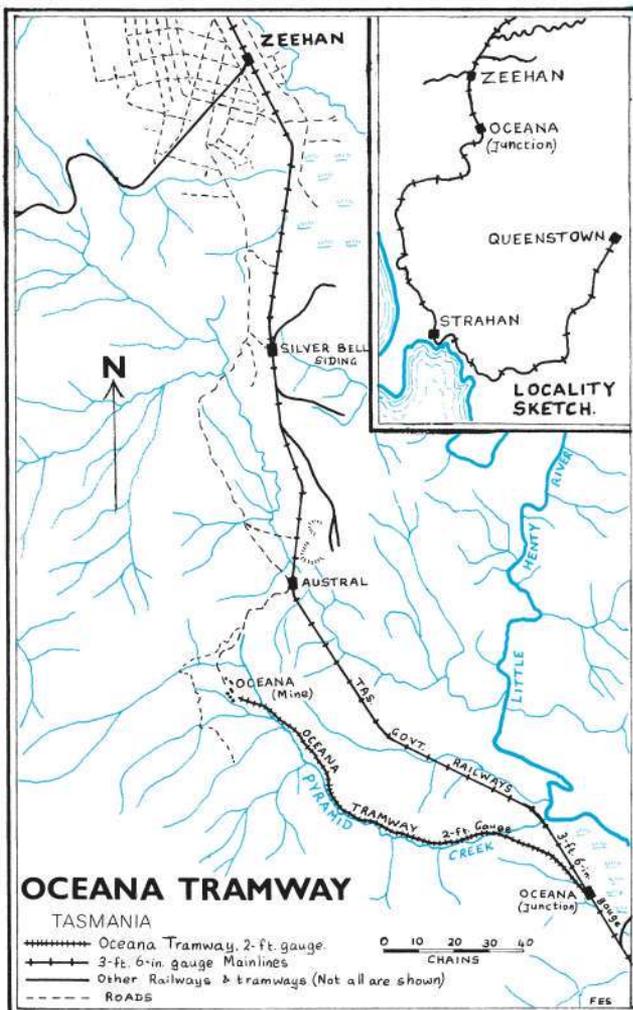
twelve side tipping trucks of 19 cubic feet capacity, and a passenger carriage capable of accommodating eight persons. The trucks were immediately put into service on ballasting the portion of the tramway along which the rails had been laid.

In January 1892 the Government engineers fixed the position of the railway siding, and thus immediate work began on the construction of this section from the 25 chain peg to the siding. This work was finished, along with the rest of the tramway, by 11th. February, the total length of the line being one mile 73 chains. About a week later the locomotive arrived and on 18th. February the tramway was opened, the locomotive and the passenger carriage passing over the line for the first time. The locomotive was an 0-4-0T built by Krauss in 1890, the builder's number being 2437. It was a 20 horse-power engine weighing four tons and having cylinders $5\frac{1}{2}$ -in. in diameter, and 10-in. in stroke. It was capable of hauling ten tons up the steepest grade of 1 in 37. It is possible that this locomotive was shipped around to Strahan from the Launceston Exhibition where Bloomfield Brothers had an exhibit demonstrating the Bochum Union material.

Description of the Tramway

Starting near the Broken Hill Ore Dressing and Smelting works, Argenton, the tramway ran for about 15-chains parallel to the Government railway, the formation for the rail level of the two being equal. Here the tramway followed around a curve of 45 chains radius and then crossed Powell's Creek by means of a viaduct, which was a very solid and substantial structure, at an elevation of from 5-ft. to 12-ft. from the ground. The rails and sleepers were laid on wooden girders 15-in. in diameter, which rested on caps 12-in. x 18-in., the total length of the bridge consisting of twenty-six 15-ft. openings.

At about the 70-chain peg a siding was put in for the Pyramid Silver Mining Company who had their main shaft across the creek. The Pyramid Company intended to build a suspension bridge across the creek so as to make a connection with the siding, but apparently this never eventuated, as the mine soon closed.

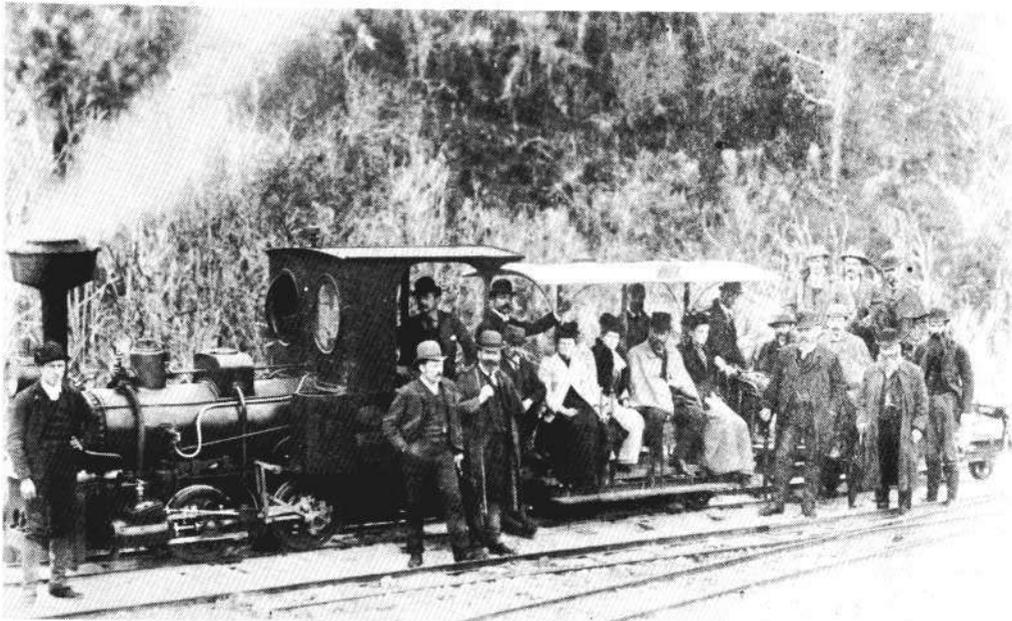


Within a few chains of this siding the line assumed a serpentine form with three consecutive curves of five chains radius. At about the 75 chain peg the line crossed a deep gully on an embankment which contained 2,000 cubic yards of excavation. If the mine had developed further it was the intention of the company to construct a siding here, so they could dump their mullock in the gully.

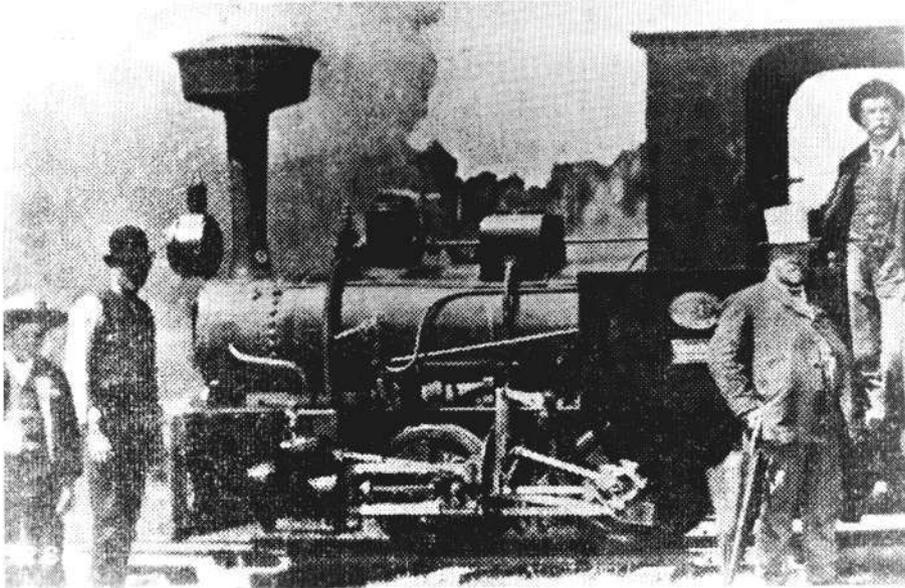
At about one mile 15 chains from the railway siding the tramway once again followed a serpentine course, consisting of four 5-chain curves, and then it crossed an embankment 22-ft. high, which caused the diversion of the creek. At the one mile 34-chain peg another large serpentine occurred, consisting of several 65-chain radius curves, and one of 10-chains, within a distance of 15-chains.

A few chains further on, the tramway crossed the creek by a second viaduct which had fifteen 7-ft. openings and was placed at an elevation of 18-ft. At the one mile 63-chain peg the tramway took a sharp curve to the left and then proceeded straight ahead for 10-chains, where the main shaft and tramway terminus were located. At this terminus an engine-shed was constructed, which housed the locomotive and passenger carriage when they were not being used. A small station was erected at the junction with the Strahan - Zeehan railway, consisting of a small shed and platform.

The steepest grade on the line was 1 in 37 and the journey of two miles usually took about ten minutes. When the tramway was first opened the main shaft



Photograph, above - Krauss 0-4-0WT, B/No.2437, on the Oceana tramway in the early 1890's. (Tasmanian State Archives)
Opposite page - The same locomotive, either on the Oceana tramway, or at the Western Mine, Zeehan. (Tasmanian State Archives)



had not been completed, and the principal traffic was firewood and heavy timber for mining purposes, which was brought up from the railway siding. When the main shaft had been sunk the locomotive made four trips delivering about 40 tons of oxidized ores daily to the Argenton smelters.

Closure

Unfortunately the Company spent most of its capital on the construction of the tramway and did not leave enough for the proper development of the mine. In consequence of this the mine was let on tribute about November 1892, and when the Argenton smelters closed in early 1893 it was decided to dissolve the company, which resulted in the closure of the mine and tramway. Apparently the company still owed money to Bloomfield Brothers, so the company pulled up the rails and sold them and the locomotive and rolling stock, back to the contractors.

Bloomfield Brothers then advertised for the sale of the locomotive, and consequently in April 1893 it was sold and delivered to the Western Silver Mining Company, Zeehan, along with the passenger carriage and some of the other rolling stock. The locomotive commenced work at the Western mine on 29th. April, 1893, being the first locomotive to work at the mines around the township of Zeehan. Apparently it caught on with the miners and the public, as a lot of people patronized the cheap runs up and down the Western tramway. The locomotive worked at the Western mine until sold circa 1916 to the Queensland Government Railways for construction purposes. In May 1921 it was sold to the State Rivers & Water Supply Commission, Victoria, where it worked on various construction projects until sold for scrap in June 1939.

Revival of mine

In 1896 a new company was formed to work the lease, being initially

called the New Oceana Silver-Lead Mining Company, which was changed to the Oceana Proprietary Company Limited in July 1896. The new company commenced preparatory work on the lease, one of the major works being to clear the water drains along the tramway, as parts of the line were under water. This work was completed by September, 1896, and tenders were called for laying down the rails on the tramway, the company supplying the rails.

The tender of Hartney and Strong was accepted, and they commenced their work on 21st. September. While this work was being carried on the company constructed a further five chains from the end of the line to the new machinery site, and also constructed a small firewood tramway. By the end of October the laying of rails had been completed and two bogie trollies for carrying machinery were finished and ready for service.

Initially the company operated the tramway themselves with the use of horses, however apparently this did not prove satisfactory as they advertised for tenders for conveying the ore from the mine along the tramway to the railway siding at Argenton, where it was run on the railway to the Tasmanian Smelting Company's works.

In 1899 the top part of the mine shaft collapsed due to the wet and soft nature of the ground, and the mine and lease were again abandoned, the tramway never to be used again. Small groups of tributors continued mining for a few more years, but the water proved too much for most, and only a small amount of ore was raised.

However, with the price of silver ore at a high, the mine was again reopened in 1950 by Zeehan Mines Proprietary Limited. This company decided to use a round, concrete main shaft which proved very satisfactory, and the mine was worked right up until June 1960, when the falling prices of silver and the inflow of water proved too great to keep the mine working profitably.

References and Acknowledgements

"Zeehan and Dundas Herald", 1890 - 1920.

Tasmanian Department of Mines

"Wild West of Tasmania" - by Wilberton Tilley, 1892.

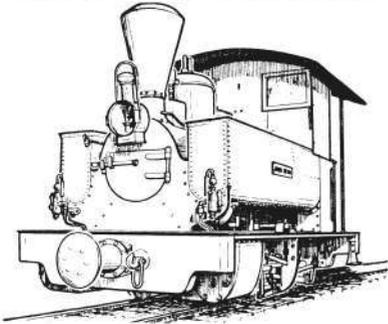
Geoff. Lambert with whom the author is working on a book about the railways and tramways of the west coast of Tasmania.



BAGULEY LOCOMOTIVES IN SOUTH AUSTRALIA.

Baguley Cars Ltd. 0-4-0ST locomotive, B/No.2026. Built for Light Railways Limited and shipped to Australia in 1922. (See letter on opposite page). Photographed outside baguley's works at Burton-on-Trent, 19th. Dec. 1922.

Photograph from Baguley Drewry Ltd. Collection, courtesy Rodney Weaver.



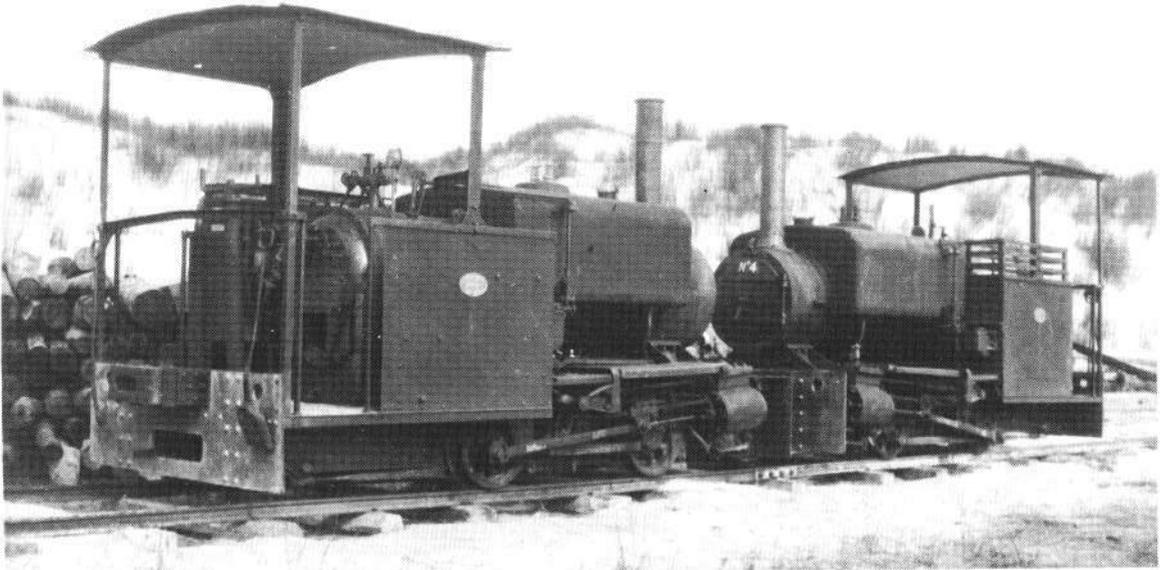
LETTERS

Mr. J. B. Goggs, of Leabrook, South Australia, writes -

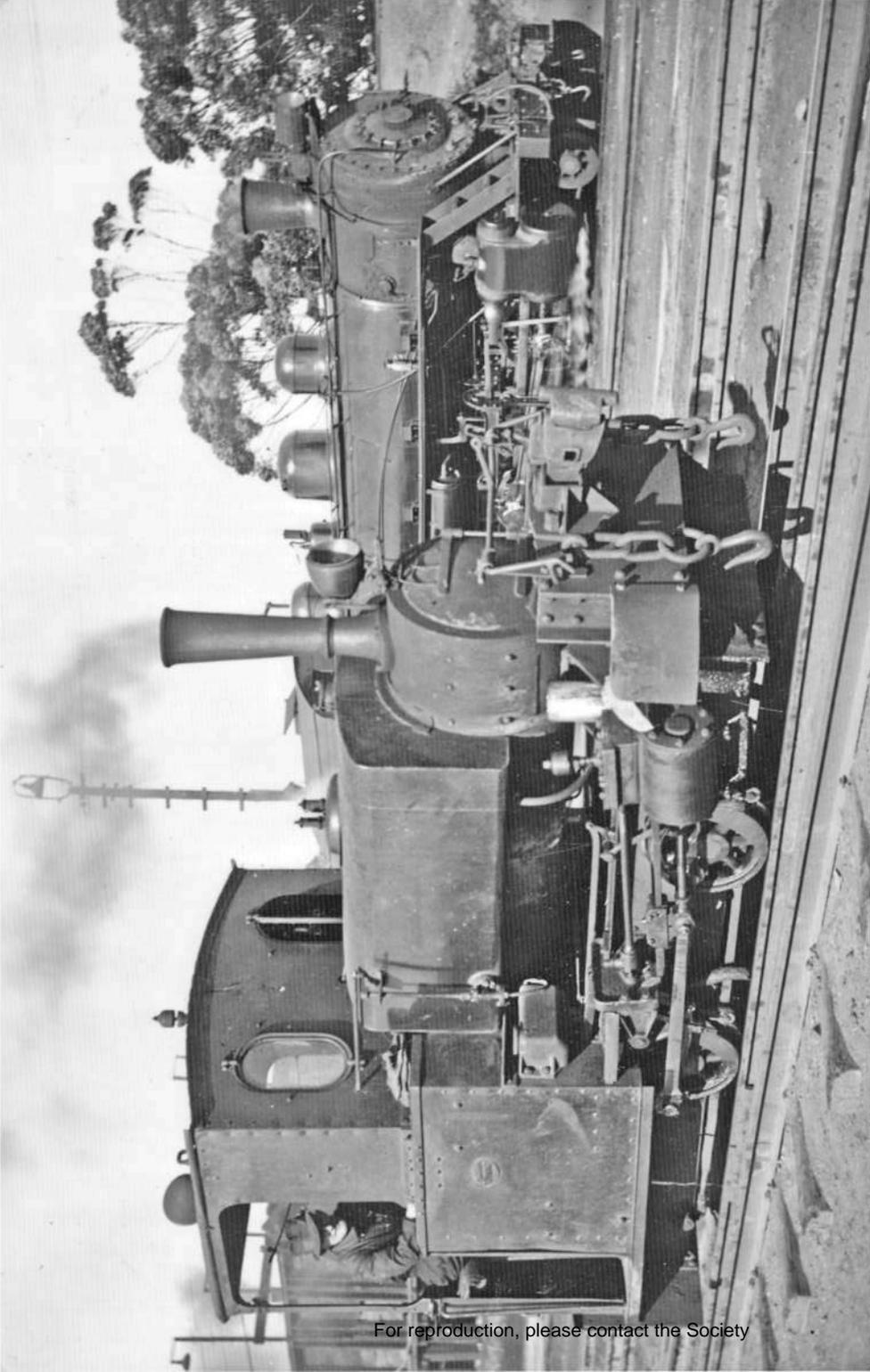
BAGULEY STEAM LOCOMOTIVES IN SOUTH AUSTRALIA (LR No.31, p.6)

Mr. Weaver stated in the last issue that the locomotives were built in 1922 and I admit that this may well be so, but when running in South Australia they carried plates which read - "Light Railways Co. London 1926". These three engines were imported for work on the River Murray Barrage Works at Goolwa and I saw them on a number of occasions between 1930 and 1938.

Two of them carried the numbers 3 and 4 on the smokebox just below the stack. No.4, B/No.2025 was sold to the BHP Co. and became No.10 with that firm. The engines as originally running had "cab" which were merely four upright pieces



Baguley locomotives used on the River Murray barrage works at Goolwa, South Australia, in 1936. Engine plates read "Light Railway Co. 1926." Nos. 2025 and 2026. Photograph - J. B. Goggs.



BHP No.10, 0-4-0ST, 3-ft.6-in. gauge locomotive supplied by Light Railways Ltd., and built by Baguley, B/No.2025, as described in J. B. Goggs' letter, p.17 of this issue. The photograph was taken at Whyalla on 12th. June 1943. The locomotive formerly worked on the Goolwa Barrage Works construction project.

BHP locomotive No.8, Baldwin 2-8-2, B/No.60311 of 1928, is in the background.
Photo - John Goggs.

of tube with a square piece of iron on top - most unsuitable for the Goolwa area in Summer I should say ! When No.10 appeared on the BHP line at Whyalla she was equipped with a very attractive cab structure and looked well. No.3 engine was sold to a Dry Cleaning Company - Spry & Co., Kilkenny - where she was in use for a goodly while as a steam plant. "To what base uses are we descended" (Shakespeare). I always found it very sad to find a locomotive employed on anything but its rightful job. I thought there was a fourth engine on the Goolwa Barrage works, does any reader know anything of this?

Mr. C. R. Weaver, of Warwickshire, England, writes -

RAILWAYS OF PACIFIC PHOSPHATE ISLANDS (LR. No.29, p.4; LR No.31, p.5.)

I now have a little more information to supplement that published in LR No.31 regarding Baguley products on the phosphate railways. I have traced two railcars supplied to the phosphate lines, one an early narrow-gauge type for the Pacific Phosphate Company, and the other a later standard-gauge one for Christmas Island.

No.451 of 1912 was a standard 10-hp semi-enclosed car of a pattern that was very popular at the time. It was of 2-ft. gauge, and was the maker's type "C" chassis, fitted with a two cylinder Baguley engine of 90-mm. bore and 130-mm. stroke, rated at 10-hp. Engine No.451 actually developed 11.2-bhp at 1,000 rpm., and 14-bhp at 1,800 rpm. It was fitted with a cone clutch and three speed gearbox, giving speeds of 2.92, 5.95 and 11 mph at 1,000 rpm. The body comprised two reversible rattan seats, seating three apiece, mounted over the engine and gearbox casings. It is likely that the canopy was merely a canvas hood with side screens, but it may have been a fixed wooden roof with two large windows at each end, again with side screens. The car could be driven from either end. It was ordered on 15th. July 1912 but I have not yet determined exactly when it was delivered - it was shipped to Sydney by the S.S. Star of Scotland.

No.1682 of 1929 was a 20 seat tramcar on 4-ft. 8½-in. gauge, ordered on the 9th. March 1929 and turned out on the 11th. June 1929 for the Christmas Island Phosphate Company. It was shipped to Singapore by the S.S. Polyphemus. This was quite a substantial vehicle, 17-ft. 6-in. long and 6-ft. 1¾-in. wide, mounted on 24-in. "Newlay" wheels with 9-ft. wheelbase. (The Newlay wheel was a resilient type similar to the wooden centred Mansell wheel once so popular on British railways). There were four wooden reversible seats accommodating five apiece, while the driver sat on his own reversible seat alongside the engine at one end. There was a wooden roof supported on pillars, a waist high panel across each end, and the usual canvas side sheets. The vehicle was intended to carry a total payload of 2-tons. It was fitted with a four cylinder Baguley engine, again 90-mm. x 130-mm., rated at 20-hp at 1,000 rpm. A three speed transmission gave speeds of 2.48, 4.06 and 8.88 mph at 1,000 rpm. It must have been quite successful, for ten years later on 11th. January 1939 the owners notified the Drewry Car Co. that they had fitted a 20-hp McLaren LMR2 diesel engine in place of the petrol unit and generally overhauled the car.

The different bore and stroke of these railcar engines compared with that given for the engine of No.1773 (a four-wheel petrol locomotive supplied to Christmas Island by Baguley, see LR No.31, p.5 - Ed.) may confuse someone - Baguley used a lighter, faster engine for railcars unless otherwise requested (it was in fact the Baguley car engine) but almost always used a heavier and more flexible unit for locomotives where brute force was more essential.

ADA VALLEY REPORT (LR No.31, p.23)

Now for a request. Can anyone give me details of the steam winch illustrated on p.23 of LR 31 please ? It looks very much like a product of

John H. Wilson Ltd. of Birkenhead, who built a strange locomotive fitted with a boiler of almost identical design for the Welsh Slate Co. in the 1880's. The winch engine itself looks like a Wilson product, in fact it looks about the same size as the one that has just been used by another member of the Warwickshire Steam Engine Society to power a new 2-ft. gauge steam engine. Wilson specialized in steam cranes, steam and pneumatic winches, and ship's donkey engines, the particular application for which that tall, thin return-tube boiler was designed. Unfortunately the only identification on most of his products appears to have been the maker's name cast around the circular crank discs.

Andrew Lyell writes -

ADA VALLEY REPORT (LR No.31, p.17)

I am enclosing some prints taken on a three day trip in the Powelltown - Ada - Warburton area during the King's Birthday weekend of 1939 which may supplement "Ada Valley Report", and at the same time I would like to comment on some statements therein.

The steam loco which worked in the Ada area was, as you probably know, the 0-4-2 Barclay "Kerr Stuart", but I do not think that it went there until after the 1939 fires, when an effort was made to log fire killed timber as quickly as possible.

The New Federal line was not worked by six-coupled Fordson tractors, but by International/McCormick - Deering units built by Day's Engineering. The Goodwood tractor was also an International.

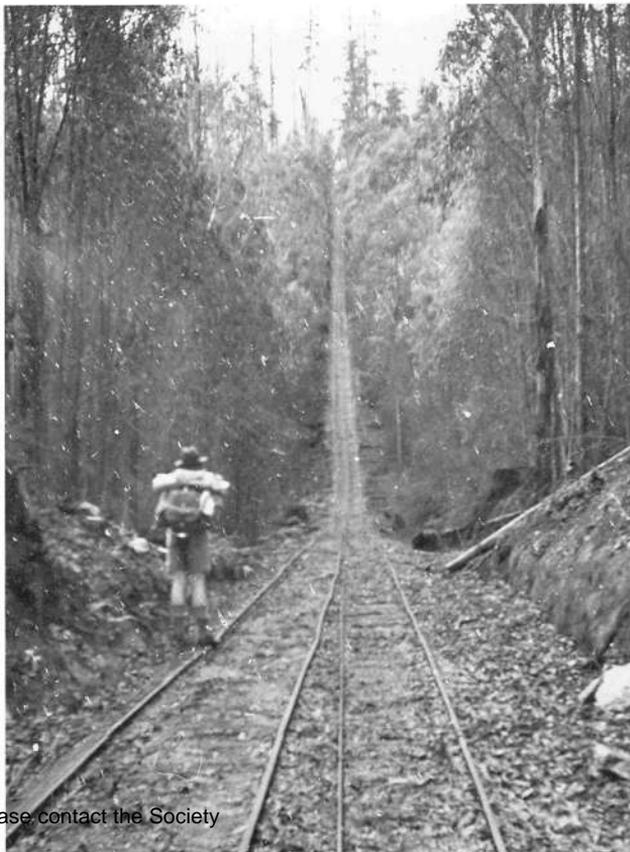
The street tramway type rails shown in one of the pictures also occurred in places on the New Federal line, usually on the outside of curves.

Incidentally, the photo of the tractor (page 21) is taken on the part of the line known as the "one in twelve", allegedly eight miles in length. Before meeting the tractor, we were curious about the tracks of what looked like a two-toed kangaroo in the mud between the sleepers.

After the train passed we found that the tracks were made by a large pinch bar slung from the rear of the last bogie - apparently to act as an automatic sprag in case of loco failure.

Looking north along the High Lead incline from the central passing loop. June 1939.

Photo - Courtesy A. Lyell



Six coupled
International
tractor, New
Federal tramway,
Victoria.
Note "sanding
gear".
June 1939.



New Federal tramway,
Victoria.
The "one in twelve".
June 1939.

Both photographs -
courtesy A.Lyell



Rails (ex cable-tram ?) on Ada side of High Lead, buckled by bushfire. June 1939.

Photograph -
Courtesy A. Lyell.

Richard Schürmann writes -

ADA VALLEY REPORT (LR No.31, p.17)

I have visited the Ada Valley Area on several occasions and there are a few points which I can add to your Ada Valley Report.

There is a bridge on the New Federal line on the sharp curve east of the New Ada line crossing. I have not attempted to count the bridges on this line, and I might be talking about the one that you numbered "17". I am pretty sure that it is on the first sharp bend from the New Ada line crossing. (This probably is bridge No.17 - Ed.)

There is a bridge over a creek immediately east of "The Bump" tunnel. This can easily be found as the path of the tunnel can be traced from the road intersection, by the row of holes where cave-ins have occurred. This bridge is now in poor condition although if my memory serves me correctly, it was intact, except for decking, in 1965. (In "Ada Valley Report" we only attempted to describe the conditions of bridges which had been inspected in 1970. There are, or were, many bridges on the tramways shown as broken lines in our map in LR No.31, p.18, but as these have not been recently seen, we did not report on them at all. If any members would like to give us up to date reports on these areas we will be glad to publish them - Ed.)

In 1966, and possibly 1967 the fire tube from a Cornish boiler and most of the engine, were still at the New Ada site. The brick firebox was almost complete at that stage I think.

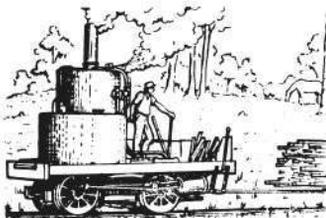
Only once have I fought my way down to the road-bed on the west side of "The Bump", in 1965 I think. I found a short length of rail there. This was fairly heavy, at least 60-lb./yd. I would say - making a mental comparison with the Gembrook line. It is possible that it was used for tunnel shoring and not for track.

I was at the New Ada Mill site on 14th. June 1970 and noticed that a track had been bulldozed into the bush in a north-easterly direction. Men were working there with a block and tackle and a Land Rover. Whether they were Forests Commission men or enthusiasts knocking something off, I don't know.

There is evidence of a telephone line that ran beside the New Federal right-of-way. This was evidently a single wire earth return system. I have an insulator and some of the wire.

I would be interested to hear your attitude to souveniring in the area. I believe that as many items of interest as possible should be removed before the bulldozer gets them. Many enthusiasts believe they should leave items they discover where they are, so that others may have the pleasure of discovering them also. This has been my attitude. Now however, I feel that the area is under threat of destruction, and the situation is different. It is better for an item of interest to be in the hands of an enthusiast, than under six feet of mud where the bulldozer has been. Maybe the LRRSA could announce an official policy on this matter.

(The Council discussed this matter at its August meeting. Its decision is that, wherever possible, relics should be left in situ. However, if as in this case, there is a very real risk of destruction, the appropriate authorities should be consulted at all times to obtain permission to remove items. In obtaining permission to remove relics the Society's name should not be mentioned without the authorization of the Council.)



News, Notes & Comments

NEW SOUTH WALES

South Maitland Railways Pty. Ltd. and Coal & Allied Industries Pty. Ltd.
(4-ft. 8½-in. gauge)

2-8-2T No.10 "Richmond Main" which is based at Hexham for shunting duties, arrived at East Greta workshops on 21st. May, and was shipped on 29th. May for boiler repairs. All Hexham based locos (including the R.O.D. 2-8-0's) are now repaired at East Greta, a policy which has been in force for some two years. These engines are normally transferred over Government metals "dead attached" to non-air coal trains.

S.M.R. No.26 was shipped on 3rd. June for heavy overhaul and re-boiling. No.17 was outshopped the same day and is now in regular service. S.M.R. No.20 worked the Hebburn No.2 Colliery branch on 10th.-11th. June while repairs were carried out on 3013, 4-6-4T. It is quite common for a 2-8-2T to work this branch during such emergencies. The engine placed on loan for such working normally forms a double-header on a main-line train during its transfer to Weston and similarly on its return to East Greta when its services are no longer required.

A working once commonplace on the S.M.R. was revived on 12th. May when No.20 departed East Greta "engine and van attached" to No.31 on a load of empties, i.e. a double-header with a brakevan marshalled between the two engines. In this way the leading engine together with its brakevan can simply be detached at the point where it is to lift its load, in this case Bellbird Colliery, leaving No.31 to continue with its load for Pelton.

(R. Driver).

On Sunday 7th. June S.M.R. worked eight return trips to Hebburn sidings at Weston. Four engines made two return trips each, these were - Nos.10, 31, 30, and 23. At Hebburn 3013 was working, but it only did one trip. On its return run back to the exchange sidings it hauled 80 wagons, two complete trains, weighing 1200 tons. At Hebburn 2013, 2017 and 1 are being stripped prior to scrapping.

All the rails at Cessnock No.2 Colliery have been removed by the scrappers, but they have left 530X, the 0-6-0ST where it was. I am still hoping that this will be preserved.

(J. Sweet).

Tarrawingee Tramway (3-ft. 6-in. gauge)

A recent inspection of this 39 mile long tramway, which ran north from Broken Hill, revealed that most of the formation is still visible, although it seems to have been badly eroded by rare, but severe, flooding. Many of the telegraph poles are still in position, these being of the tapered steel "Siemens" type.

The most obvious remnants of the tramway were reinforced concrete bridge abutments and piers. The line appears to have had many bridges, over usually dry creek beds.

The terminus at Tarrawingee was a little difficult to locate, but in view of the position of various earthworks, concrete foundations, and the mine workings, it would seem that the site of the station yard has been obliterated by the Yanco Glen - Corona road.

The Tarrawingee terminus served an extensive open cut tin mine. The formations of 2-ft. gauge tramways can still be clearly seen around the mine workings. Several cast steel sleepers still remained from the 2-ft. gauge tramway. In a Victorian Parliamentary Report of the 1890's it is stated that two 2-ft. gauge Krauss locomotives were then in use at Tarrawingee. Inspection of the site revealed that many of the tramways would have been too steep for locomotive working. However one tramway ran some distance north of the mine, but on this visit I did not follow it to its end. Today Tarrawingee is completely desolate, the only sign of life on my visit being a solitary kangaroo in one of the open cut mines.

The Royal Australian Survey Corps 1:250,000 map SH 54-15, titled "Broken Hill" shows the formation of this tramway.

(Frank Stamford)

Marsden Museum of Historic Engines, Goulburn (2-ft. gauge)

This museum is centred around the pumping station upstream from Marsden weir on the Wollondilly River, about 1½ miles from Goulburn city. The pumping station contains a beautifully preserved steam pumping engine in a substantially built brick building. Various interesting small exhibits are inside this building, including a number of railway models, and some superb photographs of private railways and tramways in New South Wales. One of the most interesting models is a large scale glass case model of a Shay locomotive.

Outside the pumping station are a variety of large exhibits, including traction engines, agricultural engines, portable steam engines, and some more mod-

ern steam trucks. On the railway side, locomotives include a Fowler 0-4-OT (which has been sold to a collector in Sydney, a Davenport 0-4-OST, a Hudswell Clarke 0-6-0, and a Krauss 0-6-OT; the latter two locomotives having come from the Gin Gin sugar mill, Wallaville, Queensland. About half a mile of track has been laid, and a locomotive is in steam on most days during the summer months, and at weekends at other times of year. Several four-wheel open passenger cars are in use.

This is a very interesting display in an excellent setting, and is highly recommended to all who are interested in steam operated machinery or light railways.

(Frank Stamford)

QUEENSLAND

Fairymead Sugar Mill, Bundaberg (2-ft. gauge)

This mill is now all diesel, as the last two steam locomotives - Perry 0-6-2T's No.20 and 21 - have recently been sold to Qunaba Mill, Bundaberg.

Qunaba Sugar Mill, Bundaberg (2-ft. gauge)

This is now the only 100% steam mill in Queensland, although only two locomotives were in steam on my visit on 29th. July 1970. These were Fowler 0-6-2T B/No.11277, and Perry 0-6-2T B/No.1850. Another Fowler, 0-4-2T B/No.20284, is derelict in pieces. This locomotive was dismantled with the intention of major overhaul and new boiler, various parts being sent away for this purpose. However this overhaul would have cost about \$6,500, a figure which did not appear very attractive when the two Perry 0-6-2T's from Fairymead (Fairymead Nos.20 & 21) became available for about \$6,000 for both, with a spare boiler and other parts thrown in.

Consequently the Fairymead locos were purchased, and the little 0-4-2T relegated to the junk heap. The Fairymead locos were in need of minor repairs, and were not in use at the time of my visit. It appears they will operate this season in Fairymead red and yellow livery, making an interesting contrast with Qunaba's plain yellow.

Qunaba mill's tramways are all short hauls, which do not really justify investing in diesel locomotives, particularly as experience on other sugar tramways has shown that rails must be replaced with dieselization, as the diesels cause serious track deterioration. Many sugar tramways have difficulty in providing good water for steam locomotives, but with its short hauls this is no problem at Qunaba mill, high quality recirculated water from the sugar mill being used.

As at most mills, Qunaba's locomotives are in use 24 hours a day, six days a week, with a break of only about $\frac{3}{4}$ hour between shifts.

Although circumstances at Qunaba favour steam operation, just how long this can continue is doubtful. Crews prepared to work with steam will probably become harder to get, and spare parts may become a problem. In the meantime Qunaba has no intention of purchasing diesels, and despite the short hauls road transport is regarded as an impractical alternative to tramway transport.

With its larger boiler, loco crews prefer the Fowler loco, as it can maintain steam better, and therefore can be worked harder. On the other hand its frames and valve gear are very light, and it constantly requires attention to keep it in good order. The Perry locos have a very simple and rugged valve gear and frames, which require little maintenance. Unfortunately they also have small boilers, so the full advantage of their sound design cannot be utilized.

Millaquin Sugar Mill, Bundaberg. (2-ft. gauge)

This mill is still a stronghold of steam, on my visit on 29th. July 1970, two O-6-2T Bundaberg Fowlers and one O-4-2T Bundaberg Fowler were in steam, with an O-4-2T Perry in the shed on standby. As at Qunaba, the Fowlers were used in preference to the Perry because of their bigger boilers. Millaquin also owns two O-6-ODH Clyde diesels, but steam seems to be favoured here as at Qunaba. (The Millaquin Company owns Qunaba Mill). All locomotives, steam and diesel, are well maintained in bright yellow livery.

Bingera Mill, Bundaberg (2-ft. gauge)

"Ralf" and "Kolan", Bundaberg Fowler O-6-2T's, are still in use as yard shunters here, normally only one loco being in steam at any one time. They are painted dark green and well kept. A Perry O-6-2T named "Perry" is held as standby, this loco being painted black.

Also seen here was a Ruston Hornsby four-wheel diesel and a Simplex four-wheel diesel, both dead. Main line work is performed by five "Com-Eng" O-6-0 diesel hydraulics. (See LR No.27, p.34.)

A. & D. Munro's Perseverance Logging Tramway, Hampton (2-ft. 6-in. gauge)

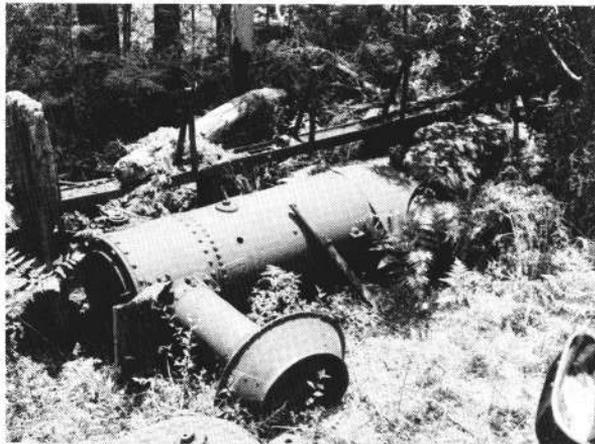
This tramway operated in rugged countryside north-east of Toowoomba, and was worked by two "A" class Shay locomotives, B/Nos.906 of 1904, and 2097 of 1908. It was closed in 1935.

A visit to the timber mill site at Palm Tree, about six miles from Hampton, on 25th. July 1970 revealed that the two Shay locomotives are still there, lying on their sides near the bank of the Perseverance Creek. Their cylinders are missing, but most other parts are spread around in the scrub. All four bogies remain, although only one is still attached to a loco, and most of the wheels are shattered. The water tanks of both engines are lying separated from their locos. Both spark arresting smoke stacks remain, in good condition, but one has been detached from its loco.

The footplates and cabs of both locos are missing, although the latter were of extremely simple construction anyway. Steel and iron work is badly rusted, but the timber buffer beams are in surprisingly good condition.

Also seen at the mill site were the remains of two "Grover" type two-wheel bogies off a timber wagon. The mill manager's house still stands, but only a few stumps mark the site of the timber mill.

(See LR No.18 p.11, and LRRQ Narrow Gauge Review No.2 for further details of this tramway).



(All Qld. items - Frank Stamford, photograph - David Mewes)

TASMANIA

Mount Lyell Mining & Railway Co. (3-ft.6-in. gauge)

Two of the vehicles which operated on this railway are being prepared for permanent display in Queenstown and Zeehan. The red Daimler rail-car passed down to the Company's General Managers since about 1920, is destined to take pride of place in the pioneers' museum at Zeehan.

It will go inside the museum, in a large case, glass panelled on three sides. The rail-car was built for the Company's first General Manager, Robert Carl Sticht. Since closure of the railway it has been stored in Queenstown and then in Dunkley's old engine shed at Zeehan. Vandalism and the collapse of this shed onto the rail-car damaged it, but for the past few months men in the MLM&R Co. workshops have been working to restore the vehicle.

At Queenstown one of the Company's 0-4-2T Abt rack locomotives (No.3) was restored for the March Historical Week celebrations and has been standing in a central car park. Plans are in hand to build a roof over the locomotive, and surround it with an ornamental pool for protection against vandals. The surrounding area will be sown in lawn to make an impressive gateway to Queenstown at the junction of the Murchison Highway from the north-west, and the Lyell Highway from the south.
(The Mercury, 23rd. April 1970, and Wayne Chynoweth)

Australian Newsprint Mills, Maydena. (3-ft.6-in. gauge)

During the ARHS Easter trip to Tasmania we had a chance to see the Australian Newsprint Mills Climax locomotive at Maydena. This is now under a corrugated iron cover which gives it a bit of protection from the weather. The loco is very dirty, but is not in bad shape otherwise, and it would not take much work to restore it as a static display.

Measurements of the cylinders give a 10-in. bore and 12-in. stroke - this would make it a 30-ton loco. These figures could be added to the tabulation of Climax locomotives in Australia in LR No.24. It is to be hoped that some positive approach will be made to preserving this loco, it is too interesting to be left out in the Tasmanian bush.

(W. Pearce)

VICTORIA

Geelong Steam Preservation Society, Belmont Common (3-ft. 6-in. gauge)

At the present time we still have only the 0-4-2ST Hudswell Clarke No.6 providing Sunday services; No.4 0-6-OST Vulcan still being less fittings, but now being painted in a red and black livery.

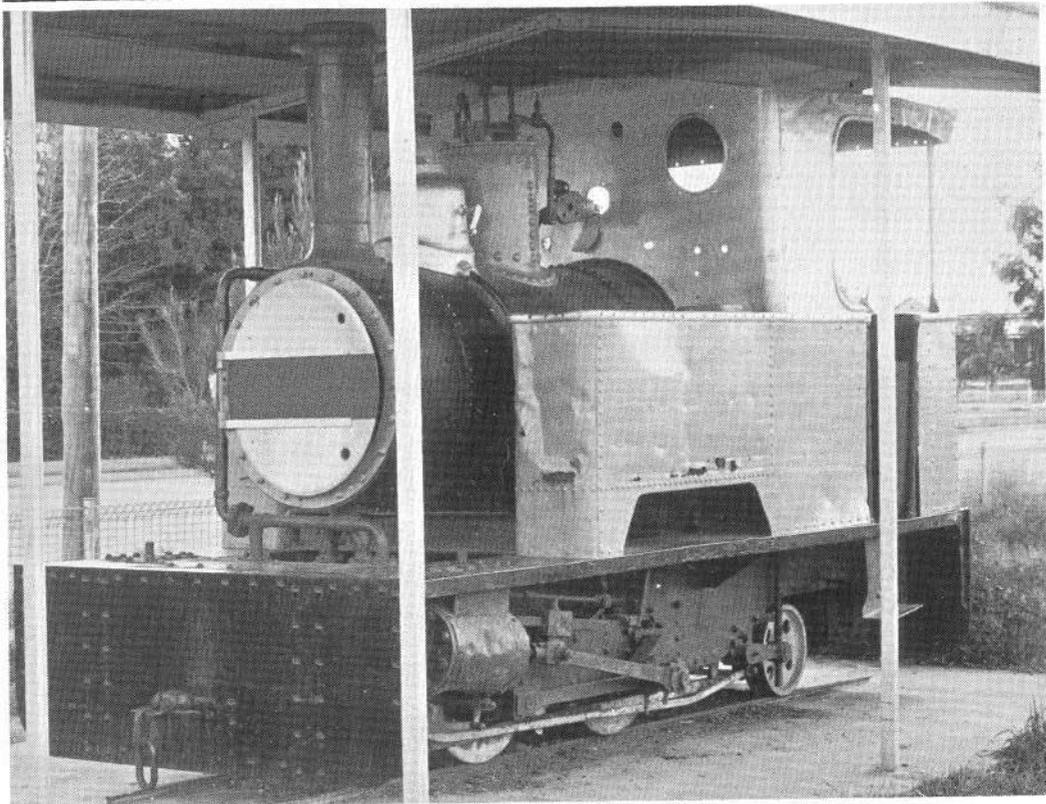
Work has begun on painting the quarryman's coach. A raised platform is being built for the entraining of passengers. Work has recommenced on the embankment over the swamp, having been delayed for several months by high water problems. We have resorted to moving the vast amount of earth required by hand. Rail is being put in at the opposite end of the swamp, and a work trolley is on the site.

We have a quantity of dual 3½-in. and 5-in. gauge live steam track, and it is intended to lay this as soon as possible. Owners of locomotives of these gauges will be invited to make use of this track after it has been assembled. The Society has been negotiating for some time with the South Australian Railways for the purchase of one or two "T" class 4-8-0's (Nos.251 and 200), three second-class "Short Tom" passenger carriages, two composite brake vans, and "Vision Testing Car" No. 84. Queensland Railways have temporarily reserved for us PB15 class 4-6-0 No.454.

For this equipment we require about \$10,000, to be collected in a very short time, and for this reason we are appealing for funds.

(David Beck, Promotions Officer, GSPS).

State Rivers & Water Supply Commission, Redcliffs. (LR No.28, p.17)



Illustrated above is 2-ft. gauge Kerr Stuart 0-4-2T, B/No.742 of 1901, preserved in the town of Redcliffs in a children's playground. July 1970.

WESTERN AUSTRALIA

Bunning Bros. Pty. Ltd., Donnelly River Mill Line (3-ft.6-in. gauge)

This 14 mile long timber tramway was described in LR No.26, p.20. The locomotive (2-6-0 Beyer Peacock B/No.2913 of 1888) dropped a fusible plug sometime during March when the regular driver was on holiday. It was severely damaged. The locomotive was hauled out by a shunting diesel from Manjimup. It was checked to see if it could be economically repaired but apparently this was not possible, as the line was being pulled up during June.

This means that there is now only one privately owned steam locomotive working in Western Australia - at Yarloop, Millar's Timber & Trading Co. This is the last of a long line of steam locomotives to be employed by the timber industry in Australia.

(W. Jessup and Editor)

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