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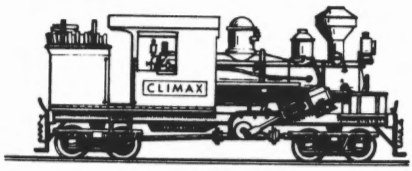

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Editorial

With this issue of *Light Railways* we again provide material covering a range of topics and locations. The main emphasis, both in the articles by John Browning and Ray Ellis and the 'Letters' columns, is on locomotive history. This no doubt reflects the popularity of this subject among Society members. A wider theme is provided by Martin Rogers in his account of the rise and fall of the Vancouver-Fiji Sugar Company. This article was prepared for our special issue on Fiji tramways, but due to space limitations, it had to be held over.

We continue to receive good support in material for *Light Railways*. It is planned that forthcoming issues will cover the Tarrawingee tramway, the Erica District in Victoria, and Papua New Guinea tramways.

Cover: Vancouver-Fiji Sugar Coy locomotive No. 5. This locomotive was purchased new from the Baldwin Locomotive Works in 1910 (B/N 35401). See story page 12.
BC Sugar Archives

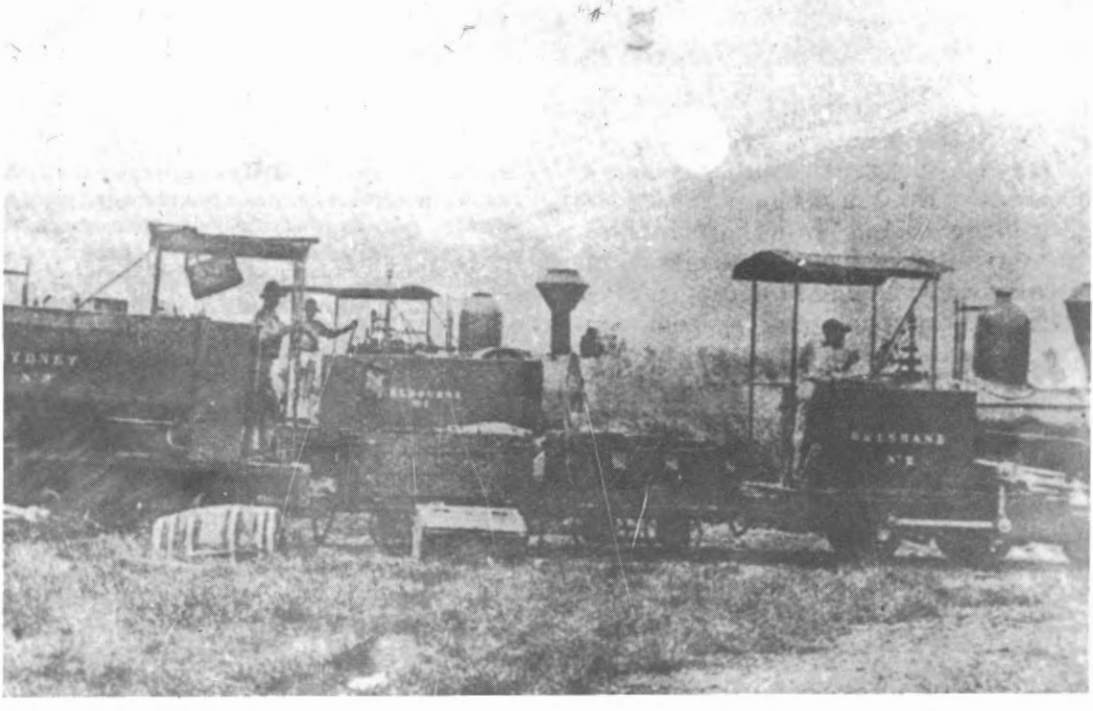
VICTORIA MILL'S FIRST LOCOMOTIVES

by John Browning

One of the most difficult problems facing the student of Light Railways in Australia is the lack of knowledge about early John Fowler locomotives. There are no comprehensive records available for builder's numbers before 7076 of 1893. There is some material on earlier locomotives in the Fowler Collection in the Museum of English Rural Life at Reading University, but much of it is fragmentary and inconclusive. The efforts of researchers in Britain, including Richard Horne, have yielded many interesting results, but there are still gaps. This particularly affects our knowledge of the early days of the Colonial Sugar Refining Co.'s sugar mills in Queensland, especially Victoria (first crushed 1883) and Goondi (1885), which had (and have) 2ft gauge tramways.

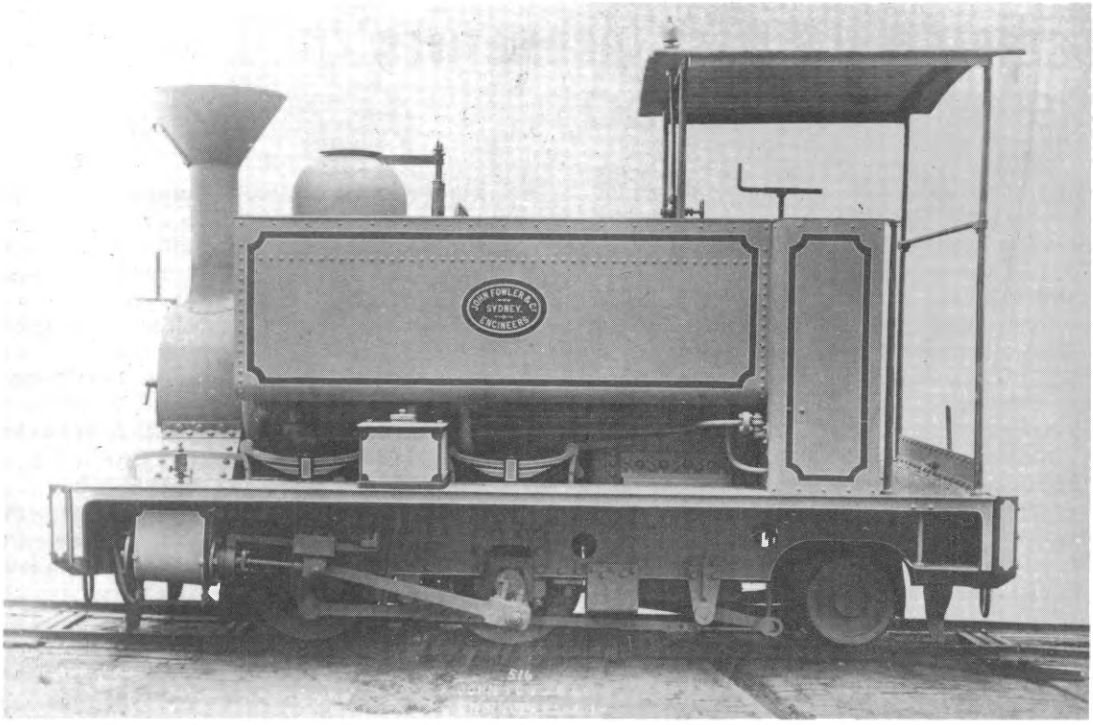
Three early Fowler locomotives are shown in the accompanying photograph from the George Bord Collection. The wheel arrangement of the centre loco, *MELBOURNE No. 1,* cannot be seen. *BRISBANE No. 2* on the right appears to be a 2-4-0T (well tank ?) with jackshaft drive. On the left is *SYDNEY No. 3*, apparently on 0-4-2ST. Both *BRISBANE* and *SYDNEY* can be seen to have four-wheeled wooden tenders.

SYDNEY is believed to have been John Fowler 4788 of 1882, which was sent by CSR to Fiji in 1893 for the construction of Labasa Mill. In Fiji, it was known as *JOHN O'GAUNT*, and on withdrawal in 1930, its chassis became the basis of a tender for a Fowler 0-6-2T and in this form it is preserved at Labasa Mill.



Three John Fowler locomotives at Victoria Mill: Sydney (left); Melbourne (centre) and Brisbane (right).

George Bond Collection



John Fowler 0-4-2ST built about 1883. Museum of English Rural Life, University of Reading. Courtesy Richard Horne

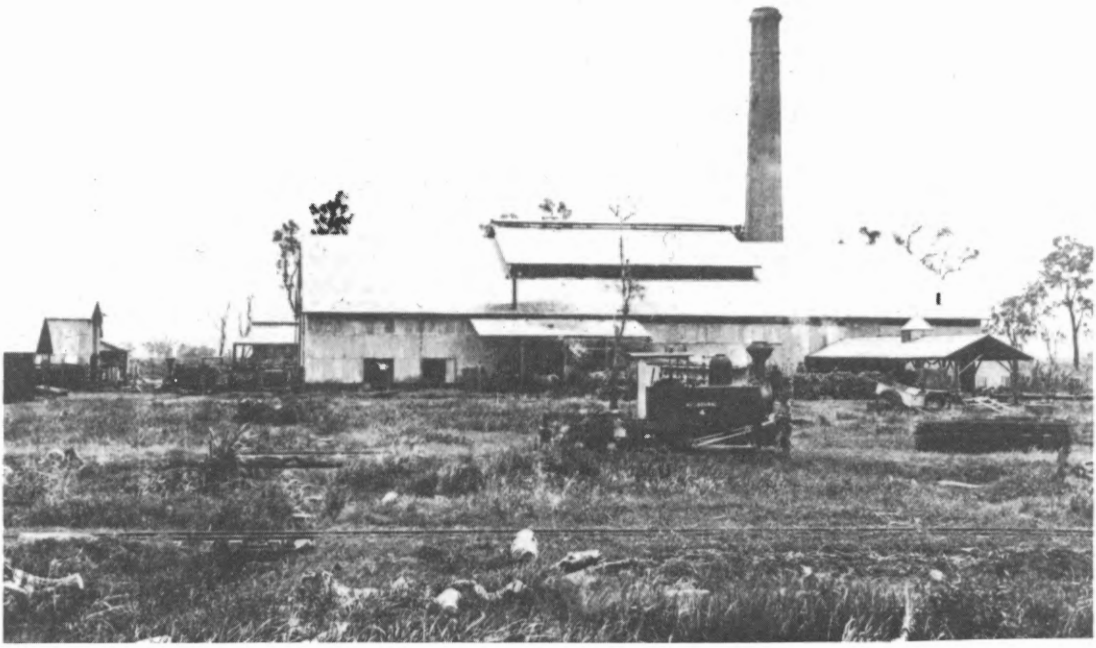
The Fowler builder's photograph shown here is of a locomotive built in about 1883 which could be *SYDNEY*. A similar locomotive, John Fowler 4020 of 1880 was built to 2ft 6in gauge and supplied to R. Blackwood, Sydney for Brooks & Co. (Blackwoods were agents and importers and Brooks ironmongers). This locomotive later worked at Prospect Reservoir and Potts Hill.

BRISBANE is alleged to have been John Fowler 4680 of 1882, scrapped in about 1910. I am not sure where this claim originated and can provide no confirmation of it. Neither have I seen any other photos of this loco.

MELBOURNE appears at the mill numbered 4 in the CSR photograph. Attached to a wooden tender, it is an 0-4-0T and appears to be the same locomotive which appears in the earlier photo as *MELBOURNE No. 1*. This immediately raises the question if it was renumbered 4, or whether it was originally numbered 4 and later became No. 1. The latter possibility seems more logical, but also implies an earlier loco numbered 1. It has been claimed that *MELBOURNE* was Fowler 5164 of 1885, but research at Reading shows that this number in fact belonged to a ploughing engine. It is thought possible that the locomotive was later reboilered and that it was transferred to Macknade Mill (purchased by CSR in 1897). Another report, from an old locomotive driver, is that "the first *MELBOURNE*" was out of use at Victoria Mill in 1917. *SYDNEY* is also in this photo (left background) and close examination with a magnifying glass of a large print supplied by CSR shows it may have been carrying a number 3 similar to the 4 carried by *MELBOURNE*.

South Pacific Enterprise, CSR's official history states that in 1886, Victoria had four locomotives. However *The Week* of February 9, 1889, states that the mill had three locomotives. Assuming these accounts are correct, one might speculate that the first number 1 had proved to be unsuitable, or had been sent to Goondi Mill, where crushing began in 1885.

Lastly, in Jesse C. Conde's book *Sugar Trains* published in the USA, there appears the statement that two small John Fowler locomotives were sent



An early photo of Victoria Mill showing 0-4-2ST Sydney and 0-4-0T Melbourne. CSR Ltd

from the Spreckelsville Mill of the Hawaiian Commercial & Sugar Company to Victoria Mill in November 1883. These are said to have been Fowler 4181 and 4184 of 1881, 2-4-0T locomotives which had a cylinder diameter of 4½in and 5½in respectively. Unfortunately, no evidence of these locomotives has emerged on this side of the Pacific as far as I am aware.

Perhaps readers may be able to supply information about these early Victoria Mill locomotives.

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South Pacific Enterprise: Lowndes, AC (ed). Sydney, CSR Ltd., 1956.

Balloon Stacks and Sugar Cane: Peter Dyer and Peter Hodge, Wellington, NZ Railway and Loco. Soc., 1961.

Sugar Trains: Jess C. Conde.

Acknowledgements

George Bond, Richard Horne (and through them, Bruce Macdonald), Frank Jux, David Mewes, Keith McDonald, David Bailey and Bob McKillop.

THE 'SANDFLY' SAGA - SOME NOTES ON THE TASMANIAN LOCOMOTIVES

by R.F. Ellis

John Buckland's interesting article on the Baldwin 0-4-0STs in *LR 65* is the result of John's long interest in these little locos and does help to clear up some of the mysteries surrounding "members of the tribe".

There still seems to be some confusion surrounding two of the locomotives which went to Tasmania, and three other engines which were extant in Tasmania at the same time, namely *Malvolio, Carbine* and *Rattletrap,* all of which are also mentioned in LR 65. My interest in these locomotives stems from some research I have been doing into the North Mount Lyell Railway and records that I have viewed in both Tasmania and Victoria confirm that a locomotive by the Mount Lyell Railway, named *Malvolio,* was used by the Mount Lyell Coy on the North Mount Lyell Railway after the 1903 merger of the two companies, and that this loco undoubtedly remained there until the end of the North Mount Lyell in 1928.

The list shown herewith is what I surmise to be the history of two of the Baldwin 0-4-0STs, a Hunslet 4-4-0 and Sharp Stewart 0-6-0T.

0-4-0ST Baldwin 7108 1884 New to Melbourne Harbour Trust, Vic., their MHT No. 1, through Newell & Co. Used on reclamation work at Port Melbourne, 1884 to c. 1889. 1

Sold to Smith, Jones & Finlayson, contractors, Tas., c.1889. Used on Devonport-Ulverstone line construction, c.1889 to 1891. 2a

Sold to Leslie & Rosswhich, contractors, Tas., 1891. Arrived at Strahan, 7/11/1891 bearing name *Malvolio.* Used on Zeehan-Dundas Railway construction, 1891 to 4/1892. 2 b c

Stored at Zeehan, 4/1892 to 11/1894. 3

Sold to Garnsworthy & Smith, contractors, Tas., 11/1894, presumably retaining name *Malvolio.* Used on Teepookana-Dubbil Barrel section construction, Mt. Lyell Railway, 11/1894 to 9/1895 4 5

Sold or hired to Mt. Lyell Mining Co. for Dubbil Barrel-Queenstown section construction, 9/1895 to 6/1896 then stored at Queenstown. 6

Sold to Tasmanian Government Railways, their *Baldwin,* some time after 7/1896, and used at Zeehan, 1896-1902. 7

Sold to Tasmanian Hardwood Timber Co., Hopetoun Tramway, Port Esperence, 1902. 1

This company taken-over by Huon Timber Co., 1912 8

Locomotive reboilered in 1913 with boiler from Cowley's Eureka Ironworks, Ballarat Vic. 9

Transferred by Huon Timber Co. to their Blackman Bay Tramway, c.1922 where it worked until tramway closed in 1938, when locomotive placed out of use. 10

Boiler removed and last inspected at C.H. Walsh's Electroplating Works, Devonport, 1963 11

Frame and wheels sold to F. Jaeger & Sons, Welcome Swamp, Tas., some time after 1938 where it was used to build internal combustion loco. It is uncertain whether boiler remained with frame/wheels when sold to Jaeger and he removed it, or whether it was removed at Blackman's Bay. 11

0-4-0ST	Baldwin	7556	1885	New to Newell & Co., Melbourne, Vic., on consignment for Government of Victoria.	1
				Hired by Newell & Co. to Melbourne Harbour Trust, 1885 to c.1890	1
				Sold to T.A. Reynolds, contractor, Tas., c.1890, their *Carbine*	12
				Used on construction of Strahan-Zeehan section, TGR, 1890-late 1891 (this section opened 4/2/1892)	1 &
				Sold to contractor for Melbourne & Metropolitan Board of Works, Werribee Sewerage project, 1892 worked here until 1895, although project overall not completed until 1896.	1
				Sold to James McEwan & Co., hardware merchants, Melbourne, 1895, and hired to Sorrento Tramway Co. from 1895 to late 1897.	1
				Overhauled through agency of Austral Otis Engineering Co., South Melbourne, and returned to Sorrento Tramway in 2/1897	1
				Sold to D. Sanderson, timber getter, Noonday Creek timber mill, near Forrest, Vic., c.1905, *Black Angel*	14
				This operation became Sanderson & Grant, 1907. Loco used for about five years, but after 1910-1911 saw little use.	
				Sold to Tasmanian Public Works Dept., Marrawah Tramway, their *Fantail,* 8/1914	15
				By March 1918 loco relegated to shunting due to boiler condition	1
				Out of use August 1920 in pieces. Completely overhauled and reboilered by Salisbury's Foundry, Launceston, 1921.	1
				Taken over by Tasmanian Government Railways in 9/1929 when they took over Marrawah Tramway from PWD.	1
				Written off 1946-1947.	1
				Sold to F. Jaeger & Sons, Salmon River, where frame and wheels used to build internal combustion locomotive	1
0-6-0T	Sharp Stewart	2030	1869	Built new as 0-4-0ST to 4 ft 6 in gauge for Mersey & Deloraine Tramway Co., Tasmania	16
				Tramway opened 1/1872, but loco withdrawn after only 4 months service in 5/1872	17
				Purchased by Tasmanian Government Railways (along with tmy.), 1884 and converted to 0-6-0T at TGR Launceston Shops, 1884. Numbered 6B	18
				Sold to Boland & Scott, contractors, 1888	18
				Repurchased by Tasmanian Government Railways, their No. 6B, 1889	18
				Sold to Mt. Lyell Mining & Railway Co., their No. 2, *Malvolio,* 1896	19 a b
				Transferred by Mt. Lyell Mining & Railway Co. to North Mount Lyell Railway, 1903, when MLMR took over NMLR line. North Mt. Lyell line finally closed 1928 and loco believed scr. soon after	19 b c 19 c
4-4-0	Hunslet	112	1873	Built new as 4-6-0T for Tasmanian Main Line Co., their No. 2	20
				Rebuilt to 4-4-0 tender engine, Launceston Shops, TMLR, late 1870s	20
				Sold to T. A. Reynolds & Co., contractors, early 1890, their *Rattletrap*	20
				Used on construction of Strahan-Zeehan section, TGR, 1890-1891	20
				Stored out of use at Zeehan following completion of contract, 1891-1897	20
				Sold to Tasmanian Government Railways, their No. E5, 1897	20
				Loco remained on west coast being used on TGR Strahan-Zeehan line	
				Reclassified E+ in 1907	20
				Returned to main TGR system from west coast, 1909-1910	20
				Sold out of service 1913-14, to Wm. Reynolds, Hobart, presumably for scrap or stationary boiler use.	20

1 J.L. Buckland in *LR 65*

2 a Use of loco on Devonport-Ulverstone line construction confirmed by report concerning construction loco owned by contractors for Zeehan-Dundas Rly. construction, Leslie & Rosswhich, which info conveyed to J L Buckland in letter from C.W. Chynoweth, Nth. Hobart, regarding Tas. West Coast research.

b Arrival of Strahan, 7/11/1891 per SS *Nowra,* J L Buckland, LR 65, presumably based on report in Zeehan & Dundas Herald.

c Name *Malvolio* confirmed by Zeehan & Dundas Herald, 2/1895.

3. Stored at Zeehan, RFE. This would seem the logical place for the loco to be stored after completion of the Zeehan-Dundas contract.

4 J.L. Buckland in LR 65. Confirmed by *Peaks of Lyell,* p. 72, Geoffrey Blainey, who states "In November (1894) Garnsworthy & Smith, Melbourne contractors, began the hazardous 4½ mile stretch from Teepookana to Dubbil Barrel, completing it in eleven months."

5 Completion date 9/1895, see *Peaks of Lyell,* p.72, Geoffrey Blainey, extract quoted above in 4.

6 J.L. Buckland in *LR 65* states "on completion of Mt. Lyell Rly. construction in December 1895, *Malvolio* (i.e. B/No. 7108) remained there (Queenstown)....."
Peaks of Lyell, p.72, Geoffrey Blainey, states that after completion of Teepookana-Dubbil Barrel section, Mt. Lyell Rly., 9/1895 (which see 4 and 5 above), "As tenders for building the remainder of the railway were too high and as the pace of construction was too slow, the company, (i.e. Mt. Lyell) appointed E. Carus Driffield as railway engineer .... Driffield rushed through the last ten miles in ten months, employing day labour". This confirms that this section was built by Mt. Lyell Company itself. J.L. Buckland says loco stored at Queenstown, so

The King River bridge on the Mt. Lyell Railway, probably taken in 1895 and shows the bridge under construction. Just visible is 0-4-0ST Malvolio (Baldwin 7108/1884) which was working on railway construction duties at the time. The river appears to be in full flood.
C.B. Thomas Colln. from J.L. Buckland colln

presumably for it to have reached there, it must have been loaned or hired to Mt. Lyell Co.
Peaks of Lyell, p.76, Geoffrey Blainey, confirms construction finally completed on Dubbil Barrel-Queenstown section in July 1896.

7 J.L. Buckland in LR 65, based on report History of Locomotives, Tasmanian Transport Commission, Railway Branch, Locomotive Historical Data Sheet No. 1, 1947.

8 J.L. Buckland in LR 65 does not give date; from RFE files, source unknown, but probably LR.

9 J.L. Buckland in LR 65 confirmed by D. Beck in LR 52, p.6, which states "It had been reboilered by Cowley in 1913" confirmed by Dept. of Labour & Industry boiler records, Hobart. That this is Cowley's in Ballarat seems most logical.

10 D. Beck in LR 52 states Blackman Bay timber mill opened about 1919 and tramway opened some two or three years after timber mill opened. LR 52 contains photo confirming use of Baldwin at Blackman Bay.

11 J.L. Buckland in LR 65 and D. Beck in LR 52.

12 J.L. Buckland in LR 65 says *Carbine* is B/No. 7108, but as this 7108 did not arrive at Strahan until 7/11/1891, see 2 b above, unlikely that it was the loco named *Carbine.*

13 Strahan-Zeehan section, TGR, opened 4/2/1892, see L.B. Manny, *ARHS Bulletin 312,* October 1963, *Railways of the Zeehan District*

14 J.L. Buckland in LR 65, which confirmed by LRRSA *Tall Timbers & Tramlines,* p.30, and N. Houghton in *Sawdust & Steam,* p.42-43
Houghton refers to the engine as *Black Angel;* there is no mention of name *Black Eagle.*

15 J.L. Buckland in LR 65; presumably date of sale to Dept. of Public Works, Marrawah is confirmed by PWD records as Houghton in *Sawdust & Steam* gives date as 1915.

16 Information confirmed by ltr. to RFE from Mitchell Library, Glasgow, 31/5/1978, holders of North British Loco. Co. records, who took over Sharp Stewart in 1903.
Other details were 9½" x 15" cylinders, 2'6" diam. driving wheels.
Mitchell Library advise that B/No. 2070 of Sharp Stewart, which is sometimes quoted as alternative B/No. for this loco was in actual fact part of a batch of 2-4-0 tender engines built by Sharp Stewart for the Great Eastern Railway, England.

17 *Century of Steam,* Zig Zag Press, "A pictorial account of centennial steam operation on the railways of northern Tasmania".

18 Tasmanian Government Railways - Locomotive Roster, published as supplement to ARHS Bulletin 243, 1/1958.

19 a Date of sale/name - Tasmanian Govt. Rlys. - Loco. Roster, published as supplement to ARHS Bulletin 243, 1/1958.
Possibly loco was purchased for use on company's construction of Dubbil Barrel-Queenstown section of Mt. Lyell Railway, using day labour - see 6. previous page.

b Details that loco named *Malvolio* was owned by Mt. Lyell Co. and was sent to North Mt. Lyell Railway contained in following:
Report on North Lyell Railway, 15/6/1903, p.10, from Superintending Engineer (signature indecipherable) to General Manager, Mt. Lyell Mining & Railway Co., Queenstown: "The Basin gang (referring to the p.w. gang stationed at Kelly Basin, NMLR) would operate on 17 miles of line, and would require a light locomotive for daily use, which could be well served by our light locomotive, *Malvolio.* Original in Tas. State Archives, Hbt.
Letter from Robt. Sticht, General Manager, Mt. Lyell Mining & Rly. Co., Queenstown, to Secretary, M.L.M.R.Co., Head Office, Melbouirne, dated 4/9/1903:
p.2 - *Malvolio* - this engine is now being fitted with vacuum ejector. It has been decided to take her to Kelly Basin, as she is much more useful and economical, i.e. handy, than the present locos there, and far better suited for emergency work, which it appears has to be looked into carefully on that Line.
p. 3 - *Malvolio* - This light tank engine, as mentioned above, is being sent to Kelly Basin with a view to using it on maintenance of the Line and the removal of slips and falls-out.
Letter from Robt. Sticht, G.M., M.L.M.R. Co., Queenstown, to Secretary, M.L.M.R. Co., Melbourne, dated 19/3/1909:
p.5 - (referring to Nth. Mt. Lyell line) "Mr. Green, Machinery Inspector, paid his periodical visit during the week, and inspected the boilers of Nos. 2 and 3 Avonside Locos,

The King River Bridge on the Mt. Lyell Railway soon after the bridge had been completed, and probably taken late in 1895 or early 1896. Note the pile driver beside the bridge in the foreground, and the camp of the bridge construction gang behind. The 0-4-0ST Malvolio (Baldwin 7108/1884) is seen pushing two trolleys loaded with rail across the newly completed bridge.
C.B. Thomas Colln. from J.L. Buckland colln.

Malvolio, and the Wharf Crane."
Originals of both letters held in University of Melbourne Archives.

c Closure date of North Mt. Lyell Railway, *Peaks of Lyell,* p.267, Geoffrey Blainey. There is no evidence in Nth. Mt. Lyell/Mt. Lyell files held in Tasmanian State Archives, Hobart, or University of Melbourne Archives, to suggest that *Malvolio* was taken across the Gormanston Gap to Queenstown, and it would seem reasonable to assume it was scrapped at Linda some time after 1928. In view of its suitability, it would seem likely it was used on the dismantling train.

20 "Locomotives of the Tasmanian Main Line Railway Company", P.C. James and H.J.W. Stokes, *ARHS Bulletin 327*, 1/1965.

It would appear there were TWO locos named *Malvolio*!! There is no doubt that Baldwin 7108 was named thus as confirmed by the Zeeham & Dundas Herald report of February 1895, and company records of the Mt. Lyell confirm they also had a loco named *Malvolio.*

There is no evidence to suggest that the Mount Lyell Coy owned the Baldwin 0-4-0ST which was observed at Queenstown - it is not known exactly what it was doing there and one can only assume that it was used for construction work on loan or hire.

Mount Lyell had two 0-6-0Ts which are a bit of a mystery. These were their Nos. 1 and 2. The first of these was Hudswell Clarke 271/1884. TGR 7B, presumably bought in 1896 and probably used on the Mount Lyell construction. This locomotive was originally purchased by the TGR to work the 3 ft 6 in gauge Parattah - Oatlands branch and the number is confirmed by both the builder's photo and records. The suffix "B" was used to distinguish it from the Launceston & Western Rly. broad gauge locos which Nos. A1-A5 (and not 1A-5A as is sometimes reported), the "A" and "B" presumably distinguishing between broad and narrow gauge locomotives at the time. There is some evidence to suggest that this locomotive carried the name *Carbine* whilst on the Mount Lyell Railway.

The second Mount Lyell 0-6-0T is covered in the list. It should be mentioned that there is no firm evidence to suggest that this was an 0-6-0T after conversion, or that it was numbered 6B, although the number does seem logical taking into account the numbering system mentioned above. The rebuilding was obviously of a major nature if it was latterly an 0-6-0T, and one wonders how much of the original loco, other than possibly the boiler, cab and cylinders, were used to 'make up' this locomotive. This engine was also named *Malvolio,* but why did Mount Lyell name their loco *Malvolio*?

We know that Malvolio was the horse that won the Melbourne Cup in 1891, but was there something else significant about it? Could it have been owned by somebody who had West Coast connections, say one of the mine managers, etc., and was thus heavily backed in the Cup and probably resulting in some people making small fortunes! It should be remembered that there was a close connection between Melbourne and the West Coast of Tasmania during the mining boom, and a number of mining companies, including the Mt. Lyell and North Mt. Lyell, had their Head Offices in Melbourne. Shipping services of the day, particularly the Union Steam Ship Co. of New Zealand, seemed to pay more attention to the Melbourne run than to a Hobart run. In fact Hobart seems to have been largely left out in the cold in this period and must surely have been rather jealous of Melbourne's power and influence in its own State!

Mount Lyell Railways's Nos. 1 and 2 feature in some photos. At least one 0-6-0T does anyway. For example, the bottom photo on p. 39 and the top photo on P.46 of Ron Aubrey's *A Pictorial History of the Railways & Tramways of Western Tasmania* show what would appear to be the same engine. The one on p. 39 was obviously taken during construction and ties in nicely with a Construction Photo Album held in the Melbourne University Archives, whilst that on p. 46 shows what looks like a numberplate on the cabside, though it is too short to be a nameplate for either *Carbine* or *Malvolio* unless the lettering was very small. In Eric Thomas's excellent photo museum at Queenstown there is a good photo of what is reputed to be the first train in Queenstown - 18th July 1896 (Blainey, *Peaks of Lyell*, p.76) - hauled by an 0-6-0T, but which loco it is would be pure speculation without much closer examination of the photo in question, which regrettably was not possible at the time of the author's visit.

In closing, I would query whether Jaeger purchased the remains of both 7108 AND 7556, although they were supposedly used at different locations. Maybe our Tasmanian members could elucidate further on this matter.

I would like to thank John Buckland (for his forebearance with this matter) and Jim Stokes, who provided some confirming facts.

Ruston Hornsby 3-cylinder diesel locomotive on display train at Condong Sugar mill, Murwillumbah, NSW, March 1980.

Dr John Kramer

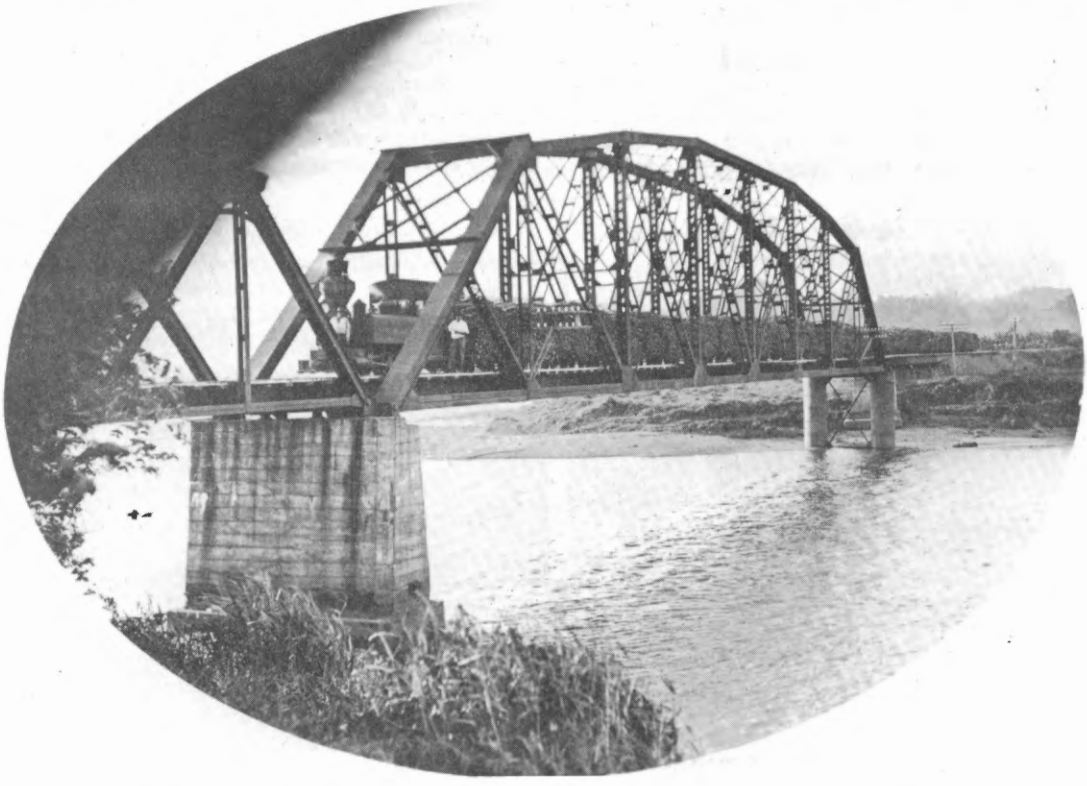
THE VANCOUVER-FIJI SUGAR COMPANY LIMITED

by Martin A. Rogers, Curator, BC Sugar Museum, Vancouver

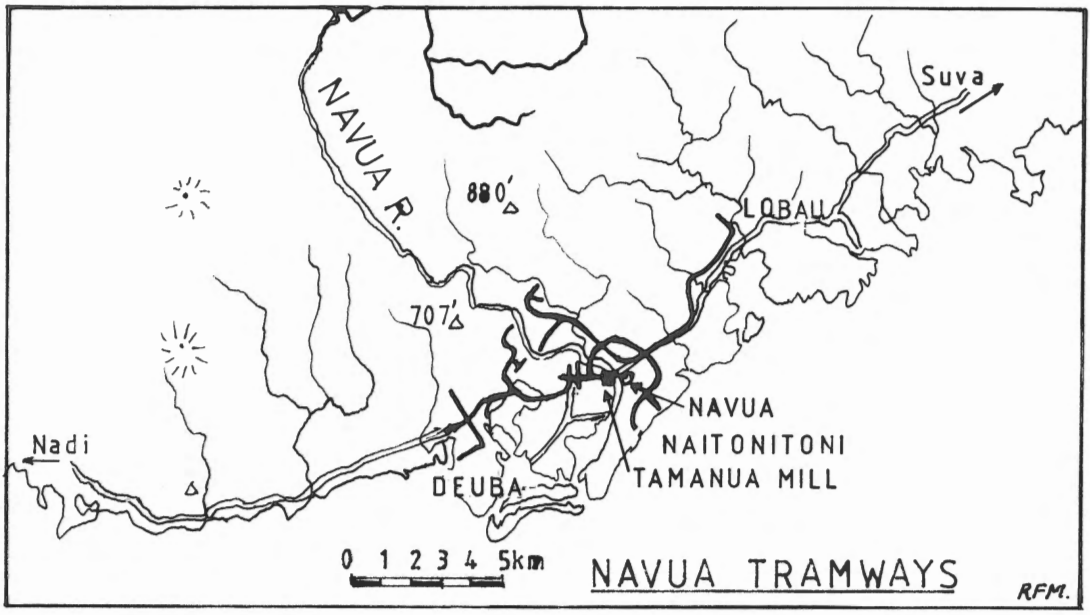
Most of the railway history of Fiji centres on the activities of the Colonial Sugar Refining Company and the various mills that it operated. CSR however, was not the only company to operate mills in Fiji; there were a number of other small mills. Since 1893, the recently formed British Columbia Sugar Refining Company (BC Sugar) in Vancouver, Canada, had purchased much of its raw sugar from Fiji. In 1905, in an attempt to obviate some of the speculation involved in raw sugar purchases, and in order to ensure a reliable supply, BC Sugar decided to acquire and operate its own mill.

About 20 miles west of Suva on the south coast of Viti Levu was the small Murray's Mill, owned by the Fiji Sugar Company Limited. The mill equipment had been purchased from the Mirrlees Watson Company of Glasgow and erected by Stanlake Lee & Company in 1884. Murray's Mill started operations the following year. With the exception of resident manager, Mr. Murray, the shareholders of the Fiji Sugar Company were residents of Bristol, England. The mill was capable of producing about 25 tons of sugar per day. By 1905 the mill's tramway comprised three Decauville locomotives and 393 iron cane trucks. There were 6¾ miles of main line with 24-pound rail and four miles of light line with 14-pound rail, the light line using animals for traction. In addition, there were 7¾ miles of portable 14-pound rail.

In 1905, the BC Sugar Refining Company



Locomotive No. 5 on the 'One Shilling Bridge' circa 1911. BC Sugar Archives



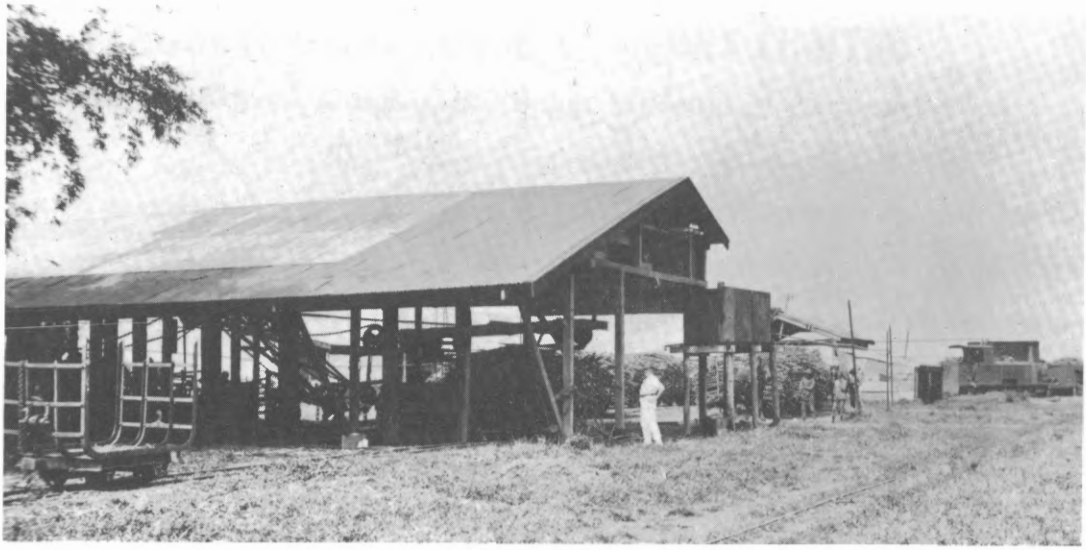
purchased the Fiji Sugar Company properties and established the Vancouver Fiji Sugar Company. Mr. B.T. Rogers, president of BC Sugar, asked the Mirrlees Watson Company to design a new mill and supply the necessary equipment. Mirrlees Watson acquired a fourth locomotive for the mill in 1906; at the same time, a large bridge supplied by U.S. Steel was built across the Navua River in order to facilitate the supply of cane to the mill.

BC Sugar's original plan was to extend the tramway to a port and proposed warehouse at Naitonitoni. This plan, however, was eventually shelved. Instead, lighters were loaded into hulks for trans-shipment to steamers. A fifth locomotive was added to the tramway in 1910, this being the only Philadelphia Baldwin ever to go to Fiji.

The Vancouver-Fiji Sugar mill was not a success. Grown on the "wet" side of Fiji, the cane did not have a sufficient ripening time; consequently its sugar content was much lower than that of other Fijian cane crops. When the world sugar prices crashed in 1922, Mr. Rogers decided to liquidate the mill. The machinery was advertised for sale in the July, 1922 issue of the *Australian Sugar*

Vancouver-Fiji Sugar Company - Locomotive Roster

No.	Builder	Builder Number	Year	Type	Remarks
1	Decauville	?	?	?	Details unknown. Possible ex-Sharpe Fletcher & Co., Vuni Noko Noko; scrapped prior to 1922.
2	Decauville	38	1883	0-4-0T	ex-Deuba Sugar Estate. To Jack Brady, Qld. 1923; then to Gin Gin Central Mill; Scrapped 1958.
3	Decauville	399	1904	0-4-0T	Built for Fiji Sugar Co.; to Jack Brady, Qld. 1923; buried 1937.
4	W.G. Bagnall Ltd	1825	1906	0-6-0T	For Vancouver-Fiji Sugar Co. via Mirrlees Watson Ltd (Job No. 2835); disposition unknown.
5	Baldwin Loco	35401	1910	0-6-0T	Obtained via BC Sugar Refining Co., Vancouver; disposition unknown.



The cane car dump at the Tamanua mill. The locomotive in the background is thought to be No. 4.

BC Sugar Archives

Journal. At this time there were four locomotives, 650 cane trucks, eight miles of portable railway and 900 tons of rails.

Locomotives 2 and 3 were sold to Mr. Jack Brady, second-hand machinery dealer in Queensland. Number 2 went to the Gin Gin Central Mill and was finally scrapped in 1958. No one wanted Number 3; she was tipped into a ditch and buried in 1937. Another locomotive, number unknown, stood rusting by the road at Navua for many years. She was removed, probably by a scrap dealer, in the '50s.

The Vancouver-Fiji Sugar mill property was sold to the Fiji Pastoral Company, which operated a dairy in the remains of the mill building for many years. The steel railway bridge was a problem. Eventually BC Sugar decided to give it to the colony for use in the local road system. Owing to a legal complication regarding gifts to the colonial government, however, it was necessary to sell the bridge for one shilling. Until its collapse in a hurricane, a few years ago, "One Shilling Bridge" was the only surviving relic of the Navua tramway system.

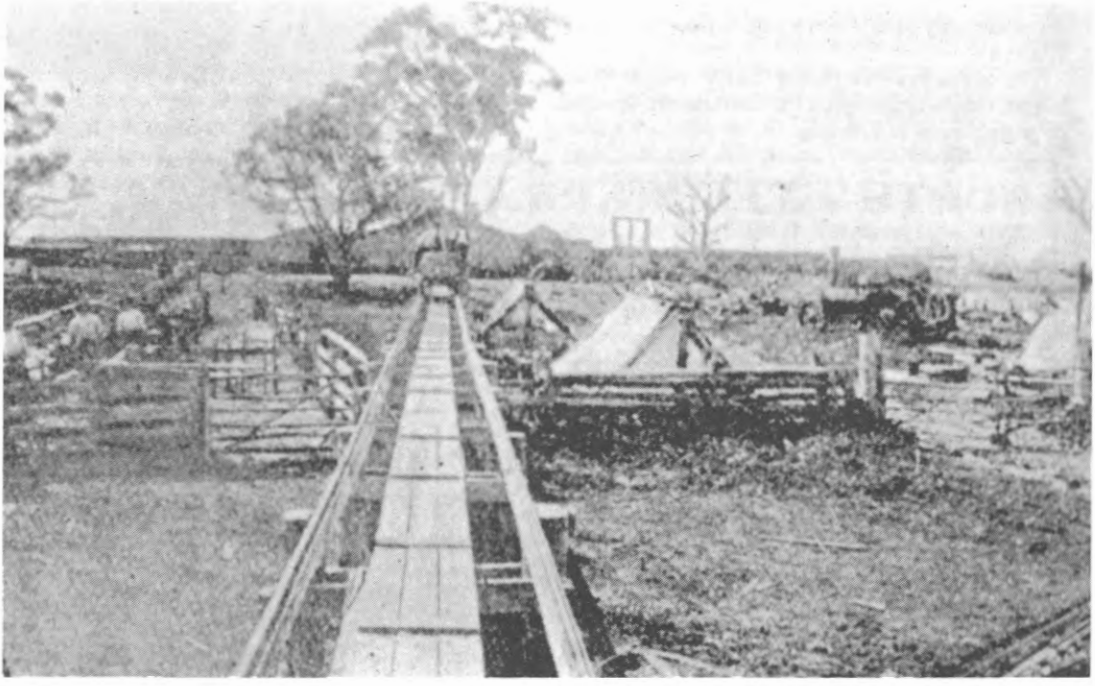
FROM THE ARCHIVES

New South Wales Pastoral Tramways

The Australian Pastoralists' Review of 15 December 1892 and January 14, 1893 carries references to the use of light tramways on NSW pastoral stations for the transport of wool. On Messrs. Alison Bros' *Cannonbar* Station near Nyngan a light tramway was in use to transport wool from the shed to a nearby railway siding. On the 300,000 acre *Burrawang* station on the Lachlan River. A new woolshed with 88 Burgon sheep-shearing machines was built in 1892. Photographs show a wool tramway running from the woolshed and along the length of the shearing floor. There were eight engines in use on the property, four being traction engines.

Item supplied by Norm Houghton.

Cannonbar Station railway siding near Nyngan with a load of wool arriving on the tramway for transhipment.
Australasian Pastoralists' Review



Burrawang woolshed and wool tramway. Note the traction engine to the right.
Australasian Pastoralists' Review

THE NORTH KEELING ISLAND TRAMWAY

from D. Burke

Australian author Gavin Souter recently visited the Cocos Island group (Indian Ocean) while carrying out research into the history of the region.

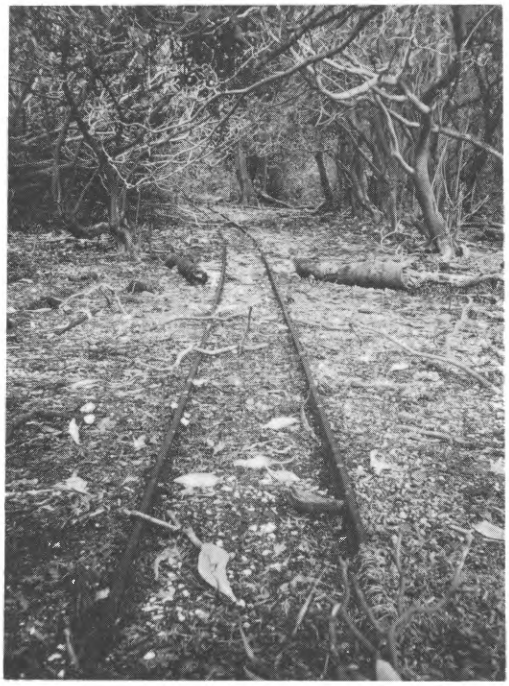
Gavin reports finding the remains of a tramway on North Keeling Island (see photograph) close to the locale of the sinking of the German cruiser *Emden* during World War 1.

Local information suggests that the tramway, about 610mm (2ft) gauge, was constructed to carry copra (coconuts) from the island plantation to the waiting ships; it probably operated for some 20 years until the 1940's.

The visible section of the line measures about 500 metres in length and extends from the lagoon beach through a grove of overgrown coconut palms to the ocean shore. A rusty four-wheel truck is the only remnant of tramway rolling stock; motive power is unknown but manual locomotion is the most likely guess.

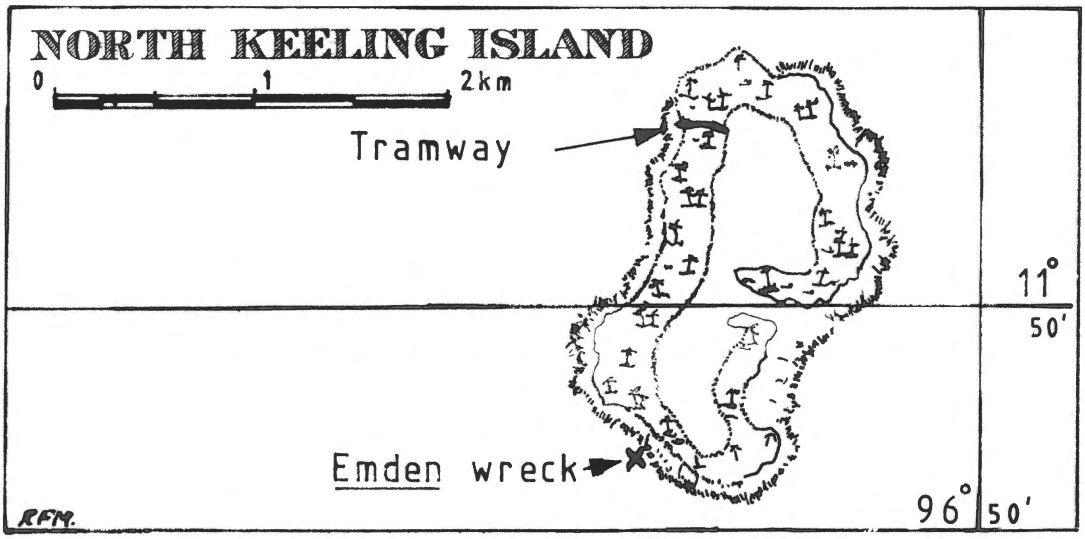
The *Emden* was sunk off North Keeling Island by *HMAS Sydney* ('the original Sydney') in the first major action by the Royal Australian Navy in World War 1. The German warship ran aground and was partly destroyed by shellfire on November 9, 1914.

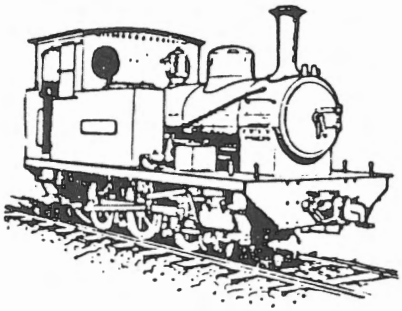
The wreck lies on a reef at the s.w. corner of the island. Gavin reports that the remains are covered by water, even at low tide.



The 'ghost' tramway on North Keeling Island.

G Souter





BOOK REVIEWS

THE MOUNT MORGAN RACK RAILWAY

by J.W. Knowles, 52pp 140 x 215mm, published by the author.

From its inception in 1898 until replaced by a lengthy deviation in 1952, the Mount Morgan Rack Railway - all 2315 metres (1 mile 35 chains) of it with a total rise of 114 metres (374 feet) - provided an operational problem for Queensland Railways on the important Dawson Valley group of lines.

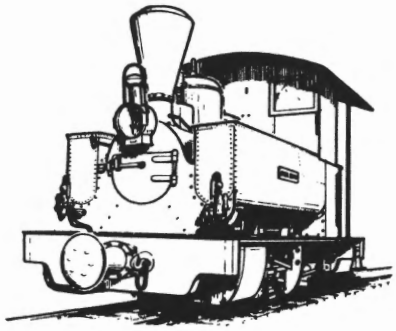
John Knowles has thoroughly researched the background, authorisation, survey, construction, operation and history of this line and its 'captive' Abt system rack locomotives. His findings are well presented and detailed with hitherto unpublished illustrations, diagrams and a map.

With its maximum gradient of 1 in 16½ (the average from Moonmera to the summit station of Moongan was 1 in 20.3) the Mount Morgan Rack Railway was by world standards not especially steep, nor very long, and the rack locomotives were not particularly large. But it was one of only about 175 such railways in the world, and one of only two in Australia: the other on the private Mt. Lyell Railway in western Tasmania, had longer gradients, but used smaller locomotives. It too, was closed in 1963.

In view of their special interest and complexity, the author expands his description of the equipment, working and control of the two types of special rack locomotives which worked virtually all trains climbing or descending the incline, fully and interestingly. The safe operation of the incline without serious accident for over fifty years is a credit to the Queensland Railways and the enginemen who manned the rack locomotives, which were confined throughout their working lives to 23 miles of line. The intensity of working on the incline is best indicated by the restriction of loading for a single rack engine to 80 tons when climbing and only 100 tons descending, requiring up to 32 rack loads per day at the peak.

What has not hitherto been generally known are details of the several attempts by Queensland Railways to work the incline with adhesion locomotives without rack assistance. However, throughout its life the practice was for mixed and passenger trains at least, for the train locomotive to work through to and from Mount Morgan with rack locomotive banking when ascending, and double-heading in front of trains descending the incline.

All in all this is a very good publication, full of information and interest and some statistics embodied in the text which is pleasurably readable, despite some curious typographicals. Copies are available from the distributors, the Australian Narrow Gauge Railway Museum Society (ANGRMS), Post Office Box 270, North Quay, (Brisbane), Queensland, 4000. The recommended retail price is $4.00 plus postage.



LETTERS

BALDWIN 0-4-0STs ON 3FT 6IN GAUGE, LR.65. A letter from Colin Harvey, of Reservoir, Victoria, throws some light on the probable identity of the locomotive of this type formerly employed by the Australian Seasoned Timber Company on its tramway out of Wandong for log haulage from the bush to Comet Creek sawmill. I believe the following extracts from his letter are sufficiently valid to warrant publication.

"In 1895 R.A. Robertson of the Australian Seasoned Timber Co. stated in evidence to the Parliamentary Standing Committee on Railways that the company had been using a locomotive since the beginning of that year. The half-yearly report of the Company (to 31/12/1895), now held at the Public Record Office, stated *interalia* 'loco in constant use bringing logs to mill'. Later annual reports provide the following information:

* Loco derailed twice during 1899 requiring heavy repairs
* Comet Creek Mill was destroyed by fire in November 1899
* Comet Creek Mill was rebuilt and in operation in 1900.

"Comet Sawmills ceased operations in September 1903 when the plant was sold to go to Western Australia. The Company went into liquidation in 1903. An account by the liquidator, dated 7/8/1904, shows the sale of 'an engine' to Lugton Bros. (engineers and boilermakers) for £228 5s 6d.

"It seems certain that the locomotive was at Comet Creek sawmill from early 1895 until at least late in 1899. As the loco was used for log haulage to the mill and photographic evidence indicates that the main log tramline had undecked bridges, so being unsuitable for horse haulage, it seems likely that the loco was used until the mill closed.

"As Baldwin B/No 7111 has been recorded in Western Australia in November 1898 (LR.65 p.21) the Wandong Baldwin could have been B/No. 7556 in all probability.

"Photographs of the Australian Seasoned Timber Co. were taken in mid-1898 for a number of presentation albums. Two of these are held in the Forests Commission of Victoria library and another in the Hawthorn City Library. But in none of these photographs is the builder's plate on the locomotive smokebox entirely legible, although upon close examination under magnification the late Andrew Lyell and Charles S. Small *both* agreed independently that the number was 7111. (My own opinion has remained that it *could* have been either 7111 or 7556. JLB)

"The locomotive depicted has these distinguishing features:

* Ornamental filler lid on saddle tank missing
* Front headstock extended downwards
* Additional auxiliary sandboxes fitted in front
* Two small handrails fitted to front of saddle tank.

"Photographs reproduced in LR.65 of B/No. 7111 in Western Australia (p.22) and B/No. 8130 in South Australia (pp24-25) and of B/No. 7108 in Tasmania (p.12) all taken after the closure of Comet Creek sawmill, show

locomotives with original sandboxes and filler lids. This would appear to indicate that these are not later photographs of the Wandong Baldwin, hence if the Western Australian Engine 'Kia Ora' is 7111, then the Wandong engine could have been B/No. 7556, unless the Western Australia date is incorrect.

"In further support of this contention a series of four photographs from J.D. Gillespie in the Forests Commission collection, show what appers to be an entirely different engine on the Comet Creek mill tramline (LR.65 p.9 lower) at a later date after the original sandbox had been lost and a full length roof added. This might indeed be construed as the loco after undergoing 'heavy repairs' following two derailments in 1899."

I am indebted to Mr Harvey and believe his observations validate the identity of the Wandong Baldwin as B/No. 7556.

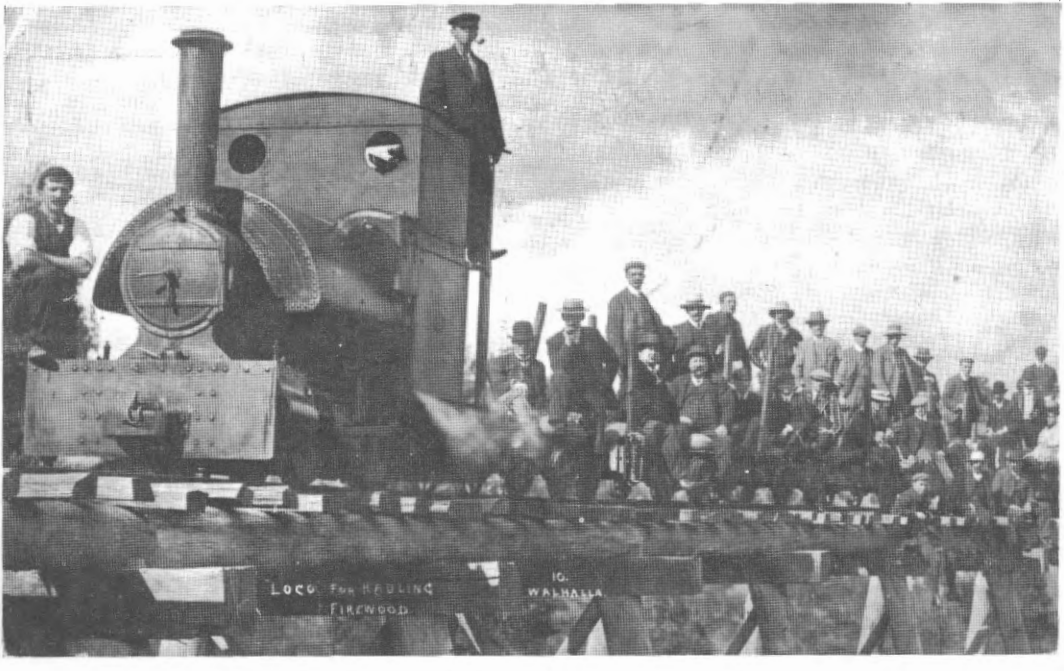
JL Buckland

East Brighton, Vic.

LONG TUNNEL EXTENDED MINE, WALHALLA, VICTORIA. Recently I was flicking through the pages of a book titled *Walhalla Heyday* by GF James and CG Lee and stopped to read a piece concerning the locomotive used by the Long Tunnel Extended Mine. It states "(i)n taking over the North Long Tunnel mine, in 1905, the Long Tunnel Extended acquired the former's timber tramway, and ordered a *SECOND* steam locomotive for it. Viaducts took the line northwards across deep gullies in search of further supplies." (emphasis added)

A photograph also accompanies the piece which continues "(t)he photograph shows the manager and directors making a journey of inspection shortly after take-over. Noble (fourth from left, front row) resigned in June 1905. A special passenger car was introduced in December 1906."

Given the above information it seems certain that the first locomotive was built prior to 1906. Therefore if a second locomotive arrived this could have been Bagnall 1801 of 1906. There has been some



Bagnall 0-4-0ST hauling inspection train on Long Tunnel Extended Mine tramway, 1905.
Wahalla Chronicle post card

doubt about the history of Bagnall 1801 (now "preserved" at Barmera, SA) with conflicting evidence about its location at the same time. The long Tunnel Extended mine closed about 1912 and all mining equipment, presumably including the locomotive(s), was sold.

If, as this evidence suggested, there were two Bagnall locomotives at Walhalla, then this may provide information on Bagnall 1801s early history. Perhaps other readers can provide additional information.

Peter Medlin
Rosanna, Vic.

R. HONEY & CO., LION'S MILL, NEAR CHIPLOW'S WELL, WA. Some time ago, by courtesy of Mr Frank Jux, an indefatigable sifter through the various archive collections in the UK, my attention was drawn to a prospectus in the guildhall library, which was of considerable interest in connection with my research into traction engine locomotives.

By this prospectus, the Anglo-Westralian Development Syndicate was inviting subscriptions towards a capital of £50,000, to permit the acquisition of the Lion Mills, owned previously by R. Honey & Co. The newly formed company was to be known as the West Australian Timber & Saw Mills Company. The prospectus is well produced and gives considerable detail regarding the proposed and existing operations. Eight photographs, presumably taken during R. Honey & Coy's tenure, appear in the brochure. Two show a traction engine locomotive similar in appearance to an Aveling & Porter, but apparently fitted with coupling rods. The spoked flywheel has a very heavy rim suggesting an early (1860's?) locomotive.

The existing tramway is described as being connected to the Eastern Railway main-line between Perth and Coolgradie. At the time of the prospectus (November 1895) Lion Mill station was still in the process of being built. "The tramway line has been laid through the property upon which a locomotive capable of drawing many tons runs daily. This is a valuable acquisition and assists materially in getting the timber to the mills." In addition to Jarrah, it was envisaged that some business in bricks and crushed stone could be carried on.

A fairly detailed list of plant to be taken over includes one 30hp Marshall protable engine, one 14hp ditto, saws, etc., one locomotive engine for log hauling with six sets of timber trucks, and four miles of tramway line laid with steel rails to "Govt. railway gauge" throughout.

The sale of the property was contracted by R. Honey & Co. on 22nd October, 1895, via Shierlaw Bros., who acted as agents. The list of directors is quite interesting:

Sir Albert Altman - Managing Director of Feltham & Co. Ltd., Victoria Steam Works, Gillingham Street, Victoria Station London S.W.
The Hon. M. Stanthorpe - Overton, Hampshire
Col. Wm Carey - Southampton, Hampshire
W.B. Freeman - Wardrobe Chamber, Queen Victoria Street, London, E.C.
Francis Goodbody - 59 Eastcheap, London E.C.

The local Board of Management in Western Australia comprised J.L. Shierlaw and J.W. Heulin.

If the photographs in the prospectus (which are too lacking in contrast to reproduce satisfactorily) are actually of the site in question, then it appears that Lion Mills had been quite a busy operation under R. Honey & Co. As to whether the new owners ever succeeded in raising their £50,000 is not known as yet.

As regards the locomotive, if it is not an Aveling & Porter product, it could turn out to be Fowler 5006, a compound OHSV locomotive built in 1885. This Fowler did indeed resemble earlier Aveling & Porter types, and was fitted with coupling rods, which Aveling's never used. Fowler 5006 is reputed to have been built to 3ft gauge, whereas the reference to "Govt. gauge" at Lion Mills surely implies 3ft 6in? Further, it is believed that 5006 was consigned to the Bearpark Coal & Coke Co. Ltd's Bearpark coke ovens in County Durham.

To-date, the only reference to a purpose-built traction engine locomotive known to have been sent to Australia is the "one for the 3ft gauge . . . sent to Brisbane", as reported in *Engineering*, August 3rd, 1866. It is not inconceivable that an 1866 Aveling delivered to Queensland could turn up at work near Perth 20 years later, but obviously further research is required.

Sources consulted: November 1895 Prospectus for Western Australian Timber & Saw Mills Co., in Guildhall Library, London (courtesy F. Jux); *Engineering*, August 3rd, 1866; Fowler Archives, Museum of English Rural Life, Reading, Berkshire.

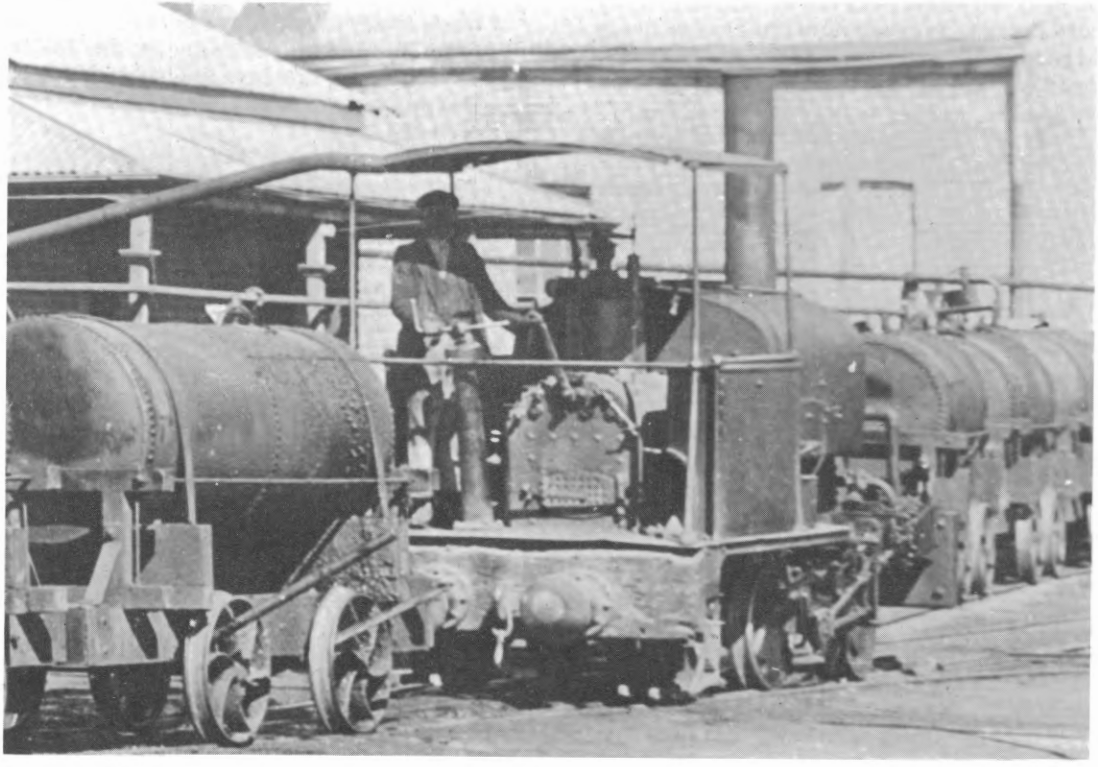
B. Henderson
London, UK.

HARTLEY VALE SHALE TRAMWAY, LR.64. I refer to a letter published in *LR.71* by John Buckland, which in turn refered to an article by F. John Reid called "Hartley Vale Shale Tramway", published in *LR.64*. While I agree that Mr. Reid's article may have benefited by using information published in *Shale Railways of New South Wales* by Eardley & Stephens (1974), I also note that Mr. Reid wrote his article in 1974 and probably before *Shale Railways of NSW* was available. Because of this independent approach, it is useful to compare both writings, as it may highlight areas of possible error or controversy in the current state of research on this subject. Mr. Buckland has mentioned two such "problems" and since I was involved with the production of *Shale Railways of NSW*, I would like to add the following information, which may clarify the situation to some extent.

1. Gauge used

Some time before *Shale Railways of NSW* was put together, either Giff Eardley or Eric Stephens told me of the problems they had in determining the gauge used at Hartley Vale. They had measured some of the (by then) meagre remains and concluded that it was somewhere in the range of 3ft to 3ft 6in; it looked like metre gauge, but were prepared to discard that gauge on the grounds that it was too unusual to have been used in Australia. Fortunately, some time later, I met another researcher who had been corresponding with someone in Scotland and had a number of builders' photos of locomotives that had been "built to metre gauge", but thought that this might have been a mistake as he did not know of any metre gauge railways in Australia. Fortunately I remembered the Hartley Vale suspect, and the photo turned out to be that of the Hartley Vale, Dubbs built 2-4-0 (later published on p.29 of *Shale Railways*).

As Mr Buckland states, the locomotives stood abandoned near Hartley Vale station for many years before it was eventually scrapped in the late 1940s. It is therefore rather unfortunate that no one ran a tape measure over it during that period. This



would have been direct proof of what is a somewhat indirect conclusion that the gauge was one metre.

Incidentally, Mr Reid's comments regarding that engine as having worked the top section facing funnel first to the summit of the incline is confirmed by the photo on page 17 of *LR.64*, but the photo on page 30 of *Shale Railway* shows that at some other time it worked in the other direction.

2. Locomotives used on the lower level

As I have mentioned before in the pages of *Light Railways*, the book *Shale Railways of New South Wales* contains a number of errors and one of them was the caption to the photo on page 28. This caption was written by the production team and followed on from a hurried scan by me of Giff Eardley's rather cramped draft of the text. Now that I have had better opportunity to read the text, the caption should have read:

"The Fowler locomotive in use at the lower level of Hartley Vale oilworks."

With that matter cleared up, I invite further comment from the locomotive experts reading this letter - was this locomotive really a Fowler and did the supposed Morts Dock 0-4-0 locomotive really exist? I enclose an enlargement of the locomotive in the photo published both in *Shale Railways* and on page 17 of LR.64 in the hope that some clues are given.

There are still a number of problems awaiting clarification and there is plenty of scope for future research on the Hartley Vale Railways and other railways that once served the oil shale industry in New South Wales.

Alan Watson
Sydney, NSW

Ed. We also received a letter from Mr Reid back in 1980 which gives details of measurements he made on a sleeper from the Hartley Vale railway. He concluded "I am of the opinion that the gauge was METRE and NOT 3 feet."

JOADJA LOCOMOTIVES, LR.62. Back in LR.62 a letter from Mr RT Horne provided valuable information about the locomotives used at Joadja.

I was particularly interested in the information that allows for the easy identification of these locomotives and the subsequent corrections that were then made to the photos published in the book *Shale Railways of New South Wales*. Although I was involved in the production of that book, I was not happy with the identification of the Joadja locomotives, chiefly because I could not work out the differences between the supposedly different locomotives pictured. As Mr Horne points out, most were of the one locomotive, Andrew Barclay No. 222!

The comments regarding AB No. 211 of 1879 provide some much needed information, but this still does not prove that this locomotive was not at Joadja. Certainly the information as given by Mr Horne clarifies and corrects the source used by Giff Eardley. The different method of ordering and, in particular, the 1881 letter from Fell to Parbury, suggest that it was unlikely that this locomotive went to Joadja, at least immediately following its construction. However, a number of questions still have to be answered before this matter could be regarded as closed:

- Who ordered AB No. 211?
- For what purpose?
- Where was it used 1879 to 1904?

Mr Horne notes that this locomotive may have been one that was overhauled in NSW before being shipped to Tasmania about 1904 (see also LR.57, p.13). If so,

- where was it prior to this overhaul?

Joadja is a strong possibility as the Joadja locomotives would have been sold about this time.

- Did this locomotive go to Joadja after a short spell elsewhere?
- If so, where else was it?

I would suggest that this argument can only be satisfactorily resolved once it is proved that the locomotive was at a certain place (or places) between 1879 and 1904, the period when it could have been at Joadja. Positive evidence is so far lacking, but such evidence must exist somewhere. Can any reader provide additional information?

Allan F. Watson
Sydney, NSW

PERTH SANITATION TRAMWAYS, LR.71

Two plans of Perth's sanitation tramways exist in the JS Battye Library of Western Australian History and these fill the gaps in the research done by Ian Crellin.

A western sanitation tramway was proposed with a total length of 4 miles 2 chains. It was to run through undeveloped land to a sanitary depot in University Endowment land in what is now the suburb of Graylands. The present North Zone rubbish tip in Brockway Road is approximately the site of the terminus. The tramway was to have

started from a collection site in West Perth near the WAGR station.

Three routes were surveyed for the North Perth tramway. Two passed through the Third Swamp Reserve which is now Hyde Park. The length of the chosen line, along Fitzgerald Street, was 2 miles 20 chains. The gauge of the tramway was 2ft and the rails were to be 14lb according to the plan.

The plans record an interesting, and speculative addition to the North Perth tramway notes. At the Pan Depot, Smith's Lake, the first few chains of the line are shown as being a wooden railed tramway even before the rest of the line was built. Whether this was an internal pan handling system and whether it survived the North Perth line is unknown.

Both the Kalgoorlie sanitation tramways were included in gazetted reserves, the Boulder tramway appearing in the *Government* Gazette of 10 March 1911 and the Brown Hill line of 4 September 1914. In the Boulder reserve, the tramway is mentioned as was a stables which was probably for the line's 'motive power'. References: PWD Plan 4696 of 10.8.1896 and 11773 of 24.3.1897.

David Whiteford
Cloverdale, WA.

NSW WATER DRAINAGE AND SEWAGE BOARD, DAVIDSON PARK. As a resident of the Sydney suburb of East Lindfield from 1953 to 1972, I would often go for walks in nearby Davidson Park reserve. In 1965 the Sydney Water Board had two temporary light railways in Davidson Park. One was near East Killara and used human muscle power to propel and control its one and only unit of rolling stock, a four-wheel tip wagon of about 2ft gauge. The other line of the same gauge was located between East Lindfield and Roseville Bridge. Its motive power comprised a four-wheel battery electric. The line was built for the excavation of a tunnel, probable for a sewage line to serve a new subdivision near the Lindfield Bowling Club. The locomotive and about five freight cars were stored behind a security fence in the partially completed tunnel when no-one was on duty.

Perhaps a reader can provide more details of this line and the locomotive.

John Wilson
Blaxland, NSW

Above: Mount Lyell railway Abt-locomotive and van preserved at the Puffing Billy Museum at Menzies Creek, Victoria, February 1980.
B.J. Webber

Back Cover: W.G. Bagnall advertisement from Diesel Railway Traction, December 1959.