

LIGHT RAILWAYS

Number 57

Spring 1976

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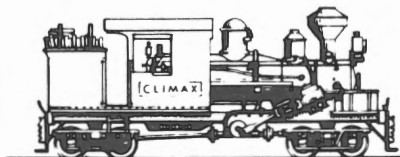
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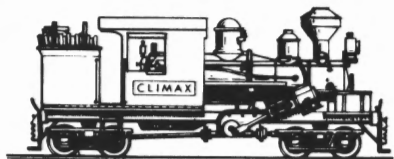
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MEETINGS, Sydney: Fourth Wednesday every second month at 7.30 pm, Conference Room Rechabite House, 85 Campbell Street, Surry Hills. Next meetings 22 June, 24 August, 26 October, 14 December. **Melbourne:** Second Thursday every second month at 8.00 pm, room 11, Victorian Railways Institute, Flinders Street Station building. Next meetings 9 June, 11 August, 13 October, 8 December.

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

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

Historical references to sums of money in *Light Railways* are in Australian pounds (£).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

Articles and news items are always welcome. It greatly assists the editors if they are typed or written on one side of the paper only and double spaced.

Editor's column

Since publication of the last issue, the New South Wales Division of the Society has been working on two issues of *Light Railways*, one of which will be a special enlarged issue dealing with an interesting NSW coal mining railway, and the other will be a normal issue with a variety of articles of mostly NSW interest.

Another regular issue is underway in Melbourne, and it is probable that we will shortly have one or two more special issues, similar to *Lahey's Canungra Tramway*.

With elections for the Society Council due shortly members should remember that the position of Publications Editor is vacant, and if the magazine is to continue publication into the new financial year, somebody (or bodies) will have to come forward to fill that position. Any volunteers can be assured that they will be given much assistance in taking over the position.

Front Cover Fowler 2ft gauge locomotive (B/No. 17881 of 1928) on the Central Park Railway, at Forrester's Beach, near Gosford, NSW, on 13 February 1977. Trains operate over two miles of track on weekends, public holidays and school holidays. The loco illustrated was formerly South Johnstone Sugar Mill No. 10. On Saturdays trains are diesel hauled, the two diesels being ex Condong Sugar Mill (Fowler No. 7; and Simplex No. 4)

Photo: Bruce Belbin

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North west Coastal Tramways

Derby

by Ian Crellin and Frank Stamford



Derby is a pleasant town with wide tree-lined streets, serving the cattle industry of the West Kimberleys. It is 1650 miles (2660 km) from Perth via the Coastal Highway, and 129 miles from Broome, a trip which takes less than two hours on a first-class bitumen highway. Visitors will notice many boab or bottle trees (a tree with a bulbous, bottle-shaped trunk); a feature for which Derby is famous.

When gold was discovered at Halls Creek in the Kimberleys around 1885, ships brought diggers from all over Australia. This remote area had little settlement and almost no port facilities. Both Wyndham, far to the north and Derby developed as seaports to support the mining field. It lay some 400 miles inland from Derby, emphasising the isolation and lack of suitable portsites in the area. The area around Derby has the reputation of a 'graveyard of ships' and stories abound of greedy lugger skippers and foolhardy pearl divers who gambled against the furious rips and tides of the area to gather pearls from beds which more prudent men had bypassed. As with the ports already discussed in this series, Derby had the problem of large tidal rise-and-fall plus the huge expanse of mudflats over which cargo had to be handled at low tide. This distance was about a mile at Derby. It is thus no surprise to find early construction of harbour works, including a causeway with a tramway, at such a site.

In 1886, a basic wharf was constructed and connected to the town by a mile-long causeway, on which was provided a horse-tramway for the carriage of goods and passengers. Derby was the first of the north-west ports to receive a tramway. It is further unusual in that it was constructed in 3ft 6 in gauge from the outset. Although all of the other major port trams were subsequently converted to this gauge, they were originally of 2ft gauge.

Another unusual feature of operations at Derby is that no steam locomotives were ever used on the line, to the best of the authors' knowledge. Horse power was originally employed to shift the trucks from the wharf to the town depot. This arrangement appeared to persist until after the Second World War, when horses gave way directly to the internal-combustion motor, although photographs exist of both forms of motive-power working side-by-side on the line.

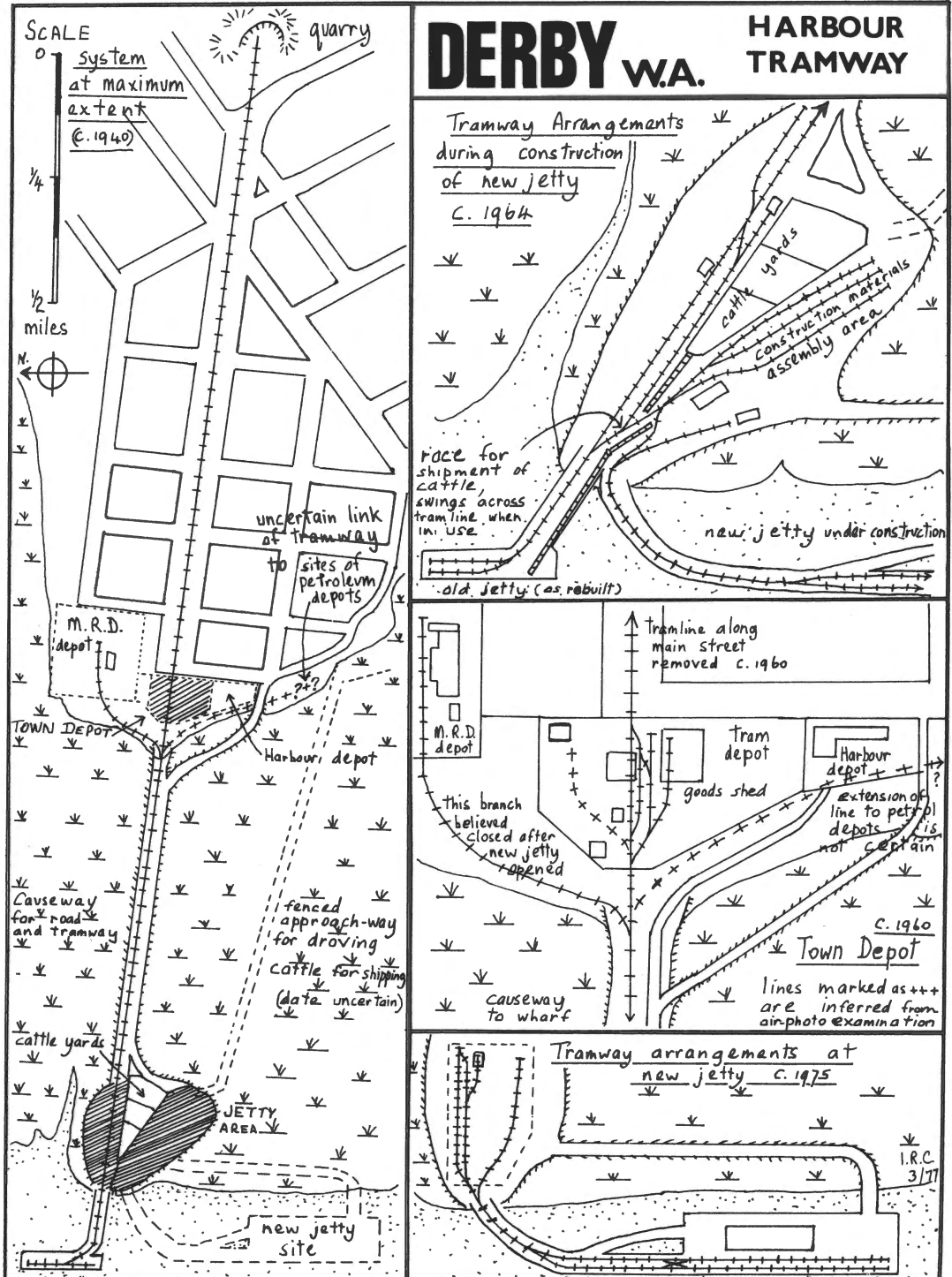
The port and tramway went through several stages of further development in its life. In 1893, the original wharf was improved to give the modest wooden L-shaped timber wharf which served the port until the mid-1960s.

In 1965, a new concrete wharf with 157 metres of berthage, plus dolphins, was put into use. The new structure incorporated tramway facilities, however it also is accessible for road vehicles and the tramway has fallen into disuse.

In 1904, the causeway track of approximately one mile in length was relaid using 2000 bloodwood sleepers and 45 lb rail. It was noted that by that stage the original track had 'practically perished in web and flange' due to 'long use and wear, action of salt air and effect of marsh soil'. The *WA Yearbook* for 1902-04 lists the Derby tramway as 2½ miles in length. The 1½ mile extension from the depot at Elder Street, where the causeway comes ashore, takes the line through the town and down the main street to a prominent hill, now crowned with the town water tower, where the authors believe a stone quarry was located. The date of this extension is not known. Presumably the stone was used for maintenance of the causeway and foreshores which appear to have been reclaimed in parts. As much of the trade outward-bound was in live cattle for slaughter elsewhere (Derby did not get a meatworks until the 1950s), the causeway has been widened at some stage to allow cattle to be droved to yards adjacent to the wharf.

The facilities remained relatively unchanged until the 1950s. Only a single line was provided on the jetty-head, with the line to the causeway branching off near one end, leaving a short spur for shunting or wagon storage. The port has the rare distinction of being the target of Japanese bombers during the Second World War, without serious damage. From the 1950s, the W.A. Government progressively upgraded the facilities at all north-west ports. The major improvement was flush-decking of the tramway rails into the jetty deckings, to enable road vehicles to operate at the ship's side, and the provision of improved access for these vehicles to the wharf areas. It is believed by the authors that at this time, Derby jetty was widened and relaid with a two-track layout. The alternative access-way for cattle, which left the causeway free for motor traffic may also date from this time.

Derby meatworks opened in 1958, giving pastoralists an outlet for their cattle other than live shipment. The port was then required to handle frozen meat. Unlike Broome and Wyndham where the meatworks were connected to the jetty by the tramway, Derby meatworks was some distance from the port and it is believed that all



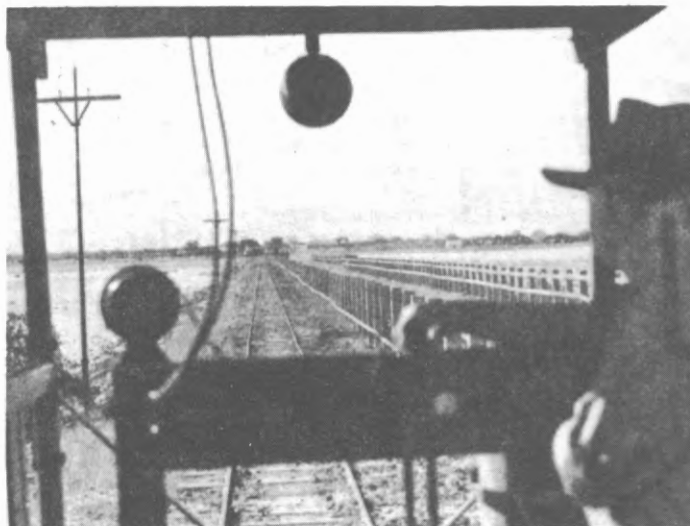


Top Main Street of Derby, c.1950, showing tramway.

Centre Derby jetty, c.1950, before redecking and doubling track on deck. Both loco and horse in use.

Bottom View from Loco (probably NW5) on Derby causeway, c. 1950.

All photos I.R. Crellin collection.



shipments were taken direct to the ships by insulated motor truck. Prior to this period, all materials for shipment were trans-shipped to the tramway at the town depot and all passengers had to be taken to and from their ships by tram also. With this improvement in facilities, Derby became the port for the well known Air-Beef scheme. For some years prior to this, cattle had been slaughtered at Glenroy Station some distance inland and the frozen quarters of beef were flown by cargo plane to Wyndham for storage and export. In 1959, the operation switched to Derby which was closer, and by then had the facilities needed. This continued until 1962 when roads in the West Kimberleys had improved to such an extent that motor trucks could replace the expensive air haulage from the Glenroy abattoir. This was a taste of things to come for the region as the development of beef-roads in the area made it possible to send cattle by 'road trains' to the larger coastal meatworks and the Glenroy operation was closed soon after. Thus closed one of the most interesting interludes in our transport history.

With these developments, plans were being made to replace the inadequate old jetty with a modern concrete breast-wharf at a site adjacent to its predecessor. The tramway was used extensively in the construction of the new wharf. A large area for the assembly of construction materials was established adjacent to the cattle yards at the end of the causeway. It was well provided with sidings and a line was incorporated in the decking of the new wharf. A problem encountered was the loading race, through which cattle were loaded onto ships from the holding yards. It was hinged so that one section of it could be swung back out of the way to allow tramway access from the wharf and the causeway line. The line to the new wharf was built with a bend at a judicious point to avoid fouling the race when it was swung aside.

By this time, the portion of the line which ran through the town's main street was out of service. With the increased role played by road transport, the tramway was receiving less use and after the opening of the new wharf in 1965, it became virtually defunct. When the old jetty was removed, the tramway yard at the site was simplified. As the new wharf was equipped with a transit shed, the goods sheds at the town depot were no longer required. As there was now little reason for the town depot or its tram link to the jetty, the line along the causeway was removed before 1974. Today the remnants of the system are only a small number of sidings on and adjacent to the new Derby wharf. Some isolated track also remains in the derelict town depot area.

Track Layout

The line ran for 2¼ miles from the Derby jetty, through the town of Derby and terminated at a quarry beyond the town proper. The principal sidings at the jetty area during the main phases of its life are indicated on the accompanying map. It then ran along a mile-long causeway across tidal mudflats to the town depot. A diagram of the sidings here in the later years is given also. In particular, a siding swung to the left from facing points

to serve the Main Roads depot. Another appears to have served the Harbours depot to the right. It is unclear whether this latter line extended further across the access road to an area now occupied by petrol company depots. Indications of some form of a previous permanent way at this location can be seen on air-photos from the mid-1960s. The line extended through the centre of one of the sheds at the town depot and ran down the main street of the town for 1¼ miles. It terminated at a rocky hill which bears evidence of quarrying activities. Siding arrangements here or along the main street are not known.

Rolling Stock

From the time of its opening until the post-war period, the line was operated by simple rolling stock, pulled by horses. In 1899, the *W.A. Yearbook 1898-99* tells us that the line was operated by ten trucks and a passenger tramcar. Photographs taken in succeeding years show a passenger car with longitudinal back-to-back seating pulled by a single strong drafthorse. There appears to have been two such vehicles in use at the time. After the war, internal-combustion locomotives were introduced and heavier rolling stock with them. Horses were still used for certain duties, in particular wagon placing on the jetty alongside ships. The old passenger cars were superseded by wagons fitted with cross bench seats and no roof.

The exact movements of locomotives in this period are not known, however a four-wheel diesel loco fitted with outside coupling rods and named *Derby* (No. NW5) was in use at an early stage. It was built by the Government Workshops at North Fremantle and after use at Derby was sent to Carnarvon. Simplex 0-4-0 No. NW9 (later renumbered PW29; B/No. 9097 of 1955) was also used at Derby before being transferred to Wyndham. In 1966 two locomotives were observed at Derby. One was a Com-Eng 0-4-0 diesel, No. NW 16 (renumbered PW26 in 1969; B/No. GB1046 of 1960), and the second was a Gemco Funkey 0-4-0 diesel, built by George Moss of Perth in 1964, this was No. NW 17 (renumbered PW 27 in 1969). Both these locomotives were subsequently transferred to Wyndham. When Frank Stamford visited the tramway in December, 1974, there were no locomotives at the site.

In 1966, the rolling stock at Derby consisted of the following:-

19H class open wagons 13G class open wagons
22 flat top wagons 1 old passenger van
making a total of 55 vehicles.

In December 1974, Frank Stamford noted the following vehicles:-

4 five-plank open wagons
12 two-plank open wagons (Nos. 22,26,29,39, others unidentified)
8 flat wagons
10 flat wagons with bolsters (Nos. 3,5,11,12,13, others unidentified)
2 R class bogie flat wagons (Nos 1603 and 4712)
1 four-wheeled hand-crane

These were located at the jetty area. In addition, a number of derelict items of rolling stock were located at the town depot area, amidst grass several feet high. These were a four-wheeled hand-crane and five flat wagons, none of which were identified. The track and rolling stock at the jetty area was in fair condition although they did not appear to have been in use for some time.

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Department in *W.A. Parliamentary Papers*. Annual Reports of the W.A. Chief Harbour Master in *W.A. Parliamentary Papers*. J.L. Buckland, 'The Early Railways of the North West Ports of Western Australia', in *Australian Railway Historical Society Bulletin* No. 415, May 1972, pp 114-119. Locomotive details from information supplied by W.A. Public Works Department.

Pettigrew's Tin Can Bay Tramway

by R. K. Morgan



William Pettigrew's timber interests included mills at Dundathu, near Maryborough, where the first private railway in Queensland was laid, and in an area in the Coolooli Forest in the Tin Can Bay district, where the first two locomotives built in Maryborough operated.

Coming originally from Scotland, Pettigrew could not find employment as a surveyor, the work in which he was trained, and entered the timber industry where he became a big name, establishing the first steam sawmill on the Brisbane River (at Williams St., Brisbane) ¹ and later setting up the Dundathu Mill on the Mary River in 1863.

Pettigrew worked closely with William Sim, who later managed the mill at Coolooli, an aboriginal word for the cyprus pine tree. ¹ 'Dundathu' was originally the name applied by Pettigrew to a type of pine found in the area, and was later used for the mill on the Mary River, and later still for the second Coolooli loco.

In September, 1863, while the Dundathu Mill was being established, Pettigrew went to Lagune Bay by steamer, to look for more stands of suitable timber. In 1865 he investigated the Toolara area more closely. He found stands of dundathu pine a few miles from the coast in an area suited to rail transport. However, it was not until 1872 that he returned and after locating a suitable terminus commenced the survey for a line. Construction of the tramway began early in 1873. ¹

The line passed through sandy country, with low ridges rising step by step. Grades (in favour of the load) were about 1 in 20, but the grades against the load were kept as easy as possible. There were no cuttings or embankments to speak of, and only one bridge: 'You can say its a bridge and thats all!' said Pettigrew (on 20 May, 1874) to a Select Committee on Roads, Tramways, etc. ²

Rails were cut from 4½ in x 3 in spotted gum, and were

from 15 to 21 feet long, ¹ laid on edge in grooves cut in hardwood sleepers, and set at a gauge of 3ft 3in. This gauge was selected to suite the gauge of the locomotive.

First Locomotive

The locomotive, bearing the name *Mary Ann* (both Pettigrew and Sim had daughters of that name ¹) arrived at Tin Can Bay before the line was completed, and, being fitted with a large flywheel suitable for a 'power take-off', was put to work immediately driving the saws to cut the sleepers and rails it was to run on. ² It was occupied for the first five months of its life on this task, a circumstance which must surely by unique in the annals of railway history.

The sleepers are reported to have been either 5½ to 6 feet long, ³ or 6½ to 7 feet long, ² varying in width from 6 to 10 inches, and about 4½ inches thick. They were buried to their upper surface which made the rails appear to be laid directly on the ground.

The steepest grade against the load was 1 in 23, up which the loco could haul two wagons carrying about 5,000 super feet of log timber. Once past this hurdle, the load could be built up to four wagons. Curves were quite gentle, the sharpest being about 9 chains radius.

Soon after the *Mary Ann* began working along the line, Pettigrew found that the wooden rails were too light and were breaking, so thereafter 6 by 3 inch rails were used. However, he also discovered that his early drivers were somewhat inclined to speed, the track suffering unduly as a result. While the normal operation allowed an hour for the train to travel three miles, with a top speed of about 5 m.p.h., Pettigrew learned that some of the 'throttle benders' were pounding the engine along at about 12 m.p.h., no doubt exhilarated by this new-found

experience of speed. Pettigrew frowned on this practise, and instructed that 6 m.p.h. was ample speed for the loco and for the track under it.

In October, 1873, when the line was 3½ miles long, it was decided to officially open it, although it had been in operation for some months. 'A picnic expedition left the Maryborough wharf on 28th October, on the *Hercules* which picked up more guests at Dundathu ... (and) a wagon ... to increase the rolling stock at Tin Can Bay. Dinner was had at South White Cliffs, Fraser Island, and the night spent in Tin Can Bay ...' ¹

The party landed next day. The landing was not without incident as the tide was out and planks were laid across the mud to enable the distinguished guests to come ashore with due aplomb. Despite this provision, the Mayor didn't quite make it and with a lurch, slipped and fell 'and the water had to make room for his portly form', as the report so delicately put it. ¹

Once ashore, with composure restored, the guests were greeted by R. Black, the engineman, at the terminus, and the engine and trucks were quickly put in readiness, the whistle sounded, and 'all aboard' being called, the party filled the trucks and steamed off at good speed.

'At nearly one mile, a stop was made to fill up the water tank at a small well sunk for the purpose. During the next mile and one half, three ridges were climbed on grades of one in twenty, the descent being of much easier grade. At the two-and-one-half-mile camp, two huts and a tent were pitched and a couple of flags hoisted from either side forming an arch triumphal. Standing against a tree in position was the figure of a policeman with the word 'POLICEMAN' in large letters on his arm, as if ready to shunt the points ... A further mile to the loading camp ... 199 logs were waiting transit; they had been hauled two miles ... by bullocks. After a demonstration of log loading, the party returned, the journey being twentyfour minutes in running time.' ¹

That night another trip was made up the line by moonlight. 'This proved rather exciting as those behind had enough to do to keep their clothes from being burnt by the sparks which flew from the chimney in volumes.' ¹

The official opening ceremony was set for the next day, 30 October. 'Two wagons were fixed with a couple of seats back to back and, when all were seated, a journey was made to the loading camp. Here the engine ran to the two wagons with the saw bench, cut up a cyprus pine log into sleepers.... then the passengers were taken back to the terminus. *Mary Ann* made another trip and returned with four trucks loaded with ten logs totalling some ten thousand super feet, in the short space of an hour. It was just starting back for another trip when one of the cog wheels broke, evidently due to a flaw in the casting, for the engine was not pulling hard.' ¹

Despite this later calamity, all hailed the opening a great event.

The locomotive *Mary Ann* was not a pretty sight. Built at John Walker and Co's Union Foundry, Maryborough, she had a vertical boiler mounted amid-ships in a heavy rectangular frame. Surmounting the boiler was a plain

cylindrical chimney. To keep the centre of gravity as low as possible, the boiler was suspended in a well, so that the ash-pan was only inches above the rail level. The cylinders were mounted vertically beside the boiler, and drove the four coupled wheels through two-to-one gear from which protruded a reduction. A tank was suspended below the 'footplate' at one end, where the operator stood, and to balance it, another tank was mounted above the deck at the other end. The square angular outlines were relieved by the large flywheel power take-off pulley of about 3 feet diameter projecting from the side, near the cylinders, having six gracefully curved spokes, giving it a catherine-wheel appearance. Around the driving platform a rail was placed at waist height to give some sense of security to the driver, and this rail became useful as a seat for travellers on the engine. No roof was provided, or any shelter at all, for the driver.

No builders number was stated at the time of construction to this engine, or to the second (*Dundathu*), but later, Walkers made provision in their records for these engines with their works numbers 217 and 218.

Mary Ann's vital statistics show that she really was rather petite with an overall length of about 13 feet, and a wheel base of roughly 6 feet, (and coupled wheels 32 in. in diameter) and about 13 feet to the top of the chimney. The two cylinders were of 6 inch bore and 10 inch stroke. Weight was about 5 tons. Her name was carried on a neat cast name plate on the side of the boiler, and 'John Walker & Co. Maryborough' was painted in large white block letters on the side of the frame. The loco was rated at 8 horsepower, and cost Pettigrew about £500.

When completed, it was tested outside Walker's shops in Bowen Street, where a few lengths of tramway were laid down. This temporary line was constructed after the fashion of that planned at Coolooli, and many local residents took the opportunity of a free ride up and down, as the loco went through its rather restricted trials. As mentioned earlier, the driving wheels could be disengaged and a belt fitted over the flywheel pulley to operate a saw bench.

This versatile machine was also used to load the wagons with logs using a method known as 'parbuckling', as seen in the diagram.

The engine achieved some acclaim, evidenced by the fact that a report of it was published in the journal *Engineering*, of 11 November, 1873 noting that it was the first engine to be built in Queensland. ⁴

On 17 November, 1873, not long after the grand opening, a shadow of gloom was cast over the operation when an accident took the life of the manager, William Sim. He and another man named Cooper were unloading a large log about 5 feet in diameter from a truck, when the log rolled off the wagon and fell on Sim. Word was sent for help by the steamer *Hercules*, which returned from Maryborough with a doctor, but Sim had died soon after the steamer had left on its long mercy dash. ¹

In 1875 the line was extended eventually reaching a total of nine miles. On the new section, about 7 miles from the coast, was an incline with a gradient of about 1 in 4½, which rose steeply over 200 feet to the summit of a

ridge. On the other side the line descended on a similar grade. Pettigrew operated this as a balanced incline with a stationary engine placed at the summit, hauling wagons up and down by cable. Since the ridge effectively cut the line into two sections, a second locomotive was ordered, as it was now impossible for one engine to work the full length of the line.

Second Locomotive

The second locomotive was ordered from S. Walker and Co. in November, 1875, and delivered in August the following year. It was of more orthodox design than *Mary Ann*, having a horizontal boiler, and was named *Dundathu*. On the arrival at Tin Can Bay, *Mary Ann* was taken back to Walkers for rebuilding.

Dundathu was described as well and strongly built and equal to 24 horse power. The boiler was 3 ft 6 in in diameter, and 8 feet long, containing 'one hundred of Green's patent brass tubes'. 'A well tank held 250 gallons of water and helped stiffen the frame. It had a cab with iron uprights and a corrugated iron roof, with all the controls handy to the driver. The boiler was sheathed with felt and neatly lagged with varnished cedar bound with brass hoops; the dome was covered with copper'.¹ They don't make engines like *that* any more! It must have presented quite an impressive appearance when new! It cost £550.¹

The rebuilding of *Mary Ann* was a major reconstruction, involving giving her a horizontal boiler, a long cab roof, framing like that on *Dundathu*, overhauling all water pipes, fitting new planking to the footplate, and half shrouding the gearing.¹

When *Mary Ann* returned to Coolooli, she was placed at the end of the line beyond the incline, where she worked in lonely isolation, bringing the trucks to the foot of the ridge.

Trouble was experienced when the stationary steam winding engine was first put into operation on the incline. It was hauling the first loaded truck up the hill when the winding gear broke under the strain, one piece of the machinery sailing through the air for a distance of ten chains, resulting in the truck making a rapid descent down the line. The gear was repaired by Walkers and ever after operated satisfactorily. The usual method of

working was to retain one loaded truck at the top of the incline attached to the next loaded truck at the foot by a line chain, and with this load thus balanced, the winding engine had little work to do but to control the speed.¹

Accidents on the line were few, the only other one attributable to the line itself was when a rail snapped and a truck derailed, delaying proceedings for about an hour.

Concerning the operation of the line, it was noted that the rails wore unevenly, and replacement of rails was a constant job. Two tons of 23lb per yard iron rails were bought in 1875 from Smellie and Co., and these were probably used for the incline.¹

Dundathu could bring in four loaded wagons at a time, the train usually being made up of two trucks ahead of the engine, and the other two behind. Such a load would contain about 10,000 super feet, or 18 tons, of log timber. Usually *Dundathu* would bring in two such loads each day.²

Pettigrew had told the Select Committee on Roads, Tramways, etc., in 1874 that he expected his loco would last ten years. If the note in his diary of April 1884 concerning the fact that two locomotives plus trucks, etc., were up for sale is an indication of the closure of the line, his estimate was correct to an uncanny degree. In January, 1885, the Tin Can Bay railway was reported out of use, and the locomotive (singular) was lying unused at *Dundathu*. (Which one was this?) The eventual fate of the two engines is not known.

My thanks go to George Bond of Brisbane for the use of material in compiling the above. I have also referred to John Kerr's article in *Queensland Heritage*. I have not done much more than collate the material and therefore the credit must go to others.

References

- 1 *Queensland Heritage*. 'The Calooli Creek and Thannae Railway, Tin Can Bay', by J.D. Kerr, B.Sc.
- 2 Report by William Pettigrew to The Select Committee on Roads, Tramways, etc., 20th May, 1874.
- 3 *Queenslander*, 8th November, 1873.
- 4 Notes of G.E. Bond, Brisbane.

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North west Coastal Tramways

More on Roebourne



Since the original article was published in LR 52 some additional information has been submitted for publication. Of particular note is that the Roebourne - Point Samson tramway was 2ft gauge, not 3ft 6 in gauge as claimed in the previous article on this line.

The 2ft gauge Roebourne - Cossack tramway was 8 miles 38 chains in length and was opened in 21 June 1887 according to the *W.A. Government Gazette* of November 1906. In the year ending 30 June 1890 it carried 7555 passengers, and rolling stock consisted of six passenger cars and ten trucks, with six horses to haul them.¹

In 1892 extra harbour accommodation was provided at Cossack, the wharf being extended to 262 ft. long. The tramway was deviated in the town of Cossack at the same time.²

In 1902 a contract was let for the construction of the new jetty, approach banks, sheep yards and goods shed at Point Samson. The jetty was 1816 ft long and 15 ft wide with a 281 ft x 30 ft head, giving a depth of 20ft at the head at low water. This jetty was completed in 1904, and as stated in the previous article, was originally used only for livestock, and had no tramway connection.

In the WAGR Annual Report for 1906-07 it was reported that the 21 lb rails were deteriorating very much in places. Almost every year the Railway Commissioner suggested that the tramway should be taken over by some other Department, and in this particular report he said 'Personally I have no local knowledge of this tramway, having been unable at any time during the past five years to visit it ... There is nothing in connection with the tramway that I can recommend, except that its control should be separated altogether from the important work of the Railway system, and placed under the control of some Government Department having Officers located in the district who would be more in touch by reason of that location.'

In the year ending 30 June 1907 nine sailing and 76 steam vessels arrived at Cossack, but Cossack was nearing the end of its role as major port for Roebourne. In the following year five miles of 2 ft gauge tramway to connect Point Samson with the Roebourne - Cossack line was under construction. In the same year a 3 ton crane was installed on 3 ft 6 in gauge rails at the jetty head at Cossack.

The 2 ft gauge Point Samson tramway connection with the existing Cossack line was finished in the year ending 30 June 1909. The Point Samson jetty was strengthened to allow use of heavier rolling stock, and 'probably a locomotive'. A 'specially constructed three-way line to enable 3ft 6 in gauge crane to cross 2 ft gauge tramway has

been constructed on the jetty head. Estuary known as Pope's Nose Creek has been bridged, all necessary sidings and branch lines constructed for provision of town site at jetty end. Exhaustive report on old Cossack line has been prepared with estimate for necessary repairs to permanent way and bridges'.³

On 1 July 1909 the Point Samson and Cossack lines were taken over the Public Works Department from the WAGR, and in the following 12 months the decline of Cossack really began. The car barn was removed to Point Samson, and an Orenstein & Koppel 2ft gauge 0-4-0T loco arrived that year (B/No. 2271 of 1906) along with two travelling water tanks.

In the 1910-11 financial year a new goods shed was built at Point Samson, and a turntable and crane were transferred from Cossack to the goods shed siding at Point Samson. The 21 lb rails on the eight miles of tramway between Roebourne and Cossack Junction were in the process of being relaid with 35 lb material. A petrol rail motor which could carry eight passengers and mail was delivered the same year and was 'working satisfactorily'. The fact that Cossack Junction was eight miles from Roebourne (at least according to this report) and that the Cossack - Roebourne tramway was 8 miles 38 chains long makes it obvious that the junction of the Point Samson and Cossack lines was only half-a-mile from Cossack, so the map published on p.12 of LR 52 is somewhat misleading, but, to complicate matters, the Point Samson line was soon deviated (see below) to avoid the marshes.

In the year ending 30 June, 1912 two new passenger cars, and a second locomotive (Orenstein & Koppel 0-4-0T, B/No. 2303 of 1907) arrived. To supply locomotive water at Roebourne, a windmill and water tanks were erected. An exceptionally violent hurricane in March 1912 caused so much damage to the tramway and jetty that repairs took six months to complete. Three miles of the line was deviated around the marshes, and during this time it seems the old Cossack line and wharf was used for the last time, as it was announced that the Cossack line was to be dismantled as soon as this deviation was complete. All this work was duly completed by 30 June 1913 and the passenger shelter shed at Cossack was shifted to Point Samson.

Nothing much was reported in subsequent years, apart from storm damage, until the 1920-21 year, when four new bogie trucks were supplied. As reported in LR 52, the jetty was destroyed in 1925 by a cyclone and the locomotives were sent south in the following year. It would appear that the 3 ft 6 in gauge was not installed until the construction of the present jetty after 1932.

Steam locomotives

The first locomotive (Orenstein & Koppel B/No. 2271 of 1906) was acquired in May 1910, having apparently not previously been used. It was assembled at the Harbour Works Department workshops, Fremantle, and inspected at the WAGR workshops Midland Junction before being shipped to Point Samson. It was transferred from Roebourne in November, 1926 to Churchman's Brook reservoir construction for the Metropolitan Water Supply Sewerage & Drainage Department. By January 1931 it was working at Harvey Weir on construction work, but was out of use by November, 1932. The boiler was sold to Tomlinson & Co. Ltd., Machinery Agents in July 1946, who sold it in April, 1951 to Collie Dry Cleaners for use as a stationery boiler.

Leading dimensions:

Cylinders (2): 6½ x 12 in
 Wheel diam: 23 in
 Wheelbase: 3 ft 4 in
 Boiler pressure: 175 psi
 Grate Area: 3.28 sq.ft.
 Total Heating Surface: 126 sq.ft.
 Water tank capacity: 104 gals.
 Bunker capacity: 73 gals.
 Weight, empty: 5½ tons
 Weight, working order: 6 tons

The second locomotive (Orenstein & Koppel, B/No. 2303 of 1907) was acquired by August, 1911. In November, 1924 it was reboilered at the State Implement Works, Fremantle and returned to Roebourne. The loco was transferred to Churchman's Brook reservoir construction by November, 1926 for the Metropolitan

COSSACK - ROEBOURNE TRAMWAY

Commencing Monday, August 6, the following table will operate.

<u>Stopping Places</u>		No.1 A.M.	No.3* P.M.	<u>Stopping Places</u>		No.2 A.M.	No.4* P.M.
Cossack	depart	8.30	3.30	Roebourne	depart	10.00	5.00
Strand Road	"	8.33	3.33	Victoria Hotel	"	10.02	5.02
Perseverance Street	"	8.35	3.35	Willard Street	"	10.04	5.04
Half-way Crossing	"	9.07	4.07	Half-way Crossing	"	10.37	5.37
Willard Street	"	9.41	4.41	Perseverance Street	"	11.10	6.10
Victoria Hotel	"	9.43	4.43	Strand Road	"	11.12	6.12
Roebourne	arrive	9.45	4.45	Cossack	arrive	11.15	6.15

*During summer months, October to April inclusive, Nos 3 & 4 run 30 minutes later than tabled above.

(Source: W.A.G.R. Weekly Notice No.32, 10 August 1906)

COACHING RATE BOOK. Dated 1st May 1902

Delete coaching rates shown under heading of 'Cossack & Roebourne Tramway' and insert following:

	Single	Return
Passenger Fares	2/6	4/-

2/6 return on guaranteed Specials & Excursion Trams.

Children not exceeding 3 years of age are carried free.

Children over three and under twelve years of age will be charged half-fare.

Children attending Roebourne School to be conveyed from Cossack free.

Special tram consisting of one car £1.10s.0, each additional car, 15/-.

Roebourne to Cossack, 8 miles 35 chains. Rates to operate from 1st Sept. 1906.

(Source: W.A.G.R. Weekly Notice No.38, 21 September 1906)

Water Supply Sewerage & Drainage Department. It was stored at the Government Stores, North Fremantle from April, 1928 to November, 1930 when it was in use at Harvey Weir on construction work. By December 1932 work was finished there. It was sold to Tomlinson & Co. as a stationery boiler in July 1946.

This was slightly larger (in some dimensions at least) than the first locomotive. The following dimensions are known:

Boiler pressure: 175 p.s.i.

Grate Area: 3.75 sq. ft.

Weight in working order: 7½ tons

References and Sources

1. *Report No. 41*, W.A. Parliamentary Papers 1898, Vol.
2. *Public Works Department Annual Report 1892*, W.A.P.P. 1893.
3. *Public Works Department Annual Report Year Ending 30 June 1909*, W.A.P.P. 1909.

The locomotive details were supplied by Adrian Gunzburg; all other details are from annual reports of the Public Works Department, Harbours & Lights Department, and Western Australian Government Railways. Thanks are due to Michael Guiney for submission of extracts from Annual Reports, and the timetable and fare details.

Tasmanian Discoveries

by David Beck

I have recently had the opportunity to spend several days perusing the boiler records of the Department of Labour & Industry here in Hobart, and to my surprise have found them to be more comprehensive than I had previously imagined.

These records have always been somewhat inaccessible to the general public, although the D.L.I. officials have always been helpful in dealing with specific requests.

As luck would have it my visit just after Christmas found their bureaucratic defences somewhat at fault and I was able to peruse the said volumes at leisure, that is until eventually my activities became known to 'higher orders' who, somewhat redfaced courteously convinced me that official government documents are really not for idle public scrutiny.

Although I suppose that I was rather naughty, my efforts did uncover a few surprises and did confirm the existence of a few locomotives whose operation in Tasmania had been doubtful.

I would like to offer what I consider to be the more interesting entries to readers of *Light Railways* in the sincere hope that some more light may be thrown on these little known locomotives.

Entry 699

Tasmanian Timber Corp. Port Esperance

Black Hawthorn (rebuild) 1892

7½ in x 14 in cyls.

Inspected 24 July 1901 when in good condition.

Note: Confirms the builder of this loco, but meaning of term 'rebuild' somewhat ambiguous. Previous history unknown. This is the loco *Stanley*.

Entry 817

Hay & Chopping, Hastings

Built (boiler) Markham & Co. Ltd about 1892, two cylinders 6 in x 12 in. Inspected 22 November, 1901, idle in 1914 when a new boiler was being fitted.

Vertical boiler. This would probably be the loco abandoned in the vicinity of Sharp's Siding in the Derwent Valley (see LR27, p.13 and LR30, p.17)

Entry 1576

Robert Hay, Southport

(Later R. Skinner, Daniel's Bay, Oct. 1911)

Cyls: 4 in and 6½ in x 5 in, Jackass 4 h.p. boiler. 'This boiler was originally in a steam launch belonging to R. Allport ...' Inspected 24 March 1908.

Entry 1596

Faley & Fisher, Port Esperance

(Then R. Skinner, Daniels Bay, then J.K. Clark, Cygnet) Compound cylinders, vertical boiler, 6 h.p. Built by Simpson Strickland & Co. in 1903. Idle 1914. Condemned 1931.

Note: Daniel's Bay and Lunawanna (Bruny Island) are the same place.

Entry 1981

Tas. Hardwood Corp. Hopetoun

Andrew Barclay of 1912, No. 6237

Cylinders: four, 12½ in x 18 in. Inspected 5 March 1913, idle, 1914. 'This is a new engine just imported' Note: This confirms the existence of the rare Andrew Barclay Meyer type 0-4-4-0T articulated. Hopetoun mill burnt down in 1914?

Entry 1161

Hungerford & Sons, Ulverstone Breakwater

Builder unknown. 'This boiler is in fair condition for its age'.

Entry 1167

Hungerford & Sons, Devonport

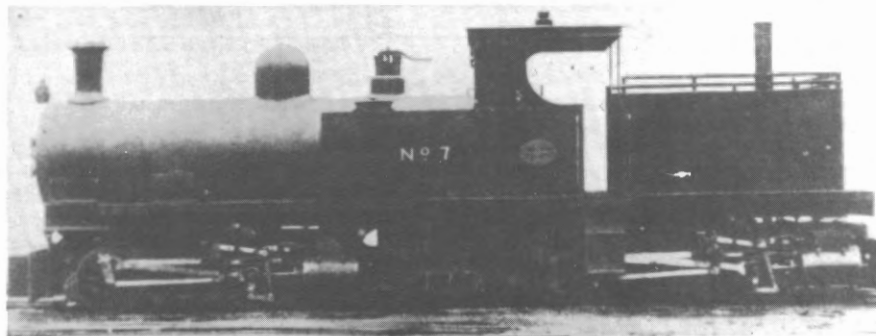
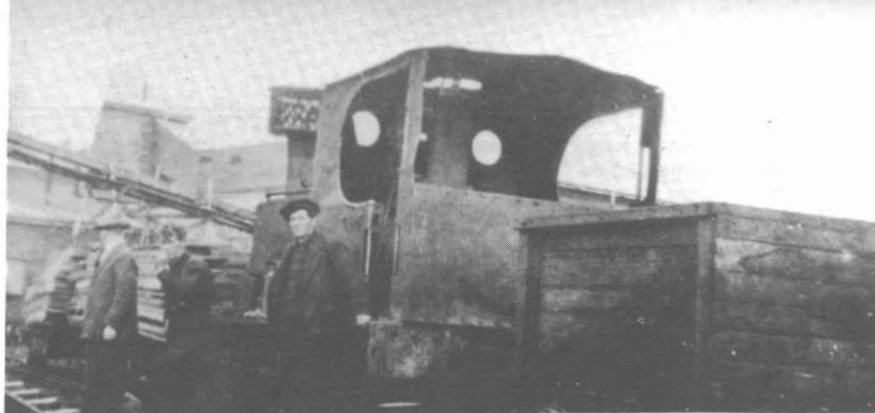
Andrew Barclay & Sons, 1879. Hydraulic test by Hoskins, Sydney. Inspected 26 January 1904. 'Has been overhauled and is in good condition'.

Note: The above two locomotives would have been ex northern NSW. Andrew Barclay loco went to the Lobster Creek tramway.

Entry 1582

Lee & Sons, Duck River

Phoenix Foundry, about 1890, 'Ex Ballarat steam tram'.



Top Black Hawthorn 0-4-OST, as referred to in Entry 699.

Bottom Andrew Barclay 0-4-4-OT Meyer articulated, B/No. 6237 of 1912. This is the loco referred to in Entry 1931.

Both photos D. Beck collection.

Entry 1790

Lee & Son, Duck River

Phoenix, Foundry, about 1890. 'Had been overhauled in Melbourne'. Inspected 21 October, 1910.

Entry 1855

Marrawah Tramway Co., Smithton

Baldwin & Co. 'Ex Ballarat Tram Co.,... it is old and getting thin about washout plugs'.

Note: Re the above three entries, reference to Ballarat trams should read Bendigo trams. All boilers noted as in poor condition. As Lee's engines were bigger than the Baldwin the reason for the popular myth about a Sydney motor at Smithton seems apparent.

Entry 1603

South Mount Cameron Timber Milling Co.

Builder unknown. Vertical boiler. Cylinders, two 6 in x 6 in. 'This boiler belongs to an old fashioned locomotive formerly owned by C.N. Wyett of Beaconsfield. It has been bought ... for bringing in firewood'.

Entry 1849 Tas. Gold Mine Ltd. Beaconsfield

Salisbury's Foundry, 1911. Cylinders: 7 in x 14 in.

Note: Probably a replacement boiler for a Kerr Stuart loco, but replacements are usually referred to as such.

May be the 'traditional' fourth Beaconsfield loco.

Entry 2037

Tasma Saw Milling Co.

(Then E.E. Knight & Co. 1931) Location: near Wynard, then Hobart. 'Haulage loco on bush tram'. Cowley & Sons, semi-portable type boiler, inspected 17 January 1914. 'This boiler was imported by R. Allport & Co... and fitted into locomotive frame for running on bush tram. Workmanship on boiler is rough'. Retubed 1931.

Entry 2157

R. Skinner, then Bury B.C. (1950), then Doyle Bros (1952)

Location: Lunawanna, Bruny Island. Bush locomotive, two cylinders.

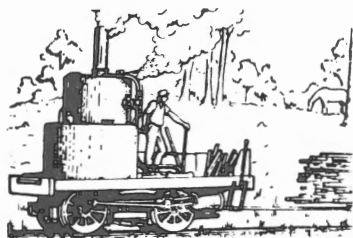
Boiler: Cowleys Ltd., 1915, 6 h.p. semi-portable, inspected 16 February 1916

Entry 2392

National Portland Cement Ltd, Maria Island

Built by Robert Hudson Ltd., Leeds. Inspected 19 January 1923

Note: This loco went to Corrimall Colliery, NSW and is now privately preserved near Colo Vale.



News, Notes & Comments

NEW SOUTH WALES

BODALLA CHEESE TRAMWAY

Tramways on the far south coast of NSW do not appear common - apart from such places as Moruya, and no doubt some fishing locations.

On a recent trip to the south coast a reference to the Bodalla - Narooma tramway in a pamphlet published by the Bodalla Co-operative Cheese Society caught my eye. Though worked by horses, and maybe even wooden-railed, the line should have been quite lengthy, highway grades are steep in the area at parts, so maybe the tramway went via a near coastal route.

The reference in the pamphlet reads: 'All this product cheese and bacon was shipped from Narooma, and carried there from Bodalla over a specially constructed tramline, on trucks pulled by teams of horses. This line went out of use about the turn of the century'.

(David Burke)

BRITANNIA STEAM TRAMWAY, FORBES

The Lachlan Vintage Village at Forbes was opened in May 1975 and is a completely operational museum. It includes the 2 ft gauge Britannia Steam Tramway which is operated by the museum staff.

My visit took place on 21 November 1976. Having paid my \$2.00 entry donation, I went straight to the tramway depot. This depot is a complete workshop operated by overhead belt drive powered by a stationary steam engine.



Behind the workshop is the open air terminus where the tramway rolling stock is stored. There are two 0-4-2T locos undergoing extensive restoration. I believe these are both Fowlers. I was told they came from Queensland and the maker's plates had long since gone. One had the tubes, smoke box and fire bars removed for repair, while both locos had their tanks removed. Behind the locos was a wooden wagon supported on four-wheel bogies. Beside this wagon, standing on the ground, was a four-wheeled tramcar which I believe would be an ex Melbourne cable tram trailer (a strikingly similar car operates at Goulburn).

Other rolling stock included a very small four-wheel wagon with three sides, and which looked as if it was man-powered; and two four-wheel passenger carriages, painted green, with stained wooden slat seats.

The tramway's only motive power at present is an 0-6-2T Bundaberg Fowler, B/No. 4 of 1952. It is road number 2 of Britannia Tramways and is painted dark green, with red builder's plates.

Raising steam was done by supplying compressed air from the workshop via a hose connected to an external blower connection on the loco.

I walked the length of the track (except that to the dump) and found the track to be raised 12 to 18 in most of the way. The sleepers were very unevenly spaced but averaged about 2 ft.

The only incline on the track was from the Blackridge station up towards the first bridge. This incline was slight but resulted in a very pleasing exhaust from the loco.

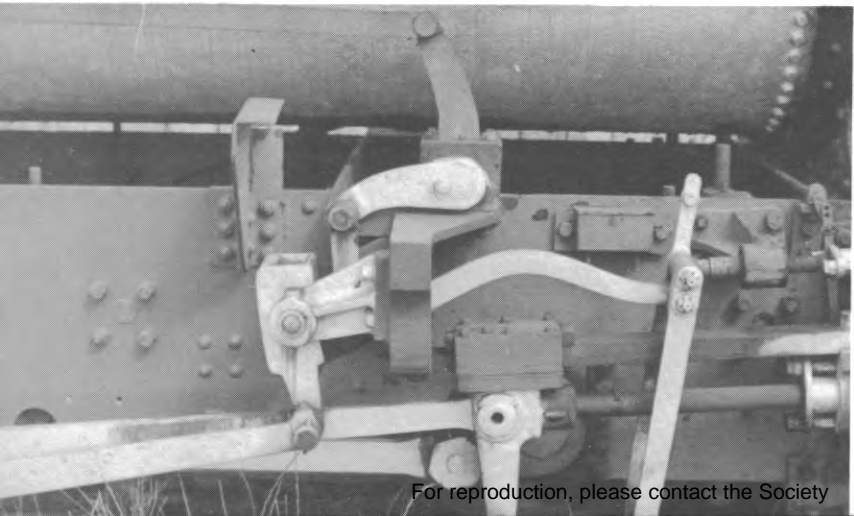
The spur line to the Britannia mine shaft was laid mainly on the ground and its buffer stop was a pile of rocks.

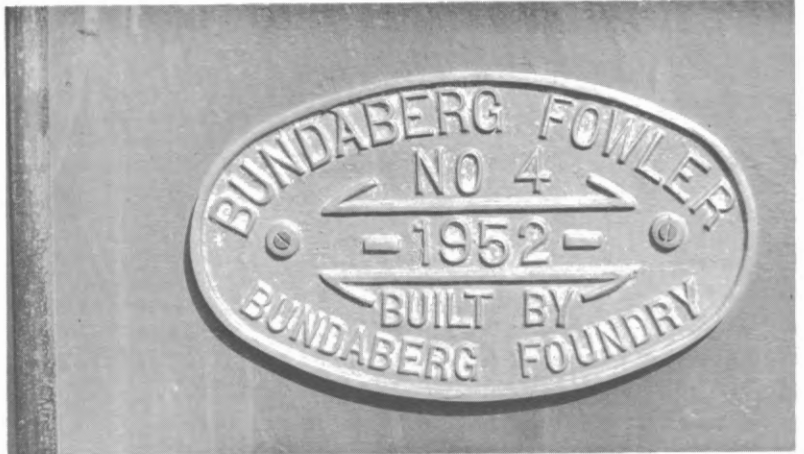
Just north of the line's Blackridge station was a steam operated battery stamp mill. This is situated at the original Lachlan diggings and scattered along the length of these diggings are pieces of light portable rail tracks of 2 ft gauge.

At present the Lachlan village is in stage I of construction and for the future it is intended that the Britannia Tramway will encircle the site with its tracks.

I have also heard that is intended to run standard gauge locos on the site. These locos are stored at the Parkes roundhouse on the southern side of the town.

(Geoff Murdoch)





Top Left Entrance to the 2ft gauge Britannia steam tramway, Forbes, NSW.

Centre left Two 0-4-2T locos undergoing overhaul at Forbes.

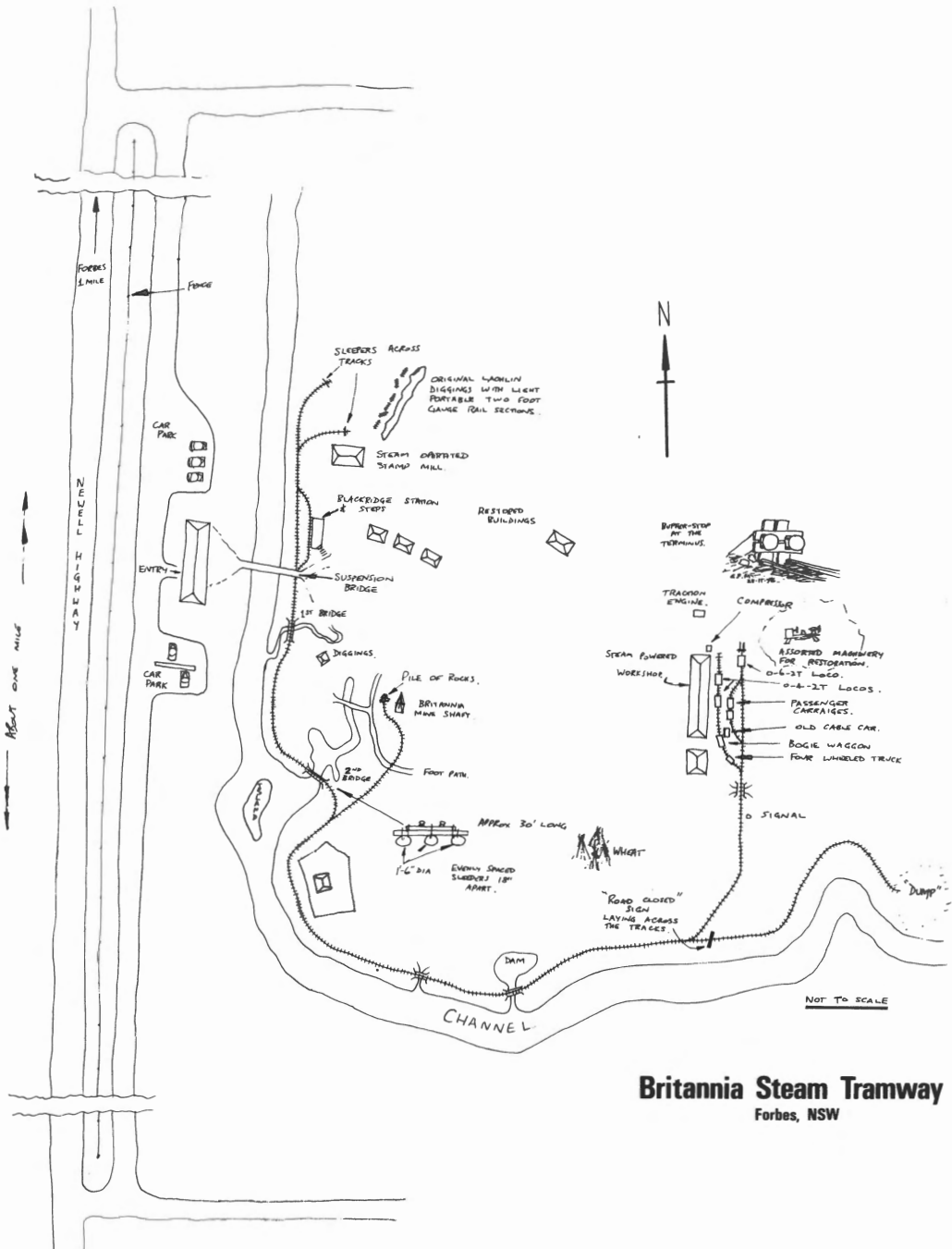
Bottom left Valve gear of the rear loco in the previous picture.

Top right Old tram trailer (ex Melbourne cable tram?) at the Britannia tramway.

Centre right Builder's plate of the Britannia Tramway's only active steam locomotive.

Bottom right The locomotive itself, an 0-6-2T.
Photos Geoff Murdoch





TIMBERTOWN, WAUCHOPE

Further to the item in LR 55, p.20, Phill Phillips visited Wauchope in September 1976 and found the locomotive was a Fowler 0-6-0, B/No. 12271 of 1910. There is also a Simplex rail tractor on the site. The Fowler locomotive was previously used on the CSR's Goondi Mill, near Innisfail, where it was No.5 on the roster; and sometime after 1955 was transferred to CSR's Victoria Mill at Ingham, where it was named *Sunlander*.

In 1961 it was transferred to the CSR's Macknade Mill at Ingham, where it became No. 8. It was working there in November 1964 but by November 1965 had been laid aside and was standing on the mill's scrap road. It was later placed in the Lion's Park at Lucinda.

Timbertown Wauchope is located on an 87 acre site, on the Oxley Highway 3 km west of Wauchope and 23 km from Port Macquarie. Buildings on the site include numerous cottages, school, church, post office-store, stables, and blacksmith shop. Focal point is the 'Town Mill' (saw mill) and yet to be established is a bush sawmill, a country pub, a police station and a bank.

More than a mile of 2 ft gauge railway winds through the heavily timbered site, with some curved trestle bridges. Other attractions include a sleeper cutter's camp, a shingle cutter's camp, a charcoal burner's camp, a steam powered drogher carrying logs on the lake, a bullock team hauling logs, and sulky rides along bush tracks. The cottages are fully furnished, and some have stamped earth floors.

Details of the locomotive came from a letter to the Manager of Timbertown from John Armstrong of Brisbane.

QUEENSLAND

QUNABA MILL, BUNDABERG (See LR 55, p.21)

A quick trip to Bundaberg on 2/3 September 1976 showed Qunaba 100% steam and Millaquin 100% diesel. At Qunaba on the afternoon and night shift of 2 September No. 1 *Delta*, a Perry and No. 5 *Jumbo*, a Bundaberg Fowler were in use with No. 3 *Flash*, a Perry, dead in the engine shed together with No. 2 *Skipper*, another Perry undergoing repairs and No. 4, a Bundaberg Fowler standing forlorn with funnel covered by canvas behind the shed.

On arrival at the shed at 6.30 a.m. on 3 September the situation had dramatically changed. *Delta* and *Jumbo* were out hauling cane, *Flash* was being prepared for work and although *Skipper* was still in the shed being worked on, the forlorn *Invicta* had been shunted inside and was in the process of being lit up.

By 7.00 a.m. *Delta* and *Jumbo* had returned for re-preparation and punctually at 8.00 a.m. after being very carefully sanded, coaled, oiled, greased, raked out, and hosed all over went back to work accompanied by *Flash* whilst *Invicta* slowly raised steam in order to work an afternoon shift whilst repairs continued on *Skipper*.

I spoke to a driver who said the engines are being worked very hard and that major repairs would be needed

if the locos were to be used for the 1977 season and that he had heard rumours that replacement diesels had been ordered.

The locos have been given an equipment number as well as their old number so that *Delta* now shows the number 21901 as well as its old No.1, similarly *Skipper* is 21902, No. 2 (Perry); *Flash* is 21903, No. 3 (Perry); *Invicta* is 21904, No. 4 (Bundaberg Fowler); *Jumbo* is 21905, No. 5 (Bundaberg Fowler).

Delta has one unique feature - painted on one side tank are two small motor cars apparently indicating unscheduled meetings at level crossings.

All five locos are painted yellow with black smokeboxes and some red lining and look most attractive and photogenic.

(P. Boardman)

VICTORIA

DANDENONG TRUNK SEWER, HAMMOND ROAD SITE, DANDENONG

This 2ft 6 in gauge line was visited on 8 October 1976 when two Gemco battery-electric locos were seen - one in use below ground level and one in use removing spoil from the top of the shaft. A diesel loco was also working below ground level. On the surface were seen E.M. Baldwin four-wheel diesel-hydraulic B/No. 5366.6 of 1974 regauged from 2ft working, and Ruston & Hornsby 296058 of 1950 (type 48DL), a 48 hp four-wheel diesel mechanical, formerly owned by the SEC, regauged from 3 ft. Another E.M. Baldwin, B/No. 5366.4 of 1974, and a BEV battery-electric, were said to be awaiting regauging from 2 ft gauge.

(John Browning)

HALLAM VALLEY MAIN SEWER, SOUTH GIPPSLAND HIGHWAY, DANDENONG

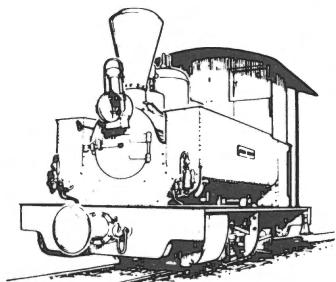
This 2ft gauge line was also visited on 8 October 1976. Three new E.M. Baldwin locos have been delivered here after being stored at Braeside for some time. They are 4 tonne four-wheel diesel-hydraulics, B/No. 6700.1, 6700.2 and 6700.3 of April, 1976. The first and last were both observed on the surface, while 6700.2 was believed to be underground. They are white with black and white dazzle stripes.

(John Browning)

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LETTERS

LAHEY'S CANUNGRA TRAMWAY

I was pleased to read the article comprising LR54 about Lahey's Canungra Tramway, which was compiled from Mr George Bond's records by Mr R.K. Morgan. It is without doubt the most informative expose of the tramway side of the Lahey's operations in the Canungra district yet published, and was amply illustrated.

It was therefore a little disappointing to see an inaccurate map showing an incorrect site for the mill and railway station at Canungra included and to correct this minor blemish I am enclosing a copy of the actual layout taken from an undated, though probably original, plan and section of the QGR Canungra branch, together with a 1927 station yard plan of the government yard, which is not to scale, but which may be of additional interest. It would appear that the originator of the previously published Canungra map was confused by the position of the Franklin sawmill and timber shed near the end of the QGR line. It will also be noted that an additional dead-end siding near the connection between Lahey's tramway and the government line is shown on the 1927 layout.

Finally, I must add that I was surprised after reading the article and upon checking to see what the 52 references annotated in the text were about, to find that these in effect amounted to only eleven actual sources of reference. Now I don't wish to be critical, but surely this is unnecessary proliferation!

Several well known contributors to the advance of Australian rail history have already expressed their views on this subject and I may as well add mine for the record. I do agree that a list of references - within reason - is a valuable way of impressing readers with the authenticity of an article and, more importantly, directs those who may care to pursue certain aspects of the subject further, to the location of additional material. However, the inclusion of references for the sake of including references has nothing to commend itself whatsoever. Rather should the writer try to minimise them. There is nothing more annoying when reading the text of an article to continually come across a series of numbers within it. The reference numbers disrupt the flow of reading and consequently the pleasure of reading, a point which has been obviously taken into consideration by the authors and/or publishers of some books who place their unindexed references at the tail of each chapter.

There are ways of both minimising unnecessary reference marks and qualifying origin of subject matter by

adopting a commonsense approach. Two examples of this are, (a) 'it was observed on a visit in October 1976 that' adding the name of the person who made the visit if not the author, and (b), 'the *Evening Blast* of 21 December 1904 recorded that'. The latter example has the additional advantage of immediately informing the reader of the source as well as a clue to its value. For example, the mythical *Evening Blast* may have been known during the relevant period for distorted views or ill-informed comment.

Another aspect of the latter is that railways engender a jargon of their own, some of it quite localised, which tends to confuse the uninitiated. Add to this some of the specialised equipment often used by railways, and it is not hard to see that even the best intentioned journalist or editor can become confused. Imagine for instance the story published recently in Brisbane of two trains travelling on an electric staff system that had just been installed on the Pinkenba branch, attempting to cross at an intermediate interlocked station that was unattended at the time! To appreciate this, non-Queensland readers must first be told that train crews on the QGR are not permitted to operate interlocked cabins or signal boxes.

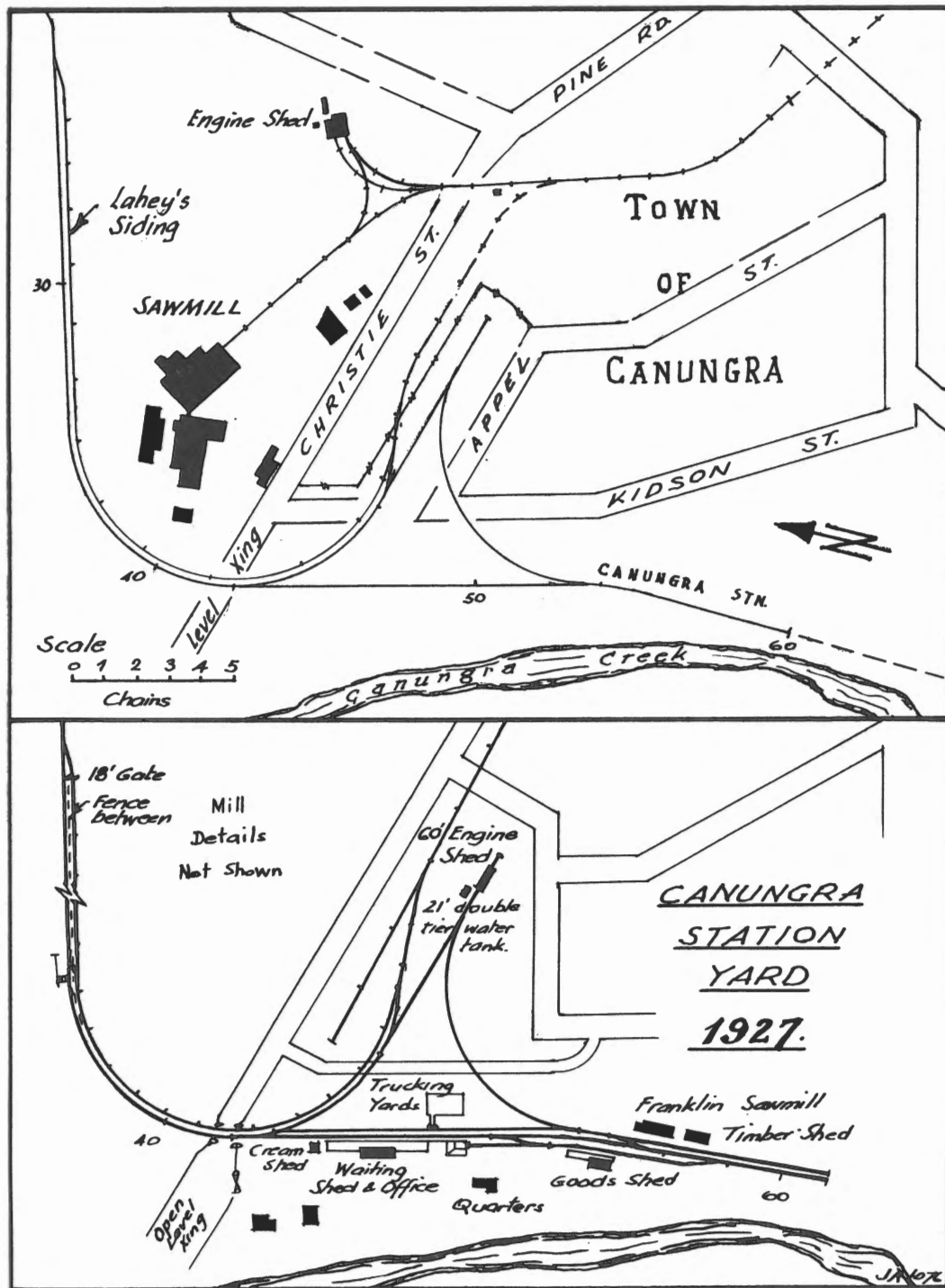
But attempt to explain the electric staff system and safeworking methods to a newspaper reporter whose time and editorial space are at a premium and you get only a garbled version of the incident. In this case, one report gave a distinct impression that the electric staff system is a new untried gadget!

This and similar attempts to describe past events of our railway history can lead and no doubt have lead to an incorrect impression or two when viewed from distance of time. What appears comical today may appear plausible in forty years' time.

What I am getting at is that references, valuable as they may seem, and without doubt one way of saying the writer has actually done some research on the subject, do have their limitations, and to reiterate, should be kept to a minimum, particularly in the sphere of honest intentioned historical railway and tramway journals of the present where space is somewhat at a premium.

Because of this I shall not attempt to elaborate further, but to urge armchair historians and would be writers to simply adopt a commonsense approach to the end product, bearing in mind there can be pitfalls along the way.

John Armstrong
Chelmer, Qld.



COSMOPOLITAN MINE TRAMWAY (N.T.)

Regarding Mr R.K. Morgan's article in LR 51, p.16, I suggest that the gauge of this tramway was 2 ft and not 3 ft 6 in, on the basis of the following evidence:

1. The Commonwealth Railways Works Plan and Section drawings Sheet 1 for the extension of the N.A.R. to Katherine shows at 147 miles 13 chains (mile post mileage) a crossing on the level marked '20" Tramway'. The plan also shows the tramway leading to '... Cosmopolitan Battery' slightly to the south-east of the line. To the north-west the tramway is marked 'To Mount Elenor Mine'.

2. I have not been able to find any reference to a 3 ft 6 in siding at Pine Creek for the Cosmopolitan Mine at Pine Creek. A very thorough inspection was made of the railway in 1914/15 by Mr G.A. Hobler of the Commonwealth Railways and there is no mention of this siding in his report.

3. If 2ft. gauge, the advertised move of the loco to Maranboy would have been logical.

MOUNT ELLISON TRAMWAY (LR 52, p.15)

Mr Hobler noted that 38 tons of rails from this tramway were stacked at the site of the crossing with the

N.A.R. He remarks 'This tramway material belongs to the Railway Department'. I saw a plan of the tramway bridge over the N.A.R. in the old railway offices at Darwin in 1969. It was dismantled when Hobler noted the rails in 1915.

J.Y. Harvey
Blackburn, Vic.

BALDWIN 7108

In reply to Mr Stokes' query regarding Baldwin 7108 (LR 55, p.24) I must claim ignorance of the precise movements of *Fantail* in Tasmania. I personally doubt that Baldwin 7108 ever got to the Smithton area complete as did the Black Hawthorn, and suggest (although I cannot prove it) that its boiler was sold for stationary purposes in the Latrobe (Deluxe Dry Cleaners) and Devonport areas, whilst the Black Hawthorn and the frame, wheels etc. of 7108 went further north. Whether those parts attributable to 7108 at Welcome Swamp constituted an amalgamation with *Fantail* or not I just do not know.

David Beck
Midway Point, Tas.

References, another opinion

from Allan Watson

There has been considerable discussion in *Light Railways* about articles that did not quote the source material they used, and I think that this argument started shortly after a review of the book, *The Shale Railways of N.S.W.* (see *Light Railways* No. 48). I had intended to add my bit to the discussion by writing an article on the use of references and some of the problems associated with their use. Unfortunately, I have little to show for it so far, although I have been working on it for nearly a year. This is largely due to the complexity of the subject, as well as my limited time to write.

However, in *Light Railways* No. 53, Mr. Bruce McDonald contributed a letter pointing out a few problems with *The Shale Railways of N.S.W.*. As a member of the production team on that book, I may have sufficient qualification to make a reply to that letter. In replying, however, I would like to use this opportunity as an excuse to make a few general comments about referencing from my intended article. In particular I would like to show that many of the more serious problems (particularly concerning accuracy), that have been attributed to unreferenced articles, may also be present in articles that are referenced to the standard currently practiced in *Light Railways*.

One fact that I think has not been recognised in the discussion to date, is that there are two principles to be considered - authenticity and accuracy. So far, comment within *Light Railways* has been directed at the

importance of authenticity and from the tone of such comments it would appear that the persons making them presume that accuracy will naturally follow. I disagree.

I consider that the ultimate aim of research is to be as accurate and comprehensive as possible, within the set limits of subject, approach to the subject, and time. One of several factors that affect this aim is authenticity, but there are other factors of which I rate *checking* to be of equal, if not greater importance than authenticity. Thus, in my opinion and apparently contrary to *Light Railways* practice, authenticity is only a means to an end (i.e. accuracy) rather than being an end in itself.

Authenticity has problems and to illustrate, I refer to some comments in *Light Railways* No. 49, that were directed at unreferenced articles in other enthusiast publications. This comment is correct in that many such articles do contain errors and that nearly all do not readily prove authenticity. What must be remembered, however, is that most are based on authentic information, and all *could* have been referenced, at least to the current *Light Railways* standard, had it been the thing to do at the time. If references are not given, the extra work involved lies in trying to identify the sources used, not in the actual checking of the information given by the sources. Good research involves checking *all* sources of information and this includes referenced sources, along with the unreferenced ones. Work involved at the checking stage should thus be no worse than normal.

I have studied the problem of errors in past

unreferenced work to some extent and offer the following theory about them:

MANY ERRORS HAVE OCCURED AS A RESULT OF BEING TOO AUTHENTIC, AT LEAST TO A SINGLE SPECIFIC SOURCE.

My reasons for this are:

1. I have yet to find a foolproof, reliable source for any given information. What I (and apparently *Light Railways*) regard as authentic sources, actually covers information with varying degrees of accuracy.
2. Some of the more outstanding errors have been caused by the use (or misuse) of interviews, a source which has been encouraged (and quite rightly) by *Light Railways*. This does not mean that interviews are no good, - far from it. It does mean that interviews are quite capable of giving bad information along with the good.
3. The lack of references does *not* mean that legitimate source material has not been used. It only means that such sources are not readily identifiable to those who may not know where to look. Indeed, in many cases where a written source has been used, it is not difficult to identify the source (provided, that is, you happen to find the source by other means), because in many cases, particularly with old authors, such sources have been copied almost to the letter!
4. Many past research articles show little or no evidence of having been checked. In many cases information is presented unadulterated by such improvements as corrections.
5. Many articles concentrate on technicalities. In so doing they preserve the facts, but sometimes the reading gets very tiring.

Some of these reasons raise the interesting question - just how authentic should a researcher be in writing an article? Authenticity in its most pure sense must virtually mean copying, but even here you run the risk of quoting material out of context. But copying is only part of the art of research - what about the multitude of other techniques of processing this stuff into the final masterpiece that ends up in print? This processing is very necessary, but it gets away from absolute authenticity - indeed the better the processing, the further it gets from authenticity absolute.

Getting away from authenticity for a while, I would like to concentrate on the more important aim of accuracy and see how referencing can help in this regard. To start, I have some unkind remarks to say about the manner of referencing in *Light Railways*. I hope that these remarks will not be taken to heart and I hope that by acting on these comments, writers will be able to upgrade their referencing standard.

My chief gripes with referencing in *Light Railways* are the habit of numbering references, and the limited amount of information that is usually contained in the reference table entries. Indeed, to judge by what has so far been practiced (and preached) within *Light Railways*, it would appear that the main reason for quoting references is to prove that the author did not originate the information himself. As we have seen, this is a poor reason, and as I will later explain, one that is far from

foolproof.

I approve of the idea of referencing, and that of placing such information in a table at the end of an article. Not only is this a tidy arrangement, but let's face it - there will be limited use for such information to the average reader. Putting it into a table at the end not only makes it easier for the few who want such information, but gets it out of the way for those who just want the story.

But numbering references! Why go to all this bother? I can see no point, other than wasting paper, in taking half a page to list a handful of references again and again. One example - *Light Railways* No.54, *Lahey's Canungra Tramway* has 11 references numbered from 1 to 52. Why? Even when you go to this trouble have you numbered *everything*? Another example - *Light Railways* No. 50 'Carnarvon' (which has 4 references numbered 1 to 10 in the table, plus a few more that are only mentioned in the text) - nothing in the section on 'traffic' is referenced at all!

To avoid such problems of specific omission in the numbered reference method one has to go into minute detail - go back to that 'Carnarvon' article, and we see a brave example of this idea. References No. 1, No.2 and No. 3 (which are the same anyway) are within a couple of words of each other. Where do we stop?

If we go too far with this, won't it interfere with the author's style of writing? I am sure that you as editor are fully aware of the problems of writing something with certain intentions, only to have it read and interpreted by others as meaning something else. No two writers can re-express certain facts for detailed references, you will still not achieve any certainty of avoiding errors just by quoting sources.

It is in the details that we find authors making up information, which even every-second-word type referencing will have difficulty in avoiding. An example from *The Shale Railways of N.S.W.* describes the Joadja locos as 'having an oogie shaped saddle tank peculiar to their makers' (ie. Barclays). Ignoring the fact that I still have to find a dictionary definition of 'oogie', that tanks of the shape in question were *not* peculiar to Barclays is evidenced by the New Zealand F-class, which was a loco of similar appearance (although overall somewhat larger) to those at Joadja. The New Zealand locos involved six different builders, and what's more, Barclays was not one of them! (See *Cavalcade of New Zealand Locomotives* for further details). The point here is - how could this extract have been referenced, to avoid the error that I have mentioned? I wouldn't know, as the error has occurred within the writer's style of describing a given fact - the shape of the tank.

A few more problems with numbered references also apply to any type of reference linked to specific pieces of information. Very few references in *Light Railways* contributions have so far solved these potential traps. As I have already mentioned, an important factor for accurate information is the use of several sources - in other words, **CHECKING!** Numbering references is no encouragement to more thorough treatment of all possible sources of information.

As a variation to that problem, there is the temptation

to mention only the more important sources that have been referred to by the writer, and to ignore the minor ones. These nevertheless may have a significant bearing on the written result, even if the author may not realize this at the time of writing. Maybe this was the case with those traffic notes in the 'Carnarvon' article in *Light Railways* No. 50?

The Shale Railways of New South Wales

The last problem is a further variation on the above, and it finally brings me to Bruce Macdonald's letter on the Shale Railways book. The problem is - what about those instances where nothing at all is mentioned of certain bits of information that may exist and the author has chosen not to include at all? With the Shale Railways book, the example is the argument - were there five locos at Joadja or only four. Giff says five, and quotes a source. Yes, this book does contain a few references - in fact, other than listing it in a table, he has, in this particular instance, met the basic requirements for referencing as presently practiced in *Light Railways*. Unfortunately his reasons for doing so are also apparently the same - 'I have not made up the information. I think it is correct., but if it isn't, it is not my fault that it isn't.' Mr. Macdonald has outlined the case for four locos, and, as he says, no mention of this version was made in the book, although Giff was well aware of it. It appears to me that this bit of information has been referenced *because* Giff knew of the possibilities of argument and has covered himself - but is this the right way to use references? As a result, I become distrustful of the accuracy of information when it *has* been referenced, not when it hasn't - at least with this book.

Well, so much for assigning references to specific parts of a text. I do acknowledge that there are occasions when numbered references are useful (reference No. 41 in the Canungra article in LR 54 is a good example), but I think that generally, numbering has been overdone in *Light Railways*. Perhaps a 'Bibliography' approach would be more appropriate for most contributions to *Light Railways*. Main advantages are that all reference sources can be listed, and there should be no duplication of entries. This system, incidentally, is used extensively by the N.S.W. Department of Mines in their reports and papers (nothing gets numbered) and I have found it of great assistance in my research on mining railways in N.S.W. So far, I have only seen one contribution to *Light Railways*, using this method.

Perhaps at this point I should mention what has had a great influence on my ideas on referencing. It is a book, *On the Margins of the Good Earth* (subtitled *The South Australian Wheat Frontier, 1869 - 1884*, and has considerable information of narrow gauge railway interest in that area and is recommended reading for those interested in that area). Some points worth raising here are:

1. This book did have numbered references; so much so, that even a *Light Railways* identity thought that it was overdone. However, these were mainly used to convey additional information and those places where only a source was mentioned (i.e. the standard *Light Railway* type reference) were usually confined to places where he had used a direct quotation from the source concerned. As such, he has kept repetition and wasted space to a minimum - more than I can say for *Light Railways*.
2. He also had a bibliographic section at the end of the book. This contains my favourite of references: 'The historic files of country newspapers in the Public Library are very nearly complete, and every issue available of every newspaper published in the region during the years 1868-84 was examined in detail, ...' This simple statement reveals so much about this writer and his research; far more than all of his numbered references put together, at least as far as newspaper research is concerned. I have yet to see anything like this in any enthusiast publication, and that includes *Light Railways*. How about substituting those horrid little 'as for reference 41's with something like the above?

But back to Bruce Macdonald's letter. It is an interesting point that Bruce has raised quite a few questions on just that section referring to Joadja. In fact, there are many more errors that have come to light and I have literally pulled one copy to pieces as part of my own program in analysing the information in this book. There are far too many errors to tabulate in this letter, but we can look at some to see just why they occurred.

(To be continued)

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