

# **LIGHT RAILWAYS**

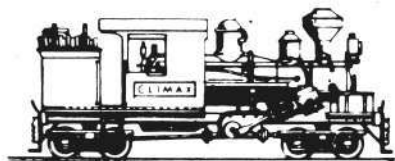
**Number 91  
January 1986**

ISSN 0 727 8101



**Published by  
The Light Railway Research Society of Australia**

Registered by Australia Post - publication No. VBQ1339



# No. 91 Vol. XXIII JANUARY 1986

ISSN 0 727 8101

## Light Railway Research Society of Australia

P.O. Box 21, Surrey Hills. Vic. 3127

### COUNCIL,

**President,** Mike McCarthy (03 762 5847)

**Secretary,** Jack Stock (03 288-6601)

### New South Wales Division

Address: P.O. Box 290, Burwood NSW 2134

**President,** Jeff Moonie (48-0311)

**Secretary,** Craig Wilson (84-7984)

### Meetings:

**Melbourne** - Second Thursday every second month at 8.00 p.m. Uniting Church Hall, Ashburton Grove, Ashburton.

**Sydney** - Fourth Wednesday every second month at 7.30 p.m. Transport Social Club, 19 Regent Street, Sydney (near Railway Square).

**Adelaide** - First Thursday of every second month at 8.00 p.m. at 84 King William Street. Contact A. Lockyer, 6 Dunedin Street, Dover Gardens, 5048.

**Subscriptions:** \$16.50 per year covering 4 issues *Light Railways*, 6 issues *Light Railway News* and information on Society activities, publications etc. Overseas add \$5.50.

Back numbers *Light Railways* and other publications from LRRSA Sales, P.O. Box 32, Mornington, Vic. 3931.

**Light Railways** Editor, Bob McKillop, 10A The Bulwark, Castlecrag, NSW 2068  
(Phone 02 95-4516)

**Light Railways News** Editor, John Browning, 36 Tait Street, Mackay, Qld. 4740.  
(Phone 079 51-1337)

## CONTENTS

North East Dundas Tramway, Tasmania . . . .	3
Tatong to Toombullup Tramline by Greg Kirk and Graham Sheil . . . . .	7
Memories of the Cudgen Tramway by David Burke . . . . .	11
Photo Section . . . . .	15
Book Reviews . . . . .	17
Letters . . . . .	18

*Light Railways* is the journal of the Light Railway Research Society of Australia. The Society's members are undertaking research into the history of light railways in Australia and her territories. These include railways and tramways serving the timber industry, sugar mills and mines, construction tramways, industrial railways and narrow gauge passenger-carrying railways.

Articles, letters, book reviews, maps, photographs and drawings on topics of relevance to *Light Railways* are required for future issues. Comments on previous articles offering corrections or additional information are welcome for inclusion in our "Letters" columns. Written material should be typed with double spacing. Material should be sent direct to the editor.

**Cover:** Mount Lyell railcar at Strahan Tasmania on 4 October 1960 Glen Johnston photo.

## NORTH EAST DUNDAS TRAMWAY, TASMANIA

Over the past year proposals to reconstruct portion of the old North East Dundas Tramway to Montezuma as a tourist line have received publicity. On 18 June 1985 the Tasmanian Premier announced that the Government would not proceed with major railway restoration proposals and a

working mine museum would be developed at Mt Lyell instead. To reflect on what might have been, we offer the following description of the Montezuma railway in 1909. It comes from *A Guide to the West Coast of Tasmania* (1909). Photographs have been provided by Lou Rae.

One of the prettiest trips on the West Coast is that from Zeehan to Williamsford, along the N.E. Dundas 2ft gauge tramway or mountain railway. For the first five miles the line runs through button-grass plains, flanked with picturesque, wooded hills, and then commences to ascend into the mountainous country, the broken character of which necessitates numerous and sharp curves down to  $1\frac{1}{2}$  chains radius, on a grade of 1 in 27.5.

To negotiate such a track as this it will be readily understood that powerful engines are necessary, and it is a noteworthy fact that the heaviest 2ft gauge engine south of the Equator is here employed. This is known as Hagan's system patent coupled bogie locomotive, which has 12 wheels, 10 of which are coupled in two groups, and a pair of leading bogie wheels. Its weight, with water and fuel ready for the road, is nearly  $41\frac{1}{2}$  tons, and its working



Sharp Stewart locomotive (B/No 4198/1896) at 8.5 mile siding on the North East Dundas Tramway during construction.



**The branch line to Nickel Junction showing the bridge over Melba Creek in July 1910. Krauss locomotive H.4 (B/No 4080/1899) is on construction work.**

steam pressure 180lb to the square inch. It will haul 100 tons gross, exclusive of its own weight, up grades of 1 in 25, and curves of 99ft radius.

From Zeehan to the summit Confidence Saddle (1,550ft above sea-level) the line rises 1,015ft. As it winds, ever ascending, along the sidelings of the steep hills to the heads of the deep gullies it has to circumvent, the traveller views some of the grandest forest scenery imaginable. So narrow and steep are the gullies that here and there one sees an apparently separate and parallel railway, not a stone's throw away, but scores of feet above or below his train, and can scarcely realise that it is a continuation of the same line, and that he will have to travel nearly a mile ere getting there. From near the Confidence Saddle an excellent view of the landscape to the west and south may be got, Mounts Heemskirk, Agnew, and Zeehan being conspicuous. Leaving Confidence Saddle the line descends rapidly to Montezuma, and thence has a moderate rising grade to its terminus at Williamsford. From just

below the Saddle beautiful vistas of Mount Read and the Curtin-Davis Hill open out.

Several mountain streams are crossed, and lovely fern gullies, made more beautiful by numerous flowering shrubs, are seen almost directly below the train. The bridge across the head of the great northern gorge is 40ft high, and crosses the river on a curve of two chains radius. Immediately below the bridge are the Rawlinson Falls, and as the train swings round the curve an excellent view of these is to be had. From here to Montezuma is but a short run, in which another bridge remarkable for being constructed on a curve of 99ft radius is crossed.

Just before reaching Montezuma station a glimpse of the noted Montezuma Falls is obtained. These falls are 340ft high, and form one of the most

Right: Sharp Stewart locomotive on Montezuma bridge - most likely taken in period 1898-1905.



picturesque sights of Western Tasmania. The line passes quite close to their foot over a rocky gorge, through which the creek continues its way to the Ring River. The falls are never dry, and at times carry such a volume of water that the spray dashes right on to the passing train. A good view of them can be got from the railway carriages, but it is better to leave the train at Montezuma station, where there is invariably a short wait, and walk the few yards to the Montezuma bridge, and thence view the falls to the best advantage. The obliging train officials will always stop and pick up such sight-seers; in fact, they have been instructed by the Railway Department to grant every reasonable facility to enable tourists to obtain the best views of this wonderful bit of scenery.

Frequently passengers leave the train at Montezuma and walk the remaining three miles to Williamsford, the route following the beautiful valley of the Ring River. The cameraist, especially, will find it worth his while to do this, for exquisite bits of mountain, river, and gully scenery abound the entire distance.

An interesting feature of the landscape at Montezuma is the Curtin-Davis Hill or mountain. A few years ago practically the whole of this mountain was taken up for mining purposes, in consequence of discoveries there of rich fahl ore lodes. A good deal of work was done at the height of about 2,500ft above sea-level, and ore won, but the ore shoots proved generally short and small, and at the present time very little mining is being carried on there. The mountain rises very precipitously, and to get from one part of the surface workings to another ladders had to be used. At that time it was densely timbered, but the axe and bush fires have almost completely denuded it, and now a thick crop of grass has sprung up, giving pasture to a flock of sheep, which an enterprising West Coaster has imported.

Williamsford having been reached either by train (10 a.m.) or on foot, the visitor will probably be glad of a refresher in the shape of a cup of tea or other liquid, and will find the hotel accommodation passing good. The little village of Williamsford, so named from a former manager of the Mt Read mine, Mr Luke Williams, is very picturesquely situated. The settlement was originally known as Deep

Lead, and was the centre of active alluvial gold workings some years back. The gold, however, was limited in quantity, and as further prospecting revealed, the occurrence of huge lode formations on the top of Mount Read nearby, attention was directed thither, and the gold neglected, except by an occasional fossicker, although it is probable that at some future date further systematic attempts will be made to work the "deep lead".

Both the Mount Read and Hercules mines have been opened up to a considerable extent, particularly the latter, the workings of which are connected with the N.E. Dundas tramway by a self-acting haulage line. A trip up this haulage line, which can generally be obtained on application to the management, is a unique experience. As the truck ascends the view widens. The whole of the little township is seen nestling prettily in the valley, entirely surrounded by densely-timbered hills, away over the tops of which summits of distant mountains stand out on the horizon, and the glimmer of the waters of the Pacific Ocean can be distinctly seen. The conical form of Mount Bischoff can readily be distinguished, and on clear days the mine workings picked out. A good pack track also affords communication between Williamsford and the mines.

Another small township, designated Mt Read, exists on the top of the mount. The houses and huts are occupied by the officials and workmen of the mines. The ore mined at Mount Read is principally a low-grade zinc-lead sulphide, carrying a few oz of silver, a little gold, and some copper. In parts, as depth is attained, payable copper ore has been found. The zinc-lead sulphide is treated at the Zeehan smelters, and its carriage, and that of firewood, form the chief work of the N.E. Dundas tramway.

Lake Johnston, a pretty little sheet of water situated two or three hundred feet above Mt Read township, is well worth a visit by the tourist who has ascended so far. Other places of great interest from a scenic point of view can be reached from Mount Read. Principal among these is the Lake Dora district, some six or eight miles eastward. Quite a bevy of beautiful bodies of water occur amongst the mountains. They are variously known as Lakes Dora, Selina, Julia, Margaret, Mary, etc., etc.

# THE TATONG TO TOOMBULLUP TRAMLINE

by Greg Kirk and Graham Sheil

## Introduction

In 1914 a railway line was opened from Benalla to the farming town of Tatong, sixteen miles to the east. It was this rail link with distant markets which gave sawmillers the prospect of transport for timber milled in the mountainous Toombullup area north-east of Tatong.

The railway line itself had its difficulties. In 1916 the railway bridge over the Holland's Branch Creek, near Tatong, was washed away in a flood. The temporary structure erected to replace it followed the original bridge downstream in June of the following year. For some time passengers and light freight crossed the flooded creek by flying fox. Later, passengers and freight were ferried in the rail carriage from bank to bank. Not until 1918 was a truss bridge erected which "stayed put".

The firm of McCashney and Sons, later to become McCashney and Harper, began milling in the Toombullup area eighteen miles from Tatong in 1918. Steam tractors were used to pull timber out of the bush to the mill. Cut timber was initially transported to Tatong on horse-drawn wagons.

## Tramline Construction

1920 saw the commencement of building a wooden tramline from the Toombullup mill to Tatong railway station. Both mill workers and outside contractors worked at building the line, which took four years to complete.

The tramline was made from 5in by 3in timber spiked to sleepers with 6in nails. The gauge of the line was 4ft 6in. On very steep curves, iron strapping was nailed along the inside of the wooden rail to prevent it from "cutting out".

Even before completion, the tramlines were put to use. Timber was transported from the mill along the completed section, then off-loaded onto horse drawn wagons.

## Operations

At the tramline's completion, two 8hp steam tractors worked at dragging and winching logs out from the bush. These Fowler tractors had enormous back wheels - 7 feet diameter and 16 inches wide with grips. The tractors had to be accompanied by a Furphy water cart carrying 200 gallons of water. These were pulled by one horse. It was the job of the Furphy driver to also keep up a supply of timber to the tractor. As well as the Fowlers, branches from the main tramline went up to 2 miles into the bush.

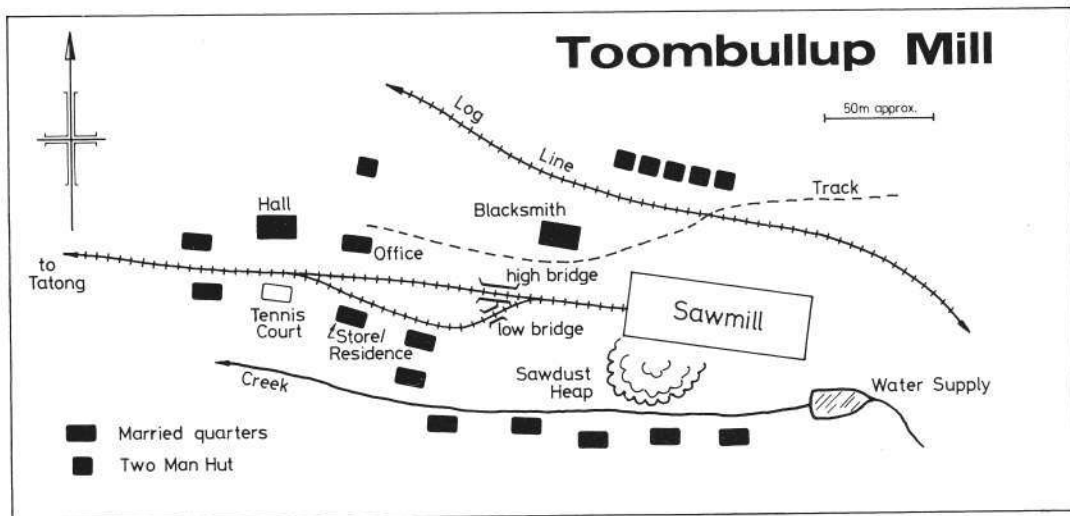
To bring cut timber from the mill to Tatong, two teams of horses worked along the tramline from the mill to the half-way point. Another two teams operated from the half-way to Tatong. Each "top team" was made up of seven horses, and the "bottom teams" of five horses each. In addition, at least one horse-drawn log team worked in the bush. Normally 36 horses were employed.

The "bottom team" would leave Tatong at six each morning to reach the rail loop at the halfway around midday. Trucks loaded with cut timber, that had been brought down the previous afternoon, would be waiting. The "top teams" always worked one day ahead of the "bottom teams".

No reins or other form of steerage were used. The horses simply walked single file between the rails. Drivers depended entirely on the lead horse. This dependence was often considerable. Hillsides were steep and bridges over creeks and gullies up to 14ft high. Should a lead horse become frightened by a wallaby or a wombat and try to turn back, only quick thinking by the driver could prevent the whole team crashing through the shoulder-height guide rails and plunging over the side.



Toombullup mill, MJ McCarthy colln.



Each timber truck had two sets of four-wheeled bogies. Usually the team pulled two of these trucks linked together. The driver's only means of control of his teams and trucks were the bell-type brakes under the bogies which operated on the back wheels.

The steepest slope on the "bottom" section was known as Tiger Hill. Here horses were always

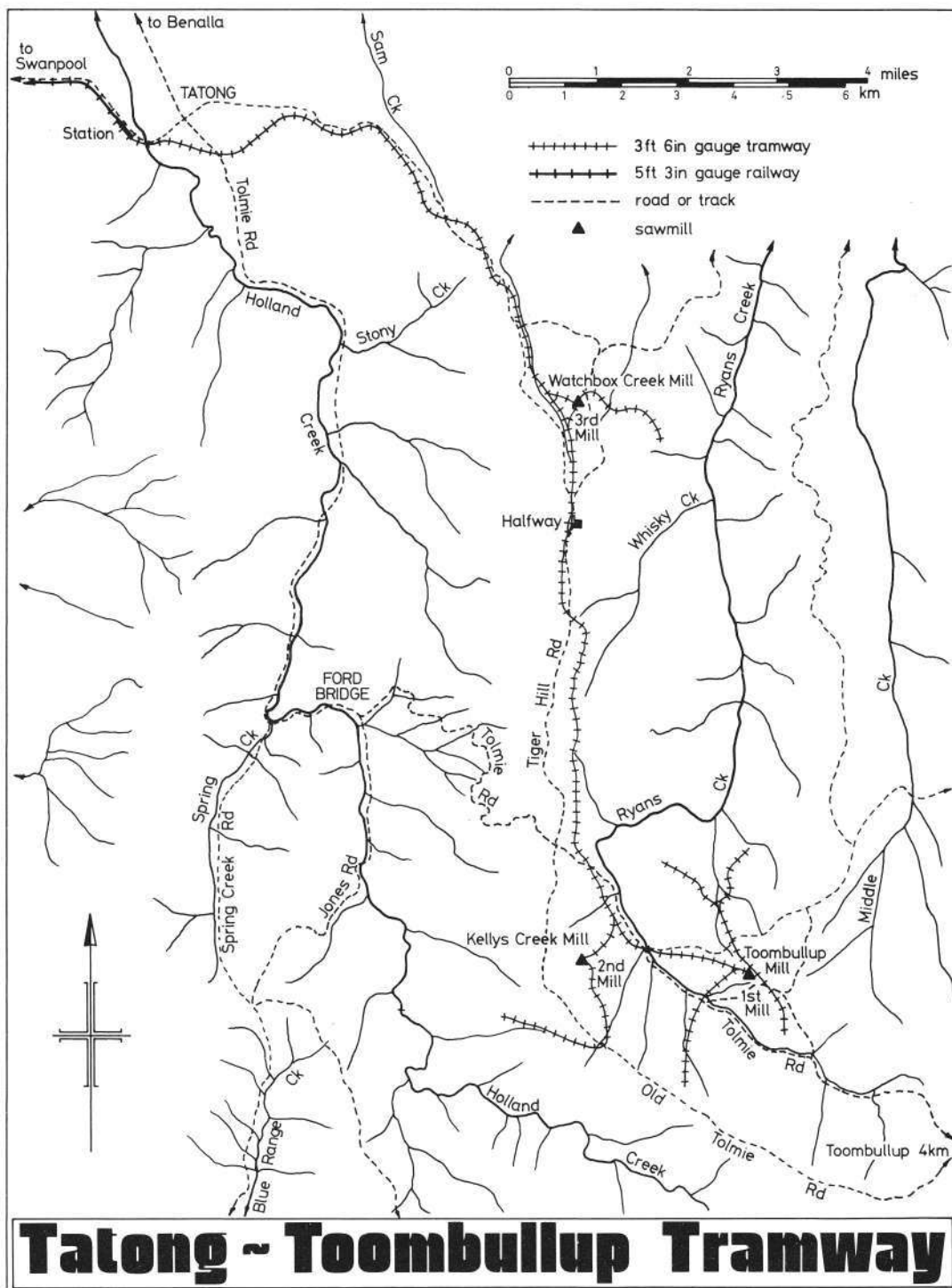
taken off to follow the trucks down. More than once, trucks were lost down Tiger Hill and had to be winched up out of the gullies for reloading.

During winter there was often frost and ice on the rails. Then sand was dropped on the rails on the unloaded trip up in order to give traction on the loaded return journey. If there was ice on a steep slope the horses were unhooked and a rope tied to



A McCashney & Harper tram hauling logs to the mill.

MJ McCarthy collection.



the back of the truck. This rope was passed through a pulley attached to a tree and the descent of the truck was slowed to prevent a load from "bolting".

In spite of the very rough nature of the country, accidents were rare. The sole fatal accident on the tramline occurred not on any precipitous hillside, but on the flat final half-mile before the Tatong railway station. There, a youth walking beside a log truck somehow became pulled beneath the truck. No one saw the accident, nor could anyone later give a satisfactory explanation as to how it happened. What is certain is that the low clearance beneath the back bogey where the "bell" type brakes operate had caught the youth, rolling him over and over. Every bone in his body was crushed.

### **The Mill Community**

At Toombullup mill some 30 workers lived in a regular community. Six or seven houses had been erected for married workers and an equal number of huts for single men. There was a store, tennis court and a community hall.

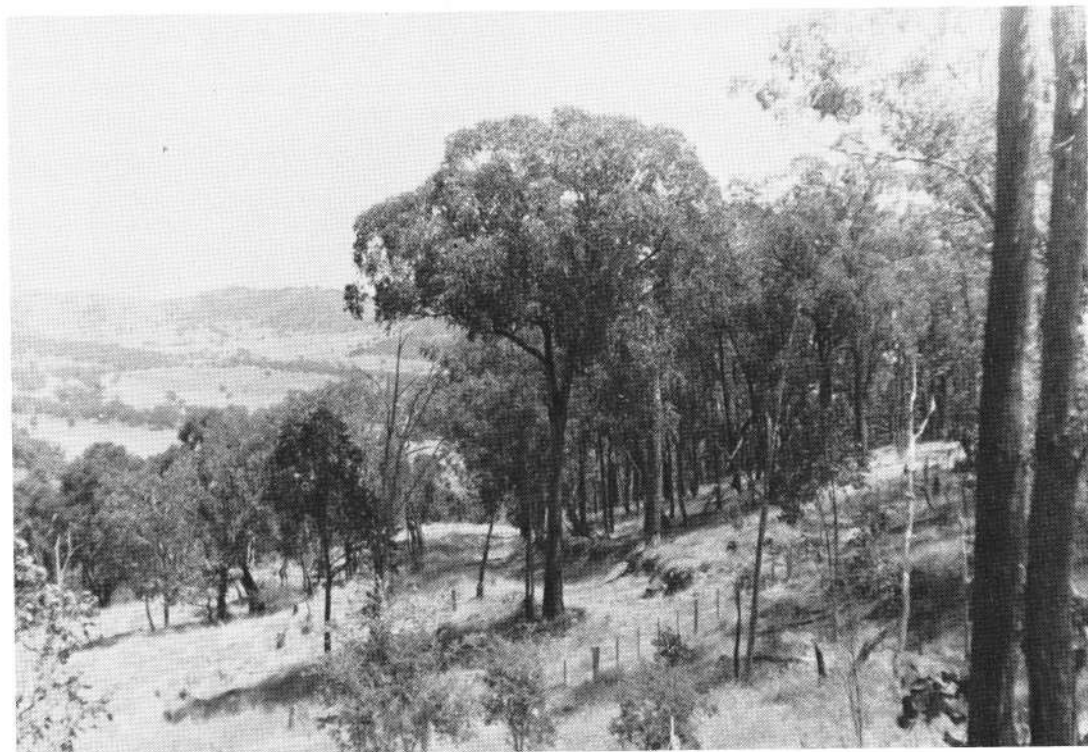
The mill operated under the direction of a "mill boss" and a "bush boss". Relationships between

the bosses and workers were good, with the bosses "mucking in" with other workers at every type of mill work.

The community at Toombullup imposed on the tramline tasks other than the transport of sawn timber. All goods for the store made their journey to Toombullup along the tramline. So did bread. Twice a week chaff bags full of bread went up the line. The bread is often arrived in a damaged condition that in time a huge woven basket replaced the chaff bags for the trip. Bags of flour, sugar, potatoes, all made the same journey.

At Toombullup Hall there were regular Friday night dances. Then the tramline became the means of taking people from the halfway and the bush camps to these dances. Using two horses to pull a single bogey and the way lit by a kerosene lamp, the tramline delivered dancers to the hall and took them home again. The return journey was often made at five in the morning - with those working on the tramline starting a return journey an hour later!

Like all communities, the Toombullup settlement had its occasional disputes. Among men at the mill,



To-day's view from Tiger Hill Road, with the tramway formation clearly visible in the centre of the photo.

Graham Sheil

disagreements were often settled on the mill's sawdust heap. Some of the scraps fought on that sawdust heap became legendary among the men who worked there. Such a one occurred when a rough and raw-boned Irish mill-worker was warned that his opponent-in-antagonism was about to call him out to the sawdust heap - and was taking off his shirt and singlet to do it. To this the Irishman is said to have replied: "He can take off his bloody trousers if he likes - I'll still wup him!"

### Decline and Closure

In 1930 the mill was shifted to Kelly Creek, four miles closer to Tatong. The number of horse teams was reduced by half. Later the mill was shifted again to Buttercup, nine miles from Tatong. The mill continued to operate at Buttercup until its closure in 1937.

Remains of the tramline and of abandoned mills can still be seen in the Toombullup area. That milling in this mountainous country was able to continue for so long as it did is a tribute to the toughness of men who worked there, but also to the Tatong to Toombullup tram line.

**Right: Remains of track and sleepers as they are today in many parts of the bush.**

Graham Sheil



## MEMORIES OF THE CUDGEN TRAMWAY

by David Burke

Cudgen was the location of the most northerly cane tramway in New South Wales. The 2ft (610mm) gauge line opened in April 1892 and by the turn of the century length of mainline had grown to some 17 kilometres. During its 60 years as an isolated system (diesels intervened when it was joined to the larger and now defunct Condong network in 1957-59) the Cudgen line supported a number of small and interesting steam locomotives; these commenced with a dinky John Fowler 0-4-0 saddle tank of 1892 and ended with another Fowler of 1889 vintage, an 0-6-0 tender known by the name of *Sunlander*. A history of the Cudgen operation is contained in *ARHS Bns 464 and 476 of 1976 (The Sugar Tramways of Northern New South Wales)* by J. Armstrong.

During the latter days in steam your author took a ride aboard *Sunlander's* footplate and wrote a story for the *Sydney Morning Herald* magazine pages. The account is far from technically or historically

complete yet it appears to be one of the few reports of a journey in a northern NSW cane tramway. To so many motorists passing along the Pacific Highway at Chinderah the Cudgen line was but a pair of slender rails that emerged abruptly from the scrub on one side and, on the other, terminated equally abruptly on a wooden jetty poking into the waters of the Tweed. Here is a report of what lay behind the canefields . . .

Fares never get dearer and trains never run late on at least one railway in NSW. Derailments are no problem either - when a wheel slips off all hands simply unload and push it on again.

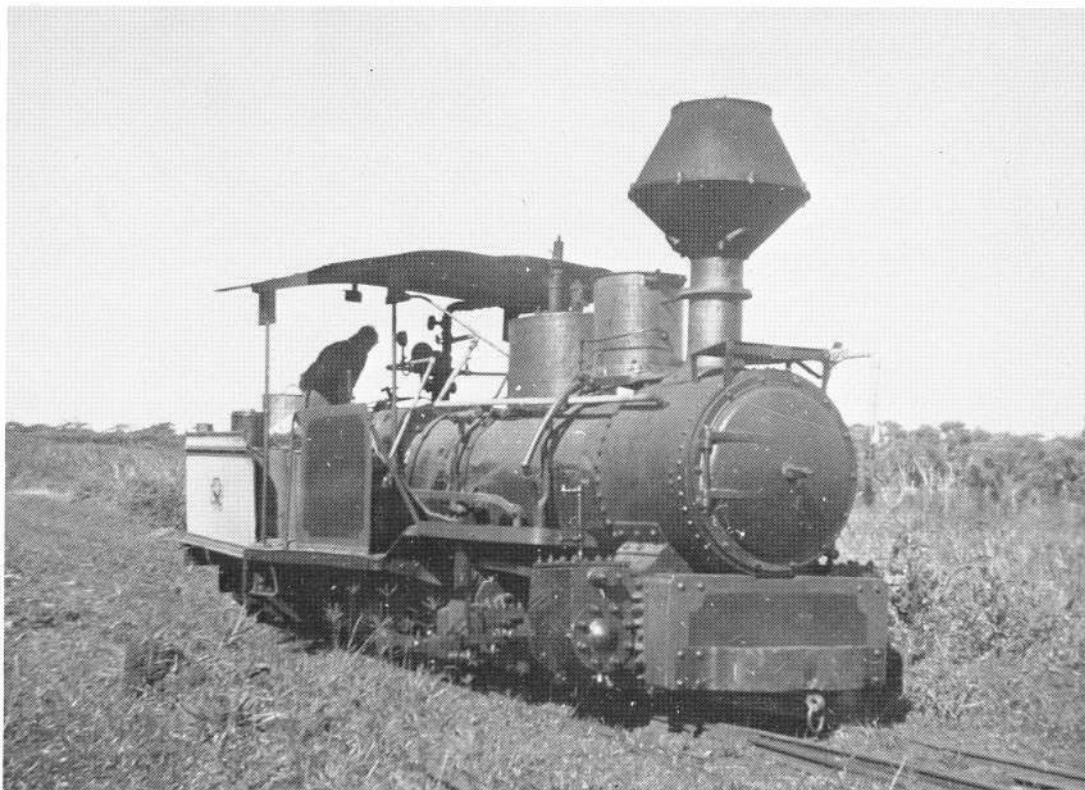
Like something out of a book that should begin "Once upon a time . . ." the line zig-zags through the canefields of the Far North Coast. It begins at Cudgen, at a spot where you can see the surf on one side and the sharp peak of Mt Warning on the other; the terminus is five miles away at Chinderah, on the Tweed.



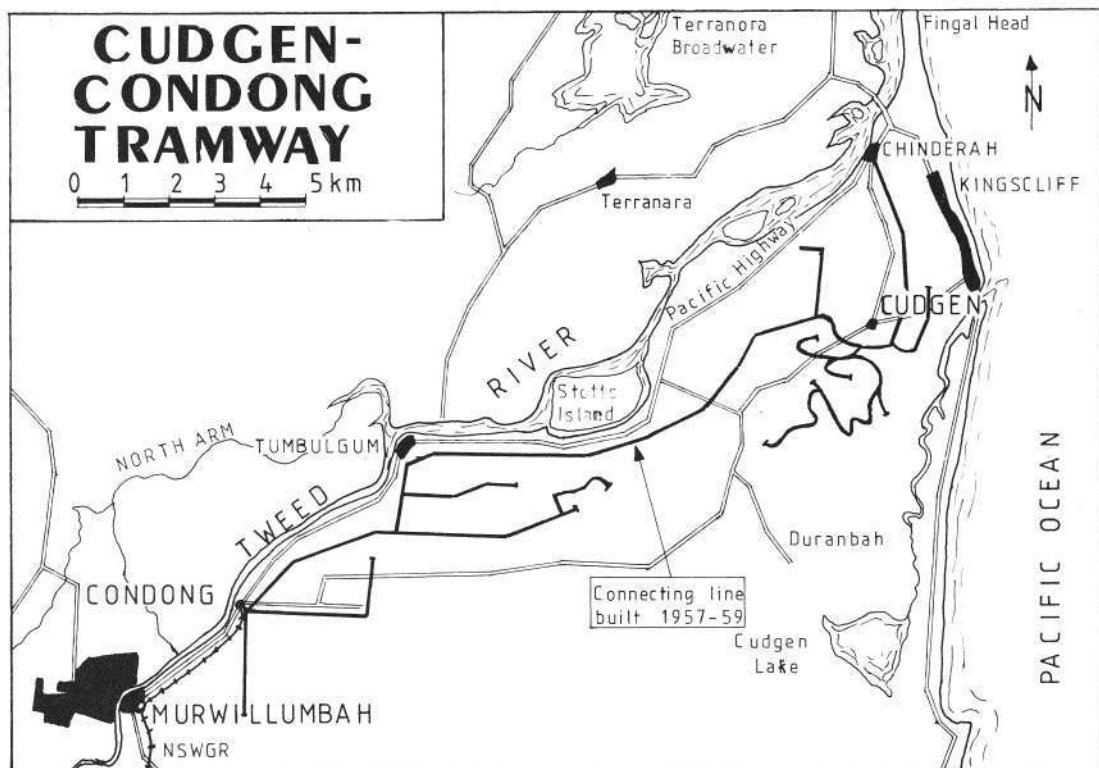
Sugarcane is the traffic on this railway (or tramway, as it's technically known) - probably the oddest in the State. From July to December each year, it hauls some 30,000 tons of cane to the river for trans-shipment to the barges that ply upstream to Condong Mill. For the other six months it just goes back to sleep - weeds grow high over the permanent way and the engines gather dust in their shed.

I waited beside the narrow-gauge tracks recently listening to the huff-huff of the tram coming closer and the pip-squeak whistle raising the echoes through the hills. No tickets . . . no timetables . . . no station . . . no carriage. "Hop up here with me!" called Frank Ford from his engine cab. Some engine! She was a 67-year-old model with tiny

**Left: Driver Frank Ford and a visitor stand beside Sunlander at the Cudgen locomotive shed. Photo D. Burke**



**John Fowler 0-6-0 locomotive Sunlander (B/No 7244/1895) at Cudgen terminus. Photo: David Burke**



wheels, a network of pipes, and a huge diamond-shaped funnel to catch the sparks. A lavish driver had named her *Sunlander* and painted the stubby boiler bright green, lined out in red and black.

"You're riding on the only steam-cane tramway south of the border," said Frank. "Railway enthusiasts come up from Sydney just to take pictures of us. "People from Murwillumbah to Tweed heads call us *The Flier*. I don't think our schedule has changed in 60 years - and speed is never more than 15 m.p.h.!"

Frank, a cheery man in greasy dungarees, is Pooh-Bah of a staff of seven, four engines (two don't go), nine miles of track (including branches and sidings), scores of waggons - and a handcar. Aged 63, he can recall when rum was brewed on Harwood Island in the Clarence and wild cedar-getters who sailed the Brunswick in their schooners. "My dad was one of the pioneers," he yelled above the footplate din. "He was the first man to take up land on the Brunswick River. John Ford was his name. He was a Welshman. One day he set out for the Clarence and found himself a wife. She went back with him and they lived in a house of slab-bark. They had 10 kids."



***Sunlander* crosses a bridge on the Cudgen line.**

David Burke



**Torpedo (Decauville 245/1897) in use as stationary boiler at Cudgen. Sunlander is in the background.**

D. Burke

Beyond Cudgen terminus, light tram rails laid like pieces of a child's toy building set on the rich brown soil, led into the terraced cane farms. Tough cane-cutters, local men and migrants, black with ash from the burnt crop, hacked at the six-foot stalks like Crusaders mowing down the infidel. They piled the stalks crosswise on the waggons until each waggon was hidden and only a mighty hump of cane remained to be dragged out by draught horse and tractor and then coupled to *Sunlander*.

"Labour is scarce," said Frank, tugging on the throttle (huff-huff-HUFF! went the loco). "The rutile works down on the beach offer £20 a week - and a man doesn't have to bend his back." Twenty loaded waggons weigh 100 tons, but *Sunlander*, with 160lb of steam under her valves, pulled them with ease as we curved like a green snake between solid walls of uncut cane.

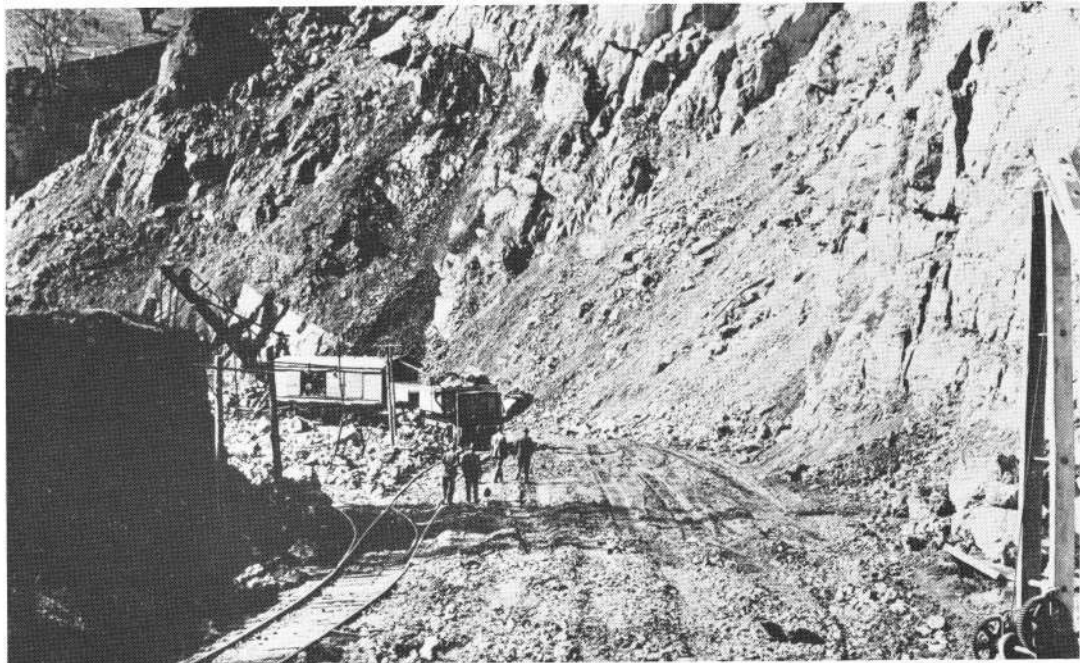
Stops for more waggons punctuated the trip at the farms of Dick Price, Jim Quirk and Jack Hansen

where peas, beans and tomatoes grow in irrigated patches beside the cane. Ahead the landmark of Cudgen township poked above the hills — a tall rusting smokestack, all that remains of the old German sugar beet mill.

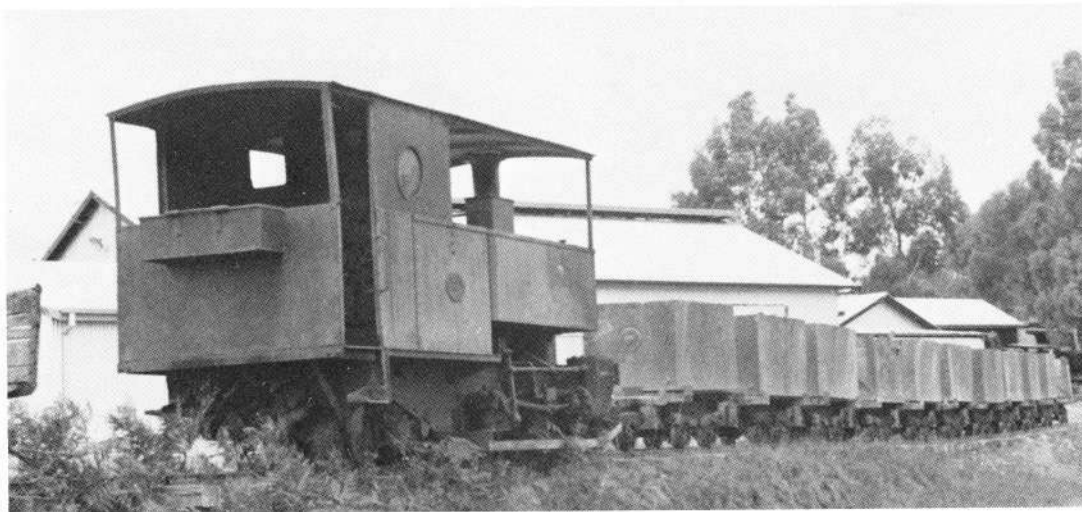
"John Robb, a contractor who built railways all over Australia, owned this whole show once," Frank explained as he braked our progress for the points at the junction. "The CSR bought him out in 1913. They dismantled his mill and transferred crushing to Condong. Big ships came up the Tweed once to load sugar at Condong — now we only see barges and lighters because the river is silted, see why we get so many floods?"

With whistle shrieking we suddenly emerged from the bush and rattled across the Pacific Highway (where a sign read 'Beware of Trams') and shuddered to a halt on a rickety jetty. Frank looked across at me and winked. "Chinderah," he said, "and dead on time."

## PHOTO SECTION



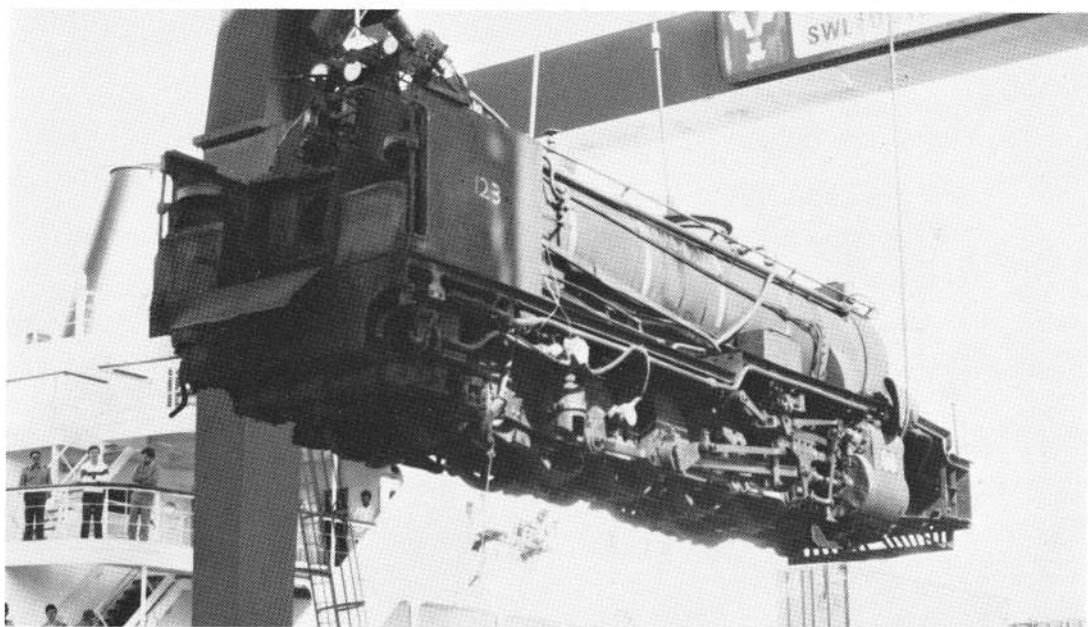
**Above:** This photograph, believed to be of the limestone quarry at Kandos, NSW, shows an electric locomotive at work. Can any reader provide information on this locomotive? Jeff Moonie Collection. **Below:** Hunslet 0-4-2T (B/No 1844/1937) on the Ida Bay-Lune River tramway in southern Tasmania. David Burke.

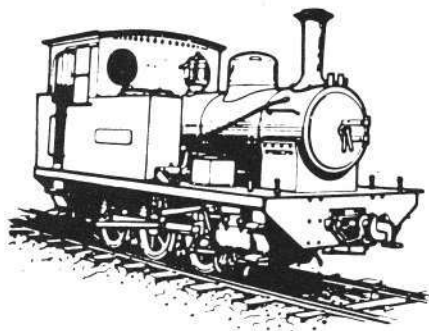




Ex-South African Railways NG-class 2-8-2 locomotives, Nos.118 (Henschel 124476 of 1938) and 123 (Franco-Belge 2670 of 1951), arrived in Fremantle in June 1985 for the Bennett Brook Railway. Above: No.123 is unloaded from the Safocan Nederburg on 21 June. Below: No.123 touches the Bennett Brook Railway at Whiteman Park for the first time.

Lindsay Watson photo





**LOCOMOTIVES IN THE TROPICS** (Volume 1 - Queensland Railways 1864-1910) by John Armstrong. 112pp 210 x 300mm. Australian Railway Historical Society (Queensland Division) Brisbane, 1985.

Who better to write the fascinating history of the first four and a half decades of locomotive development on the Queensland Railways than John Armstrong, an acknowledged authority?

From the opening of the Southern and Western Railway in 1865 the Queensland Government commenced operation of what has become the largest railway system in Australia and incidentally pioneering the wide use of 3ft 6in (1067mm) 'medium gauge'. Few who witnessed the early days of the QGR could have foreseen that what was prior to 1940 aptly termed a 'giant light railway' would develop into a 10,000 route kilometre system which hauls the largest and heaviest by far coal trains operated on any Australian railway and is in the forefront of high technology application.

The majority of the 1325 steam locomotives which have operated the system were small rather than medium sized - hard-working, fussy little locomotives struggling to start heavy trains on sharply curved light-railed tracks with restricted axle loadings made the QGR image of the steam days.

The author has written a most readable and factual account of the historical background, personalities, successes (and failures) of the surprisingly diverse and historic parade of motive power which has graced - and in a few instances disgraced - the QGR. This is not a dry recital of specifications, but an entertaining account of how, why and when, with often a touch of dry humour!

The book is profusely illustrated and includes summarised specifications of each loco class dealt with in the four chapters: a listing of every individual loco (including renumberings) in each class; a

## BOOK REVIEW

bibliography and an index. Both hard and soft cover versions are available from LRRSA Sales, price \$16.00 (plus postage) and \$20 (plus postage and packing), respectively, or from ARHS (Queensland Division), GPO Box 682, Brisbane, 4001.

JLB

**THE CATAMARAN COLLIERY AND ITS TRANSPORT SYSTEM** by Lindsay Whitham. Reprint from *Tasmanian Historical Research Association: papers and proceedings*, Vol. 30, No. 2, June 1983.

**THE NEEDLE IN THE HAYSTACK OR T-RAIL IN TASMANIA** by Lindsay Whitham. Reprint from *Tasmanian Historical Research Association: papers and proceedings*, Vol. 30, No. 2, June 1984.

These two small papers suggest that the Tasmanian Historical Research Association is another valuable source of material on the history of light railways.

Exploitation of the Catamaran coal field dates from 1900 when mining commenced on a small scale. In 1911 one and a quarter miles of two foot gauge steel tramway were constructed, but the company only produced 375 tons of coal. Ambitious plans to expand the workings came to naught.

By 1922 a new company Catamaran Colliery Pty Ltd had taken over the leases and set about mining in earnest. The company obtained the steel rails, 3 7-ton capacity double-bogie wagons and a small Krauss locomotive from the Sandfly Colliery tramway and a two-foot gauge tramway was constructed from the wharf on the Catamaran River to the main shaft. Twenty three tons of coal was being produced a day by the end of 1922, but production was suspended in May 1923 while the company undertook further exploration.

In 1926 the company expanded operations and a

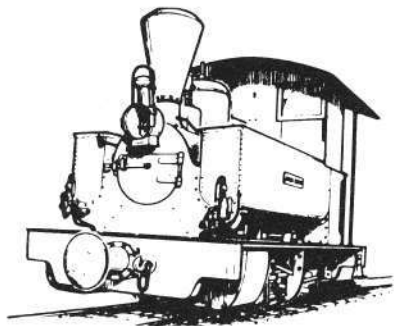
two mile extension was built to the tramway connected to deep water at Evoralls Point where ship loading facilities were constructed. The mine was opened up systematically to produce 9950 tons of coal in 1926 and output was 18,270 tons in 1927. Whitham reports that it was necessary to purchase a second locomotive at this time, but no details are given. However, the prospects of steady production were not to eventuate and numerous difficulties resulted in intermittent production until 1931, when another company, New Catamaran Collieries Pty Ltd was formed to take over the operations. Additional bogie wagons were bought from the North East Dundas Tramway for use at Catamaran and the two ageing locomotives were rebuilt into a "new" engine. A steady production of about 10,000 tons per annum was maintained in the late 1930s, but funds for development were exhausted by 1939 and the mine was closed for the last time. Whitham reports that the locomotive was scrapped, but several of the ex-NED tramway trucks were "pirated" by the Australian Commonwealth Carbide Company for use on its Ida Bay limestone tramway and they still see service on the Ida Bay tourist railway.

The second booklet is a more personal story of

Mr Whitham's efforts to locate specimens of T-rail in Tasmania. Basically early rails dating from 1830 were of wrought-iron and had a cross-section resembling an upper-case T and they had to be supported in a chair. Through Mr Whitham's efforts, two introductions of T-rail have been identified in Tasmania: the Mersey and Deloraine Tramway, which imported rail rolled in Wales in 1866, and the convict built Port Arthur tramway. The booklet provides some background history of tramways which subsequently used T-rail from these sources: the Pelican Point tramway (which was later incorporated into the Marrawah Tramway), Sandfly Colliery, the Parattah and Oatlands line, Cornwall Colliery, Catamaran Colliery, Wynard breakwater tram, an early tramway on Maria Island and the Cascades tramway. There is an interesting photograph of the Sandfly tramway at Margate Point station and some poorly presented maps.

The reprints are available from the Tasmanian Historical Research Association, Box 441, Sandy Bay, Tas. 7005 at a cost of \$5.00 each including postage. Given that they are only 13 and 16 pages respectively, the price appears rather high.

RFM



## LETTERS

### THE TASMA HARDWOOD COMPANY, LR27, LR48

I refer to previous letters published in *Light Railways* on the Tasma Hardwood Co logging tramway at Lobster Creek in Tasmania. In recent conversations with local historians and several railway enthusiasts, a doubt arose regarding the gauge of the tramway. Both 2ft 6in and 3ft were mentioned to me, but no one was sure about it. An article and photo of the locomotive (an 0-4-0ST) was published in the *Model Engineer* many years ago (could be the late 1950s?), which stated a gauge of 2ft 6in. I have always assumed the gauge to be 3ft

6in, based on visual observation years ago.

So, I visited the site on 23 May 1985 in order to determine the gauge. I came across a section of old sleepers, two of which had the metal dog spikes still firmly in place. My steel tape clearly indicated 42in. The best example was a sleeper with 2 dog spikes near one end and 3 at the other.

I trust this information will be of interest to your readers. One question does arise: was the locomotive built to 2ft 6in gauge and then later regauged?

**Chas Goodwin**  
Ulverstone, Tas.

## THE STEAM LOCOMOTIVES OF NAURU AND OCEAN ISLAND, LR88

Ray Ellis' most interesting article was all the more welcome for being on a subject that has waited for too long to be written up. In answer to the editor's plea for further information on all forms of motive power on these islands I add the following notes.

The numbering system on both islands were clearly introduced fairly late in the day, as there was no relationship between the fleet number and date of introduction of the loco. Indeed, that on Ocean Island must have been introduced after 1936, the date of the newest loco which had by no means the highest number.

My notes show that Ocean Island No. 3 was an Orenstein & Koppel 2621/1908, another 0-4-0T which later received replacement boiler 10664 in 1923. On Ocean Island were at least two i.c. locos, Hudswell Clarke P.263/1928 and Avonside 1980/1926, both 4wPMs, while on Nauru, also on 2ft gauge, overhead wire electric locos were used between the storage bins and jetties.

Geoffrey Moore (of Beckenham, Kent) has a pre-war list of the locos on Nauru which shows five Orenstein & Koppel locos on the 2ft gauge, numbered C1-C5, having B/Nos 3300, 11440, 9729, 11586 and 9880 respectively. C1 and C5 (O&K 3300 and 9880) are noted as "to be transferred to Ocean Island" . . . as indeed they were, becoming that system's 12 and 11 respectively. As Ray states that No.11 had the boiler from 11440 when on Ocean Island in 1955, it may have well been put on the frame of 9880 before its transfer.

The use of class letters A and B for the 3ft gauge locos on Nauru, with the use of class C for the 2ft gauge locos they replaced, is curious to say the least. Could it be that for a short period both gauges were in use? The difference between O&K locos of classes A and B is also not clear, as all were of equal horsepower.

The diesels that replaced steam on Nauru were all built by Clyde Engineering, their model DH1-71 0-6-0DH, fleet numbers being 1-6 with builders nos. 56-108, 118 and 121/1956 and 67-539, 540/1967 respectively.

Another O&K steam loco that could have been on Nauru or Ocean Island and that was not mentioned by Ray was 2ft gauge 0-4-0T 1057/1903. Geoffrey Moore's records show this as ordered by "Pacific, Sydney". Could, then, the elusive original trio on Nauru have been O&K 1057/1903, 1688/1905 and Krauss 5671/1907?

Those readers interested in further background information are referred to a booklet published in

1922 by the Commonwealth Government of Australia entitled *Nauru and Ocean Island: Their Phosphate Deposits and Workings - Progress Under Government Ownership* and written by Harold B. Pope, Australia's Commissioner on the British Phosphate Commission. It should be noted that the BPC was formed jointly by the government's of Great Britain, Australia and New Zealand (with a share of 42, 42 and 16 per cent respectively) on 1st July 1920 to take over the Pacific Phosphate Co. This company was formed by John T. Arundel & Co. (Arundel has worked guano deposits in the 1890s on many Pacific islands, often employing railways and using motive power from man to mule to steam). The Pacific Phosphate Co. had a minority of shares held by the German company Jaluit Gesellschaft (Nauru was German, although Ocean island was British) until 1914, when both shares and islands were seized by the British Government. This may account for the preponderance of German locomotives used.

**Richard Horne**  
Surrey, UK

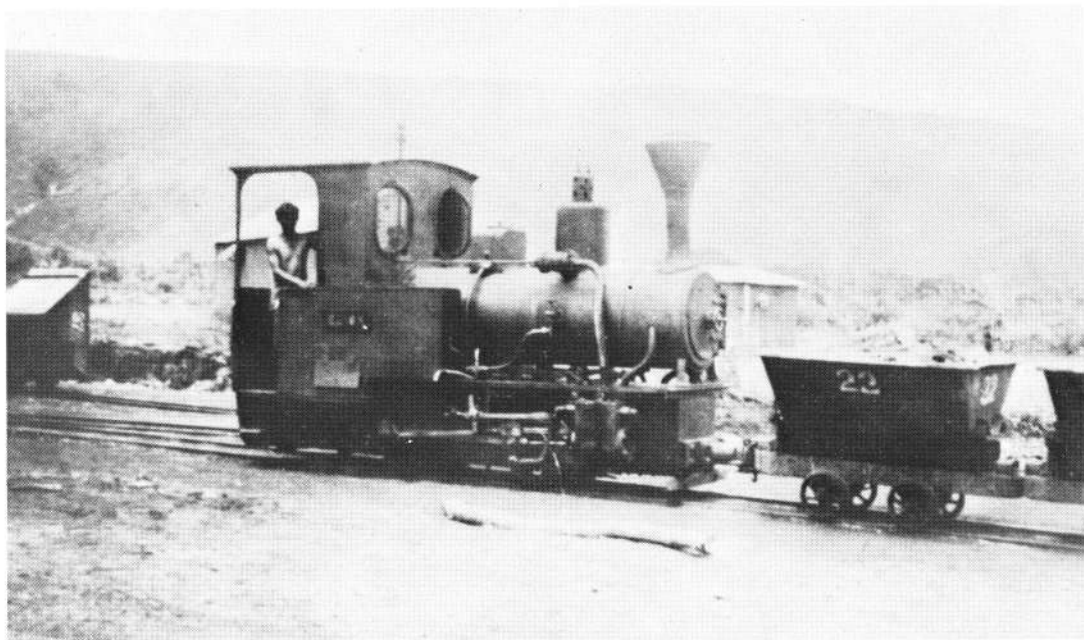
(Ed. A definitive history of phosphate mining on Nauru, Ocean and Christmas Islands, *The Phosphateers* by Maslyn Williams and Barrie Macdonald, has recently been published by Melbourne University Press. A review of the book for publication in *LR* is most welcome.)

I enclose a photograph of a 60cm gauge Orenstein & Koppel locomotive, *ELIZA* - so far unidentified, but believed to be in the South West Pacific between forty and fifty years ago. Nauru has been suggested and, apart from the spark arresting funnel, it is identical with the 40hp O&K locos described by Ray Ellis. However, the high range of hills in the background and the waterfall would suggest a larger well watered island.

The funnel is similar to those of the Orenstein & Koppel 0-6-0Ts on the metre gauge New Caledonia State Railway. The *New Zealand Railway Observer* (Vol. 3, 1946) has an article on the New Caledonia railways by the late A.N. Palmer who mentions 60cm gauge mining railways at Kone, Thio, Poro, Pam, Paagoumene, Teoudie and Ovaco. These may be possibilities.

Can anyone identify the location and locomotive?

**Ron Grant**  
Christchurch, NZ



Ron Grant is seeking identification of this O&K locomotive in the Pacific.

**IDENTIFICATION, LR88** We refer to the inquiry made by J.L. Buckland regarding the location of the photograph published on page 23 of *Light Railways* for April 1985.

A strong possibility exists that it was taken at the Coolum ('beach') terminus of the cane tramway system radiating from Nambour mill. A picture of a similar open carriage in a similar locale was furnished to the undersigned by the late Ken Rogers who photographed the area extensively during steam operations, and was in possession of pictures of the tramway branch when excursions were operated to the beach.

**David Burke**  
Mosman, NSW

**NEPEAN SAND, LR89** At one stage during my five years with the AIF, I was stationed as a WO/Instructor at the School of Artillery at Clarendon, NSW. Knowing my interest in railways, a colleague suggested I should visit the Nepean Sand & Gravel Co., which I did on 13 March 1943.

It may interest you to know that I took (with my old 3A Kodak) the top photo on page 17 of *Light Railways*, July 1985 issue. I took two photos, the

other of No. 1630.

Your article is very interesting and has given me a severe attack of nostalgia. In March 1943 I was a mere youngster of only 37 years.

Presumably I must have given, many years ago, copies of these two photographs to my old friend John Buckland.

**John F.T. Grimwade**  
Mt Eliza, Vic.

I enjoyed LR89 very much. Once again there is an interesting and comprehensive article, which covers so much more than just the railway. I enjoyed the little snippet, left to the footnotes, that the 1903 Sydney station was one of the earliest uses of reinforced concrete in Australia.

Three minor errors which I noted while reading, all on page 7: crossoves should read crossovers; Two work the railway . . . should read To work . . . railways introduction should read railway's introduction; 1630s arrival should read 1630's arrival.

The correct use of the possessive apostrophe has been nearly lost in railway publishing, but I note that LR is usually correct, and the above two

examples are the exceptions in an otherwise carefully correct text.

**Roderick B. Smith**  
Surrey Hills, Vic.

Into 'Nepean Sand' (LR89) our printers introduced numbers of errors subsequent to the final proofs. The following correct those necessary to understand the text:

- p.13, col. 2: A small trommel screen mounted atop a box frame was powered from one of the Fordson locomotive engines via a chain drive and bevel gear. Water was pumped from the river and used to wash the sand from the gravel and then for carrying the waste sand back to the river.
- p.15, col.1: Two worth *noting* happened late in 1934.
- p.16, col. 1: ... unfair and *unnecessary* government competition.
- p.18, col. 2: As Australian Iron & Steel Ltd has been mentioned as the purchaser, it is possible some of the parts . . .
- p.21, col. 1: Though each flood was a potential disaster, that June 1925 *flood* also showed their benefits.

p.23, col. 2: Dora Smart . . . Married Roy Smart who was Cleary Bros foreman 1937-1941, dragline fireman then driver 1941-1958.

*Readers should also note that the abbreviations used in the Notes are listed on page 2.*

**Craig Wilson**  
Pennant Hills, NSW

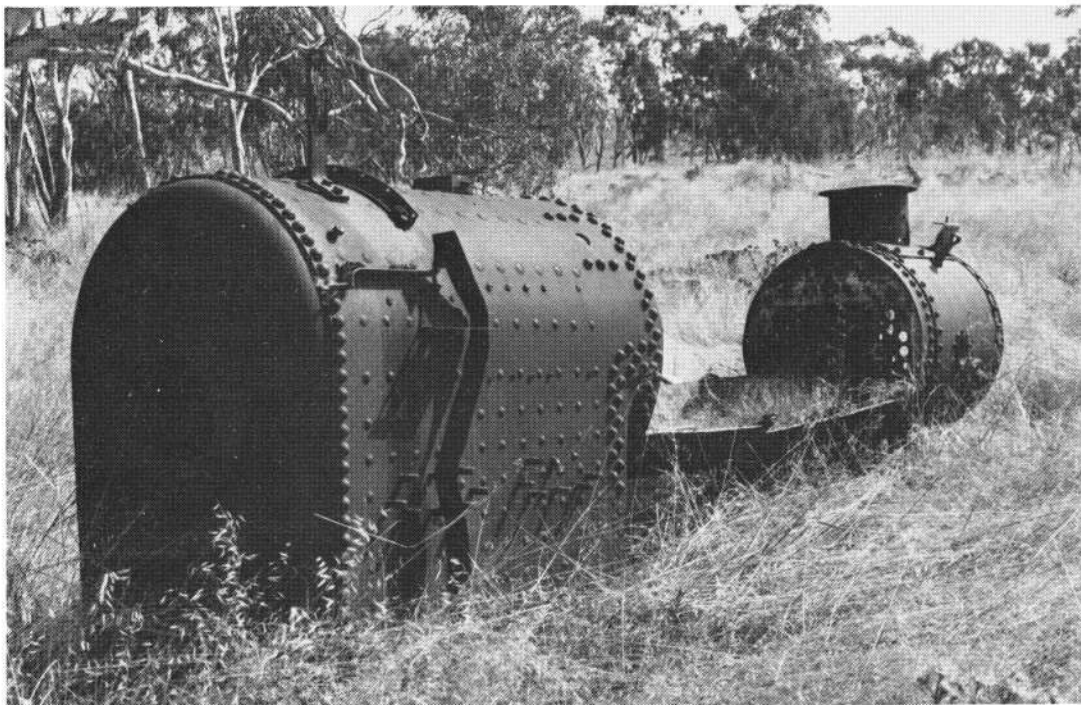
Please allow me to express my admiration for and interest in the splendid article by Craig Wilson on the Yarramundi Falls railway operations of the former Nepean Sand & Gravel Co. This, in my humble opinion, is one of the best presented and researched articles yet published in *Light Railways*.

In the same strain, the article's mention of the NSWGR 'sand trains' ex-North Richmond (which I never saw myself as I was always there on a Saturday or Sunday) struck a chord when I discovered the enclosed photograph. It was taken by Gifford Eardley and is, unfortunately, not very clear, but is of considerable historical interest as it shows two of the 19-class 0-6-0's labouring to lift the 'sand train' at North Richmond. The date is unspecified, but it undoubtedly would be pre-1939.

**J.L. Buckland**  
East Brighton, Vic.



Double-headed 19-class locomotives on the North Richmond "Sand" train.



The remains of Powelltown Shay No.2575 at Carpolac, Western Victoria.

#### MAKATEA PHOSPHATE OPERATIONS

Following publication of Ray Ellis' article on Nauru and Ocean Island steam locomotives (*LR.88*), I recently came across some details of another Pacific Island phosphate operation which may be of interest to readers. It was on Makatea, in the French Tua Motus group of islands, about 240km north-east of Tahiti.

The September 1948 issue of *Walkabout* carries a story on the phosphate operations on Makatea by G.S. Martin. The mining was undertaken by the Compagnie Francaise des Phosphates de l'Océanie, with the phosphate mostly going to New Zealand, but during the Second World War phosphate was also sent to Australia. The article describes the tramway, part of which was electrified, and the upgrading of operations to cope with increased wartime demand. It mentions steam locomotives, the manufacture of new trucks in Australia during the War, and four diesel locomotives which came from the Maginot line fortifications in France.

Do any readers have further information on this railway?

**Norm Houghton**  
Geelong, Vic.

**POWELLTOWN SHAY** I forward some photographs which may be of interest to readers of *Light Railways* since publication of the Powelltown book. They show the remains of Powelltown Shay No. 2575 as they now exist in the Carpolac railway station yard in far western Victoria (ref. *Powelltown* p.100). The photos are dated 12 April 1985.

**A. Sedawie**  
Bendigo, Vic.

#### LOCOMOTIVES OF WALLAROO AND MOONTA, LRS 58, 62, 72, 80, 81

If may be allowed to prolong this correspondence, there are two points that come to my attention since 1983 and, as they add to the story, are of some interest.

Firstly, in *LR58*, Robert Butrims outlined the evidence (conclusive I believe) showing that the 3ft 6in gauge "Hudswell Clarke type" loco No. 2 was a rebuild of a 5ft 3in gauge 0-4-2ST J. Fowler loco, B/N 6026 of 1889. Now the curious point is that

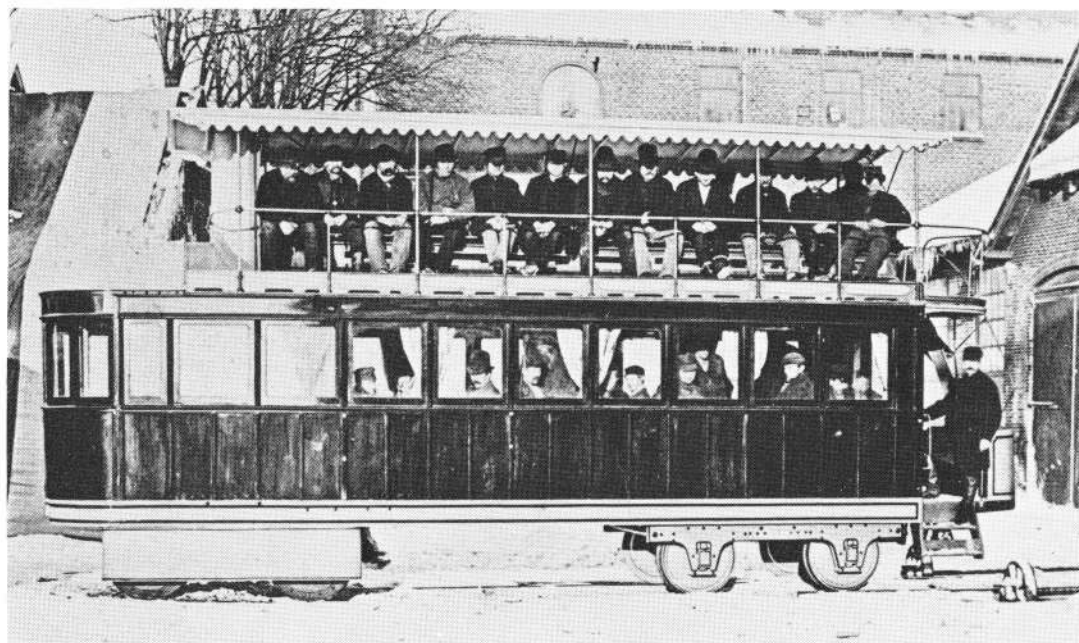
among the surviving Fowler drawings at Reading University is the general arrangement for 6026 and this clearly shows that the loco was designed for easy conversion from 5ft 3in to 3ft 6in gauge. This was to be simply achieved by placing the wheels within the frames. The driving wheels were to be moved inwards on their axles and the only new parts required were (as the records note) 4 leading and driving cranks and 1 bogie axle. Why, then, did the Wallaroo Mines undertake such a drastic rebuild to convert the loco to 3ft 6in gauge? Or was the rebuild to "Hudswell Clarke type" a second phase carried out, perhaps, when a new boiler was required? In either case it would seem a lot of work to achieve a degree of standardisation in the loco fleet . . . but, then, when loco No. 1, Dubs 1198/1878, was rebuilt to 3ft 6in gauge it, too, was given a "Hudswell Clarke type" boiler with raised firebox.

My accompanying sketch is based on J. Fowler drawing 34753 dated 29 October 1889, except that I have shown the side elevation in 3ft 6in gauge form (compare with the builder's photo on page 4 of *LR58*) and added the buffers, not shown on the original. Note also that suspension was by means of

large inverted leaf springs spanning between driving axles, a system used by J. Fowler on many of their narrow gauge locomotives. The windows in the spectacle plate were square, not round, as stated by John Buckland on page 20 of *LR81*.

Secondly, having shown on page 20 of *LR80*, that the vertical boiler loco illustrated on page 16 of *LR58* was built by Alexander Chaplin and was not the Kitson built motor portion from the Glenelg and South Coast Tramway Rowan car, I have now been sent, from Denmark, the enclosed copy of the builder's photo of this car (the body was built by The Scandia Co. of Randers). The points of interest, in view of the previous correspondence, are that it has inside cylinders (probably vertical) and wooden wheel centres, features not seen in later Rowan cars, and is diminutive. Indeed, as the wheelbase can have been no more than 5 feet and the total length no more than 8 feet, with 6½ x 12 in cylinders, one can only wonder what use it would have been as a shunting locomotive and whether it survived to be rebuilt to 3ft 6in gauge.

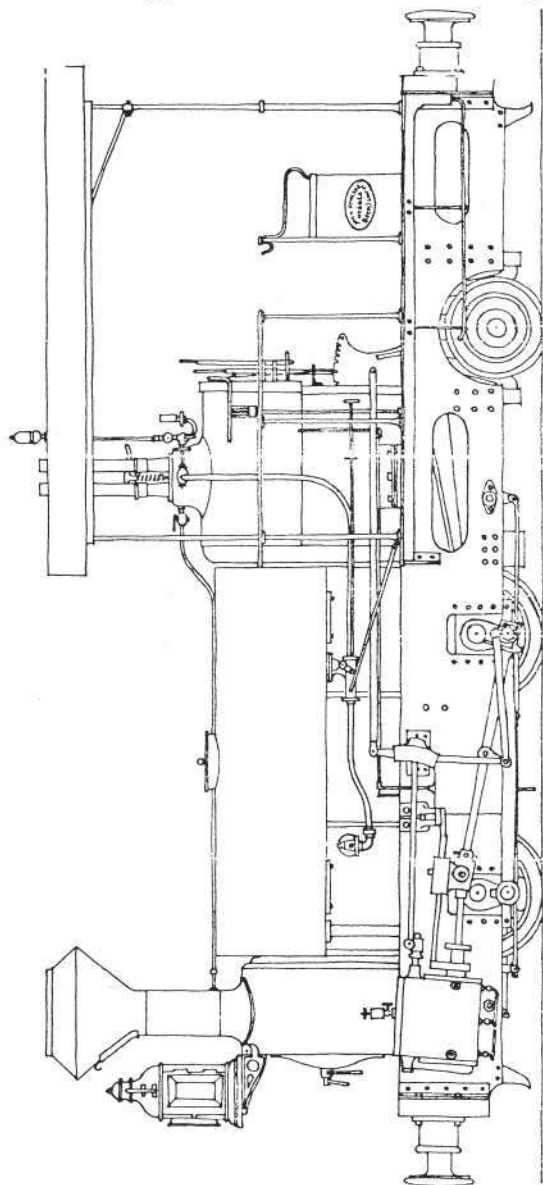
**Richard Horne**  
Surrey, UK



**Above:** Builders photograph of Alexander Chaplin tram motor.  
**Back page:** Richard Horne's drawing of John Fowler 6026 of 1889.

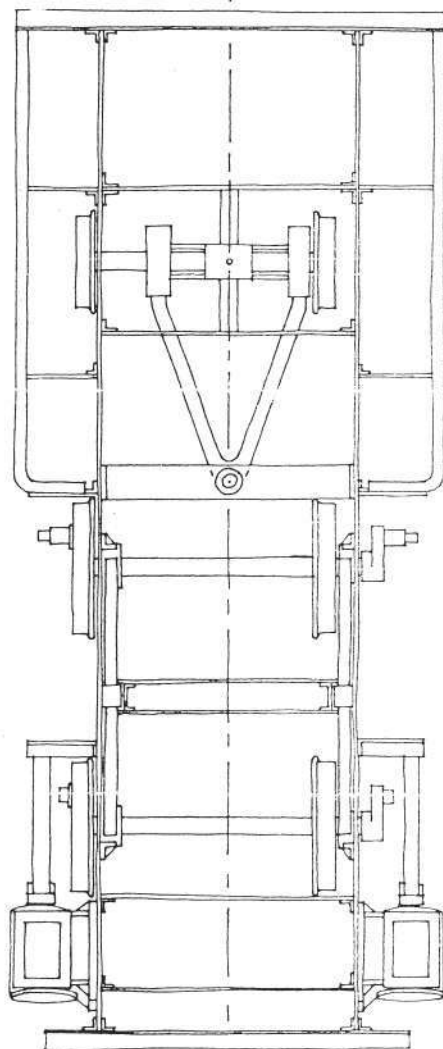
JOHN FOWLER & CO.  
(LEEDS) LIMITED  
6026/1889

MOONTA MINING CO., S. AUST.



SIDE ELEVATION  
ARRANGED FOR 3' 6" GAUGE

HALF PLAN  
ARRANGED FOR 5' 3" GAUGE



HALF PLAN  
ARRANGED FOR 3' 6" GAUGE



R. THORNE 8/85