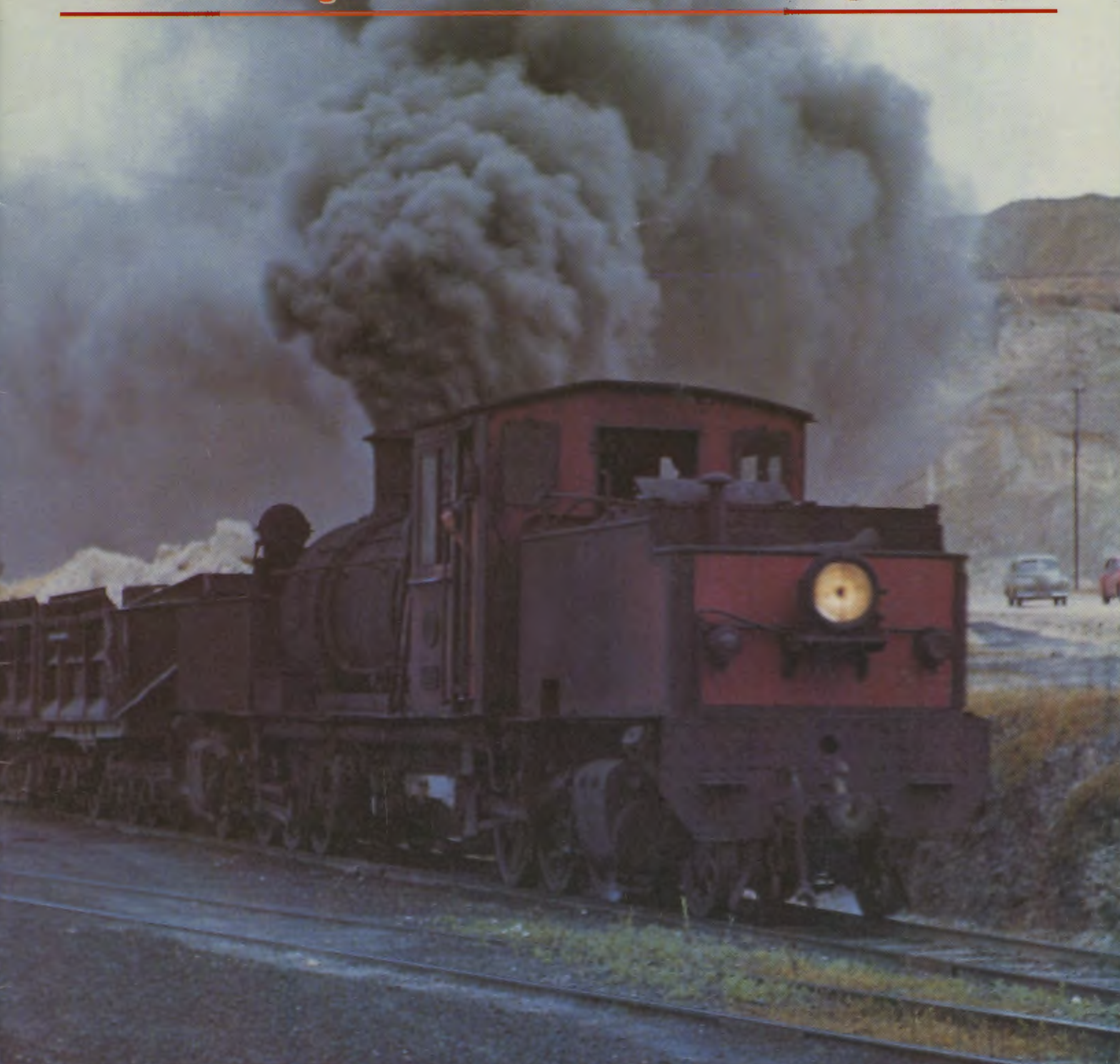


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Australia's Magazine of Industrial & Narrow Gauge Railways



Light Railway Research Society of Australia Inc.



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Conversions:

1 inch (in)	25.40 millimetres
1 foot (ft)	0.30 metre
1 yard (yd)	0.91 metre
1 chain	20.11 metre
1 mile	1.60 kilometres
1 super foot	0.00236 cubic metre
1 ton	1.01 tonnes
1 pound (lb)	0.454 kilogram
1 acre	0.4 hectare
1 horsepower (hp)	746 Watts
1 gallon	4.536 litres
1 cubic yard	0.765 cubic metres

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Comment

As Neil Young said, rust never sleeps. The moment steel is created, the forces of nature begin their relentless task of converting it into ferric oxide and hydroxide.

This melancholy fact has long frustrated those of us who seek to preserve historic locomotives, rolling stock and infrastructure. Over past decades, many groups and individuals have made the sad discovery that saving an item from the scrap merchant is only the beginning of the process. That a slow death by corrosion can only be prevented by regular injections of money and effort, and like putting off a trip to the dentist, delaying such expenditure only makes the pain far worse in the long run.

A lot of trains have passed under the bridge since Frank Stamford, in his LR 40 Editorial, called for peace between the various parties then squabbling over steam locomotives being retired from regular service. People don't seem to fight over steam locos any more. The major problem now appears to be that of generating enough interest to ensure the survival of what was 'saved' in those heady days.

Twenty five years ago, our boundless enthusiasm had us believing that Australia would one day be dotted with thriving tourist railways, whose massive receipts would ensure a bright future for all our historic paraphernalia. In hindsight, this seems very naive, but the mood of the day was such that it really seemed possible.

I fear that, in coming years, things will only get worse, as enthusiast numbers fail to keep pace with the growth in items requiring attention. For the sake of all those pathetic corroding relics I see in my travels, I really hope I'm wrong. *Bruce Belbin*

The Light Railway Research Society of Australia Inc. was formed in 1961 and caters for those interested in all facets of industrial, private, tourist and narrow gauge railways in this country and its offshore territories, past and present.

Members are actively involved in researching light railways in libraries and archives, interviewing knowledgeable first-hand participants and undertaking field work at industrial sites and in the forests.

Light Railways is the official publication of the Society. All articles and illustrations in this publication remain the copyright of the author and publisher. Material submitted is subject to editing, and publication is at the discretion of the Editor.

Articles, letters and photographs of historical and current interest are welcome. Contributions should be double spaced if typed or written. Electronic formats accepted in the common standards.

Material is accepted for publication in *Light Railways* on the provision that the Society has the right to reprint, with acknowledgement, any material published in *Light Railways*, or include this material in other Society publications.

From 1924 to 1966, Australian Cement Ltd operated an interesting 3ft 6in gauge railway to transport limestone to their works at Fyansford, near Geelong, Victoria. The line's history and operation were the subject of a feature article in Light Railways 120, April 1993.

Front cover: On 29 November 1959, Beyer Garratt 2-6-0+0-6-2 No.1 (Beyer Peacock 6794 of 1936) prepares to leave the quarry with a load of limestone for the works, 5.6km distant. **Upper back cover:** On 12 September 1965, Vulcan 0-6-0ST No.4 (2539 of 1916) crosses the Moorabool River, on its way to the quarry. **Lower back cover:** On 21 July 1963, No.2 (Beyer Peacock 6935 of 1938), at the head of an ARE tour train, pauses for photographs on the Moorabool River bridge. *Photos: Peter Charrett*



State Sawmills locomotive SSM No.8 WONGON at a Pemberton bush landing, September 1962.

Photo: Bob Moss

Running the Rake

by Len Purcell

Looking back to the days when steam locomotives were prime movers at almost every sawmill of any consequence in Western Australia it appears that "the rake" played a major part in everyday life. It featured in everyone's vocabulary. The locomotive-hauled log rake was deemed important because it brought the logs to feed the saws in the mill. At some sawmills there was another rake; the train that ran between the mill and a distant siding on the WAGR main line. This was a most important part of communications. Apart from empty "guvvy" (government) wagons in which the sawn timber would be shipped away, it brought in supplies for the local store, the mail and even visiting people. Arrival of this rake was a signal for all those who were not at work in the mill to gather at the store or post office. Distribution of the mail was a high priority and there were parcels to be collected - possibly meat and bread orders from a bigger town if the community had no store of its own, or maybe packages from city suppliers whose mail order services centred around annual catalogues, the arrival of which was a most important event in everyone's life.

No matter what other services operated, the one thing essential to all mills was a log supply. Every mill had to have logs and so every mill of any consequence ran log trains. Pictures of such trains were accumulated over the years but there are not too many collections that tell a day-in-the-bush story as clearly as the five pictures that Bob Moss captured on slides at Pemberton in 1962.

Bob got to travel with State Saw Mills 4-6-0 loco SSM No.8, and the driver's condition for his ride to the bush log landing and return was that he should ride on the tender. No great hardship for a truly dedicated sawmill railway enthusiast.

Built at Gorton, Manchester, by Beyer, Peacock, their No.5662 of 1913, SSM No.8 was one of a series designated 9992 in the Company catalogue and designed for "plantation and light railway" use. The distinctive Beyer Peacock outside axlebox 4-wheel bogie was a feature. One of a pair of similar locomotives, both matching the WAGR class 'G' pattern, it was imported by the Western Australian Public Works Department Railway Construction Branch. Assembled at the WAGR Midland Junction workshops in August 1913 it was given the name *WONGON* when it went to work on the Wongan Hills - Mullewa railway construction. Here the spelling "Wongon" is given in deference to the research of Adrian Gunzburg and Jeff Austin prior to the publication of *Rails through the Bush* (LRRSA 1997). A 1930 Pemberton photograph with the dim remains of the name on the tender does not confirm the spelling. At the same time, its sister loco (BP 5663) was named *JARNADUP* and put to work on the extension of the WAGR south western railway about 18 miles from Jarnadup (eventually renamed Jardee) to a large sawmilling centre being constructed by the PWD for the State Saw Mills at Big Brook (eventually renamed Pemberton).

The Mullewa railway was opened in March 1915 and *WONGON* went on to other widespread PWD assignments until mid 1919. Almost immediately, it was transferred to the State Saw Mills, Pemberton. At that time the Jarnadup to Pemberton railway was operated by State Saw Mills, the WAGR not taking over until October 1926. Sister loco to *WONGON*, the *JARNADUP* was already resident with the State Saw Mills, it having been transferred to them in 1914 after the PWD finished work on the railway extension. Both the 'G' engines would have been involved in log hauling as well as delivering train loads of sawn timber to Jarnadup. That would have been something like the mill rake scenario outlined above, with an added component being supplies for the settlers who were struggling to get established among the huge karri trees.



Clockwise from below left: SSM No. 8 is about to retrieve a loaded rake from the bush landing. The log loading winch may be seen beyond the last wagon. □ Dusty! At a water stop, the fireman raked wood ash from the smokebox. The interchangeable 'link & pin' and 'chopper' couplings are an interesting feature □ Journeying home. The loco has in tow six sets of wagons (two wagons per set) each carrying one karri log. Logs are chocked but not chained. The curious fitting on the cab roof is a spotlight for illuminating the firewood bunker when night running was required. □ Along the way home there was a "refreshment stop" alongside a small pump which lifted water for the loco from a nearby creek. All photos were taken in September 1962, by Bob Moss.



Stories about the extensive Group Settlements in the Pemberton/Northcliffe areas suggest that rail communications between Jarnadup and Pemberton were on an "operator's convenience" basis; very unsatisfactory for the would-be farmers needing to get their products to market. This was very much like the early 1900s situation on the Canning Jarrah Timber Company's railway from Midland to Kalamunda and Canning Mills, where pioneer settlers complained so loudly about indifferent train running schedules that eventually the Government took over the line in 1903 (*Rails in The Hills* - Kalamunda Historical Society 1996).

Loco *WONGON* went to Wuraming on the WAGR Hotham Valley Branch railway in February 1920, possibly to help with bush line extensions being undertaken following the takeover of the PWD sawmill at that centre by the State Saw Mills. Its stay there was brief and after repairs at the State Implement Works at North Fremantle it returned to Pemberton. From then on, it remained a Pemberton engine although interchange with locos at Deanmill is known to have taken place and there were trips away for repairs, probably at Midland WAGR workshops.

Before it was finally dismantled, sometime after 1964, it carried its SSM No.8 identity on cabside brass plates which it had received when reboilered at Midland in 1946. Sister loco *JARNADUP* also spent a good part of its logging life at



Pemberton although it went away to Hakea (on an extension of the bush railway about 8 miles south of Wuraming) for a spell in the 1940s. It returned to Pemberton for workshops attention in June-August 1946. Finally it left Hakea in 1952 with a boiler problem but repairs were not carried out and the loco remained permanently out of service. *JARNADUP* did not receive a SSM number like other 'G' locos in the sawmillers's fleet, possibly because it did not go to Midland where its siblings received their brass plates.

Hudson Brothers' timber tramways between Tarbuck Brush and Narani.

by Jim Longworth

Hudson Brothers Limited

The firm of Hudson Brothers was a major manufacturer of railway rolling stock for the NSW Government Railways late last century¹.

Mr William Henry Hudson had started a woodworking business in a small shop (less than forty by thirty feet in size) in what is now known as Regent Street in about 1854. In 1866 his two sons, Henry and Robert took over the business and the name was changed to Hudson Brothers. The third son William joined them some years later. A steam boiler and 12-horse power engine were added to power their machinery. Business increased and more machines and steam engines were added to the plant.

At the beginning of 1876 a contract was entered into to supply 200 "D" wagons to the government railways. The wagons were delivered eleven months before the time that had originally been allowed for in the contract. Between 1876 and 1879 the firm built 700 wagons, 12 carriages, 100 cattle and 4 sheep trucks, 26 coal wagons, and 100 coal skips. The operation consumed vast amounts of iron and sawn timber.

To cope with their growing business, Hudsons expanded their site at Redfern [Note 1.], opening a major extension in March 1879. Within two years they had once again outgrown the available space at Redfern, so they purchased 220 acres of land on the railway line between Auburn and Granville on

which to construct a separate engineering works. William Henry's fourth son, George apparently did not approve of the engineering enterprise, and took over operating the timber business at Redfern.

In April 1882 Hudson Brothers was floated as a Limited Liability Company.

By the late 1880's a serious depression affected the east coast timber trade. Mills reduced staff and fewer sailing vessels were employed conveying timber to market. In late May 1887 the shareholders in Hudson Brothers Limited met to consider a proposal made by the Board for the disposal of the company's properties at Redfern and Bathurst. The proposal does not seem to have been adopted until about 1888, when it was agreed to, along with the disposal of the Homebush site. (Business at the Redfern site seems to have gone into limbo for about six years following the decision. In January 1890 the local councils petitioned the Colonial Secretary to resume Hudson Brothers' property in Regent Street, for a site for a wholesale fruit and general market. However the proposal did not eventuate.)

Failure of the government of the day to award Hudson Brothers what was seen as their usual contract for railway rolling-stock, caused severe public concern during late January 1888. Holding a public meeting in Wickham was contemplated.

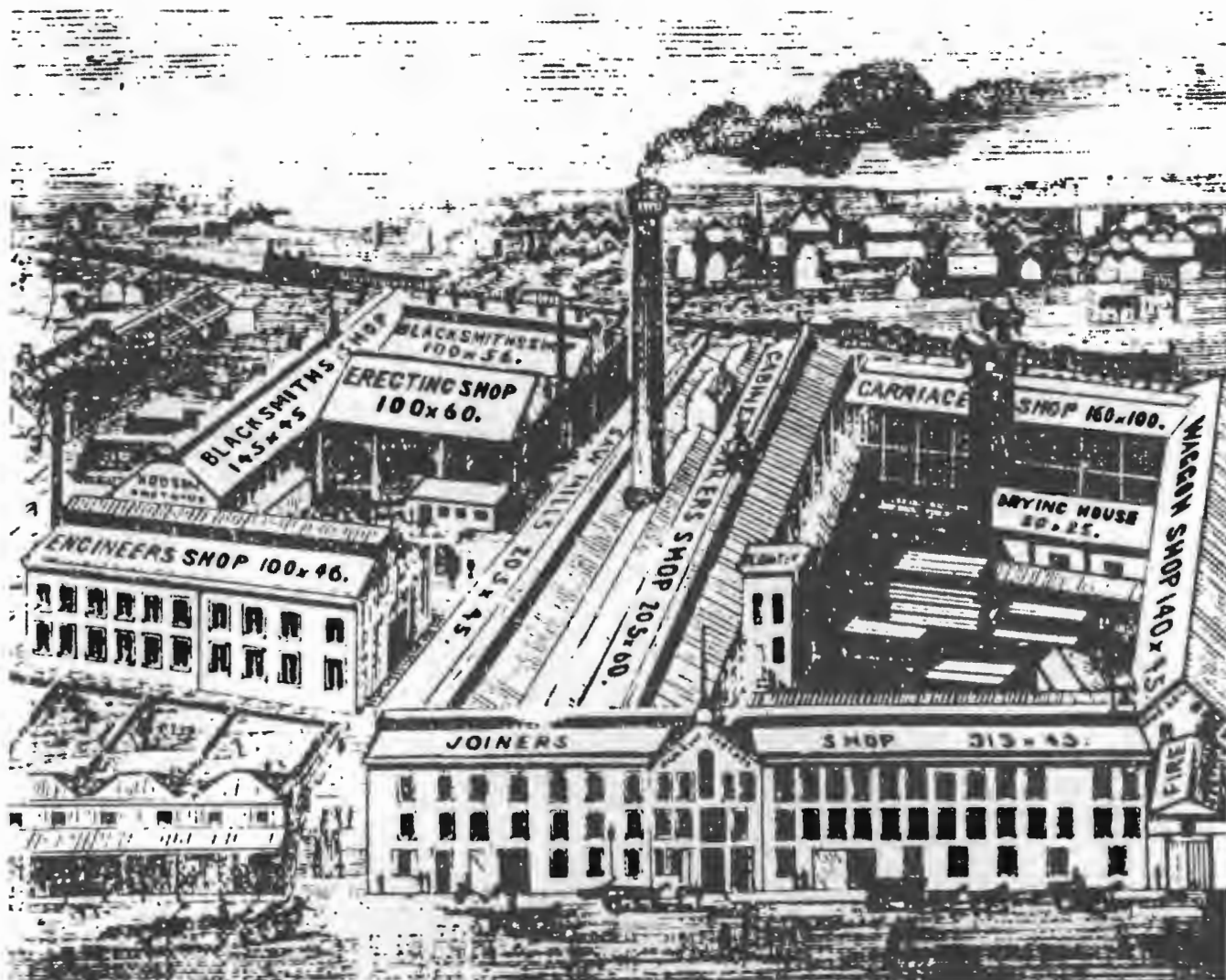
A special committee of shareholders in Hudson Brothers Limited, in the middle of May 1894, recommended that the company's timber trade be discontinued as it appeared to be unremunerative. Further Mr Robert Hudson resigned from his position as the then Assistant Manager of the company.

On the 16th of November 1894 George Hudson started advertising a business at the Redfern site, in the *Sydney Morning Herald* in his own name as "George Hudson, Timber Merchant, 52 Regent Street, Redfern, near Redfern Tunnel",



A log tram at Smith's Lake, 7 September 1904.

Photo: National Library of Australia



Hudson's Redfern works, circa 1880. Regent Street is in the foreground.

with a branch yard at Homebush adjoining the railway station. Up to and on the previous day the company had been advertised as "Hudson Bros. Limited, Timber Merchants, Murray Street Pyrmont". [George's opening of his business on the Redfern site of the original Hudson Brothers enterprise appears to have been financed by Henry]. George's Redfern works were still being advertised as trading as "George Hudson" as at December 1897, selling timber, tongue and groove flooring, pickets, 26 gauge galvanised iron, cheap lines of sashes, doors, mouldings, and all kinds of building materials.

At about half past two in the afternoon of Saturday the 8th of October 1898, a column of smoke shot up from the Redfern site. The fire was one of the fiercest fires ever seen in Sydney, and George Hudson's Redfern works was reduced to a few burnt poles protruding through a sea of twisted galvanised iron sheets. Many of the surrounding shops, factories, and homes were also destroyed in the blaze.

The Hudson's sawmilling operation at Myall Lakes, which is the subject of this report, was only ever run as a minor raw material source, incidental to the Hudsons' principal engineering operations. The fortunes of the Narani operation were doubtless subject to the ups and downs of Hudsons' timber business. Never-the-less, Henry Hudson was sufficiently enamoured of the area to name his house at Redfern, "Narani". Timber was also drawn from a property at Dural.

Henry Hudson died in early May 1907, and was followed only a few days later by his brother George.

Narani

Narani (later spelt Naranie, and now spelt Neranie) was a small settlement on the northern shore of Myall Lake on the north coast of NSW. Narani was situated on the southern end of a headland which projects southward into Myall Lake, off a low narrow isthmus which lies between Smith Lake and Myall Lake. The area was, and still is, very sandy, and at the turn of the century the roads were rough and rutted. Moderate sized sheoaks lined the banks of the lakes which were bordered by rough reeds. Bird life and fish abounded.

The Narani Sawmill

As at early February 1872, only four sawmills were listed in the Myall River area, these belonging to: J Booth and Company of Balmain at Cape Hawke, Mr McRae at Belimbit [Later Boolambayt?], Mr Livingston of Sydney at Tea Gardens, and Messrs Beverley & Dickson near Bullahdelah. Apparently, neither the Hudsons' sawmill at Narani nor the nearby sawmill of Croll, Wright and Rogers at Bungwall were there by then.

The Narani sawmill seems to have commenced operating sometime during early 1873, when the portion was conditionally purchased by George Hudson, while the mill was under the management of Robert Hudson. The Narani mill had been established and was operating for some time prior to when Robert's younger brother George Hudson (the fourth and youngest son of William Henry Hudson) took over the management there in 1873². On the 1st of February

1873, George was married to Ruth Tall (the third daughter of the then late George Tall), by the Reverend Canon Stephen at St. Paul's Church. George seems to have taken over the management immediately following his marriage to Ruth. By the late 1870s Henry Hudson was the proprietor of the Narani mill, Charles Zucker was the mill manager, and George Mathewson was the sawyer. August 1878 saw the mill in full swing.

Rivalry flourished between the Hudson Brothers' sawmill settlement of Narani, and the nearby sawmill settlement of Bungwall (originally Bungwall Flat, later Bungwall, now Bungwahl) where Messrs Croll, Wright and Rogers had built a sawmill at about the same time as had Hudsons. Bungwall, however, lasted the longer.

Hudson Brothers' sawmill at Narani Point seems to have initially been run by the parent company primarily for roughly breaking down hardwood logs into merchantable sized lumber, which was further re-sawn and shaped at the company's workshop at Redfern. The Narani sawmill was very closely linked to the Redfern works, and together with the Brisbane Waters area, supplied the Redfern Works with iron-bark, black-butt, blue gum, flooded gum, spotted gum, tallow-wood, and turpentine timber without shortage³. The hardwood was used largely for house construction, and for building tram cars, railway carriages, and railway goods wagons.

Hoskins (1997)⁴ suggests that it was George Hudson who operated both the woodworking part of the business at Redfern and the sawmilling part of the business at Myall Lakes, even though both sites remained in his brother's (Henry's) ownership. By 1878-79 both George and Robert are listed as "millowner" (sic) in the "Official Post Office Country Directory".

Initially, children from the families living in the sawmill settlement at Narani were boated across the water of Myall Lake to school at Bungwall. However conditions were often rough, causing concern for the safety of the children. In response, Henry Hudson provided a private school at Narani adjacent to his sawmill about 1875-76. The school was converted to a Provisional School in November 1879. In time the school proved to be too close to the sawmill. The children were constantly distracted from their schoolwork by activity just outside the classroom, and there was the constant danger from playing in a playground that was physically inside the sawmill yard!

In March 1879 Hudson's Narani mill was described. "A Branch establishment also exists at the Myall Lakes, where locomotive, tramways, horses, punts, and sailing vessels are brought into requisition for the carriage of timber",⁵ employing over 100 men.

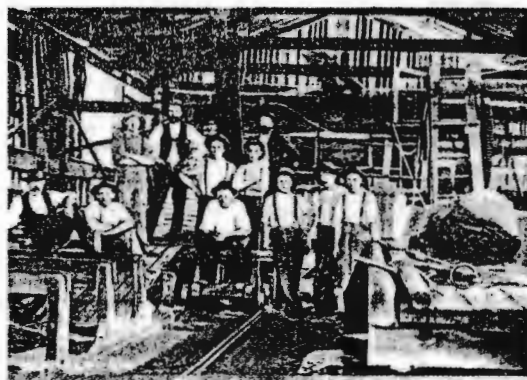
As at the 16th of July 1880, Henry Hudson stated that he was of the opinion that he could keep the mill in full work for at least 15 years. Over 100 men were still being employed by the mill at the time.

The hardwood mill was described in December 1881 as employing. "quite a township, about 350 people. They employed 5 vessels constantly carrying hardwood from Port Stephens; they run 2 locomotives, 1 steamer, and 3 punts; and they employed 70 bullocks and 56 horses"⁶. The township of Narani was a small ramshackle settlement of timber houses loosely clustered together uphill of the sawmill. Many of the houses were described by the local school teacher as being unfit for human habitation.

In February 1882 Hudson Brothers Limited advertised to be registered under the Companies Act, with a capital of £300,000 in £1 Shares. Dividend for three years was guaranteed at 10% per annum. The prospectus described the property at

Saw Mills,

.. Naranie Bay, Myall Lakes ..



Sawn Timber of all Descriptions.

Piles, Girders, etc.

General Store.



Bedrock Prices.

G. W. MITCHELL,
Proprietor.

Myall Lakes, Port Stephens as "Freehold of 120 acres, with sawmill and plant for working hardwood; four miles of tramway, two locomotives, Manager's house and Workmen's cottages, steam and sailing punts, and other appliances. Also leasehold of 2000 acres timber land, and 2000 acres of grazing land"⁷.

On the opening of the company's new Clyde works at Granville in August 1882, the Narani operation was mentioned. "They have also one of the most complete bush mills in New South Wales, where they have laid down over six miles of railway, upon which they work two locomotives: and they keep steam and sailing punts, a large stud of horses, several teams of bullocks, and, of necessity, several sailing vessels always employed in the transport of hardwood to Sydney"⁸.

During October 1886 Hudson's Narani operation was described as "really a very large concern, comprising several miles of tramways, two locomotive engines, a number of punts, and all the usual appurtenances for carrying on the business of timber getting on a large scale"⁹. Due to the then current depression in the timber trade, Henry Hudson instructed his manager of the Myall Lakes operation to ascertain what reductions in cost could be made before the end of the year, otherwise the mill would have to be closed. In particular, expenditure on wages was to be reduced materially. The company had already let about half of its sawmill hands and machinists go.

By 1889 Hudson Brothers was in financial difficulty. Amongst several deductions from the yearly profit for 1888, was one listed as "special depreciation, Narani buildings and plant, £1528". The deductions also included "special depreciation, Pyrmont leasehold, £1200", and "Additional loss in closing

*Redfern works, £611-14-8*¹⁰. [The book entries appear to have been divestments (perhaps to family members) of the three properties which were intimately linked as an integrated timber supply chain and timber works].

The mill seems to have closed down during the first quarter of 1893.

Following re-opening of the Narani mill, one Friday in September 1896 a young man, Henry Newman, had one of his thumbs severed by a circular saw while working at the saw-bench. He was taken to the Manning Hospital, over forty miles away.

Hudson Brothers Limited was placed into liquidation during the later months of 1896. The auction listing for the sale of the company's works at Clyde in August 1898 does not mention any of the assets of the Narani site [probably because they were in the personal ownership of Henry and/or George Hudson by that time].

Due to falling attendance the Narani school was joined with the Seal Rocks School and converted into a house-to-house school, but the school reopened for 3 days per week in February 1899.

By February 1897 the mill was under the management of Mr George Mitchell (who apparently had a family connection with the Hudsons). As at May 1900, Mr Mitchell of the Narani mill had over 500 logs stored at his various wharves for cutting up through the then coming Winter. He had also just completed another steam punt for use on Smith's Lake. George Mitchell operated the mill under lease, and a general store, until the mill was finally closed down about 1906-07.

Mr Cyril Grey's father attempted to keep the mill going after Mitchell left for Narooma, but apparently without success.

During early 1907 Mr Frederick Phillips, who was then the proprietor of the Bullock Wharf sawmill at Nabiac,

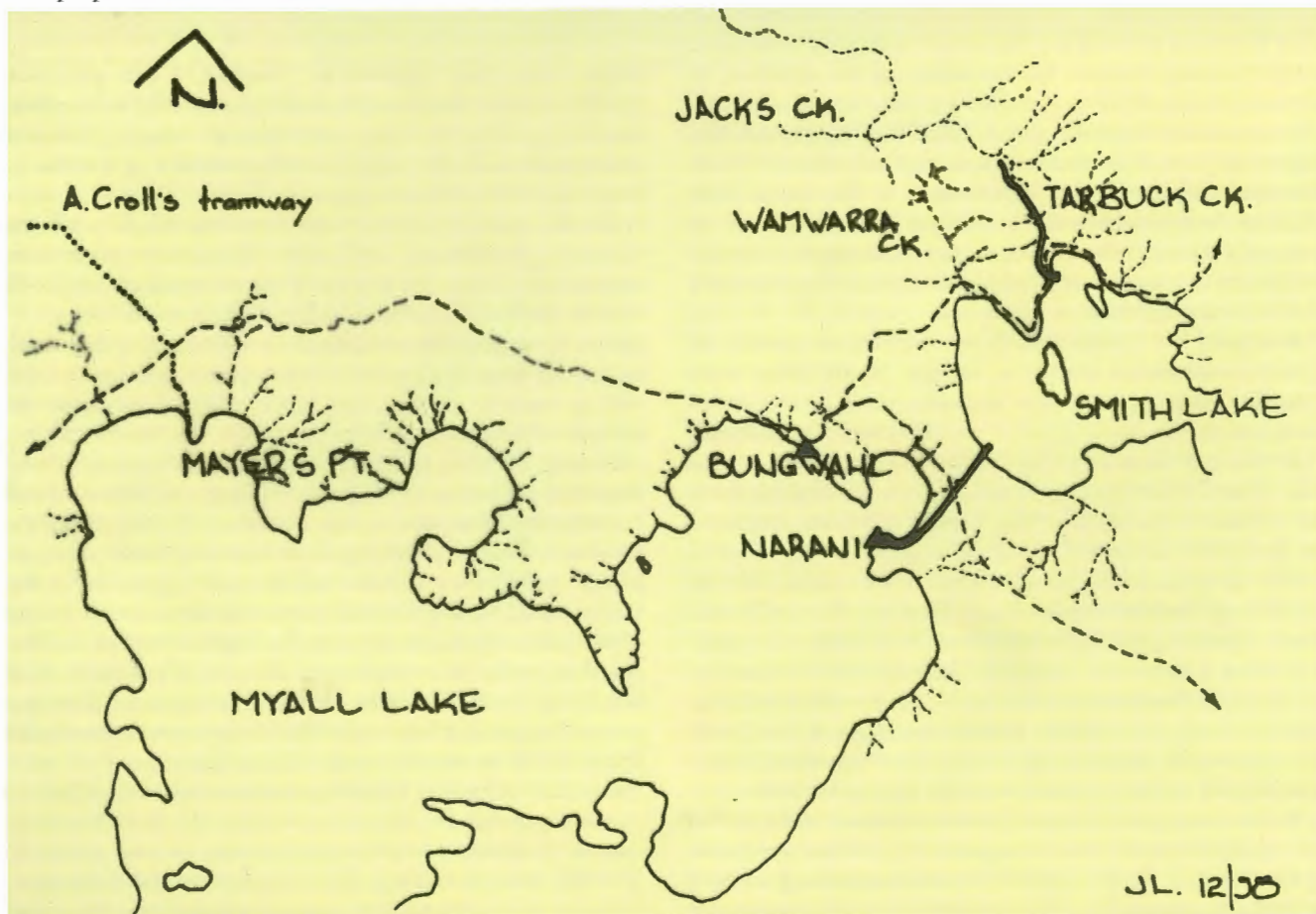
purchased the Narani sawmill. By July he was busy moving the plant to the upper Myall area where he intended to erect an up-to-date mill¹¹. By the 8th of August 1908 the mill had been removed, and the area was described as the "site of old mill, machinery removed"¹².

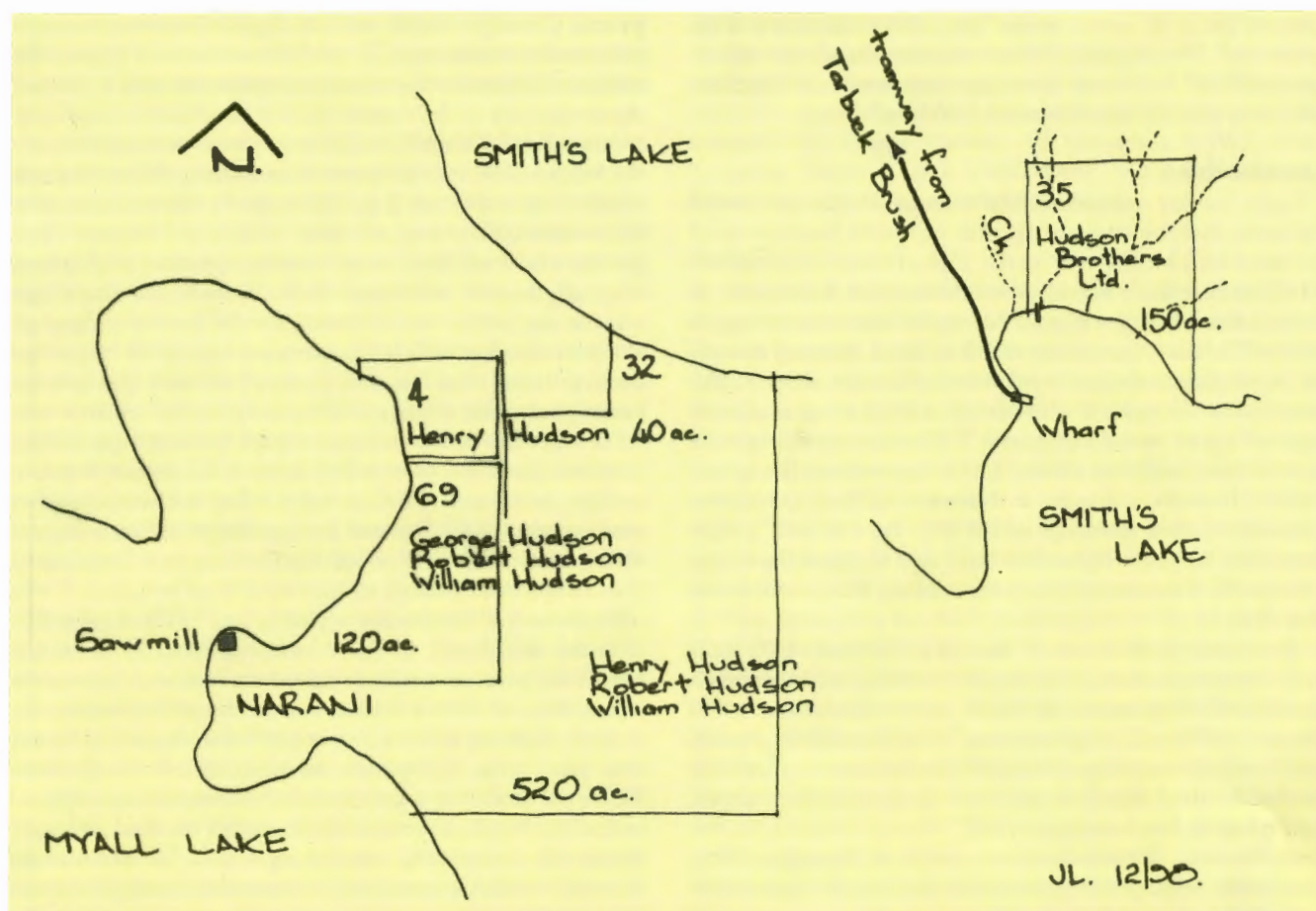
The Narani public school was closed down during September 1908. The building was dilapidated, and as the sawmill had closed down, there was no likelihood of a significant influx of families¹³. The remaining children were transferred to the Bungwahl school, travelling there by coach. The children continued to travel to Bungwahl, and a new school was built there during October 1916. The new school had the name "Narani" painted on it for a couple of weeks, but was quickly repainted to read "Bungwahl". The site is that of the present school.

By the middle of 1910, Narani was described as "containing but few houses, the remnant of the settlement round the old sawmill - now in ruins"¹⁴. Such a description confirms that the mill had been abandoned some years before.

The Two Tramways

Before the turn of the century Hudson Brothers operated two tramways near Bungwahl, including, (1) a line from Tarbuck Brush which ran down to the northern shore of Smith's Lake, adjacent to the mouth of Tarbuck Creek, and (2) a line from the southern shore of Smith's Lake overland to Narani on the northern shore of Myall Lake¹⁵. The line from Tarbuck Brush provided egress for hauling logs out of Jacks Creek and what is now known as the Wallingat Forest down to the northern shore of Smith's Lake, where the logs were transferred to droghers and punts for shipping across the lake to the southern shore. The Tarbuck Brush tramway connected to the wharf on the northern shore of the lake on the western shore of the Tarbuck Creek bay. Portion 35 was





held in the name of "Hudson Brothers Limited" [Note2]. The Tarbuck Brush line was variously described as about 2½ miles to 5 miles long.

The Tarbuck Brush line was not the Hudsons' only source of timber on Smith's Lake. The company droghers worked many log dumps around the shore of Smith's Lake, eg one at Pot Creek, and two in Wamwarra, etc.

In November 1877 the Hudson Brothers were permitted a lease for the special object of "a tramway to connect Smith Lake with Wallis Lake" at Tarbuck Brush. The lease area was of about 20 acres, commencing on 1 October 1877, terminating on 31 December 1881, for a rent of £10.10 Shillings per annum¹⁶. In November 1881 Hudson Brothers were permitted to renew this same lease, which was on average one chain wide, commencing on 1 January 1882, terminating on 31 December 1886, for the same annual rent¹⁷. The lease was subject to the condition that proper crossing places were to be reserved for the public. However, by this time the tramway was already working. The SMH of 11 September 1877 described the mill. "To supply the timber there is a mill at Myall Lakes, Port Stephens district, which gives employment to eight or ten bullock teams, four punts, one steamer, three vessels, about fifty men. A tramway connects Smith's Lake with the Myall Lakes and, by the aid of horses, the mill is supplied with hardwood logs, for which it was specially erected, and it turns out on an average 28,000 feet per week."

Enterprising was a commonly used description of Hudsons' work. The distant Maitland Mercury newspaper reported that at Hudson Brothers' mill, "A tramway exists through their energies to the Smith's Lake, and another is in existence on the forest side of Smith's Lake, which speaks loudly and commands estimation abroad."¹⁸

In the following year the Mercury went on to report that "Messrs. Hudson Bros., with their usual spirit of enterprise, have laid down a tramway for the purpose of drawing logs from the shores of Smith's Lake to their establishment at Narani, a distance of a mile and

a half. The tramway is being extended for some distance on the opposite side. A steam locomotive is to be used to draw the timber from the lake to the mill, after it has been punted over from the other side"¹⁹.

At the southern shore of Smith's Lake the logs were rolled off the droghers into the water and loaded onto tramway trucks for hauling across the narrow strip of sandy land to the mill at Narani on Hearts Point on the northern shore of Myall Lake. The tramline on the southern shore of Smith's Lake extended some distance out into the shallow waters of the lake. The place on Smith's Lake where the logs were transhipped from the droghers to tramway trucks is known as "Tramline Beach". Apparently the tramlines were built because the bullock teams couldn't work in the region's undulating sandy country.

The Narani line can be assumed to have been of 3ft 6in gauge, because the locomotives which later were transferred from Narani to Forster were of 3ft 6in gauge²⁰.

Rails were originally 4in square hardwood timber (probably Brushbox), with a 2in by ½in thick metal running surface mounted on the top. The rails were spiked or nailed to timber sleepers. The timber rails on the Tramline Beach to Narani section were later replaced by steel rails. Garland and Wheeler (1982) suggest that the line was originally horse worked. [Given that the tramway was built about September 1877, and that the first locomotive arrived in August 1878, the era of horse haulage must have only lasted about one year.]

The tramway formation was raised some feet above the level of the ground, so provided a dry path for people to walk along in wet weather. As at 5 January 1881 it was recorded that Hudsons had "a locomotive running on the tramway, and that children are expressly forbidden to walk on the line for fear of an accident"²¹. Children had to cross the line to get to and from the school and their homes.

Tramways for "the carrying of boats, goods, etc. overland from one

navigable (body of) water to another" are commonly called portage tramways²². Was Hudson's Narani tramway the closest railway line in NSW to having been a portage tramway? Were/are there any true portage tramways in Australia?

Locomotives

Light railway researcher Mark Langdon has uncovered evidence that the engineering firm of Mort's Dock received an order for a locomotive on the 15th of March 1878 from a Mr Norman Selfe for Hudson Brothers. A locomotive is recorded as arriving at Narani during the first week of August 1878. "*The steam locomotive, which is to run on Hudson's tramway to Smith's Lake, arrived at the mill some days ago; but owing to either some fault in the engine or to not having a skillful driver, all efforts to run her have yet proved unsuccessful.*"²³. The dates seem right for this to have been the Mort's Dock locomotive. [Does this make Hudson's tramway at Narani the first locomotive powered timber tramway in NSW?]. By 1878-79 Henry Daniels is listed as "*enginedriver*" (sic) and Richard Pomroy as "*fireman*"²⁴. Chances are they were crewing the locomotive at the time.

The newspaper report of the 10th of March 1879 only records a locomotive [in the singular] at Narani. Mr Hudson's letter to the department of Public Instruction of the 5th of January 1881 still only mentions a locomotive at Narani [again in the singular]. [Probably the second loco had not arrived by then though it may have been at Tarbuck Creek, or perhaps it was non-operational].

By the time of the newspaper reports of December 1881, and in all subsequent reports, the number of locomotives recorded at Narani had doubled to two. The timing would have allowed sufficient time for the Andrew Barclay locomotive to have arrived by then, to join the Morts Dock locomotive which was already there. One of the two Bungwall-Forster²⁵-Ulverstone locomotives has been identified as Andrew Barclay builders number 211²⁶ of 1879²⁷.

Identification of the other locomotive at Narani is complicated by a persistent rumour that a vertical boilered locomotive once worked there. Simmons suggests that the draught horses which originally pulled the logs were replaced by an "*upright-boilered engine*"²⁸ [a vertical-boilered locomotive?], which was in turn replaced by a small horizontal-boilered locomotive. Garland & Wheeler (1982)²⁹ report that the vertical boiler engine lost its head of steam on the steep incline up from the water, and let the whole train run backwards down to the lake again. This problem was overcome by excavating a cutting, up to 20ft deep, through the hill to ease the grade, and finally replacing the vertical boiler locomotive with one that had a horizontal boiler. Hudson & Henningham (1986)³⁰, offer a reversed order of the locomotives arriving at Narani [but this may just be confusion resulting from the oral source they quote]. Long term local resident historians agree that the rumours about the vertical boilered locomotive are to be believed, as the rumour apparently goes back a long time, having come from people who once worked at the saw mill direct to the then young residents. Therefore I take it that the Morts Dock locomotive was the locomotive with a vertical boiler.

Possibly one of the locomotives worked the Tarbuck Brush line and the other worked the Narani line, as surely having both on the Narani line would have been unnecessary. Alternatively, one may have been a standby locomotive, or one may have failed.

Why the Andrew Barclay locomotive carried a plate on the cab side stating, "J.T. Stubbs Sydney 1888"³¹, remains unclear

to me. [Perhaps Stubbs was an Agent for some hitherto unidentified transaction, or the locomotive was put up for sale but it found no buyer until it was transferred to Forster about the turn of the century?]

According to a Mr T.T. of Tuncurry, who was a fireman on the larger of the two locomotives at Forster, the photograph of the loco and crane [LR 153, page 6], shows the smaller locomotive (of the two) and little crane at the Bennett Head quarry. The small loco bears a strong appearance of having originally been a saddle tank loco. [If the Morts Dock loco was the one with a vertical boiler, and the loco in the picture is the smaller loco of two locomotives each with horizontal boilers, then what is the identity of this, the smaller locomotive with a horizontal boiler?] Mr. T.T. writes that: "*The two locos were brought from Bungwall by sailing ships. I believe they were dismantled, taken to Port Stephens and shipped from there and then landed at the old Government Wharf in Forster where they were assembled again. The small loco was brought to Forster first and the bigger one later on*"³². Both locomotives were certainly at Forster by the beginning of May 1900³³.

Hudson and Henningham (1986, page 113) suggest that after the mill closed, the locomotive was used by fishermen for several years to run their fish across from one lake to the other. What is known is that, due to the withdrawal of the steamer *WAKEFIELD* in early 1899, fish from the Forster area were taken by boat to the head of Lake Wallis, from where the catch was taken overland to Bungwall, and shipped out across Myall Lake via a Mr Coombe's steamer. [Whether or not this event is the incident alluded to, I doubt that the time involved in steaming up a locomotive would have been warranted just to convey boxes of fish one and a half miles along the tramway to Narani.] By July 1899 the steamer *KINGSLEY* was trading between Forster and Sydney twice per week.

Shipping

From the 1860s timber-getters had worked in the area around the Myall Lakes. Punts carrying the timber were poled from around Bulahdelah off the northern end of the lakes, across the water to Tea Gardens. The NSW Department of Public Works fought an endless battle dredging and de-snagging the Myall River so vessels could use the entrance between Tea Gardens and Hawks Nest. The clearing of channels with sand-pumping dredges was a constant activity, with the aim of creating a draught of 3ft 6in at low water for the log punts.

Apparently unable to get adequate action from the Department of Public Works to dredge the channel, Hudson Brothers and other enterprising parties engaged in the timber trade between Myall and Sydney took action themselves in May 1877. They engaged a Mr Dalton, who was the owner of the steam launch *WARATAH*, to clear a channel 200 yards long and ten yards wide. A dredge had been built specifically for the work, but apparently it never got there.

Sawn timber was shipped from the wharf at the Narani mill to Hudson Brothers' wharf at Pyrmont. The sawn timber was sent out from the Narani wharf originally by pole punt to Tea Gardens, where presumably it was transhipped to coastal sailing or steam ships. The waters of the Myall Lakes were so shallow, in places no deeper than a couple of feet, that no vessel of any draught could run directly to the wharf at the mill, so the timber had to be punted across the lake to Port Stephens. Later drogher/s replaced pole punt/s. Hudson Brothers were permitted to lease for the special purpose of a wharf etc, 20 acres of Corry or Sand Island, which was near

the mouth of the Myall River, Port Stephens, from 1 January 1874 to 31 December 1878, for £5 per annum, presumably for use as their transshipment point. The Corry Island lease was finally forfeited in May 1897.

Loading timber from the wharf at Narani Point onto boats was a hazardous operation. Narani Point was fully exposed to wave action as the winds whipped up the waters of the broad and very shallow Myall Lake. To provide protection for loading the boats a breakwater was constructed by dumping log hearts and timber off-cuts into the lake, so the area became known as "Hearts Point".

Despite the lake having generally shallow water, at least one employee of Hudson Brother's drowned in it. Just after lunch one Wednesday in February 1878, a Hudson Brothers' steam punt was proceeding up the lake from Tea Gardens, when a young man named Fedick lost his hat overboard. He immediately jumped into the water after it, but despite the steamer rounding to, the wind was too strong for him to regain the boat. Another man, a Mr Burke, jumped into the water to save Fedick, but he sank before Mr Burke could reach him.

During late 1878 a deputation waited on the Secretary for Public Works urging for a dredge at the Myall Lakes to remove obstructions to navigation. In response £2000 was placed on the Departmental estimates for the following year. [Hudsons may have had an interest in the deputation, for they certainly had an interest in the outcome].

Gales caused sand to build up in the mouth of the Myall River to such an extent that only vessels of a very limited draft could enter the river mouth. This severely hampered coastal shipping from entering and loading timber from the mills scattered around the shore of the lakes and along the rivers feeding into the lakes.

In 1875 H. R&W Hudson took over the side-wheel paddle steamer *BROTHERS*, which appears to have formerly been one of the North Sydney ferries. By late 1895 *BROTHERS* was being used by Hudson Brothers to ship timber from the company's wharf at Narani to Tea Gardens.

BROTHERS was one of eighteen steamboats which were trading on the river at the time, and spent the rest of its life in timber towing and rafting duties.

One day in late February 1897 a destructive fire burnt out a timber punt of Mr Mitchell, then of the Narani mill. On their way from Narani down to Tea Gardens with a load of timber, the crew had gone ashore to buy some fruit from a farm which was close to the river bank. During their absence the punt caught fire. The deck house was completely demolished and a large proportion of the cargo damaged beyond being saleable. The engine bed was disabled which prevented any further progress under its own power, so the punt had to be taken in tow.

Extant Remains

During the late 1980s a shallow dent could be seen in the ground opposite the quarry up Sugar Creek Road just before the shelter shed. All other evidence of the Tarbuck Brush line was buried under the dense lush vegetation.

Bruce Macdonald inspected the Neranie area in November 1959. He found the remains of steel rail (30 to 35 lb/yd) and the earthen formation. The late Ken McCarthy inspected the area in May 1975, and found sleepers still embedded in the southern lake shore of Smith Lake. The history of the local primary school reports that, as at about 1976, evidence of this line could still be seen, though the trestles and rails were overgrown. Roger Persson reported that as early as the early 1990's wooden rails still existed in the shallows at Tramline Beach.

Acknowledgments

Extra-special thanks go to Ron Madden for his tireless seeking out of reference material on which this desk-top research report has been largely based. Thanks are also extended to Roger Persson (of Wyoming NSW), Mark Langdon, Kevin Carter, Colin Wear, Betty Bramble, and Bruce Macdonald for their contributions.

Note:

1. Hudson's Redfern works was located on the west side of Regent Street (near where Gibbons Street now joins Regent Street), between Lawson Street to the south and Cleveland Street to the north. The works were bounded to the south by Hudson Lane beyond which was the Southern Fish Markets. The works ran from the footpath of Regent Street through to the railway line between Redfern and Eveleigh. Even as late as March 1910, there was a siding known as "Hudson's Siding" beside where the works had been. Expansion of the works gradually gobbled up more and more of the street block. The old Wells Street Signal Box was, and the current Sydney Signal Box is now, located on part of the Hudson site.
2. As at January 1908, Portion 4 was held in the name of "Henry Hudson", Portion 69 which contained the sawmill at Narani was held in the names of "George Hudson, Robert Hudson, William Hudson", and portion 32 was held in the names of "Henry Hudson, Robert Hudson, William Hudson"³⁴[see diagram]. Apparently Portion 35 on Tarbuck Creek, which was held in the name of "Hudson Brothers Ltd.", was acquired by the company at a later date than the mill site at Narani, which had originally been acquired by the family members.

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31. Milbourne K via Madden R, 1998. Personal communication.
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33. *Manning River Times*, 5 May 1900.
34. Forster Parish Map.7 January 1908.

A Ride on the Mapleton Tramway

by CC Singleton

The late CC Singleton (1888-1971) was, in company with Giff Eardley, Malcolm Park and Arthur Dunstan, one of the four foundation members of The Railway Circle, formed in 1930, which in time became the Australian Railway Historical Society. A civil engineer by profession, he had a strong interest in (and a vast knowledge of) all aspects of railway history and operations, and was a regular contributor to the Society's publications over many years.

This article first appeared in ARHS Bulletin No. 121 of November 1947. The Bulletins of this era were produced on an old style office duplicator (that printed from paper stencils, typed on a typewriter or cut by hand) so illustrations were few, and the three maps which accompanied this article look very rough when compared to the superb standard of "Sing's" later efforts.

This item was submitted to LR by "Sing's" long-time friend and colleague David Burke, and is reproduced with the kind permission of the Australian Railway Historical Society. Whilst the historical notes have been edited, the account of the 1937 journey is reproduced in its entirety. Maps have been retouched to enhance their reproduction.

In 1897, the Moreton Central Mill Company Ltd constructed a 2ft gauge horse tramway from its mill at Nambour to serve the cane fields of Perwillowen and Dulong Ranges. This line had long gradients of 1 in 19 and curves as sharp as 48ft radius so, when the question of employing steam locomotive traction was faced, only geared engines were practicable for such a location, resulting in the Company acquiring a Shay geared

engine [Lima 2091 of 1908]. The Blackall Range was at this period being developed as a citrus growing district, but was inaccessible by road. After much agitation, the residents at last caused an Order-in-Council to be issued authorising the Maroochy Shire Council to construct a 2ft gauge tramway from Kureelipa, 6¼ miles from Nambour on the Dulong Tramway, up the face of the Blackall Range to its summit at Mapleton, a distance by rail of 4¾ miles, and to purchase such lines of the Moreton Central Mill Company as lay west of the Queensland Government's North Coast Railway. In June, 1915, the Shire purchased the Company's tramway to Dulong with three permanent branch lines, also the Shay locomotive *DULONG*,¹ for a sum of £10,000. The Shire arranged for the construction of a passenger carriage, a cream wagon with passenger accommodation, and eleven goods wagons of various kinds.

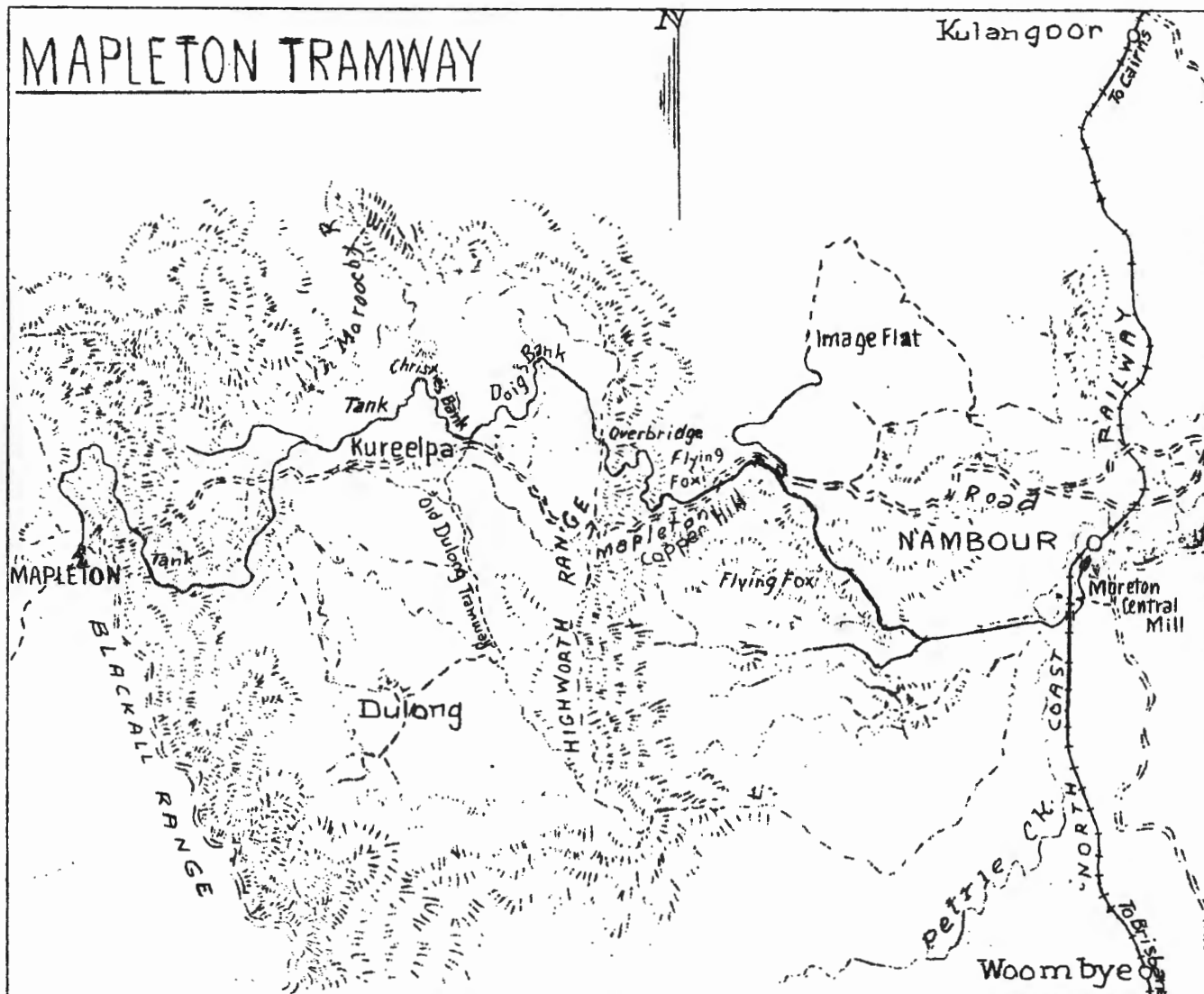
In December, 1915, the extension to Mapleton was brought into use, The Kureelipa to Dulong section was abandoned, leaving 11 miles of main line and about 4 miles of permanent branch lines, the total cost of the Shire's venture being £29,581. A duplicate Shay, named *MAPLETON*² [Lima 2800 of 1914], was imported from the USA in 1915.

The writer visited the Mapleton Tramway in 1937, and following is a brief description of his trip:

Mr Hobson, the Shire's Tramway Manager, who has supervised the Shire's two tramways since their inception, met me at Nambour station, and handed me over to guard Simpson, who also numbered among the tram's oldest inhabitants. While waiting for train time, two diminutive vans were noted on tiny bogies. The leading one had its leading end enclosed for the guard and two longitudinal benches for the few casual passengers, while the remaining two-thirds had open sides for the conveyance of cream cans and small goods handled by the



In 1935, *DULONG* (Lima 2091 of 1908) heads an excursion train on the Mapleton Tramway. Photo: Ken Rogers via David Burke



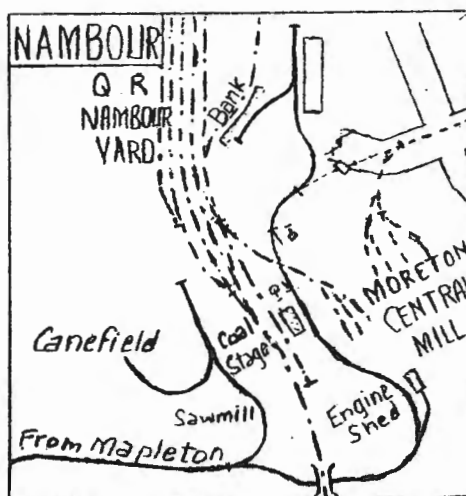
guard at intermediate stops. The second was a louvred van for general goods and parcels, and was permanently coupled to the composite brakevan. Two bogie timber flats were standing on a dead-end siding on the Queensland Railways' loading bank. This siding is the only facility for marshalling or reversing at the Nambour terminus, where tow line, push pole and gravitation were in great demand.

At some little distance was a dead-end engine siding with an open engine shed, and here was found **MAPLETON**, quite cold, and **DULONG** drinking from a 2-inch stand pipe, blowing off quite like a real life size engine. Driver English and Fireman Gooding gave a typical Queensland welcome, and **DULONG** finally moved to the coal stage for a top up, where the visitor, feeling that "three's a crowd" in that tiny cab, walked back to the train. The engine finally arrived and drew the two vans past the spur siding where the two trucks were gravitated onto the rear and coupled, mainly with bolts, split-pins, etc, and other non-railway material.

The guard was recalled from a discussion on local affairs by vigorous use of the whistle, which stopped the blowing off for a while, but the departure was further delayed as a lorry drove up, and all hands loaded the van so that the good people

of Mapleton could get their food and wants. Another whistle and "Sunshine Susie" left town to the noise of a sick mangle, and at about the same speed. The writer took the starboard bench but quickly rose in alarm, until convinced that the side of the car would not seriously pinch him or become detached from the body. After some time he became sufficiently indifferent to his fate to watch Guard Simpson sorting his mails into home made pigeon holes on the front bulkhead.

The line crossed the 3ft 6in gauge siding to the [Moreton] Central Mill, and later passed under the North Coast line and made in the direction of Mapleton. There was no time for dawdling, as the 11 miles had to be done in two hours, so **DULONG** worked up to its full 8 miles an hour or so past numerous cane spurs, while Guard Simpson made sudden descents to the ground to deposit letters or papers in boxes or under stones on the ground, as timber was scarce. The driver stopped only where required, but coming back and helping like a good sport when any heavy lifting was required, and the fireman oiling the gear wheels at every stop. Several farmers had ingenious mail carriers to their dwellings across deep gullies, wires being strung





MAPLETON (Lima 2800 of 1914) and train at Nambour. The date of the photograph is unknown, but the 'as new' condition of both the locomotive and rolling stock would suggest an early one.
Photo: Michael Menzies Collection

between pulleys (old motor car wheels) and the guard depositing mail or parcels in kerosene tins to be hauled in by their owners.

The tram was now beginning to climb and speed dropped a few revolutions on the steeper pinches, sand being used on the slippery patches, and the line then commenced to contour up the face of Highworth Range, and a fine view opened out back towards Nambour and the sea. The location wound sharply into every gully on the mountain side, heading up each watercourse with deep gashes in the slope. The load up the grade is 6 bogie vehicles, at least 4 to be empty, and only 6 full

by a more detailed examination of the couplings, which were decidedly primitive, to say the least, as they consisted of a loose link at the Nambour end of each vehicle, which fitted into a fork on the Mapleton end of the next vehicle, the coupling being made by means of a plain pin being pushed through the holes in the fork, and a split pin or plain piece of wire poked through holes in the pin. An additional refinement was the use of side chains on the two leading vehicles. Each vehicle had a screw handbrake and the engine had a steam brake, while its gearing, with the help of handbrakes, makes the descent reasonably safe. The guard scorned any idea of breakaways.

After passing under an overbridge in a deep rock cutting, the summit of the first terrace opened out and the descent of Doigs Bank commenced, and shortly afterwards the route left the original Dulong location where a short descent was made down Christie's Bank. These two adverse grades were staged in the sugar season. The second range, named Blackall, with Mapleton village on the skyline, soon came in sight, some 2 miles by road and 4 or 5 by tram, the line being visible contouring up the side of the ridge. An old cane line used for timber branched off to the foot of the hills ending just below Mapleton. At this spot the guard suddenly dashed to the side of the van



Former Mapleton Tramway rolling stock at Nambour in the mid-1940s.
Photo: Ken Rogers via George Bond

vehicles can be brought down, as there are two adverse grades on the return trip. A couple of farm hands joined us unceremoniously by mounting the rear flat car without the formality of stopping the tram, and their two dogs, evidently with a strain of chamois, caused us much mental anguish by running in a casual way about 1½ inches ahead of DULONG over bridges and embankments. The views were magnificent but, when crossing some of the bridges, regrets were passed for earlier misdoings, especially when it was obvious that the line had last been fettled in 1935 or so, while the van sides threatened to come unstuck at any moment. Further uneasiness was caused



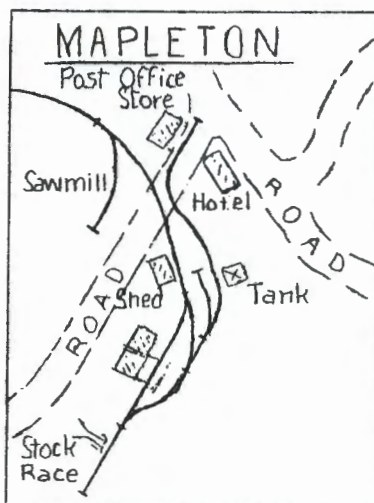
DULONG at Nambour. The ejector water pipe, mentioned in the text, is clearly visible.
Photo: Ken Rogers via George Bond



An early view of DULONG, still fitted with its original diamond stack, on a log train. Photo: George Bond Collection

and hooked up a small girl, without going through the ceremony of stopping, but the new passenger was quite unperturbed and continued placidly chewing gum.

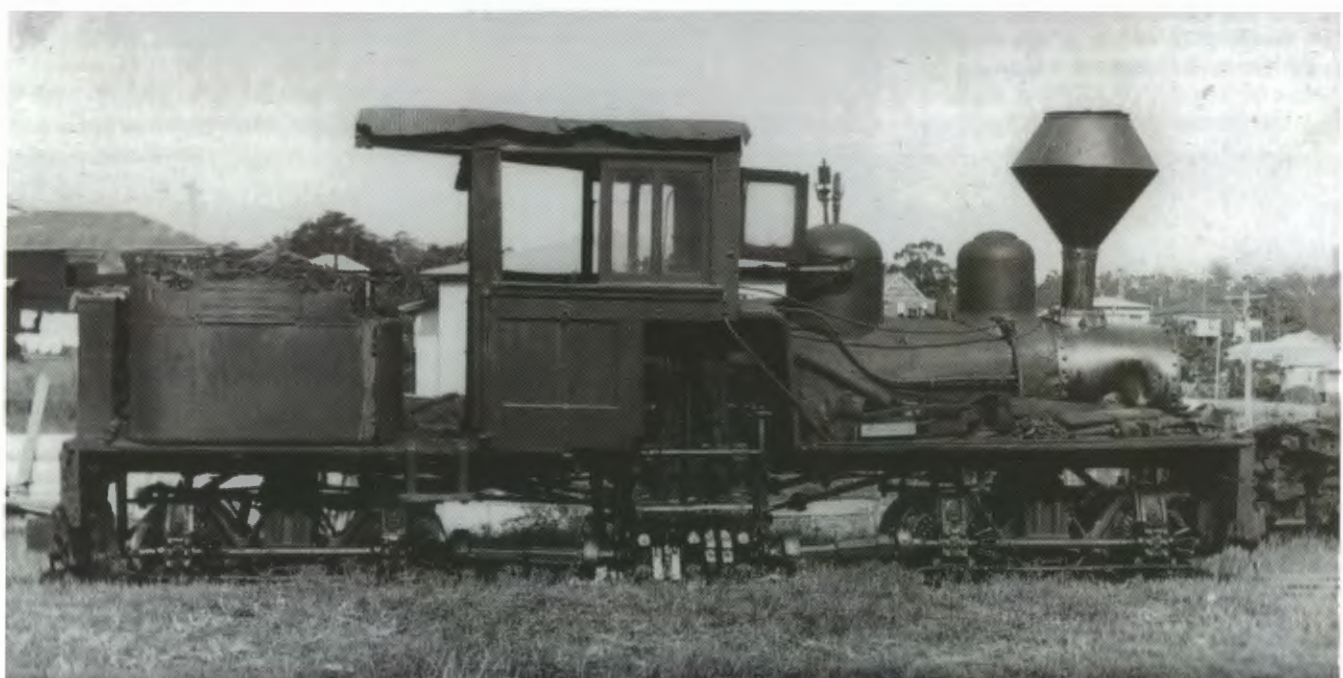
Just below the village and halfway up the hillside, DULONG stopped for water at a wayside tank fed from a spring. The permanent hose on the engine was poked into the tank at formation level, the water being lifted to the bunker by means of a steam fed ejector. The view at this place is reminiscent of Kurrajong, NSW, except that the sea is visible. On reaching the summit the line turns southwards, finally terminating at the rear of the village on the crown of a narrow ridge. The terminal arrangements are primitive, a goods shed and tank being provided,



together with a stock race. There are two private sidings, one to a sawmill, and the other a most unique arrangement leading up the road to the local general store, where it ends against the elevated front verandah, giving a minimum handling of goods across to the floor of the shop.

Notes

1. See *Light Railways* 138, October 1997, pages 1 & 2.
2. At the closure of the Mapleton Tramway in December, 1944, both Shay locos were purchased by Moreton Central Mill. The two locomotives were subsequently rebuilt into one machine, which was called DULONG, despite most of its parts having come from MAPLETON. This composite loco was later renamed SHAY, and continued in service until 1958. It is now preserved under cover at Nambour, near the entrance to the mill.



A battered MAPLETON, now in the service of Moreton Central mill, at Nambour in February 1947. Photo: Ken Rogers via George Bond



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NEW SOUTH WALES

BHP Port Kembla

(see LR 153 p.20)

1435mm gauge

On 11 July a derailment of a loaded Elouera coal train took place at Brownsville. The last coal hopper derailed between the junction and Darkes Rd level crossing, travelled past the crossing to the north and then tipped on its side. It seems that overloading and speed were factors, with the train having backed up to get a run at the grade. The train was headed by two English Electric Co-Co DE locomotives.

Brad Peardon 7/00

BRIMSTONE COAL LTD, Oakdale

(see LRN 107 p.5)

1067mm gauge

An auction was held at the mine by All States Auctions & Appraisals on 30-31 May following its closure. Material offered for sale included drift rail equipment including a dolly car, a 40-person mancar and a couple of flat tops.

Sydney Morning Herald 13/5/00 via Ray Graf;
All States Auctions & Appraisals via Ray Graf

COMBINED MINING SERVICES PTY LTD, Teralba

1067mm gauge

An auction was due to be conducted here by Hymans on 23 May on behalf of this company in liquidation. Items advertised for sale included two Baldwin locomotives that are believed to have been acquired at a coal mine auction. Any further information about these locomotives would be received with interest.

Sydney Morning Herald 13/5/00 via Ray Graf;
Ray Graf 9/00

GRAINCORP LTD, Carrington Bulk Grain Terminal

1435mm gauge

In addition to E M Baldwin 6wDH WORIM (4877-1-9-73 of 1973) (see LRN 97 p.6) GrainCorp is reported to have three remotely-controlled shunting units at this plant.

Brad Peardon 8/00

NORTHSIDE STORAGE TUNNEL, Sydney

(see LR 152 p.19)

762mm gauge

Northside Storage Tunnel is being constructed by an alliance of Sydney Water Corporation, Transfield Pty Ltd, Montgomery Watson Australia Pty Ltd and Connell Wagner Pty Ltd. As described previously, the tunnel system extends 16.1 kilometres between the Lane Cove River at Hunter's Hill and North Head Sewage Treatment Plant, with a 3.7 kilometre branch tunnel from Tunks Park, Cammeray, to Scotts Creek, Castle Cove, at a depth of 40 to 100 metres below sea level. Its purpose is to accommodate sewage overflows caused by stormwater entering the sewage system after wet weather, so improving water quality in Sydney Harbour.

The main construction sites have been at North Head and Tunks Park. In the latter part of 1998, a 3.8m diameter tunnel boring machine (TBM) was used to bore a 1.7 kilometre tunnel from North Head to Little Manly Point to enable spoil from the tunnelling work at North Head to be removed. From mid 1999, a 6.5m diameter TBM then travelled from North Head to Middle Harbour to meet up with another TBM from Tunks Park.

Locomotive, Rolling Stock & Equipment Manufacturers

CLYDE ENGINEERING PTY LTD WALKERS LTD

It has been announced that from 1 October 2000, Clyde Engineering and Walkers will operate under the name EDI Rail.

Ausloco discussion mailing list 8/9/00

Breakthrough was achieved by the TBM from North Head underneath The Spit on 16 July.

Three TBMs began their work at Tunks Park. In August 1999, a 3.8m machine set off to bore the tunnel to Lane Cove River. The following month, a 6.3m TBM set off towards Middle Harbour to meet the machine coming from North Head. The third TBM was a 6m machine that travelled north to Scotts Creek. The tunnelling work was completed by mid 2000 with all sandstone removal by conveyor and barging from Tunks Park and Little Manly Point.

A 762mm gauge railway was used during tunnelling operations for materials and personnel transport and also to provide access in case of emergency. Most of the equipment was obtained from Transfield Tunnelling in Melbourne. All the equipment required at the Tunks Park site was barged from White Bay at Rozelle. The 1.8 million tonnes of rock waste was barged to White Bay loaded into railway wagons for transport to St Marys in western Sydney.

19 four-wheeled diesel hydraulic locomotives fitted with exhaust conditioners were included in the 95 pieces of rolling stock available for use on the project. 16 of the locomotives had been built for the Melbourne & Metropolitan Board of Works as follows:

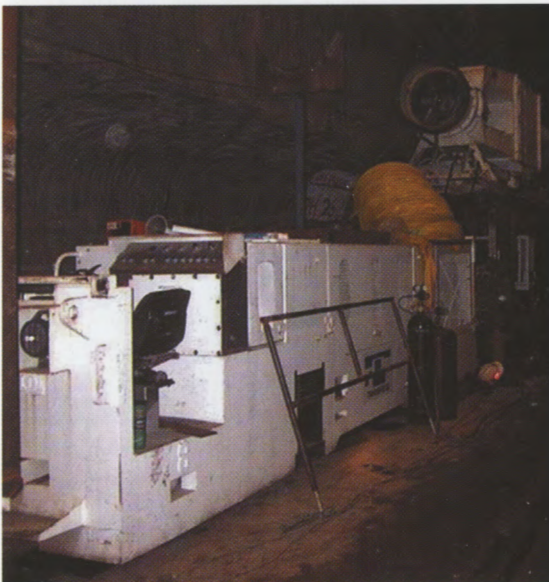
- Five PTA (Launceston) 20 tonne, built 1987, numbered 1 to 5, builder's numbers EP20-001 to EP20-005, Transfield plant numbers 16261 to 16265.
- Five Gemco 15 tonne, built 1990-1, numbered 6 to 10, builder's numbers 287/90 to 288/90 and 289/91 to 291/91, Transfield plant numbers 16255 to 16259.
- Six E M Baldwin 4 tonne, numbered 3 and 11 to 15. Identities are as follows:



No.	Plant no.	Baldwin B/n	Date
3	26125	5366-?-?-74	1974
11	19886	6700-3-4-76	1976
12	19885	6700-2-4-76	1976
13	19641	6700-1-4-76	1976
14	26127	5366-?-?-74	1974
15	16940	5366-6-6-74	1974

The other three locomotives are 9 ton machines built by Clayton Equipment in England. Two are on lease from Mining Equipment Inc of Durango, Colorado. The third is leased from McConnell Dowell Constructors (Australia) Pty Ltd and is thought to be B1864E of 1979, used on the Katoomba - Lawson - Hazelbrook sewerage tunnel construction in 1995. It was also imported from the USA.

Rolling stock includes five Hagglund cars, eight four-wheel flat cars, 22 bogie flat cars, six concrete agitators, ten man riders, three scissor lifts and two cable reel cars. A major use of the rail equipment has been shotcreting, with a special train being made up to carry out this work.



762mm gauge Gemco 4WDH 8 (289/91 of 1991) with shotcrete train vehicles, Northside Storage Tunnel.
Photo: courtesy Chris Moore, Northside Storage Tunnel.

By the start of August following the completion of tunnelling operations, the rail equipment was in intensive use for invert cleaning and concret-ing and for the removal of services from the tunnels such as ventilation equipment, dewatering pipes, and compressed air and water services. Finishing work on the tunnel was progressing rapidly with the deadline for completion being the start of the Olympic Games. On completion, the rail equipment will be barged back out to White Bay. The Transfield Tunnelling equipment will return to the depot at Campbellfield in Melbourne and the McConnel Dowell unit to their Vineyard depot. The other two Clayton locomotives are expected to be returned to America.

Further information about the project can be found through the internet at <http://www.engagest.com.au/ea/0998tunnelling6.html> and <http://www.sydneyswater.com.au/nst/index.shtml>

Engineers Online 9/98; Mark Langdon via Bob McKillop 7/00; *Daily Telegraph & Sydney Morning Herald* 17/7/00 via Ray Graf; Kylie

Ashenbrenner, Chris Moore & Benjamin Wilde (Northside Storage Tunnel) 8/00; Craig Wilson 8/00; Bob Darvill 8/00; Matt Pope (Mining Equipment Inc) 8/00.

POWERCOAL PTY LTD

(see LRN 22 p.4)

Awaba Colliery, Awaba (see LRN 2 p.2)

Cooranbong Colliery, Dora Creek (see LR 154 p.18)

Endeavour Colliery, Budgewoi

Munmorah Colliery, Doyalson

Myuna Colliery, Wangi Wangi (see LR 154 p.18)

Wyee Colliery, Doyalson

Wangi Wangi bulk store

1067mm gauge

An auction was to be held by Colliers Auction Group on 20-21 June for a wide variety of material at the company's bulk store and a number of different collieries. Some significant rail items included two 18 tonne 4wBE Gemco locomotives, numbered 23 & 24 at Endeavour Colliery,



Industrial NEWS

QUEENSLAND

QUEENSLAND SUGAR INDUSTRY

The Queensland Sugar Industry is experiencing a disastrous crushing season, with cane yields down by up to 40% as a result of unfavourable weather conditions and disease, and sugar prices extremely low during the first half of the year. Next year's season is also predicted to be a poor one. Very severe financial problems are besetting growers and millers, and there is a significant degree of uncertainty about the future of the industry in a number of areas, although world sugar prices have shown some improvement in the last few months.

Editor 8/00

CSR LTD

CSR hopes to complete the sale of its Sugar Division by 30 June 2001, rather than looking at the two to three years timetable it had announced previously. The sugar business, on which the company was founded, is being disposed of to allow CSR to concentrate on its building materials operation. CSR operates seven mills on the Herbert, the Burdekin and at Sarina. It is believed that a buy-out by sugar growers is one possibility for the future of the company.

ABC Rural News 25/07/00; Herbert River Express 27/7/00 via Chris Hart; Chris Hart 8/00

BUNDABERG SUGAR LTD, Bingera Mill

(see LR 154 p.18)

610mm gauge

On 2 August, a Greyhound Pioneer bus travelling south on the Bruce Highway collided with Com-Eng 0-6-0DH *INVICTA* (A1513 of 1956) just after 11am at a level crossing about 7 kilometres south of Gin Gin. The locomotive was hauling cane towards Wallaville, the site of the former Gin Gin mill, and was bowled onto its side by the force of the impact. The bus was extensively damaged but injuries were few. Police reported that the crossing lights were working at the time of the accident. The damaged locomotive was reportedly transported directly to the Bundaberg Foundry for repair work to be carried out. Repairs were said to be required for severe cab damage, a broken wheel, possible bent frames and smashed radiator and cowling. *INVICTA* was replaced at the Wallaville depot by Com-Eng 0-6-0DH *SHARON* (A1935 of 1959), joining Com-Eng 0-6-0DH *THISTLE* (A1207 of 1955).

The new section of road south of Wallaville reported last year was built utilising part of the formation of the ex QGR Morganville branch, which had previously also been used by a cane tramway branch to Innes. The deviated line runs under the new road, but also parallel on either side of it for almost two kilometres, presumably to avoid the need for cane transports to cross the highway. *News-Mail* 3/8/00 via Lincoln Driver; David Mewes 8/00; Editor 8/00

Industrial Railway NEWS

BUNDABERG SUGAR LTD, Fairymead Mill

(see LR 154 p.18)

610mm gauge

At about 2.20pm on 17 July, the locomotive on a QR woodchip train damaged the drawbridge crossing at Meadowvale, leaving E M Baldwin B-B DH 82 (10048-1-6-82 of 1982) marooned on the wrong side of the government line.

A low loader was used to retrieve the locomotive and any delayed cane presumably went to Bingera Mill.

News-Mail 18/7/00 via Lincoln Driver; Lincoln Driver 7/00

BUNDABERG SUGAR LTD, Millaquin Mill

(see LR 154 p.18)

610mm gauge

During excavation work for the laying on a natural gas main in January near Cross Street, the boiler of Decauville 0-4-OT 399 of 1904 was exhumed. This was from a locomotive that was used by the Vancouver-Fiji Sugar Co at its Tamanoa Mill before being purchased by Jack Brady, a Bundaberg second hand machinery dealer, in 1923. It was stored by Brady at Millaquin Mill where it was abandoned and buried by 1937 (see LR 102 p.25). It is believed that the remainder of the locomotive is buried nearby but time did not permit any further digging.

On 7 August, B-B DH ELLIOTT (BFE 002 of 1991) was due to go to the Bundaberg Foundry to replace the crown wheel and pinion in the No.2 final drive. J D Blaik 7/00; Lincoln Driver 8/00

BUNDABERG SUGAR LTD, Moreton Mill

(see LR 153 p.21)

610mm gauge

The long-term viability of this mill must be questioned with an apparent rundown in the tram-line system and increasing pressure from urban development. Already about 30% of cane comes by road to Howard Street yard, and it is said that this will increase. This mill seems to have a high proportion of dirt-ballasted track and 42lb rail, and assets acquired with a view to possible future cane and rail expansion seem to have been disposed of in the last few years.

Several sets of points at the entrance to the mill yard have been replaced, and the first two now have indicators on them to show the direction the points are set. These are the same type of markers as seen on trailable facing points on the QR.

David Mewes 8/00; Editor 8/00

BUNDY'S LAST GREAT ADVENTURE

At the time of writing, the tour of the ANGRMS Bundaberg Foundry 0-6-2T 5 of 1952 for the filming of a TV documentary was progressing much to plan, involving running on a number of sugar mill railways. The locomotive is accompanied by a pair of ex-Douglas Shire Council 4-wheel wagons and two locomotive crews. A brief summary of operations follows.

8-12 August: **Moreton Mill**. The locomotive was in Nambour for the annual Sugar Festival at a time when wet weather curtailed crushing, so it only ran light. On 12 August, filming commenced on the Petrie Creek line and at the lift bridge over the Maroochy River. □ 15 August: Filming at **Millaquin Mill**. □ 16-17 August: **Bundaberg Foundry**. Repairs were made to the main steam pipes in the smokebox and the locomotive ran on specially laid track at its "birthplace". □ 19-23 August: **Mackay Sugar**. □ 21 August: **Racecourse Mill to Pleystowe Mill to Marian Mill** and on to Devereaux Creek to film a cane fire. □ 22 August: **Marian Mill to Finch Hatton** and back to Pleystowe via Marian. □ 23 August: **Pleystowe Mill to Farleigh Mill** including cane haulage over "The Summit". □ 26 August: **Victoria Mill**. Lucinda Point and return. □ 28-29 August: **Tully Mill**. □ 28 August: **Riversdale** area including an evening camp fire. □ 29 August: **Tully to El Arish** and return. □ 1 September: **South Johnstone Mill**. Filming in the Japoon area.

The loco will subsequently continue by rail to the Cairns area as the systems of South Johnstone, **Mourilyan**, **Babinda** and **Mulgrave** are connected. "Bundy's" tour will finish at **Mossman Mill** on 6-7 September.

David Mewes 8/00



Clockwise from below: Channel 7 crew and presenter Frank Warwick shoot an opening segment for "The World Around Us" at Moreton Mill, 11 August 2000. Photo: Jim Hutchison □ Bundaberg Foundry 0-6-2T 5 (5 of 1952) alias BUNDY, crosses the Peak Downs Highway between Racecourse and Pleystowe mills for the benefit of the film crew, 21 August 2000. □ The sun is low in the sky as Eimco B-B DH 18 GARGETT (L255 of 1990) and the Bundaberg Fowler head out across the Marian bridge towards Devereaux Creek, 21 August 2000. The diesel will be required to move bins away from the site of a cane fire that is to be filmed. Photos: John Browning





Isis Mill's 610mm gauge Walkers B-B DH 5 (617 of 1969 rebuilt Isis Mill 1998) with fulls from Farnsfield, passes 3 (600 of 1968 rebuilt Walkers 1994) with empties for Goodwood at Kowbi, 2 August 2000
Photo: John Browning

CSR LTD, Herbert River mills

(see LR 154 p.19)

610mm gauge

Victoria Mill's Clyde 0-6-0DH 70-709 of 1970, transferred from Plane Creek Mill in 1997, has finally received its name *DALRYMPLE*. It works in the full yard while *CENTENARY* (64-381 of 1964) works in the empty yard. E M Baldwin 4wDH 8002-1-8-78, known as *HAMBLEDON* is currently under repair but will be used by the navies when reassembled. Motor Rail "Simplex" 4wDM *THUNDERBOLT* (11255 of 1964) does not appear to have been used at all this year.

At Macknade Mill, Clyde 0-6-0DH 16 (DHI.1 of 1954) entered service on 19 July following its slack season overhaul. Clyde 0-6-0DH 18 (DHI.5 of 1954) has been loaned to Victoria Mill, from 29 July to 8 August, from 9 August to 14 August and from 22 August. A year after suffering a broken axle, E M Baldwin 0-4-0DH 17 (6-1446-1-9-65 of 1965) is still awaiting attention.

The poor crop this year is worse at Macknade than at Victoria, and 1000 bins have been transferred from Victoria Mill to Macknade each day. On 24 July, a serious breakdown at Victoria Mill saw at least 100 of the 11-tonne bogie bins of cane being sent to Macknade.

Chris Hart 7/00 & 8/00

FONDSIDE AUSTRALIA PTY LTD,

Black Street & Castlemaine Street, Milton

610mm gauge

(see LR 154 p.19)

The access shaft for the stormwater drain project is in Castlemaine Street, a short distance from the storage site previously noted in Black Street. The stored locomotives were observed in early July and one had a builder's plate showing it to be Gemco 12440/45/67. In late August, the two locomotives had gone from Black Street, presumably underground, but another one was on the surface at the Castlemaine Street site. All three are Gemco "Trammer" 0-4-0BE locomotives.

Editor 7/00 & 8/00.

ISIS CENTRAL SUGAR CO LTD

(see LR 151 p.21)

610mm gauge

At about 11am on 29 June, a loaded train was derailed at the Bundaberg-Childers Road about 11 kilometres north of the mill where the Gregory/New Valley line crosses over. A bin about 20 back from the locomotive seems to have jumped the track, leading to the derailment of up to 10 more and the blocking of the road.

The mill is to be prosecuted in September over a tragic accident when a 17-year old employee was electrocuted while attending a derailment in August 1999. A mobile crane engaged in lifting a derailed bin touched an overhead power line and the young man who was in contact with the bin was killed.

News-Mail 3/8/00 via Lincoln Driver; Lincoln Driver 7/00

MACKAY SUGAR CO-OPERATIVE ASSOCIATION LTD

(see LR 151 p.21)

610mm gauge

Clyde 0-6-0DH *LACY* (65-439 of 1965) was transferred from **Farleigh Mill** to **Racecourse Mill** after the 1999 crushing season and has been fitted with a GM 92-series V6 engine.

Marian Mill's Clyde 0-6-0DH 13 (67-568 of 1967) was briefly on loan to Farleigh Mill in July and went from there to **Pleystowe Mill**, where it was seen parked with Marian's 14 *HAMPDEN* (62-235 of 1961) on 21 August. A new bogie brake wagon is under construction at Farleigh Mill to operate with one of the rebuilt Walkers locos.

21 additional rail lubricators have been installed around the mill systems for the 200 season, bringing the total to 37. These devices double the rail life on curves where heavy wear is experienced. \$300,000 was spent on repairing flood damage in the Pleystowe, Farleigh and Marian mill areas during the slack season. Damage was worst in the Marian Mill area, especially at Little Palmtree Creek on the old Marian line from Tannalo, where two 2.7 metre diameter

corrugated steel pipes forming a large culvert had collapsed. New pipes had to be inserted beneath the 7 metre embankment and new drains installed, at a cost of \$130,000. The new Gargett road/rail bridge was opened in good time for the crushing season after completion was delayed last year because of girder problems. The new steel bridge over St Helen's Creek in the Farleigh Mill system was completed at Easter.

A new automated transfer station at North Eton Mill was in full operation for the 2000 season for cane transported by road from the Blue Mountain area near Nebo to the west of the coastal range. Road trucks tip from an elevated structure and the cane drops into 15-tonne bogie bins which are placed in position automatically. Andy Roberts 8/00; *Mackay Sugar Newsletter* 7/00; Editor

MT ISA MINES LTD

(see LR 154 p.20)

1067mm gauge

Further information has been received about the battery electric locomotives sold at auction in May. The complete one carried the number 1779 while the two incomplete ones were numbered 1776 and 1784.

Mica Creek power station was converted to run on natural gas instead of coal in 1999 and the exchange yard with QR there was closed at about the end of July this year. It is believed that green & yellow Com-Eng 0-6-0DH 5802 (JA4282 of 1964) is stored out of use at Mica Creek.

At the mine site at Mt Isa, two Walkers B-B DH locomotives are available for surface shunting. One is yellow and is numbered 5803 (682 of 1972). This is Model GH500V and is externally similar to a WAGR M class. The other is painted a light shade of grey and numbered 5804. It is ex QR DH7 (589 of 1968) that was purchased in 1991. Ray Graf 8/00; Glen Muller 8/00; Editor



The boiler of Decauville 399 after having been buried at Millaquin Mill for more than 60 years, January 2000.

Photo: courtesy JD Blaik, Bundaberg Sugar

Industrial Railway NEWS

PEABODY-OBAYASHI JOINT VENTURE, S1 Sewerage Tunnel construction, Bowen Hills

(see LR 143 p.18)

610mm gauge?

This venture is engaged on the construction of a 4.7 kilometre sewerage tunnel for Brisbane City Council running from North Quay to Cooksley Street, Hamilton. The main shaft is at Perry Park, Bowen Hills, and the 700 metre tunnel to Hamilton has been built with progress back towards the city standing at about 2500 metres by the end of August. Completion is due in June 2001. Spoil is being removed by conveyor but concrete tunnel segments and other materials are being moved by rail. Four 9-tonne Clayton 4wDH locomotives are on hire from the USA. They are owned by Mining Equipment Inc and were rebuilt at the MEI works at Farmington, New Mexico. They were stated to have Duetz engines. A number of segment cars and some miniature bogies were noted on the surface but all four locomotives were said to be in use underground.

Matt Pope (Mining Equipment Inc) 8/00; Editor 8/00

B & S RADIC, South Cooloom

610mm gauge

Ruston & Hornsby Model 48DLG 392120 of 1955 was purchased from Racecourse Mill in 1982 for use hauling cane bins on a "horse line" connecting to the Moreton Mill system. This substantial locomotive, *OLD SMOKEY*, has apparently been little used since and is stored out of use on the property still very much in the condition it left the mill. It is reported to be for sale.

Editor 8/00

SOUTH JOHNSTONE MILL LTD

(see L:R 154 p.20)

610mm gauge

Theiss Pty Ltd has signed a five-year operational and maintenance contract for South Johnstone Mill following the mill's financial bale-out. Theiss was to appoint a mill manager, an administration manager and a safety manager while other employees were to be retained. The plan for Theiss to take responsibility for the mill's operations had been developed since 1998 and a major priority would be the formulation of a long-term rationalisation plan, including a reduction in farmer's tramline delivery points. One efficiency that was to be aimed for is the reduction of the time between harvesting and crushing by 10%. In the meantime, South Johnstone's Warrami Plantation cane is being crushed this year at Tully Mill, saving a long and expensive road haul.

Townsville Bulletin 29/6/00 & *Innisfail Advocate* 6/7/00 via Chris Hart; *The Australian Financial Review* 27/6/00 via Ray Graf; *Australian Canegrower* 17/7/00



Top: A smokey 610mm gauge Eimco B-B DH 18 GARGETT (L255 of 1990) enters Marian Mill yard with fulls, 21 August 2000. Photo: John Browning **Centre:** Ruston & Hornsby 4wDM OLD SMOKEY (392120 of 1955) slumbers at the Radic cane farm, South Cooloom, 24 August 2000. Photo: John Browning **Above:** Three very different-looking Clyde 1067mm gauge Bo-Bo DE locomotives push back an loaded ore train to the Whyalla crushing plant, 10 June 2000. Left to right: DE7 (61-236 of 1961, rebuilt Morrison Knudsen 1995), DE5 (57-136 of 1956) & CK1 (67-496 of 1967). Photo: Daven Walters

SUGAR TERMINALS LTD, Lucinda Point

(see LRN 86 p.12 & LR 148 p.17)

610mm gauge

On 26 June 2000, ownership of Queensland's bulk sugar terminals was transferred from the Queensland Sugar Corporation to Sugar Terminals Ltd, a company with 2/3 of the shares going to sugar growers and 1/3 to sugar millers. At the same time, the single-desk marketing of sugar passed to Queensland Sugar Ltd.

ABC Rural News 26/6/00

SOUTH AUSTRALIA

AUSTRALIA SOUTHERN RAILROAD, Whyalla

(see LR 153 p.22)

1067mm & 1435mm gauge

As the ore and steelworks lines continue as self-contained industrial systems, they will continue to be reported, particularly in relation to the ex-BHP locomotives and equipment.

A fatal accident occurred on 29 June between an ore train hauled by 1067mm gauge Clyde Bo-Bo DE DE3 (56-116 of 1956 rebuilt Morrison Knudsen 1995) and a road truck. It is believed that two ASR CK class Bo-Bo DE locomotives have been transferred to 1067mm gauge bogies for work on the ore lines: CK1 (67-496 of 1967) and CK3 (67-500 of 1967).

Brad Peardon 7/00; Editor

VICTORIA

CLYDE ENGINEERING PTY LTD, Newport

1600mm gauge

Two ex-VR Y class Bo-Bo DE locomotives have been acquired from Freight Australia for shunting at Clyde workshops. Y134 (65-400 of 1965) has been repainted and is used as the works shunter at Newport. Y136 (65-402 of 1965) was due to be repainted at about the end of August and was to be regauged for use at Clyde's works at Cardiff, NSW.

Brad Peardon & Michael Bray 8/00

WHEELER MINES NL, Maxwells Mine, Inglewood

(see LRN 111 p.15)

457mm gauge?

A derelict Greenwood & Batley 0-4-0BE "trammer" locomotive was noted at this site on 9 February 2000.

Ray Graf 7/00

WESTERN AUSTRALIA

LOONGANA LIME PTY LTD, Parkeston

1435mm gauge

This company required a shunting locomotive for use on the numerous rail sidings within its leased area at Parkeston near Kalgoorlie. In April 2000 it obtained a Windhoff 4wDH "Teletnac" unit from Australian Southern Railroad. This is one of four similar units built in Germany and obtained by Australian National in 1982 for shunting operations at the Dry Creek bogie exchange facility, where it was operated remotely as a "robot loco".

For use by Loongana Lime, the locomotive was converted to normal manual operation by Australian Southern Railroad, in conjunction with Clyde Engineering at Dry Creek. Because the cab is mounted on one side of the locomotive, video cameras were fitted to the "blind" side to enable the driver to have a full view. The locomotive can handle loads of up to 800 tons and the driver can control coupling and uncoupling from the cab. What is believed to be this locomotive was noted on a wagon in a train heading west in early August.

Catchpoint, 7/00 via Bob McKillop; Brad Peardon 8/00

ROBE RIVER IRON ASSOCIATES HAMERSLEY IRON PTY LTD

(see LR 154 p.21)

1435mm gauge

The proposed new rail line to the West Angelas

Industrial Railway NEWS

development was a central issue in the takeover struggle for Robe River that was eventually won by the owner of Hamersley Iron, Rio Tinto. The Japanese backers of the rival Anglo American bid were prepared to contribute a large part of the projected \$450m costs of the 340km rail line. With the success of the Rio Tinto bid, this line will not now be built, and the access to West Angelas will be a 30-40km line from the existing Hamersley line at Homestead Junction. It remains to be seen if the takeover will lead to other rail rationalisations between the two systems.

The Weekend Australian 22-23/7/00; *The Australian* 27/7/00; Editor

OVERSEAS

FIJI SUGAR CORPORATION

(see LR 143 p.20)

610mm gauge

The attempted coup and the suspension of the constitution seems to have had little major effect on the sugar industry, which is suffering a poor season in Fiji as in Australia, although cane supplies were adversely affected. However, the problem of resolving land tenure issues was an underlying issue for discontent and is likely to remain so, with Indian Fijians forming the majority of cane farmers with lands leased from the indigenous people and many of the leases coming due for renewal.

Fiji Sugar Corporation has advertised for expressions of interest for contract management at one or more of its sugar mills, initially Penang Mill.

John Peterson 8/00; *International Sugar Journal* June 2000 via Bob James.

Western Australian Timber Mill Diesels - Part Two

As mentioned in Part 1 (LR 146), Millars used a 3ft 6ins Malcolm Moore 0-4-0DM at Nannup. This was originally built as one of a batch of 20 3ft gauge locomotives built for the Victorian State Electricity Commission's Kiewa hydro-electric scheme in 1949. This type was designated 10-102 and the one at Nannup is believed to be builder's number 20 in the post-war series. According to my notes, this locomotive came to the Carrington Timber Co in NSW in 1956, and later to Douglas Jones Pty Ltd at Nannup. The Nannup Mill was taken over by Millars in 1972 and the locomotive was recorded as out of use by 1984. It seems to be the last of its type in original condition in Australia, other survivors having been transformed into the Tasmanian Government Railways U-class. Thanks to Simon Mead who photographed it preserved in the mill yard in 1999, showing evidence of a hard life. It is reported that there is a possibility of it going to the Pemberton Tramway, and this would be fitting for a historic Australian-built diesel locomotive. Further photographic contributions to extend this series would be welcome - such as the tiny Ruston & Hornsby's once used by Millars and Bunnings (and even the Malcolm Moore Fordson petrol loco once used at Welshpool.)

John Browning





Book Reviews

A Guide to Ruston narrow gauge locomotives

by David R Hall

52 pages, A5 size. Card cover, 35 black and white photographs and 43 drawings and diagrams. Published 1999 by Moseley Industrial Narrow Gauge Railway Museum Trust Ltd, 11 Ashwood Road, Disley SK12 2EL, England.

Some readers will have a copy of Eric Tonks' *Ruston & Hornsby Locomotives* published in 1994. This booklet is a good companion to that publication, and for those who do not have a copy, stands as a good introduction to Ruston & Hornsby narrow gauge locomotives in its own right. Australia had at least 94 narrow gauge Rustons, mostly imported new between 1935 and 1960, plus another seven that were standard or broad gauge. They worked in every state and territory in a wide variety of applications.

The booklet briefly describes each narrow gauge type produced in Lincoln from 1931 to 1970, and is illustrated with a line drawing and in many cases with a scale diagram, while there is also a range of photographs which are reproduced reasonably well. In addition there is a table which sets out the main variants of each design, providing useful information to assist in identification, as well as a list of surviving British examples.

The book suffers a little in being only photocopied. A better presentation would have resulted from a more upmarket style of reproduction but, as a small print run fundraiser for a preservation society, that was no doubt not feasible. It can be obtained by quoting a credit card number to the above address for a total of £4.90 including postage, and further information can be obtained at <http://www.rustons.fsnet.co.uk/book.htm>

This little book is a mine of valuable information. It would be of interest to all who want to learn more about Ruston & Hornsby narrow gauge locomotives, including modellers. Recommended.

John Browning

Illawarra Light Railway Museum Museum Guide

Compiled by David Jehan

48 pages A4 size, soft cover. 16 colour photographs, including cover, 43 black & white photographs, 1 sketch map and 8 line drawings. Available from the Illawarra Light Railway Museum Society Limited, PO Box 244, Albion Park, NSW, 2527 at \$14.95 plus \$1.50 postage.

APOLOGY

LIGHT RAILWAYS 154

Even the best machines can sometimes malfunction and, unfortunately, our printer's collator/stitcher is no exception.

A number of copies of *Light Railways* 154 were produced with some pages duplicated and others missing and, worse still, a few of these made it out into circulation.

If you were unlucky enough to receive one of these copies, please let us know by dropping us a note at PO Box 674, St Ives NSW 2075, or Fax on 03 9888 5441, or e-mail to lrrsa@lrrsa.org.au and we will send you a new LR 154 immediately.

MEMBERS' ADS

WANTED

I wish to purchase a copy of the book *Tall Timbers and Tramlines* by Frank Stamford. Any reasonable offer considered or, alternatively, will exchange for a mint copy of *Sawdust and Steam* (soft cover) by Norm Houghton. Peter JO Ralph, 3 Robert Street, Sassafras, Victoria 3787.

FOR SALE

The Illawarra Light Railway Museum Society, New South Wales, Australia, has the following 2ft gauge locomotives for sale:

1953 Baguley-Drewry 0-6-0DM, Gardner 8LW engine, working order. Needs some instruments, bodywork. 18 tonnes. \$Aus10,000.

1955 Hudson-Hunslet 4wDM, Perkins P4 engine, 35HP, working order, 5 tonnes, \$Aus7,000.

For more information please contact The Hon. Secretary, Helen Milway Post: ILRMS Ltd, P.O. Box 244, ALBION PARK NSW 2527, AUSTRALIA Phone: +61 2 42715749 Fax: +61 2 42726410 Email: milway@telpacific.com.au

A museum usually regards the following publications as essential:

- A brochure to attract visitors.
- A guide to serve as an introduction.
- A catalogue containing details of the collection.

Is this publication a useful museum guide? While ILRMS has attempted to meet all the above requirements in one publication, it might have been more useful to describe this as a museum catalogue rather than a museum guide. Indeed, on pages 4 & 5 the three writers describe it as a book or a booklet, but the word 'guide' does not appear. While I prefer such publications to be no larger than A5, I appreciate that a smaller format would have resulted in smaller photographs.

My preference in a guide is for concise information about what a museum has on display. While there are many magnificent historical photos on almost every page, it might have been more useful to reduce the dimensions and to include for



LRRSA NEWS

MEETINGS

ADELAIDE: "Members' Slide Evening"

Those attending are invited to bring up to 10 slides of light railway interest. A slide projector will be provided.

Location: 150 First Avenue, Royston Park.

Date: Thursday 5 October at 8.00 pm. Contact Arnold Lockyer (08) 8296 9488.

BRISBANE: "Light Railways in Qld"

Film and video will be shown of various 'light railway' operations in Queensland.

Location: BCC Library, Garden City Shopping Centre, Mount Gravatt.

After hours entrance opposite Mega Theatre complex, next to Post Office.

Date: Friday 6 October at 7.30 pm. Entry from 7 pm. Contact Bob Dow (07) 3375 1475

MELBOURNE: "New Federal Mill"

Mike McCarthy will give an historical introduction to the New Federal Mill, south-east of Warburton. Des Morrish will then give a talk on his experiences working with High Lead and Skyline logging systems at that mill. A rare opportunity to hear first hand experience from a "high-climber".

Location: Ashburton Uniting Church Hall, Ashburn Grove, Ashburton.

Date: Thursday, 12 October at 8.00 pm

SYDNEY: "Research Night"

Ross Mainwaring will speak on site investigation, Michael Bickford on the Internet, and Craig Wilson on organising records.

Location: Woodstock Community Centre, Church Street, Burwood, (five minutes walk from Burwood railway station).

Date: Wednesday 25 October at 7.30 pm. Contact Jeff Moonie (02) 4753 6302.

comparison recent photographs after restoration to assist with current identification. I buy a guide for two reasons: to assist with my understanding of the museum I am visiting and as a reminder of what I have seen during my visit.

Space does not permit a detailed analysis of all my concerns, but on page 9 there is a sketch plan of the site containing such information as; "First Track Laid 18th May 1974", but no indication of the location of the souvenir shop & kiosk or the loading point for the miniature railway, designated as "7 1/4" Railway Station". As a visitor I want also information about services and facilities.

This is a publication likely to appeal to specialist narrow gauge enthusiasts, particularly model makers, but may disappoint the average visitor who often wants more basic information about the museum and its collection.

Desmond Kennard

A selection of books from the LRRSA Sales Department ...

LRRSA Publications

Modernising Underground Coal Haulage

BHP Newcastle Collieries' Electric Railways
by Ross Mainwaring

Battery and overhead-wire electric locos at Burwood, Lambton, and John Darling collieries.
60 pages, soft cover, A4 size, 18 photographs, 13 maps and diagrams, references and index.
\$16.50 (LRRSA members \$12.38) Weight 230 gm.

Settlers and Sawmillers

A History of West Gippsland Tramways and the Industries they Served 1875-1934
by Mike McCarthy

Timber tramways serving over 100 sawmill sites from Beaconsfield to Trafalgar.
168 pages, soft cover, A4 size, 96 photographs, 17 maps and diagrams, 6 graphs, one loco diagram, references and index.
\$31.90 (LRRSA members \$23.93) Weight 700 gm.

Bellbrakes, Bullocks and Bushmen

A Sawmilling and Tramway History of Gembrook 1885-1985 - by Mike McCarthy

Describes a network of 3 ft and 3 ft 6 in gauge timber tramways, and associated timber mills.
104 pages, soft cover, A4 size, 71 photographs, 17 maps and diagrams, references and index.
\$26.00 (LRRSA members \$19.50). Weight 500 gm.

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by Frank Stamford

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Books from Other Publishers

Britannia Creek

Wood Distilling in the Warburton District

by Arthur Winzenreid, published by the author.
The history of Cuming, Smith's wood distillation chemical works near Yarra Junction, Victoria, and its associated timber tramways. Many superb photographs, in a style similar to LRRSA books.
131 pages, soft cover, A4 size; 125 photographs; 17 maps, diagrams and drawings; references and index..

\$20.90 (LRRSA members \$18.81) Weight 555 gm

Tasmania's Hagans

The North East Dundas Tramway Articulated "J" Class

by Geoff Murdoch, published by the author.
Detailed history and superb diagrams of the unique Hagans 2-4-6-0T locomotive. Includes scale drawings of all N.E.D.T locomotives.

71 pages, soft cover, A4 size, 42 photographs, 2 maps, 38 diagrams/drawings, references and bibliography.

\$22.00 (LRRSA members \$19.80) Weight 300 gm

Firewood Tramways of the Walhalla Mines 1865-1915

A Research Paper on the History of the

Firewood Tramways of the Walhalla Mines

by Terry & Brenda Jenkins. Published by T. & B.J. Publications.

Traces almost 100 km of mostly horse-drawn firewood tramways around Walhalla, Victoria.

272 pages, hard cover, A5 size, 96 photographs and maps, references and bibliography.

\$33.00 (LRRSA members \$29.70) Weight 530 gm



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(full name of applicant)
of _____

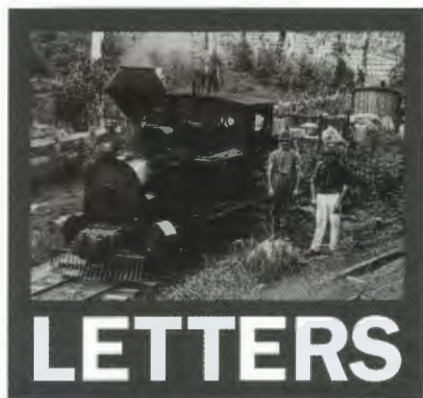
(address) _____ (postcode) _____

(occupation) _____
desire to become a member of the Light Railway Research Society of Australia Inc. In the event of my admission as a member, I agree to be bound by the rules of the Society for the time being in force. I enclose cheque/money order for \$39.00, or please charge my Bankcard/Visa/Mastercard No.

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Name on Card _____

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LR 2000-2001



Dear Sir

Ringwood Colliery (LR 130)

In his book *Transporting the Black Diamond. Book 1, Colliery Railways of the Illawarra District, NSW*, 1968, Gifford Eardley advised that a standard gauge locomotive operated circa 1885 on a tramway constructed by the Ringwood Coal Mining Company. Jim Longworth in his article on the Ringwood Colliery in *Light Railways* 130 of October 1995, also alluded to an 1880's tramway, however, he did not indicate the gauge of that original tramway.

Circa 1884, an attempt was made to construct a tramway, between the Ringwood Coal Mining Company's siding at the then 92½-mile mark of the Great Southern Railway in the NSW Southern Tablelands and the firm's colliery. Although the locomotive nominated by Eardley as having operated there in 1885, did then not exist, and like Jim Longworth, I have not uncovered any information that indicates that a locomotive was used on the tramway, I have found evidence that appears to lend some credence to the position that the original tramway may have built to standard gauge.

The Ringwood Coal Mining Co. invited tenders by 17 September 1883 for "the Formation and Construction of about 1¼ miles of Colliery Tramway, situated 93 miles from Sydney, on the Southern Railway." Tenders were also invited for "about 35 chains of Railway Siding of Government Gauge." (*Sydney Morning Herald*, 9 September 1883). Only weeks later, however, the Company was inviting tenders in conjunction with a revised approach to the matter: "Tenders are invited by Ringwood Coal-Mining Co. Ltd, up to September 30th for the supply of about 99 Tons Steel Rails, 50lb to the yard, with the necessary Fish Plates, bolts, &c., to be delivered on railway, in Sydney; or at the Company's siding, 92½ miles south, on the Great Southern Railway, not later than 1st of December next." (*SMH* 21 September 1883).

Both advertisements were "signed" by the Company's managing director, TS Huntley, who in the last quarter of the nineteenth century was involved, in one way or another, with quite a few light railway applications in New South Wales. The 99 tons of 50lb/yd steel rails required were evidently intended for the construction of the 1¼ mile long colliery tramway. Although the tender for the planned siding was specifically described as having been been

required to be built to standard gauge, and the gauge of the colliery tramway was not specified, with the evident intended use of 50lb/yd steel rails, it is difficult to imagine anything other than standard gauge having been envisaged for the colliery tramway. The firm's siding was constructed by the Government (apparently in late 1883), and connected with the main line by 1884.

Shortly afterwards however, the collapse of a large [lengthy?] trestle on the colliery tramway precipitated the firm's liquidation and the subsequent abandonment of the project.

Ron Madden

Wagga Wagga, NSW

Dear Sir,

Adelaide Zoo Railway

Additional information has recently surfaced here in Adelaide about the miniature railway that operated at the Adelaide Zoo. *The Advertiser* of 3 April 2000 carried an item in "The Way We Were" Column from 4 April 1925, which had reported that:

As an added attraction to the Zoological Gardens a miniature railway is being laid down in the north-eastern corner. Starting from the wallaby pond, near the elephant walk, the track will proceed north to the bank of the Torrens and follow the bank of the stream to the southern end of the carnivore cages, where it will turn and skirt the southern side of the elephant walk, in returning to the starting point. The train will consist of a seven-horse-power petrol engine, with a body constructed to resemble an ordinary steam locomotive, and three open carriages. The fare will be three pence and the approximate length of the round trip 300 yards.

I am enclosing a photo of the original zoo loco, which I believe was built by a tractor company, McKay Massey Harris. It was called *HERE SHE COMES* and the photo appeared in the *News Adelaide* when the loco was being repainted in 1935. There is also a postcard of the second locomotive, on which I have no information. I purchased the postcard, by Souvenirs Australia, many years ago at the Adelaide Railway Station Bookstall.

The zoo railway has been out of service for many years and most of the track has been lifted. A few sections were still in place when I visited to Zoo several years ago. I do not know when the train stopped running or the fate of the locomotive.

Arnold Lockyer

Dover Gardens, SA

Dear Sir,

Mining Railways at Cobar (LR 154)

I refer to Bob McKillop's contribution in LR 154 on the mining railways of Cobar and specifically to the illustration on page 12.

I have been familiar with that illustration for a number of years and have never been comfortable with features of it. Primarily, is it a bad photo or is it a good drawing? I tend towards the latter view. My reason for this is what I consider is a misrepresentation of some mechanical features. Specifically, it can be observed that whilst the connecting rod has been aligned directly to the driving wheel crank pin, the valve motion is retained in its original position.

Practically, nothing has been achieved other than the elimination of one bearing. However, the realignment of the cylinder is the most telling feature because the steam cylinder and valve chest was an integral casting, and major surgery would be required to separate them and to realign the steam and exhaust passages if the effect



HERE SHE COMES, the first loco to operate at Adelaide Zoo. Photo: Arnold Lockyer collection



The second Adelaide Zoo locomotive in action. From an old postcard in the Arnold Lockyer collection

shown in the illustration was to be achieved. I believe that the illustration has been done by somebody who could not accept that connecting rods need not go directly to the wheels. This configuration was achieved in the later rebuild of one of these locos by Tulloch Ltd, but they realigned the whole unit at an angle, eliminating the indirect drive.

As an aside, The Peak" branch line had the rare feature of gradient indicators along its length.

Finally, the handworked tram tracks on pages 6 and 7 work out to be approximately 20in gauge.

Bruce Macdonald
Chapman, ACT

Dear Sir,

Monorails (LR 154, LR 112).

With reference to John Petersons letter in LR 154 about monorails; There is another working steam monorail still existing. It is at the Rail Transport Museum in Chankyapuri, New Delhi, India. The locomotive was built by Orenstein & Koppel , builders number 3358 of 1909, one of four such locos built.

It is an 0-3-0, using double flanged wheels on the Ewing system, which uses a monorail to support most of the train weight while an outboard wheel runs along the roadway for stability. The Patalia State Monorail Trainway was about 50 miles in length. Originally, trains were pulled by a fleet of 500 bullocks which were maintained by the state for the army.

The line was opened in 1907 and closed in 1927, the locos being stored in a shed until discovered in 1962, when one loco went to the museum. It is still steamed up to run on a circle of track in the museum. Further info can be found at the website www.e-z.net/~ddickens/monorail.

I recently found a photograph of a logging monorail in Indonesia in the book *De Suikercultuur* by Geerlings, printed about 1925. Unfortunately, it doesn't show the

location. There were extensive logging operations on Java, Sumatra and Borneo. The monorail is hand powered and has quite substantial bridges. I have been told that there were other monorails in use.

Ray.Gardiner
Asquith, NSW

Other Sydney Water Board sites around Sydney, to use monorails, have included St Marys WPCP (1964), Beecroft Distribution Reservoir (1959), Hermitage Reservoir (1968) and Jeffrey Street (1965).

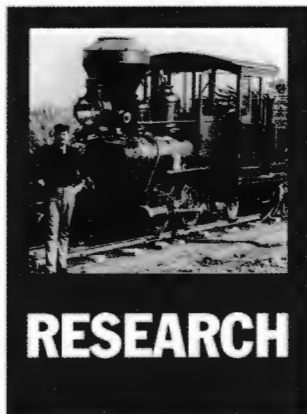
Jim Longworth
Cheltenham, NSW



Monorail system at Jeffrey Street wharf, 1965, helping build a new sewer tunnel. The kibbles of spoil are being shunted on a short length of track, then emptied into the monorail transporter. Photo: Sydney Water Board



Left: Orenstein & Koppel 0-3-0T (3358 of 1909) at the Rail Transport Museum in New Delhi. Photo: Ray Gardiner. Above: A logging monorail in what is now Indonesia, circa 1925. Ray Gardiner collection



Towards a Typology of Light Railway Inclines

Inclines are a feature of light industrial tramlines, not found on the Government railway systems, that deserve further study. New South Wales researcher Jim Longworth has been looking at inclines in that State and offers the following thoughts on their further study.

Compared with conventional locomotive powered railways, inclines operate at inclinations from the horizontal greater than can safely be operated either uphill or down the grade by conventional wheel driven adhesion locomotives or rail motors. Braking control over descending wagons, is often more critical than the haulage capacity that is needed to lift ascending trains. On grades greater than about 1:15 "the maximum useable tractive effort is reduced to an extent where the load, other than the locomotive, that can be hauled is so small as to be impractical"¹. On private railways, grades of an estimated 1:15 to 1:16 on Langley's timber tramway at Langley Vale are about the steepest so far noted². In new coal mines, 1:15 is the steepest gradient allowable for adhesion lines and steeper grades must be rack assisted. While there appear to be both theoretical and practical upper limits to the maximum gradient for adhesion railways, there is no lower limit of gradient for inclines. Nevertheless, inclines below a fairly minimal grade are more often described as rope haulages, or skipways.

An intermediate form of railway is a rack railway, which can operate at gradients that overlap inclines at the steeper end of the gradient range, and adhesion railways at the slighter end. Inclines are differentiated from rack railways by use of a haulage rope that is

powered by a stationary engine, rather than a mobile locomotive on a rack system.

Inclines are differentiated from inclinators in that inclinators run on a central beam, or side rack that are guided by a pair of rails, rather than relying on flanged wheels. They are also differentiated from vertical lifts. With inclines the load is carried by the wheels of the wagon, while with lifts the wheels only provide guidance to position the car, with the entire load being carried by the rope or hydraulic ram.

So, with what should light railway inclines be compared? Perhaps comparing inclines with other inclines may reveal some characteristics or patterns that may be useful in researching this type of light railway.

The following typological principles might be useful for researching inclines:

1. Angle of the track: This is of limited potential as most inclines derive their angle of inclination in response to variations in the underlying topography, and change the angle in response to changes in the underlying slope of the land. Even averaging the angle of incline over its full length fails to produce any significant order in the range from slight to very steep.

2. Industry in which the inclines were used: Again the potential is limited as similar inclines are found across a range of industries (eg, forestry, metal mining, coal and shale mining, hard rock quarrying, clay extraction, food processing, metal manufacturing, construction and water supply). Thus, industry does not provide any differentiation.

3. Purpose: defining inclines that were built or operated to predominantly carry people rather than goods. This would separate out those few passenger-carrying inclines from the vast bulk of goods carrying ones.

4. Direction of materials flow: Most inclines were designed to carry materials predominantly in one direction, though most did provide some minor transport in the reverse direction, if even only for returning empty wagon/s.

5. Power source: Inclines have been powered by: steam driven winders, electric winders, internal combustion winders, and gravity (single-acting, and double-acting). A double-acting incline, is worked

by the loaded wagon/s descending under the influence of gravity whilst automatically pulling the empty wagon/s up. The ascending empty wagon/s also reduced the braking effort needed to control the descending loaded ones.

Of these principles, that of combining the fourth and fifth principles seems to offer some typological potential, using the direction of materials flow as the prime entry point, and power source as the second principle of order, as shown in the following table:

PRIMARY FLOW	POWER SOURCE
Uphill	Powered winder - acted primarily as a hauling engine pulling the loaded wagon/s up the slope (eg, Bradley's Head Quarantine Station). Hauling winder assisted by gravity. Gravity alone - not applicable.
Downhill	Powered winder - acted primarily as a brake controlling the loaded wagon/s descending the slope (eg, West Head). Braking winder assisted by gravity - (eg, Glenbrook railway deviation). Gravity alone - double acting (eg, Harnett's sandstone quarry, Mosman).
Equal	Powered winder - acted fully as both a hauling engine when pulling loaded wagon/s uphill, and as a brake when lowering loaded wagon/s downhill. Winder assisted by gravity. Gravity alone - not applicable.

Such a point of entry for the study of light railway inclines locates the incline in the overall transportation task undertaken by the railway of which they formed a part, indicates the technological status of the undertaking, and points to the amount of capital required to establish the line. Areas for further research into inclines might include:

- Were they located in particular geographic clusters?
- When were they used?
- What were their lengths?
- What was the angle of inclination?
- What gauges were used?
- What types of rails were used?
- What types and sizes of rope were used?
- Were there any special maintenance practices?
- What winding gearing and braking systems were used?
- Were there any special safety precautions?
- What was their capacity in tons per hour?
- What factors limited their capacity per hour?
- What trans-shipment facilities were there at the top and bottom of the incline?
- Were dedicated wagon/s used, or were the larger railway system's normal wagons used?
- Did the incline replace an earlier form of transport, if so what and when?

- Was the incline replaced by a later form of transport, if so what and when?

Readers are invited to try applying the typology, expand on or offer different categories, and suggest areas of further research that might shed light on the significance of these inclines in Australia's industrial transport heritage.

Jim Longworth

1. Fox Manufacturing Co. Pty Ltd Nd. *Development of Rack/Adhesion railway systems*. Unpublished report.
2. Len King, personal communication.

Mt Vincent Incline

Ron Madden has provided details of an interesting 'incline' working on a contractors construction tramway on the Wallerawang to Mudgee line in New South Wales. According to a report in the *Sydney Morning Herald* on 16 November 1882, (page 7), the contractor used horses to haul bricks up an incline for construction of the Mount Vincent tunnel. The correspondent went on:

The horses have got so used to "their ride" on the return journey that directly the waggons are emptied they enter them quite freely of their own accord. These horses having to draw heavy loads up an incline, are heavy ones, and to see them "taking their ease" in the waggons on the return trip, and leisurely looking around them, evidently taking kindly to their spell, is both a novel and interesting sight.

Carnarvon Tramways, WA

The Carnarvon Tramway from the town to Babbage Island and the jetty was covered by Frank Stamford in LR 50 (Summer 1974), with additional information in LR 56 (pp. 14-15).

For readers interested in this system, a detailed history of the Carnarvon Tramway by Philippa Rogers was published in the ARHS *Bulletin* No. 742 in August 1999. The article contains excellent maps,

Fun Park and Zoo Railways

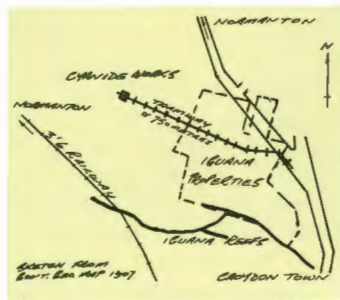
The May-June issue of *Australian Model Engineering* carries an article on the restored Melbourne Zoo miniature train, now operating at Harcourt in Victoria. The train was sold by the Zoo 'about 20 years ago' to a farmer in the Redesdale area. Dan Teed has restored the locomotive, rebuilt the carriages and constructed approximately 500 metres of 12in (305mm) gauge track. The locomotive is an accurate model of a LNER 4-4-0T and is now powered by a Honda 5.5hp electric start

Dear Sir,

**Two Feet 8½in Gauge
(LR 148 Research)**

BOLLING & LOWE
LONDON

Peter Lukey
Babinda, Qld



One of the two side tipping wagons found at Croydon. Photo: Peter Lukey

Coming Events

OCTOBER 2000

1 Redwater Creek Railway, TAS. 610mm gauge steam locomotive and passenger trains - 1st Sunday of each month. Phone: 03) 6426 2971.

15 Bennett Brook Railway, Whiteman Park WA. Friends of Thomas the Tank Engine Day with steam trains and the Fat Controller. Phone (08) 9249 3861.

NOVEMBER 2000

11-12 Campbelltown Seam & Machinery Museum, NSW. Expo steam & machinery weekend, with Menangle light railway in operation. Phone (02) 9628 6073.

19 Richmond Vale Railway, Kurri Kurri, NSW. Santa Special trains. Phone (02) 4937 5344.

DECEMBER 2000

2 Puffing Billy Railway, Belgrave VIC. *Olde Time Festival*, Phone: (03) 9754 6800 for information

18 Puffing Billy's 100th Birthday. Re-enactment 'First Train' of 18 December 1900 - great photographic opportunities.

31 Cobdogla Irrigation & Steam Museum, Barmera, SA. Steam train New Years Eve Twilight Run. Phone 08 8588 2323.

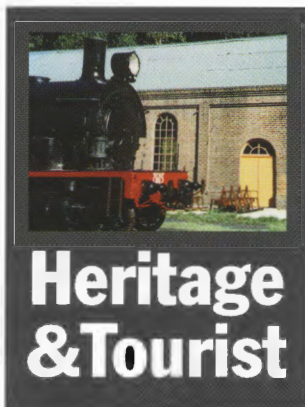


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Heritage & Tourist

Heritage & Tourist (H&T) section of *Light Railways* should be on topics that relate to the HERITAGE of industrial or narrow gauge

Editorial Policy

Several readers have sought clarification of the criteria we use for deciding the items or topics covered by the Heritage & Tourist section of *Light Railways*. To assist readers and potential contributors in this matter, the editors have developed a set of Guidelines for this and other sections of the magazine. The detailed Guidelines have been posted on the LRRSA Home Page at www.lrrsa.org.au. In summary, Contributions to the

railways and current narrow gauge railways that are constructed for TOURIST purposes (or for private amusement).

We use "heritage" in the sense of the connection we as individuals and as a community have with the past and with the lives of the generations who preceded us. Historical heritage is about "place", such as the sites of significant industrial undertakings or the preserved relics of a railway operation, and the with activities that conserve or interpret the heritage of industrial railways. Moveable heritage, in the form of preserved locomotives and rolling stock, is an important component of the section's coverage, but we are also interested in significant sites and their interpretation for today's visitor.

I look forward to receiving your contributions on sites and operations that you feel come within these guidelines. Comment on the editorial policy guidelines is also welcome. Please send to PO Box 674, St Ives NSW 2075 of Email to rfm@enternet.com.au. **Bob McKillop**

News items should be sent to the Editor, Bob McKillop, Facsimile (02) 9958 8687 or email, to rfm@mail.enternet.com.au; or by mail to PO Box 674, St Ives NSW 2075.

NEWS

Queensland

CURRUMBIN SANCTUARY RAILWAY

268mm gauge*

The National Trust sanctuary at Currumbin is one of the Gold Coast's most popular attractions. The sanctuary covers a large area dedicated to a variety of animals, birds and reptiles. The site is split by a major road, below which there is a tunnel. The Sanctuary offers a railway service for visitors to travel around the complex.

During opening hours, trains run at 20 minute intervals around 2.5km of track, which is vaguely in the shape of a figure '8' - the middle of the '8' being the tunnel under the road. There are three locomotives available: a live steam 2-8-2 CC17 locomotive - a Jackson-built model of a proposed QR design, which usually only runs at Easter and Christmas, and two diesels - the red streamliner shown in the photograph, and a blue 'hood' unit. There are four stations and the trains are a popular means of moving around the complex. They fill an important transport task and help give tourists an enjoyable and memorable experience.

Brian Webber 6/00; Brad Peardon, AusLoco email group, 7/00

* LR normally excludes railways of less than 305mm gauge, but this report has been included on the grounds of the transport task provided by this line at a popular tourist attraction.

New South Wales

DICK SMITH, Bowylie Light Railway

610mm gauge

A photograph of Dick Smith's Plymouth 4wPH locomotive appeared in LR 145 (p.29). Further details of this gas-hydraulic (4wPH) locomotive are now available. It is Plymouth 6656 of 1968, being its Model HSG of 5 tons. It was built to 3ft gauge for Badger Army Ammunition Plant, Baraboo, Wisconsin, USA. The loco was sold at auction in January 1997 to Brad Milne, San Pedro, California, USA. Bob Darvill 2/99; Ben Haseler 8/00; Jay Reed 8/00, via John Browning

ILLAWARRA TRAIN PARK,

Albion Park Illawarra Light Railway

Museum Society Ltd.

610mm gauge

The Museum was scheduled to operate a diesel service on Tuesdays, Thursdays and Saturdays over the NSW school holidays from 9 September to 2 October - the Olympic Games period. The Museum is regularly open for inspection of static exhibits on work days, being Tuesdays, Thursdays and Saturdays.

In August the ILRMS advertised two locomotives for sale: the 0-6-0DM LEICHHARDT (Baguley-Drewry 2393/1952), Gardner 8LW engine, in working order for \$10,000; and ex-ER&S Port Kembla 4wDM No.3 (Hudson-Hunslet 4580/1955), complete with Perkins 35HP P4 engine in working order, for \$7000. The Hudson-Hunslet is one of four locomotives obtained from ER&S in 1997, with Nos 2 and 4 having been restored to operating condition for use at Albion Park. The fourth unit (No.1) is non-operational and was delivered in dismantled condition without the engine. For details of the

sale, contact Helen Milway, Hon. Secretary ILRMS Ltd, PO Box 244, Albion Park NSW 2527; Phone: (02) 4256 4627; Fax: (02) 4272 6410; Email: milway@telpacific.com.au. John Garrity/David Jehan, 8/00

MILLENNIUM PARK RAILWAY, Newington

610mm gauge

The former Navy Armaments Depot at Silverwater in Sydney with its extensive railway system was handed over by the State Government on 31 December 1999 for the establishment of Millennium Park (see LR 150, p.24). The railway is being restored to provide a passenger service within the Park. Visits to the site on 2 June and on 12 July 2000 provided an opportunity to inspect the work currently being undertaken. In several locations, the use of heavy machinery had damaged the railway track, but in other areas the track has been cleaned up with water blasting to remove overburden past buildings 42-45 (see map, p. 24, LR 150). On June 2, two electric locomotives and wagons travelled to the southern boundary of the railway under Holker Street. At the 12 July visit, damage to track during construction work prevented trains operating along the main line. Two days later the track was made serviceable again and Terry Milham, the manager of the former armaments depot, was able to operate a train for a group of SOCOG employees along the route to buildings 42-45.

The branch line to building 39 will be extended to join with the branch to building 45, thus forming a loop line around the Cumberland Plain forest remnant. In July, the Olympic Coordinating Authority (OCA) agreed to acquire the remaining rails from the former

Smithfield munitions site in South Australia (see LR 148). Sleepers are being sought. Earlier this year, a carriage profile framework was assembled on the chassis of a bogie wagon to test the tight loading gauge of the railway. It is made of Dexion angle, with timber seats facing each other on one half of the wagon. It has been used for a number of official visits, which usually travel from the wharf to buildings 42-45. Len King, 8/00

STATE MINE HERITAGE PARK & RAILWAY, Lithgow

1435mm gauge

Erection of the poppet head from Hebburn Colliery (LR 152, p.28) was almost complete in early August 2000. Work started recently on the refurbishment of ex-BHP Port Kembla B-BDE industrial locomotive D23 (EE A040/1963). The cab roof and sides are being repaired and weatherproofed. The Society has received an environmental award from Lithgow City Council for its work in rehabilitation of the severely bushfire damaged Left Hand Gully at the State Mine. The group's web site was featured in the Museums Australia journal *Museum National* in an article entitled "Out in the Ether", which focused on practical aspects of building a web site for regional museums. Ray Christison, 8/00

ZIG ZAG RAILWAY, Lithgow

1067mm gauge

Ex-BHP Nebo Colliery 0-6-0DM underground unit, *KEMIRA* (Malcolm Moore 26-204 No.11 of 1951), which is used as works locomotive at Zig Zag, is to be replaced by sister unit *NEBO* (MM 26-204 No.6 of 1948), which is undergoing an overhaul for its new tasks. A full-height cab similar to

Heritage & Tourist



The 'red locomotive' hauls a train through the tunnel under the main road on the Currumbin Sanctuary Railway, 9 June 2000. Photo: Brian Webber



Millennium Park railway: On 2 June, BE locomotive No.1 passes Laboratory B on sleepered track. The track set in concrete passes under canopies to the right. Photo: Len King

that on *KEMIRA* will be fitted as part of this work. Of the other ex-BHP colliery Malcolm Moore locos (see LRN 102, p.6), No.3 is stored at Zig Zag and No.2 (MM 26-204 No.2 of 1948) has been sold to the Walhalla Goldfields Railway in Victoria (see below). *KEMIRA* was noted outside the workshop on 8 August and was in regular use. Ex-Mt Lyell Railway/TGR 0-6-ODM shunter *MOUNT LYELL* (Vulcan Drewry (2406/D194 of 1953), still in TGR green livery, was also in attendance. The ZZR plan to use *KEMIRA* for tracklaying work on its new extension to Newnes Junction once NEBO is available for regular works duties.

Editor, 8/00; Michael Forbes 8/00

Victoria

COAL CREEK BUSH TRAMWAY

610mm gauge

Coal Creek Heritage Village and its associated railway operations were reported to be in financial difficulties in July 2000. The railway is operated by ex-Queensland canefield 0-6-2T *COUNT STRZELECKI* (Bundaberg Foundry 7/1952), together with Ruston & Hornsby 4wDM locomotives (LR 140, p.24). A visitor on 23 July found the park open to the public on a free basis, but there were few activities and many exhibits appeared run-down and neglected. The railway was not operating, although the facilities

were in good order. An arranged visit by a school group on 15 August had the steam train in operation, with an obliging three-man volunteer crew helping to make the experience a memorable one for the children. The crew advised that the Village is looking for another diesel locomotive. Frank Stamford, 7/00; John Peterson, 8/00

GATOR MAGOONS TOURIST RAILWAY, Porepunkah

610mm gauge

This recreation centre set in a scenic position beside the Ovens River half a kilometre on the Bright side of Porepunkah was established by Mr Dean Martin in 1994-95

[LRN 105, p.15], but was reported to be for sale on 10 January 1996 [LRN 118, P.13]. The pleasure railway, based on a US "wild west" theme, operated over a 0.75km continuous formation.

A visit to the site in April 2000 found the site securely locked and the track looking as if it had not been used for some time and locals advised the site was to be auctioned. The 4-6-4PH steam outline locomotive was built by Dean Martin and is essentially a scaled-up version of the "Denver & Western RR" 2-6-2 battery-operated model available in toy shops. The engine was previously reported to weigh over two tonnes, with the engine in the "smokebox" driving through a hydraulic transmission with final drive to the wheels via chains. The loco makes a "chuffing" sound thanks to compressed air escaping from the cylinders and has a realistic sounding whistle. The loco and carriages, which appeared to be open-sided toastracks, were stored under tarpaulins on the platform track farthest from the road frontage. The railway station carried the name board YOSEMITE PARK. It is a relatively large building of timber construction which appeared to house tea-rooms or a restaurant as well as a ticket office. There is an island platform and several sets of semaphore signals were visible. These probably cover the junction of the two platform roads at either end of the station. Wal Lane, 6/00

PUFFING BILLY RAILWAY

762mm gauge

Emerald Tourist Railway Board

The Puffing Billy Railway carried the Olympic flame from 12.33pm to 1.18pm, between Emerald and Belgrave, on August 10, day 64 of the Relay during its journey through the Yarra Valley, Dandenongs and the Ranges in Victoria. Large crowds turned out to watch the torch carried on the back of the train by Steven Cornwell. "Carrying the Olympic flame just prior to the railway's one hundredth birthday in December is a fitting beginning to our Centenary Year" said David

Heritage & Tourist

Eaton, Puffing Billy's Marketing Manager. Unfortunately the event was marred by serious damage to several Puffing Billy carriages by vandals at 1.30am on 10 August. Dedicated effort by Puffing Billy volunteers saw the carriages repaired by 7am.

A series of special events to celebrate Puffing Billy's 100th birthday will commence with the *Olde Time Festival* on 3 December

2000. On 17 December, a 'People's Centenary Party' will involve throwing open the railway to the public at a low all-inclusive price for which visitors can ride a variety of shuttle services between Belgrave and Gembrook. Each local community along the route will provide various forms of entertainment and 'market' type stalls. Monday 18 December is the actual Centenary date, and this will be marked by a re-enactment 'First Train', which will closely resemble the first official train of 1900. Events in 2001 commence with a re-enactment of the Federation celebrations on 28 February. Other

planned events include the Centenary Great Train Race on 29 April, a Railfan Weekend and a back to Gembrook weekend.

Narrow Gauge, Puffing Billy Home Page, 8/00; *SMH* 11/8/00

WALHALLA GOLDFIELDS

RAILWAY 762mm gauge

Walhalla Tourist Railway

Committee of Management

WGR has made arrangements with Colin Rees, owner of the ex-Thailand 0-6-0T (Henschel 25427/1956 - see LRN 82, p.6), to operate the locomotive at Thomson. It has passed its final steam test. It will go to Skilled Engineering for installation of a

coal bunker, reprofiling the wheels, repainting, and fitting of Westinghouse air brakes. It is hoped to have it ready for service by Christmas. The ex-Sandhurst Town 0-6-0 Hudswell Clarke (1553 of 1924) has been sold to the owner of Hudswell Clarke 1555, and has been taken in bits to Alexandra where they will be used to create one good loco. A number of alterations made to 1553, including gauge conversion, has made the loco unsuitable for restoration.

The ex-BHP Malcolm Moore underground mining locomotive purchased from the Zig Zag Railway in NSW (see above) has arrived. This loco was repowered with a MWM V12 400hp engine at Wongawilli Colliery, making it non-standard with the other ZZR units. Its chassis, motor, and transmission will be used as the basis for construction of a new diesel locomotive, which will be mounted on (Victorian Railways) A2 Class tender bogies, suitably regauged to 2ft 6in.. This work is underway at Morwell.

Work on reconstructing the six bridges to get the railway into Walhalla is rapidly proceeding. Bridge No.1 (the first bridge from Walhalla) has had the abutments completed, and timber delivered to Walhalla yard for construction of the trestles. Bridge No.2's abutments are completed. Design work on Bridge No.3 was almost complete in June. Bridges 4, 5, and 6 were complete by the end of July and ready for laying of rail over bridge 6 to bridge 5. Track has already been laid for 140 metres from Bridge 5 to the Moe end of Bridge 3.

Peter Medlin 8/00; *Frank Stamford* 8/00

Tasmania

BUSH MILL RAILWAY,

Port Arthur 381mm gauge
Bush Mill Steam Railway & Settlement

Further to LR 153 (p. 30), there has not yet been any sale of the property and operations continue as previously. A visit on Good Friday found No.3, the K1 replica Garratt hauling 4w bogie carriages Nos. 1,3 and 5. In the shed were two other 4w bogie carriages Nos. 2 and 4, 4wDM DA1 built by the Bush Mill Railway in 1986 and 0-4-2 *MOUNTAINEER*, as well as two 4w wooden skips.

In the timber Mill were several 4w



Coal Creek Bush Tramway was enjoying more prosperous days when Ray Graf captured 0-6-2T COUNT STREZELECKI (Bundaberg Foundry 7/1952) hauling a passenger train, on 28 December 1998.



Steam trains are planned for the Walhalla Goldfields Railway in 2001 but, on 31 March 2000, the ex-SEC John Fowler 0-6-0DM was the regular locomotive as it headed a full consist up the Stringers Creek Gorge. Photo: Peter Ralph

Heritage & Tourist

WEST COAST PIONEERS

MEMORIAL MUSEUM, Zeehan

West Coast Heritage Authority Ltd

Peter Charrett reports enthusiastically on the gems of this museum. There are rooms of historic photos from all over the West Coast, ore samples, some preserved locomotives and rolling stock together with many unrestored items of rolling stock in the rear yard. Beside the main building, under cover preserved are: ex-TGR C Class 2-6-0 of 1884; ex-Mt Lyell 0-4-0T No.8 (Krauss 5480/1906); ex-EBR 4-8-0 No.6 (Dubs 3854/1900) painted black; ex Mt Lyell 4w wooden brake van, No 5 4wE (General Electric B/No 2376), No.12 4wE painted yellow; a 4wBE painted yellow and two 4w side tip skips painted black. Inside the Museum is the restored 4w Daimler railcar (ex-Mt Lyell) painted red. Stored items include: ex-Devonport, ex-Renison Bell 0-4-0T Krauss (4087/1899), in a rusty condition; two Eimco boggers; No.4 a 4wBE without the battery; and assorted industrial rolling stock.

South Australia

KANGAROO ISLAND RAILWAYS

457mm gauge

Geoff and Pam Cooper have established a railway in their "A MAZE 'N' FUN" leisure park on Min-Oil Road, 4.3km outside Kingscote on Kangaroo Island. It uses a steam-outline locomotive powered by a Ford engine obtained from Fun & Mobile Amusements in 1997 as a burnt-out wreck (see LRN 117, p.11). As suitable second-hand rail proved difficult to obtain, the track has been laid with 50 x 25 x 3mm wall RHS (Duragalve), with 40 x 40 x 5mm angle welded to the RHS at 600mm centres for location of the sleepers. The reinforced concrete sleepers were cast on site. Some 600m of track was completed in February 1999. Two 6-passenger carriages have been constructed. The railway commenced operating on 2 Sept 1999. The "Rainbow Special" train takes visitors through trees and around a lake. The Leisure Park is open daily from 1000-1700 in summer and 1000-1600 in winter. Phone/fax: (08) 8553 9012.

Geoff Cooper, 8/00

bogie spar trams, circa 3ft gauge as well as several bogies - all with a wide flange to operate on wooden rails. The logging tractor (See LR 149, p.30) is an 8w drive petrol 1929 Ford V8 which was used to transport logs to the Purdon Bros Sawmill at Didium Plains near Launceston. This tractor, which was salvaged in 1982, is also of about 3ft gauge with wide flanges to run on log rails.

Peter Charrett; Michael Dix 7/00

DON RIVER RAILWAY, Devonport

1067mm gauge
Restoration of the unique Mt Lyell Mining & Railway Company Riley railcar has been completed at the Don River workshops. It is believed the railcar was built locally in

1910, using one of the Riley engines shipped to the Tasmanian West Coast about 1907. This engine was developed by Victor Riley in England, and his grandson, also Victor Riley, flew to Tasmania to inspect the restored vehicle after attending the Millennium Rally of Riley cars in Alice Springs. *Don River Railway Reporter*, June 2000, via Ray Graf

LUNE RIVER RAILWAY

610mm gauge

TransDerwent Ferry and Railway Company

Further to the report in LR 148, p.30, this tourist railway has reverted to Sunday only operations from Easter to December using a small but growing band of volunteers.

Operation of the railway with paid employees has proved unviable, necessitating the new arrangements. All income goes back into the railway. A new railmotor, numbered 8 and loosely based on a Victorian Railways AEC, entered service in 1999. This unit was rebuilt from the rail motor that was once used on the Lake Margaret Tramway. The charming petrol rail motor No.7, which dates from Commonwealth Carbide days, is in Hobart awaiting restoration. As noted in LR 154 (p.30) the Hunslet 0-4-2T loco is at Lune River pending its return to Don River. Operational locos at Lune River are 4wDMs Nos 3 and 5 (Malcolm Moore 1038 and 1056). Peter Fell, 8/00, via John Browning



On a wet and windy Good Friday, 21 April 2000, the Bush Mill Railway's replica K1 Garratt and its 3-car consist pause at Fox & Hounds station.
Photo: Peter Charrett



The Ford-powered steam outline loco with carriages at Rainbow Central station on the Kangaroo Island Railway, June 2000.
Photo: Geoff Cooper

