TROLLEY WIRE

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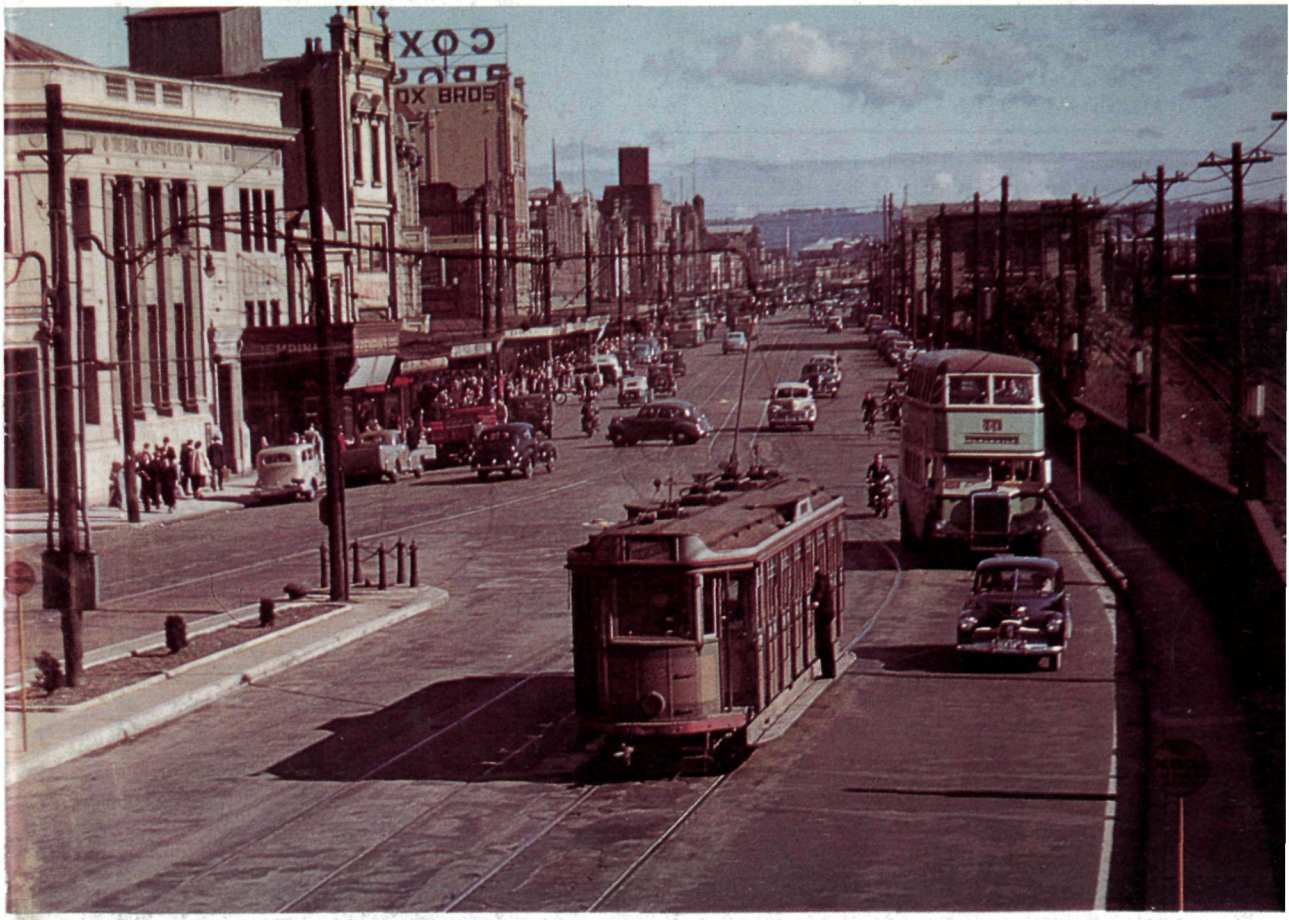

ANNIVERSARIES — NEWCASTLE AND BENDIGO

TROLLEY WIRE

AUSTRALIA'S TRAMWAY MUSEUM MAGAZINE

MAY 1990

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CONTENTS

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Birney 303 stands on Road 2 immediately behind the AETM's new workshop pit at St Kilda. Most of the workshop floor has now been concreted.

PAUL SHILLABEER

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NEWCASTLE 10 JUNE 1950

The last day of the Waratah tramline, the last survivor of a once extensive steam and electric tramway system. Over the previous few years the diminishing system was captured on film, both still and movie, but always in black-and-white. At the 11th hour, on a short winter's day, Ben Parle recorded a few scenes in colour which, 40 years later, are published for the first time.

Front Cover: *LP class 162 is inward bound to Parnell Place as it enters Scott Street from Hunter Street. Trams from the city used the single track in Hunter Street to this point, the second track in Scott Street being only used in emergencies.*

Back Cover, Top: *Waratah-bound LP 145 takes the curve in Tudor Street across the triangular junction at Gordon Avenue, Hamilton as Ken McCarthy records its passing on 9mm movie film. This junction was used to couple and uncouple two-car sets before and after the peak hours. As the LP class cars could only couple a one end, the extra car had to be coupled either to the front or back, depending on the way the oncoming car was facing.*

Back Cover, Bottom: *LP 145 swings around the beach-front as it leaves the city terminus at Parnell Place on one of its few remaining trips to Waratah. The second track had not been used since the previous April when the lines to Adamstown and the Racecourse closed.*

NEWCASTLE

40 YEARS AGO, BEFORE AND AFTER

The last, lingering segment of the Newcastle tramways, the line to Waratah, closed on Saturday 10 June 1950, although in common with most tramway closures in New South Wales it was the early hours of Sunday before the last tram, in this instance LP 147, returned to the depot.astle, at the mouth of the Hunter River, is the second city of New South Wales in size and importance. European settlement began in 1797. Initial occupations were timber cutting and farming; coal was first mined, from the beach by convict labour, in 1799 and subsequent development of the Newcastle region has centred around coal mining, heavy industry and the associated port.

The first railway, from Honeysuckle to East Maitland, opened on 30 March 1857 and was extended eastwards into the city on 9 March 1858. It was extended, generally north-west, into the hinterland but was not connected with the southern railway system radiating from Sydney until the opening of the Hawkesbury River bridge on 1 May 1889.

Colliery railways proliferated, in the town, along the beaches and river, and into and beyond the hills surrounding the river basin, as the coal field working expanded. Settlement also followed the coal workings and much of this was away from the government railway. Horse buses and the coal railways provided some rudimentary passenger transport but a need for better transport existed.

To partly meet this need the tramway to Plattsburg, 7-1/2 miles west of Newcastle and beyond the first line of hills, was opened on 19 July 1887. It terminated short of the centre of Newcastle at Perkin Street due to the lack of a suitable east-west thoroughfare. The construction of a western extension to Scott Street enabled the tramway to be extended to near the beach at Parnell Place on 26 December 1893. The line was opened using combination steam cars hauling bogie trailers. These combination cars were not particularly successful, having been previously used in Sydney, and were supplemented and eventually replaced by steam motors (locomotives).

The Plattsburg line introduced a feature that was to remain prominent in Newcastle: railway crossings. There were a maximum of eight on this line, two crossed over by bridges whilst the remaining six were on the level. The Lambton Road crossing with the government line at Broadmeadow was replaced by a bridge over the railway.

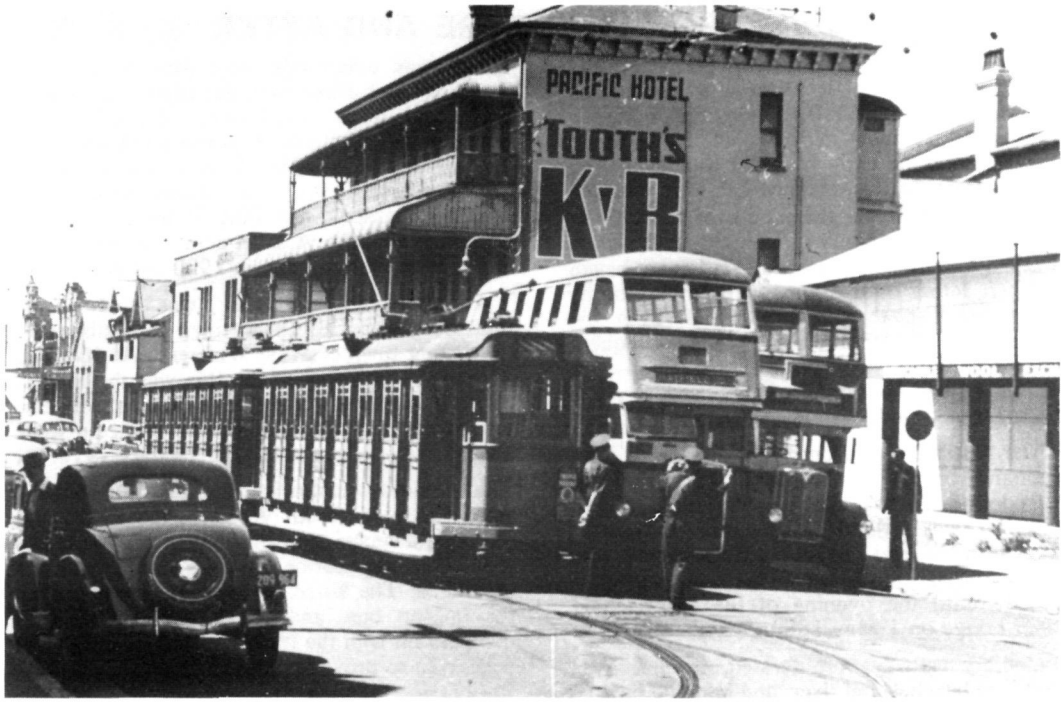
Tramway extensions were planned to serve the expanding urban area but these had to wait until the more satisfactory Parnell Place terminus was available. Between 1894 and 1916 lines were built to Glebe, Adamstown, Mayfield, Merrywether Beach, the Racecourse, Carrington, Waratah and Port Waratah in what were then suburbs. A short extension was added to the Port Waratah line in 1920 but not used.

An unlikely extension was that from Plattsburg through its twin town of Wallsend to the distant town of West Wallsend. At 15 miles 45 chains from Newcastle, this was the longest urban tramline in Australia. A branch from this line to the picnic spot of Speers Point on Lake Macquarie was opened on 15 January 1912.

An insidious campaign against the tramways started in New South Wales in the 1920s and closures of steam and electric lines started at this time, but duplications and minor extensions continued. The horse bus had been replaced by the motor bus and there was unrestricted competition with the tram services so no thought was given to providing any alternative services.

The Newcastle tramways posed a political problem, becoming very run down but too risky to close. Eventually a start was made on electrification and the electric service to Mayfield opened on 15 December 1923 with the remaining suburban lines being converted by 11 October 1926. The two long lines from Plattsburg/Wallsend to West Wallsend and Speers Point were not electrified and due to the onset of the depression were closed on 2 November 1930. Some holiday specials were operated to Speers Point until May 1932.

Unlike Sydney, the electric trams in Newcastle did not expand beyond the steam lines; as outlined previously the system contracted. Of a peak route mileage of 35, one third was not electrified. A single line was laid in Hunter Street East to form a city loop for the electric trams and the Mayfield line was deviated from Hannell Street to cross the railway by a new bridge in Maitland Road. A loop line was built to serve a new combined depot and workshop at Hamilton and finally the last extension to any government tramline in New south Wales was opened on 26 August 1938 when the Adamstown line was extended a mere 5-1/2 chains. This maximum extent of the Newcastle tramway was shortlived for the Carrington and Port Waratah lines were closed on Saturday 19 November 1938 and replaced by government buses.



L/P 284 and another car stand in Telford Street awaiting another run to the showground. The crew are helping the driver of the bus to Mayfield squeeze between the trams and the private AEC 'decker parked at the kerb. K. McCARTHY

A report to the Bevan government in 1929 recommended that the tramways be reduced to a basic core, with the closure of the outlying systems and many suburban lines. Clearly there was no place for Newcastle although the Newcastle City Council supported a public-owned transport system and over the years made proposals for taking over the tramways.

It was recognised, though, that the remaining tramways would need protection from bus competition and some measure of regulation was introduced in 1930. This was enforced by the Lang government in 1931 and competing buses were taxed off the road.

The Government started its own bus services on 25 December 1932 by taking over a private run in Sydney and during the 1930s expanded rapidly by taking over most inner suburban operators. Many of these services supplemented rather than complemented the trams.

The closure of minor lines continued in the 1930s and the Woolloomooloo line in Sydney was the first to be replaced by government buses when it closed on 29 July 1935. The Stevens-Bruxner government which replaced Lang in 1932 eventually admitted to a total tram replacement policy and the closure of the two Newcastle lines was the first definite step towards implementation of this policy which was interrupted by the onset of war.

The Government took over two private routes in the Tighes Hill/Mayfield area on 22 September 1935 and seven more on 1 March 1937, mainly extending outside the tramway area south around Lake Macquarie. The depot at Hamilton was altered to accommodate buses.

The tramway closures in Newcastle resumed with the Mayfield line on Saturday 25 September 1948 and concluded with the Waratah line on 10 June 1950. The Newcastle closure had been preceded by Port Adelaide, Rockhampton, Manly and Enfield, but, with over 50 motors and 120 cars in steam days and 98 electric passenger cars, it was by far the largest system to disappear at that time and was the harbinger of things to come across Australia.

The Newcastle district at this time was served by trains, ferries and buses. The railways were not well placed to serve the majority of the

population, which originally led to the development of the tramways. Buses provided the main inner area transport and the tramway replacement services were integrated into a developed government network which extended about seven miles to the north-west and south-west, and along the eastern side of Lake Macquarie to Swansea with a long route beyond to Catherine Hill Bay. Private operators provided services across the river in Stockton, from Plattsburg/Wallsend, from Toronto around the western side of the lake, from Swansea and, further afield, in the Maitland and Cessnock areas. Change of shift services were provided from many of these places direct to the steel works at Port Waratah.

Steam-powered vehicular ferries crossed the Hunter River from the city to Stockton and privately operated, launch type, passenger ferries plied on the lower reaches of the river. Passenger steamers on the river to Morpeth had long since gone.

Suburban steam trains, operated by the government, ran over both government and private lines to Belmont, Fassifern, Toronto, Sandgate Cemetery, West Maitland and Cessnock. No vestige of service remained on the private lines to Plattsburg/Wallsend or to Killingsworth and West Wallsend from Cockle Creek. Sydney was two and one-half hours away by express train and about four and one-half hours by all-stations train.

Post-war Newcastle was booming and despite the loss of the trams public transport was booming with it. Now, forty years later, the scene has changed. The private motor car has made inroads into all modes of public transport.

The government bus services have held up well with minor adjustments, but generally within their previous boundaries, although the two-hour trip to Catherine Hill Bay has gone. Private bus services followed as the suburbs expanded and increased school services have offset a general decline. However, there has been a general tendency by governments to a run-down or rationalisation of services and this process was accelerated by the incoming Greiner government in 1988. The bus workshops at Hamilton have been closed and some secondary services cut back but the basic network remains with a fleet of about 200 buses, now all single-deck and Mercedes; the once all-Leyland and originally predominantly double-deck fleet has gone. With changing attitudes towards public ownership, the Newcastle government bus services must be considered a candidate for sale.

The vehicular ferry service to Stockton which commenced in 1916, finished on 1 November 1971 when the 3/4 mile trip, provided by the three steam vessels, was replaced by a high-level bridge upstream which then entailed an eleven mile journey to the city. The last passenger ferry service on the Hunter was between the city and Stockton and although it outlived the vehicular service, the private operators finally gave up. The service was resumed by the Government and it is now provided by the State Transit Authority (who are also the bus operator) using catamaran ferries of the type used on secondary services on Sydney Harbour.

The railways have reached a peak and are now set to rapidly decline. Steam gave way to diesel railcars for suburban services with longer services being diesel locomotive hauled. The service between Maitland and Cessnock over the private South Maitland Railway reverted to the company which provided a shuttle service with railcars instead of the through service to Newcastle. This did not last and a private bus operator now provides a direct service to Newcastle. The spasmodic service to Belmont and the part-time service to Sandgate Cemetery have also gone.

However, the railway fortunes took an upturn when electrification reached Newcastle on 3 June 1984. Express trains from Sydney still took over two hours but all-stations trains were markedly quicker. A suburban electric service was provided to Fassifern, with a diesel shuttle to Toronto. Three-car double-deck suburban stock was used to Fassifern. The Maitland service remains diesel-operated. An innovative timetable revision saw the provision of two trains an hour between Sydney and Newcastle, one all-stations and one fast, with interchange at Gosford. The slow service replaced the suburban trains, except at peak hours. These trains have been reduced to two cars.

The Toronto shuttle ceased on 10 March 1990 and later this year the suburban electric service will also go with most of the stations between Broadmeadow and Fassifern being closed. Only one train an hour will run to Sydney fron Newcastle; this will be a semi-fast and will serve the remaining Newcastle area stations. Buses will provide a replacement suburban service. Services on the Maitland line will also be reduced.

It must be pointed out again that the railways in Newcastle are not well positioned to serve the main population areas. Nevertheless they have a utility value that cannot be measured by the balance sheet alone. The withdrawal of services is an attempt to cut operating losses; there does not appear to have been any attempt to attract extra custom.

Forty years on the cycle is starting again.

BENDIGO — CENTENARY OF TRAMS

By William F. Scott

The Centenary

This year Bendigo is celebrating its "Centenary of Trams" 1890-1990, with special events being held during every month of the calendar year, including competitions. Souvenirs will be available. On the centenary of the June 1890 first public service the largest number of tramcars ever seen in Pall Mall is planned with over 20 cars. In August the depot approach road is to have its name changed from Arnold Street to Tramway Avenue.

The Origins of Bendigo

The chronicles of Bendigo commenced in 1851 with the discovery of gold and the locations were referred to as the Bendigo Diggings. The gold drew prospectors from all the colonies in Australia and overseas. A township developed rapidly. In 1852 a Goldfields Commission was appointed to ensure orderly development with the first streets being surveyed and named in 1854.

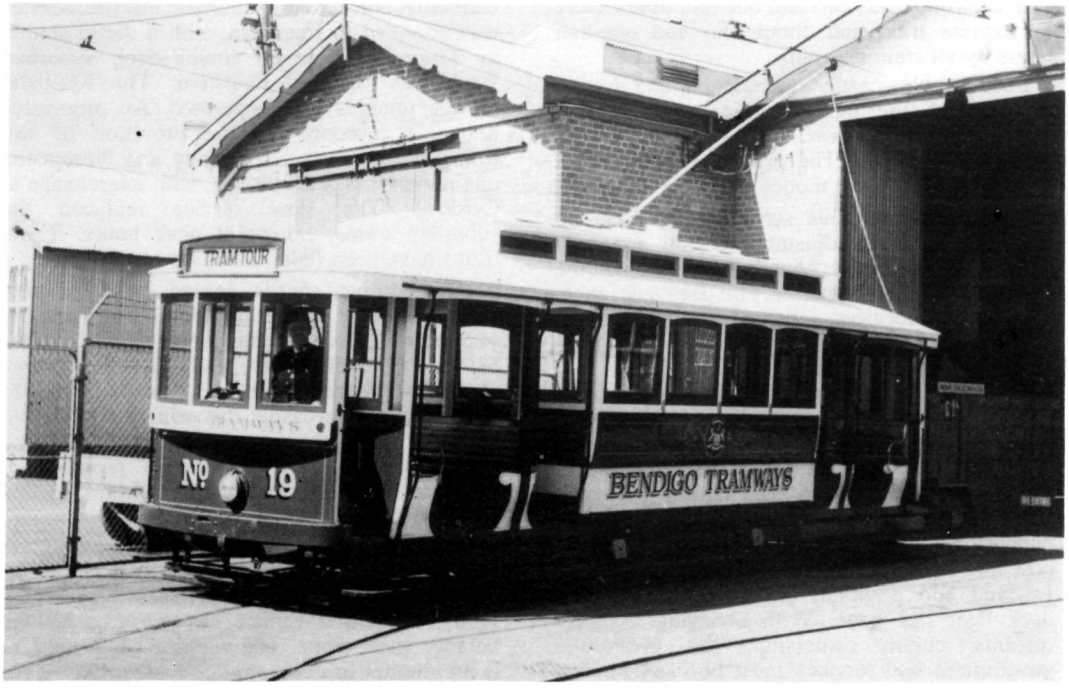
Gold digging by individuals was soon replaced with gold mining by companies. The gold they discovered brought great wealth to the township along with permanency and stability not known initially.

The First Tramway

By the 1880s there was talk of establishing a passenger transport service between Sandhurst, as Bendigo was briefly called, and Eaglehawk, a neighbouring borough. In 1887 the respective councils held their first tramway conference, when horse, cable, battery-electric and overhead wire electric tramways were discussed.

Firm proposals for horse and cable tramways were made after the rejection of an overhead wire system on the basis that the visual impact of overhead wires was unaceptable.

None of these proposals was accepted and battery-electric cars became the preferred choice. In 1888 the Sandhurst and Eaglehawk Electric Tramway Company was formed. A trial



Car 19 about to enter service from the running depot. This car ran in Melbourne on Australia Day in 1980 and may run there again in September 1990 for the Bendigo tramway centenary year. WILLIAM F. SCOTT

Car 44 rounding the curve from Napier Street into Nolan Street and travelling towards North Bendigo. The still waters of Lake Weeroona lie adjacent to the line at this point.

WILLIAM F. SCOTT

run was made on 10 April 1890 and service commenced on 14 June 1890, offering half hour headways along part of the route with eight cars. The first was a Milnes-Reckenzaun car and cars 2 to 8 were from Brush. In late July 1890 the full service, from the railway station to Eaglehawk, was inaugurated.

The battery-electric service was not reliable as there were derailments, minor accidents and frequent breakdowns. Further, the cars proved to be underpowered for the steep hills and it was quite common for them to be towed back to the depot by horses on their return journeys.

The Company, unable to solve these problems, ceased operations in September 1890, and sold its assets to a new enterprise, the Bendigo Tramways Company Limited.

The Second Tramway

The councils were still against overhead wires in the streets, so the new company suggested steam traction, to which the councils agreed. Five Baldwin steam trams were purchased and the Bendigo Rolling Stock Company converted single-truck battery-electric cars to bogie trailers by extending the platforms to accommodate the bogies.

The steam tram service commenced in 1892 and proved reliable, so was popular with the travelling public. Three more and larger steam trams were ordered, this time from the Phoenix Foundry at Ballarat. The Bendigo Rolling Stock Company converted additional battery-electric cars to bogie trailers.

However, the depression of the 1890s affected patronage and the company was unable to meet its commitments of track maintenance and planned extensions, including a route from Kangaroo Flat to White Hills, nor did it run at a profit. The tramway was offered for sale but there were no buyers, so the Company kept the service operating to make it more saleable at a later date as a going concern.

The Third Tramway

In 1900 the Electric Supply Company of Victoria Limited was formed in Liverpool, United Kingdom, to carry on business in Victoria of electrical engineers, as well as producers and suppliers of electricity. Most shares were held by the British Insulated Wire Company of Prescot and its nominees. In 1902 the company bought out the Bendigo Tramways Company and was permitted to operate electric

tramcars on the overhead wire system. The original depot in Mollison Street was considered too small by the new company, so a replacement depot, together with a power station, was erected at the Arnold Street and Hargreaves Street intersection.

Electric services began in 1903 between the depot and Charing Cross, the town centre. By the end of that year the system was complete and remained unchanged until the Lake Weeroona to North Bendigo extension was constructed in 1942 to provide a service for the many employees of the Ordinance Factory. The fleet comprised twelve combination cars on Brill 21E trucks, built by Duncan and Fraser of Adelaide, four similar cars were converted from steam trailers, and six ex-Ballarat horse cars were used as trailers. In 1913 two new crossbench cars were supplied by Duncan and Fraser on Brush trucks.

Even the electric tramway was not making profits, so all the combination cars were converted to one-man operation, commencing in 1913. The power supply business was profitable and subsidised the tramway.

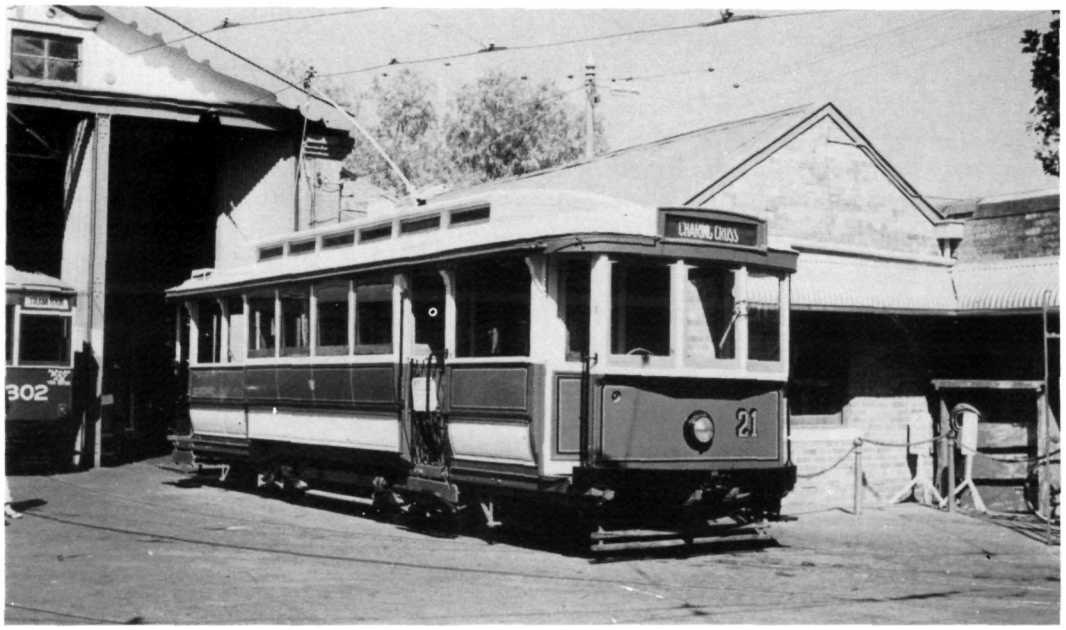
The State Government Takes Over

In 1921 the Victorian Government established the State Electricity Commission of Victoria as a monopoly with plans for a power grid system over the whole state. The SECV was to assume control of all privately owned power generating enterprises, including that of the Electric Supply Company of Victoria. However, this company also owned the Bendigo tramway system for which it had a 30 year franchise, and the SECV had no powers to operate tramways.

In 1929 enabling legislation was passed which included protection from motorbus competition and the SECV ran the tramway as from July 1934, but supervised operations from 1931.

By 1934 the system was 30 years old and generally in poor condition. The SECV was unable to find another operator in those depression years, so a programme of rehabilitation was put into effect, covering all aspects of the system, though rolling stock replacement commenced in 1930 with the acquisition of second-hand single-truck tramcars from Melbourne by the Company, seemingly on behalf of the SECV. After World War II the fleet was

Bendigo Trust Birney car 302, ex-SECV Bendigo; ex-SECV Geelong; ex-MTT Adelaide, outside Flinders Street Station, Melbourne, during the Australia Day pageant of 1982. WILLIAM F. SCOTT



Car 21 on display in the running depot, at the Hargreaves Street-Arnold Street intersection. It carries the first livery of the SECV Bendigo tramway syatem.

WILLIAM F. SCOTT

augmented with maximum traction cars, also from Melbourne. In 1948 the SECV offered the system to the council but it was not accepted. Council wanted the tramways retained and modernised but could not provide the finance.

When the Geelong tramways, also run by the SECV, closed in 1956 the better cars, including their six Birney cars, were transferred to Bendigo. In 1960 there was an exchange of cars, not involving the Birney cars, between Bendigo and Ballarat, another SECV electric tramway.

With increasing motor traffic in the 1950s there were more road accidents involving the tramcars, with a serious head-on collision in the early 1950s when a tramcar was about to turn from Barnard Street into Mount Korong Road after dark.

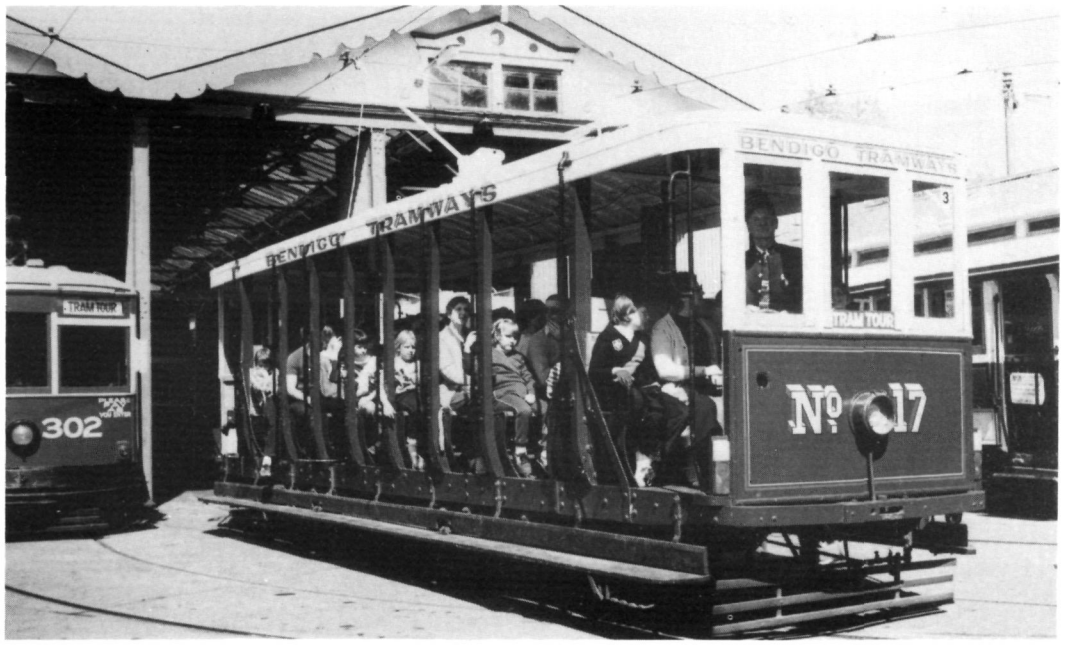
Thereafter the SECV began a programme of progressively illuminating the trams so that by the 1960s the car ends had three rows of zebra stripes in green and yellow, the upper half of the dashes painted white and illuminated with lighting additional to the single headlamps.

Also by the 1960s the system was a financial embarrassment to the SECV. Attempts at closure occurred in the early and late 1960s but another attempt in September 1970 was successful. Tramway operation ceased on 16 April 1972.

The Bendigo Trust

During the last few months many groups visited Bendigo and hired trams. This level of activity caused the people to realise they were about to lose a major attraction. A conservation group, the Bendigo Trust, had been formed in 1970 and in August 1971 submitted a plan to the Bendigo Council for retaining that section of the tramway between two tourist attractions then being renovated, The Central Deborah Gold Mine by the Bendigo Trust, and the Chinese Joss House by the National Trust. Both buildings were on the Golden Square to North Bendigo route, which had other points of historic interest along the way. The Trust met opposition from the Country Roads Board and the SECV, so it sent a deputation to the State Government in February 1972. The government, seemingly not unmindful that Bendigo was a marginal seat, directed that no part of the tramway requested by the Trust be dismantled after closure, pending an enquiry. The Enquiry Committee set up reported their findings to the Victorian Minister of Local Government in favour of a tourist tramway concept.

In September 1972 the State Government announced that the Bendigo Trust would be allowed to operate the tramway between the Central Deborah Gold Mine and the Joss House



Brush crossbench car 17 about to leave the running depot with a full load of patrons. Many of them had explored the depot interior as part of their 'talking tram' tour. This car is the only one currently in operation that was built new for Bendigo.
WILLIAM F. SCOTT

for a trial period to Easter 1974, and during this time all the car fleet was to remain in Bendigo. Government funds were made available to prepare four cars for the tourist service. A curve was laid from the main road into Violet Street generally south of the Myrtle Street loop, and the North Bendigo terminus was resurfaced.

In October 1972 members of the Australian Electric Transport Museum at St Kilda near Adelaide arrived at Bendigo with a letter dated well before the closure of the system, authorising them to remove Birney car 29, but were thwarted by Trust members. The incident was referred to as an attempted hijack and made headlines throughout Australia. Its value as free publicity was enormous for the Bendigo Trust, and came at a most opportune time as a promotion of the Trust's tramway activities.

The Trust's preserved line of 2.3 miles was formally opened by the Premier of Victoria on 9 December 1972 as the Bendigo Tourist Tramway, initially on weekends and public holidays only, but soon became daily during the summer school holidays.

The initial operating fleet comprised cars 19, 25, 30 and subsequently car 28. Each car was fitted with a cassette system for playing a commentary describing places of interest as the cars were driven past them.

The Bendigo Trust Takes Over

By the end of the trial period, Easter 1974, the line had carried 50,000 passengers. In May 1974 the State Government declared that the Bendigo Tourist Tramway could continue indefinitely and all cars still on the roster were to remain in Bendigo provided the tourist line operated. Thus the government recinded a prior arrangement that Birney car 29 could be collected from the depot by the Adelaide preservationists for their museum. The impasse was resolved by retrieving from Maryborough the body of Birney car 27 which had been disposed of in 1958 after an accident, although the truck and seats were still in the depot. The car was restored at Bendigo with a grant from the state government as Municipal Tramways Trust, Adelaide, G class car 303 and handed over at Bendigo to the Australian Electric Transport Museum in July 1976. Subsequently Birney car 29 was refurbished as MTT, Adelaide, G class car 302 for operation in Bendigo.

The track cleaning car, originally No. 17, was returned in 1975 to its pre-1953 condition as a crossbench car. Being open sided it is popular and runs often in the summer.

Car 26, the last car to Eaglehawk, had been put on static display at Eaglehawk but was recovered by the Trust in 1977 and restored in its final livery as part of the regular operating fleet.

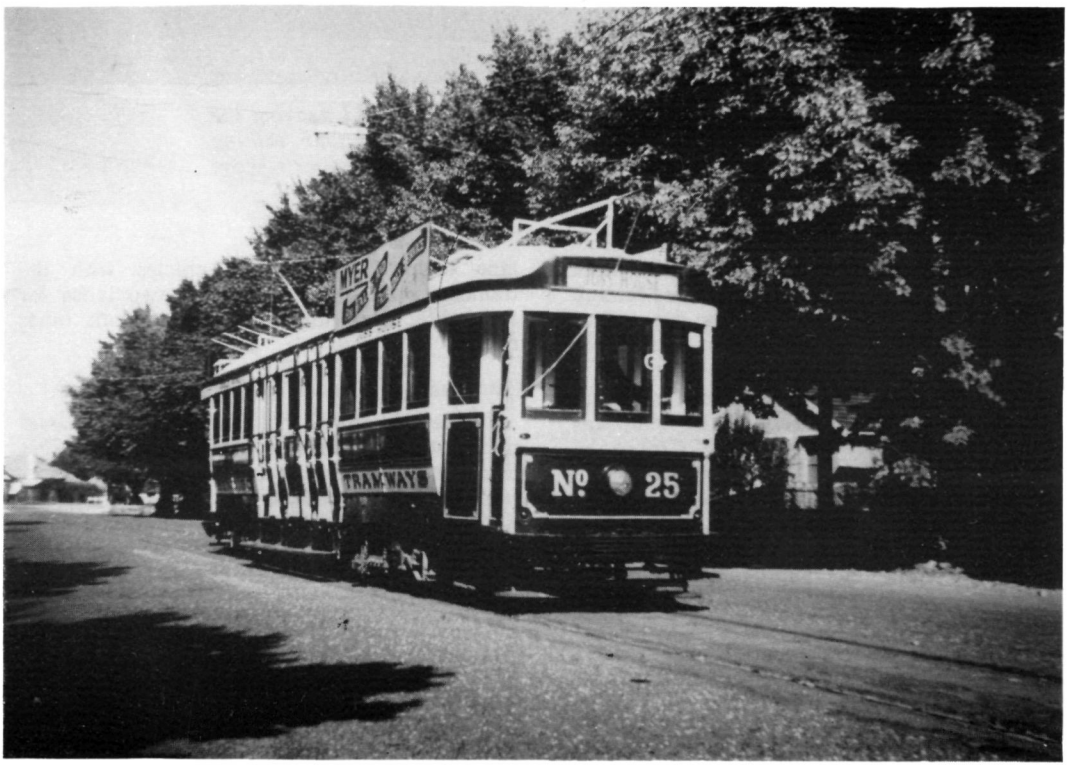
The next major restoration after the cross-bench car was the second No. 17 which reverted to its original form as Prahran and Malvern Tramways Trust car No. 144, and was completed in 1981.

In the early years of the Trust more grants were available for funding car restoration than presently. In 1980 the Trust commenced another major car conversion. This time a dropcentre bogie car was to be rebuilt as an all round vision car like a bogie Birney car, and No. 18 was selected for this purpose. Reduced grants delayed fulfilment of the task but the Trust simply proceeded as funds could be allocated and the car first ran in service in its new form in 1983. The conversion was neatly executed and makes an ideal car for large groups, thereby providing a significant contribution to the economic viability of the tramway.

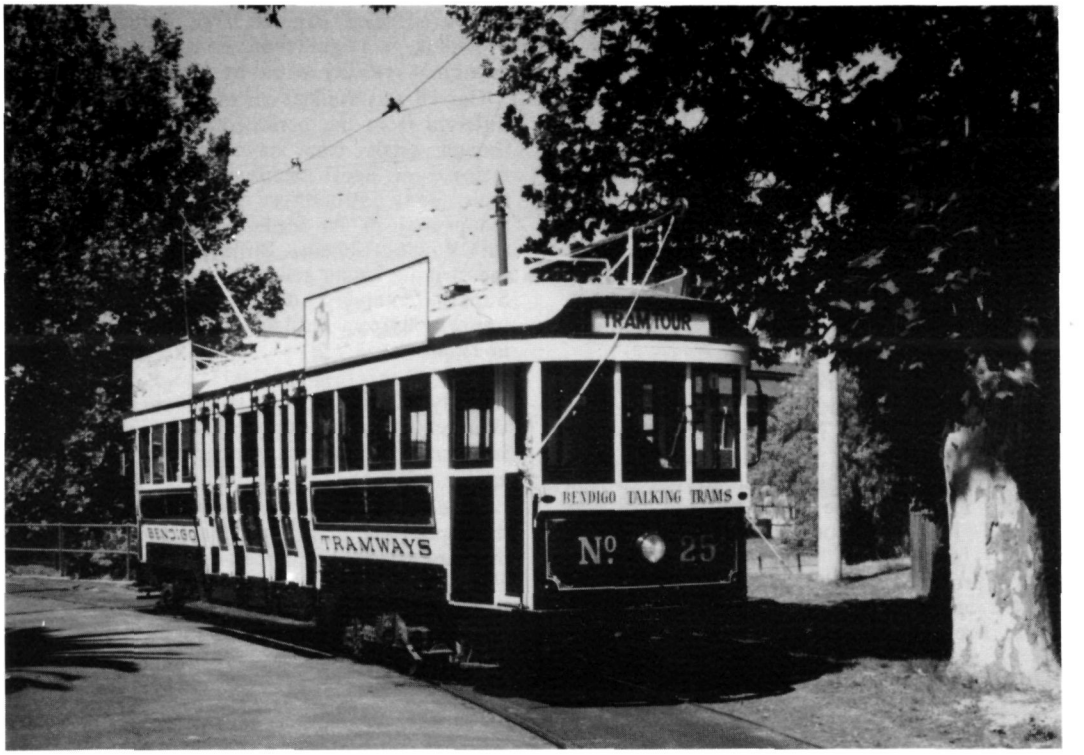
Car 18 was the last car to be rebuilt in a form different from the period of SECV operations, though other cars have subsequently been restored without significant modifications to their body structures. Birney car 11 has reappeared in its former Geelong Tramways SECV colour scheme. Birney car 15 now carries the striking bright red livery of the Melbourne Supply Company, operatiors of the Geelong tramway system until taken over by the SECV in 1930.

One of the original 1903 cars, No. 7, was recently discovered at a private address in Weeroona Avenue in restorable condition and it is planned to renovate the car to ply the streets again.

When some of the fleet was put on display in the depot there was insufficient space to have all the cars and maintenance areas in the depot. In February 1989 a three-road nine car storage depot was commissioned in the old gas-works with the entrance at the Weeroona Avenue and



Car 25 proceding down Bridge Street towards North Bendigo on Easter Sunday, 1979.
WILLIAM F. SCOTT



No. 25, ex-Hawthorn Tramways Trust car 27; ex-M&MTB No. 133, leaving the running depot to enter service. This car was one of the original four 'talking trams'. WILLIAM F. SCOTT

Caledonia Street intersection, though the depot fan is not yet wired. There is the added feature that now not all the cars are in one depot, thus reducing the risks of a major car loss in the event of fire.

The permanent way was in need of replacement and the first section to be relaid was in High Street between Charing Cross and Violet Street in 1975, all of which was set in mass concrete using second-hand rails. In 1976 the double track traversing Charing Cross was relaid as a single track and pointwork relocated within Pall Mall, thus improving the flow of motor traffic at Charing Cross.

The next major track relaying, commencing in 1983, was in McCrae and Napier Streets undertaken by the Country Roads Board in mass concrete, between the north-eastern end of Pall Mall and Nolan Street, with singling of the double track section, though the loop near Arnold Street was retained. The special work connecting the depot access track to the main line was also renewed. The result was a four lane highway for motor vehicles with the tramcars operating between the two lanes for each direction without conflicting with other traffic.

The Bendigo Trust Digs In

In the mid-1980s the Trust realised it could not continue to operate continually at present levels and increase them, while using only tramcars which predominantly date back to the first World War period, without enormous sums being spent on progressive total rebuilding of the fleet. In the current financial climate such sums are not available.

The Trust has therefore had an about-face in that additional cars, which never ran for the SECV and are of much more robust construction, have been obtained in the form of five W2 class cars from Melbourne. These cars are able to be added to the operating fleet for small sums compared to restoration of the ex-SECV cars. The most significant car to thus enter service was No. 275 which had been rebuilt by

the former Melbourne and Metropolitan Tramways Board from W2 to SW2 form in 1955 following accident damage. When sliding doors were installed the open centre section was thus enclosed, also the saloon sliding doors were removed. This car therefore gives Bendigo a second bogie car, along with No. 18, which has one open saloon ideal for large groups. SW2 no. 275 looks magnificent in the Bendigo Trust livery and gold lining out. It entered service in April 1989. All five W2 class cars ran as a special event on 12 November 1989, with every car in service simultaneously in the late afternoon.

The plan is that the W2s will be the backbone of the fleet in future and the ex-SECV cars will be rotated for variety and the displaying of their advertising signs.

With the commissioning of the W2 tramcars the Bendigo Trust has announced to the world that it is committed to running the tramway indefinitely.

Birney car 15 reinstated to its original form and livery as No. 15 of the Melbourne Electric Supply Company of Geelong. The car was resurrected after being written off by the SECV following accident damage and used as a source of spare parts. The car is hired regularly by McDonald's of family food fame for children's birthday parties.

WILLIAM F. SCOTT

The Bendigo Trust Fleet

No. 2

Bendigo Tramways Co. bogie steam tram trailer. To be converted back to its original form as Sandhurst & Eaglehawk Electric Tramway Co. single truck battery-electric car No. 3 of 1890.

No. 2

Bogie drop end and centre combination built by Duncan & Fraser, Adelaide. Hawthorn Tramways Trust No. 126; then Melbourne & Metropolitan Tramways Board No. 126; to Geelong in 1947 as No. 47; to Bendigo in 1956. Seats 48.

No. 122

Ex-No. 3. Bogie drop end and centre combination built by Ducan & Fraser in 1916 for Hawthorn Tramways Trust; later M&MTB No. 122 (which colours it now carries); then Geelong; transferred to Bendigo in 1956. Seats 48.

No. 4

Bogie drop end and centre combination built by Duncan & Fraser as No. 14 for Hawthorn Tramways Trust; M&MTB as No. 120; to Geelong as No. 33 in 1947; to Bendigo in 1956. Seats 48.

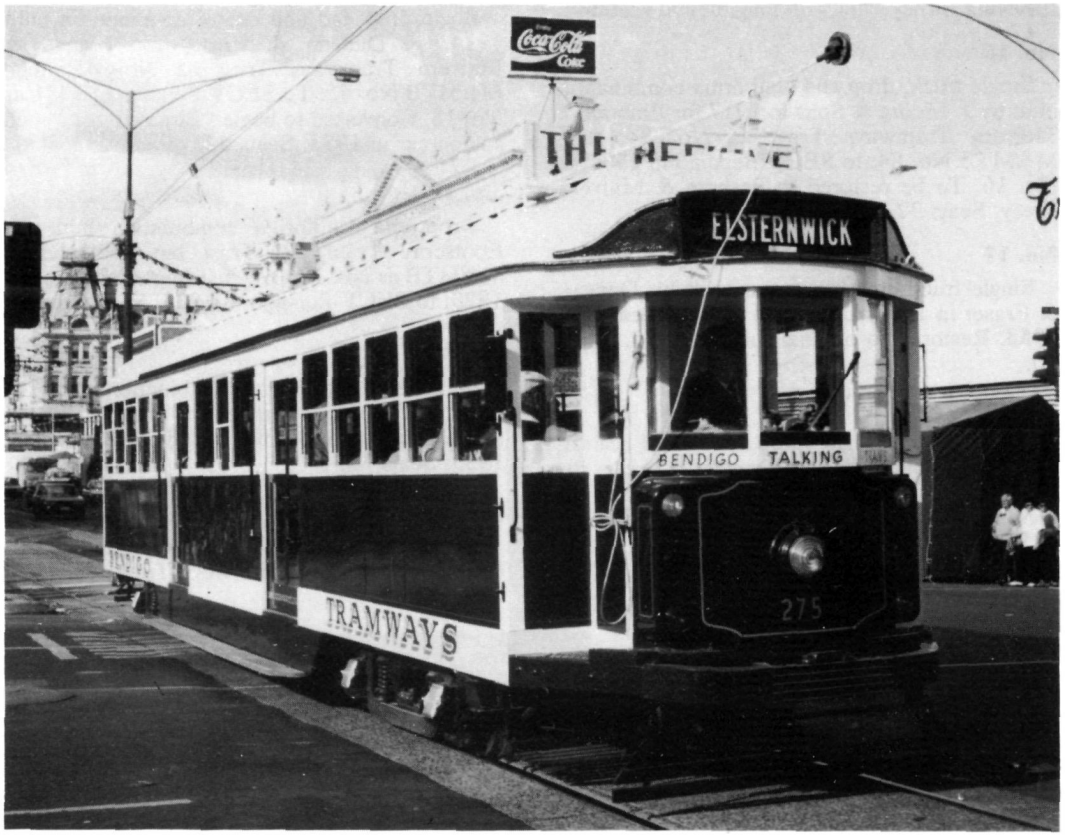
No. 5

Bogie drop end and centre combination built 1913 by Duncan & Fraser for Prahran & Malvern Tramways Trust as No. 26; then M&MTB No. 26; to Geelong in 1948 as No. 36; to Bendigo in 1956. It will retain Bendigo SECV livery. Seats 48.

No. 6

Single truck, drop end California combination built by Duncan & Fraser in 1916 for Hawthorn Tramways Trust as their No. 4; later M&MTB No. 110; sold to Ballarat in 1930; to Bendigo in 1960. To be restored as M&MTB No. 110. Seats 32.

Ex-M&MTB/MTA W2 class car 456 on the track fan of the gas-works storage depot. This car and sister car 421 are presently kept there, though are available for service. The fan is not yet wired and cars are moved with a wandering lead connected to the overhead wire in Weeroona Avenue. WILLIAM F. SCOTT



W2 car 275, converted to SW2 form in 1955 and now in Bendigo Trust livery, traversing Charing Cross at the centre of Bendigo en route to Violet Street terminus. Two W2 cars carry this colour scheme, the other is car 470.
WILLIAM F. SCOTT

No. 7

Single truck, drop end California combination built by Meadowbank Engineering Co. of Sydney in 1915 for Prahran & Malvern Tramways Trust as No. 76; then M&MTB No. 76; to SECV Ballarat in 1931 as No. 19; to Bendigo in 1960. Only former M&MTB J class tram running on original truck. Seats 28.

No. 7

Single truck straight silled California combination built 1903 by Duncan & Fraser for Electric Supply Co. of Victoria. To be restored at a future date.

No. 11

Birney single truck saloon safety car built by J.G. Brill & Co. of Philadelphia in 1924 for the Melbourne Electric Supply Co., Geelong as their No. 14; to SECV Bendigo in 1949; Seats 30 on longitudinal seats.

No. 12

Single truck, drop end California combination built 1916 by Duncan & Fraser for Hawthorn Tramways Trust as No. 1; M&MTB No. 107; to Bendigo in 1930 as No. 19, then No. 12; Will be repainted in Hawthorn colours of battleship grey and white. Seats 36.

No. 15

Birney single truck saloon safety car built by J.G. Brill & Co. in 1924 for Melbourne Electric Supply Co., Geelong; later SECV No. 15; to Bendigo in 1948. Restored to Melbourne Electric Supply Co. livery. Seats 30 on

longitudinal seats. With No. 11, only known surviving Birney cars with longitudinal seating.

No. 16

Single truck, drop end California combination built by J. Moore & Sons in 1917 for Prahran & Malvern Tramways Trust as No. 84; then M&MTB No. 84; to SECV Bendigo in 1931 as No. 16. To be restored to Prahran & Malvern livery. Seats 32.

No. 17

Single truck crossbench car built by Duncan & Fraser in 1913. Converted to track cleaner in 1953. Restored to original form in 1975. Seats 50.

No. 44

Ex-No. 17. Bogie drop end and centre combination built 1914 by Duncan & Fraser for Prahran & Malvern Tramways Trust as No 44; then M&MTB No. 44; to SECV Bendigo in 1951. Restored to Prahran & Malvern form and colours in 1981. Seats 56.

No. 18

Bogie drop end and centre combination built 1914 by Duncan & Fraser for Prahan & Malvern Tramways Trust as No. 45; then M&MTB No. 45; To SECV Bendigo in 1951 as No. 18. Converted to bogie "Birney Type" open saloon car in 1983. Seats 52.

No. 19

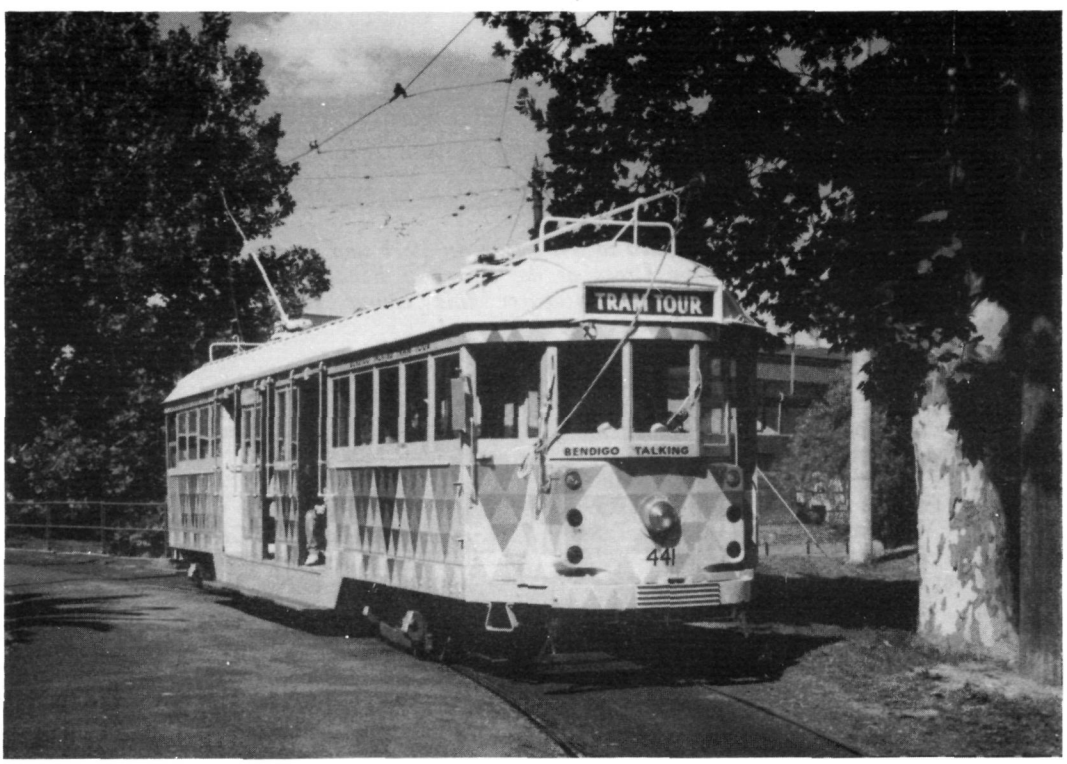
Drop end California combination built for Footscray Tramways Trust but delivered to M&MTB as No. 185 when systems combined in 1920; to SECV Bendigo in 1935. Seats 36.

No. 20

Drop end California combination built in 1920 for Footscray Tramways Trust; delivered to M&MTB as No. 187; to SECV Bendigo in 1935. Seats 32.

No. 21

Drop end California combination built in 1920 for Footscray Tramways Trust; delivered



W2 car 441, in 'pop art' colours for the sesquicentennial of Melbourne, leaves the running depot during a tour. The Trust plans to operate the car in this form until repainting is required. WILLIAM F. SCOTT

Car 18 after conversion to a bogie open saloon for large parties, rounding the curve from Nolan Street into Bridge Street on the way to North Bendigo.

WILLIAM F. SCOTT

to M&MTB as No. 188; to SECV Bendigo in 1935. Seats 32.

No. 23

Bogie drop end and centre combination built in 1916 by Duncan & Fraser for Hawthorn Tramways Trust as No. 17; became M&MTB No. 123; to SECV Bendigo in 1945 as No. 23. Restored to SECV 1945 livery as when first running in Bendigo. Seats 48.

No. 138

Ex-No. 24. Bogie drop end and centre combination built in 1918 by Duncan & Frazer for Hawthorn Tramways Trust as No. 32; became M&MTB No. 138; to SECV Bendigo in 1945 as No. 24. Restored to M&MTB livery of the early 1940s and renumbered 138. Seats 48.

No. 25

Bogie drop end and centre combination built in 1917 by Duncan & Fraser for Hawthorn Tramways Trust as No. 27; became M&MTB No. 133; to SECV Bendigo in 1947. Seats 48.

No. 26

Bogie drop end and centre combination built in 1917 by Duncan & Fraser for the Hawthorn Tramways Trust as No. 29; became M&MTB No. 135; to SECV Bendigo in 1947. Seats 48.

No. 28

Birney single truck saloon safety car built in 1925 by J.G. Brill & Co. for the Municipal Tramways Trust, Adelaide as No. 304; to SECV Geelong in 1936 as No. 28; to Bendigo in 1947. Seats 32.

No. 302

Ex-No. 29. Birney single truck saloon safety car built by J.G. Brill in 1925 for MTT, Adelaide as No. 302; to SECV Geelong as No. 29; to Bendigo in 1947. Restored to Port Adelaide livery. Seats 32.

No. 30

Birney single truck saloon safety car built in 1925 by J.G. Brill for MTT, Adelaide as No. 301; to SECV Geelong as No. 30; to Bendigo in 1947. Seats 32.

No. 275

Bogie drop centre combination ex-M&MTB/ MTA SW2 class car built in 1925 by James Moore. Converted from W2 class design in 1955. Now in Bendigo Trust livery. Seats 48.

No. 421

Bogie drop centre combination ex-M&MTB/ MTA W2 class car built in 1927 by M&MTB Preston Workshops as a W1 class car. To be restored to W1 class form and livery at a future date. Seats 52.

No. 441

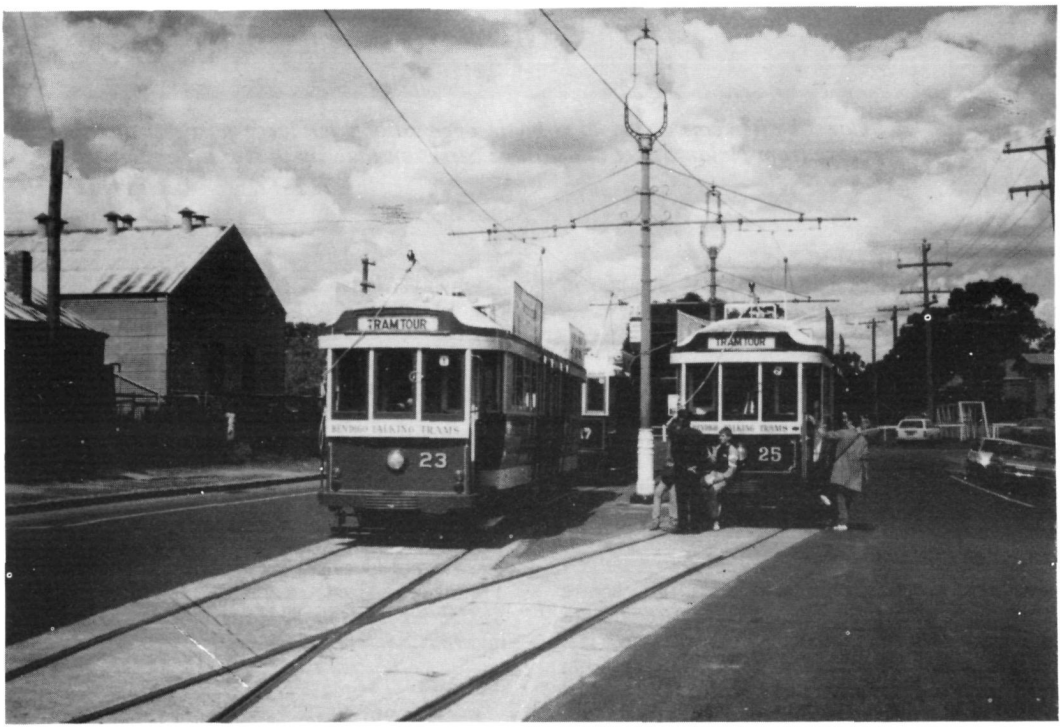
Bogie drop centre combination ex-M&MTB/ MTA W2 class car built in 1927 by M&MTB Preston Workshops. Car retains its Melbourne Sesquicentennial colour scheme. Seats 52.

No. 456

Bogie drop centre combination ex M&MTB/ MTA W2 class car built in 1928 by M&MTB Preston Workshops. To be repainted in its present M&MTB livery. Seats 52.

No. 470

Bogie drop centre combination ex-M&MTB/ MTA W2 class car built in 1928 by M&MTB Preston Workshops as a W1 class car. Now in Bendigo Trust livery. Seats 52.



Cars 23, 17 and 25 at the Violet Street terminus laid after the closure of the SECV tramways. The Central Deborah Gold Mine is on the left.

WILLIAM F. SCOTT

The Centenary Year of Events

This month by month list of celebratory events during 1990 to commemorate the centenary of Bendigo's trams has been compiled by Dennis Bell in consultation with the Tram Committee.

January 1990

From Monday 8 to Friday 12 January the motorised cable grip car and trailer will leave the tram shelter at Charing Cross each evening for short tours in Pall Mall. From Monday 15 to Friday 19 January a horse drawn tram will follow the same itinerary. Although these types of trams never operated in Bendigo, they were considered as far back as 1887. Special souvenir tickets will be issued for these trips.

February 1990

Evening champagne tram tours will be run for senior citizens, similar clubs and groups at a reduced fare for this month. Again special souvenir tickets will be issued.

March 1990

The *Bendigo Advertiser* in conjunction with the Bendigo Tramways will have a colouring competition for children. The winner and his/her immediate family will receive a free Talking Tram tour and underground tour of the Central Deborah Mine.

April 1990

A re-enactment of the "Trial Run" of 10 April 1890 will held on 10 April 1990 at 10pm complete with Councillors from Bendigo and Eaglehawk. The problems of that original night (a derailment and badly arcing motors) will not be re-enacted!

Radio station 3MP in conjuction with 3BO will run a competition relating to the Bendigo trams. The prize will be a weekend in Bendigo for a family.

The release of special Centenary medallions. These will be collectors items.

May 1990

A slide evening on Bendigo and its trams will be held on Friday evening 11 May at the Campbell Theatrette commencing at 8pm. Material for the evening will be selected from the D. O'Hoy collection. There will be no charge for this event.

June 1990

On Saturday 9 June commencing at 1pm a parade of trams will travel through the streets to commemorate the commencement of the first public tram service. A half hourly tram service commenced on Saturday 14 June 1890 from the railway station down Mitchell Street, past the fountain and up View Street as far as Barnard Street.

It is planned to have the the largest number of trams Bendigo has ever seen in Pall Mall (over 20).

Radio station 3BO will broadcast nostalgic tram facts from 4 June to 9 June.

The *Bendigo Advertiser* is to issue a special supplement to commemorate the tramway centenary. It is expected to be issued on Wednesday 6 June.

August 1990

On 14 August the Bendigo City Council will rename Arnold Street to Tramway Avenue at a ceremony commencing at 11am. Car No. 19 will be driven through a ribbon bearing the new street name; the ribbon will be cut into sections for sale as souvenirs.

September 1990

Plans are being made to run car No. 19 in Melbourne.

October 1990

A centenary display of tram models and nostalgic items will be held in the RSL Hall from Monday 1 October to Friday 5 October. Open fron noon to 7pm daily. A working layout of the model trams used in the film "Malcolm" will be part of the display.

The Southern Cross TV network will screen the film "Malcolm" during the week.

November 1990

Release of documentary video.

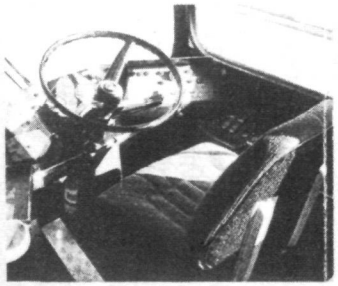
December 1990

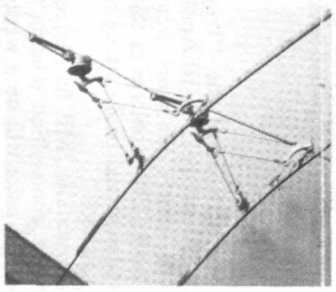
Centenary Tram Spectacular, led by Tervelka's advertising car bearing suitable commemorative messages, on Friday 7 December from 6pm.

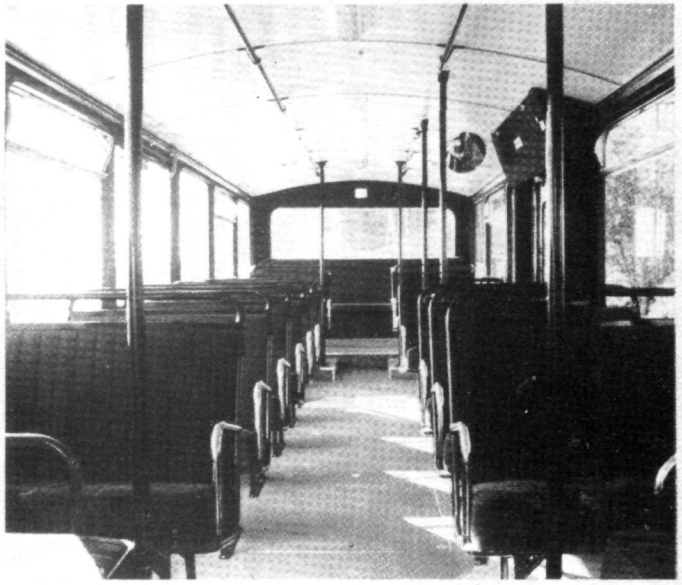
A number of special Centenary souvenirs will be released, including postcards, books, teaspoons and tee-shirts. A limited number of 50mm slices of genuine 1890 45lb tram rail from the original Mollison Street Depot will also be available.

	VOLVO	ANSALDO
Fleet Numbers	201 to 268	120 to 139
Chassis	Volvo model B58	Volvo model B10M
Electrics	Brown Boveri	Ansaldo
Body Builder	Hawke Coachwork	New Zealand Motor Bodies.
Traction motor output	130kW	113kW
Braking systems	air operated wheel brakes plus Telma eddy current retarder	air operated wheel brakes plus regenerative traction motor braking

Below
The new buses feature wider more comfortable seats with cloth upholstery, and more conveniently arranged controls for the driver. Also shown is a section of the new flexible overhead wire system.







WELLINGTON — TROLLEY BUS CAPITAL OF AUSTRALASIA

By John Davenport

Trolley buses have disappeared from Australia's cities and New Zealand cities as well, except for the remarkable exception of New Zealand's capital Wellington. In Wellington the trolley bus forms the backbone of the city's transport system.

A short 2-1/2 hour flight will take you from the eastern states of Australia to New Zealand, at a cheaper fare than flying to North Queensland or Perth.

You will have great difficulty in riding on all of Wellington's trolley bus routes in one day, as the system is so extensive. For the cost of about $4 Australian for a Daytripper ticket, you can travel on all the city's trolley bus routes.

The trolley bus is alive and well in Wellington. Third generation trolley buses have been introduced and new flexible wiring erected, offering greater reliability and fewer dewirements. Trolley buses have even replaced diesel buses on route 11 to Newtown Park Zoo!

Take yourself down to the trolley bus terminus loops outside Wellington's railway station and in the shadow of Wellington's famous beehive Parliament House. Most services leave from here, except, for example, route 12 to Karori West, which turns up Bowen Street near Parliament House.

As you purchase your Daytripper ticket, the helpful staff at the terminus information office will issue you with free route maps and advise you on which routes are served by trolley buses. A word of caution here, some routes have a mixture of diesel and trolley buses, so if a diesel bus arrives, simply wait a few minutes for the following bus which will probably be a trolley bus. Also, trolley buses don't seem to operate after about 7pm, being replaced by diesel buses.

On 2 May 1964, trolley buses replaced the last of Wellington's (and New Zealand's) trams, so many of the trolley bus routes follow all or part of the old tram routes.

Wellington's trolley bus routes are as follows:

Route 12

Karori West — an old tram route past the Wellington Botanical Gardens and through the old Karori tram tunel. This was the first tram route converted to trolley buses in 1954.

Route 7

Aro Street — an old tram route, now peak hours only — an interesting branch line.

Route 7

Brooklyn and Kingston — an old tram route as far as Brooklyn, then up into the Wellington hills on narrow roads with spectacular views of the city and the harbour.

Route 1

Island Bay — an old tram route to one of Wellington's beaches and passing some interesting antique shops and the Basin Reserve cricket ground.

Route 3

Lyall Bay and Hungerford Road — an old tram route as far as Lyall Bay, with an interesting stop at the old Kilbirnie tram depot (the name is still there), now housing trolley and diesel buses. The trolley bus extension to Hungerford Road follows the beach. There are also some Kilbirnie 'Depot Only' services on route 3.

Route 3

Seatoun — an old tram route, leaves the Lyall Bay route at Kilbirnie and travels through the old Seatoun tram tunnel to Seatoun beach. your longest trolley bus route if you only have time for one ride. Good views of Wellington Harbour.

Route 2

Mirimar — an old tram route, which shares the old Kilbirnie tram tunnel with route 5 and, along with route 3, gives interesting views of Wellington's International Airport.

Route 5

Hataitai — not a former tram route. Travels through the old Kilbirnie tram tunnel and trolley buses are now the only vehicles allowed to use this long one-lane tunnel. The Hataitai route leaves route 2 and travels by an interesting loop route by Hataitai Road on the forward journey and returns by Waipara Road. This is peaceful Wellington suburbia.

Ansaldo/Volvo trolley bus 127, originally ordered for Auckland, waits at the Wellington railway station terminal for departure. In the background can be seen Wellington's 'beehive' Parliament House. JOHN DAVENPORT

Route 15

Oriental Bay — an old tram route. a short route along Oriental Parade to an interesting Wellington harbourside suburb.

Route 11

Newtown Park Zoo — this was a tram route until 1964, a diesel bus route from 1964 to 1984 and in 1984 the diesel buses were replaced by a new trolley bus route! This is reason enough to travel on this route. Can you imagine any Australian city replacing a diesel bus service with trolley buses in 1984?

As you can see, if you want to travel on all of Wellington's trolley bus routes, you'll have a very busy day.

The first trolley bus operated in Wellington in 1924 on the Thorndon route and was called a 'trackless tram'. This vehicle proved to be slow and uncomfortable and so was replaced by a petrol bus.

At the end of World War II, with the tram fleet and track in need of upgrading, the decision was made (after a visit to Australia) to gradually replace Wellington's trams with trolley buses. Trolley buses were first introduced in 1949 and by 1954 a new batch of BUT trolley buses was ordered to replace the Karori Park tram service.

Trams survived until 1964 when the city's and New Zealand's last tram ran on 2 May 1964 on the Newtown Park Zoo route. This was described as "an emotional occasion —hundreds of people turned out to see the final three trams run on their rails for the last time". At the closing ceremony, the Mayor of Wellington, Sir Frank Kitts, said he thought the replacement of trams was "a retrograde step".

During the 1960s the 119 trolley buses provided more than satisfactory service, but by the 1970s the trolley buses were under threat. International trends were against electric street transport and spare parts for trolley buses were

expensive and hard to find. Some spare parts had to be manufactured at Kilbirnie Workshops.

The trolley buses could have disappeared but in Wellington transport officials were more impressed with the advantages of the trolley bus than its disadvantages. Trolley buses were seen as clean and pollution free, quiet, relatively easy to maintain, had no starting problems or flat batteries, had a longer life than diesel buses, provided smoother initial acceleration than diesels and, of course, didn't require expensive imported diesel fuel.

In 1979 the Wellington Council made the momentous decision to continue with trolley bus operation and to purchase new trolley buses. New buses were introduced between 1981 and 1987, including 20 Ansaldo/Volvo buses (numbers 120-139) not needed in Auckland, as trolley buses had been phased out there. The new buses included 68 Brown Boveri/Volvo trolley buses (numbers 201-268) which now form the backbone of the city's bus services.

As stated earlier, in 1984 trolley buses replaced diesel buses on the Newtown Park Zoo route and extensive rewiring took place in the city. New Swiss wiring equipment was used in the city with the new wiring being installed above the old wiring while services were maintained.

The Wellington transport authorities state they now have "sufficient trolley buses for them to play a major role in Wellington's public transport system until the next century".

The future, therefore, looks bright for the trolley bus in Wellington. I found riding the system an exhilarating experience, with helpful and friendly officials and drivers.

I suggest you call into Wellington City Council's Transport Department headquarters in Wakefield Street and collect a copy of their brochure "Wellington's New Trolley Buses". The phone contact is Mr Mike Flinn on 856-579. You can also purchase from Mr Flinn a copy (for $NZ10) of an excellent book, "Wellington City Transport, Buses Through The Years", published in 1987, which has good details on Wellington's trams, trolley buses and diesel buses. You could obviously write from Australia for this book at the abovementioned address but please make an allowance for postage and packing.

Try to visit Wellington soon, the trolley bus capital of Australasia.

Ansaldo/Volvo trolley bus 127 (left), and Brown Boveri/Volvo 232 bound for Lyall Bay, wait at the terminal outside Wellington Railway Station on 10 January 1990

JOHN DAVENPORT

This article first appeared in the May, 1920 edition of *Electric Traction*, published by Kenfield-Davis Publishing Company of Chicago, Illinois. The stated objectives of *Electric Traction* were "to put the shoulder to the wheel and help push; in particular to gather and disseminate practical information relative to electric traction; to promote uniformity of practice; to cover the news; to encourage cheerfulness; to foster the spirit of co-operation and mutual helpfulness; and in every way and all the time to serve the needs and foster the interests of those identified with any phase of urban, suburban and interurban electric railway work."

NEW TYPE TRACK CONSTRUCTION IN MELBOURNE

Details of track reconstructed in Hawthorn, Victoria

By Struan Robertson, Engineer and Manager, Hawthorn Tramways Trust

About five miles of double track on the lines of the Hawthorn Tramways Trust, Hawthorn, Victoria, constructed in 1915-16, failed very badly owing to poor design, neglect of drainage problem, and scamped construction. This whole section had to be reconstructed and it is believed that the design adopted will obviate any further trouble. A plan showing the cross section is shown herewith. As traffic must be provided for and there is no means of diverting cars, the work must be carried out a short section at a time, and one track at a time. Permanent crossovers right and left hand are put in at approximately 400 yards apart, and all cars both up and down are run on the one line leaving the other clear for reconstruction.

All the road surface in the portion requiring reconstruction was of ordinary macadam, and the method adopted in reconstruction was as follows:

The road surface was scarified down to the ties by a steam road roller equipped with a scarifier, and the portions available for use in reconstruction were thrown to one side; owing to the non-provision of sub-drainage, the whole construction was full of water and the lower portions of ballast were mixed with mud and slurry. This portion was washed in suitable screens, the water being directed onto the screen under pressure through fire hose nozzles.

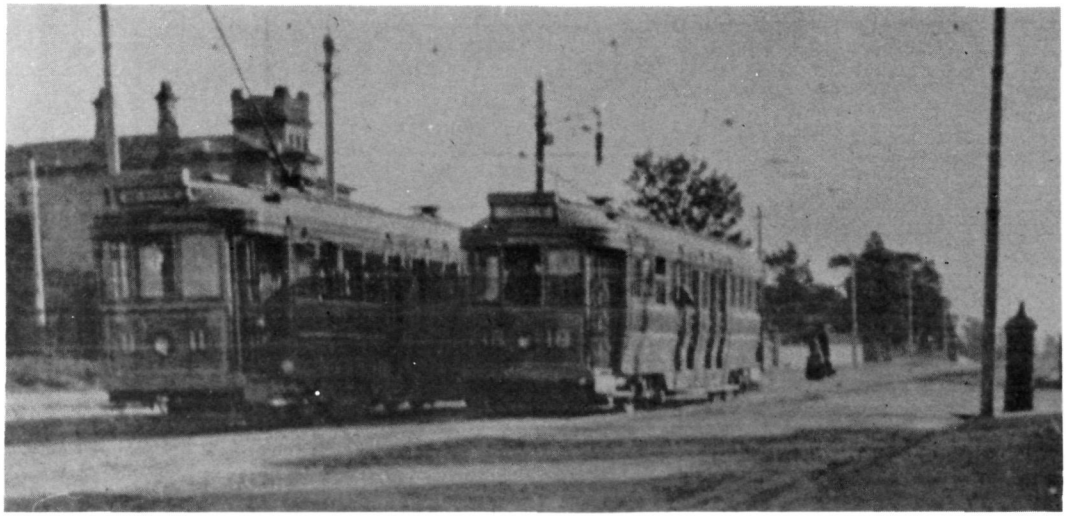
The track was then lifted about 6 inches by means of track jacks, and every four ties out of five had the dogspikes started with dog drawers and those were then knocked off and removed. The permanent way was blocked up in position by means of wood blocks under the ties. The trench was then excavated to the required depth, and graded to the subsoil drain which was constructed between the tracks.

The drain tiles were surrounded with ashes obtained from a local power station and the whole of the bottom of the trench was covered with a layer of ashes 2 inches thick which was well rammed down.

The concrete raft was then constructed. The plant for concrete mixing was a fairly efficient one. A continuous type of mixer was used, this delivered the concrete in the centre of the trench, and was moved along with one set of wheels on the outside rail of the track and the others on the roadway. Enough cement for a day's work was carried in a truck, with floor at the height of the cement hopper, and water was supplied from a truck which travelled on the rails. The whole three were moved as required by means of a work car operated by the trolley. Ballast and sand were dumped in the correct quantities along the street and shovelled direct into the mixer. After the concrete "raft" was constructed the sleepers were respiked in position and the track realigned and repacked, ballast varying from 3/4 inch to 2 inches in size being used. All broken joints which were originally made by a method similar to the Thermit process, were fishplated and arc welded with a rheostat type of welding machine built in the company's own shops.

The roadway was then built up in the usual manner for macadam roads, the whole being thoroughly rolled and consolidated. The surface was completed to a water macadam finish, allowed to dry and then swept clean and given a good coat of hot distilled tar and sand or "toppings" from the quarry.

The section completed is standing up under traffic exceptionally well and should require practically no maintenance, except a periodical tarring and sanding of the road surface, for many years. A certain amount of water gets into the



Hawthorn Tramways Trust bogie cars 11 and 18 in what is believed to be Riversdale Road, Camberwell. Car 11 became M&MTB 117 and Ballarat (1st) 37. Car 18, with its full height lattice gates, became M&MTB 124 and Ballarat 35.

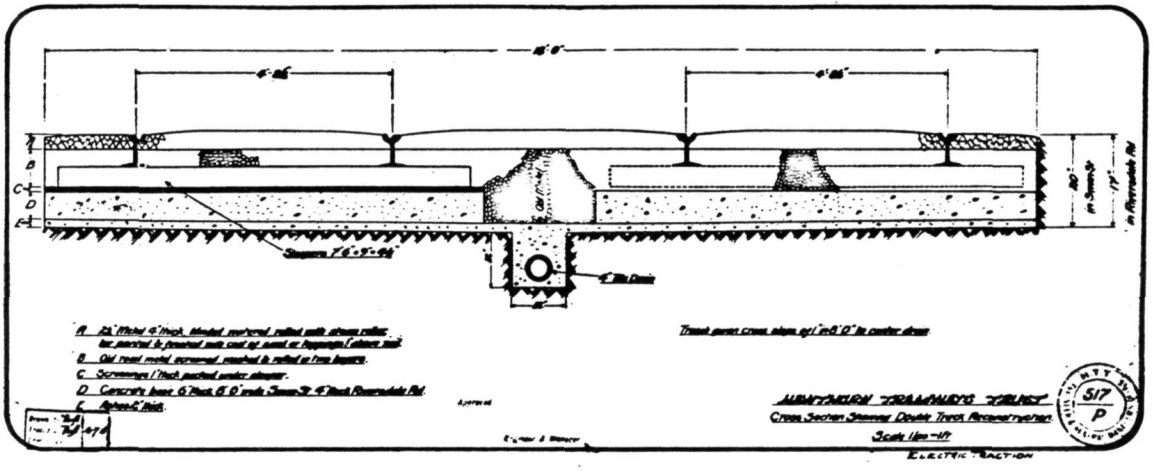
DAVE MACARTNEY COLLECTION

subgrade during wet weather, but it all gets away freely; the water running away at the outfalls of the drain is quite clear, showing that there is no movement in the substructure.

This is the first construction of this type in Hawthorn, although other tramways have used a construction in which the ties are embedded in concrete and a wood block pavement has been adopted.

Nearly all special work in this city is of solid cast manganese steel. On this system, however, the specification for construction provided for wrought-steel, movable-tongues to all switches which very soon wear out. These were built up with the arc welder, using old suspension rope steel of about 75 percent carbon, with very satisfactory results.

The Melbourne climate is a very temperate one, many of the people having never seen snow, and the rainfall is not more than 30 inches per annum, so that no winter problems exist, except occasionally too much water. The shade temperature varies from about 27 degrees Fahrenheit in winter nights to 105 degrees Fahrenheit on hot summer days.



Cross Section of New Type Track Construction in Use In Melbourne

C54 as rebuilt, in (probably) the light grey livery, at the Workshops about 1929. Note the enclosed motorman's platform.

R. FRANCIS COLLECTION

PERTH C CLASS 61

by Michael Stukely

An important addition was made to the Perth Electric Tramway Society's collection of Western Australian tram bodies with the arrival of Perth C class no. 61 on 20 December 1989.

No. 61 was the last of a class of eight single-truck cars (Nos 54-61) completed in 1913 by the Western Australian Government Railways at their Midland Junction Workshops. Earlier types of trams introduced by the Perth Electric Tramways Ltd had been fully imported (A, B, F and G classes) or built locally as modified versions of the imported cars (2nd B class). The C class, on the other hand, can be regarded as Perth's first 'home-grown' type — a rather unusual drop-end, closed combination car, whose end compartments were designated "Smoking".

The C class cars were said to have been unpopular with both passengers and crews, despite several modifications to the original design which were intended to overcome the problem (doors were cut from saloon entrance gangways to motorman's platforms; also the motorman's platforms were fully enclosed at this stage). Probably this unpopularity was a major reason for their relatively short life of only 19 years — they were scrapped in 1932 to provide motors and other equipment for the K class. it is believed that the cars were stored out of service for some time prior to scrapping, and at least one saw service as an advertising car in its later years.

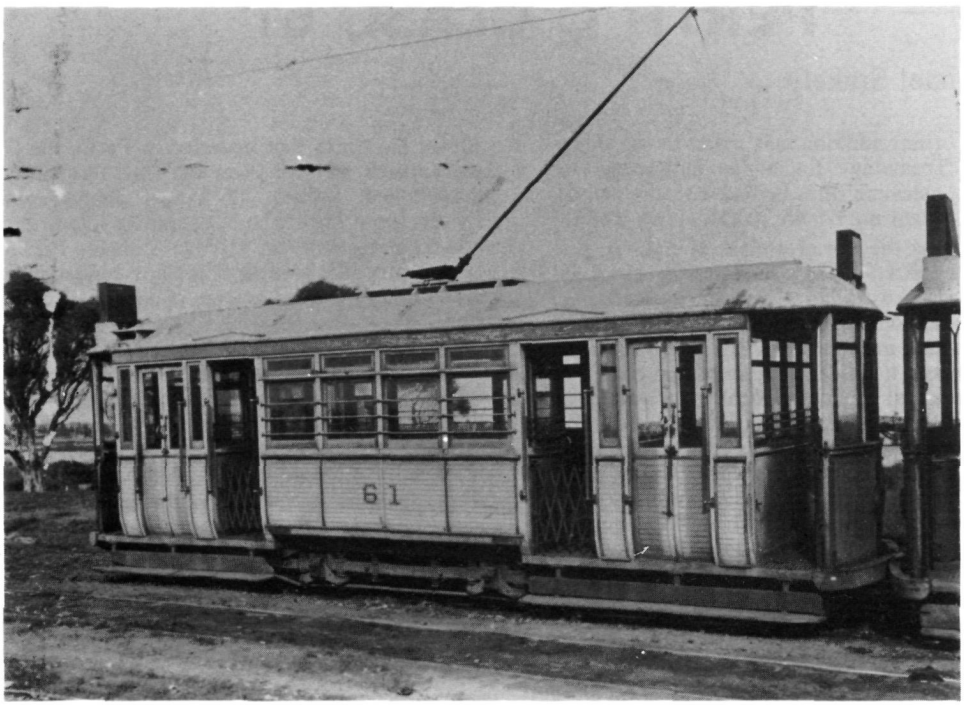
Of all the trams that operated in Perth, the C class appears to have been the least-frequently photographed. Indeed, all known photographs show them not in service but standing idle in the workshops area or on storage sidings. PETS would dearly like to hear from any reader who knows of any pictorial records of Perth's C class trams.

In view of the time which had elapsed since their scrapping, these cars were generally believed to be 'extinct'. However, two were rediscovered in 1983 by Michael Stukely in Yanchep National Park where they were still in occasional use for staff accommodation.

Investigations revealed that the bodies of all eight C class cars had been transported to Yanchep Park in 1933, as part of a major development of the recreation area into a "Health and Pleasure Resort", to serve as holiday accommodation 'bungalows'. They were placed singly or in pairs on limestone foundations which gave good all-round support. They were not fully roofed but had awnings attached over their windows. Public use of the tram bodies declined in time and by about 1960 several had deteriated badly; six of them were burnt at this stage. The remaining pair had been upgraded and fully roofed at some time after World War II.

PETS approached the Western Australian Department of Conservation and Land Management (CALM) in 1986 with a request that the

An unidentified C class car body photographed at Yanchep Park in February 1934, soon after its arrival. Note the awning attached below the tram's roof line. Saloon entrance gangways have been filled in and a swing door attached for access behind the ladies. The end apron at right has been cut away for the installaion of a stove and chimney. BATTYE LIBRARY 816B/B2889



C61 in original condition, probably at the Canal Street sidings. R. FRANCIS Collection

two bodies be transferred to Whiteman Park for restoration. This was agreed to; however the move was then "frozen" during the preparation of a ten-year Management Plan for Yanchep National Park. Public submissions included several which opposed the removal of the trams from Yanchep. To PETS great dismay, when the Management Plan was finally released in 1989, it stated that the trams should remain at Yanchep provided that funding for their restoration and continued maintenance and display could be found from external sources; otherwise they would come to PETS.

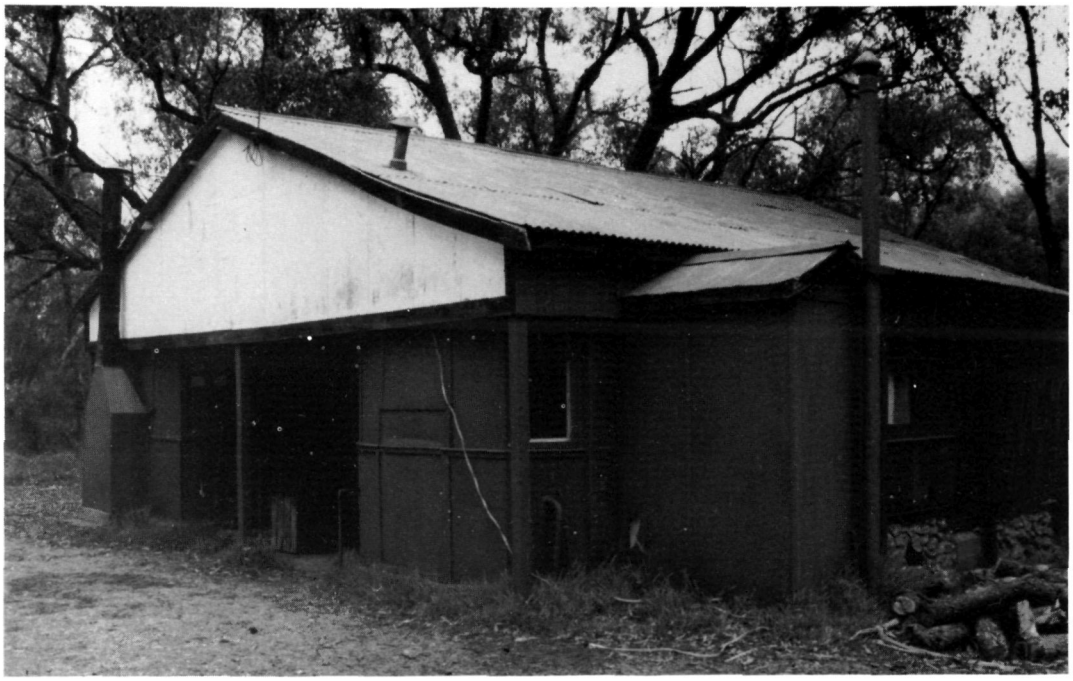
Then followed an intense period of negotiation between PETS, CALM and the City of Wanneroo (which was proposing to restore the trams). The end result was that all parties supported our revised proposal to remove one of the trams (No. 61) to the PETS museum at Whiteman Park for restoration to operating condition, leaving No. 57 at Yanchep to be restored as a 'Bungalow'. The basis of the transfer was to be a permanent loan.

Arrangements were made for No. 61 to be moved on 20 December 1989. The assistance of the CALM staff was greatly appreciated, in particular Yanchep Park Manager Terry Hales; Ranger in Charge Jim Smith; and the Yanchep crew who dismantled the roof over the trams.

When the body was lifted and the under-floor beams were at last exposed to view, the PETS crew were delighted to see that they were in excellent condition. Termites were known to have been active in both trams at various times and the floor boards had been renewed as a result. Fortunately, the termites seem to have been very selective — the main damage is confined to the roof, where several timbers will need to be replaced. Otherwise the whole body is structurally very sound and has been well maintained both inside and out.

The move to Whiteman Park was achieved without incident. The truck which transported the body was driven directly onto the fan in front of the new Car Storage Shed, where the body was off-loaded onto a Melbourne No. 1 truck with a special superstructure attached to give the necessary support. No. 61 was then pushed into the shed by the PETS tow-truck.

During March, C 57 was moved to the Gloucester Lodge Museum in Yanchep National Park for restoration as a 1930s style 'Bungalow' and it has now been covered and fenced for security.



The well-protected surviving pair of C cars, 57 (left) and 61, at the Yanchep National Park on 20 April 1987. Access to the toilet built onto 61 was via the double sliding doors of the end compartment. A chimney was once attached to 61, as for 57. M. STUKELY

The crane operator on the roof of C 61 disconnects the lifting slings after loading the car for removal on 20 December 1989. C 57 (right) has had modern aluminium-framed windows fitted, in contrast to 61 which still has the originals. The limestone foundation which supported 61 is in the foreground. M. STUKELY


1933

SYDNEY R1 CLASS 1933

After many years of representations to the State Transit Authority of NSW and its predecessors in regard to the possible acquisition of the body of R1 class 1933, the Sydney Tramway Museum was advised by the STA Area Manager East on 3 January 1990 that the car was no longer required and that, if we still wanted it, we had three weeks to move it.

Arrangements were made at the museum on Saturday, 13 January to accommodate the car, which included preparation of a spare set of trucks on which to place the body when it arrived at Loftus.

Although the Sydney Tramway Museum already has three R1 class cars, 1933 is the mising link between the R class and pre-war R1 design and completes the collection of Sydney 'corridor' cars.

Cars 1933 to 1937 inclusive were the last five cars of the order for 200 R class cars and instructions were given for these five cars to be altered during construction to the new R1 design following, it is believed, complaints about the low seating capacity of the R type design. These modifications involved the provision of only one centre door, the elimination of the two centre internal bulkheads, and a consequent increase in the seating capacity from 48 to 56.

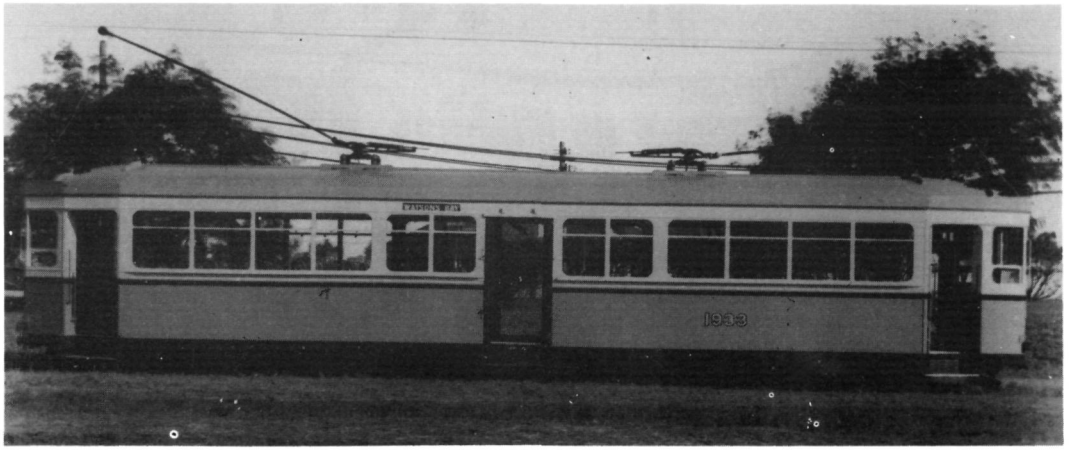
1933 reached Randwick Workshops from the builder, Clyde Engineering Co., on 12 May 1935 and entered service on the Watsons Bay line out of Rushcutters Bay Depot on 15 May 1935.

1933 was transferred to North Sydney Depot in August 1951 and when that system closed on 29 June 1958, it was sent to Randwick Workshops and stored. It did not see service again and ended its days as a First Aid room, fitted with a corrugated iron roof complete with guttering and downpipes.

The tram was prepared for its transfer to Loftus by museum members who disconnected various attachments, removed some of the skirting to ease lifting and transport, jacked the body up, cleaned out the rubbish underneath, and lowered it onto a couple of dollies found at Loftus. It was then towed clear of the adjacent building by the museum's little yellow truck!

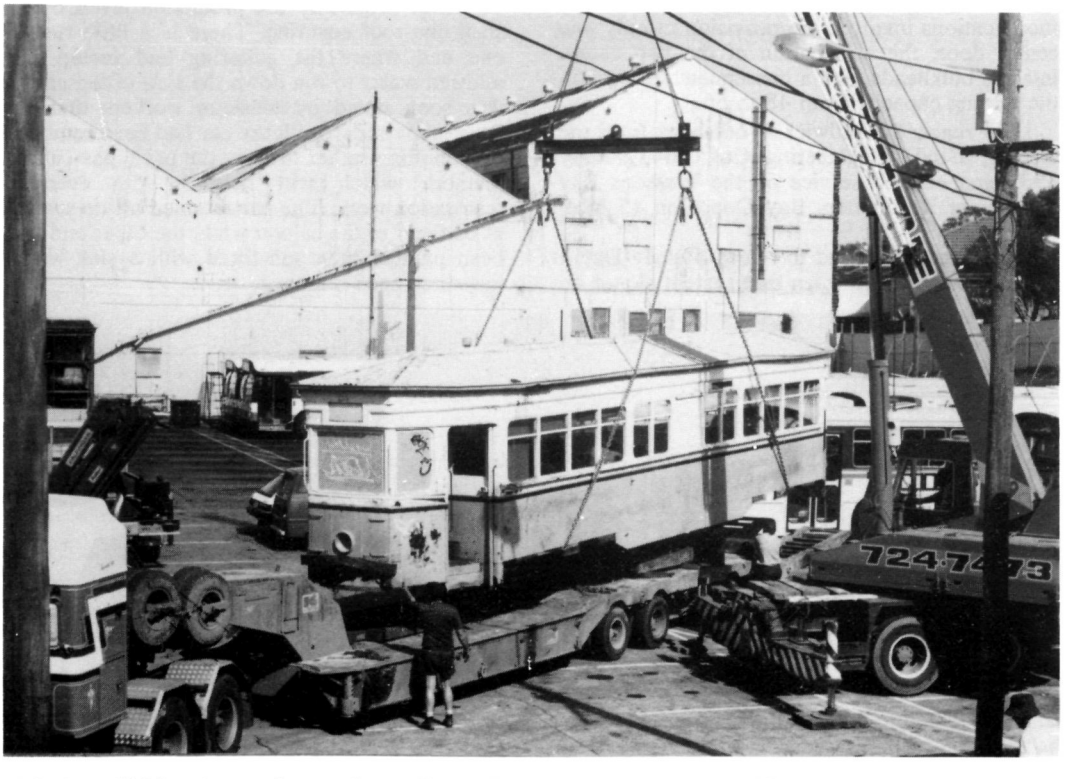
The movement of the body to Loftus was without incident. Its movement from Randwick, however, created mutterings from some of the Muslim bus depot staff who had been using the car for their daily prayers. Peace was restored when they found that the tram had not been sold to someone for use as a shed but was going to the museum for eventual restoration as a tram.

The body of 1933 is in very good condition, no doubt helped by the protection given by its shed-like roof covering. There is a little rust at one end where the guttering had rusted and allowed water to run down the side of the car. It was soon noted by museum workers that the equipment underneath the car had been removed by unbolting rather than by the usual gas-cutting method, which will help in the eventual restoration work. The car retained all its seating at one end of the saloon while the other end had been painted blue and fitted with a sink which has since been removed.



Official photographs of R1 class car 1933 in the yard at Randwick Workshops.
V. SOLOMONS COLLECTION

Car 1933 was moved out and away from the building by museum members prior to the day it was to be removed from STA property. BOB MERCHANT



R1 class 1933 is lowered onto the trailer at Randwick bus depot on 19 January 1990. BOB MERCHANT

R1 class 1933 on its lowbed trailer with the museum in the background. It took two tries to get the trailer through the museum's top gate. The trailer had to be backed up Pitt Street as the fencing of the TAFE grounds has made turning at the gate somewhat difficult for long loads. BOB MERCHANT

On its arrival at Loftus 1933 was lowered onto a pair of former R car trucks. The cars in the background have been moved from the depot yard to make way for the crane. BOB MERCHANT

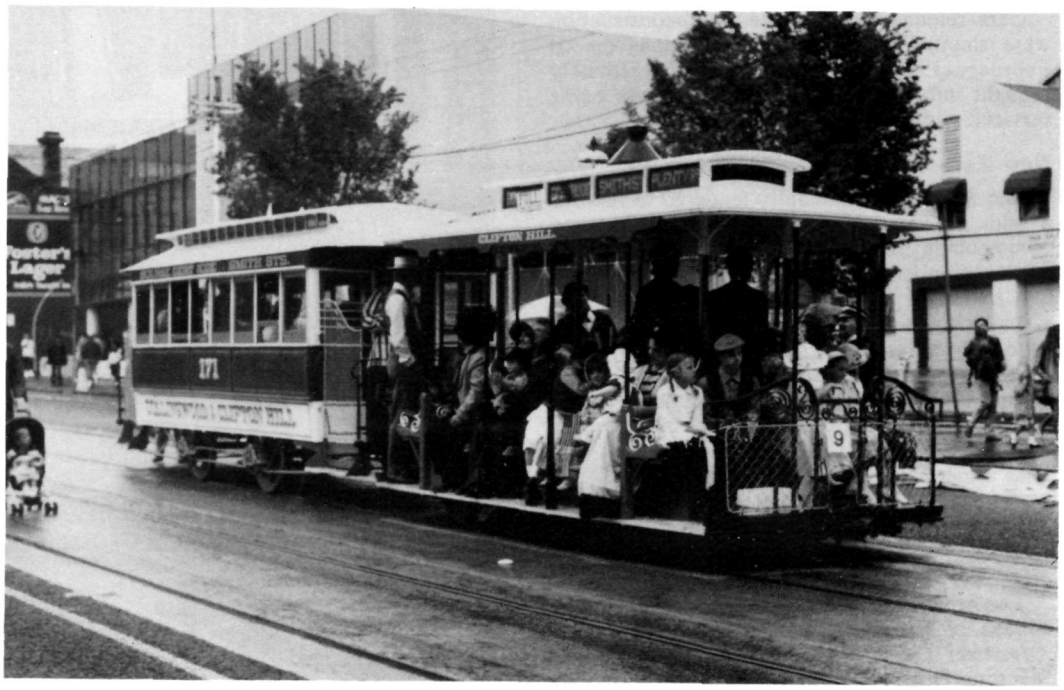
HERE AND THERE

NEWS ITEMS OF INTEREST FROM ALL OVER

The smallest electric tramcar fleet in Australia was owned by the Leonora Municipal Tramway in Western Australia. Its first and only car was built in 1908 by Westralia Ironworks as a single truck, dropend, open combination car seating 40 passengers. It was fitted with twin trolleypoles for doublewire overhead and operated over a 2-1/2 mile route. The car was shortened to a saloon design seating 20 passengers to enable, it is said, the car to negotiate some particularly awkward curves which had been laid to avoid crossing a mine tunnel which the passage of trams had rendered dangerous. The tram operated until 1915 when the destruction of the power house by fire put the line out of action. Leonora No. 1 was sold complete in 1918 and was moved to private property in the town. The truck (and probably other electrical gear) was scrapped in June 1958. This photo shows the body of Leonora's only electric tram in the Municipal Council yard in December 1984.

CAMERON BALLMENT

Former Sydney R car 1849. This tram was used as a florist's shop at the former North Sydney Depot. It now stands on private property at Burrawang and it is apparently used for accommodation or a children's playroom. DALE BUDD



The Williams-built motorised grip car and restored trailer 171 took part in Melbourne's Moomba Festival. The cable tram set is seen above with a full compliment of period-attired passengers waiting at the top of Swanston Street for the procession to begin. S. ALTHAM

ST. KILDA . . .

Australian Electric Transport Museum

Workshop Pit Completed

The new pit on Road 2 of the Workshop is now essentially complete. Cement rendering was carried to ensure that the old pit walls blended in to the new walls. The walls have been painted white. The opportunity was taken while the cars were relocated and the cement mixer handy, to concrete the remaining rubble flooring in the Workshop except for a small area around the electric locomotive. This has considerably improved the area for servicing and restoring our trams. Previously much of Road 2 was rubble-filled. At the same time much of the Workshop area was tidied up and some of the metalworking machinery repositioned.

Cars relocated during the pit reconstruction were shunted to their former locations on 10 February 1990. The new pit was immediately brought into use, all regular service cars being serviced within a few weeks.

New Rails

The Museum successfully tendered to remove a old railway siding in the Pensfield area commencing from February 1990. The double track siding is providing us with approximately one kilometre of mostly 80lb, and some 60lb, rail which will greatly assist the future upgrading of our tramline. The sleepers, which are not suitable for re-use, are being sold to a local garden supplier. We are very fortunate that most of the work is being carried out during the week by our Community Service Order workers and their supervisor. Meanwhile, back on our line work continues on the packing, levelling and alignment of the track.

Getting Out

The Museum was featured in the first birthday edition of the "Getting Out" section of *The Advertiser* on Friday 16 February 1990. "Getting Out" is a liftout section of the Friday edition of *The Advertiser* and promotes recreation and leisure activities in South Australia. To capitalise on the article, the Museum opened on Saturday 17 February and Sunday 18 February between 10am and 5pm. Patronage was reasonable and the Saturday and very good on the Sunday, which was pleasing as February is normally one of our quieter months as the weather is often very hot. Fortunately the weather for the "Getting Out" weekend was rather pleasant. Additional cars were brought

Servicing of H1 type 381, the largest tram at St Kilda, is now made much easier by the length of the new pit. PAUL SHILLABEER

Restoration of C type 186 continues behind one of the stepped ends of the new workshop pit at St Kilda. The temporary car numbers used for its official launch in 1989 have been removed to enable further coats of tuscan red to be applied to the aprons and side panels. PAUL SHILLABEER

out for the occasion, dropcentre F1 type 282 being used as a mobile book shop and display at the beach terminus. Even partially restored 'toastrack' B type 42 was brought out of the workshop into the daylight to enable visitors to peer at tramcar restoration in progress.

Desert Gold 186

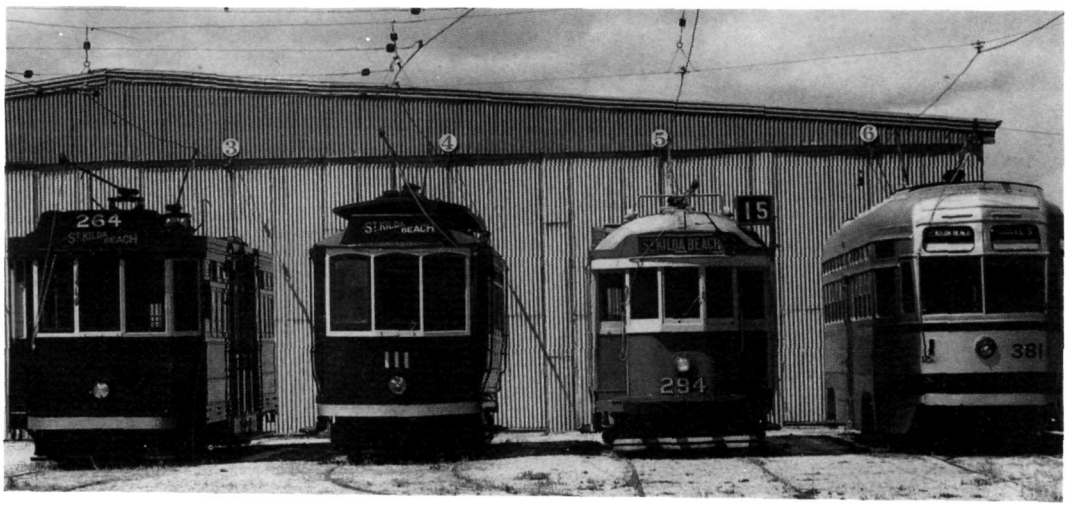
Restoration of our C type tram, Desert Gold No. 186, is nearing the final stages. Further coats of paint are being applied to the bulkheads and exterior panels. Brass work and signwriting are also being carried out.

Other News

Jim Burke is carrying out modifications and improvements to the landscaped area to the depot fan side of the Display Gallery. A rampway has been shortened, the surrounding area built up and a buffalo lawn established.

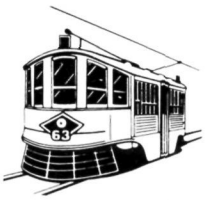
The old Welding Shop shed has been re-erected on a site between the rear of the Workshop and the front of the Bodyshop shed. The shed had been dismantled from its previous location a few years ago as this lay in the path of the new Bodyshop.

Kym Smith has repainted the exteriors of the Bouncing Billy Tea Rooms and the Substation in a similar colour scheme to the Display Gallery.



A scene at St Kilda Depot. Adelaide F1 type 264, E1 type 111, Melbourne W2 class 294 and Adelaide H1 type 381 pose in the sun outside the depot.

WHITEMAN PARK . . .



Perth Electric Tramway Society

Operations

A decline in patronage occurred during December, but cool weather in early January led to very good results.

On 13 January, heat caused the rails to buckle in two places on the curve just west of the Entrance points. Trams could still negotiate the curve at low speed and the problem was rectified the following day, with extra ballast added to improve anchorage.

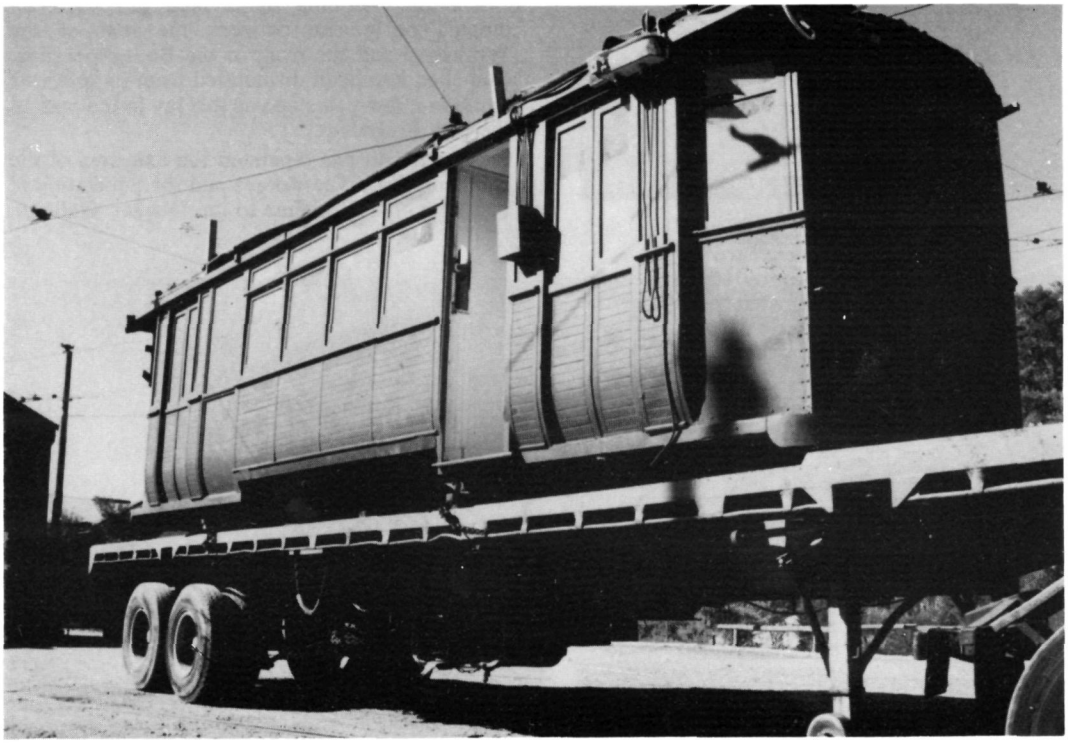
Operations were shut down for the month of February, as in 1989, to permit major works to be undertaken on track and overhead.

Commencing in March, the Adult Return fare was increased from $1.50 to $2.00; the Child Return remains at 50 cents. A return ticket entitles the holder to a total ride of some 6 km, with the trip broken as desired.

Track Upgrading

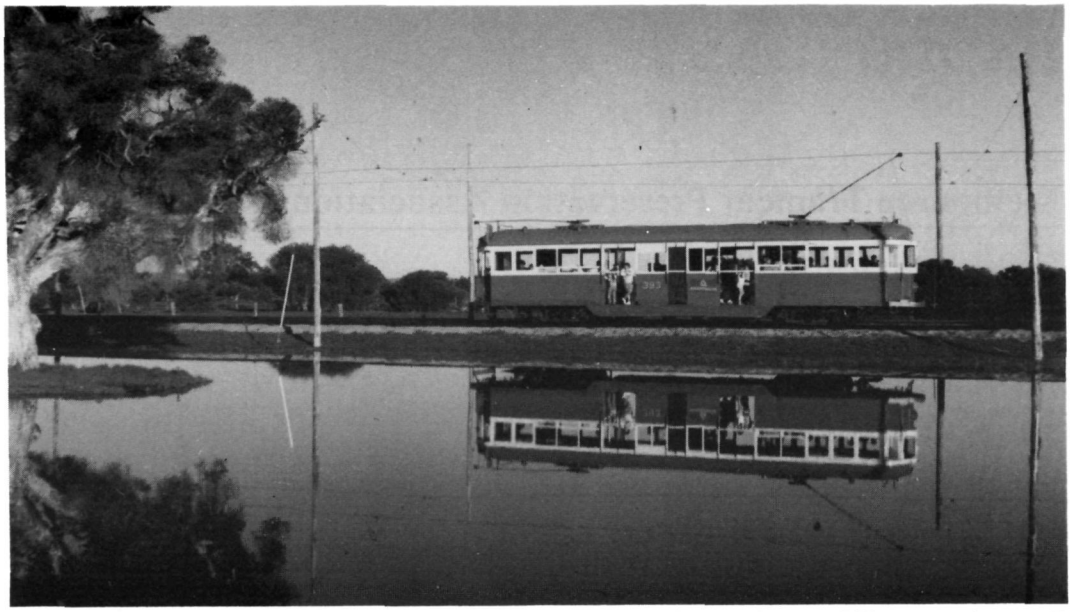
The track gang resumed work in January, replacing the wooden sleepers on two panels of track at the Village road-crossing with 20 new steel sleepers. This road-crossing is located at the southern end of the Village street, in which the entire track was relaid on steel sleepers in February 1989 (*TW* May 89).

After operations had ceased for Feburuary, the 550 metre section of track between Triangle North and the lower (original) road-crossing was dismantled and one-in-three sleepers replaced with first-grade new wooden sleepers. A total of



C61 arrives on the carbarn fan at Whiteman Park on 20 December 1989. The excellent condition of its exterior woodwork, windows and doors can be seen.

M. STUKELY



Late afternoon reflections at Whiteman Park — W2 class 393 passes the small lake at Triangle Junction as it returns to the Lord Street Entrance. M. STUKELY

180 new sleepers were used and 225 tonnes of roadbase was required to lift and repack the section.

Overhead

Good progress has been made by Duncan McVicar's team in re-designing and simplifying the wiring of the carbarn fan. This has become necessary as a result of numerous minor alterations made over the years, followed by major disruptions when the poles along the south side were relocated for construction of the new car-body storage shed.

The section insulators on roads 1 to 4 were repositioned at a uniform distance from the building, the carbarn wiring on roads 3 and 4 being re-tensioned at the same time. Several span-wires on the fan have been re-run and surplus pull-offs and bridle-wires removed. The two steel poles nearest the carbarn are now redundant.

A programme of mainline pole maintenance has been commenced by Kevin Parker's team. Poles between the fan and Triangle junction have been inspected and treated for termites, which have been particularly active along Swamp Straight. Several new poles will be needed here.

Fremantle 29

No. 29 had been wired for four-motor operation in anticipation of Melbourne No. 1 trucks being used. However, with Kagoshima 77E trucks now fitted, two-motor operation only will occur. Noel Blackmore modified the four-motor control circuit diagram to two-motor, using the standard GE JJ35 controller. This was successfully track-tested using W2 class 368 converted (temporarily) to full two-motor operation. The appropriate modifications were made to the wiring of 29, with excess cables being removed for re-use, and the cables were then secured in the saloon floor-ducts. Some final filling of gaps is required before the floor-ducts are closed, after which the installation of seats will begin.

Fitting of the air-tanks below the saloon floor was organised by 'Ric' Francis on 14 January.

Frank Damen has painstakingly fitted angled brass strips around the floor-hatches and their surrounds — and the result looks excellent.

Other News

The new fence on the south side of the enlarged compound adjacent to the carbarn was completed early in January.

Planning for a new maintenance area, which will incorporate a badly-needed pit, is reaching its final stages.

Noel Blackmore has obtained a steam-cleaning unit for the Museum.

HADDON . . .

Melbourne Tramcar Preservation Association

Substation

The second 25kVA isolating transformer was rewound during January at Arthur Ireland's workshop and has been transported back to Haddon. It is currently being reassembled for testing by John Withers. John is also manufacturing a solid state voltage regulator for our 24 volt substation battery charger, as the one currently built into this unit does not meet our requirements.

The new underground mains have been run along with the installation of altered switching facilities, and the State Electrical Authority has upgraded the supply transformer. Connection to this new supply is expected shortly.

Overhead Construction

Three new steel uprights were manufactured by Tony Smith and have been installed in the back wall of the running shed. These uprights are used for terminating the overhead wiring and to support the last bays of troughing.

During February the wiring was erected in the running shed and the section insulators mounted on a cross span immediately outside. The various feeder cables were also run and terminated. Work continued during February making up the various cross spans and pull-offs necessary to support the main line and depot network. The time spent overhauling the tower wagon has been justified as it is now in constant use and is performing faultlessly.

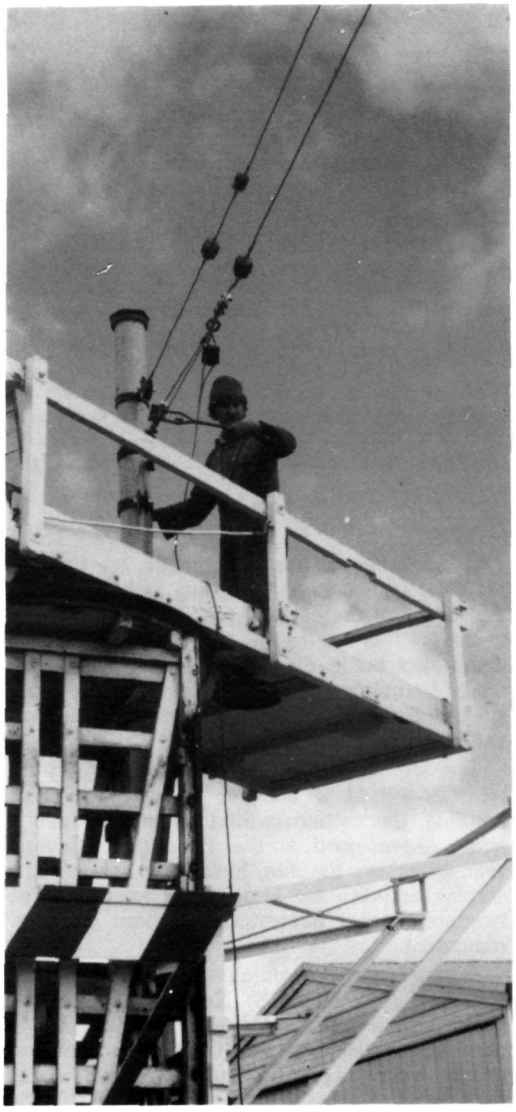
Already the span wires are in place and the main line contact wire has been run and tensioned, along with the top messenger wire for our catenary construction.

Work is now concentrating on the depot fan wiring, and manufacture and installation of droppers.

The bracket arm and ornate scroll work which had been overhauled previously has been fitted to the main line pole near the front of the running shed in preparation for the running of the feeder cable.

Restoration of W4 class 670

The internal lacquering of the saloon and dropcentre panels is now complete. The strap hanger brackets and rails have been refitted



General Manager Tony Smith tensions a cross span from the top of the Association's tower wagon. COLIN WITHINGTON

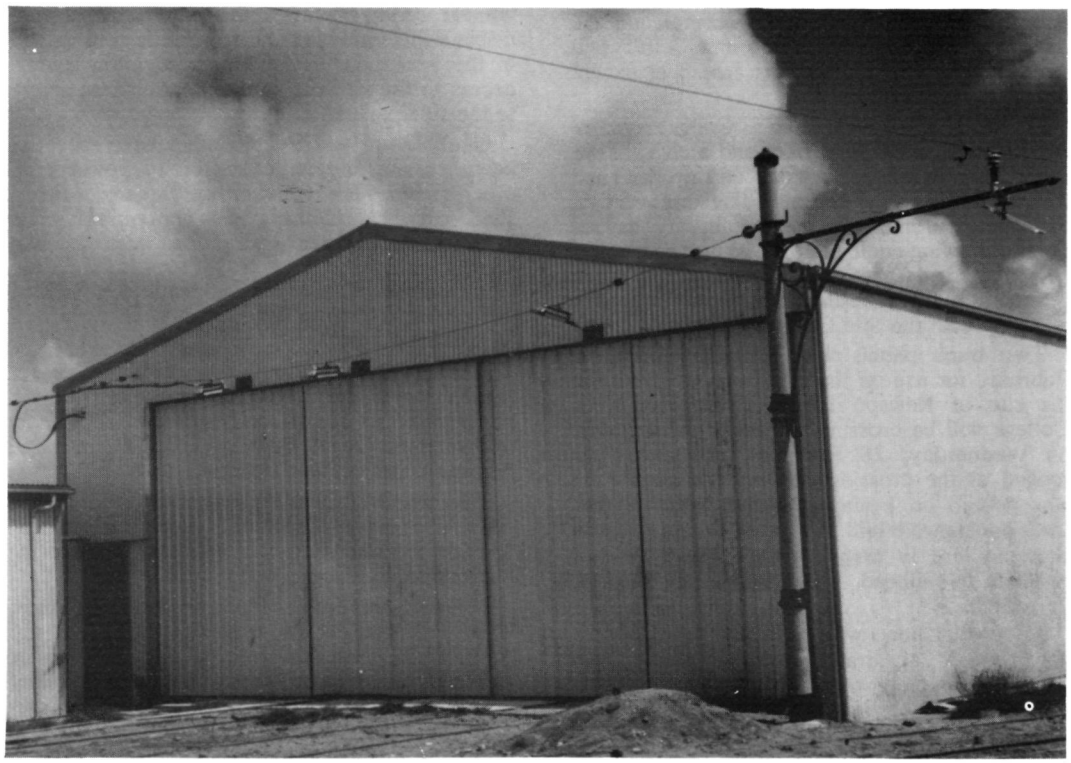
along with the saloon sliding doors. The saloon window sashes have had all the old paint and lacquer removed and are currently being repainted. The glass in these sashes was removed to allow new putty and beading to be fitted. The external window sills and pillars have received their final coat of cream and all panelling their first coat of green. The saloon and dropcentre floors have also been cleaned and painted.

Material Acquisitions

During December 1989, the Association was able to successfully negotiate the purchase of 150 used steel sleepers and fittings from the Public Transport Corporation. These steel sleepers have since been transported from the Ballarat goods yard, where they were stored, to the museum site utilising member Tony Smith's truck. They are in excellent condition and will only require one new fastening bolt hole to be drilled to re-gauge them for standard gauge track.

Member John Withers has kindly purchased and donated to the museum a complete set of 80lb pointwork for use at the south end terminus. This unit came from Cathkin on the now dismantled Mansfield branch line and are in perfect condition with little wear evident. In addition John has also donated a considerable quantity of fishplates and bolts of various types. The Association is most grateful to John for the practical and very heavy donation.

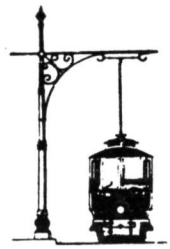
During February an additional nine ex-Adelaide steel poles were acquired and transported to the museum for use in the third and final stage of the main line.



View of the running shed showing the newly suspended section insulators prior to adjustment, and bracket arm with catenary messenger cable in place.

COLIN WITHINGTON

LOFTUS . . .



South Pacific Electric Railway

Works Report

Continued testing of our scissors crossover over a period of time has shown that the rails on the facing section of the crossover are too poor to take a mixture of wheel standards. Consequently, the decision was made by Mike Giddey and Brian Muston, who have been in charge of the project, to rebuild the defective sections as was done with other sections prior to the opening of the museum. While this will further set back the use of the second terminal track at the Railway Square waiting shed, it will avoid the inevitable problem of derailments in the future. Mike and Brian's proven expertise in the construction of special-work will ensure that once the reconstruction is complete, the crossover will be as good as new. Little will remain of the original scissors crossover except the four sets of points.

Construction of the TAFE College on the Sutherland side of Pitt Street and alongside our main line continues, with earthworks and roadworks being carried out. The discovery of damage to our main line on 11 February, caused by earthmoving equipment crossing the line, has necessitated inspections of the track each Saturday and Wednesday. The matter has been taken up with the Site Foreman.

Two track panels were constructed on 10 February for use on the main and loop lines at the site of Rawson Loop where the TAFE College will be crossing our track. After traffic on Wednesday, 28 February, the track was broken at the crossing site, the concrete base was poured on Friday 2 March and the new track panels were laid in position and secured on Saturday 3rd in preparation for the laying of concrete to railhead, which was carried out on 15 March.

In conjunction with this work was the construction of drainage from the college grounds under our track. This proved to be a somewhat troublesome job for the contractor who saw one pipe driven under our track at the incorrect angle (it ran uphill!), and the eventual digging of a deep trench into which some of our trackbed collapsed in the wet weather. Pipes were finally laid and Bob Cowing ensured that our track was reinstated to our satisfaction.

Norm Chinn has again been active in the painting department with new arrival R1 class 1933 receiving a repaint almost before the dust had settled. The car has been painted in two colour schemes which either had been planned or could have eventuated. These are, however, only protective coats until the opportunity arises to restore the car to traffic.

Good progress continues to be made on the restoration of R1 class 1971 by our contractor, Geoff Spalding, with assistance from Howard Clark. Work so far is concentrating on the roof which is nearing completion. Canvassing of the roof has commenced and the tongue and grooved interior ceiling lining and replacement of the fascia will follow. A major reshuffle took place in the workshop on 10 March to allow better access to the car and some attention was given to the side panels.

Geoff Olsen and Peter Hallen have recently been working on the extension of power and other services to the Railway Square waiting shed and the building trades apprentices have been continuing the restoration work as the weather permits.

30th Anniversary of the Last Bondi and Bronte Trams

A special operating day was held to commemorate the 30th anniversary of the last trams to Bondi and Bronte, and the last regular operation of the P class cars, on Sunday 25 February 1990.

This operation was in co-operation with the HCVA who provided buses which operated a frequent service between 10am and 5pm to Sutherland and Engadine.

Trams operated a basic 20 minute service with two cars being required on each trip between 11.20am and 3.40pm. Sydney cars P 1497, L/P 154 and R 1740 ran the service while O class 1111 was on display on the depot connection.

Our rostered staff was fortunately boosted by additional Operations staff who turned up for the occasion and at the peak time we had three drivers and four conductors in operation, plus additional display staff.

Museum members connect the track panel into the main line at the TAFE College level crossing. The panel for the loop lies to the right. NORM CHINN

WANTED!
MOVIES OF TRAMS — SYDNEY AND NEWCASTLE

The Sydney Tramway Museum is seeking to borrow movies of trams for use in forthcoming video productions. Films may be 8mm, 9.5mm or 16mm black-and-white or colour.

We are especially interested in lines closed before 1958.

Films borrowed will not be cut — all editing is done on videotape.

Please contact:

Dale Budd,
Sydney Tramway Museum Video Department,
PO Box E340, Queen Victoria Terrace,
Canberra ACT 2600

BYLANDS . . .

Tramway Museum Society of Victoria

General Manager Retires

As foreshadowed in November, Andrew Hall retired as General Manager at the end of January. As all our members and many readers will be aware, Andy has worked tirelessly for our Society and has been fearless in his pursuit of the Society's best interests. Some of the more notable advancements that Andy has been responsible for are:

* The restoration of W2 class 427 to W1 class by the Met's Preston Workshops.
* The arrival at our Museum of four works trams from the Met.
* The acquisition of SW2 class 644 on loan from the Met.
* The reconstruction of the track and the installation of the overhead, with the assistance of linesmen from the Met's Overhead Branch.
* The acquisition on loan of tower truck No. 17 from the PTC.
* Last, but by no means least, Andy negotiated the lease of the railway formation from McKerchers Road to Tootle Street on a nominal rental from the PTC.

Whilst Andy may have retired as General Manager, he will still be involved in many Society activities.

Andy desires to place on record his most sincere thanks to the following:

Messrs Norm Maddock, Kevin Shea, Les Jean and Max Mcdonald.

Andy has said on a number of occasions that "without the help of these four people, our society would not be as advanced as it is today".

Members' Meeting

At the February meeting, Mr Kevin Shea was unanimously elected an Honorary Life Member of the Society. After the business of the evening had been completed, members were well entertained by a selection of films from Charlie Huggard's collection, including footage of Pacific Electric's big red cars, Detroit Street Railways, and an Australia Day cavalcade in Melbourne.

Trams 427, 36, 16W, 509 and 644 on the new extension at Bylands. R. SCHOLTEN

Steve Altham (left), Peter and David Bardho and Andy Hall (right) resleeper the track beyond the wire. J. BOUNDS

Trams SW2 class 644, W2 class 509, Wheel transport car 16W, Ballarat 36 and W1 class 427 line up on the new extension at Bylands. R. SCHOLTEN

Trackwork

During December the recent extension to the Bylands running line was officially opened, the function being attended by local parliamentarians and the Minister for Transport. This addition means that there is now approximately a half-mile under wire, allowing our trams to have a decent run in full parallel.

Work continues steadily most Saturdays on the next half mile of track, with sleeper replacement and re-gauging being the major tasks. Works car 15W (ex-Q class 198) has proved a valuable asset as a sleeper and heavy tool transport. Geoff Dean (and helpers) continue erecting overhead, their latest achievement being the wiring of No. 5 road, which makes shunting at the depot much easier.

Car Restoration

Another dedicated band of workers has been busy returning W3 class 667 and W4 class 673 to their 1930s splendour, and these should be re-issued to traffic later this year. At Malvern depot, work parties have resumed every second Saturday for the conversion of M class 114 from SECV Bendigo (2nd) No. 3 to Hawthorn Tramways Trust No. 8.

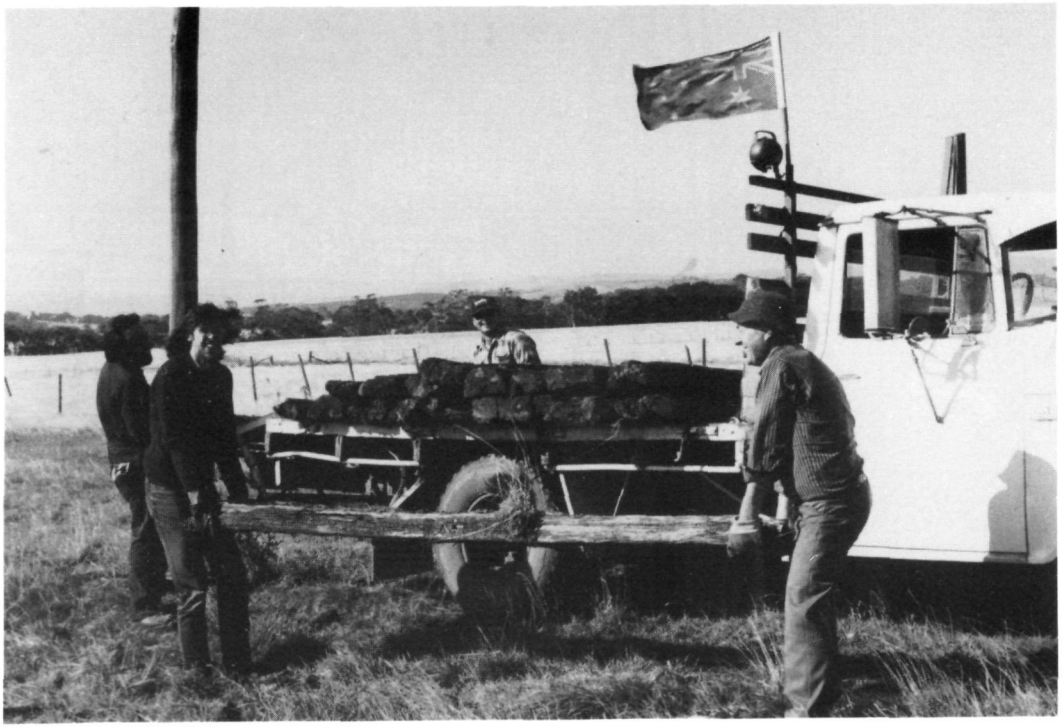
Public Relations

Recently a number of members, including Michael Norbury and Len Millar, have given talks to various community groups and clubs. The TMSV has been conducting this programme over several years, as it increases public awareness of our tramway heritage and the efforts of our Museum.

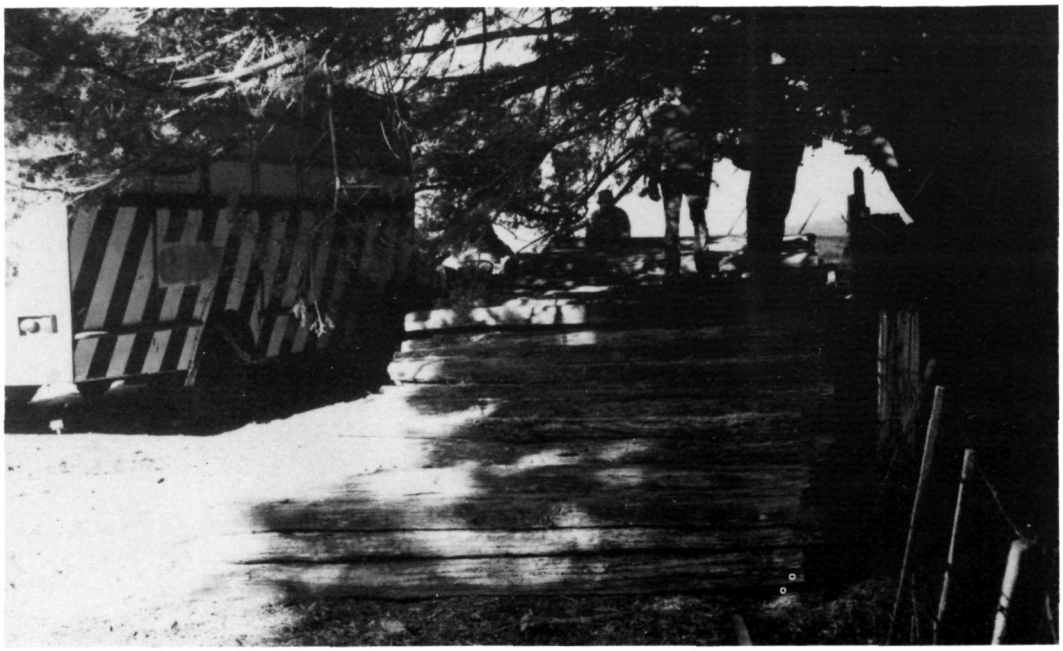
Early in April a film crew from TVT Hobart spent an afternoon shooting at both Kilmore and Bylands for a segment to be shown on the childrens' television show 'KTV', broadcast on the Nine network.

This years Moomba parade on Monday 12 March 1990 (Labour Day) saw for the first time the inclusion of the motorised cable tram set from Kilmore. Members were invited to participate by wearing period costume for the ride down Swanston Street — the first cable car to do so in 65 years! That afternoon the tram was made available for rides to the public on the Simpson Street siding.

Freight car 19W uses the new overhead wiring on depot road No. 5. J. BOUNDS



A work party at Bylands. (L–R) Peter Bardho, David Bowman, David Bardho and Bruce Bredin load old sleepers from beyond the current terminus. S. ALTHAM



This stack of old sleepers is to be sold for garden use. The old Ford works truck on the left is a former M&MTB austerity bus. S. ALTHAM

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