# THE JOURNAL OF

# THE LONDON UNDERGROUND RAILWAY SOCIETY

Issue No 151 Volume 13 No 7 July 1974
CONTROVERSEY OVER NEW LT CHAIRMAN

Sir Richard Way, the present Chairman of the London Transport Executive, has let it be known for some time that he did not wish to be reappointed when his present five-year contract expires at the end of 1974.

Accordingly, the Greater London Council has made a new appointment - Mr Kenneth Robinson, who has accepted the post for a term of four years at the present salary of £19,250 per annum.

Mr Robinson, who is 63 years of age, was the Minister of Health in the last Labour Government and has been the Managing Director, Personnel and Social Policy Division, British Steel Corporation, since 1972.

Not everyone, however, is satisfied with the new appointment, although nothing is implied against the new Chairman himself. Within a week of the announcement of his acceptance, an emergency motion was prepared to be put forward at the Annual Conference of the Transport Salaried Staffs Association at Eastbourne urging the retention of Sir Richard for a further term, and it was reported that the motion was supported by 11 of the 13 London Transport branches of the Association urges the Executive Committee to get the GLC to retain Sir Richard and "regrets that Sir Richard's appointment has not been renewed, particularly as he has shown his genuine concern for the wellbeing of public transport and those who serve the industry".

It is not known whether Sir Richard would be prepared to even reconsider his decision, let alone accept service for a further term, and in any case as the new incumbent has already been appointed, it could cause complications if he would, but the mere submission of the motion by the TSSA branches raised some interesting points which should, perhaps, be examined a little more closely.

In view of London Transport's continuing, and even worsening, staff problems, the fact that Mr Robinson has experience in the personnel field is a very valuable attribute

and because of the changing attitude throughout the metropolis towards public transport, his knowledge of social problems will also be put to good use. But is this enough?

Without in any way denigrating Mr Robinson's obviously high qualifications for the job, it is inevitable that, with a Labour Government in power, and a GLC that is Labour controlled, this will be seen as a political appointment by many people, which is not a good thing.

The question it raises is, assuming that Sir Richard Way would not take on a further term, would it not have been possible to have appointed as Chairman someone from the present Executive? Both the Underground and the Road Services of LT are going through a period of fairly rapid change and expansion now, and an intimate knowledge of the system as it stands, and of the plans now being put into effect, and others in the pipeline, would seem to be a very valuable asset to an incoming Chairman. Such detailed knowledge can only come from having worked up through the organisation – it cannot be picked up easily by someone coming from outside (although it must be admitted that an entirely fresh mind brought to bear on existing problems may well have advantages).

Is the appointment of an outsider an implied suggestion that the GLC does not consider anyone inside LT as suitable to head the Executive? If this is what they think, then many people would strongly disagree, for London Transport is very well served by its senior officers and Executive members, several of whom could fill the Chair with distinction.

It must not be forgotten, either, that some of the most successful periods in the history of the LTE and its predecessors have been when the leadership has been in the hands of someone with long experience of the organisation - and this is a time when success is needed badly, and in the changed public transport climate could be put to good and lasting use.

One thing is certain; whoever is in charge at 55 Broadway, something must be done to improve the service LT is now able to give to the public, and at the same time take advantage of the present favourable circumstances for pushing the claims of a public transport system against other projects for what funds are presently available for capital investment. To do this successfully strong political connections are an inestimable advantage, and it could well be that Kenneth Robinson could score his greatest triumphs in this sphere. There is plenty to work on, for we have heard a lot about the development of London transport systems in the past few

months - but have not seen any new financial commitments for quite a while.

# COMPUTER CONTROL FOR NORTHERN AND VICTORIA LINES

It was only in February 1974 that London Transport made public the news that they had installed an experimental computer-operated system at Watford on the Metropolitan Line. Details of this installation were given in the June issue of this Journal ("A Pilot Computer-Control Scheme on the Met" - pp 83-85), and at the end of that article it was said that it was obvious that, if the pilot scheme was a success, it would be extended.

In fact, even before the June issue was off the press, indirect evidence of success was to hand, for early in May LT announced a £300,000 order for computers and associated equipment to be developed for computerised railway control on the Northern and Victoria Lines.

The order is the first step in a £700,000 project which will improve services - particularly on the Northern Line - by making the best possible use of available staff and rolling stock. The system will also ease the load on traffic regulators and improve the availability of service information to local supervisors. The Executive predicts that, when the system is fully operational in the late 1970's, the improvement in service regularity and spacing of trains will be equivalent to running two additional trains in service on the Northern Line.

At a time of continuing staff shortage, the computer development is another step towards full automation on the Underground, and maintains LT's position in the forefront of railway control technology.

Two GEC 4080 computers, together with associated equipment from the GEC MARCH 4 series, have been ordered from GEC-General Signal Limited. The equipment will be installed during 1975 at the Euston control centre for the two Lines concerned, and control systems will be developed over a five-year period. One computer will be in use at a time; the second will be used for development work, programme testing and determination of the effect of exercising alternative control strategies upon the railway system, and will act as a standby in the event of a fault. The two machines will be interchangeable.

The installation will work through the existing centralised signalling system in association with more than 70 programme machines. It will be compatible with the future use of local computers if, as is hoped from the Watford experiments, these

eventually replace programme machines.

The computer will be programmed with train timetables and crew duty schedules, and in the early stages of development will act as an information bank. It will take over the logging of the movements of up to 140 trains and will be able to show selected current information about train and crew positions on visual display units in the control centre. This will relieve traffic regulating staff of part of their routine work.

Teleprinters linked to the computer will also be installed at depots and crew relief points on the two lines so that local supervisors will have, for the first time, instantaneous access to detailed service information throughout the line.

In subsequent stages, the computer will be programmed to take decisions, in accordance with a clear set of instructions, to regulate the service. With a continual watch over the whole line, the computer will be able to achieve a more even pattern of service than is at present possible.

The computer will also accumulate performance data which can be used for long-term planning; it will be able to control platform destination indicators, and will have the capacity to deal with a system of recorded messages for platform announcements.

The project is being financed by a Government research grant, and by the Greater London Council.

# ROLLING IN THE NEW BRIDGE AT NORTH HARROW - IN 1929!

#### D.F. Edwards

Way back in the days when North Harrow was a rising new suburb beyond Harrow, the local residents there formed themselves into an Association. They published a journal called "Excelsior" and in the issue dated (very precisely!) February 28th 1931, there is a description, with photographs, of the rebuilding of North Harrow station. There is also a picture of work in progress on the replacement of the railway bridge over Station Road. The work became necessary when the local authority decided to widen the street from 40 feet to 70 feet. At this time the road was only a short one leading to a T-junction. Today it is part of the busy through road to Rayners Lane.

"Operations for rolling out the old bridge and placing the new bridge commenced at 1 a.m. on the morning of November 17th 1929. As soon as the tracks had been broken the old bridge was jacked up on to trolleys and rolled out of the way. About 30 cubic yards of concrete had to be removed from the top of the old abutments and the bedstones removed, also about 20 cubic yards of ballast and bank. This work was commenced as soon as the old bridge had been rolled out, and continued until about 8 a.m., rock drills and hydraulic cartridges being used. The old concrete abutments proved to be more solid than was anticipated.

"The hauling in of the new bridge commenced at 3.10 a.m., and followed the breaking down of the tops of the old abutments, and soon after 8 a.m. the new bridge was in its proper alignment. At 9.35 a.m. the new bridge had been lowered to its final position and linked up, and at 11.25 a.m. the first down train passed over the new bridge. At 11.40 a.m. the first up train crossed the bridge".

The whole of the work was carried out by the Metropolitan's Engineer and Architect, Messrs E.A. Wilson and C.W. Clark. The contractors for the work were The Pitcher Construction Company, whilst the cutting away of the concrete on the old abutments was carried out by the Demolition and Construction Co. Limited.

TOPICAL NOT: the same magazine carried a complaint about the "disgraceful overcrowding on the up trains". The Association suggested that the Metropolitan could improve the position by "the addition of a coach or the substitution of a third class for a first class coach, which in the earlier trains, is superfluous".

## PLACES NEAR THE UNDERGROUND

### D.F. Croome

The pre-war twopenny Underground timetable booklets went out of their way to be helpful. Apart from the main timetables, there were lists of first and last trains, times to allow for crossing central London, coupons to send in for a season ticket quotation or for free maps and a page on "How to get the most out of this book". There was also a table of "Places near the Underground - How to reach some important places outside the Central Area of London by taking a bus, trolleybus or tram direct from an Underground station".

In the timetable valid from 17 July to 24 September 1939 this table listed 60 places, but two or more alternative routes were given for 13 places, so that the table covered 77 interchange stations and 80 routes. The maximum length of journey was 23 minutes by 141 bus from Edgware to Borehamwood, and the shortest

2 minutes from Hounslow East to Lampton (Bus 110, 110A, 110B).

The selection of places was curious. With all due respect to their residents, it is hard to find justification for calling Child's Hill or Corbets Tey "important", or Cowley, Cranford, Cranham, Highwood Hill, Lampton, Petersham, Roe Green or Stroud Green. Only ten places south of the Thames were listed; ex-Underground Group bias was shown in the listing of only three Metropolitan Line stations (although such is the density of Underground Lines north west of London, that it is difficult to find an "important" place on a bus feeder from a Met station that is not itself on another Underground line). There was also a pronounced pro-bus bias (or anti-tram/trolleybus bias!).

The heading to the table mentions that through road-rail ordinary or season tickets were available for some of the journeys, and this may partly account for the curious selection. It may also have been official policy to publicise places which would later be served direct by the railway extensions of the 1935/40 New Works Programme, such as Barnet, Perivale and Stratford, but it is difficult to account for five separate ways being given to reach Muswell Hill (Broadway or foot), including the direct bus 43 from Archway (called Highgate in this table, but Archway in the train tables) taking 11 minutes, and the indirect bus 102 from Archway taking 17 minutes. Other places with alternative routes, included the delightfully old-world "Weir Hall" (Edmonton, The Cambridge) with three routes.

The compiler seems to have a blind spot about the trunk trolleybus routes 629/641 (now bus 123) and 627/659/679 (now bus 259 and 279) as the traveller to Enfield was routed via Enfield West, to Winchmore Hill via Southgate, to Palmers Green via Arnos Grove, and to Edmonton via Arnos Grove or Turnpike Lane, instead of the simple ways via Wood Green for the first three and Manor House for the last. There was an extraordinary routeing to Cowley via Hillingdon by bus 220 (given on the contemporary bus map as operating a 60-minute frequency) when two more bus routes were available by changing at Uxbridge.

After the entry for Hendon "Bell" was Hendon "LMS", which suggests that the quicker way might have been from St Pancras "LMS" by train "LMS". Only one route used trams, that to Stratford via Bow Road.

Some of the routeings seemed to be deliberately circuitous, such as Weir Hall via Arnos Grove, or Muswell Hill via Bounds Green. If the table was designed to help the traveller from central London, surely only one route per place would have

sufficed, and space would have been released for some of the "important places" that were omitted, such as Alexandra Palace. Bethnal Green, Brixton, Camberwell, Greenwich, Raynes Park or Stamford Hill. Clearly, integration still had some way to go.

#### MODERNISATION AT BLACKFRIARS STATION

The flm reconstruction and modernisation of Blackfriars station (District and Circle Lines) commenced in April 1974.

Much of the work is being carried out to enable British Railways and King's College, Cambridge, to redevelop their properties, which are partly over the Underground station. The opportunity is also being taken to modernise other sections of the station, which is used by over eight million passengers a year, as part of London Transport's plan to up-date the Underground system generally.

The work includes reconstruction of the roof over the platforms and tracks at the east end of the station and also a 125 ft length of tunnel roof beyond.

The ticket hall will be completely remodelled to improve the layout and to enable a new short flight of stairs to be built to link with the new BR ticket hall in Queen Victoria Street; this will benefit the 700,000 season ticket holders and the many other passengers who interchange annually between the two stations. The work will take about 2 years, and part of the cost will be met by the developers.

# UNDERGROUND PROPOSALS in 1921

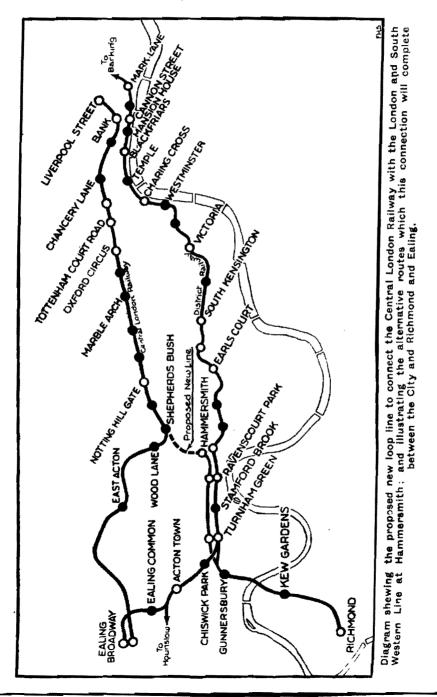
# H. Lourdes-Creswell

While researching other transport history, I came across a 1921 map of the proposed Central London branch to Richmond by means of a short tunnel from Shepherds Bush to the newly derelict London & South Western line north of Hammersmith and running beside the District Railway to Turnham Green.

It may be worth recording that the Westbound District platform at East Ham had at that time an enamelled Underground map which showed this extension as a blue (if I remember correctly) dotted line.

It is also of interest in showing only East Acton on the Ealing extension.

The second map is interesting in the proposed names of two stations on the Hampstead extension - WOODSTOCK and also HENDON (THE BURROUGHS).



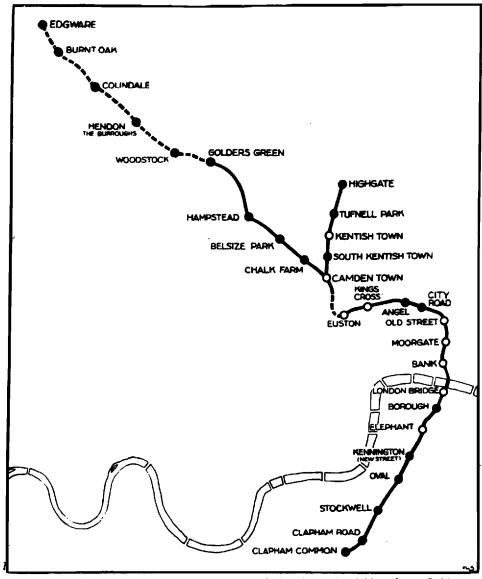


Diagram shewing the proposed extension of the Hampstead Line from Golders Green to Edgware: the proposed junction of the Hampstead Line with the City and South London Railway; and the resultant new through route from Edgware and Highgate to the City and the South of London. The City and South London Railway will be reconstructed throughout. (New constructions indicated by dotted lines.)

3rd May 1974

Dear Sir,

Mr Echlin's letter in the May Journal seems to me to be so riddled with muddled thinking and inaccurate statements that it is difficult to know where to start to reply to him.

# Firstly the inaccuracies :-

- 1. No R49 cars have been scrapped. The only cars of R stock to be withdrawn are twenty-one No 2 R47.
- 2. There was no such thing as East London Line COP stock. The trains of CO/CP stock which operated the East London Line service were part of the District Fleet and when displaced helped to increase the float of stock on the hard-pressed District.
- 3. The only CO/CP stock to have been scrapped are a few motor cars beyond economical repair and the trailers rendered surplus by the "7-car programme".
- 4. The station maps, and now the car route diagrams, show the East London line in a distinctive way.

# Secondly, I will try to deal with his misconceptions.

- 1. LT does keep as many cars in service and trains as long as possible, but with more than one type of stock on the District and the uncoupling in the off-peak hours it meant that any disruption prevented all the 2-car portions from coupling to 6-car trains of the same stock, with the result that 6-car trains ran in the peaks while many 2-car units stood idle. Eight-car District trains need extra care by platform staff (of which there is a shortage) at catwalks and to make all trains into 7-cars obviated this as well as not requiring the provision of shunting crews used to form up the 8-car peak-hour trains.
- 2. The reference to wheel cracks is irrelevant this has caused a temporary withdrawal of stock, and would still be with us, in proportion, whatever the length of train.
- 3. I can't imagine a "prominent staff member" saying that it was L.T. policy to get 8-car trains. When I was Line Engineer (Central) I said to the Society that the ideal line to run from a rolling stock maintenance standpoint was the Central with trains composed of two identical

4-car units, but no one, I am sure, would say that it was policy to have all trains of eight cars. Indeed, the new Piccadilly Line trains will have only six.

- 4. Those of us who can remember the Central Line platform lengthening scheme before the war would observe that it takes several years of inconvenience during reconstruction before the travelling is improved if, in fact, it is.
- 5. Mr Echlin thinks the scrapping of 1938 stock "premature" and "a waste of public money". Perhaps he would like to face the residents of the Barnet area and defend his statements. Any rolling stock can be made to run almost indefinitely, providing the customer is ready to accept the rapidly increasing maintenance costs as the stock ages (and providing one had the staff to do all the extra work). One has only to compare the failure rates of the CO/CP and C69 stocks on the Hammersmith and Circle to realise that there comes a time to replace ageing stocks, however much one sentimentalises about them.
- 6. Mr Echlin assumes that the next stock on the East London Line will be the R stock. I am prepared to wager that whatever it is, it will not be that!

I am afraid I have no knowledge of the track raising costs but I shudder at the thought of the cost of returning the withdrawn District stock to service.

The number of units surplus to timetable requirements varies from stock to stock and from line to line for good reason, and I hesitate to take up further of your space because I fear Mr Echlin will "see a little, presume a lot, and jump to conclusions".

Yours faithfully

Acton Works 130 Bollo Lane, Acton, London, W3 8BZ H.Clarke Divisional Engineer 'A' (Railways) London Transport

6/6/74

Dear Peter,

I recently came across an old advert for a game called L.U.T., which consisted of a board with mounted map of the London Underground, playing pieces in form of miniature Underground carriages, playing cards in form of station and

journey cards.

The firm Benco Novelties Ltd are not at the address on the advert (in fact the present tenant has been there for ages) so presum they no longer exist.

I wondered if any member has one of these old games and would be willing to lend it to me for a few days.

Yours sincerely

40 Kings Road, Chalfont St.Giles, Bucks A.D. Platzer

#### REVIEWS

# Exhibitions

Model Railway Club Exhibition; Central Hall, Westminster; 16th-20th April 1974.

Compared with previous Central Hall exhibitions, this one reached the all-time low, but there was more to interest the Underground enthusiast.

On the models side there was a collection of Metropolitan Railway Wagons and Vans, an L.T. Battery Loco, and a C.L.R. Electric Loco all in 'S' gauge made by Alan Cruikshank.

At rhe Model Aeronautical Press stand was Frank Briggs, a very early member of the Society, and on show there was a painting in oils by Stewart Hine of Ealing Common Depot in modern times, valued at £25.

Perhaps at last more railway modellers realise that a railway system runs under London and is worth modelling.

Art in Transport; Guildhall Art Gallery, London; from 8th to 25th May 1974; presented by the Transport Trust, Hick Hargreaves and Co Limited and IPC Transport Press Limited.

An unusual and attractive exhibition of paintings, prints and engineering drawings from the beginning of the industrial revolution to the present day. One of the main features is a selection of Hick Hargreaves' drawings of locomotives built by the company's predecessors and dating from the 1840s; these have been taken from a very large and valuable collection of

drawings which have recently been presented to the Trust's Library by the company, and they are works of art in themselves. Needless to say, all forms of transport were well represented, as were most of the famous transport and marine artists. Not many of the exhibits were of direct Underground interest, but two of the famous Metropolitan prints were on show together with a selection of London Transport posters, and there was a most unusual and evocative painting by Alan Denley entitled "Shadwell Station, Underground" showing an F stock train disappearing out of the station. Many of the exhibits were from private or company collections and so are not usually available for public viewing, so the exhibition provided a valuable opportunity to see some rarities.

Early Railway Prints from the Collection of Mr and Mrs M.G. Powell; Victoria and Albert Museum, South Kensington, London; 16th May-22nd September 1974; admission free.

This is not only a very attractive exhibition, it is also a very important one. It comprises an excellent selection from the Powell Collection of railway prints, some of them well-known from reproductions in books and magazines, others quite unknown - and it is particularly interesting and instructive to discover how much more appealing are the familiar prints when seen in the original.

Anyone interested in the early history of railways ought to take the trouble to go along for an hour or so; there are a number of exhibits depicting London railways, although not very many directly concerned with the Underground. The two famous and oft-reproduced chromolithographs of the Metropolitan, Baker Street Station and the junction at Praed Street respectively, produced by Kell Bros are there, and a very interesting "View of the Entrance to the East India Docks with Proposed East London Railway" by S. Hemming is worth mentioning; this last is undated but appears to have been produced shortly after the opening of the Docks in 1806, a supposition lent credence by the fact that the trains shown on the proposed railway are horse drawn.

Other London exhibits worthy of attention are "Eastern Counties Railway - Stratford Viaduct and Bridge over the River Lea" by George Harley, which shows a windmill in the background; "Le Roi a la station de New-Cross" by E.H.T. Pingnet, commemorating the visit to London of King Louis Phillipe of France and showing considerable detail of both

station and train; three excellent prints of the London and Greenwich, and a rather crude view of Prossers Patent Guide Wheel Carriages being demonstrated on the (wooden-railed) tracks laid on Wimbledon Common in 1845.

The majority of the prints have very considerable artistic merit, but one artist stands out clearly above the others - John Cooke Bourne, and of all the exhibits the finest from an aesthetic point of view is Bourne's "London and Birmingham Railway: Camden Town Depot", a hand-coloured lithograph taken from 'Drawings of the London and Birmingham Railway" published in 1839, and it is closely followed by his "London and Birmingham Railway: Camden Town Fixed Engine Station".

There is an excellent booklet published by the Museum in conjunction with the exhibition; while it is not a complete catalogue, it contains reproductions in black and white of many of the exhibits in its 88 pages, together with a useful outline of the subject in the text. Written by Michael Darby, it costs 65p.

#### NEWS FLASHES

- 1339 During December 1973 Bakerloo Line passengers began to need some athletic ability to alight from northbound trains at Queensbury, as the south end of the platform accelerated its long-established drift down the platform and consequently away from the track. By April 1974 it was completely rebuilt, trains meanwhile depositing passengers on the remaining useable portion. Incidentally, although irrelevantly, the Queensbury platforms straddle the Harrow/Brent boundary.
- 1340 A train of 1972 Mk II tube stock was noted in the sidings at Hainault on Saturday 25-5-74.
- 1341 LT are arranging further visits behind the scenes for the general public this year; these will take place during the period July-September, minimum age for visitors will be 15, and among the places being opened to inspection are Acton Works, Neasden and Ruislip Depots, Northumberland Park Depot and the Research Lab.
- 1342 The City and South London 'Padded cell' car, which has for so long been an exhibit at the old York Railway Museum (which closed 31-12-1973) is shortly to be returned to London Transport, and will go to the Collection at Syon Park.
- 1343 During January 1974 a notice appeared at Queensbury station which, although it would probably have been quite clear

in the 1930's, may well have been confusing to present-day passengers - "You may buy your ticket either side of the passimeter".

1344 As from March 1974, all Go-As-You-Please tickets have been available from every Underground station from which they can be used, except annual tickets, which must still be obtained from 55 Broadway. Tickets for the shorter periods are still available from Enquiry Offices as before.

1345 Spouses of LT bus staff have free travel on buses and the Inderground from 1-4-1974; the identity cards carry photographs.

1346 There are plans for the construction of two tower office blocks over Wimbledon station, but it is not known whether office development permits have been granted yet. If so, the buildings are expected to be ready for occupation in June 1978.

1347 A special train was being run on Saturday 30-6-1974 to take the District Line's Eastern Section members to their Sports Gala at Acton.

1348 Recently, Brook Street Bureau have published advertisements in the London evening papers consisting of 25 small street plans showing some of the branches of their employment agency in relation to Underground stations. Quite useful for locating stations to people other than job seekers, each plan has the name of the station above it, and they are arranged alphabetically from Aldgate to Victoria.

1349 Press revelations made during the past year of the activities of the Russian secret police, the KGB, indicate that among other plans under discussion has been the sabotage of the London Underground. Welcome to the Bombshoi?

1350 A report on public transport in Edinburgh favours the restoration of the transvay system on both economic and environmental grounds.

1351 The other side of the coin - Copenhagen is reported as bitterly regretting the abolition of its trams a year or so ago as four buses now carry the passengers formerly carried by one tram, journey times are longer, and the buses are less comfortable.

#### SOCIETY NOTICES

Past President Charles E. Lee is to be awarded the degree of Honorary Master of Arts by the University of Kent at Canterbury at its Congregation on 13-7-1974. We congratulate Mr Lee, who is very well known to our members for his books and articles, lectures and talks on railway history, and is a former Associate Editor of the Railway Magazine.

Vice President Sir John Betjeman has supplied us with the exception which proves the rule. Having stated in the June 'Underground' that LT never grant cab passes, we now have to report that Sir John, who has long been a devotee of the Metropolitan in particular and railways in general, has recently been given a cab ride on the Circle Line through the good offices of Sir Sidney Green, General Secretary of the National Union of Railwaymen and Sir Richard Way, Chairman of LT. Sir John rode in the cab of a C69 stock train from Sloane Square to Euston Square, and was then shown the Coburg Street Control Room and given another cab ride on the Victoria Line.

Journal Corrections There were a number of printing errors in the June issue of the Journal, and these should be corrected as follows:

- p.88, line 1 of (iii) "Regional" should read "Region".
- /p.90, line 8 of "Memoirs of a Met Commuter", "line" should read "lines"
- /p.91, 3rd line from bottom, "black" should be "blank"
- / p.92, last para. and p.93, first para, should be deleted as it is a duplication of material appearing above on p.92.
- p.95, line 8 of last para. "full" should read "dull"

#### THE TIMETABLE

19.00 for 19.15 Friday 12th July at LT's White City Training Centre, Wood Lane. An Illustrated Talk entitled "Maintenance of Way and Works" will be given by Mr B.O. Buglear, Civil Engineer (Maintenance), London Transport. This is an interesting and important subject, not previously covered at a Society meeting, and the speaker is an expert.

Saturday 17th August Visit to Liverpool Street station, London Transport; a very interesting station historically. Names for this visit to be sent to G.P. Jasieniecki, 6 Redcliffe Street, London SW10 9DS, accompanied by a first-class stamped addressed envelope.

#### OTHER EVENTS

10.00-17.00 Saturday 6th July British Railways Open Day at Brighton Station; an old Waterloo & City car will be on show.

Printed by Matain Limited, 10/11, Station Buildings, New Bridge Street, E.C.4. Published by TLURS, 62 Billet Lane, Hornchurch, Essex, RM11 1XA.