

# UNDERGROUND NEWS

No 163

Early August 1975

THE TIMETABLE

Friday 8 Aug. Natter & Noggin meeting at The Builders PH (Saloon)in Angel Walk (off King St) Hammersmith 19.00 for 19.15, All welcome!

Sunday 10 Aug. Crystal Palace 'dig' for lost railway, 10.30 Thicket Rd Car Park (for details see page 94).

Friday 15 August. Further Natter & Noggin at The Builders public house-specifically for those who missed the first one, but actually for those who enjoyed the first one and wanted a repeat performance. Details as for Friday 8 August.

Monday 25 August Horsham Lions Club Vintage Transport Rally, our Society will be having a sales stand at this event which commences at 13.00 in Horsham Park.

Friday 12 September. A talk entitled 'Operating London's Underground' will be given by Mr C H J Cope who is Assistant Chief Operating Manager (Railways) at London Transport. This talk which promises to be extremely interesting will be given at Hammersmith Town Hall, 19.00 for 19.15.

Saturday 20 September. A study tour of the Hainault Loop will be led by our past president Mr H W Paar, details to follow.

EDITORS NOTE- It is very much hoped that the printing difficulties which have manifested themselves over the last few months, with the publication delays they have caused, will be partly resolved soon. The Society apologises for the recent irregularities and hopes that the efforts to try and keep the information up to date has at least partly weighted against any inconvenience caused.

#### FARES UNFAIR ?

During April, London Transport published its Annual Report, entitled 'London Transport in 1974'. One of the main points, on which great store was put, was that it was thought that 1974 was a year of great change for LT, and the report gives the reasons behind this thinking as being,

1. having to submit to heavy inflation,

2. as a result of the 'oil crisis' having to pay greatly more for fuel,

3. having to very considerably increase staff pay to try and reach the staff establishment figure,

4. not being able to increase fares due to GLC 'fares freeze'.

LT maintain that for these reasons they made a £33 million loss during the year and this was offset by a GLC grant of £23.6 million and a 'caary-forward' of the £10 million LT made in 1973. LT also point out that they only made a profit in 1973 because they were extremely short of staff and were unable, therefore, to maintain the full scheduled services.

LT say they managed to operate 89% of their total scheduled mileage in 1974, although they point out, the schedules had already been cut on most lines by 7½% (even more on the Central and Bakerloo Lines). It is also pointed out why the Victoria Line services were scarcely affected and that although the staff situation was improving by the end of the year, it was still necessary to cut services back further on Saturdays, from October, on most lines.

[Copies of the report, price 50p, should be considered a necessity by all people interested in London Transport and provide an illustrated and colourful record of LT's activities in years to come. Obtainable from the Society through its sales service - see last Underground News I

As a result of LT's poor financial performance during the year, the GLC finally abandoned its unfortunate controlling (and politically-motivated) financial policy and gave leave for LT to raise its fares in March 1975. LT had maintained all along that it would have to raise its fares (last done in mid-1972) but the GLC refused to accept this point of view and were very likely misled by the misleading profit that was forthcoming in 1973, in spite of the warning

issued about it by LT.

Because of the unfortunate financial situation LT is in, and because the GLC heeded not Sir Richard Way's frequent warnings about running a railway in 1974 at 1972 prices, and because LT must show a profit, and because even the GLC has stopped short at the sight of a £100 million rates subsidy to act as a keep-fares-down grant, it is now necessary to completely catch up with the correct fares and bring them into line with where they ought to be in relation to costs. This requires fare increases totalling about 120%, a phenomenal increase. The increases are to be spread over about fifteen months, and the increase of about 30% in March this year was the first of these; the next is due in November and the third in June next year.

To have these huge increases spread over such a short time will hit Londoners hard, and only shows up the inevitable consequences of political interference. In fact this is precisely the reverse of the so-called 'free fares' policy, an impracticable (though assumedly vote-catching) policy adopted by the present Council shortly before the last election. Furthermore, it is going to cause a significant drop in public transport usage for some while - a feature which is

most undesirable at this time.

There is little doubt that public transport users have suffered particularly badly over the last year or so, firstly with very poor service and reliability levels due to 'the staff shortage', and now with vast fare rises. It is to be hoped that there will be considerable improvements in service and relia-

bility (and comfort), so that passengers may imagine they once again are getting

value for money; this seems unlikely though.

Regarding the previous increase, London Transport reports '....while traffic loss on buses is about 3% less than expected, traffic loss on the Underground is about 4% more than expected. In view of the problems we continue to face in running reliable bus services and of the improvement in the staff situation on the Underground, this tendency to switch is not one which, in the overall interests of our passengers, we wish to encourage'. In view of the foregoing it is interesting to note that whilst Underground fares are to go up by roundly 28%, bus fares are to rise by only 24%. Details of the proposed November increase (now approved by the GLC) follow; one of the most outstanding features of the scheme is the 10p minimum fare, which should drive even more people on to the unreliable buses.

all CTT apro-	babob.				
Fare	OUTER ZONE	(miles)	Fare	INNER ZONE	(miles)
(p)	Present distance	Proposed distance	(p)	Present distance	Proposed distance
5 10 15 20 25 30 35 40 45 50 55 60 *70 *80	0.8 1.8 4.0 6.5 9.0 11.5 14.0 18.0 21.0 24.0 27.0 over 27	no fare 1.5 2.5 4.0 6.0 8.0 10.0 12.0 14.0 18.0 no fare 22.0 27.0 over 27	5 10 15 20 25 30 35 40 45 50 55 60 *70 *80	0.8 1.6 2.8 5.4 7.5 10.0 12.5 16.0 19.0 22.0 25.0 over 25	no fare 1.5 2.3 3.0 4.0 6.0 8.0 10.0 12.0 16.0 no fare 20.0 25.0 over 25
-					

\*New Fares

Return Fares remain at double the single fare

Cheap Day leturn Tickets would be issued as at present but only for journeys where the single fare is 25p or more.

Season Tickets would rise between 30 and 40%.

Platform tickets will increase from 4p to 5p.

Red Bus Passes will rise from £6 to £7.50 per month and £60 to £75 per year; the 'extension' to a rail-season will be increased as follows

	present £	proposed £	
Monthly	4.00 (9.00)	5.00 (11.00)	The figures in brackets show the
	10.80 (25.0)	13.85 (31.00)	minimum total charge for the
	39.00 (90.0)	51.00 (117.0)	respective type of ticket.

Go-As-You-Please Tickets The four- and seven-day tickets would rise from £4.00 and £5.30 to £5.25 and £6.95, and the Monthly and Annual tickets from £17.00 and £170 to £22.00 and £220 respectively.

Bus Fares Most fares would be increased and the maximum fare reverts to 20p; the Off-Peak maximum would rise to 16p.

The increases are subject to approval by various statutory bodies in addition to the Greater London Council, before implementation.

The 1973 tube stock cars are not dissimilar in appearance to previous stock, and the equipment provided is also largely similar though there are many new innovations and improvements.

The stock had a complicated political pre-history, but emerged solidly with the Heathrow extension scheme. At that time it was proposed to fit luggage shelves near some doors for airport baggage, but subsequently this idea was dropped in favour of the 'large stand-back' principle between the door openings

and draught screens.

In order to accommodate Automatic Train or One Man operation, it was decided to adopt a slightly shorter train, of 350ft. Because of the desirability of having inter-changeable units the trains were arranged to comprise two 3-car units, and it was felt that each car could be made slightly longer than hitherto. Hence the 1973 stock trains consist of six cars of 58ft 6in length instead of 7 cars 52ft 6in length. The extra six feet is largely incorporated in the increased door stand-back space and at the end of the cars, which have to be slightly tapered to negotiate curves. The total seating capacity is thereby reduced by 24 to 264, but standing room is considerably increased.

The new cars are about the same weight as other recent, e.g. 1972, stock even though they are longer, thus a new train will weigh one car less than an old one. The trains are capable of an acceleration of 2.6 mph per second, but they will be used at a rate of 1.8 mph per sec, at least for the present. Their maximum speed is given as 60 mph. Type LT118 300V motors are provided, permanently connected in series pairs, four motors on each of the four motor cars per train. The train is capable of developing over 2000 hp, but the con-

tinuous rating is 1056 hp.

The usual braking system has been abandoned in favour of the Westcode system. In this system the train-line pipe is replaced by an electrical circuit which is fail-safe. All fail-safe devices, including trip-cock and other emergency fittings, are connected into the circuit and their operation breaks it, causing an emergency brake application. The motorman or train operator may cut-out the safety circuit, but should he do so the train cannot be moved at more than 10 mph.

The braking instruction is tranmitted down the train through three code wires which are all normally de-energized. The degree of braking required is ascertained by a seven-step relay valve which decodes the braking instructions into one of a range of seven set pressures which would be fed to the cylinders.

The three code wires are called A, B and C and the code used is as follows,

Brake pressure units

Control wire(s) de-energized

off & Rel	ease	all energized					
1	est to increased of.			A		29	
2				B			
3			A	80	B.		
1				C	*****		
5			A	80	C		
6			B	80	C		
7 (e	emergency)		3 1	В	&	C	

The LT system as used differs (as might be expected) slightly from the original Westcode concept in that the three code-wires are normally DE-ENERGIZED, and the code is inverted (i.e. code-wires made normally ENERGIZED) on each car, before code is fed to the seven-step relay. Also, the motorman is not provided with means of using steps 1 and 2 which are considered to be too low a value to be of use.

Two wires run down the train in addition to the code wires and 'fail-safe' loop, namely the 'Full Speed' and '10 mph' safety-wires. These should normally be energized, and their de-energization causes the three code-wires on each car to be interrupted at a point between the code-inverter and the seven-stop relay giving it an A-B-G code which causes an emergency application of brakes. The reason for operating the code-wires in the normally de-energized mode, and for the safety-wires, is that it allows the train to be moved easily after a failure, albeit slowly (10 mph) and with the emergency brake position only.

Each car is fitted with a load-weigh system which permits a higher airbrake pressure if the car is loaded. This is intended to provide more even bra-

king throughout the train and under adverse loading conditions.

There are two other novel features of this stock; one is the 'fault-annunciator' which gives a visual indication of a fault, what sort of fault it is and also which car it has occurred on. The device is fitted in driving cabs. The other feature is the door mechanisms which are quite different in operation from previous types. The basic two-cylinder differential pressure concept is retained, but it is arranged quite differently and operates a centrally-pivot-ted arm, each end of which is connected to a door leaf. By this means one mechanism operates two door leaves, but the leaves are in adjacent doorways rather than the same one, allowing the use of three mechanisms per side instead of the usual six. Since the driving cab is provided with an air-operated sliding door, the nearest passenger door will obviously have to have its own mechanism since the cab door is under the independent control of the Motorman or Guard (who will ride in the rear cab).

### LETTER TO THE EDITOR

Sir,

# Underground News - No 161 May 1975

I was sorry to see on page 64 of this issue, the suggestion that the lack of destination plates on the trains running between Wimbledon, Putney Bridge and Moorgate on the occasion of the football matches on the 3rd May, provided evidence of how London Transport's standards have declined in recent years, since it is alleged that in times gone by it would have been unthinkable to have run any train without the proper destination board. The reason for this is that up until a few years ago, all trains carried destination plates and it was usually possible to borrow plates from one depot to send to another, if trains which did not normally run to the destination concerned were booked for special services.

Since the withdrawal of the CO/CP stock from the Hammersmith & City and Circle services and from the Metropolitan Main Line, no trains requiring destination plates normally run to Farringdon, Moorgate or Aldgate. The only stocks normally terminating at these stations are C69 stock and 'A' stock, and these are fitted with roller blinds, as you know. Thus all the destination plates for these stations have been withdrawn and the majority have, in fact, now found their way into collectors' possession, having been sold off at various Open Days and so on, and it was not possible, therefore, to provide destination plates as it was years ago.

You may be interested to know that the roller blinds for the 'C' stock have more than 50 different indications on them and, in fact, we have been considering how many of those on the Met Main Line can be eliminated in order to provide additional space, without making the roll too fat, for the additional destinations which will become necessary when 'C' stock eventually takes over

the Edgware load to Putney Bridge and Wimbledon services.

I should also like to comment on the remarks concerning No Smoking notices

on page 63. The strange action, as you call it, of removing the usual red ring surrounding the 'No Smoking' bar arose from a decision not to use the London Transport roundel in future for conveying information, and you may well have noticed that the only exception to this is station nameplates. Normally the roundel Wite be unte

now consists of a plain red (or, on buses, a plain white) design.

The plain blue bar is certainly less conspicuous than the old notice, and the new 'No Smoking' pictogram with the crossed-out cigarette on it is, in fact, a version of the standard UIC pictogram for this purpose. Perhaps the positioning could be improved and we are looking at this, but I am sure that members of our Society must be aware that, as private car ownership has increased, optional travel by local residents on London Transport services has decreased and been replaced, we are glad to say, very largely with optional travel by foreign tourists. I would have thought, therefore, that it was entirely correct that a move towards the adoption of the standard pictograms originally developed by the UIC (International Union of Railways) and subsequently taken up by the ISO, and used extensively in airports, and beginning to spread to public buildings throughout the world, should take place.

Anybody who has seen the full range of pictogram signing as used, for example, on the Netherlands Railways, could not be in any doubt that it is extremely clear and that, without having to read anything, any passenger would

know exactly what to do in all the various circumstances.

Acton Works 6 June 1975

Yours faithfully G H Hafter Rolling Stock Engineer (Railways)

## IMPORTANT ADDRESSES

It was a habit in past years to publish names and addresses of Society officers once a year together with the Index to the Journal. This was essentially a space-filling device and, as it happened, there was no room to include the list in the last Index published, that to Volume XII. The Index to Volume XIII is in preparation, but it is felt that some of the more important addresses could usefully be publicized now and these are given below. Members are asked to address their correspondence to the appropriate person both to ensure that there is no unnecessary delay in replying, and to avoid Society funds being further dissipated in forwarding wrongly-addressed mail. Where appropriate, the inclusion of a stamped, addressed envelope for a reply would be greatly appreciated.

Changes of address and enquiries regarding non-receipt of complete issues of Underground News or UndergrounD should be sent to S E Jones, 113 Wandle Road Morden Surrey SM4 6AD

Requests for individual replacement pages of Underground News should go to G Jasieniecki, 6 Redcliffe Street London SW10 9DS

All other matters concerning anything about either Underground News or UndergrounD should be addressed to The Editor, 33 West Avenue Hendon London NW4 2LL

Orders for books and other material as advertized from time to time will be dealt with by the Assistant Sales Manager at 21 Chestnut Grove South Ealing London W5 4JT

Details of forthcoming exhibitions at which we could exhibit will be welcomed by T A Haynes, 167 Albany Road Camberwell London SE5 OBG

All other correspondence should be addressed to the Secretary at 117 Wandla Rand Mandan Surrey SMA 6AD

EXHIBITION REVIEWS

It will have been noted that with this issue of Underground News is included a copy of a brochure expounding the virtues of the British Railways Board's proposal on the rebuilding of Liverpool Street Station. The brochure puts forward the Board's case very lucidly and the proposal (at least) leaves no stones unturned.

The brochure was issued in connection with an Exhibition held at Liverpool Street Station recently at which a reasonably impressive display was mounted about the scheme. As will be seen from the brochure, the scheme involves the complete demolition of the existing station at Broad Street and the conglomeration at Liverpool Street. The unsightly viaduct north of Broad Street would also go and the North London Line services diverted through a new station at Dalston and a new connection between the North London and Cambridge Heath Lines, bringing the trains over into the new Liverpool Street Station.

The quality of the scheme looks questionable, in two dimensions, however a particularly magnificent pair of models were on display and it is gratifying to see that the scheme looks far more appealing in three dimensions. The office development is an interesting shape and people may find this off-putting, which

is unfortunate, but the design may be subject to change.

One of the models on show illustrated the design of the station concourse, and sections were cut away to reveal part of the new Underground station amenities; in fact the whole Underground station will have to be completely rebuilt and will afford considerably better facilities than the present congested and narrow passageways, slow escalators and lengthy walks.

Provided the scheme is carried through AS PROPOSED and IN ITS ENTIRETY it will probably be a success, but if it is subject to continual government cut-backs and economies then it will be an expensive waste of time and effort.

British Shield Tunnelling - Brunel Thames Tunnel 150th Anniversary Exhibition; designed by Graham Whattey and mounted by the British Tunnelling Society; 10 June - 1 July 1975 at the Institution of Civil Engineers, Great George St, Westminster.

As indicated by its title, this exhibition commemorates and tells the story of, through photographs, models and drawings, 150 years of shield tunnelling in Britain which began in 1825 with Marc Brunel's Thames Tunnel - which was not only the first shield-constructed tunnel but was also the first underriver crossing in the world. Needless to say, a great part of the display is devoted to the Thames Tunnel, and it is dominated by work for the London Underground system - work which covers the whole of the 150 years from Brunel to the Fleet Line and the Heathrow Extension.

The photographs, explanatory panels and the models of various types of shield give an excellent indication of the history of this type of tunnelling, while the piece de resistance is a full-size replica of one of the sections of the original shield, shown with a number of contemporary prints.

From there the exhibits go on to illustrate the enormous developments which have since stemmed from Sir Marc's genius, and their applications to road, rail and tube tunnels, sewers, aqueducts and cable tunnels, leading up to displays of the very latest developments, the Bentonite Tunnelling Machine and the Mini-tunnel system.

A highly instructive exhibition of great interest to the Underground student, very well designed and making the best possible use of rather restricted space, the designer and the organising committee under the chairmanship of Sir Harold Harding are to be congratulated.

Even as the last train approached Hounslow West men were busily removing the remaining platform structures; the last station nameboards were taken away soon after the train stopped in platform one. Apart from the final trickle of rush-hour commuters the train contained a number of people who, for various reasons, felt they ought to witness the event. The starting signal cleared for the last time and amid the confusion of workmen trundling items up the platform, those who so desired hastily boarded the last train from Hounslow West (old station) and proceeded to Hounslow Central where, already, the first 'reverser' was in the Westbound platform. Once the 'through' train had left a small party accumulated at the east end of the station to watch the 'reverser' crawl out over the normally unused crossover, which is controlled by rodding from the signal box at the other end of the station. At the appointed time the points changed; unfortunately the signal did not, and it flatly refused to do so for the next six or so minutes. Eventually (and after much changing of points) it condescended to show the correct aspect and allow the train to leave, and a potentially embarrassing situation was thus avoided.

Meanwhile back at Hounslow West, large numbers of men appeared and awaited the disconnection of the traction supply, whereupon they swarmed onto the track and set about it with unerring efficiency. Simultaneously, numbers of bulldozers started down a previoully arranged ramp and set about the signalling, an unusual site, which naturally became dismantled rather quickly. Once sufficient track had been cut into sections, giant cranes lifted the portions above the cutting and deposited them in neat piles, much as one might do with Hornby-Dublo, and apparently with as much ease. An interesting interlude occurred when a passing oxy-acetylene gang paused to summarily foll the two starting signals; soon after the flame had been brought to bear the signals keeled over and landed with a loud thud onto the track, the heads parting company with the posts upon impact. Problems arose with one of the giant cranes, which apparently was unable to reach its intended working point; the problem was partially overcome by means of the rail-borne crane which had arrived in the first engineers' train although a little hand shunting proved necessary to remove the Jib-Carrier.

The position at this time was as follows: as one looked towards Hounslow West the new platforms were immediately to the right of, and below, the three former ones. The old station and its approach were in shallow cutting and between the point of divergence and the two stations the cutting had been increasingly widened; since the new station was below the old, the cutting had clearly to be deepened; but this could obviously only be done where the cutting had been widened since it had been necessary to run trains into the old station until the last possible moment. The effect therefore, was that there was now an embankment within a cutting, as it were, and it was now necessary to completely remove the embankment to allow a clear way into the new station. The track immediately outside the old station had been singled for about six weeks, and this had allowed some work to be done, the spoil completely filling up the area where platform three had once been.

Track lifting was still taking place when the bulldozers started depositing spoil onto the old station site, but this initial work was hurried to allow the earthmovers to gain access to the main work area. Once the track had been removed worked started in earnest, and by the Saturday morning the whole of the 'embankment' had been deposited on the former station site, and the top had been levelled so that a continuous flat surface extended right over the area from the car-park to Ambassador Close. It was difficult to believe that only fifteen hours earlier a frequent electric train service had been operating straight through the middle.

Amidst the showers on the Saturday afternoon and evening, the work of levelling the ground and installing the basic requirements for sound trackwork continued and by the Sunday morning this careful work was sufficiently advanced to permit track laying to begin (although some hasty re-levelling was required later). It had proved possible to lay in part of the new EB line during the previous few weeks as it lay in the widened cutting, the completed sections of the WB line were stored on top of this and were lifted by cranes onto their prescribed locations. The trackwork was lined up precisely and bolted together; the track was well (but by no means truly) laid by about 16.30 on the Sunday afternoon.

Once the tracks had been lined up at each end, it was possible for the components of the various engineers' trains to cross over and reverse by way of Hatton Cross, but there still remained a great deal to be done before passenger trains could attempt this.

Not very much later than 19.00, an engineers' train comprised of flat wagons left the site and another train, the long-rail train, arrived carrying the new conductor rail. The insulators had already been fitted to the track sections some time before the weekend, though some had later to be replaced.

With the rear Battery locouncoupled, the end platform of the long-rail train was manned and the rails hauled into place. The method employed was simple. an anchor was firmly attached at one end to the track and at the other to a length of conductor rail on the train; the train was drawn cautiously forward and the piece of rail (which is anchored) was thereby drawn off the end of the train and guided by a gang of men into the insulators. The process was repeated until the whole length of track had been so treated, though very careful positioning of the anchor was required to ensure that adjacent conductor rails met precisely at the ends. The train had to stop frequently during this skilled process and this was done by the guard who rode on the unloading platform and used the brake valve provided. The most care was required at the point where the ends of the rails were about to fall off the train because (obviously) they could cause much damage; the provision of blocks of wood to dampen the blow reduced this risk to a minimum and the ends of the rails usually had to be jacked up and manhandled into place. Once the WB line had been treated, the rear Battery loco recoupled to the train which then proceeded to Hatton Cross.

By the time the WB conductor rails had been laid the first of the four trains of Hopper-Wagons had arrived and it moved into position once the long-rail train was clear. Each of the five wagons had two men on them to operate the hopper-gates. The train ran back to the commencement of the new line then drew forward at low speed to the end of the deviation; the ballast was allowed to flow out fairly evenly both between and outside the running rails. In this particular case the train had to move back and forth several times to discharge

its full load, but this was unusual.

Current-rail welding started once several portions of the WB conductor-rail had been laid, and the welding team had constantly to move out of the way for passing trains and at one point they were completely enveloped in the choking white fog of the dust which accompanies a hopper-train at work. Once the first hopper-train had finished it proceeded to Hatton Cross where it reversed and eventually returned to Lillie Bridge depot. Further gangs of men descended on the WB line to work the ballast into the track to level and cant it properly.

The next hopper-train ran to Hatton Cross and then back to Hounslow West to deposit ballast on the EB line (once the long-rail train had finished), and the third train waited east of the site until track levelling was reasonably

advanced and then dropped its load on the WB line. The fourth and last train repeated the actions of the second on the EB line.

Very little Civil Engineering work now remained, and the remaining few hours were largely devoted to completing and testing the signalling on the new line. Sadly a minor Operating Department staff difficulty caused a slight delay to the signal engineers, and this eventually caused the cancellation of the first passenger train from Hounslow West (05.12 empty ex HattonCross) which had to commence from Northfields. Apart from this problem the train service ran normally thereafter, apart from a short period of reversing at Hounslow Central due to a signalling fault at Hatton Cross.

# BEHIND THE SCENES OF LONDON'S UNDERGROUND

Training Railwaymen at White City

An opportunity to look 'behind the scenes' at London Transport's White City Railway Training Centre will be given to the public on Saturday 20 September. During two-hour tours of the centre visitors will be able to see various items of Underground train and trackside equipment and how they work, including a 'mock-up' of a typical station and a model railway on which trainee signalmen and others are able to control trains, using basic signalling principles. There will also be hour-long programmes of films about London Transport's activities.

The White City centre will be open to the public from 09.30 and the tours will commence at about twenty-minute intervals, the last beginning at 15.30.

Admission to the centre, which is responsible for the training of all train and station staff, will be free. Because of the restricted space, tickets must be obtained in advance from the Public Relations Officer, London Transport, 55 Broadway, London SWI H OBD. Applicants should state the time at which they wish to start their visit, and note that children under 15 must be accompanied by an adult.

The Railway Training Centre is situated in Wood Lane, W 12, about half way between Shepherds Bush Green and White City station. Car parking space at the centre is very limited, and visitors are advised to travel by public transport. The nearest Underground stations are Shepherds Bush (Metropolitan Line) and White City (Central Line), and buses on routes 72, 105 and 220 pass the centre.

THE SOCIETY LIBRARY

It may not be known by all of our members that this society has a library of documents, books, maps and other miscellanea relating to London's transport system over the years. The library has not been available to members for some time now, but we have recently appointed an Acting Librarian who has been able to catalogue and store the library and is able to accommodate Society members from time to time for the purpose of allowing them to utilize the material.

The Acting Librarian is A D Platzer who resides at Chalfont St. Giles. Members wishing to avail themselves of these new facilities should write to him and make an appointment; his address is 40 Kings Road, Chalfont St. Giles, Buckinghamshire. Further details regarding the new arrangements will be given in the next issue.

- NF 1523 An accident recently occurred at Ealing Common depot and seems to have been caused by a 2-car R stock unit. It appears that the R stock cars (22672 and 23573) were moving backwards, and the NDM car (23573) collided with Sleet Locomotive ESL 113 which was caused to strike a Rail Grinding Car (RG 803) which ran into the back of a CO/CP stock unit. The R stock cars and the Rail Grinding Car may be repaired, but the Sleet Locomotive will almost cortainly be s crapped. Damage to the other unit was only slight.
- NF 1524 It is reported that British Railways will not be assuming possession of the Moorgate Drayton Park line until 4 October 1975 now. It was originally intended to do so on 6 September.
- NF 1525 It seems to be the case that all the old-style advertisement hoardings are being replaced by new ones of a more modern design. Latest stations to have had work done include Golders Green and North Ealing. The original hoardings were probably erected in the middle to the late twenties.
- NF 1526 The flood diaphragm at the north end of the NB Northern L platform at Charing Cross Embankment was removed several months ago and has not yet been replaced. It is interesting to note that the station name (normally concealed by the diaphragm) bears the Charing Cross Embankment plastic sticker.
- NF 1527 Charing Cross Embankment seems to be the only place at the moment to have an escalator with an irregular 'warning' notice. It is printed in orange and white on black and whilst containing the usual wording, has a diagrammatical feature at the top, in white.
- NF 1528 During the time the Hatton Cross extension has been disconnected at Hounslow, the gauging train comprising two Ballast Motor Cars and Gauging Car G 664, has been imprisoned on the line. The train has apparently been stabled beyond Hatton Cross under the Airport perimeter. It is thought the Ballast Motor Cars are L63 and L68.
- NF 1529 A road improvement scheme in Mill Hill has been implemented. The scheme involved the construction of a new 'T' junction largely on the site of the former Edgware Mill Hill East railway. The new arrangement left the old narrow Bunns Lane bridge redundant, but it is still intact, and although it is completely disconnected at both ends it remains as an interesting monument to the line which very nearly became London Transport's.
- NF 1530 In order to prevent the possibility of out of gauge stock (eg surface stock) attempting to enter the extension line to Hatton Cross, a triple mercury U-tube assembly has been erected west of Hounslow Central station. Should a train foul the permitted gauge the tubes will be broken and the mercury will escape, this causes a circuit to fail and an automatic signal in advance will return to Danger. To indicate to the motorman of the offending train that he must under no circumstances pass the signal, the number plate bears the initial letter X (rather than A).

A LOST UNDERGROUND RAIL WAY

Some readers will already have read in the press, or have heard on the radio, that this society is leading a search for a lost underground railway in the grounds of the Crystal Palace, Sydenham. The line, which was built for experimental purposes, was opened to the public in 1864 and was operated pneumatically. The line is almost entirely in tunnel and ran between the Sydenham gate and the armoury, near the Penge gate, a distance of nearly 600 yards. It is our intention to precisely locate this railway (or what remains of it), and if anyone knows of any information relating to this line, for example its position or closing date, then would they contact the Editor who will pass the information on to the appropriate person.

On 10 August a 'dig' will take place at a point where it is thought part of the line MAY lie; it is believed the tunnel ran very close to the ground surface. The team will assemble at 10.30 in Thicket Road car park,

near the Penge entrance to the grounds.

NEW DIAGRAMMATIC MAPS

A new poster version of the Underground map has been introduced. Basically similar to the one it replaced, there are many detail alterations. The Piccadilly Line is shown open to Hatton Cross but the station is marked HATTON CROSS OPEN FROM 19 JULY 1975; the remainder of the extention is shown dotted as hitherto. A questionable improvement has been wrought upon the Richmond line which has been re-drawn, and this is the most noticable feature on the new map. The thin black line shown between the outline of the Bakerloo Line north of Queens Park has been replaced by a brown one (this has also been done on the London's Railways map mentioned in UN 161). The usual note about the Underground Guide has been omitted on this map, since it no longer the intention to produce these again.

Shortly before the official opening of the Hatton Cross extension a new pocket card map appeared. This is similar in design to the poster version but it continues former practice by omitting the Fleet Line, the Heathrow extension is shown (for the first time) albeit in outline beyond Hatton Cross; the map is marked No 1 1975. The positioning of the British Railways 'double arrow' symbol is different to both the map it replaced and its new poster equivalent by being centred under the interchange station names, where possible. Two other violent departures from former practice, both very much tourist orientated, are the display of station names in RED where travel enquiry offices are provided, and the provision of a red blob symbol at stations deemed to be closest to the

starting points of the Round London Sightseeing Tour.

On both maps, all evidence of Strand's existence has been thoroughly expunged, and Charing Cross is shown as CHARING CROSS EMBANKMENT.

TRAINS TO HATTON CROSS Here are details of recent train formations used on the occasion of the opening of the Hatton Cross extension: Last train to Hounslow West (old stn.) - train 267, West Car 1248, East 1075 " 1104, 1199 - train 300, First Hounslow Central 'reverser' 11 " 1124, 1195 - train 257, First ox Hounslow (new) and Hatton X " 1076, 1295 17 11 11 - train 316, 11 First to 11 108. 137 First passenger to and from Hatton X - train 451,