

LETTERS TO THE EDITOR

Dear Brian,

3 December 2014

RUISLIP

The photo on the front cover of the December issue, taken at Ruislip Station, has prompted me to raise a matter which has always puzzled me. When the Harrow to Uxbridge railway was built it crossed open country in a wide arc from Rayners Lane to Ickenham. There are no sharp bends except for the reverse curves just east of Ruislip Station (clearly shown in the photo).

Were these bends part of the original layout? Ruislip station was built at the same time as the railway was constructed with the main buildings on the London-bound side and there would appear to be no reason for the double bend, except that the coal/goods yard sidings (where the station car park is now sited) branched off the eastbound line straight ahead from the end of the platform, i.e. at the point the double bend begins. It would seem strange to deviate the main line around the sidings, but was this the reason?

Furthermore, on the westbound side of the line the perimeter fence does not follow the double bend but runs straight on, set back from the westbound platform, so that there is space for a track behind the signalbox and platform. Indeed, the West End Road overbridge at the west end of the station has an unused span on the south side. Was a track ever laid behind the platform, or was this the original intended course of the railway? Can anyone shed light on these points?

Incidentally, if a third track was ever to be laid in this space for westbound trains and the existing westbound platform became an island – *as happened at North Acton* – the middle platform face would make an ideal point for Piccadilly Line reversers. This would be more convenient than Rayners Lane and obviating the long trek to Ruislip Siding (by the Ruislip depot link) to reverse.

Yours sincerely, Trevor Jago.
By E-Mail.

Dear Brian,

5 December 2014

GREENFORD MAIN LINE

In Eric Stuart's article in the December issue of *Underground News* on the Central Line Extensions, he makes mention of the withdrawal with effect from 17 June 1963 of the last 'main line' train scheduled to stop at Greenford.

After the opening of the Central Line extension to West Ruislip on 21 November 1948, passenger trains calling at Greenford main line station were very sparse. There was an early afternoon up train which lasted until 16 June 1963 – latterly this was the 12.36 (Monday-Friday only) ex-Princes Risborough, calling at High Wycombe, Gerrards Cross and West Ruislip before "Greenford Main Line" at 13.22 and arriving at Paddington at 13.36. This was the only train to call at "Greenford Main Line" and there was no return working. Before the Princes Risborough – Oxford line closed on 6 January 1963 the train had originated at Thame at 12.19 and called at Towersey and Bledlow before Princes Risborough – it had also run on Saturdays.

It seems that this main line timetable oddity was the only passenger train to stop at Greenford Main Line since the early 1950s. After 1948 for a few years there had also been a weekday early morning departure from Paddington to West Ruislip (via Ealing Broadway), stopping at Greenford Main Line, and which returned by the same route from West Ruislip after an 18 minute wait. This train lasted only until the early 1950s. Was the Greenford Main Line Down platform then removed, leaving only the Up platform for the early afternoon train?

Today's "ghost train" passing through the old Greenford Main Line platforms is the Chiltern Railways Monday-Friday 10.57 departure from South Ruislip non-stop to Paddington, and returning from Paddington at 11.36 to West Ruislip, stopping also at South Ruislip.

Yours sincerely, Guy Marriott.
By E-Mail.

Dear Brian,

6 December 2014

THE CENTRAL LINE EXTENSIONS

I was very interested in Eric Stuart's article on the above in *Underground News* No 636 (December 2014). If I may be allowed to make the following observations.

I have copies of the LNER public timetables for 2 May to 3 July 1938 and 7 October 1946 to 4 May 1947.

Trains round the Chigwell Loop would have run from Liverpool Street or Fenchurch Street to Ilford via Woodford, or Woodford via Ilford, or merely worked between Ilford and Woodford. There were, however, a few short workings not running over the whole distance of the loop. The connection from Newbury Park to Seven Kings was only ever used by goods services or excursions other than in 1915 when it was used as a diversionary route for Colchester line trains following the Ilford accident of 1 January that year.

But for the outbreak of the Second World War it was intended that all work was to have been completed by early 1941. The service per hour that was originally proposed for the Central Line's New Works was as follows:

To and From	Peak Mon to Sat	Off Peak Mon to Sat	All day Sun
Ongar and Loughton	2 *	1½ *	1½ *
Epping and Loughton	6 †	4 †	3 †
Loughton through City	8	4	4
Woodford through City	8	4	4
Woodford and Hainault	8 ‡	4 ‡	4 ‡
Hainault through City	8	4	4
Leytonstone through City	16	8	8
Greenford through City	11	8	4-6
West Ruislip through City	6	4	2-3
Denham through City	6	4	2-3

* Shuttle to and from Loughton

† Shuttle to and from Loughton. Some originating from and terminating at Ongar.

‡ Shuttle as indicated.

It will be seen from this that stations east of Loughton, as well as over the northern part of the Chigwell Loop, would have lost out, as in steam days even Ongar had in the peak hours some through trains to and from London. As to why Epping in particular should only have merited a shuttle service when it wasn't exactly an unimportant town is questionable.

The rolling stock for the proposed services was Standard Stock except for the shuttles which were to be worked by the flat-fronted 1935 Tube Stock.

The intended opening dates of the extensions were:

- **January 1940 – North Acton to Greenford** – through trains between Liverpool Street and Greenford.
- **April 1940 – Liverpool Street to Loughton via Woodford** – through trains between Loughton and Greenford and Ealing Broadway.
- **July 1940 – Greenford to West Ruislip** - trains between West Ruislip and Loughton and Loughton and Ealing Broadway.
- **January 1941 – Loughton to Ongar and Leytonstone to Woodford via Newbury Park** – through trains Loughton and Hainault to West Ruislip and Ealing Broadway, shuttle trains Woodford to Hainault and Loughton to Ongar.
- **March 1941 – West Ruislip to Denham** – through trains Loughton and Hainault to Denham and Ealing Broadway, shuttle trains Woodford to Hainault and Loughton to Ongar.

Yours sincerely, Charles Phillips.

By E-Mail.

Dear Brian,

10 December 2014

CRYSTAL PALACE PNEUMATIC RAILWAY

There has been some uncertainty about the precise dates of operation of Thomas Webster Rammell's experimental railway at the Crystal Palace. However, I recently came across the following announcement in *The Times* of Saturday 27 August 1864:

CRYSTAL PALACE – THIS DAY – PNEUMATIC RAILWAY TUBE – This important experiment to railway propulsion, the invention of T.W. Rammell Esq., C.E., looked forward to with so much interest by the scientific world, will be opened. This day (Saturday) 27 August a carriage will run through the tube from half past one o'clock till dusk. The tube extends from the Sydenham entrance to the Armoury, near the Penge gate, a distance of nearly 600 yards.

The railway was the subject of an almost full-column article on Monday 29 August 1864:

The PNEUMATIC RAILWAY AT SYDENHAM.

On Saturday the Crystal Palace grounds were the scene of a novel and very interesting experiment. A series of trial trips on the model Pneumatic railway, recently constructed there, under the superintendence of Mr. Rammell, C.E., took place with perfect success in the presence of several eminent engineers and scientific men. A brickwork tunnel, about 10ft. high by 9ft. wide, and capable of admitting the largest carriages used on the Great Western Railway, has been laid with a single line of rails, fitted with opening and closing valves at either extremity, and supplied with all the other requisite apparatus for propelling passenger trains on the pneumatic principle.

The tunnel, or tube, extends from the Sydenham entrance of the grounds to the Armoury, near the Penge gate, a distance of nearly 600 yards. The object of laying down this experimental line is to afford, both to the scientific world and the travelling public, a practical demonstration of the applicability to passenger traffic of the motive power already employed by the Pneumatic Despatch Company in the conveyance of letters and parcels.

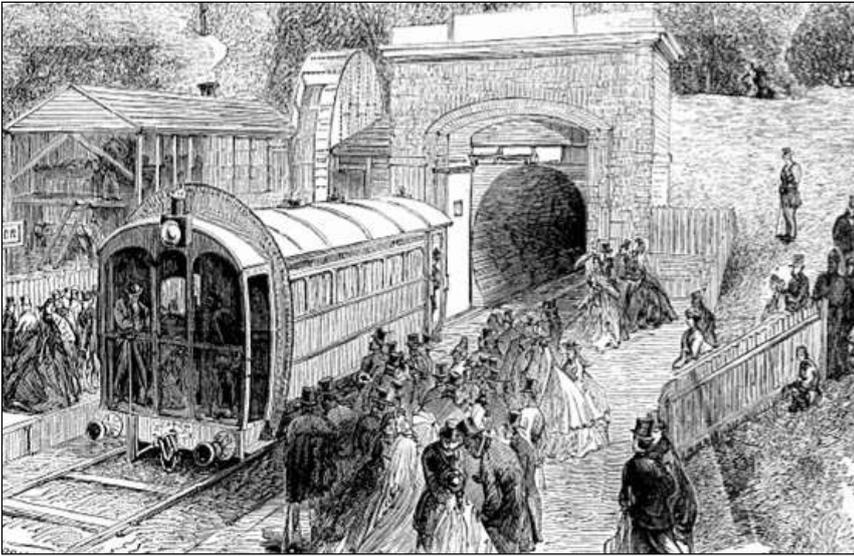
The pneumatic principle of propulsion is very simple. It has been likened to the action of a pea-shooter – a rough kind of comparison, perhaps, yet one sufficiently accurate as a popular illustration. The tunnel may be taken to represent the pea-shooter, and the train the pea, which is driven along in one direction by a strong blast of air and drawn back again in the opposite direction by the exhaustion of the air in front of it. The train may be said, in fact, to be blown through the tube on the down journey, and sucked through it on the return journey. It must not, however, be supposed that the passengers are deposited at their destination with a sudden jerk, as the simile we have used might seem to imply. Such an inconvenience is entirely obviated by the mechanical arrangements employed. The motion throughout smooth, easy and agreeable, and the stoppages are effected gently and gradually. Indeed, when it is considered that the curve in the tunnel is unusually sharp, being of eight chains radius, and that the gradients are as high as 1 in 15 (those of Holborn Hill being only 1 in 18), it is surprising that the motion should be so much steadier and pleasanter than ordinary railway travelling.

The journey of 600 yards was performed either way in about 50 seconds, with an atmospheric pressure of only 2½ ounces to the square inch, but a higher rate of speed, if desirable, can easily be obtained consistently with safety. Indeed, one great incidental advantage of this species of locomotion is that it excludes all risk of the collisions occasionally attendant on railway travelling, for it is plain that no two trains could ever run full tilt against each other where all the propelling force is expended in one direction at one time. The worst mishap which it is said could well happen is that, owing to some sudden failure in the machinery, the train might be abruptly brought to a dead stop in the middle of the tunnel, when the passengers would have to alight from the carriages and grope their way as best they could out of the tube. Such a predicament certainly would not be enviable but it might be more ludicrous than dangerous. Whether in such a contingency there is any possibility of another train being started before they safely made their exit, or any risk of their sharing the fate of frogs placed under an exhausted air-pump, we do not venture to assert, but probably the scientific engineer could guarantee the traveller against any such novel peril. The train used on Saturday consisted of one very long, roomy, and comfortable carriage, resembling an elongated omnibus, and capable of accommodating some 30 or 35 passengers. Passengers enter this carriage at either end and the entrances are closed with sliding glass doors. Fixed behind the carriage there is a framework of the same form and nearly the same dimensions, as the sectional area of the tunnel, and attached to the outer edge of this frame is a fringe of bristles forming a thick brush. As the carriage moves along through the tunnel the brush comes into close contact with the arched brickwork, so as to prevent the escape of the air. With this elastic collar round it, the carriage forms a close fitting piston, against which the propulsive force is directed.

The motive power is supplied in this way: At the departure station a large fan wheel, with an iron disc, concave in surface and 22 feet in diameter, is made to revolve by the aid of a small stationary engine at such speed as may be required, the pressure of the air increasing, of course, according to the rapidity of the revolutions, and thus generating the force necessary to send the heavy carriage up a steeper incline than is to be found upon any existing railway. The disc gyrates in an iron case resembling that of a huge paddlewheel, and from its broad periphery the particles of air stream off in strong currents. When driving the air into the upper end of the tunnel to propel the Down train, fresh quantities rush to the surface of the disc to supply the partial vacuum thus created and, on the other hand, when the disc is exhausting the air in the tunnel with the view of drawing back the Up train, the air rushes out like an artificial hurricane from the escape valves of the disc case, making the adjacent trees shake like reeds and almost blowing off his feet any incautious spectator who approaches too near it.

When the Down journey is to be performed the breaks (sic) are taken off the wheels and the carriage moves by its own momentum into the mouth of the tube, passing in its course over a deep air well in the floor, covered with an iron grating. Up this opening a gust of wind is sent by the disc when a valve, formed by a pair of iron doors, hung like lock gates, immediately closes firmly over the entrance of the tunnel, confining the increasing atmospheric pressure between the valve and the rear of the carriage. The force being thus brought to bear upon the end of the train, the latter, shut up within the tube, glides smoothly along towards its destination, the revolving disc keeping up the motive power until it reaches the steep incline whence its own momentum again suffices to carry it the rest of the distance. The return journey, as above indicated, is effected by the aid of the exhausting process. At a given signal a valve is opened, and the disc-wheel set to work in withdrawing the air from the tube. Near the upper end of the tube there is a large aperture, or side-vault, which forms the throat through which the air is, so to speak, exhaled, the iron doors at the upper terminus still being kept shut. In a second or two the train posted at the lower terminus, yielding to the exhausting process going on in its front, and urged by the ordinary pressure from behind, moves off on its upward journey, and rapidly ascending the incline approaches the iron gates which fly open to receive it, and it emerges at once into daylight. Such is the mode in which the system works, and it seems capable of being adapted to railway communication within the metropolis and other large towns, or wherever tunnelled lines with steep gradients exist. The chief obstacles encountered in practically working the atmospheric railway, introduced some 15 years ago, are considered to have been effectively overcome by the present modification of the principle. Under the former system the tube was of very small size and fixed upon the ground – a longitudinal or continuous valve opening at the top, along with a rod, connecting the piston with the carriages, passed, and the valve closing behind the rod as it moved onwards. The amount of atmospheric pressure required to be exerted where the area of the tube was so small was enormous, being from 7lb. to 10lb. per square inch, whereas upon Mr. Rammell's principle the pressure is only 2½oz. per square inch and, moreover, the great leakage and waste of power which rendered the old atmosphere system so costly in working are here in great measure avoided. It need hardly be added that the worst drawbacks to travelling through tunnels – viz., the smoke and sulphurous vapours emitted from the locomotive and the close, unwholesome atmosphere of the tunnels themselves, are in this case got rid of. Every train in fact carries its own supply of fresh air along with it and also expels the foul air before it.

The public will have ample opportunities of judging for themselves of the merits of this invention. The railway will be open the whole of this week, when visitors to the Palace will be able to test it by personally travelling upon it.



Thereafter, announcements of the railway's operation appeared in the paper almost every day. Typical was this one of 28 September:

CRYSTAL PALACE – This Day – Greatest Railway Novelty of the Day. PNEUMATIC RAILWAY TUBE. Passengers conveyed through the tube THIS DAY, from 1 till 6. Return journey 6d. Visitors in carriages should drive to the Sydenham entrance.

The final announcement appeared on Monday 31 October 1864, the last day of the Crystal Palace season:

CRYSTAL PALACE – Last Day of Pneumatic Railway Tube – Greatest Railway Novelty of the Day. Passengers conveyed through the tube THIS DAY only, from 1 till 5. Return journey 6d. Visitors in carriages should drive to the Sydenham entrance.

I have found no indication that the railway ran after that date. Thus it appears that the railway operated from 27 August 1864 to 31 October 1864 inclusive.

Yours sincerely, Nick Mitchell.

Los Angeles, California. By E-Mail.

Dear Brian,

11 December 2014

CENTRAL LINE TO DENHAM

Eric Stuart's article on the Central Line extensions (in *Underground News* No.636) was full of interest. I had hoped, however, that it might provide an answer to a question which has puzzled me for some time.

Assuming that the proposed extension from West Ruislip to Denham remained on the west side of the main line, it would encounter the triangular junction serving the GWR's Uxbridge High Street branch. Were there plans to bridge the Denham East and West Curves, much in the manner of Greenford? This seems highly unlikely for a one-station branch line. Or was the intention to close the branch if the extension was built? I cannot recollect seeing a reference to this anywhere, Eric does not mention it and so the mystery remains.

The Underground map dated 1937, just two years after the publication of the New Works Programme, of which the Central Line extensions were an important part, showed the North Acton – West Ruislip section as 'under construction', whereas the Ruislip – Denham section was merely a 'proposed extension'. It may well be, therefore, that plans for Denham were less advanced than those for the line to West Ruislip and that the position of the Uxbridge High Street branch had not yet been considered, at least not in great detail. However, the 1940 Underground map showed the whole line from North Acton to Denham as 'under construction'.

Meanwhile, the Uxbridge High Street branch had closed to passengers on 31 August 1939. It seems likely that this had little to do with the Central Line extension but was an economy measure in anticipation of the outbreak of war. (In the First World War there had been a temporary closure for similar reasons from 1 January 1917 to 3 May 1920).

After 1940 the Denham extension ceased to appear on Underground maps. Freight continued to serve Uxbridge High Street until July 1964, when the branch closed entirely. The track plan in "Improving London's Transport" (Railway Gazette, 1946) shows the Denham extension, including the layout of the terminus. The Uxbridge High Street branch is conspicuous by its absence, however, although the triangular junction at Greenford is shown in detail.

I should be very interested to learn whether the fate of the branch was considered and/or decided in proposals for the Denham extension, even if events conspired to kill it before birth.

Yours sincerely, Michael J. Smith.

Allestree, Derby.

Dear Brian,

12 December 2014

EMUs AT VERNEY JUNCTION

For your information I found this photograph on the internet. It clearly shows some of the former LMS Euston – Watford and Broad Street – Richmond GEC compartment stock trains stored at Verney Junction in around 1964 after withdrawal, presumably on their way for scrap. (*Unfortunately the photograph isn't credited, so apologies in advance to the photographer if he is reading this, where due credit will be given. Ed.*)



There are four particular things of Underground interest here:

1. Even though not Underground trains, it proves that electric trains did get to Verney Junction, even if not under their own power.
2. Not only that but they were fourth-rail sets, just as on the Underground.
3. It would seem that they are standing on the track/platform road used by Metropolitan Railway trains at that station – a poignant touch.
4. And there is another tenuous Underground connection in that, just like the Metropolitan Railway trains which did travel to Verney Junction, they ran on the same tracks as Bakerloo Line tube trains.

Yours sincerely, Basil Hancock.

By E-Mail.

Dear Brian,

30 December 2014

DRAYTON PARK

The picture at the top of page 25 of the January 2015 *Underground News*, shows a battery locomotive on stock transfer duties on the eastern ramp at Drayton Park. Nothing very unusual about that, but it is interesting to observe the traction current rails – they are clearly not in the correct position. As I recall the link was electrified through the short 'tunnel', all the way up the ramp, to just short of where the junction was made with a main line siding. Presumably this photograph was taken just as the ramp was being 'de-electrified'. Is it known when this was done, or does the date of this photograph now give this date. (*The date is 4/10/75 – the last day of LT operation. Ed.*)

Yours sincerely, Anthony Janes.

By E-Mail.

Dear Brian,

30 December 2014

EARL'S COURT SHUTDOWN

Some observations from earlier today when I went to see some of the special timetabled operations for this year's 'Earls Court Shutdown':

1. Unlike the Christmas Shutdown last year, all eastbound Piccadilly Line trains (in the time I was there) were operating via the eastbound fast line between Northfields and Acton Town with the Heathrow trains routed into Acton Town platform 4 via the relatively rare points at Acton Town (west), the

Northfields trains continuing via platform 3 and the eastbound fast to Hammersmith. Last year the eastbound local 'test track' was used.

- Again, unlike last year when Piccadilly trains served Ealing Broadway, this year a District Line shuttle operated Ealing Common – Ealing Broadway.



There also seems to have been considerable disruption to the Metropolitan Line during the morning which took some time to sort out (see also *"The Diary, page 100, this issue – Ed."*). On my outward run c.12.25 a Met (train 446 – 21050) was being reversed in Rayners Lane siding (*Left*) to take up its correct path at 12.36. Unless a Piccadilly Line Rayners Lane reverser happened to be cancelled, making way for this Met., would it have been turned short at South Harrow and held over in the sidings, or even diverted to Northfields?

Photo: Michael Bedford

On my return journey at Baker Street c.14.10 I caught an Amersham, described as fast Finchley Road – Harrow-on-the-Hill and Harrow-on-the Hill – Moor Park. It did indeed run fast Finchley Road – Harrow-on-the-Hill but without an announcement ran all stations Harrow-on-the Hill – Moor Park – or at least I presumed it did as, denied a fast run north of Harrow, I alighted at North Harrow. Evidence of continued service recovery included a train in the siding at Harrow-on-the-Hill.

On a separate subject, and something I've meant to draw your attention to as I don't recall seeing in mentioned in Underground, is the platform 1 indicator at Harrow-on-the Hill. It does not provide for Chiltern trains non-stopping Moor Park. It's been like it for years and, I guess, the official response would be *'too late to do anything about it'*.

Yours sincerely, Michael Bedford.

By E-Mail.

Dear Brian,

31 December 2014

THE NORTHERN LINE

Before I write about the Northern Line I do want to congratulate you on the "thesis" covering the Great Northern & City Train Services. What an amazing resume covering so many years which made my brief involvement rather small albeit complicated though. Anyway I glad my records were of some use and thank you for giving me a mention! Under "new working timetables" my attention was drawn to the proposed headways in Northern Line No.55. Peak frequencies are still not attaining those timetabled in the past so I have pulled out some facts from 1959. These are based upon my work as a Northern Line timetable compiler over a few years during the late-1950's and early-1960's. In those days maximum rolling stock for service was 100 trains. Scheduling such a fleet to cover Monday to Friday peak periods inevitably meant headways considerably closer than provided in recent years. The Northern Line timetable operative from 3 March 1959 shows 37 trains timed southbound from Kennington between 17.01 and 18.00. During the ensuing years scheduled trains per hour northbound from Tooting Broadway frequently reached 35, headways averaging 105 seconds. Of course, to ease operation at Morden up to six trains per hour were reversed south to north at Tooting Broadway. There was no stepping back of crews at Morden. In those days punctuality was good and, in any case, the public were unaware of a little late running – frequency and regularity were what mattered. I just wonder

if centralised control and regulation has made it harder to squeeze more trains per hour down the tunnel.

Yours sincerely, Ken Dexter. By E-Mail.