UNDERGROUND ITEMS FROM THE TELEVISION
AN OCCASIONAL SERIES
by Paul Creswell
"INSIDE THE TUBE – GOING UNDERGROUND"
CHANNEL 5 – 21.00 TO 22.00
BROADCAST ON CONSECUTIVE MONDAYS
FROM 3 TO 24 APRIL 2017

There was a total of four programmes in this series. The first two have already been reviewed by your Editor in the previous issue of *Underground News*. These were broadcast on Mondays 3 and 10 April 2017.

Somewhat unusually, these programmes did not show name captions for those staff who spoke to the camera. Your reviewer has thus had to resort to a 'best guess' at the spelling of names in this review. Apologies are offered to any individual whose name has thus been spelt incorrectly.

THE WORLD'S FIRST UNDERGROUND

The third programme of the series, broadcast on Monday 17 April 2017, was narrated by Rob Bell, an engineer and also, something that he mentioned and that also became quite obvious as the programmes continued, an enthusiast for the Underground system since his boyhood.

This programme commenced one evening at about 22.30 at Finchley Road station, where an engineering team were about to take advantage of the approximately five-hour period without passenger trains to carry out their work. Rob joined David Sloane, the project manager, for the night's work.

They boarded the engineering train, which set off for the work site. Rob commented on never having ridden underground previously with no roof above him! David pointed out that the tunnel they were entering was built entirely of bricks, laid in the era of Queen Victoria and Charles Dickens. Rob remarked on the similarity to the Victorian era sewers and Dave replied that many of the workers employed by the Metropolitan Railway had previously worked on such projects. David also clarified that the Metropolitan, from Finchley Road to Aldgate, was constructed almost entirely by this method, where a trench was dug in the road, the railway placed in it and then arches placed across the top, to allow the road surface to be replaced.

The train arrived at the work site, which was the disused station at Marlborough Road, passing the last northbound passenger train on the way. Rob was given the opportunity to have a look round the remains of this station, which had closed in 1939.

Returning to the work in hand, Rob was introduced to the 'TubeVac', which is a giant vacuum cleaner. This machine can suck up some 23 tons of rubble/ballast an hour from around the track, a job previously undertaken by hand, obviously at a lot slower rate of progress. The object was to gain access to a drain under the track, which was no longer capable of carrying away the large amount of water that continuously entered the tunnel around the brickwork.

The ballast removed was now replaced with quick-setting concrete, which was fashioned with a channel to provide a 'drain away' for the water. Rob was assured that, with only three hours (by then) before the first passenger train was to run, that concrete would be fully set.

The scene then moved to Farringdon station, where we met Customer Services Assistant, Charlie. He reminded us that this station had been the terminus of the oldest Underground line, from Paddington to King's Cross and Farringdon.

It was the 1846 Royal Commission on Metropolitan Termini that strongly recommended that no overground stations should be built in central London. This had meant that passengers had needed to complete their journeys (from the main line railways) by road transport, drawn by horses. A lawyer, Charles Pearson, had a radical idea to put railways underground, thus solving the problem. To achieve the aspirations of the Metropolitan Railway, hundreds of slum homes had to be demolished in the

Farringdon area. Pearson had hoped that arrangements would be made to re-house those affected in better quality housing, but this never, in fact, came to pass. In the end, some 12,000 people lost their homes and there was a level of outrage at the lack of re-housing arrangements made for them.

Charlie related that the area beside Farringdon station, Turnmill Street, was a really violent area in those days. He joked that anyone entering that street with 32 teeth would leave with somewhat less! Robbery and violence were commonplace and the area was locally known as 'Devil's Alley'.

The line opened on 9 January 1863[1]. 600 of London's finest, including the Lord Mayor and William Gladstone, made the 18-minute journey on the inaugural train, and some 32,000 passengers used the line on its opening day. Sadly, Charles Pearson died a few months before the opening.

Rob Bell now moved to Quainton Road, an original Metropolitan Line station deep in the countryside, but fully preserved. Here he managed a boyhood dream and drove a steam locomotive – Metropolitan No.1 built in 1898 and being the last steam locomotive on the underground that had ever hauled passengers. This was the first time, we were advised, that Rob had driven a steam locomotive (and it was slightly obvious!). Your reviewer noted that no mention was made of the coaches being pulled, which were most certainly not of underground vintage!

Dennis, the driver, pointed out that the conditions suffered by the early locomotive crews were quite poor, with no cabs (as such) to protect them from dust, dirt, etc. and, being mostly in tunnel sections, much smoke as well. This was not an attractive job, overall. Passengers too were affected by the conditions – a chemist based in Gower Street even offered for sale a 'Metropolitan Mixture', claimed to help cure the effects of smoke inhalation, etc.! The coaches were even lit by poisonous coal gas, stored in bags on the roof of the coaches.

A change of scene brought us to the present day, at Hammersmith (Hammersmith & City Line) station where Rob met driver Geoff Porter, who took him (in the driver's cab) along the route to central London. Geoff, related how terrorism on the system had started as long ago as the 30 October 1883, when Irish 'Fenians' took a bomb into a first class carriage and dropped it out of the train near to Edgware Road station. It then exploded under a third class carriage. Luckily, whilst 40 people were injured, none were killed.

More recently, Geoff was driving alongside the train blown up on the 7 July 2005. He was conscious of an orange glow from the other train and then there was dust and smoke and the electricity went off and passengers were hammering on his door, to see if he was alright. He now had to 'assume command' and walk back through a train of quite frightened people to ascertain what had happened and how to deal with it. Six people were murdered at Edgware Road and 32 at the other points affected. It was the worst crime in the network's long history.

We then moved to the District Line, which had been a vicious rival of the Metropolitan for some decades during the two lines' early histories, the two chairmen, James Forbes (District) and Edward Watkin (Metropolitan) taking opposite sides. Rob was taken to Mark Lane, a station closed in 1967, when it was replaced by Tower Hill. When the Circle Line (a combination of the District Railway and Metropolitan Railway) commenced operating, rivalry was still extreme. Each railway was responsible for trains proceeding in one direction around the Circle Line, the Metropolitan clockwise and the District anti-clockwise. This was emphasised at Mark Lane, where we saw that each line had their own booking office. If you asked for a ticket to a station two or three stops away, the clerk would sell you a ticket to go almost the whole way round the Circle Line, as he was not permitted to advise you that the other company's route was much shorter and also that their journey time was much less!

Nowadays, more of the Metropolitan Line is in the open than in tunnel, with only about 15% below street level. A map was shown to viewers, indicating the Metropolitan's 'spread' into the surrounding countryside. Strangely, although Wembley Park was about to feature as an 'item' it was, for some unknown reason, missing from the map.

The Metropolitan's chairman (Edward Watkin) was instrumental in the idea of projecting the line further and further from London. He also had an idea that, as well as bringing people into London for work and pleasure, they might be tempted to travel out of London, to visit places of interest. With this end in view, in 1890, the company bought some 280 acres of land in the Wembley area, for which they then provided a station, Wembley Park. The scheme was to provide Londoners with a large 'pleasure park' here, the central theme of which would be a giant tower, a little larger than the Eiffel Tower in Paris.

[1] Official opening. Opened to the public 10 January 1863.

Work commenced on this project but, after just the first stage of the tower was completed, it began to sink in the marshy ground involved! Soon after Watkin died (in 1901) the partly-built tower was demolished. Later, however, in 1923, the site was used for the British Empire Exhibition.

As passengers became more and more irritated by the smoke and fumes associated with steam propulsion, the Metropolitan (and also the District) began to look to electricity to solve the problem. Three electricity generating stations were built by the two companies and Rob was able to visit one of them, Greenwich. Originally built to serve the tram system, this power station was later used to supplement supplies to the trains, a function which it still fulfils (partly) today. This is now one of the oldest power stations still in use in Britain.

Rob met the general manager, Russell Fleetwood, who took him to see the cavernous open space that was the old turbine hall, now disused. Rob was, however, able to try controlling the travelling overhead crane, which had been kept working. He then moved to the part of the station still in operation. This was now powered by (up to) seven jet engines, of the type used, in the 1960s, in the English Electric 'Lightning' jet fighters. Although only used on a 'stand-by' basis, each engine is tested regularly, in case it should suddenly be needed. Rob was allowed to start one of these engines and run it up to speed (taking about three minutes) before 'synchronising' it with the existing power system and then bringing it into use to supply some 13 megawatts to the Underground. Russell estimated that this was equivalent to supplying some 10- to 11,000 homes.

With many of their stations effectively in the 'middle of nowhere', the Metropolitan began to take an interest in property development, to encourage passengers to use them. The company generated the slogan "Live in Metroland" to help sell properties that it either developed or encouraged private developers to build. Rob later visited Amersham, where he located a property used in some of the original Metropolitan Railway advertising literature. The property had changed little in appearance, though the then asking price of £875 would probably need three 'noughts' added to it nowadays! People, living in the smoggy and dingy inner London suburbs, were easily attracted to the new, spacious, houses on offer in 'Metroland', with the open countryside so close at hand. This attraction applied even though Amersham was some 25 miles from the city.

As the network of various lines in London expanded, the emphasis tended to change from competition between them to co-operation. In 1933, the fiercely independent Metropolitan was forced to become, with all others involved, part of the then newly-formed London Transport. We were told that the increasing complexity of the system meant that the effects of an incident on one line could soon move to adjacent line/s, creating a vital need for closer working between different lines.

Rob visited the control room of the Metropolitan Line and was able to witness the staff dealing with a signal failure in the Edgware Road area (Praed Street junction). Some trains had to be moved back in the wrong direction to clear the area concerned and then the traction current had to be turned off so that engineering staff could access the track in the area of the problem (point indications, so it transpired).

Having remarked (at platform level at St. James's Park station) on how many things serve to remind you that you are on the Underground system, such as door buttons, indicator signs and the roundel of the station nameplate, Rob moved into London Underground's headquarters above the station. Here he met John Hunter, who is in charge of the Design Section, and was shown something of the 'Aladdin's Cave' of items held by the section. He met Allan Foal, who was responsible for the layout of the iconic tube map. Allan explained that the map had changed considerably in 1931, when Harry Beck (an electrical draughtsman with London Transport) had offered to the senior management a diagrammatic map to supersede the (then) geographical version, which was quite confusing in itself. Beck's idea was initially rejected, but later accepted. The version now in use is, essentially, Beck's, though many lines and stations have been added in recent times, as the system expanded. When shown to viewers, the current map was still quite similar to the original Beck version.

The expansion of the Underground continued and this effect tended to be repeated in cities around the world.

THE FIRST MODERN TUBE LINE

The fourth (and final) programme of the series, broadcast on Monday 24 April 2017, concerned the Piccadilly Line, which Rob told us brought (in its day) glamour, the future and modernism to the Underground system. The 'Royal Blue line' (its colour on system maps) now carries some 210 million people a year through some of the most iconic parts of London.

Viewers were taken to King's Cross, which handles some 274,000 passengers a day, which Rob told us was equal to the whole of Newcastle passing through there. We met Mary Ferrera, a Customer Service Assistant, whose task was to help keep the flow of people moving. She joked and laughed with the passengers passing through and we were reminded that many here had never used London's Underground system before. Mary pointed out that passengers came from many places, especially with the station having interchange with the Northern, Piccadilly, Victoria, Hammersmith & City and Metropolitan lines, as well as National Rail at Kings Cross and also destinations much further afield at St. Pancras International.

In the early-1900s, the system was not attracting the numbers of passengers which it had been built to carry. Rob was interested to know what had been done to correct this problem. At Piccadilly Circus, he met Mike Ashworth, who is responsible for looking after the system's heritage. Mike took Rob to see the disused part of Piccadilly Circus station, which found Rob a bit amazed at just how much of it existed. Mike explained that the station had opened in 1906 and that this part had closed in 1928. Rob was quite amazed at this 'life-span' of just 22 years. Mike explained that lifts (a disused shaft was shown to viewers) had a problem. If you just missed one you would likely wait up to two minutes for it to return. People grew tired of such delays after (or before) a relatively speedy train journey.

At this point, we were introduced to the character Frank Pick. He had trained as a solicitor and had been employed by railways in the north-east of England. He then joined the publicity department of the Underground. He rose through the ranks, eventually running the whole company. Pick was aware (obviously) of the need to improve passenger numbers, so began to bring about a transformation of the system. He commenced with Piccadilly Circus station, where a major rebuild was carried out. The lifts were abandoned and banks of escalators installed (in new shafts), thus keeping people on the move between street and train, instead of making them wait for lifts. The station was given an extremely spacious circulating area, round in format, to give a much better impression to those using it than the original station had managed. Such finishes as marble also helped to improve the overall ambience. The rebuilding even included moving the statue of Eros for a short period! All this was done to strive for simplicity of movement and a sense of 'luxury', to bring the passengers back to the system.

Having modernised Piccadilly Circus, Pick moved, by 1931, to the edges of London. The population in the suburbs had doubled in size since the Underground system had started. Also, with the creation of London Transport, the Underground and bus systems had been brought into one organisation.

Viewers visited Arnos Grove, where the new station incorporated a small bus station. Customer Services Manager Stephen Dagsland had spent some 22 years on the Piccadilly Line and showed us the way that the station interior was lit by natural daylight during daytime and by floodlighting after dark. He also opened up the now disused booking clerk's ticket issuing machines, (in the 'passimeter'), which, he understood, were still able to operate.

Pick brought in one of the leading architects of the day, Charles Holden and he became responsible for changing the face of stations, from the old blood red tiles and flat facades dating from the days when they were first built, to much more 'modernistic' building styles. The new headquarters of London Transport at 55 Broadway was mentioned and stations at Arnos Grove (see above) and Southgate were seen. The latter two brought this modernistic style, and some futuristic sculpture, to the suburbs. Keith Kenmare (a Piccadilly Line driver) told viewers that the Piccadilly Line has more grade two listed buildings than any other Underground line. The total is 32 out of 54 stations on the line.

A further innovation introduced by Frank Pick was to hire leading artists of the day to provide a level of artwork on the system. Eleanor Pinfield, who nowadays has responsibility for artwork on the system, showed Rob the vast mural at Tottenham Court Road, the point of which was to make people feel welcome at the start of their journeys on the Underground system.

Beyond the stations, Pick introduced much more modern trains. These had such innovations as high quality seating fabric and well sprung seating (perhaps much needed, as the extensions to the system resulted in generally longer journeys for many passengers). Extra doors were also intended to assist

in keeping boarding and alighting times to a minimum, theoretically allowing slightly more trains to be run.

Whilst showing us more of Holden's architecture (at Park Royal), we were told that Pick's 'revolution in public transport' had resulted, by the end of 1931, in 150-million more journeys each year on the system. He has succeeded in transforming the Underground system from 'the inside out' by selling 'glamour, modernisation and the future'.

Returning to the world of today, we went to Piccadilly Circus station. Customer Services Assistant Dan Mulley observed that people seem to become different characters once they enter the Underground. They start thinking that waiting three minutes for the next train, having just missed the previous one, is the 'end of the world'!

In 1939, the outbreak of the First World War two saw one of the Piccadilly Line's disused stations put to a 'strategic' use. Down Street, closed since 1932, was converted into a nerve centre of the British war effort. It was made into a luxurious and well-appointed bunker for the Railway Executive Committee, who were responsible for the running of the nation's railway system in wartime conditions. The station also became home to prime minister Winston Churchill's wartime cabinet sessions.

Rob met London Transport Museum's Chris Nix here and Chris conducted him from the street down the 22-metre descent to the platform level. Here were the remains of toilets, a bath (quite probably used by Winston Churchill!), kitchens, meeting rooms and a complete 50-line telephone exchange. This, Rob was reminded, was in the days when most people did not have a telephone at home. Churchill could even speak direct to president of the United States, via an American encryption machine in the basement of Selfridge's store. The station, at such a depth, was, of course, safe from bomb and even rocket attacks. It was also sealed against possible attack by gas. It was understood that the kitchen provided excellent food, all 'off the ration' and even such luxuries as caviar! Towels were even monogrammed and supplied by Harrods!

The decades since WW2 have seen many millions spent on modernisation on various lines and stations, but the Piccadilly, perhaps because of the great efforts by Frank Pick in the 1930s, was effectively put to the 'back of the queue' for improvements, etc. Viewers met Piccadilly Line controller 'Jim' who, in the line's control room, pointed out the equipment in use, dating from the late-1950s and early-1960s. It was almost like a working museum, Jim told us, though the engineering at the time had been good and had thus lasted well. In that time, passenger totals on the line had risen from about 160-million per year to over 200-million per year. Jim remarked that the days when everything runs well are something of a rarity. Most days included passengers being ill on trains or stations and signal failures were also encountered from time to time.

To prove the last point, the cameras were present to witness an incident on the Victoria Line, where a doctor attending a passenger on a platform thought that their problem could be a viral infection and requested the platform be closed (i.e. quarantined) whilst the possibility was investigated. This suddenly threw a lot of extra traffic on the Piccadilly Line (assumedly the station concerned being Green Park), with which the line was forced to cope. Control room staff told us that the controller was like 'god' and you had to do what he/she told you!

The trains on the Piccadilly Line are some of the oldest on the entire network. Driver Keith Kenmare advised viewers that the stock (known as 1973 Stock) was old-fashioned, but built to last. It was one of the most reliable on the network. The programme narrator told us that it had its basis in the stock built in the 1930s to Frank Pick's basic designs. There was now a challenge in keeping these veterans running, as they gradually aged with the passing of time.

Rob now visited Northfields Depot, to experience a little of the work carried out to keep this stock performing it duties. Viewers were shown a few historic shots of train maintenance from, probably, the 1950s (but clearly on the Northern Line). Rob joined some staff checking, amongst other items, brake blocks and was given the opportunity to change one himself, which he managed without too much difficulty. (But then he is a qualified mechanical engineer!). He was told that the tasks undertaken included repairing what they could and reporting what they could not. Rob observed that these trains predate computers and complex electronics, which, as a mechanical engineer, he found somewhat reassuring.

The Piccadilly Line had, in earlier times, been the 'glamour' line, serving many of the 'swankiest' areas of London, such as Kensington, Knightsbridge and Mayfair. In the 1930s, it had been the 'jewel in the crown' of the underground. However, by the 1980s, after years of under investment in the system, the

original lustre had faded. This led to one of the Underground's worst tragedies ever, on 18 November 1987. This was the fire at King's Cross, when a discarded match ignited accumulated fluff, which was clinging to grease under an old wooden-style escalator. Some recollections of passengers involved (filmed shortly after the event) were shown to viewers. It took some 150 firefighters six hours to bring the inferno under control. A total of 31 people died and about 100 were injured. No previous consideration had been given as to how the build-up of fluff could cause such a catastrophe.

This event had shown the need for greater investment in the system's maintenance and also how critical thorough cleaning was, to avoid any repeat.

Rob was next at Piccadilly Circus station, as the entrance gates were being closed after the last train had departed. He joined a gang of tunnel cleaners, whose task is to clean the fluff and other human debris from the track, covering up to 200 metres of tunnel on each of their shifts. This job had been done since the start of the 'tube' system, though women, called appropriately 'fluffers'[2], used to be employed. Now the job is mainly done by men. Rob asked the supervisor, Lord Darlington, what materials made up the fluff. The answer was organic material, which consisted of human hair, human skin, rat fur, ... At this point Rob had heard enough and decided to leave it at 'organic material'! Lord Darlington had been 22 years on this job, but joked that 'someone had to do it'! The gang were working on the westbound line, towards Green Park, doing what was described as a 'life saving' job (probably with the King's Cross inferno, mentioned above, in mind). The gang removed some 20 kilograms of rubbish, working over what was estimated to be a 120-metre length of track.

The Piccadilly Line control centre, mentioned earlier, was soon to close and be replaced, as are, in the fairly near future, the trains.

Frank Pick's work in the 1930s had saved the Underground from bankruptcy and helped to transform London into a modern, functional city, which was then copied by other cities worldwide. His legacy was a system of 270 stations and 250 miles of track, which formed a 'thread', which held London together. Shortly, Crossrail, the Elizabeth Line, would add some 60 miles to the system and carry 300-million people each year. (Your reviewer queries this new line being any part of the Underground as such!).

Millions of people, who use the underground system each day, just could not do without it.

Your reviewer considered that this was a good production, by 'Blast' films, and was also quite technically competent. But then it was, after all, narrated by a qualified mechanical engineer!

[1] The programme described te Fluffers as 'fluffies'.