#### 'ALL CHANGE!' ON BRITAIN'S RAILWAYS

(extracts taken from <a href="https://www.nationalarchives.gov.uk/railways/">https://www.nationalarchives.gov.uk/railways/</a>)

## 1812 The first effective locomotive-powered railway

The coal-carrying Middleton Railway, near Leeds, introduced rack-and-pinion locomotives to haul its trains in 1812. Formerly, coal had been transported from the Middleton pits by wagon way, using horse-drawn wagons.

The locomotive's cylinders drove the pinions through right-angled cranks, so that the engine would start wherever it came to rest.

It is widely considered as being the first commercial railway to make effective use of steam locomotive power, although several accidents in the early years of operation later resulted in the reintroduction of horse haulage.

## 1830 Opening of the Liverpool & Manchester Railway

The opening of the railway signified the birth of modern railways.

It was the first inter-city railway which used locomotives and the first to offer a timetabled passenger service. Its success and popularity proved the viability of the railways and led to the huge expansion in the 'railway network'.

The actual opening was, however, marred by the death of MP William Huskisson who was fatally injured when an engine ran over his legs. This is often cited as the first railway fatality.

# 1842 Queen Victoria makes her first journey by rail (from Windsor to Paddington via Slough)

Persuaded by her husband Albert, an enthusiast for new technology, the Queen expressed her desire to journey to London to the GWR with two day's notice.

The Morning Chronicle reported the Queen saying "Not quite so fast next time, Mr Conductor, if you please," but the journey convinced her of the merits of the railway and she travelled regularly by train throughout the rest of her reign.

The patronage of the royal family was a significant factor in increasing the popularity of the railways among the general public.

## 1847 Greenwich Mean Time adopted by the Railway Clearing House.

The improvements in rapid communication and travel in the early 19th century made accurate and consistent timekeeping increasingly important. In 1847 the Railway Clearing House stated Greenwich Mean Time should be adopted as the time by all stations. This subsequently led to the synchronising of time across the country and a single national time zone being created.

Previously there had been local variations in time. These time inconsistencies made it difficult to create reliable national timetables. The railways encouraged a single standard time to be adopted to improve both efficiency and safety.

## 1863 Opening of the first underground railway

Although an underground railway linking the City of London with the mainline terminus stations had originally been proposed in the 1830s, construction of the first line, covering 3.75 miles, and 7 stations, between Farringdon Street and Bishop's Road (Paddington) did not commence until 1860, using a 'cut-and-cover' method of tunnel building.

When this line opened to the public on 10 January 1863, with gas-lit wooden carriages hauled by steam locomotives, it was the world's first underground railway, and eventually became part of the network brought together as London Underground.

#### 1892 Demise of broad gauge

In 1830s Britain there were two widths, or gauges, of railway track. The engineer Isambard Kingdom Brunel favoured rails 7 feet apart (Broad Gauge) on the Great Western Railway, while George and Robert Stephenson used a gauge measuring 4 ft 8 ½ inches (Standard Gauge).

While Broad Gauge had advantages, more lines used the narrower, and cheaper, Standard Gauge system. Over time the advantages of a national standard gauge railway outweighed the benefits of wider tracks. Gradually all broad gauge lines were converted to standard gauge, ending with the Exeter to Truro route in May 1892.

## 1900 Taff Vale Railway Strike

Workers at the Taff Vale Railway Company, (members of the Amalgamated Society of Railway Servants), striking to protest against the company's treatment of an employee ran a sabotage campaign to disrupt the railways' daily running by replacement workers.

The following year, the railway company sued the union for damages and won. The ruling outlined that unions could be liable for the loss of profit from strike action.

It is known as one of the key events leading to the formation of the Labour party, which later in a coalition government passed the Trades Disputes Act 1906, overriding the ruling.

## 1914 Formation of the Railway Executive Committee

When war was declared in 1914, the 130 extant railway companies were taken over by the government in the form of the Railway Executive Committee, consisting of the general managers of the major railway companies. Rolling stock was pooled, workshops were given over to munitions work and locomotives were sent overseas for the war effort.

Railwaymen were encouraged to join the Royal Engineers, contributing to army operations as part of the Railway Operating Division and delivering troops, ammunition and supplies to the front lines. The operation was seen by some as a pre-cursor to the nationalisation of the railways.

#### 1955 British Railways Modernisation Plan

Intended to bring Britain's railways up-to-date and to eliminate their deficit by increasing speed, reliability and efficiency, the Modernisation Plan in many respects was a failure, involving expensive mistakes and missed opportunities.

The phasing-out of steam traction engines announced in the plan meant that many steam locomotives were scrapped when only a few years old, and often before a reliable and practical diesel or electric equivalent was available. However, the diesel and electric trains it introduced generally changed travelling conditions for the better for passengers and crew.

## 1994 The Channel Tunnel opens

The Channel Tunnel has added a new dimension to European business and leisure travel, and linked mainland UK and continental Europe for continuous travel for the first time. It has driven the development of High Speed rail lines in Britain. However, the idea of a tunnel was first conceived in the early 19th century and the idea of some kind of 'fixed link' spanning the Channel goes back to the Romans. Ideas have included boats lashed together, a string of artificial islands and several bridges, as well as numerous tunnel schemes preceding the eventual completion of the Channel Tunnel.

## 2007 Launch of 'High Speed 1', the first high speed line

Subject to impassioned economic and environmental debate during its construction, HS1 is Britain's first genuine high speed line, with speeds of 186mph possible in some sections. As well as high speed services through the Channel Tunnel, it has enabled Kent-London Javelin commuter services to reach speeds of 140mph, and also allows European container freight to reach London for the first time.

HS1's success is playing a major part in the debates around HS2, the proposed high speed link from London to the North.