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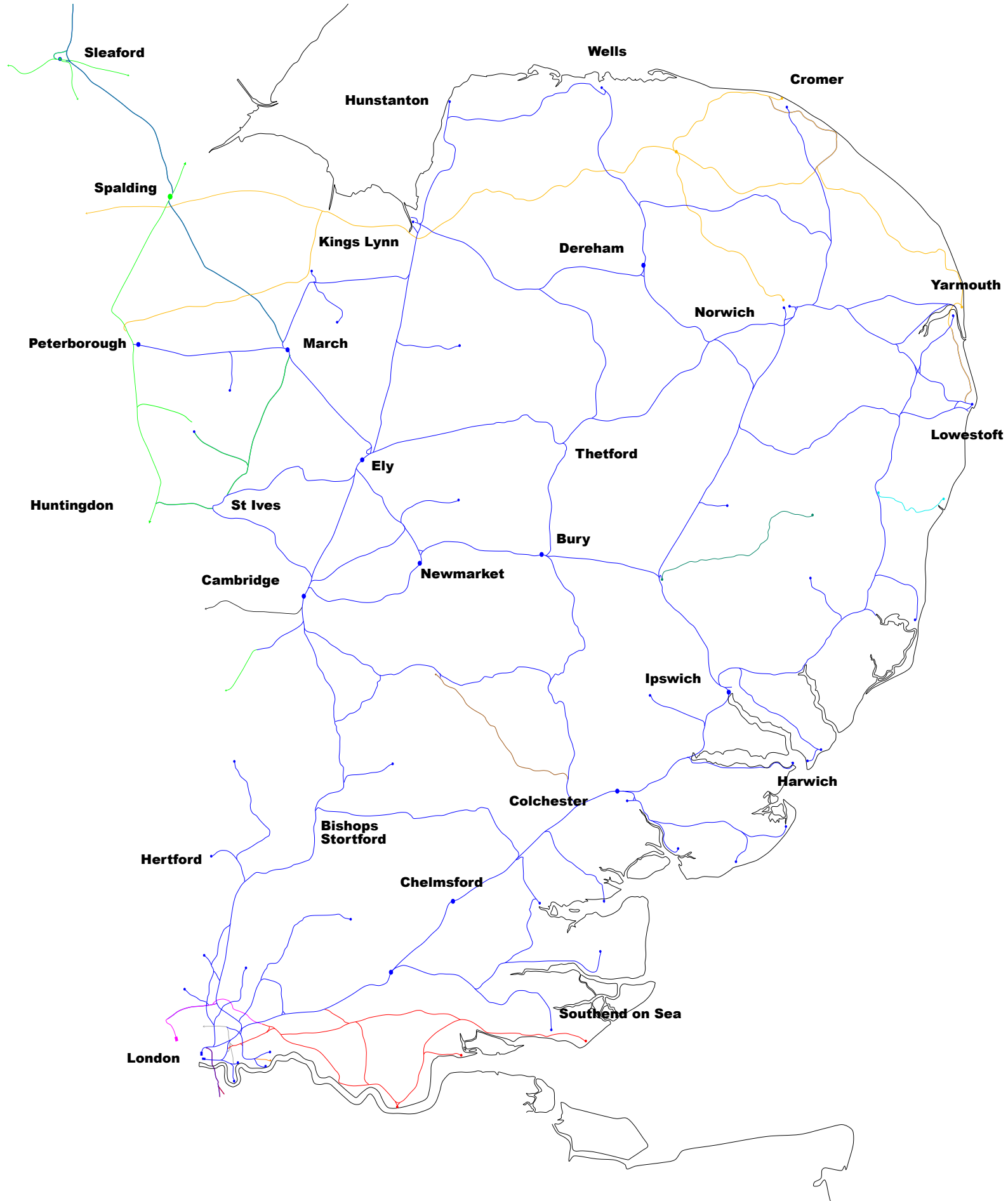
SAMPLE ARTICLES



Some ECR engines and engineers

The late Canon Charles Bayes

Canon Charles S Bayes BA died in 1991 at the age of 77. He was well known as an expert on GER matters but his railway knowledge and interests extended much further, embracing the Midland & Great Northern Joint, the Lancashire Derbyshire & East Coast, the Great Northern, Midland and the London & North Western railways.

Following ordination soon after World War Two he became curate at St Mary's, Nottingham and remained in the county until retirement. He then moved to Aldborough, Norfolk, a place epitomising everyone's image of an English village, and lived in a delightful Georgian house overlooking the extensive green complete with its cricket square.

He made numerous contributions to the *Journal* and added to the GERS Collection by donating valuable documents, magazines, drawings and photographs. None of those who attended the Half-Yearly meeting at Norwich in October 1989 are likely to forget his fascinating talk on ECR locomotive development, which was probably the first serious attempt to make a proper assessment of this early period and was delivered in style with characteristic humour.

The text of this talk was passed on to the Society and is published here for the first time, together with a selection of drawings made by W T Buckle for the *Locomotive Magazine* in the early years of the 20th Century and some redrawn by Lyn Brooks.

There have been previous accounts of the opening of the ECR to Romford, but if we go back another three months this is what the *Essex Standard* of 8 March 1839 records:

'Eastern Counties Railway – Ilford. On Friday two new railway carriages, said to be the most splendid ever built, appended to that elegant new engine "The Ilford" made their appearance here, crowded with the directors and their friends. They were greeted on their arrival with the acclamations of a great multitude of people assembled on the bridges and banks of the railway, to witness so novel and welcome a sight in this county. The Ilford band added to the cheerfulness of the day. These carriages had run on the railway all the way from Mile End to Ilford, a distance of upwards of five miles. Early on Saturday the directors again arrived at Ilford by the same conveyance, and proceeded further down the line to view the state of the works, and afterwards enlivened the village during the day by making excursions to and fro on the railway, and amusing themselves by racing with their other engines. It being Sessions day, the directors sent a polite invitation to the magistrates to take a trip. Their worships thanked them for the invitation, but said they would prefer waiting till the ground was more solid on the embankments, before they ventured their persons upon it. In the evening the directors dined at the Angel and the village had the appearance of a fair, more than a quiet village. Meanwhile Mr Braithwaite, the engineer, with his usual politeness, allowed the Ilford Ladies and gentlemen to take excursions on the railway'.

Engineer Braithwaite

The key person at this stirring occasion would have been John Braithwaite, Engineer-in-Chief of the ECR since 1836 at a salary of £1,500 per annum plus £300 expenses, and comparatively old at 42. At this time steam and railway engineering were the new exciting occupations to take up. Just how far the Ilford locomotive races continued isn't known, but for Braithwaite it would recall ten years before at Rainhill when he and Ericcson, now ECR Assistant Engineer at a salary of £700 p.a., performed on the lightweight *Novelty* for a couple of turns before its delicate machinery protested. Perhaps the Bury four wheelers at Ilford protested too.

The line was laid to the gauge of 5 feet on Braithwaite's recommendation, his reason being that an extra 3½ inches width on the engine would allow more space for the machinery. As a Victorian contemporary commented rather sourly the little 'Bury' engines, some of which were built by Braithwaite's engineering firm, with their small 8ft wheelbase had smaller boilers than Stephenson's *Rocket*.

The Bury engines

During the first five years the ECR acquired 26 Bury engines, all but two of which were four wheelers. The passenger engines had 5ft 6in or 6ft 0in wheels and were single wheelers. By contrast the Northern & Eastern Railway with whom operations were combined in 1844 had a fleet of fourteen six wheelers, including some of Robert Stephenson's latest type. The whole 40 ECR and N&ER engines were inside cylindered.

There are some interesting sidelights on the capabilities and behaviours of the Bury engines in the 1845 evidence before the Gauge Commissioners. In the course of his evidence, Braithwaite said 'The

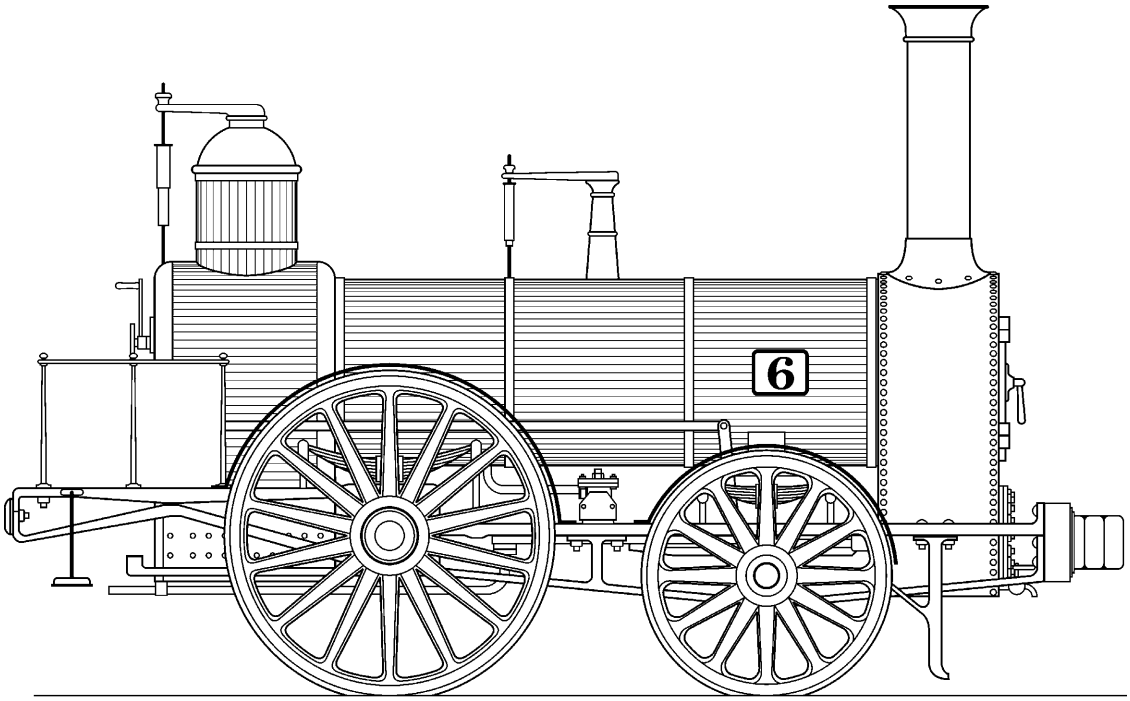
A note on early locomotive development

There was considerable trial and error in early locomotive development, as designers tried to deal with the trade-offs between power, weight, road-holding, stability, materials strength (especially crank axles and coupling rods) and trying to maintain a low centre of gravity. Firms tended to copy the best from each other and two broad locomotive types emerged. Stephenson favoured heavy engines with plate frames and long boilers.

A different approach was used by Edward Bury & Co (later Bury, Curtis and Kennedy). The 'Bury type', as it became known, was widely copied and featured 4 wheels (2-2-0 for passenger use and 0-4-0 for freight), a short boiler, light-weight bar frames, inside cylinders and usually a large 'haystack' firebox - though later displaced by a simpler raised firebox.

These designs dominated until 1847, when David Joy's 'Jenny Lind' type 2-2-2 became the design that everyone copied.

Peter Walker



Bury-type 2-2-0 No. 6

The Eastern Counties Railway came in for criticism for its continued use of 2-2-0 locomotives after they had been superseded by larger six-wheeled engines on most other railways.

Shown here is No. 6, one of the first six passenger engines built for the ECR, by Braithwaite, Milner & Co. in 1839. They appear to have been unsteady runners from the very start – this engine derailed between Brentwood and Romford on 19 August 1840 with the 7.00pm up passenger train, killing the driver and fireman, plus one of the passengers. Sister engine No. 3 had previously disgraced itself within weeks of the opening of the railway, when it derailed between Bow and Stratford.

Lyn D Brooks

locomotive of today is not the locomotive of 1836', but in the case of the ECR that is exactly what it was due to his lack of enterprise. Another puzzling observation was 'A boy may now with facility clean an engine in an hour which would formerly take a man a day'! Obviously some members of the Gauge Commission knew of mishaps because the following exchange took place, as Mr Seymour Clarke of the London & Brighton Railway had stated that the standard gauge engines were practically safe:

'But your engines do get off the line sometimes?

Not from high speed.

But they do get off?

They get off at points.'

Later Robert Stephenson in evidence stated that a short four wheeled engine, because of the weight behind the driving axle, was liable to oscillate violently when it met uneven track. He also thought the London & Brighton Railway engines too small and Bury himself had not intended more than 30 mph.

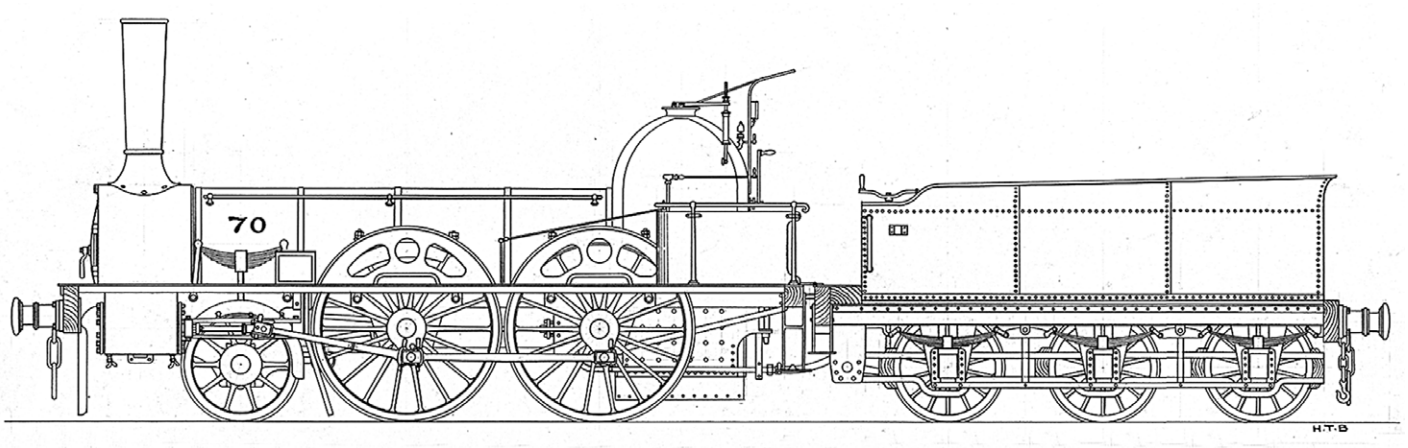
On 21 January 1842 John Herapath visited the ECR in connection with the controversy over Bury locomotives and travelled on single driver No. 11 to Stratford and returned on four-coupled No. 17.

In 1843 Braithwaite prodded by Robert Stephenson urged the ECR Board to convert the 88 miles so far constructed to standard gauge. This was speedily and efficiently completed over six weeks in September and October for £52,000. However by this time his official contract as Engineer-in-Chief had been terminated, although he continued to assist the company in a vague consultancy capacity and in 1845 we find him asking rather peevishly what his exact status was.

The original 40 engines fared surprisingly well. All were converted to standard gauge. By 1850 fourteen were out of use or derelict. In the late 1850s fifteen were still in existence, even if not in use. By 1861 five were left and Sinclair put No. 119 on a pedestal in 1862, but it was scrapped by Johnson in 1868.

Standard gauge purchases

The coming of the standard gauge meant not only the conversion of most of the existing engines, but the hasty purchase of different manufacturers' designs. Obviously Robert Stephenson was a figure of great influence and his emphasis now was on outside



Stephenson No. 68 Class long-boiler 2-4-0 No. 70, built in August 1846

Of the three engines in the class, this was the only one not to be rebuilt, and it is shown here in its final condition in the Sinclair period. Among other modifications it has a Sinclair chimney and similar slotted splashers to those used on his famous Y class 2-4-0s of 1859.

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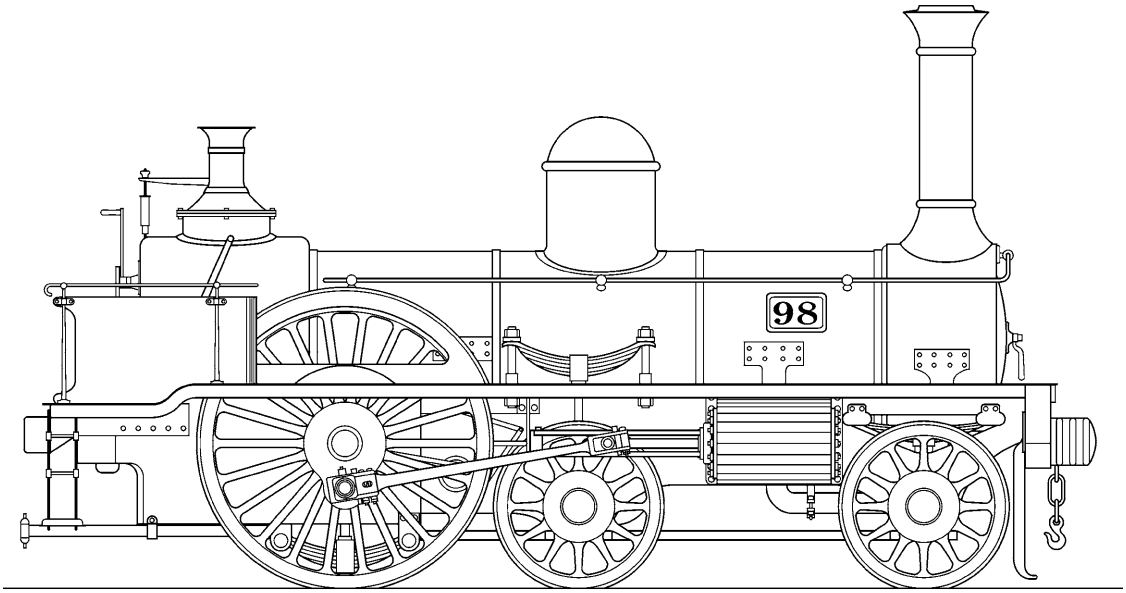

◀ Stephenson 2-2-2-0 No. 98

This is No. 98, one of five long boiler 2-2-2-0s built by R Stephenson & Co. in 1846. Further engines of similar type, and built by Tayleur & Co. were provided for the Norfolk Railway, whilst the ECR also ordered some from Wilson & Co. in 1848, but of the 'Crampton' pattern with the driving wheels behind the firebox. None were very successful, and the Stephenson machines were soon afterwards rebuilt as 2-2-2s, as illustrated below.

Lyn D. Brooks

cylindered six wheelers, because the breakage rate of crank axles on inside cylindered locomotives was both frequent and dangerous. Unfortunately the outside cylindered passenger engine also had its faults, especially as to save money on turntables, Stephenson tried to have the total wheelbase within 12 feet and all the wheels were in front of the firebox. A fatal derailment of Norfolk Railway No. 8 on Christmas Eve 1845 at Thetford showed all too clearly that these long boilered engines could wag their tails as dangerously as the Bury four wheelers. But by this time the ECR had stocked up with many engines of this type, both 2-2-2 singles and 2-4-0s from the workshops of Stephenson, Jones & Potts, E B Wilson and Vulcan Foundry.

Stephenson's solution to the drawback of instability was to redesign his single wheeled express locomotives with the driving wheel behind the firebox preceded by two separate carrying axles in front. The Eastern Counties Railway was not the only line to be pressurised into buying quickly what was available, because it had doubled its mileage since the gauge conversion and in these heady and exciting days the staff had changed. The locomotive superintendent, John Fernihough, although a Bury trained man had abandoned Bury designs. After his resignation in 1845, Scott succeeded him and Hunter took over in 1847. Perhaps his most original contribution was to rebuild some Bury four wheelers thoroughly including an extended 10ft wheelbase, but even so their use must have been limited. In 1850 he was asked to resign and the same fate met James Samuel, the resident (civil) engineer, of whom we will hear more later. Then came John Viret Gooch and the locomotive 'Stone Age' was left behind. In 1845 72 men were employed; in 1850 1,500; in 1862 2,500.

The ECR locomotive stock

Having moved on to 1850, it is convenient to look back and see what locomotive stock the ECR had arranged to acquire in this strange period for which H G Lewin invented the splendid title in the second of his historical surveys *The Railway Mania and its aftermath*. Having mentioned the 4-2-0 rear drivers, there is no evidence that they proved value for money, even though No. 42 lasted until 1868. Numbers 98–102 with 6ft 6in wheels were rebuilt as conventional 2-2-2s with the rear wheels behind the firebox. They were apparently successful as rebuilt and survived well into Sinclair's regime. When George Macallan was in charge of Cambridge, he records No. 101 coming in from Norwich and the driver complaining that he could go no further and keep time. It was duly replaced by Y class 2-4-0 411 and was scrapped in December 1866, the last of the class. Unfortunately the ECR was saddled with too many 2-4-0s and the locomotive registers in the National Archives are convincing proof of their ineffectiveness. When one

▼ 2-2-2 No. 100

Five 2-2-2-0 long boiler locomotives were built by Stephenson in 1846, and their 6ft 6in diameter driving wheels were the largest so far employed on the ECR. They were not a great success in their original form, and were soon after rebuilt as 2-2-2s. This is No. 100 as rebuilt – the drawing is one of those that were not published in *The Locomotive Magazine*, and shows the tender, but is otherwise similar to figure 32. As rebuilt the five engines were much more successful and hauled the principal ECR expresses. No. 100 was scrapped in the Sinclair period, the last two being broken up at the end of 1866.

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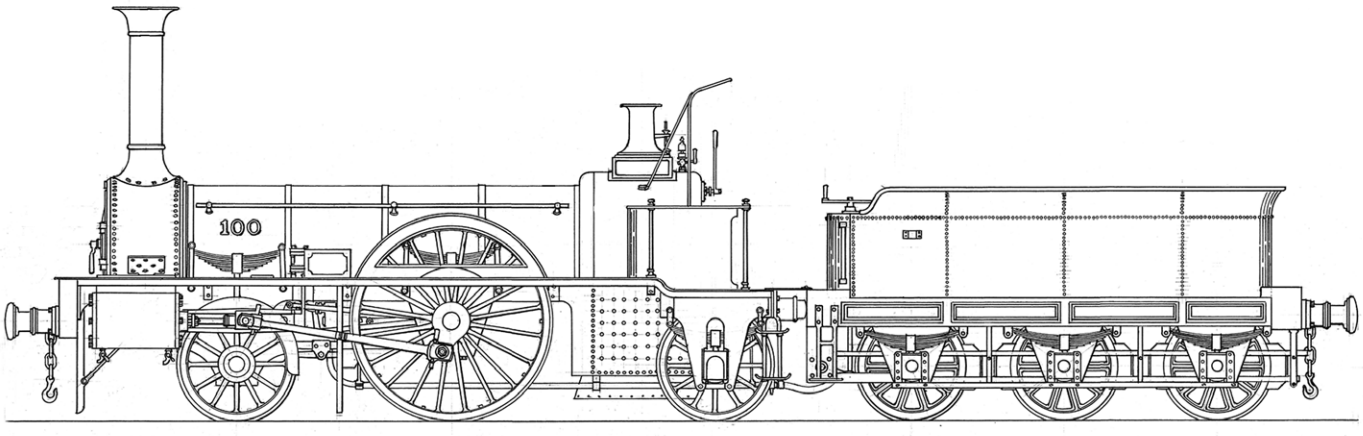
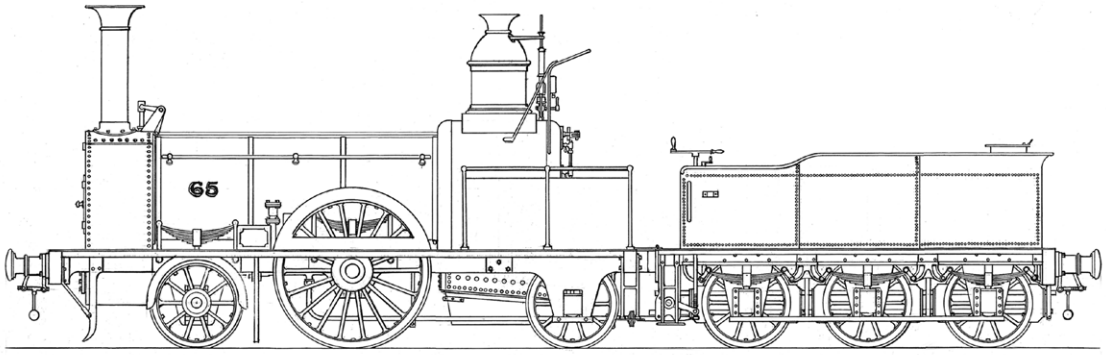




2-4-0 No. 65

The No. 61 Class 2-4-0s were one of the Eastern Counties Railway's most successful types. These were seven inside-cylinder 2-4-0 engines built in 1846 by Stothert & Slaughter with 6ft driving wheels. However, they had a short trailing wheelbase of only 5ft 11in, which tended to make them lively riders at speed. As a result, they were all modified with longer rear frames enabling the trailing wheels to be moved further to the rear.

Between 1860 and 1868 they were all rebuilt with slightly longer boiler barrels and other modifications. As was usual at this period on the ECR, the long period of rebuilding resulted in numerous detail variations between the engines, and this illustration shows No. 65 as rebuilt in July 1868, and fitted with a larger tender. It was later 'duplicated' as No. 650 in 1875, and withdrawn three years later, along with the other two final survivors.

NRM Collection 1521-60
(GERSHC Ref D/Z 346/787/78)

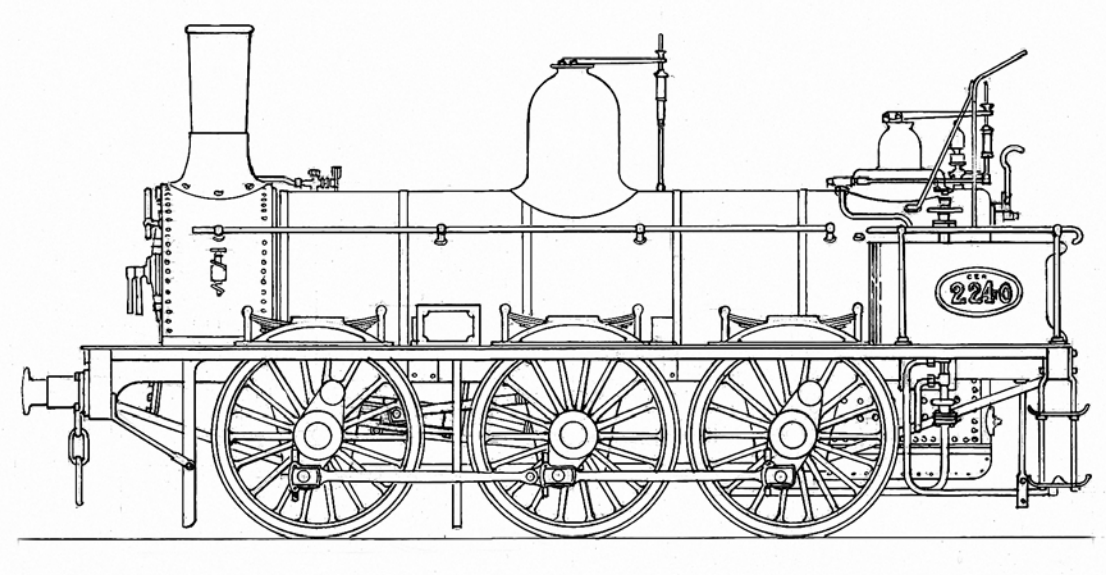
finds four 4-2-0s marked year after year as 'not worth repairing' in company with others of different types, one can conclude that the Stratford scrap sidings have a long history.

The locomotive event of 1850 was the official merging of the Norfolk Railway stock into the ECR. This amounted to 40 engines of seven different classes, the most numerous being ten long boiler 2-4-0s built by Stephenson and 12 long boiler 0-6-0s built by Tayleur and Stephenson. One must not imagine that Norfolk Railway engines remained in their own areas. Macallan's notes at Stratford list half the 2-4-0s at work in the London area, while the goods locomotives were noted at Harwich, Ely, the Stour Valley line and the London area. Perhaps the most interesting and elusive Norfolk Railway engines were three that were not even mentioned in the LNER booklet by George Dow and which don't even appear in the published works list of their makers, E B Wilson. However according to the Gooch registers, Nos. 1–3 were delivered in May 1844 and according to Macallan were used on Woolwich trains in the 1860s. They were neat inside cylinder 2-2-2 well tanks and there were two contemporary sketches of them in the ECR 150 exhibition at the North Woolwich museum in 1989.

Standard gauge engines 1845–49

It is not known whether Fernihough and Hunter had a policy or just bought what they could. In the first two years they acquired 23 2-2-2s of various makes with 6ft driving wheels for passenger work and a disappointing collection they were, apart from an inside cylinder batch from Stothert & Slaughter, Nos. 61–67. The final examples were the five 'Jenny Linds' of 1847–8, but the ECR did not get the work out of them that the Brighton and Midland companies did; or maybe they tried to get too much work too quickly. Also intended for passenger traffic were 20 2-4-0s which included five 'Cramptons'. Like most English 'Cramptons' they were unpopular because they were designed solely for express use. The ECR ones lasted six years; the exactly similar French ones lasted 50! The orders for the 2-4-0s betray some odd features. The first few received were long boiler designs with outside cylinders and 6ft driving wheels. Subsequent batches from Jones & Potts, Stephenson and the Vulcan Foundry had 5ft 6in or even 5ft 0in wheels and may be regarded as mixed traffic engines. By 1849 60 2-4-0s had been added, half of which had 5ft driving wheels. They earned their keep and some lasted 30 years.

Coupled goods engines came either as long boiler or normal and all had inside cylinders. Only 22 were acquired from Kitson, Stothert & Slaughter and Jones & Potts. The Norfolk Railway fleet acquired officially in 1850 was much better provided with goods engines and they lasted for a long time, some into the 1880s. It is perhaps significant that when Gooch came on the scene he converted the unwelcome 'Crampton' singles to powerful 0-6-0 goods engines.



0-6-0 No. 2240

Although having taken over the working of the Norfolk Railway in 1848, it was not until 1850 that its locomotive stock was integrated with that of the ECR. Among these were four long-boiler 0-6-0s built by R Stephenson & Co. in 1845-6, and originally numbered 20-23. There was originally a fifth engine – No. 24 – but this had been sold.

Under the ECR the four engines were renumbered 224-227. No. 224 was one of those that were later rebuilt, being so treated in August 1861 under Robert Sinclair, and fitted with wrought-iron wheels manufactured at Stratford Works. It is shown here just before scrapping in 1882, having been placed on the 'duplicate list' as 2240 in 1877.

NRM Collection 1448-60
(GERSHC Ref D/Z 346/787/97)

When we consider the complete lack of any standardisation policy in these years, it is an intriguing thought that John Chester Craven was locomotive foreman from 1845 to 1847. This terrifying man may have carried away to Brighton some liking for the eccentric variety that he found on the ECR. Had he stayed a year or so longer he would have been able to observe the first tentative compound experiment on Stephenson 5ft long boiler 2-4-0 189. We know that this was employed on Norwich to London goods workings.

By 1850 the ECR was running trains on 325 miles of line. To work the line there were nearly 200 locomotives, including those from the Norfolk Railway and those recently acquired from the Newmarket Railway. The approximate number quoted arises because from 1845, whenever any of the Bury engines were withdrawn, the ECR played an intricate game of filling up the vacant numbers in the list by renumbering existing locomotives. As a result some unfortunate machines were renumbered four or five times in the course of seven years.

The Samuel/Adams 'light' locomotives

The ground is much firmer when considering motive power outside the numerical register. To understand this we must consider James Samuel. At the age of 21 in 1846 he joined the Company and two years later in 1848 was confirmed as resident engineer at a salary of £700, ranking £200 above John Hunter the locomotive superintendent. The previous year he had approached William Bridges Adams, who had established engineering workshops at Fairfield Road, Bow, about a self-propelled inspection car. Adams who had a fertile and inventive brain produced a steam-powered vertical boiler open four wheeler for seven people. Publicity was excellent. The *Illustrated London News* for 30 October 1847 included a write up and a drawing. The 'Lilliputian' train as they called it was well and truly launched. On its trial trip to Cambridge, which took only 1¾ hours, it reached 44mph. More publicity came in June 1848 when Samuel read a paper 'On an express locomotive engine' in Birmingham to the Institute of Mechanical Engineers and exhibited *Express*, as it was now called, at Curzon Street or Lawley Street station. Some sceptical colleagues arranged for it to go to the Lickey Bank, but to their confusion it sailed up without any trouble. In the course of his paper Samuel outlined proposals for further light locomotives and made

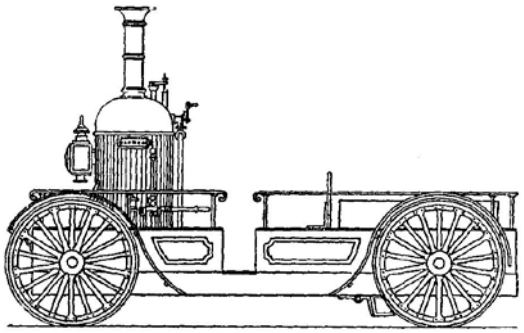


Fig 41.

◀ **Adam's locomoive the *Express* of 1847, the first of several experiments in 'light' engines**

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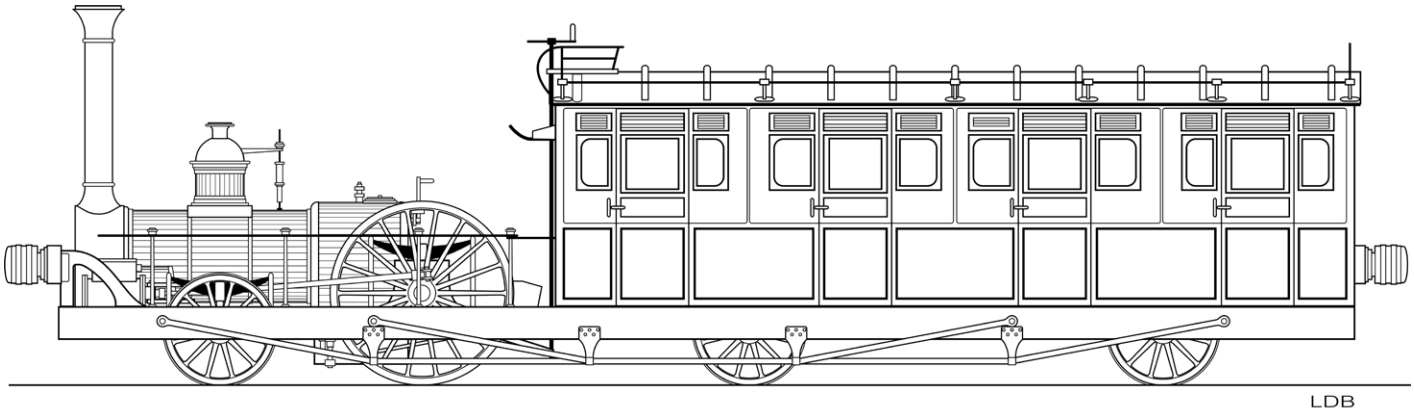
ambitious claims for them, based on the successful six months when *Express* had covered 5,526 miles.

There is a slight mystery about *Express*. All the published details show a two cylinder engine, but on page 235 of *The chronicles of Boulton's siding* by Rosling Bennett there is a description of a very similar engine but with a single cylinder. Boulton's comment is appreciative, 'a first class job'. The subsequent career of this 12-seater machine is delightfully eccentric. It was converted to a road tractor by Boulton, was hired by the London & North Western Railway for road cruises, adapted as a steam tram by Beyer Peacock, drove machinery in a factory and ended up as a hay-cutting machine on a Chesire farm. In 1897 its boiler, which worked at 130 lb/sq in, was perfectly sound. Perhaps Adams built it 'on spec', but failed to sell it as he was no businessman. His obituary notice observed that he obtained small profit from his many excellent inventions such as radial axles and above all fishplates.

October 1849 finds Samuel in Birmingham again addressing an IMechE meeting, this time with Robert Stephenson in the chair. The title of his paper is *On the economy of railway transit* in which he presented a detailed argument for steam railcars. His thesis was illustrated by the *Enfield* built at the Fairfield works with the approval of John Hunter, who one supposes could not very well refuse. *Enfield* had a rigid eight wheeled chassis and a 42 seater carriage. It came into service on 29 January and the branch to Enfield opened in March. The need for economy was no empty claim after the 'Railway Mania', Samuel quoted examples of a mainline train with only seven passengers and a branch train with only three. This was an early discovery that branch lines are rarely profitable. One of those at the meeting was J E McConnell, later to become the 'King of Wolverton', who revealed that he had satisfied his



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▼ **The Samuel/Adams *Enfield***

In 1849 Adams produced this combined locomotive and covered carriage for normal passenger use and named *Enfield*, for the branch that it was intended to be used on. Although the overall concept was judged to be a success, the practicalities of having a carriage that was not available for use when the 'engine' part was being serviced led to the two being separated, the engine becoming a small 2-2-0WT.

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The *Eagle*

Encouraged perhaps by W B Adams' work, the Headly Brothers of Cambridge produced the small 2-2-0 'light locomotive' shown here, also in 1849, and named *Eagle*. Virtually nothing is known of its dimensions apart from the fact that the driving wheels were of 4ft 6in diameter. It is known to have run on the ECR, for in 1850 it ran over and killed Mr Newall, the District Superintendent at Norwich, whilst running between Haddiscoe and Reedham.

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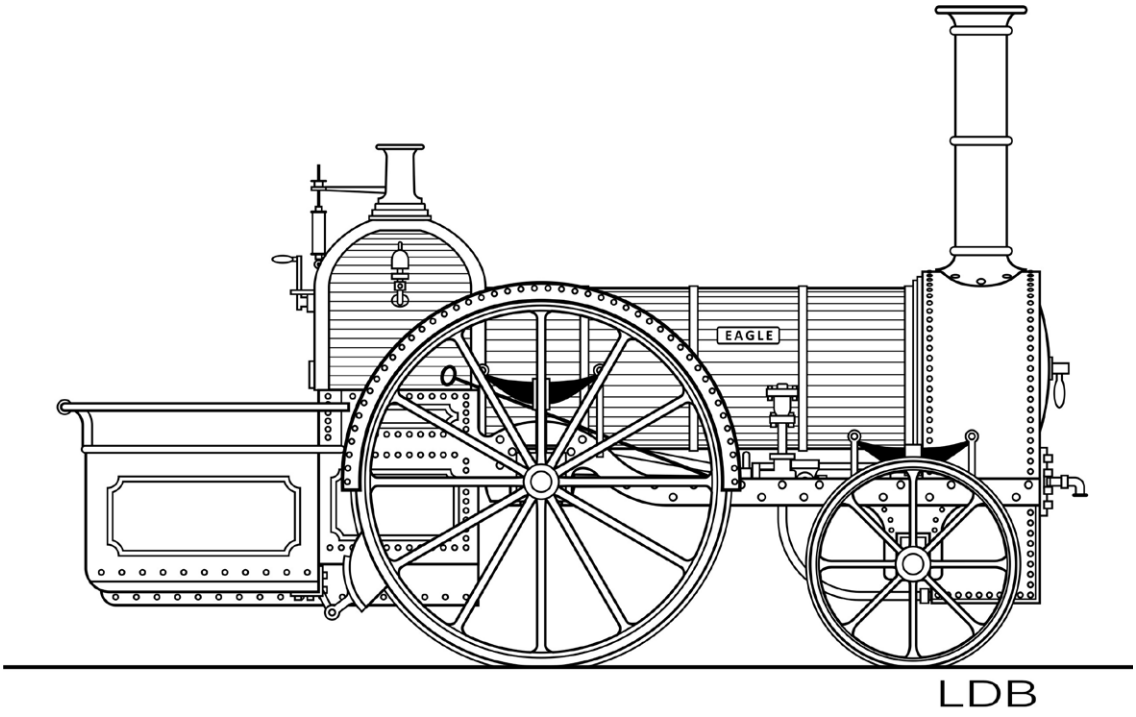

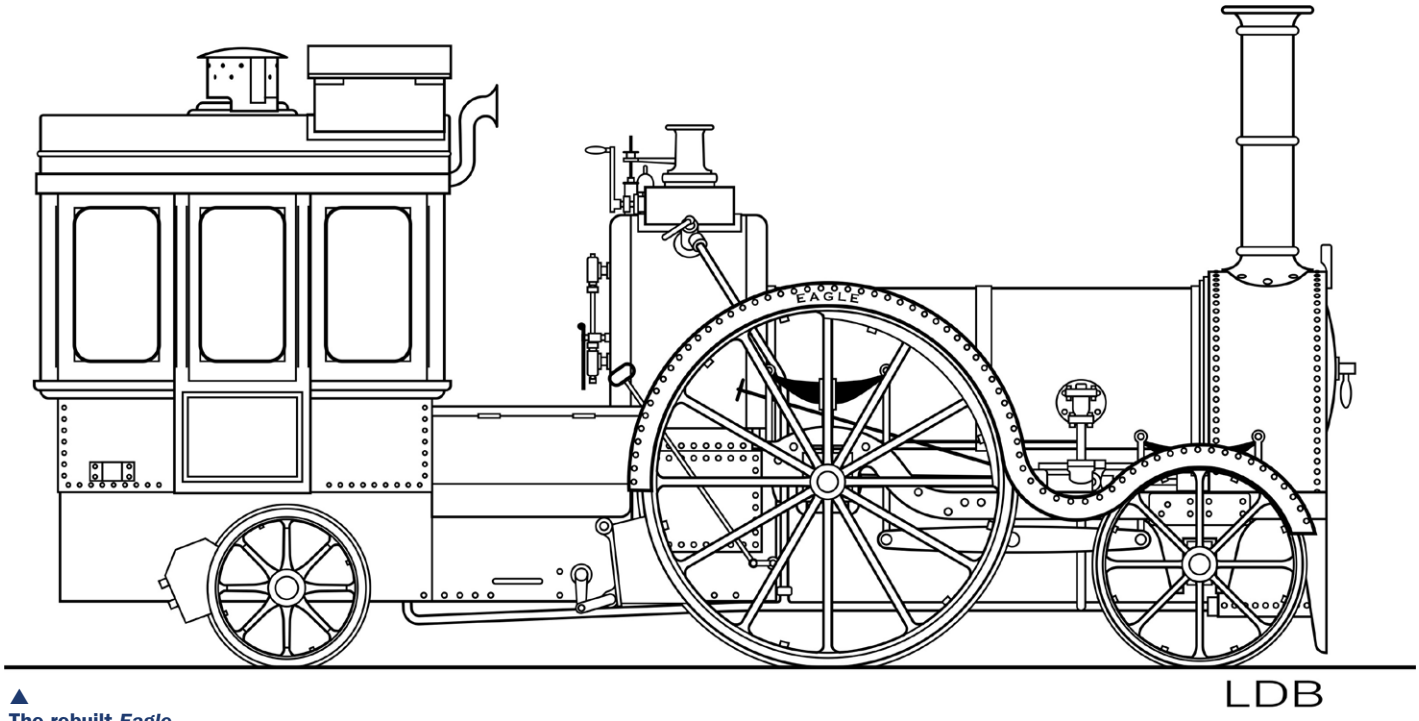

The rebuilt *Eagle*

The *Eagle* was later rebuilt in the form shown here as an inspection carriage, the frames being extended at the rear to support a small passenger compartment. It is understood to have been painted bright green and was housed in its own shed near Angel Lane in Stratford. Its date of withdrawal from service does not seem to have been recorded, but the driving wheels were reportedly used in a manually-powered rail-mounted 'cycle'.

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The *Cambridge*

Another 'light locomotive' was built by Mr Adams in 1849 and it was also put to use on the ECR. Although full details are known of its leading dimensions, there seems to have been little recorded of its design details, hence its plain appearance in this illustration. The engine worked on the Woolwich and Barking trains for over twenty years, and in 1872 was sent to the Shrub Hill branch near Lakenheath, and was eventually converted into a stationary engine.

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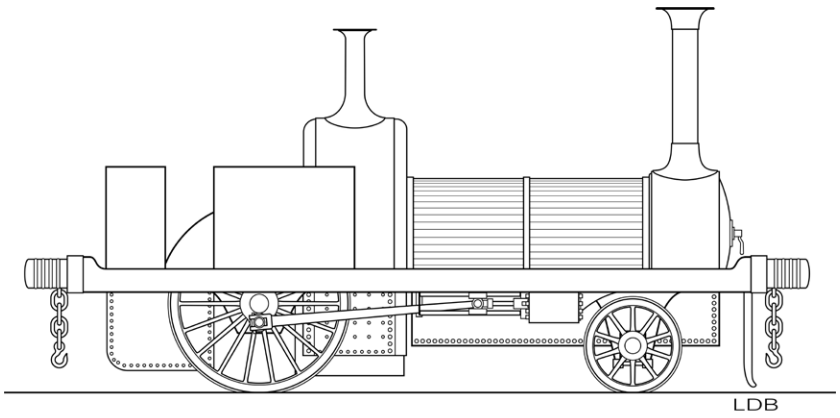
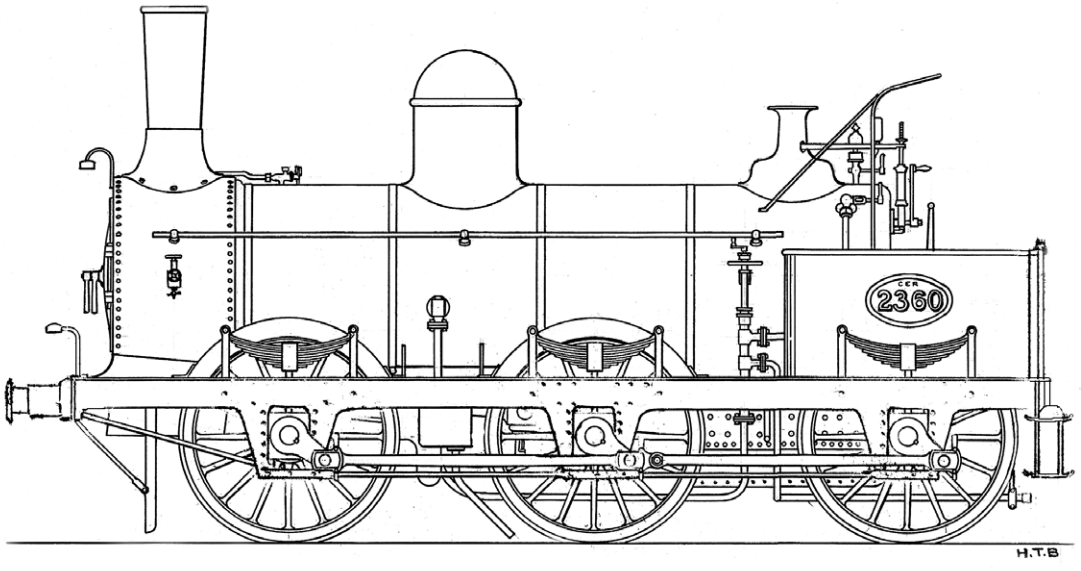




0-6-0 No. 2360

In 1848 E B Wilson & Co. built five 2-2-2-0 'Crampton' rear-drivers for the ECR, numbered 108-112. Although the type proved popular in France, the British examples usually suffered from poor adhesion. In the case of these ECR examples, in the Gooch period all five were extensively 'rebuilt' as 0-6-0 tender engines with inside cylinders, and outside frames with fly-cranks. It would seem that apart from the boilers, which had 'seen little use', most of the remainder of the engines was new.

For some obscure reason they were known as 'Floating Batteries' – a reference to naval floating gun platforms. The five engines had previously been renumbered 231-237 and retained these numbers after rebuilding. This illustration shows No. 236, one of two that were provided with new boilers under Sinclair in 1867 – the other three had later Johnson-pattern boilers – and as later renumbered on the duplicate list as 2360. It was the last survivor of the class, withdrawn in November 1884.

NRM Collection 1437-60 (GERSHC Ref D/Z 346/787/16)

curiosity by riding from Bishopsgate to Enfield on the new railcar and conceded that the performance was satisfactory for the load conveyed. Later in the discussion he stated that his experience was that small engines exhausted themselves and were not able to keep steam if they had anything like a load; something that was rediscovered in the railcar boom of the early 20th Century.

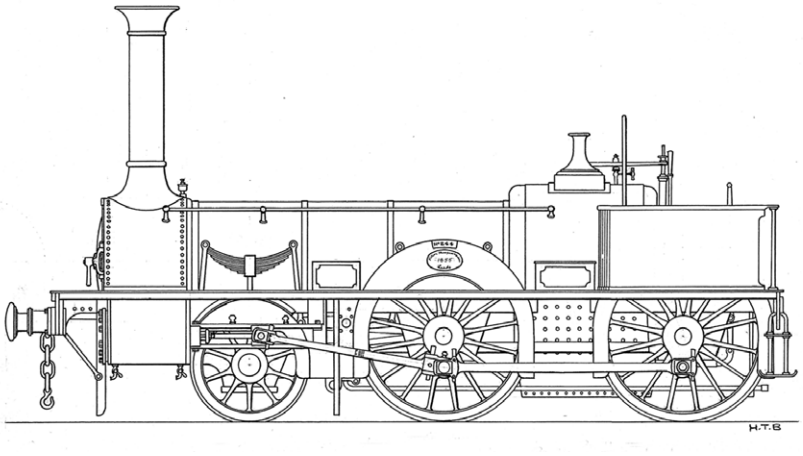
However the initial running was encouraging. An article in the *Herald* described the *Enfield* at work, running expresses from Bishopsgate to Enfield, stopping only at Lea Bridge and Edmonton in its 30 minute run, which it did five times daily. By this time it was occasionally coupled to another of Bridges Adams' inventions, the lightweight eight wheeled *Woolwich* carriage. Several were built, weighing only 7½ tons and accommodating 116 people in four compartments 10ft by 9ft wide. Samuel described the carriage in a way that makes one feel claustrophobic: 'The carriage in which men are borne should be lofty enough to permit of standing upright when desired, giving comfort to the rich and economy to the poor, as a larger number may be conveyed standing than sitting in a given space'. Robert Stephenson in the chair questioned whether 'the public would be satisfied to be packed in like fish' and rebuked Samuel with trying to reverse the current trend of providing heavier and more comfortable trains.

Samuel justified his point with the following commercial argument: 'A typical ECR train comprises a 30 ton engine and tender, a break van and four carriages with a total weight of 59 tons at a coke consumption of 34 lb per mile; *Enfield* does the same for 8 lb per mile and is lighter on the permanent way.' This last figure was confirmed when *Enfield* ran to Ely with three carriages and two horse boxes in tow, having already done the London to Norwich run in 3 hours 35 minutes. *Enfield* was rebuilt later as a 2-2-2 well tank as the original rigid wheelbase was found too awkward to turn.

1850 proved a decisive year in many ways. Gooch took over as engineering 'supremo', Samuel was given £350 in lieu of six months notice and Adams vacated Fairfield Works. A contribution made at the IMechE meeting in 1906 is worth noting. The subject had been 'Railway Motor Car Traffic' and William Maw, the editor of *Engineering*, said that he desired to make a few remarks in justice to the memory of Bridges Adams, as engineers ought to acknowledge what they owed to him. When Maw went to Stratford Works in 1855 to serve his time, some of Bridges Adams light engines had been removed from service and *Enfield* had been placed on the scrap heap. Two years later, after Sinclair had taken over, it was decided to do it up and use it for pulling a directors' carriage. The stripping and overhauling were put in the hands of a fellow apprentice and himself. In due course they went on a trial trip down the Cambridge line. Unfortunately Lea Bridge station platforms had been rebuilt since its previous journeys and being an outside cylinder engine with outside frames it got stuck. An engine came from Stratford to pull it back and pieces had to be chipped off the new platform.

One more Samuel/Adams locomotive should be mentioned, the *Cambridge* built by Adams later in 1849. This time there was no carriage on the frame, just an inside-framed outside cylindered 2-2-0T, presumably named to work the Cambridge branch from Six Mile Bottom, which was not built until October 1851 and was a Newmarket Railway project.

We must also remember an acquisition from the Norfolk Railway, the inspection saloon *Eagle* built by Headly of Cambridge and later rebuilt as a 2-2-2WT with an enclosed carriage portion over the carrying wheels. Its fame rests not only on the well-known photographs, but on the accident recorded in *Railway Reminiscences* by G P Neale. In the course of an inspection trip on the Lowestoft to Norwich line in 1850 to examine the newly installed telegraph system, William Newall, superintendent of the Norwich division, unaccountably jumped off, stumbled and was run over. James Samuel and Peter Ashcroft (Hunter's assistant) were also in the



▲
2-4-0 No. 244

In 1855-56 Gooch produced eighteen outside-cylinder 2-4-0s with 5ft 6in driving wheels for goods work. They were built in three batches of six engines each, by Sharp, Stewart; Kitson; and the Canada Works in Birkenhead. The locomotive shown is No. 244, built by Kitson & Co. in 1855, the whole class being popularly known as 'Butterflies'. They were not rebuilt, although various alterations in details are known to have been made over the years. They were withdrawn from service between 1873 and 1879, although No. 218 of this class – built by Canada Works – met its end in the disastrous Norwich collision of 10 September 1874.

NRM Collection 1435-60 (GERSHC Ref D/Z 346/787/19)

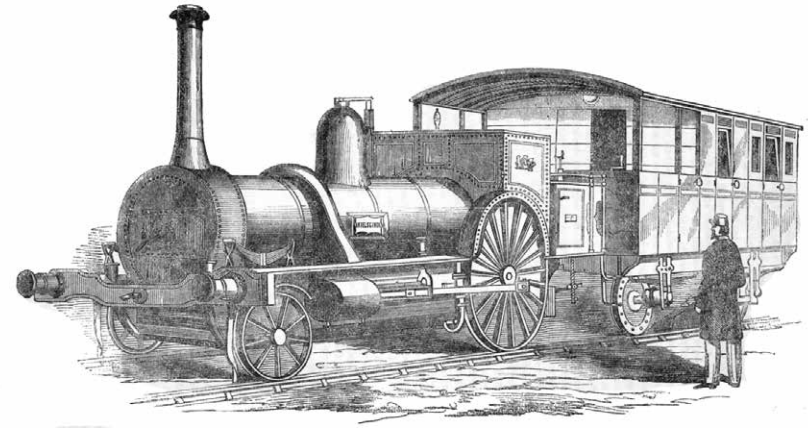
Eagle. Later it was kept at Stratford and it seems likely that it replaced *Express*, the pioneer steam carriage, as the Engineer's inspection vehicle and survived until 1868.

The Samuel/Adams advocacy of light engines and railcars was based on experiments on the ECR, apart from one GWR broad gauge example at Tiverton. Who was convinced enough to follow suit? Neilson's built an outside cylinder 2-2-2T inspection carriage for the Edinburgh & Glasgow Railway. Further afield the diagram books of the Italian State Railway show a picturesque canopied version of *Cambridge* bearing Adams works plate No.10 of 1850. The engineer of the Cork, Bandon & South Coast Railway came over to ride on *Enfield* and ordered two Adams engines for his railway. Not to be outdone the Londonderry & Enniskillen Railway ordered one like *Cambridge*. Then the Londonderry & Colerane Railway, situated on the opposite bank of the River Foyle but not connected with it, ordered two. Between them these two small Irish railways ordered twelve, which has a simple explanation, as they shared the same locomotive engineer. So engines ordered for one company could easily be found on the wrong bank of the River Foyle. The redoubtable Irish historian R N Clements has it all worked out, but it's not as clear as it seems. For example in March 1851 the Londonderry & Colrane ordered two engines from Adams who had now left the Fairfield Works, Bow. The next month Kitsons wrote saying they would be ready in July. The following January Adams wrote to the Londonderry & Enniskillen asking for payment. They wrote to Kitsons who authorised payment. In March two engines delivered to the Londonderry & Colrane were listed in Londonderry & Enniskillen stock. Other Adams type engines for these companies were built by Sharp Stewart, Roberts and Robert Stephenson. In other words, other firms took advantage.

The picturesque name of *Ariel's Girdle* seems to be a mark of Bridges Adams, who was nothing if not versatile. His literary tastes also applied to his marriages, his second wife being a bit of a poet and the author of the once popular hymn 'Nearer my God to Thee'. This engine was shown at the Great Exhibition of 1851, the exhibitor being Adams himself but it was built by Kitsons and purchased by the Eastern Union Railway for use on the Hadleigh branch. When this passed into ECR stock in 1854, the line had its maximum holding of light engines; a little later we will see what use was made of them.

▼
Ariel's Girdle

An engraving from the illustrated catalogue of the 1851 Great Exhibition, where it had been displayed.



The Gooch era

First let us remind ourselves of the requirements of the time table when Gooch took over. London local services were to Woolwich 27, Enfield 9 and Hertford 10. Trains on the Colchester main line numbered 6, Sudbury branch 4 and Maldon – Braintree branch 4. Cambridge main line had 10 each way, Newmarket 3 and the Ely and Norwich line 7. The former EAR lines to Dereham, Lynn and Ely had 6, 4 and 3 respectively, the Peterborough line 6 and Wisbech 4. These were of course for passenger workings only – a total of 103. These demands, together with goods and shunting, had to be met by only 110 engines, allocated as follows:

Stratford	27
Brentwood	1
Maldon	2
Braintree	1
Colchester	6
Enfield	2
Hertford	5
Newmarket	1
Cambridge	12
Wisbech	2
Peterborough	12
Norwich	28
Lynn	11
	110

Unfortunately Ipswich, Bury, Yarmouth and Lowestoft are omitted. One comes to the conclusion that the number of engines spare or in works was as numerous as those at work and there is no doubt that every time another railway was taken over or merged with the ECR, its locomotive stock was gladly and speedily used. So we find two of the six neat little 2-4-0s of the Newmarket Railway employed at Enfield and Hertford in the 1860s (and according to the *Locomotive Magazine* worked coal trains from Peterborough). When the 31 EUR engines swelled the stock in 1854 it wasn't long before some of them moved from Suffolk to Essex, Brentwood being a frequent venue. Later still in Johnson's time, the EUR singles were frequently on the Woolwich line. Most EUR locomotives were Sharp, Stewart singles

with inside cylinders and outside frames. Sharp, Stewart singles were also the standard passenger type on the EAR. There were eight of them and two 0-4-2 goods locomotives, which were absorbed into ECR stock in 1852.

Travelling on the ECR

So far we haven't touched on actual travelling conditions on the ECR. It would be largely guesswork to try, but we can refer to the published diaries of the famous Vicar of Dereham, Benjamin Armstrong, and can see what the coming of the railway meant in a very isolated area. On 15 May 1853 he travelled by an excursion train to London and says it had 40 coaches, but he doesn't say how many engines, nor at what time they arrived. He obviously used it for cheapness and returned four days later on the 8.00am from Bishopsgate.

On 3 October another excursion excited Dereham, this time to Lowestoft, and ladies were conveyed at half price. Nearly two years later Lowestoft was again the magnet and his entry reads 'We started at 6.13am in a third class carriage', but there is no mention of half price for the ladies. On 17 September 1855, there is this delicious revelation 'Mr Cook of Leicester planned an excursion ... undertaking to take any individual from Dereham to Dublin and back, first class for £2 2s (£2.10) ... We started by the 10 o'clock train to Lynn, where we had to remain a couple of hours...Crowds obeyed Mr Cook's instructions implicitly ... Frantic and agitated females, such as are always to be seen on railway platforms, even these obey Mr Cook and their minds are at peace'.

More to the point is the evidence of normal working. On 24 April 1857 he notes leaving Shoreditch at 5.00pm and arriving at Dereham at 9.00pm. This new facility was soon taken for granted and the following year finds him grumbling about not getting to Peterborough until 1.00pm after leaving Dereham at 8.30am. There is much more including continental trips, but these give an authentic flavour of ECR days.

Later history of the Adams 'light' locomotives

Turning to the subsequent history of the Adams-type engines, it seems safe to assume that the impetus for experimenting with these light locomotives ceased when Hunter and Samuel were retired and Gooch took over. There is no evidence that Gooch made much use of them at all and *Express*, the first inspection vehicle, was probably disposed of and replaced on its duties by *Eagle*. *Enfield* and *Cambridge* as we have seen were derelict by the time Gooch left in 1856, but Sinclair gave them a new lease of life as William Maw recounts. *Ariel's Girdle* was a slightly bigger machine than any of these. The EUR used it on the Hadleigh branch. Sinclair transferred it to the Huntingdon to St Ives service and other light duties in the Cambridge district in 1856. By 1861 it had been transferred to Stratford and was used on various jobs including directors' specials. In 1863 Macallan was pulled by it from Stratford to Barking, this being a service monopolised by the least robust engines. *Enfield* and *Cambridge* were also on occasional duties. Then Sinclair retired as Locomotive Superintendent. Samuel Johnson, when appointed, made a quick review of the locomotive stock and made the blistering remark that it included such useless engines as *Enfield* and *Cambridge*. From this point we hear no more of *Enfield*.

However *Cambridge* had a turn on the recently opened Mellis and Eye Railway and then joined *Ariel's Girdle* at Brandon in July 1868 for working the Shrub Hill branch. This obscure line three miles from Lakenheath station left the down line in a north westerly direction to serve a brick works. *Ariel's Girdle* was rebuilt to 2-4-0WT to make it more suitable and for five years this unlikely pair worked the GER's most obscure line. Then in February 1872 *Ariel's Girdle* was moved to North Greenwich to work the Millwall Extension Railway. In the following year the Company's minutes record that the Shrub Hill locomotive (presumably *Cambridge*) was worn out. It was fortunate that the mineral workings were also nearing exhaustion. It is an odd thought that in later years the famous fenland Wissington Railway got within whistling distance of Shrub Hill Farm. Had the later prospered there might have been some wonderfully odd through workings. Nonetheless in 1878 *Ariel's Girdle* went the way of the others, replaced at Millwall by one of the first Kitson built steam trams, No.230. By this time, Samuel and Bridges Adams were both dead.

All this really happened, but there is another twist to the story. In 1850 Fenchurch Street station was home to the London and Blackwall Railway. They also experimented with light engines, their choice falling on two of George England's elongated inside cylinder, double-framed 2-2-2WT painted blue and named confusingly *Dwarf* and *Pygmy Giant*. One had already been tried on the Huntingdon branch of the East Anglian Railways. They didn't compare well with the existing outside cylinder singles, so the London and Blackwall Railway returned them to the makers and eventually they went to the London and North Western Railway.

But George England had a son-in-law Robert Fairlie who was a friend of James Samuel. Fairlie had taken over his father-in-law's Hatcham Works in 1869 and with Samuel produced a steam railcar with a bogie at one end and an inside cylinder 0-4-0T at the other, a sort of forerunner of the Crewe railcars of George Whale. This mighty machine was illustrated and demonstrated its powers. They tried to interest Samuel Johnson in it at Stratford, but his dour comment was that it was 'not suitable for metropolitan branch lines'. Had he been more enthusiastic, the 1870 branch from Lea Bridge to Walthamstow might have ushered in a new era tackling the 1 in 80 incline out of Hoe Street.

The ECR locomotive story from Gooch onwards is well known and documented. Gooch's engines were neat and slender. He had a horror of making them too heavy. Not every engineer has produced a class of goods engines which have been nicknamed

'Butterflies'. His Crampton rebuilds were a sensible acknowledgement of what was really needed. His 6ft 6in singles, both tender and tanks were admirable and the present day globetrotter can see one from the East Indian Railway preserved at Delhi. The wheels are smaller but the design is pure Gooch.

Sinclair faced a mighty task. By 1862 he had produced only the six Z class 'Crewe Style' 5ft 1in 2-4-0 goods and the first 50 Y class 6ft 1in 2-4-0s which eventually numbered 110.

The fate of ECR locomotives

The last Sinclair engines, Class Y 2-4-0s went in 1894, the Z Class had all disappeared by 1875. Gooch designs had not fared any better. The last 6ft 6in single went in 1879, the same year that saw the end of the tank engine versions and of the 2-4-0 'Butterflies'. Only No. 8 converted to a bogie inspection saloon lingered until 1883. The massive Crampton 0-6-0 rebuilds were the real survivors, the class of five remaining intact until 1882.

The manufacturers' 2-2-2 designs of 1845-48 lasted longer than might have been expected, but only the Stothert & Slaughter '61' class singles and the Sharp, Stewart singles from the EAR and EUR outlasted Johnson's regime. 1880 saw the last survivor scrapped.

The long boilered designs of 2-4-0s lasted surprisingly well. The 6ft and 5ft designs dwindled steadily during the 1870s, but there were still ten of the 5ft 6in design running in 1880. One surprise was the rapid extinction of the goods variety of the 'Jenny Lind' singles, a class of ten E B Wilson inside cylinder 2-4-0s with 5ft driving wheels. Johnson withdrew them rapidly between 1867 and 1871. We know a bit about their last duties from Macallan's Cambridge diaries and one could expect to find them on anything from ballast trains to the Saffron Walden branch.

The relatively small stock of 0-6-0s consisted mainly of long boilered types, which were nominally more powerful than Johnson's 110 replacements of the '417' and '477' classes. Withdrawals took place over twenty years and the last of these old warhorses lasted until 1883.

So much for their role as locomotives; but a few carcases remained around the system, put aside to drive machinery of various sorts. For example old Sharp single 108 at Peterborough survived until at least 1890 and two of the little Norfolk Railway single tanks, one of which was used at Stratford Printing Works and another at the Wagon Shops. Two of the long boilered 2-4-0s, on the duplicate list as 780 and 790 were at the Tender Shop and Sawmill respectively in 1880. Ex EUR 2670 ended its days in the Carriage Shop. Most remarkably a Johnson rebuild of a Sharp Stewart single was sent to Peterborough for stationery duties in 1902. There it joined Sinclair 2-4-0 1220, which missed being an ECR engine by only six months, and was not scrapped until 1907.

Conclusion

There can be no doubt about the reputation of the ECR in its last few years. The rapid expansion of the railway system was like the story of the 'Sorcerer's Apprentice'. It was all a bit too much for its operators. The magazine *Punch* in those days was merciless when it had selected something for ridicule and abuse. The targets of its ridicule ranged from radical politics and high church clergymen to the Eastern Counties Railway.

To give the flavour of the times here are two extracts from memories of old railwaymen recorded in the *Great Eastern Railway Magazine*. One speaks of the departure of the up morning fast train from Ipswich where the platform staff usher in the passengers, the fireman checks the engine and tender and even gives it a rub and a polish, the guard supervises like a sergeant major and then, almost at the last minute, the driver appears like the conductor of an orchestra, acknowledges the others, stands on the footplate like the captain of a ship and starts No.61 on her journey with a triumphant blast of the whistle.

The other reminiscence is of two men who in their schoolboy days went spotting at Stratford, where all was quiet apart from one engine marshalling stock. Then a great bell sounded from the station roof signifying a train on its way to be expected in about ten minutes. After a long, quiet wait there comes a groaning and clanking noise which increases in volume as the train approaches, the coaches rattling and jolting as the brakes are applied, the squealing of the brakes adding to the din, while a drifting canopy of acrid smoke half blocks out the scene. With a final jerk and hiss of steam the train comes to a halt and at this point so do we with some sense of relief!

FURTHER READING

Adrian Dyer, ECR locomotive procurement to 1850, *Journal 149*

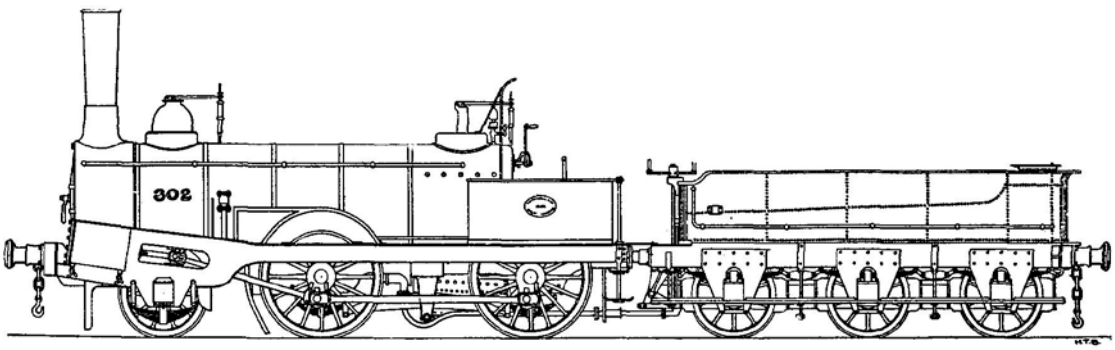


FIG. 104.

▶ **Sinclair's Z Class**

SInclair introduced his first locomotives during the ECR era in 1858. The Z Class were outside cylinder 2-4-0s and built by Messrs Rothwell & Co of Bolton, Lancs. The design owes much to his previous designs for the Caledonian Railway, with the cylinders inclined and placed between the inner and outer frames.

The Locomotive Magazine

GERS Information Sheet LM002

The Bass railway trips to Yarmouth

Geoff Ashton

As the railway network grew in the 19th Century the idea of industrial firms arranging outings for their workers gained popularity. Burton-on-Trent was a major centre for the brewing industry which was dominated by Bass, Ratcliff and Gretton Ltd who took up the idea and arranged their first organised 'Trip' to Liverpool on Saturday 19 August 1865. Compared with later excursions this was a relatively modest affair requiring two trains to convey 1,000 passengers. The workers were treated to a cruise on the Mersey followed by a dinner at which the head of the firm, Michael Arthur Bass MP, the grandson of the founder, promised that there would be further excursions in the future.

A promise fulfilled

The second excursion took place two years later on Saturday 24 August 1867. The Crystal Palace in south east London was the chosen destination because of its varied attractions and covered accommodation. William Walters, who was assistant to the Traffic Manager at the brewery, was appointed to take charge and demonstrated his considerable organisational skills.

The trips continued every two years until 1883, by which time the numbers had grown to 3,500 workers and required six trains. In 1875 the Trip was moved to a Friday giving all participants a full days holiday from work, but no doubt causing the railway companies some difficulties as this was a normal working day. The destinations chosen provided opportunities for entertainment and participation in special events. The first seaside resort to be selected was Scarborough, which was the favoured destination on 17 June 1881. By this time each man was being provided with a free meal plus a gratuity of one shilling and a day's wages as well as free admission to the Aquarium and Spa and various entertainments.

In 1884 a half-day Trip to the Wolverhampton and Staffordshire Fine Arts and Industrial Exhibition on 30 August led to a change in the schedule with the outings becoming an annual event. Seaside resorts also became more regular destinations with Blackpool and Brighton featuring for the first time. The Trip to Brighton in 1888 was spoilt by a very wet day and a lack of covered accommodation, so the resorts selected in the future all had sufficient shelter and entertainment for the numbers involved.

The first trip was confined to the company's workers, but on later trips they were allowed to bring wives and children on payment of the extra fares. As the events became larger invitations were also issued to the firm's customers.

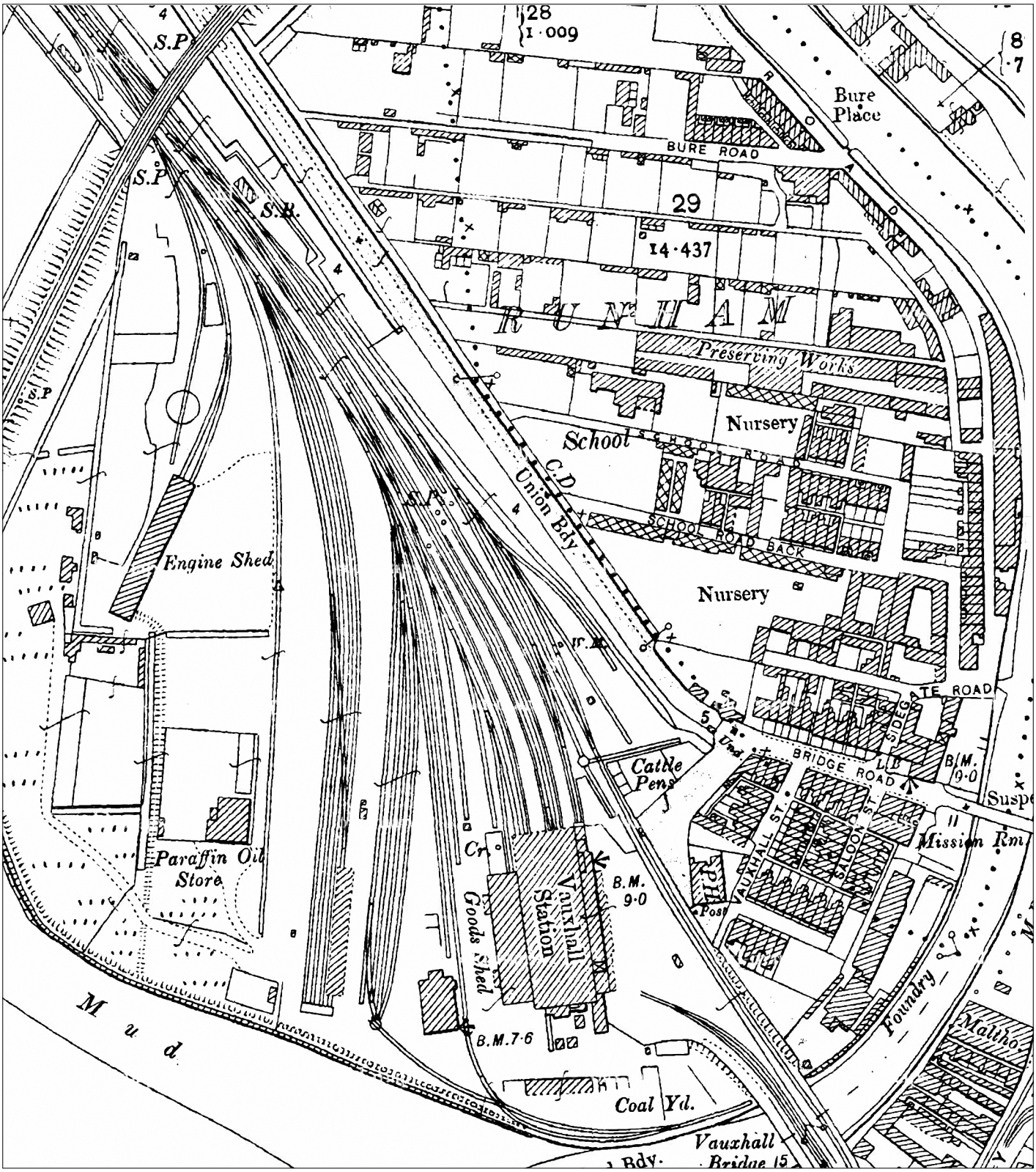
▲ **The arrival of train No. 13 at Yarmouth Vauxhall on Friday 23 July 1909**

This train had left Burton-on-Trent at 5.50am conveying customers of the firm, making additional stops at Repton and Willington to pick up passengers and was scheduled to arrive at 10.40am.

The coaches are exclusively Midland Railway, all gas lit. With one exception, the they are all five compartment six wheeled thirds, body length 31ft 0in to diagram 493, built between 1884 and 1887. The exception at the lower right is a four wheeled passenger brake van, length 25ft 0in to diagram 529, built between 1877 and 1894. This had four flush roof lights at each corner, one of which is visible.

The Burton photographer, J S Simnett, was probably at the top of a step ladder to secure an elevated view, a common practice among photographers at the time.

Geoff Ashton collection



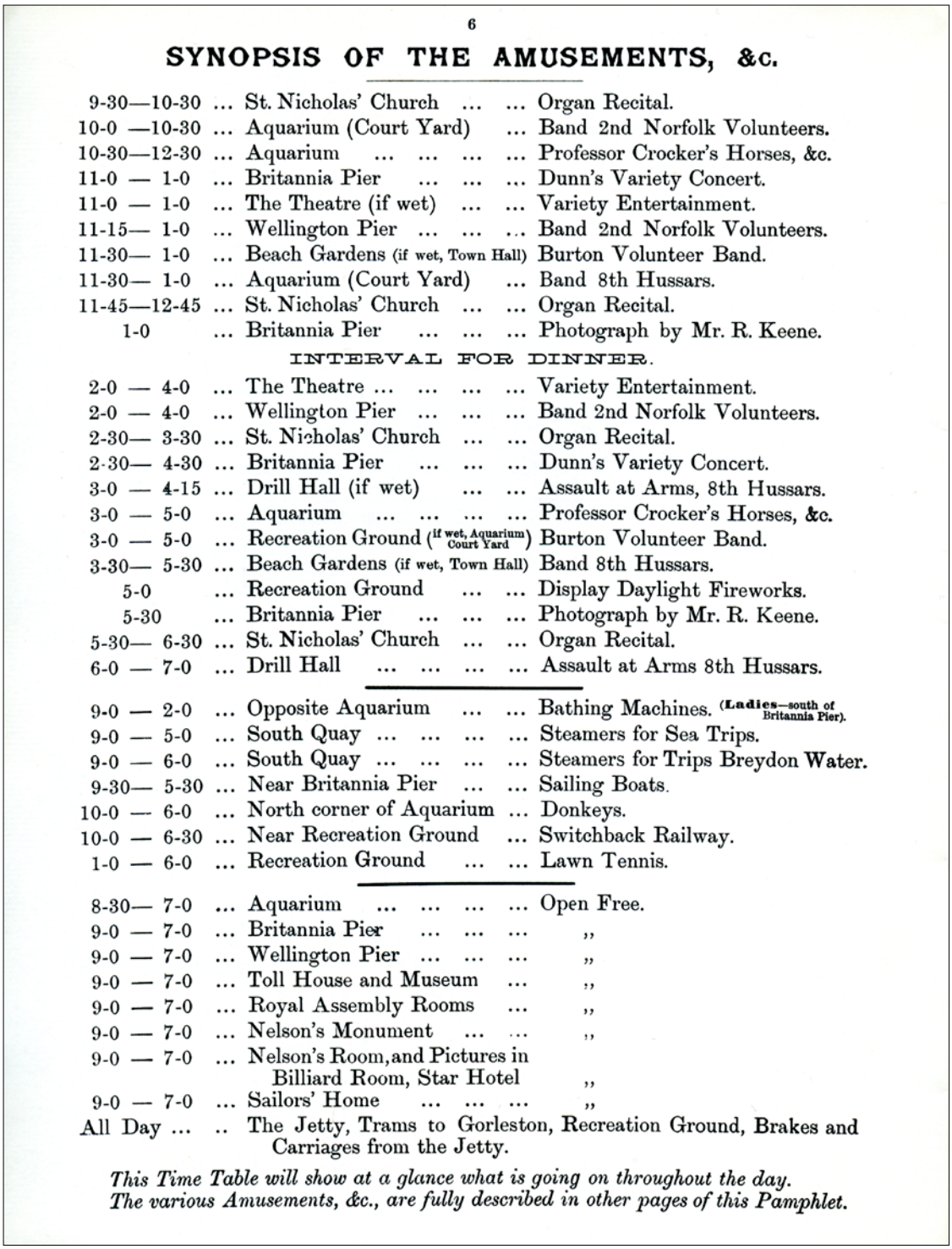
▲ **Extract from Ordnance Survey 1:2500 County Series of Norfolk 1906**

While the station had 19 goods sidings not all were long enough to hold a complete excursion train. This required two trains to be split for stabling and two to be left in platforms 1 and 4, no doubt requiring other movements to be reduced to the bare minimum for that day.

The first Trip to Great Yarmouth

By the time that Great Yarmouth was selected in 1893 the number of participants had grown to 8,000 and 15 special trains with some 250 coaches were required, all provided by the Midland Railway. The trains travelled a total of 182 miles, first via the Midland line to Peterborough and then 100 miles via the GER system. This was the longest distance travelled by any of the Bass Trips, taking four hours and forty minutes in each direction. Each of the visitors was provided with excursion guide prepared by Mr Walters as well as a guide book to the town.

The intending trippers were awakened by the sound of bugles in the street and the first train left Burton at 3.50am carrying the Foreman and men employed under Mr Couchman at Shobnal with their wives and all others for whom they had obtained tickets. A further fourteen trains followed at ten minute intervals until the last departed at 6.10am. The trains were all assembled on the day before the excursion so that the carriages could be clearly labelled to ensure that the passengers found their accommodation quickly and easily on both the outward and return journeys.



6

SYNOPSIS OF THE AMUSEMENTS, &c.

9-30—10-30	St. Nicholas' Church	Organ Recital.
10-0 —10-30	Aquarium (Court Yard)	Band 2nd Norfolk Volunteers.
10-30—12-30	Aquarium	Professor Crocker's Horses, &c.
11-0 — 1-0	Britannia Pier	Dunn's Variety Concert.
11-0 — 1-0	The Theatre (if wet)	Variety Entertainment.
11-15— 1-0	Wellington Pier	Band 2nd Norfolk Volunteers.
11-30— 1-0	Beach Gardens (if wet, Town Hall)	Burton Volunteer Band.
11-30— 1-0	Aquarium (Court Yard)	Band 8th Hussars.
11-45—12-45	St. Nicholas' Church	Organ Recital.
1-0	Britannia Pier	Photograph by Mr. R. Keene.

INTERVAL FOR DINNER.

2-0 — 4-0	The Theatre	Variety Entertainment.
2-0 — 4-0	Wellington Pier	Band 2nd Norfolk Volunteers.
2-30— 3-30	St. Nicholas' Church	Organ Recital.
2-30— 4-30	Britannia Pier	Dunn's Variety Concert.
3-0 — 4-15	Drill Hall (if wet)	Assault at Arms, 8th Hussars.
3-0 — 5-0	Aquarium	Professor Crocker's Horses, &c.
3-0 — 5-0	Recreation Ground (if wet, Aquarium Court Yard)	Burton Volunteer Band.
3-30— 5-30	Beach Gardens (if wet, Town Hall)	Band 8th Hussars.
5-0	Recreation Ground	Display Daylight Fireworks.
5-30	Britannia Pier	Photograph by Mr. R. Keene.
5-30— 6-30	St. Nicholas' Church	Organ Recital.
6-0 — 7-0	Drill Hall	Assault at Arms 8th Hussars.

9-0 — 2-0	Opposite Aquarium	Bathing Machines. (Ladies—south of Britannia Pier).
9-0 — 5-0	South Quay	Steamers for Sea Trips.
9-0 — 6-0	South Quay	Steamers for Trips Breydon Water.
9-30— 5-30	Near Britannia Pier	Sailing Boats.
10-0 — 6-0	North corner of Aquarium	Donkeys.
10-0 — 6-30	Near Recreation Ground	Switchback Railway.
1-0 — 6-0	Recreation Ground	Lawn Tennis.

8-30— 7-0	Aquarium	Open Free.
9-0 — 7-0	Britannia Pier	,,
9-0 — 7-0	Wellington Pier	,,
9-0 — 7-0	Toll House and Museum	,,
9-0 — 7-0	Royal Assembly Rooms	,,
9-0 — 7-0	Nelson's Monument	,,
9-0 — 7-0	Nelson's Room, and Pictures in Billiard Room, Star Hotel	,,
9-0 — 7-0	Sailors' Home	,,
All Day	The Jetty, Trams to Gorleston, Recreation Ground, Brakes and Carriages from the Jetty.	

This Time Table will show at a glance what is going on throughout the day.
The various Amusements, &c., are fully described in other pages of this Pamphlet.

◀ **Page 6 of the excursion guide produced for the trip on 16 June 1893, setting out the programme of entertainments for the day**

The excursion guide stated that the trains would require sole use of the line between Burton and March. The trains made a ten minute stop at Peterborough in both directions to change engines and crews. Passengers were also allowed to alight to use temporary toilets and obtain refreshments from counters set up on the platform. The trains then travelled to Great Yarmouth via March, Ely and Norwich.

In the excursion guide William Walters sought to dispose of two fallacies, the first being that Yarmouth was merely a fishing village, whereas the resident population at the time was 50,000, larger than Burton. The second of these was that 'the Great Eastern is a wretched line to travel by'. His response was that 'the Great Eastern is the MOST PUNCTUAL line in the kingdom, their express trains travelling quite as quickly as those of other great Companies!'

Since all the coaches were to be provided by the Midland Railway, the GER engines were specially fitted with the Vacuum brake as nearly all GER stock was fitted with the Westinghouse system. It was expected that the GER engines would stop at Brandon or Wymondham to take water but passengers were not allowed to alight.

On approaching Yarmouth the route divides to the north via Acle and to the south via Reedham, joining at Breydon Junction close to Yarmouth Vauxhall station. It was intended that the trains be worked over the section most suitable for avoiding local and other traffic. In order to grasp the scale of the 'Mammoth Excursion' it was stated that over two

Postcard of the Britannia Pier c.1913

This was towards the northern end of Marine Parade close to the Royal Aquarium and shows a broad stretch of clean sand.

The pier shown here opened in June 1902 replacing an earlier wooden structure completed in 1858. The pavilion seated 2,000 and was completed in 1910 replacing a similar structure which had burnt down the year before.

Will Catlin and his troupe of pierrots first performed at Scarborough in 1894 and then toured the country for over 60 years spending the 1913 summer season at Great Yarmouth.

Geoff Ashton collection

miles of sidings would be required to stable the trains on arrival. The station master at Vauxhall and South Town stations was Mr Brian Bell who was described as 'a most genial and obliging official who would gladly afford any information as to the Trains, Apartments &c.'

Mr Walters travelled in the last train and on reaching their destination sent telegrams to be displayed on the gates of the Old Brewery yard and at the Midland Railway station, Burton so that friends of the excursionists could be assured of their safe arrival and not upset by rumours of accidents etc 'often circulated by unthinking people'.

In his explanatory notes Mr Walters observed that 'passing out of the station I candidly admit the prospect is not inviting' but on reaching the Marine Parade he tells us 'what a splendid sea front and promenade it is! the finest in England I think…'

This was the only excursion into Yarmouth on that day and the railway ticket provided free admission to a full programme of entertainment and places of interest throughout the day. On production of the ticket at gates, turnstiles or on the steamers all those in the party could go in and out as often as they wished.

The extensive dining and refreshment rooms at the Aquarium were open all day from the arrival of the first train at 8.30am. These were operated by John Nightingale, described as a king among popular caterers, who could provide for 2,000 at one time 'without turning a hair'. He also undertook to provide all the entertainments for the day including dramatic performances, concerts, steamer trips, donkey rides, sports and a grand display of daylight fireworks.

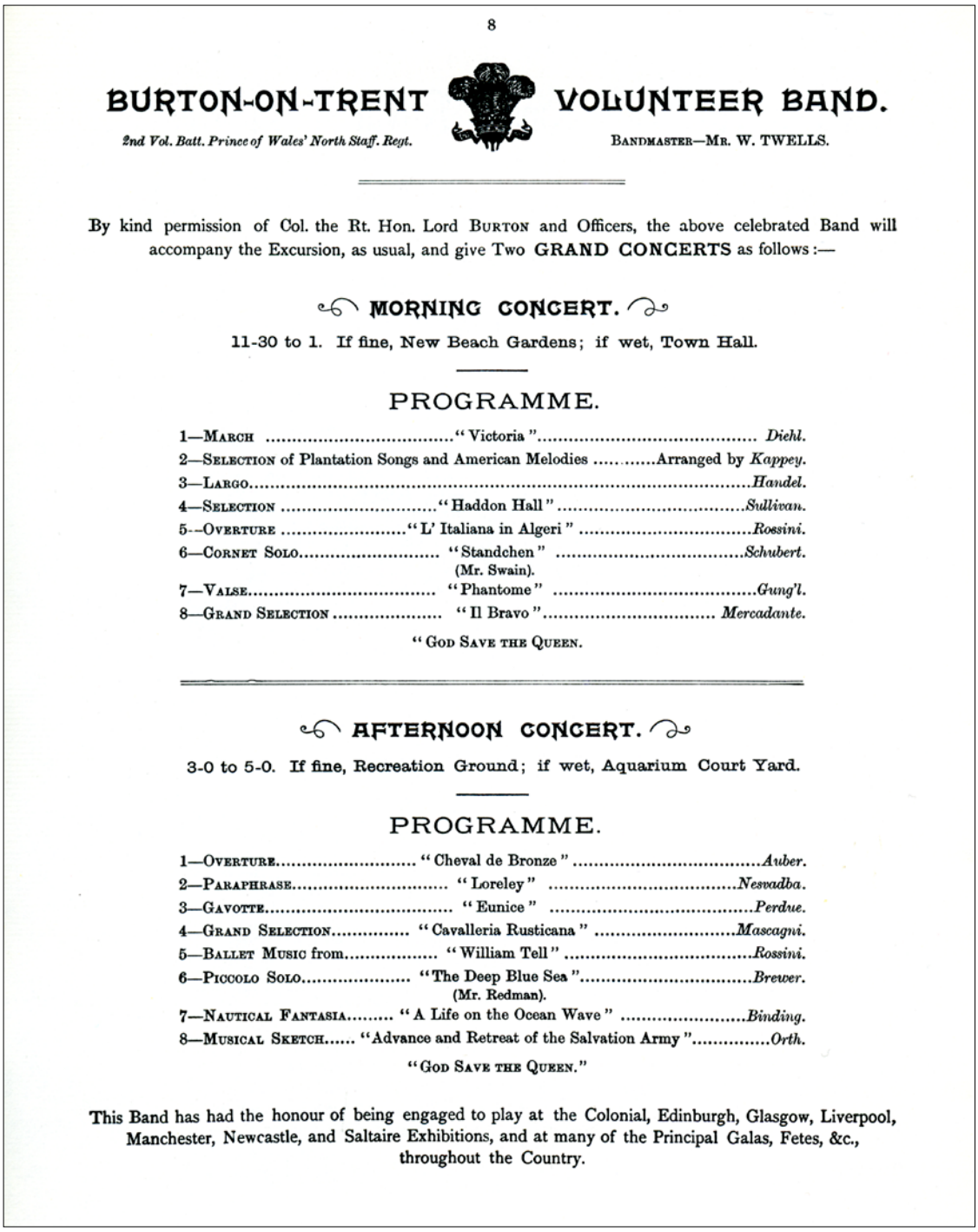
Postcard showing Marine Parade c.1913

This broad roadway and promenade connected Britannia Pier to the north with Wellington Pier to the south and was flanked by a number of hotels and other prominent buildings.

The Royal Aquarium can be seen in the far distance where Lydia Yavorska, a well known Russian actress who brought Anna Karenina to the English stage, was performing at the time.

The electric tramway system opened 1902 connecting the main part of the town and Vauxhall station with the seafront and Caister further along the coast to the north.

Geoff Ashton collection



8

BURTON-ON-TRENT VOLUNTEER BAND.

2nd Vol. Batt. Prince of Wales' North Staff. Regt.

BANDMASTER—MR. W. TWELLS.

By kind permission of Col. the Rt. Hon. Lord BURTON and Officers, the above celebrated Band will accompany the Excursion, as usual, and give Two **GRAND CONCERTS** as follows :—

MORNING CONCERT.

11-30 to 1. If fine, New Beach Gardens; if wet, Town Hall.

PROGRAMME.

1—MARCH ..... "Victoria" ..... *Diehl.*
2—SELECTION of Plantation Songs and American Melodies .....Arranged by *Kappey.*
3—LARGO.....*Handel.*
4—SELECTION ..... "Haddon Hall" .....*Sullivan.*
5—OVERTURE ..... "L' Italiana in Algeri" .....*Rossini.*
6—CORNET SOLO..... "Standchen" .....*Schubert.*
(Mr. Swain).
7—VALSE..... "Phantome" .....*Gung'l.*
8—GRAND SELECTION ..... "Il Bravo" ..... *Mercadante.*

"GOD SAVE THE QUEEN.

AFTERNOON CONCERT.

3-0 to 5-0. If fine, Recreation Ground; if wet, Aquarium Court Yard.

PROGRAMME.

1—OVERTURE..... "Cheval de Bronze" .....*Auber.*
2—PARAPHRASE..... "Loreley" .....*Nesvadba.*
3—GAVOTTE..... "Eunice" .....*Perdue.*
4—GRAND SELECTION..... "Cavalleria Rusticana" .....*Mascagni.*
5—BALLET MUSIC from..... "William Tell" .....*Rossini.*
6—PICCOLO SOLO..... "The Deep Blue Sea".....*Brewer.*
(Mr. Redman).
7—NAUTICAL FANTASIA..... "A Life on the Ocean Wave" .....*Binding.*
8—MUSICAL SKETCH..... "Advance and Retreat of the Salvation Army".....*Orth.*

"GOD SAVE THE QUEEN."

This Band has had the honour of being engaged to play at the Colonial, Edinburgh, Glasgow, Liverpool, Manchester, Newcastle, and Saltaire Exhibitions, and at many of the Principal Galas, Fetes, &c., throughout the Country.

Page 8 of the guide for the trip on 16 June 1893, detailing the programme for the two concerts to be given by the Burton-on-Trent Volunteer Band

Other pages also detailed two concerts to be given by the band of the King's Royal Irish Hussars, four special organ recitals to be given at St Nicholas, the parish church, as well as other special performances at the Royal Aquarium and Theatre Royal.

There were two concerts by the Burton-on-Trent Volunteer Band and two more by the Band of the 8th King's Royal Irish Hussars. At the Royal Aquarium the theatre seating 2,500 was given over to four performances of a special show by Professor Crocker's horses, ponies, donkeys and mules. Mr Nightingale was also proprietor of the Theatre Royal where a special performance by a variety company of London artistes had also been arranged. Four special organ recitals were given at St Nicholas' Church where there was seating for 3,500 visitors.

Outdoor attractions included the Britannia and Wellington piers, the Switchback Railway, Nelson's Monument, sailing boats and the use of twenty bathing machines.

For those wishing to spend extra time at the resort extension tickets could be obtained which allowed the return trip to be made on any day up to and including the following Friday by ordinary GER trains via Peterborough or Liverpool Street and thence by the Midland Railway to Burton with the possibility of a break of journey in London. The only part of the journey not covered by the excursion ticket being from Bishopsgate to King's Cross on the Metropolitan Railway.

The guide also listed a wide selection of hotels, restaurants and dining rooms were listed, with details of those serving Bass beer!

Later trips to Yarmouth

The 1893 trip was clearly a success as Yarmouth was visited again in 1897 by which time a 130ft revolving Observation Tower near the Aquarium had become an added attraction. The viewing platform could accommodate 150 people and rotated as it ascended and descended providing spectacular views.

Further visits to Yarmouth continued every four years with Scarborough, Liverpool/New Brighton and Blackpool being the regular destinations in the years between. By 1901 the number of visitors had grown to 10,000 requiring 16 trains. A press report on this trip noted that 'no other excursion was run to Yarmouth for the day, and between Norwich and Yarmouth some trains were knocked out of the timetable altogether and the running of others modified'.

From 1902 the trips took place in July rather than June and thus the next visit to Yarmouth was on 14 July 1905, even closer to the peak season for excursion traffic. Speaking to the excursionists at their dinner in Yarmouth that year Mr R P Ellis, the GER Superintendent, admitted that such excursions did disorganise other traffic but claimed that the public took such an interest in the Trip that they willingly submitted to any temporary inconvenience.

Photographs of each of the trains arriving at Yarmouth on 23 July 1909 were taken by J S Simnett, a well established Burton photographer. These were subsequently distributed on postcards as souvenirs.

The 1913 visit on 25 July was described in an article in the *Great Eastern Railway Magazine*, which noted that Yarmouth proved so popular 'that a large number of the excursionists elected to stay over for a week and two special trains were found to be necessary to convey these back to Burton on 1 August.

1914 and after

On 24 July 1914 the trip to Scarborough still attracted 8,000 excursionists taking place only ten days before war was declared with Germany. This dramatic change in national circumstances is reflected in the minutes of the Bass directors' meeting in March 1915 when it is recorded that the workmen's excursion be discontinued for the present year on account of the difficulties of the railway company occasioned by the war. Three months later it was resolved that year's Trip be replaced by a Saturday holiday with those on the wages list receiving an extra half day's wages and a gratuity.

The continuity provided by Mr Walter's involvement from 1867 onwards and his organisational skills ensured that nothing was left to chance especially the arrangements required for the amusements and catering at each destination. Following his retirement on 31 December 1915, after fifty years service, the directors decided to continue with the same arrangements as in 1915 for each of the next three years. After that there is no further mention of the excursion or the extra holiday.

It seems likely that the advent of war simply hastened the end of the annual trips as the costs had become an increasing concern to the directors and support for the excursions seems to have been falling. However there was one more excursion on Saturday 23 June 1924, when two trains were chartered for Bass employees to enable 1,000 passengers to visit the British Empire Exhibition at Wembley. But these were only two out of a dozen excursions bringing visitors to Wembley that day and all the Bass excursionists had to pay their own fares and cover their own expenses.

▼

A group of un-named railway officials

A report on the 1913 trip in the *Great Eastern Railway Magazine* stated that on arrival the time in detraining the passengers and shunting the empty trains from the platform into the sidings was an average of two minutes. Once all the excursion trains had arrived only two of the four platforms, numbers 2 and 3, were available for other scheduled services.

The only two of the group identified so far are fourth and sixth from the left, Frederick Russell, Chief Outdoor Assistant to the GER Locomotive Superintendent and Frederick Randall, GER Superintendent of the line who personally supervised the movement of trains on arrival and departure from Yarmouth.

Any additional information to help with identification would be most welcome.

GERS Collection/Russell scrapbook D/Z 346/55/4

APRIL 2017

REFERENCES

Rod Pearson, *The Bass Railway Trips* (Breedon Books 1993)
Excursion guide to Great Yarmouth 16 June 1893 (reprinted by the Bass Museum 1977)
Illustrated Guide to Great Yarmouth (Ward Lock & Co 1901)
Great Eastern Railway Magazine October 1913

Focus on Woodbridge

The River Deben was navigable from Felixstowe to just above Woodbridge. This made Woodbridge a port of some importance and it was to be expected that the town would have a railway connection once Ipswich was connected to London by rail.

The proposed 9½ mile line from East Suffolk Junction to Woodbridge was discussed as early as 1844, but it was not until 9 July 1847 that the Ipswich & Bury Railway (Woodbridge Extension) Act (IBR) received Royal Assent. The IBR merged with the Eastern Union Railway on 2 June 1848, but ongoing financial difficulties prevented commencement of works on the Woodbridge extension.

In 1853 the East Suffolk Railway, promoted by Samuel Morton Peto, started to extend southwards from Halesworth towards Woodbridge to connect with the Eastern Union Railway, which drew up amended plans to accommodate through running. As a consequence powers to build the Woodbridge extension were renewed in an Act dated 16 June 1854.

Peter Bruff was the Engineer and the contract to build the double track line was awarded to Alexander Ogilvie, partner of Thomas Brassey, who had also been contracted to build the line northwards from Woodbridge for the East Suffolk Railway (ESR). Work began on both contracts in Spring 1856, but the EUR line was again delayed due to financial problems. So it was not until 2 May 1859 that the Board of Trade inspector, Captain Tyler inspected the line which opened, with the ESR, on 1 June 1859.

Over the years a number of significant local businesses became established at the station giving rise to a high level of goods provision for a modest sized market town, which was well covered by the 'Windwood' photographer in October 1911.

FURTHER READING

Hugh Moffat, *East Anglia's First Railways* (Terence Dalton, 1987)
John Brodribb, *An Illustrated History of the East Suffolk Railway* (Oxford Publishing Company, 2003)

▲
A panoramic view of Woodbridge station on Thursday 12 October 1911

The combination of two photographs from the GERS/ Windwood Collection provides a fine view of the passenger station and its extensive goods facilities.

Taken from the up starting signal looking north east towards Yarmouth, it shows the station signal box at the end of the down platform. The goods shed, which handled general merchandise, is immediately behind the platform.

Much of the end of this building had been reconstructed, perhaps as a result of an accident and it is likely that the original doorway was arched. The siding behind the signal box, on which the two wagons stand, terminated in an end loading dock. The white-washed timber cattle pens, accessible from the station forecourt, were quite small for a station of this size and the fact that it did not have a fixed water supply suggests that the cattle traffic here was not great.

The impressive building at the left was a granary with a siding passing through to terminate at a wagon turntable from which stock could be released onto the adjoining siding. The granary was capable of accommodating up to 1,000 quarters of grain. A quarter equalled eight bushels, a measure of capacity containing eight gallons.

Out of sight behind the trees was a small general goods yard served from the siding alongside the granary. The visible open wagons were of GER origin and the covered wagon from the Worsdell era was nearly life expired.

The line behind the up platform on the right continued over the level crossing as the Woodbridge tramway. On the centre siding is a load of sawn timber, probably secured to a batten wagon but possibly a pair of single bolsters. This is not certain due to the foreshortened view. On the outside line are a pair of diagram 15 covered wagons and probably some diagram 16 or 17 high sided open wagons.

In the background is the covered footbridge, which originally connected just the two station platforms and was not open to the general public who used the level crossing.

Under the terms of the GER (General Powers) Act, 1895 the Company extended the footbridge over the approaches to the tramway but did not provide a roof. The combined footbridge was then opened to the public and consequently the Company was able to extinguish the right of way.

The gas works and accompanying holders are prominent on the horizon and it is by no means obvious from this viewpoint that the railway passed to the right hand side, although the home signal in the background does make this clear.

The photographer visited four other locations on the same date, but gave Woodbridge extensive coverage with a total of fourteen photographs. Two more of these appear on the following two pages.

GERS / Windwood Collection 1387/88

▲
Another elevated view from the top of down home signals looking towards station and Beccles

Jetty Lane level crossing in the foreground was worked by a gateman from the station. The crossing has additional gates at left probably to pen animals prior to crossing.

The up siding served R Skinner's Jetty Wharf coal depot which comprised a covered shed sited against the embankment, road access was from Jetty Lane. A pair of timber walkways gave access to the upper part of the shed implying that coal was tipped from barrows into hoppers, weighed and discharged into sacks for distribution.

It was the GER's siding and the use of the timber walkways was formally agreed on 20 January 1911 replacing three planks serving the same purpose and authorised in 1909.

The tight curve on the approach to the station was subject to a 20 mph speed limit.

GERS / Windwood Collection 1390

▶ Above
The map illustrates well how the railway curved its way northwards between the town and the River Deben.

The granary was not only the single largest building in view, but probably in the town. The gas works and its pair of holders, seen in the north east corner, is another prominent feature but despite adjoining the railway did not have siding access.

OS 25in Suffolk 76.4, revised 1902

◀
View towards London from station footbridge No.425

The canopy of the main station building is on the right, with the goods shed beyond. The up platform is beneath the awning on the left and was provided with mostly wooden buildings.

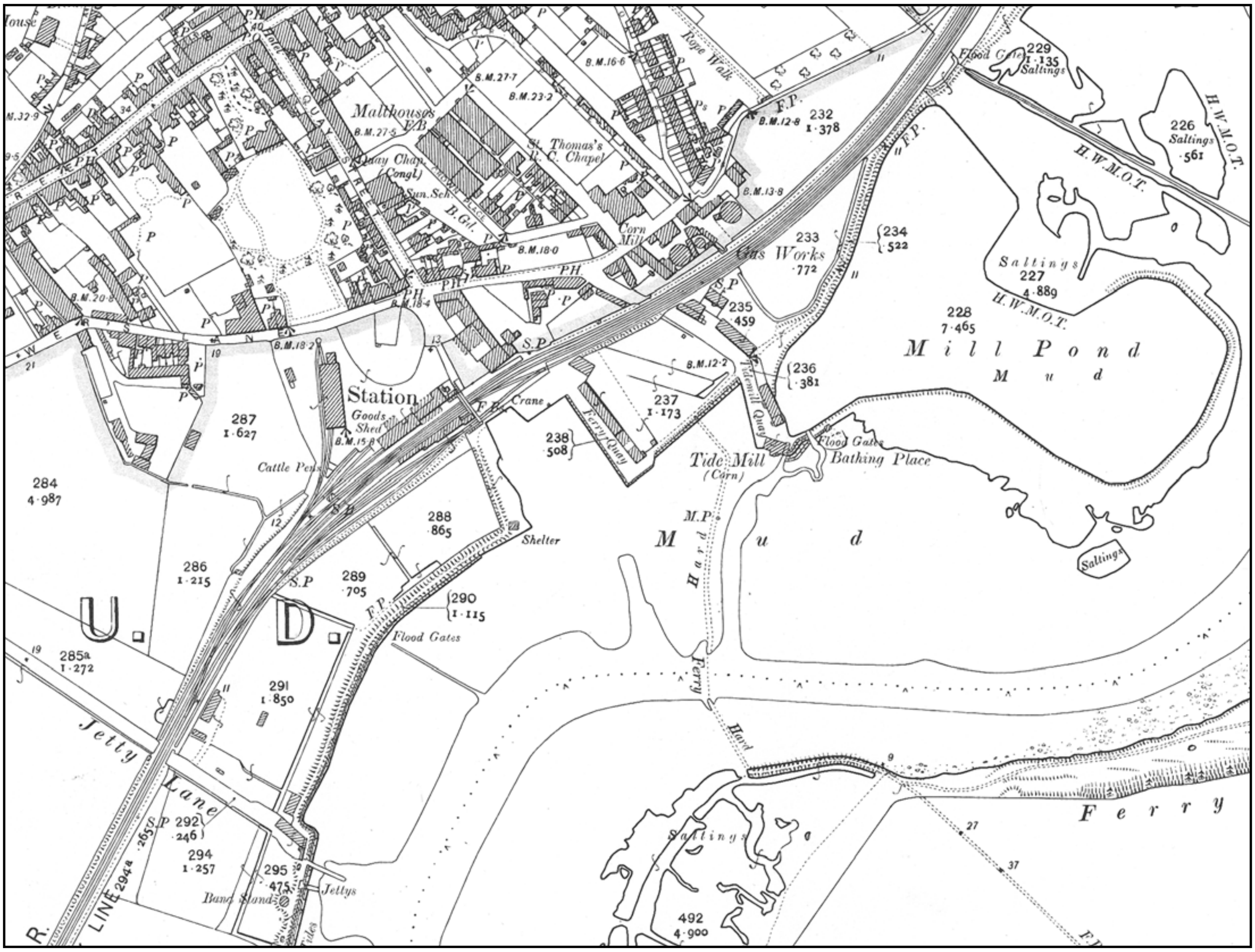
GERS / Windwood Collection 1383

▶ Below
A view eastwards from the footbridge to the waterside looking towards Beccles

At the end of the down platform is a prominent home signal and enamel warning sign. The gas works is on skyline and the level crossing serving Ferry Quay is in foreground. This also crosses the start of the half mile long siding towards Melton, known as the Woodbridge tramway, which connected to the up main line beneath the footbridge.

The tramway was fenced off from the up line and continued over Tide Mill Crossing to Sun Wharf Crossing. There is a sharp curve in the line just beyond Tide Mill Crossing and the crossing keeper who worked both sets of gates was provided with a cabin on the down side midway between the crossings. A pair of shunting horses was kept at the station to work traffic to and from Sun Wharf where there was a gatekeeper's cabin. Traffic on and off the tramway was transferred to a siding via a turntable.

GERS / Windwood Collection 1382


Malthouses
St. Thomas's R. C. Chapel
Quay Chap. (Congl.)
Sun. Sch.
B.Gd.
Rope Walk
Corn Mill
Gas Works
Station
Goods Shed
Cattle Pens
Crane
Ferry Quay
Tidemill Quay
Tide Mill (Corn)
Flood Gates
Bathing Place
Mill Pond
Mud
Saltings
H.W.M.O.T.
Shelter
Hard
Ferry
Jetty Lane
Jettys
Band Stand
U. D.
LINE
287 1·627
284 4·987
286 1·215
285a 1·272
288 ·865
289 ·705
290 1·115
291 1·850
292 ·246
294 1·257
295 ·475
232 1·378
233 ·772
234 ·522
235 ·459
236 ·381
237 1·173
238 ·508
226 Saltings ·561
227 4·889
228 7·465
229 1·135
492 4·900


PEARS
MAPLE & Co
Pears' Soap

Years before the Great War

Seen through the pages of the *GER Magazine*

Peter Barham

Since 2014 is the Centenary of the Great War, I suspect that many of us wonder how it was the world descended so quickly into the carnage of the Western Front and further afield. The *Great Eastern Railway Magazine* commenced publication in 1911 so this seemed a good time to read the CD of scanned copies produced by the Society. It was a staff magazine, with articles on railway travel, railway practice and the different departments of the GER. Each issue featured items of local interest, regular pages on gardening, women and children, and the occasional short story. It also recorded sporting achievements, news from clubs and societies, retirements and deaths – a number of which were caused by accidents on the line. Reading through each edition I looked for anything that might give an impression that war was on the way.

1911

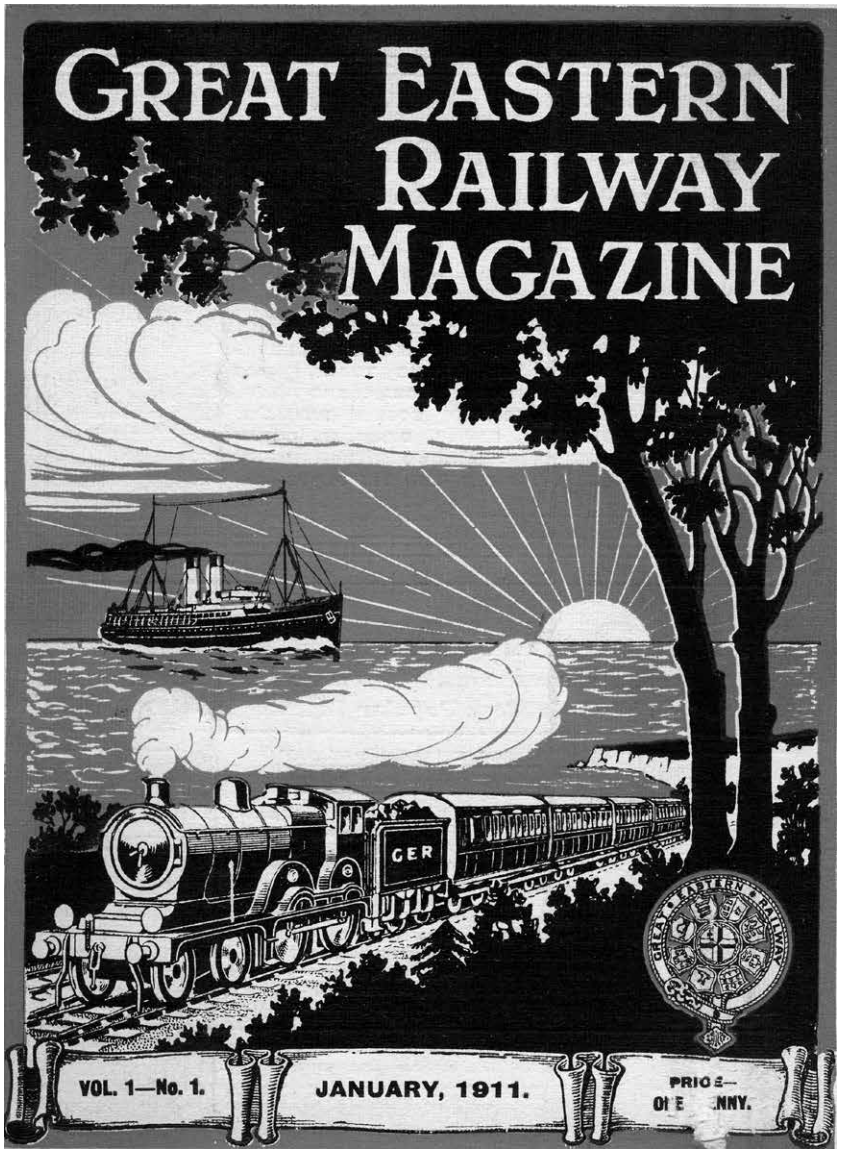
At the start of my quest, I found something ironic in this joke: 'Much is being said and written at the present time about Britain for the British, but it may surprise many to learn there is a British railway, every male employee connected with which is a German. Can any of our readers name this railway? Answer – The Great Eastern Railway, because every employee is a G.E.R. man' (page 74, February 1911). Ironic considering what was to come only a few years later. However the close ties between East Anglia and Continental Europe are reflected in the advertisement on page vii, February 1911 for the steamer routes from Harwich to the Continent.

In the April edition, G Hussey, a signalman at Mellis, writes an article on the benefits of Esperanto. It is a language which will remove 'those national barriers, prejudices, and racial animosities which tend only to distrust, mis-understanding, and more serious evils' (page 113). Mr Hussey was the 108th member of the Internacia Asocio de a Esperantistay Fervoyistoy, and was looking forward to the next year, 1912, when the seventh international congress of Esperantists would take place in Antwerp. One would love to know more about Mr Hussey, and what he thought when war came.

On the following page it is reported that 'there is an Accelerated Service to North Germany', with through carriages between the Hook, Bremen, and Hamburg. Berlin could be reached 1 hour and 31 minutes faster than before 'and the service to many other German towns will be improved' (page 114). Four pages later, we have the rather amusing 'Neurotic Notes, by Boomerang' – a regular feature – but this month (April 1911) he asks: 'I have often wondered what would be the position of a railway man in the event of a foreign invasion of this country. Troops would be run down to the coast by special trains. Every working official on the line ... would be, from the invaders' point of view, 'aiding, abetting, and comforting the enemy.' If caught, and not being in military uniform, would these people be liable to be shot? If so, Mr Haldane [Secretary of State for War] had better supply them with uniforms' (page 118).

It is an interesting juxtaposition – Esperanto, improved services to Germany, and the prospect of invasion.

The beginning of the July 1911 edition is given



▲ **The front cover of the first issue of the *Great Eastern Railway Magazine*, published in January 1911 price one pre-decimal penny**

The illustration reinforces the links between the Company's rail and steamer services.

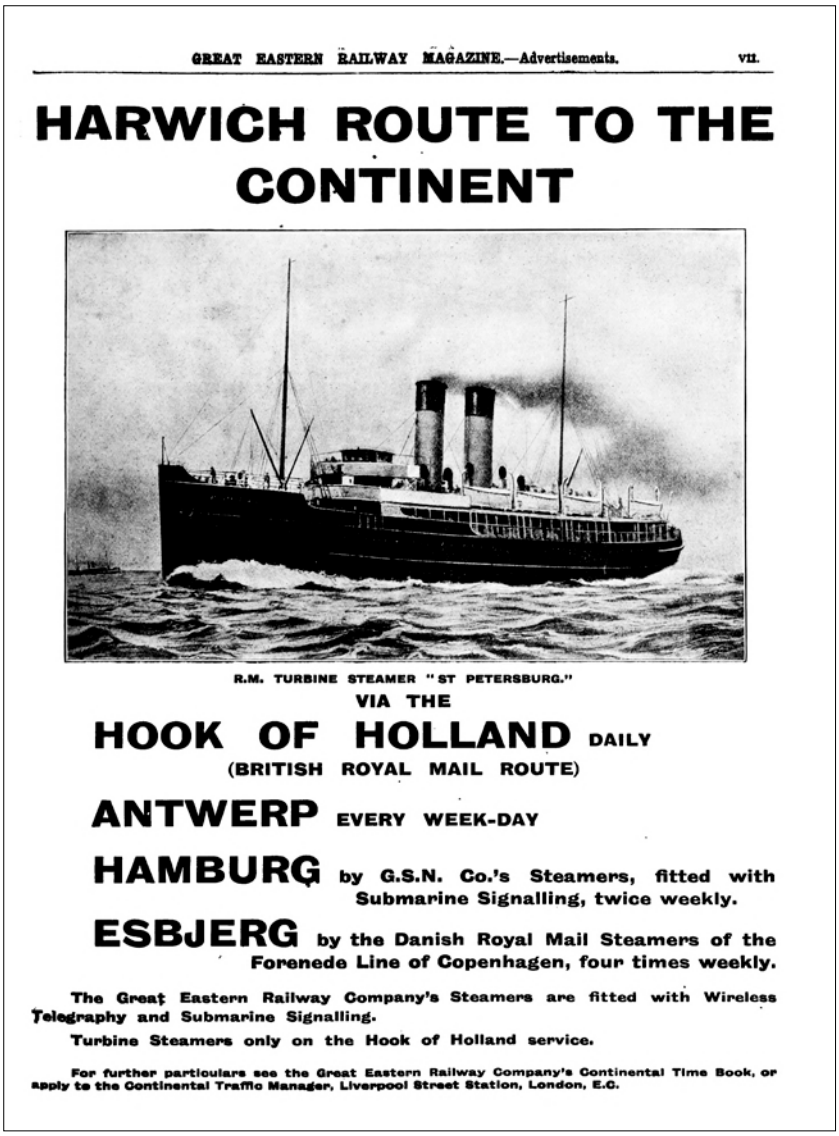
Page numbers quoted in this article are those of the magazines themselves, not the page numbers on the Society CD. Each year starts with page 1, but this is preceded by advertisements and an index.

LIEUT.-COL. W. H. HYDE.

▶ **Walter Hyde, General Manager of the GER from January 1910 to April 1914 and Lieutenant-Colonel in the Engineer and Railway Staff Corps**

over to an article 'The Engineer and Railway Staff Corps.' by C H Jeune, a member of staff in the General Manager's Office. 'The importance of railways regarded strategically, in the event of an invasion, can hardly be exaggerated. The expeditious transport of troops, guns and ammunition would be a matter of life or death to the nation' (page 201). It is still a case of 'would' rather than 'will', but the point is made that on the Continent, 'with their system of compulsory military service and the state ownership of railways', once war is declared all will be under military discipline. This is not the case in England; here the railway companies and their civilian employees will carry out the tasks required. The Engineer and Railway Staff Corps was founded in 1864 to be the link between the army and the railway companies. It is a Corps of officers only, 'it never drills, no band of music heralds its approach, yet its members are men of high technical ability, and the duties it performs are of great value in the scheme of national defence'. In time of war they will advise on the transport of troops by rail, the construction of defensive works, and organise the labour required. Mr Walter Hyde (GER General Manager) has the rank of Lieutenant-Colonel and Harry Jones (Chief Engineer) and Fred Randall (Superintendent of the Line) are both Majors.

▼ **A full page advert which appeared regularly in the *Great Eastern Railway Magazine* from its first issue**


GREAT EASTERN RAILWAY MAGAZINE.—Advertisements. VII.

HARWICH ROUTE TO THE CONTINENT

R.M. TURBINE STEAMER "ST PETERSBURG."

VIA THE

HOOK OF HOLLAND DAILY

(BRITISH ROYAL MAIL ROUTE)

ANTWERP EVERY WEEK-DAY

HAMBURG by G.S.N. Co.'s Steamers, fitted with Submarine Signalling, twice weekly.

ESBJERG by the Danish Royal Mail Steamers of the Forenede Line of Copenhagen, four times weekly.

The Great Eastern Railway Company's Steamers are fitted with Wireless Telegraphy and Submarine Signalling.

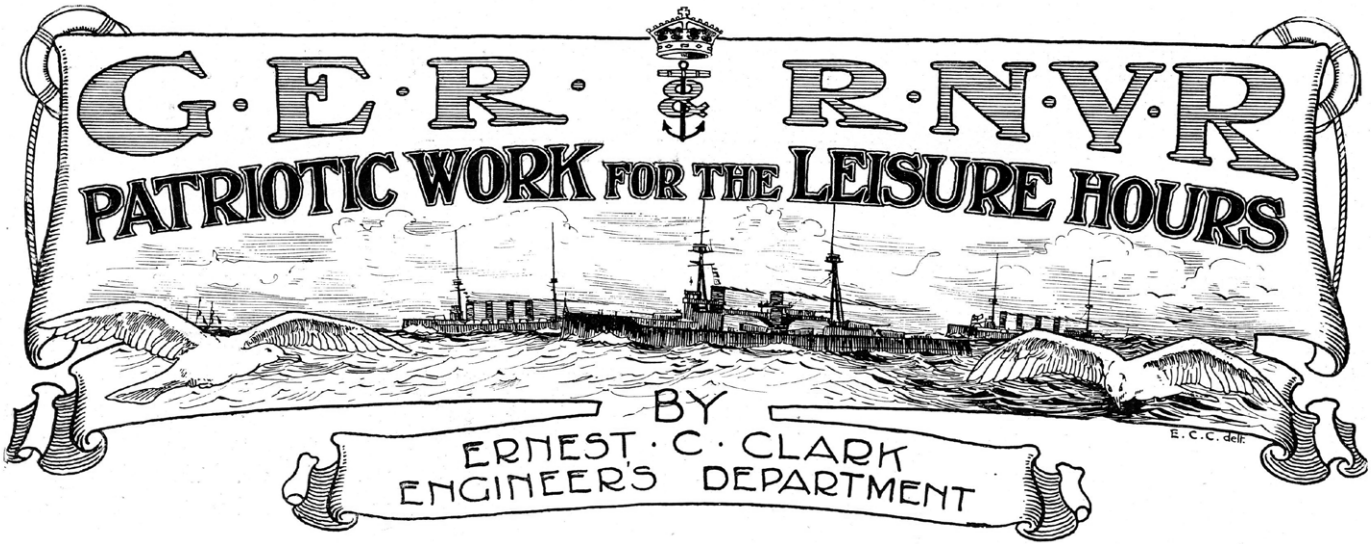
Turbine Steamers only on the Hook of Holland service.

For further particulars see the Great Eastern Railway Company's Continental Time Book, or apply to the Continental Traffic Manager, Liverpool Street Station, London, E.C.

On page 209 there is another article about Esperanto, this time by C W Barton, the Cromer Station Master. It is a lovely piece about the friends he has made across the world. Yet once again, just a few pages on, war is in the offing – this year's military manoeuvres were to be in East Anglia 'doubtless with the idea of training the troops on ground where they might be called upon to resist the landing of an invader' (page 216). The form the manoeuvres would take was not known, but was likely to involve an invasion by sea.

In the July edition an article on the Ambulance Corps. (pp 224 to 225) and in the August edition an article on the Miniature Rifle Rangers (pp 249 to 251) make no mention of any plans for war, but in September we have the article 'Territorial Encampment at Thetford' (pp 274 to 276) which was described in *Journal* 155.23. It is sobering to reflect on the words of H J Prytherch (the Chief Indoor Assistant in the Superintendent's Department) which accompany the photographs: 'The pictures which accompany these notes illustrate a few of the moving incidents in connection with the rail transit of the various units forming the East Anglian Brigade; and if any wavering prospective recruits are induced thereby to throw in their lot with the Territorial Force, photographic art will not have been developed in vain' (page 276). One wonders how many such recruits would die in the fields of Flanders just a few years later.

On pages 334 to 336 of the November issue is an article 'Some notes on Belgium' by A L Gibson, with a map of the railway system. We are assured that after centuries of war 'the cockpit of Europe has been converted into a peaceful garden – the delight of the tourist and the happy hunting ground of the antiquary', but this paragraph will become relevant in less than three years: 'To the Englishman it seems strange to hear of a country without a



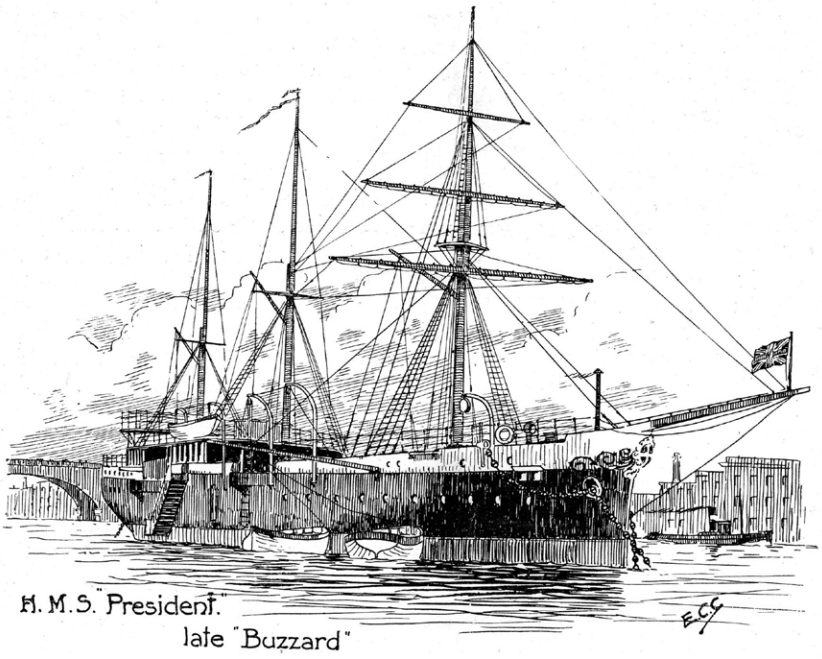
navy, yet Belgium apparently finds the 138,000 soldiers she is able to put into the field in time of war, sufficient for her needs without a fleet. But it must not be forgotten that by the Treaty of London (1839) she obtained a guarantee of her integrity' (page 335).

The December 1911 issue starts with a three-page article (pp 354 to 357) by E H Simmons, station master at Harwich, in which he comments that 'Harwich appears to be reverting to its former proud position as a naval port'. He describes in some detail the shipping movements of the First Destroyer Flotilla of the First Division of the Home Fleet, cruisers and torpedo boat destroyers. They are based at Harwich for eight months of each year, and often spend weekdays out in the North Sea 'for the purpose of firing and tactical exercises'. They return for the weekends, so 400 to 500 men need to be transported to their homes in London and the Southern Counties – special 'Seamen's Specials' are run. At other times there can be over a thousand men to be transported: 'Being subject to the strictest discipline while on board his ship Jack makes the most of his liberty when ashore and, accordingly, likes to have the best of everything. The suburban coach is his bête noir, and his remarks are far from flattering whenever he had to travel in the rabbit hutches as he calls them. By special arrangement the men belonging to destroyers lying above Parkeston Quay entrain and detrain at the latter station'.

Mr Simmons also describes the nine submarines, the Third Destroyer Flotilla, and all the other ships that use Harwich – 'upwards of 100 moorings will presently be in use for naval vessels'. He also writes about the 2,000 boys being trained at Shotley Barracks and the *Ganges II*, the ticketing work that is entailed when they go off on leave, and comments: 'Looking at the keenness and thoroughness with which their duties are carried out, and listening to their conversation, one cannot but rest satisfied that if ever danger should threaten this island home of ours, the men of our first line of defence would render a good account of themselves'.

1912

The Naval theme continues in the January 1912 edition – an article by Ernest C Clark (Engineers' Department) entitled 'GER RNVR Patriotic Work for the Leisure Hours' (pp 6-8) . We are told, once again, of the increasing role of Harwich as a naval base, but it goes wider than Harwich: 'Indeed, with the East Coast as the extended base of operation in a war with a Continental Power, the importance of the Great Eastern as a 'feeder' to the Navy, quite apart from the Army, cannot be over-estimated. Not only Harwich, but the estuaries of the Colne and Blackwater and the Burnham River to the southward, and Lowestoft and Gorleston to the north, to say nothing of the numerous small inlets along the Norfolk and Suffolk coast, would instantly assume a strategical importance as bases and shelter-ports for torpedo craft which would depend a great deal on the efficiency of the Great Eastern Railway for the realisation of their highest value'. Preparations were being made for the transport of coal, stores and men in the event of war – and reading the article it feels as if that event is becoming more likely. The article goes on to talk about the Royal



Naval Volunteer Reserve, which was founded in 1903. The London Division is based at *HMS President*, which is moored at Prince's Wharf, Commercial Road, Lambeth. It is commanded by a director of the London & North Western Railway, and 'numbers among its officers and men several who are directly connected with the railway world. Should any Great Eastern man feel inclined to drop in one evening to have a look round he may rest assured of a hearty welcome'.

On the Woman's Page (page 20) we have a photograph of school girls disembarking from the Antwerp steamer, with the caption 'It may not be generally known that a large number of English girls are educated in Belgium'. The following month the writer laments 'I looked in vain through the list of New Year's honours, which has just reached me, for the name of any woman that the King has delighted to honour' (February 1912, page 47). The coming war would change the world for women and girls. Page 53 has a photograph of 'Thetford Camp, 1911: Members of the GER Staff in the 6th Battalion Essex Regiment', but gives no more information.

In March we have thoughts of peace - a travel article entitled 'Munich, via Harwich' (pp 68-70). Yet the writer of the 'Woman's Page' has thoughts of war: 'I do think women could do a good deal to fill the ranks of the Territorial Army. I should like to feel, had I thoughts of marriage, that the man of my choice could defend my home and it would be a good idea if one said to one's wooer when he comes awooing Come to me in the King's uniform for your answer.' (page 80)

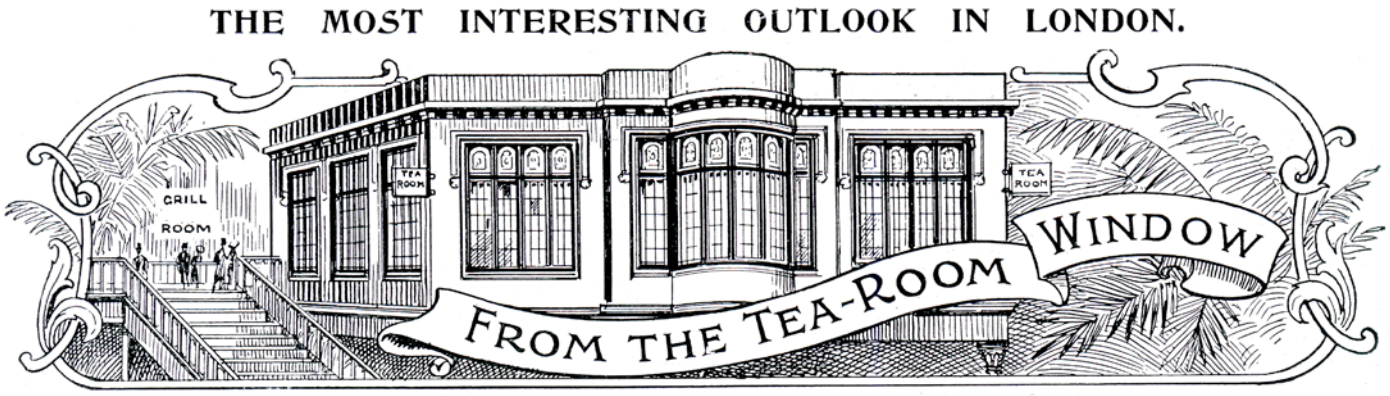
In April we have an article about Brussels. In May we are told that Continental services via Harwich have been accelerated again (page 130), and the place to visit is Vienna: 'A journey to Vienna means a visit to the great capital of a powerful country which, still true to its ancient and cherished traditions, entertains feelings of sincere friendship for old England and admiration for her glorious past.' (page 134)

July's travel article is to the Tyrol, and has two photographs of the Essex Yeomanry at Harlow on 10 May (page 202). Most of the August edition looks back as the Company celebrates its Golden Jubilee, and includes a long article on 'The Harwich Route to the Continent' by H Brand of the Continental Department (pp 237-242). On page 242 we have the photograph shown below of Baron Marschall von Bieberstein.

In the October issue H Buck, the station master at Clare, writes about his attempts to learn German. He ends his article: 'We are all aware that since the existence of the *entente cordiale* with France, reciprocal friendly visits have been paid by members of the professions and trade; and the same thing has also taken place ... between ... Germany and England. If we desire to see, as I believe most of us do, friendship maintained between these two countries and ourselves, I imagine nothing can conduce more towards it than these reciprocal visits ... . I have in my possession, a letter with which the editor of a German paper honoured me in reply to one I wrote to him. ... "We believe that our Emperor genuinely means it when he again and again emphasizes that he would like to have peace with all the peoples of the world, and, before all things, with England. And we hope that the reciprocal visits of the Mayors, Clergymen, and so on, will conduce to the advancement of peace"' (page 317).
The travel article this month is about Dresden (pp 325-327).

In November the tone changes as there is an illustrated four page article (pp 356-359) by H J Prytherch entitled 'The Great Eastern Railway and the Army Manoeuvres in East Anglia 1912'. These 'served to demonstrate the capability of the railway service to transport, at short notice and within a limited period, not only large numbers of troops, horses, and guns, but heavy quantities of transport wagons, food stuffs, and other military impedimenta' (page 356). The Great Noerthern Railway and the London & North Western Railway were also involved, but the GER handled the bulk of the traffic – nearly 200 trains, consisting of about 4,000 vehicles. Many troops came from Aldershot, but there were Territorials from Lancashire, Yorkshire and London. There were 45 special train notices required in the Cambridge area, with blue paper used for those bringing troops in and yellow for those taking troops out. Ordinary passenger trains were not affected, but there were modifications to ordinary goods traffic as sidings were taken over for the manoeuvres. A central depot was set up for the distribution of food and fodder, extra acetylene lamps were provided for locations where night-work was undertaken, and 'many cyclists were conveyed by rail ... from Wales, Yorkshire, Devonshire, Hampshire, Essex, and London. The London contingent, which consisted of the 25th

▼
Baron Marschall von Bieberstein, German ambassador to the Court of St James, with his wife and daughter, landing from GER turbine steamer *Copenhagen*, at Parkeston Quay on 18 June 1912



County of London Battalion, established a record on its departure from Liverpool Street by loading 300 machines in less than six minutes' (page 356). Other preparations included keeping an engine and steam crane on hand, carpenters from the Engineer's Shops on duty, painting edges white, keeping 'supplies of ropes, nails, sprags, hammers, carriage keys, and gas keys ... provided at each station' (page 357). The Company seems to have been well prepared ensuring that staff who knew their jobs were drafted in from all over the system, and that they worked closely with the War Office.

The King journeyed to the scene from Ballater to Cambridge on Monday 16 September, and returned home on Thursday 19 September. The article states that he arrived and departed from the main line platform at Cambridge and that 'Inspector Peacocke of the GER had the honour of piloting the royal special train both into and out of Cambridge for a short distance over the metals of the Great Eastern Company not usually traversed by the Great Northern enginemen' (page 357).

We are not told whereabouts in East Anglia the manoeuvres took place, although it is noted that 'owing to the heavy gradient of 1 in 80 between Bartlow and Saffron Walden all troop trains were double-engined between these points' (page 358). It is reported that Punch commented: 'A feature of the manoeuvres which has given widespread satisfaction is the demonstration that a rapid concentration of troops by rail is possible without dislocation of the ordinary civil traffic. One of the chief objections to hostilities in this country disappears now that it has been shown that our golfers would be able to get to their courses without interference' (page 359).

Knowing what we do about all that war would entail, I was quite shocked at this tone. There is a desire for peace and the pleasures of foreign travel, but war seems much more likely – yet it doesn't matter, we can still play golf.

1913

There is nothing in the magazines for January, February or March suggesting war is imminent, but I cannot resist this item of staff news from the February issue: 'At a dancing contest held in Antwerp on the 26 December 1912, Mr Gaston Janssens, clerk in the employ of the GER Company, was awarded the gold medal for endurance, dancing 4hr 20min without interruption and thus beating the Belgian, Austrian and German records' (page 62). It is accompanied by a small portrait but no more information. I wonder what his colleagues made of his success.

In April the only comment of interest is on the Women's Page which notes that 'The Nursing Staff of the German Army has lately been further increased' (page 126). I wish we could ask the author why she felt it necessary to record that.

Every month the magazine has a page entitled 'From the tea room window'. The June issue contains this paragraph: 'I noticed a few days ago two nice-looking lads – they were quite lads – in khaki near the bookstall, and I could not help looking on them with some sort of admiration and feeling of hero-worship. On their left arms they bore the legend Flying Corps. It is comforting to think that, no matter how dangerous the enterprise, there is no difficulty in finding men to undertake it when it is in the cause of their country' (page 192). This new fighting force, and it is sobering that the writer describes them as 'lads', is balanced by photographs of more traditional soldiers.

In July we have a photograph of GER Territorials at Southwold (page 242), and the cover of September's magazine has a photograph 'Territorials awaiting the order to entrain at Maldon, August 1913' (page 291).

There is so little pertaining to war in 1913, that you do wonder whether the editor took a conscious decision to ignore it, or did Society really believe it was never going to happen? As we move into 1914, the situation is the same.

1914

The 1914 magazines begin with an article about the Mexico Southern Railway, and the cover photograph is of 'A Giant Cactus by the Rail-side' (page 1). You could hardly be further away from the carnage that would be unleashed on the world before the year was over. Pages 10-13 have an article by George A Fisher entitled 'The Flower of Oblivion', the poppy. It starts: 'Much has been said and written about the quiet marvels of our Poppyland the charm of which is so realistically depicted in our coloured plate' (page 10). Mr Fisher writes about the

derivation of the species, the different types, and the curse of the Chinese opium trade. In May 1915 John McCrae wrote his poem 'In Flanders fields the poppies blow' and I wonder if any GER men looked over the poppy fields of Flanders and remembered reading this article in happier days?

In small type under 'Items of Interest', there are two notes in the January issue which deserve mention. The first reports preparation for war: 'With the large increase in the number of warships stationed at Harwich further accommodation for bluejackets on shore leave has become necessary. A building is being erected by the Salvation Army as a home for naval and other seaman. The Home will, it is expected, be completed and ready for opening in March. It will contain cubicles for 100 men, smoking rooms, refreshment bar, reading room, lockers, etc. We understand that a similar institution is also projected by the YMCA' (page 22). The second seems to have been written with the tone of it-will-never-happen-here: 'In one respect at least the feminist movement has progressed further in Russia than in England, since women are permitted to take the railway engineers' certificate at St Petersburg and to be employed in responsible posts on the State railways' (page 22).

Five of the 1914 issues have a series of articles about 'The Continental Department'. We are told that since 1898 the number of passengers travelling through Parkeston Quay has increased by 60%, the tonnage of goods by 40%, the number of horses handled by 75% and the tonnage of the fleet by 23%. We are reminded that this service can take us to the lands of the Kaiser, the Czar and the Mikado – Liverpool Street to Japan in 16 days. A variety of possible journeys are discussed, we are shown examples of GER advertising, including an advertisement in Japanese characters. The author visits Harwich, describing the coaling plant, the quays, and the large numbers of clerks employed – it is not until you read these original magazines that you really get an impression of the size of the Company. He journeys to Antwerp and Cologne – narratives and descriptions of journeys which will soon become impossible, and of men who will find themselves on the opposing side in conflict.

Similarly, the magazines for April, May and June have a series on The Low Countries. It has everything you would expect – girls in clogs, descriptions of cheese, of bulbs, of art. The June issue ends: 'The Dutch nation is happy to-day. ... She is one of the greatest colonising states in the world, a country that has a tranquil government, a country that possesses wealth and enjoys liberty of conscience and thought" (page 178).

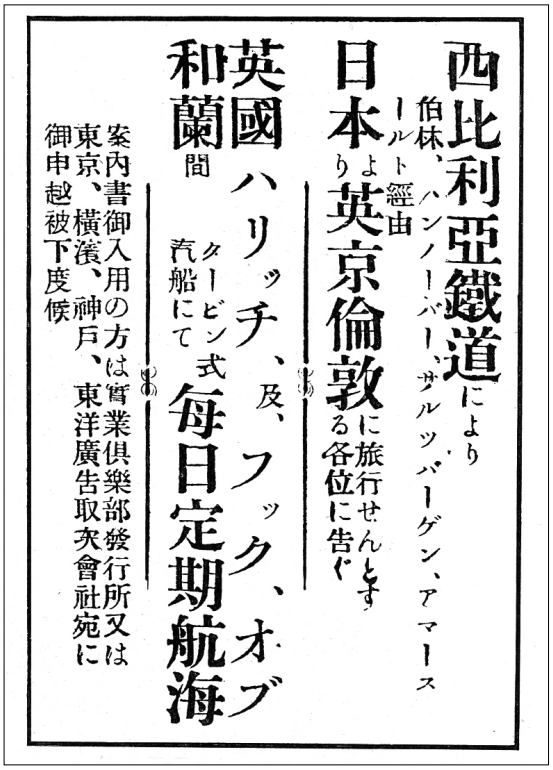
Three magazines have articles in German – one on Carlyle and Goethe (April, page 112), Heinrich Heine (a German poet - June, page 183), and the other about Gotthold Lessing (philosopher - August, page 271). There is also a letter in the May edition (page 166) from a railwayman who signs himself 'Simple Simon' complaining he doesn't understand German or French, and please can they stick to writing in English.

July has one mention of what might come. In an article about 'Harwich – The East Anglian Portsmouth' Julian Kaye comments: 'Whether there is or is not any German menace of invasion is a topic that, let us hope, will go no further than discussion of a more or less amiable nature in the city-bound suburban trains' (page 212). There is a description of a rail journey to Moscow, and articles on the Osier industry in Ely, Fairlop fair, and the Printers' exhibition.

August is also, as far as the Magazine is concerned, a month of normality. The front cover picture is of Bruges (page 249) and the final article in the Low Countries IV series visits this lovely city. The article ends: 'We are sorry to leave it but necessity compels, and we return to England by the Antwerp-Parkeston route, well satisfied with a short but highly satisfactory and inexpensive holiday' (page 253). Another article extols the virtues of Gothenburg, and there are two reports about continental travel undertaken by members of staff. 'GER Loco Employees on the Continent', by One Who Went (page 269) tells of the adventures of 57 people who left Stratford on Friday 29 May for a three day trip to Paris. On page 279 it is reported that the Chief Goods Manager's commercial office staff had a trip to Antwerp and Brussels on 19 June 1914 – just six weeks before war was declared.

Reading the pages of this Magazine it seems that war was a surprise. Its readership, the railwaymen and women of East Anglia, do not seem to have had any expectation that their world was going to change. In the next article I will read the rest of the 1914 magazines to see if they really thought it would all be over by Christmas.

JUNE 2014



GER advertisement from a Japanese newspaper in 1914

The text panels, which have to be read from right to left state:

To inform people travelling from Japan to London, England via Harbin (in Manchuria), Hannover, Salzberg, Amsterdam by the Siberian railway.

Daily regular sailings by steam ship between England and Holland, Harwich and Hook.

Anybody needing information please contact the Business Club Ticketing Office or the Tokyo Advertising Agency either in Tokyo, Yokohama or Kobe. Please do kindly contact us.

RAILWAYS IN THE BLOOD

William Joslin – Station Master Liverpool Street

Steve Crane

Between 1912 and 1927, William Joslin presided as Station Master at the GER's busiest and most important station, Liverpool Street. His fifteen years in charge there spanned the Great War, when the station itself would come under aerial attack, the introduction of 'The Last Word in Steam Operated Suburban Services', and the 1926 General Strike. In those days before formal management training schemes, he started at the bottom as a humble clerk at Seven Sisters, and gradually worked his way up to one of the most responsible jobs in the company. Career progression may have been slow (it was 20 years before he received his first appointment as a station master), but the system generally ensured that those in senior positions had a wealth of experience and that their capabilities had been thoroughly tested.

Humble beginnings

William Joseph Joslin was born on 19 July 1867 in Stratford. His father Joseph had been born in Little Waltham, just north of Chelmsford, working as an agricultural labourer before moving to Stratford and joining the GER. In the 1871 Census he declared his occupation as 'Locomotive foreman', and later he became an engine driver. Joseph and his wife Rebecca had three other children after William: Ann, Edith (who married a clerk in the Railway Clearing House) and George (who went on to work for the GER as an engine fitter).

In the 1881 Census, William, by now aged 13, is recorded as a 'Grocers Assistant' but in March 1882 he joined the GER as a clerk at Seven Sisters station on the direct line to Enfield Town. This had been opened in July 1872 (see *Journal* 121.27), and from 1878 also became the junction for the Palace

◀
The approaches to the west side of Liverpool Street probably around 1920

The widespread presence of straw boaters suggests a summer weekend rather than a weekday, which would have seen a sea of bowler hatted city types. From left to right is the pedestrian approach to the west side suburban booking hall, in the centre is the inclined main line approach where cabs deposited passengers at platform level and next to it the exit where two cabs climb their way to street level.

At the left is the North London Railway's Broad Street station and at its side the entrance to the London & North Western Railway goods station in the heart of the City.

GERS / F V Russell Collection

Gates line, with additional platforms constructed on the branch. Some beautiful early 20th Century photographs of the station can be found in volume 2 of *Great Eastern in Town & Country*: these show the extensive use of timber in the station buildings and platforms, due to their location on top of rather narrow embankments. Shortly after William started work there, a fire in the porter's room on the down branch platform resulted in the destruction of most of the building and part of the platform itself, causing damage estimated at £500. Further hazards are illustrated by a report in the *Cornishman* newspaper of 6 December 1883 that a Mr William Pickett of Edmonton had died of rabies after being bitten by a small dog on the station platform.

In 1884 William Joslin moved to Canning Town station as a booking clerk. This station, on the Stratford to North Woolwich line, handled an intensive service for large numbers of workers in the nearby docks and factories, many travelling at cheap workmen's fares and often using the trains to go home for their midday break. Business was obviously booming at this time as the station was replaced by a new one in 1888, and the booking office was further extended in 1895.

A cautionary tale illustrating the temptations to which railwaymen could be subjected was reported in the *Essex Newsman* of 28 July 1888 under the title 'Canning Town: A Mean Offence'. William Wilkes, a ticket collector at the station, was convicted of defrauding the GER by passing tickets to an accomplice who then used them for travel to Fenchurch Street. Wilkes was sentenced to three months hard labour, which must have given his former colleagues much to deliberate on.

William Joslin took another step up the career ladder when in June 1889 he became a district relieving booking clerk, based at Ongar and presumably covering several stations on the branch. This rural location must have been in sharp contrast to the bustle of East London. In 1891 he took up a similar relieving role, based in more familiar urban surroundings at Bethnal Green, and the census of that year finds him living as a boarder along with several other young railwaymen at 17 Nutfield Road, Low Leyton.

In June 1898 he married Kate Akehurst in Woolwich, and at the time of the 1901 Census the couple were living in Ramsay Road, Cann Hall, one of the numerous terraced streets near the Stratford complex, with their young children Stanley William (2 years old) and Ivy (11 months).

Independent command

After 20 years service with the GER, William was promoted to the rank of Station Master in August 1902, when he took charge at Billericay, replacing Henry Hambelton who had run the station ever since it had opened as part of the New Essex Lines in 1889. In a ceremony at the Angel Hotel, Ilford on 30 October 1902, William's former colleagues presented him with a gold watch chain and pendant, and a gold and diamond brooch (presumably for Mrs Joslin, who also attended), together with an album containing the names of the subscribers. Mr Pallant, the Ilford station master, paid tribute to William 'doing his duty in a manly and straightforward manner, making friends wherever he went'.

Billericay, the first station on the Southend branch after leaving the main line at Shenfield, has been described in *Journals* 60 and 127. At the turn of the 20th Century the area was quite sparsely populated and the station was some distance from the traditional town centre, but the railway facilities were built on a generous scale. The GER encouraged what we would now term commuter traffic, and the importance of agricultural traffic was reflected in the large goods shed and spacious yard. One facility not provided by the GER was a house for the station master, and we must assume that the Joslins rented a house nearby.

William's career now began to accelerate, and after less than three years at Billericay he was back in London as Assistant Station Master at Liverpool Street in January 1905. This role was clearly a stepping stone to even higher office: the previous incumbent, George Keary, had just been promoted to chief Station Master at the same location.

Obviously William continued to impress his superiors because in April 1908 he was appointed Station Master at Bethnal Green, another post commonly found in the careers of the company's senior staff. At the customary presentation held in the East Suburban Side waiting room at Liverpool Street, William was presented with several leaving gifts including a gold-mounted umbrella from the signalmen and a silver tea service and silver-mounted pipe from the station staff. Tributes were paid by Station Master Keary, Inspector Twigger, Signalmen Brown & Wilds, Porter Threadkell, and Messrs Hasler and Jones (clerks?).

The 1911 census found the Joslin family living at 9 Bodney Road, Hackney, a substantial semi-detached dwelling just a short walk from Hackney Downs station, only three stops down the line from Bethnal Green. Befitting their higher status, they could now afford a live-in servant. The two children were still at school, but for some reason Mrs Joslin was staying at a boarding house in Eastbourne on the day of the census.

In what turned out to be his final career move, William Joslin was back at Liverpool Street from June 1912, this time as Station Master. He succeeded Moses Bedford who had only been in post since 1911, and who was moving to be Superintendent of the Eastern District, based at Ipswich (at this time the Liverpool Street Station Master's job was often the stepping stone to a district superintendency). In the traditional farewell ceremony, the staff at Bethnal Green presented Mr Joslin with a mahogany inlaid occasional table.

Liverpool Street and the Great War

In 1912, Liverpool Street was not only the most important station of the Great Eastern Railway, but also the busiest station in London. On a typical weekday it handled 1,250 train movements and nearly 200,000 passengers. More long-distance travellers were dealt with than at King's Cross or Euston, though this business was of course dwarfed by the suburban traffic. Amongst the more unusual workings were services to New Cross, soon to end with the electrification of the East London Railway, and goods trains supplying the Great Eastern Hotel and the coaling stages at the platform ends. The Central London Tube railway extension was about to open in July 1912, leading the GER to consider constructing its own extension to the underground lines, and to revisit the idea of electrifying the surface lines. Liverpool Street had more trains arriving each weekday (467) than any other central London terminus, although Victoria with 456 and London Bridge with 389 were close behind. The other termini which would later be included in the LNER group were minnows by comparison, King's Cross having 118 arrivals and Marylebone just 68.

Only two years after taking over at Liverpool Street, William Joslin was having to deal with the disruption of the Great War. At first this meant handling heavy additional traffic while coping with the loss of many staff who had volunteered for war service. But the effects of the war were soon felt more directly as the Germans started to bomb London from the air: on the night of 8 September 1915 several bombs fell on the Liverpool Street approaches, affecting all six lines, though a full service was operating again by the middle of the next morning. More seriously, on 13 June 1917, Liverpool Street station was hit in the first daylight bombing raid on London, with three bombs falling on platforms 8-9 and killing 16 people, out of a total of 162 killed across London. Writer and poet Siegfried Sassoon was in the station at the time, and wrote of how 'an invisible enemy sent destruction spinning down from a fine weather sky'. In response to the threat, air-raid shelters were created in the cellars under the station and hotel.

In some respects the Joslin family were fortunate in that William was too old to join the armed forces (and in any case was doubtless doing a more valuable job keeping Liverpool Street running efficiently), while his only son Stanley was still in training when the war ended. The *Great Eastern Railway Magazine* for August 1918 reported that Cadet Sergeant S W Joslin had been presented with the King's medal for the highest marks in his studies at the Royal Military Academy, Woolwich, which must have made his family very proud.

In the years immediately following the end of the war, a number of events at Liverpool Street provided continuing reminders of the events of 1914-18. On 15 May 1919, the coffin containing the body of Nurse Edith Cavell arrived at the station to be put on a train to Norwich en route to her final burial place beside the Cathedral. Barely two months later on 8 July, the body of Captain Charles Fryatt passed through the station. The GER made great efforts to pay tribute to their former employee, providing a specially decorated train to carry the coffin to Dovercourt, and with massed bands from all over the Great Eastern system playing sombre music on the platform. On 22 June 1922, Field Marshal Sir Henry Wilson unveiled the GER's official Memorial to its employees who had died in the war at a ceremony in the Booking Hall (the Memorial is still in the

◀ **Coffin containing the body of Nurse Edith Cavell being conveyed by guardsmen across Platform 9 at Liverpool Street**

On 15 May 1919 this was placed in a GER hearse carriage for the last journey to her home town of Norwich, where she was buried in the grounds of Norwich Cathedral.

The photograph shows the the guards nearing the open doors of the carriage.

GERS / F V Russell Collection

In July 1920 what became popularly known as the 'Jazz' service was introduced for trains to Chingford, Enfield and Palace Gates served by platforms 1 to 4

All of these services were rescheduled, resulting in up to 50% more trains running on the two lines out from the station to Bethnal Green in the peak period.

The photograph shows the provisional departure boards erected in the circulating area backing onto platform 2. In the background are the stairs down to platform 1. Individual boards listed the stations served by each train and were put into place manually with the aid of the step ladder seen leaning against the cast iron railings. The top of one of two water cranes serving these platforms is visible above the heard of onlookers at the left.

GERS / F V Russell Collection

station, but was moved from its original position during the redevelopment in the late 20th Century). Tragically the ceremony itself was overshadowed by the assassination of Sir Henry Wilson by the IRA as he returned afterwards to his home in Eaton Square.

William Joslin was made a Member of the Civil Division of the Most Excellent Order of the British Empire (colloquially, awarded the MBE) for unspecified 'services in connection with the War', as announced in a supplement to the *London Gazette* dated 26 March 1920. Several other senior GER figures were recognised in the same awards, including Superintendent of Operations Fred Russell (CBE), the Marine Superintendent (OBE), his Assistant (MBE), and the station masters at Cambridge and Colchester (both MBEs).

A humorous sketch of the different classes of passenger using Liverpool Street at this period is given in an article written by F Walker for the *Great Eastern Railway Magazine* of September 1920. The first group, arriving in the early grey hours, consists of workmen largely wearing caps and clothed in fustian, carrying tool bags, dinner baskets and pannikins (small tin bowls or mugs). The second section, arriving between 8.00 and 9.00am, contains the clerks identified by their Homburgs or straw hats (depending on season), spats, canes and umbrellas. From 9.00 to 11.00am (the 'plutocratic hours') the third category appears, in less of a rush, more elderly and prosperous with an air of authority: these are the professionals, senior managers and businessmen 'with possibly a sprinkling of profiteers'. Women finally make an appearance after 11.00am, off to the West End for shopping and the theatre.

The 'Jazz' service

1920 also saw the introduction of 'The Last Word in Steam Operated Suburban Services', in response to increasing traffic and its concentration into shorter peak periods. Officially known as the 'Intensive Service' but soon popularly christened the 'Jazz Service', the GER's new suburban schedules came into effect on 12 July 1920. They provided greatly enhanced services in the peak hours, through relatively small engineering improvements and changes to operating practices, at an estimated cost of only £80,000. Among the staff under Mr Joslin's control, the signalmen were perhaps the most affected with many new and relocated signals, treadles and track circuits to help reduce headways, and additional automatic signal reversers to reduce their physical workload. Platform staff had to manage the new circulating areas and platform gates, and operate the improved passenger information display boards. A control office was set up at Liverpool Street, with a wall map of the system and telephone communication to several critical signal boxes and offices, including of course Mr Joslin's office. In a circular issued by F V Russell to staff before the inauguration of the new service, station masters were enjoined to 'Please give the crush-period trains your personal attention, or see that your representative does so. Please see that your station clocks show accurate legal time. Anyway, do not let them be slow.'

From around 200,000 passengers a day before the War, numbers increased to 229,073 in 1921, with 66,488 arrivals in the morning peak period (7.30 to 9.30am) and 68,017 departures in the corresponding evening hours (5.00 to 7.00pm).

Daily traffic continued to grow to 244,000 in 1923 and 280,000 in 1924, with 40,000 handled in the busiest hour alone. The Intensive Service continued until the 1926 General Strike, but thereafter was reduced as a gradual decline in traffic set in.

Restoration of excursion services

The restoration of excursion fares and services was another significant change. These had been withdrawn on the orders of the wartime Railway Executive Committee from 29 March 1915 to release men and capacity to support the war effort.

On Monday 9 August 1920 an announcement from the Ministry of Transport asked the railway companies to re-introduce excursions no later than the following week. The GER reacted immediately and had notices published the same evening. Two special trains to Clacton at 10s 6d return and two more to Southend at 4s 0d were arranged for Thursday 12 August. Needless to say the Southend trains proved the more popular and on the day the tickets for these were sold out an hour before the first departure at 8.55am.

Other railway companies resumed their excursion services from 16 August and Sunday specials were reintroduced from 22 August. The enterprise of the GER was particularly appreciated in Southend where day trippers were regarded as potential permanent residents of the future.

William Joslin's other interests

A number of brief mentions in the *Great Eastern Railway Magazine* give us glimpses of Mr Joslin's activities outside his formal duties. Along with many other senior staff, he took a paternal interest in the Railway Guards' Universal Friendly Society, a benevolent fund providing sickness and disability benefits for its members, and support for their widows and orphans. Entertainment at the Society's social evenings was provided by songs from many of the attendees including Mr Joslin, with accompaniment provided on at least one occasion by his son Stanley. William's musical talents were reflected in his membership of

◀ **The expectant crowd at Liverpool Street station on Thursday 12 August 1920 waiting to board the first excursion train to Southend-on-Sea after the War**

After suspension during wartime, the restoration of these services was very popular and created much excitement as some travellers hadn't been to the seaside for five years and others were able to make their first visit.

Regular GER excursions to Southend, Clacton, Lowestoft and Yarmouth were re-introduced from the following week. The 4s 0d return fare to Southend proved very popular when compared with 7s 6d to Brighton.

GERS / F V Russell Collection

▶ **Presentation to Mark Hicks, head main line guard for seventeen years**

Mr Hicks worked on royal and other special trains and was also the guard of the train bearing Nurse Cavell's body to Norwich.

On arrival at Liverpool Street on 18 July 1921 with a royal special, Hicks was presented with a gold and enamelled tie pin by King George V bearing the monogram 'GR'.

The photograph, taken after the departure of the King shows from left to right Station Master Joslin, Mark Hicks, an unidentified man and Fred Russell in his capacity as Superintendent of Operations.

GERS / F V Russell Collection

◀ **Two excursion trains to Southend at 8.55am and 9.10am on Thursday 12 August were full and standing, as all 2,000 tickets had been sold by 8.00am**

A considerable number of those queuing were unable to obtain cheap tickets with some choosing to avoid disappointment by paying the full fare to travel by the regular service at 9.00am.

Fortunately two carriages on each train were reserved for passengers wishing to board at Ilford!

GERS / F V Russell Collection

the Great Eastern Musical Society: at their annual meeting in September 1925 he paid tribute to the Society's educational value and expressed his thanks for how it had opened up a wide range of music to himself and many others.

In February 1924, he spoke to the Great Eastern Lecture and Debating Society on the subject of 'The working of a large Passenger Terminal', where unsurprisingly perhaps he drew favourable comparisons between Liverpool Street and other major termini. In October 1925 it was the turn of his son, now Lieutenant Joslin, RE, BA to speak at the renamed LNER (London) Lecture & Debating Society, recounting his experiences while serving for three years in Waziristan, now in north-west Pakistan but then as now a turbulent area directly bordering onto Afghanistan.

Slightly more unusual was an article published in the *Western Daily Press* of 19 July 1926 where Mr Joslin reminds holidaymakers travelling by train to send their luggage in advance, to avoid holdups caused by exceeding the free luggage limit. A regional newspaper for South West England seems a strange place for this story to appear, but perhaps it originated from a nationwide press release from the LNER and the newspaper was short of copy that day!

Later years

As William Joslin's career drew to a close, he was honoured by a feature article in the April 1927 *LNER Magazine*, accompanied by an excellent photograph of him on the platform looking every inch the figure of authority in his traditional coat and top hat. Much of the article is taken up recounting the impressive statistics of Liverpool Street's operations: 350 staff handling 250,000 passengers, 15,000 parcels and 1,440 churns of milk on a typical day, carried on 116 main line, 889 suburban and local, 166 milk and empty carriage, and 6 meat and goods trains. Amongst those services highlighted by Mr Joslin were the racing specials to Newmarket, boat specials to the Royal Albert Dock, and the day-long rush on the Saturday preceding August Bank Holiday, the busiest day of the year. He was particularly proud of the station's many connections with royalty, chuckling as he recalled the platforms being scrubbed before the Kaiser passed through: by contrast the British royal family preferred much less fuss (though always a red carpet for the Queen). A photograph showing Mr Joslin with the Duke & Duchess of York (the future King George VI and Queen Elizabeth) was displayed in an honoured position in his office. The article also gives us some indications of his personal qualities:

sitting in his somewhat dingy little office, he is described as 'full of vigour, showing no signs of wear and tear, and with a breezy deep-throated laugh that it does the heart good to hear. He has the alert, forceful manner of a ship's captain'. He 'sits there as though he had not a care in the world. It is the composure of efficiency, the composure of the man on top of his job'. He also possessed a great fund of humorous stories, but we are told that we must hear him recite them himself, an option sadly no longer available to us.

Mr Joslin retired on 31 October 1927, three months after his sixtieth birthday, having served just over 45 years on the railway. Generous tributes were paid in the *LNER Magazine* to his 'conspicuous ability' and 'adaptability and resourcefulness in times of emergency' – probably a reference to the Great War. A farewell meeting and concert took place in the staff dining rooms at Liverpool Street on 14 December, presided over by Colonel Mauldin, Superintendent of the Eastern Section, who presented Mr Joslin with a cabinet gramophone and wallet containing Treasury notes. Speeches were made by several of his former colleagues ranging from signalmen to the District Superintendent (Mr Randall, himself a former Liverpool Street Station Master). Nearly four years later, in October 1931, we find him maintaining his railway contacts, attending a retirement presentation for the Liverpool Street parcels agent.

William Joslin's career

Date Appointed	Location	Position
March 1882	Seven Sisters	Clerk
1884	Canning Town	Booking clerk
June 1889	Ongar (home station)	District relieving booking clerk
1891	Bethnal Green (home station)	District relieving clerk
11 August 1902	Billericay	Station master
January 1905	Liverpool Street	Assistant station master
April 1908	Bethnal Green	Station master
June 1912	Liverpool Street	Station master
31 October 1927	Retired after 45½ years' service	

The following information is taken from a document in the National Archives referenced as RAIL 226/226, which is the GER salaried staff register for the period 1910 to 1919, originally catalogued as a Great Central Railway document. It lists all the GER salaried staff during that period, i.e. mainly those in clerical, administrative or managerial posts, and provides details of their salaries and any changes.

Personal progression

Date	Increment	Salary	Allowance
Before 1910		£180	* See note below
1 May 1910	£12	£160	House £32
1 July 1912	£40	£200	House £40
	As Liverpool Street Station Master		
1 July 1913	£20	£220	House
1 July 1914	£10	£230	* See note below
1 January 1916	£20	£250	House £40
1 January 1918	£20	£270	* See note below
1 January 1919	£30	£300	* See note below
1 July 1919	£50	£350	* See note below

* The house allowance is not always recorded consistently

Mr Joslin received a large increment on becoming Station Master at Liverpool Street, doubtless reflecting his additional responsibilities.

Between 1910 and 1919, substantial salary increases were awarded almost every year (and two in 1919). For the period after 1914 some of this may be due to the generous supervisory salaries gradually introduced by Henry Thornton. However prices more than doubled between 1914 and 1919 because of the Great War, and Mr Joslin's salary fell significantly in real terms over this period.

It is interesting to compare his salary in July 1912 (£240 including house allowance) with that of other selected staff. Clerical salaries were typically in the range £100 to £140, Cecil J Allen earned £130 as a junior materials inspector, while the assistant station master at Liverpool Street received a total of £168. The most highly paid station master at this time was actually W Ketcher of Stratford, earning £270. At the District level, superintendents, goods managers and locomotive superintendents generally earned between £425 and £600. The Superintendent of the Line (F G Randall) earned £1,500, the Locomotive Superintendent (S D Holden) £1,750 and the Continental Traffic Manager (C Busk) £1,400. At the top, the General Manager (W H Hyde) earned £3,000 and the Chief Solicitor (E Moore) £3,500.

The amount of tax which staff would have paid on these salaries was very moderate by today's standards: employee contributions to National Insurance (which had just been introduced) were at a flat rate of 4d a week, while Income Tax was levied at 9d in the pound (3.75%) for salaries between £160 and £2000. For those on incomes under £500, there was additional tax relief of £10 for each child under 16 years. Most workers were thus not liable to pay any Income Tax at all.

It is notoriously difficult to estimate the modern-day equivalents of historic salaries, but £240 in 1912 is equivalent to between £20,000 and £80,000 in current terms, depending on whether you look at changes in prices or in incomes.

William Joslin died at St Leonards, Hastings on 13 June 1936, aged 68, and was survived by his wife Kate who lived until 1949. His estate was valued at £1,193 9s 2d, and his executor was his son Stanley, who had by now risen to the rank of captain in the Army.

MARCH 2013

ACKNOWLEDGEMENT

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◀ **An undated photograph of Mr Joslin posed with 30 of his staff, possibly on platform 18 just under the parcels bridge facing north and not in the shade of the station roof**

In the centre Mr Joslin with his shiny bowler hat and bulled shoes is a splendid example of what a station master of this period should look like. The man to his left was probably the Head Station Inspector, while the one in the boater could be connected with the refreshment rooms, or maybe the hotel?

Apart from Mr Joslin the only person we are able to name is George Skerry who is on the far left of the second row.

As the date and occasion are not known, suggestions would be welcome and the signals above should assist. These have long-burning lamps, probably dating from the very late GER period.

Ian Skerry collection

▶ **Mr W Joslin MBE shortly before his retirement**

Described as full of vigour with a deep throated laugh and the manner of a ship's captain – 'captain of the good ship Liverpool Street with a very efficient crew of 350'.

LNER Magazine, April 1927

A Stratford Apprenticeship

PART ONE

John Gardner

I am not quite sure what prompted me to seek an engineering apprenticeship working with steam locomotives. Perhaps it was living alongside the Southern Railway main line at Wimbledon that had something to do with it, and a keen interest in railways generally. I had taken the higher school certificate at just 17, passed in pure maths and physics, with a lower pass in applied maths, which did not get the certificate; you passed the lot or got nothing in those days! Rather than stay on for another year I decided to leave. I saw the careers advisors and my request for a railway apprenticeship rather puzzled them. The North British Locomotive Co. was suggested and this nearly came about. I had suggested the London & North Eastern Railway, in Darlington or Doncaster. There was a waiting list at these places for apprenticeships from employees' sons however, but they did suggest Stratford works as a possibility.

Prospects as an apprentice

My interview at Stratford was with the Chief Clerk, in the Works office [1]. This seemed a little odd, and I later discovered that this gentleman was responsible for all the apprentices and their progress. The administrative organisation for the works was quite small and centred around this office. He explained that they could not offer a premium apprenticeship, only a trade one, but there was no difference really if the trade was 'fitter and turner'. There was one day a week off for attending a technical college with the object of gaining a Higher National Certificate in Mechanical Engineering. The hours of work were 7.30am to 5.00pm Monday to Friday and 8.00am to 12.30pm Saturday, a 47 hour week. Wages at age 17 were £1 12s 0d (£1.60) a week rising to about £3 10s 0d at age 21. A fitter's day rate was then £8 5s 0d.

My prospects when I reached age 21 were not touched on and seemed rather vague. In fact the prospects were not very good. The labour situation in 1946 certainly meant that all trade apprentices were guaranteed a job, as fitter, turner, etc. All technical posts in the drawing office, works office and the running department were filled by apprentices who had gained academic qualifications, but these posts were few and more premium apprentices appeared to be taken on than there were jobs for. This appears to have been a characteristic of the railway workshops. They seemed to have trained a significant proportion of Britain's engineers, performing a valuable service to our industry. Stratford had associations with the sea, probably through being close to the London docks, and our local 'tech' at West Ham at one time specialised in marine engineering. Some apprentices went to sea as ships' engineers and other demanding organisations such as the navy and Woolwich Arsenal also had a high regard for railway trained men.

All my training was in the old works, with no contact with 'ERS' (the Engine Repair Shop) on the other side. This was effectively another erecting shop, handling mainly larger engines, such as B-1, B-17 and B-12 4-6-0s, but also dealing with smaller engines and repairing tenders. A lot of component repairs for the ERS were done in the old works and

▲ **The 'straight road' on the north side of the 1847 Erecting Shop contains Class B-2 4-6-0 61632 and a B-1 ready to go out**

The view is looking towards the south east end with the overhead crane in the background.

John Gardner

Numbered locations such as [2] refer to the works diagram on page 6.

there seemed to be a constant 'Lister' truck traffic between the two places, via the subway and across the front of the running shed.

An apprentice's progress

Coming back to the apprentices' work, this followed one of two courses. Trade apprentices, those in specific trades like turners, coppersmiths and pattern makers, spent all their time in the one shop. Premium apprentices (so called because you paid a premium, which I believe was £150) went through all the principal shops, and at one time the Boiler Shop as well. This had been stopped in my time, which was strange as an insight into boilers would have seemed to be a necessary thing for future management. 'Fitters and Turners' went through the same training, as far as I could see, and only the time in each shop varied, according to age on entry. Apprenticeships still finished at 21, and should have started at 15. I think that boys under 16 worked shorter hours and apprentices did not work nightshifts.

There were sharp lines of demarcation in the work, the principal one being between boiler making on the one side and fitting and erecting on the other. This was based on the unions involved, the two main ones being Boilermakers and Engineers (the Amalgamated Engineering Union). A 'closed shop' operated but there was a choice of joining the National Union of Railwaymen in all trades. The boilermakers had a monopoly on all platework and associated welding and burning.

At the time I think most apprentices were rather critical of the method of training, which certainly seemed like cheap labour. In retrospect it looks different, as we learnt quickly and a wide variety of jobs could be tried. For the company, much of the apprentice's effort was productive work, and a lot was piecework. Not much formal training was given, you started on simple tasks, sometimes working with a more experienced boy, then moved on to more difficult jobs if you showed ability. In the Erecting Shop you were paired with an erector, and it was not unusual to carry on the job alone if your mate was absent. However, your moves and experience were planned by the shop foremen and some formal training was given in the Machine Shop, with a supervisor.

The route followed through the shops was well established and probably the same as any old time general engineers. You started in the Machine Shop [2] to learn turning. This gave a good introduction to work generally in a reasonably friendly environment, and you learned the different parts of a locomotive. The work also had a degree of precision about it, encouraging high standards in a young lad. Subsequent shops could be disillusioning in this respect, reaching a low in the running shed! There were two 'prestige' areas, the Tool Room [3] attached to the Machine Shop, and the marking off bench. The qualifications for these areas seemed obscure but they appeared biased in favour of premium apprentices.

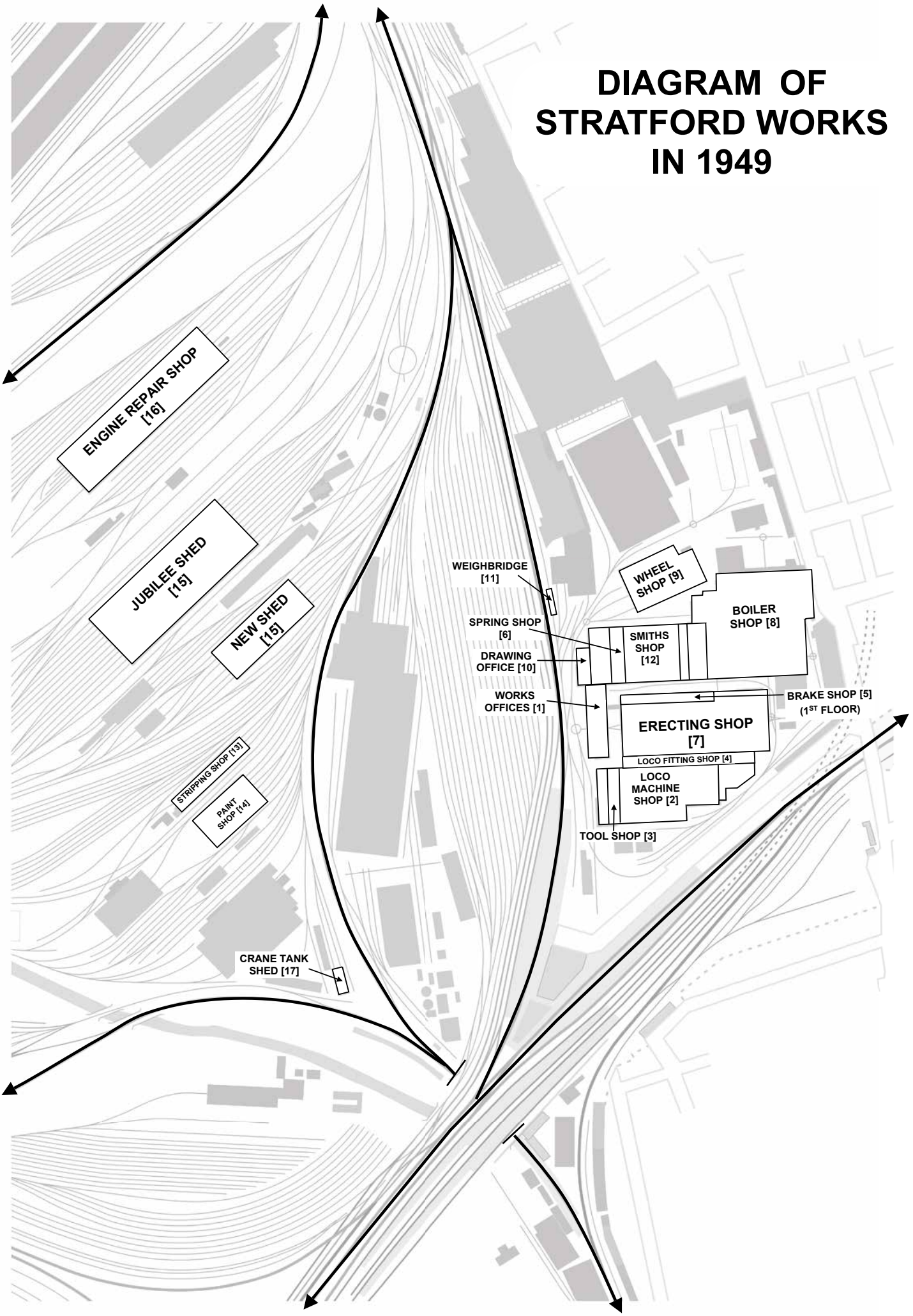
After about a year in the Machine Shop, a move would be made to the Fitting Shop [4], which had a number of benches each with a chargehand. A short time would be spent on several benches, but not all jobs would be covered, probably depending on the labour situation on each job. Here one worked

▼ **Class J-69 0-6-0T 68578 passes the locomotive department general offices on the approaches to Stratford station**

The entrance to the erecting shop is through the arch via a turntable. The train consists of a variety of stock including a Harwich ferry van.

John Gardner

DIAGRAM OF STRATFORD WORKS IN 1949



as part of a small team, and learnt some of the arts of filing, chipping and scraping, all the work being hand work. It also introduced you to other parts of the works and the Erecting Shop, where the engines actually were.

The next move would be to the Brake Shop [5], this being divided into 'brake valves' and 'Westinghouse pump' benches. This work was very interesting and the ultimate goal of working on an engine in steam could be attained here. Every 'fitted' engine with vacuum or Westinghouse brakes was tested by a fitter from the shop, usually the 'pump' people, when steamed on the weighbridge. At this stage you were familiar with most of the component parts of an engine, and how they were fitted up. Places like the Wheel Shop, Blacksmiths and the Boiler Shop were familiar and fitting skills had been acquired.

The final move was to the Erecting Shop [7], where you would be allotted to one of the charge hands, who each had several 'pits'. An apprentice worked with an erector as most of the work required two men. Much of the time you and your mate would be allocated your own engine, which meant doing the cylinders and motion, axleboxes, valve setting etc. At other times you worked on various jobs on other people's engines. Again about a year would be spent here.

If you had done well at classes and looked a possibility for a job off the tools the last few months of your time would be spent in the running shed. Here a short time was spent on most of the various jobs, ranging from boilermakers to examination. The problems of leaking tubes, 20,000 mile valve and piston examinations, blowing glands, hot big ends etc. were revealed and a few of the shed's methods of dealing with them learnt. This period concluded with some weeks footplate experience around the region, where one could see at first hand the product of all that had gone before, a working engine doing its job earning money for the company. The training could not give experience in every trade or skill, or expertise in one, but it did bring you into contact with most of them. Basic skills of fitting and turning were learned, together with an understanding of the men on the shop floor and how they worked and solved the problems that arose.

This was at the end of an era which had lasted over a hundred years. Stratford works opened in 1847 and much of the work had altered very little in principle. There was tradition in the work, after all we had built and repaired Y14 0-6-0 locomotives since 1883. Some of the older men had built the first '1800s' in 1900 and many were GER men. Much of the equipment and tools were Great Eastern, as were many of the engines. On one occasion I looked around the Erecting Shop and every engine in the shop was a GER type. The only non GER engines I worked on in the shop were LNER B-1s, which were new engines then.

All the technical staff and management had received this training to start with and possibly because of this I recall little criticism of the management's ability by the shop floor. The works also appeared to operate very smoothly, everyone seemed to know his job and it was not obvious how all the various bits came together correctly. The progress department was probably responsible for this, and for the smooth running of the works. It was a close knit community and outsiders were few, the odd man from Doncaster or Darlington, usually foremen, or in two cases from Melton Constable, as was the Works Manager, J H P Lloyd.

As apprenticeships had been mostly confined to sons of men employed by the companies there were many family connections. In at least one case three generations were employed together and quite a lot of fathers and sons. Some names could be traced back a long way. Unskilled and semi skilled labour, shop labourers and some machinists did tend to be different and of course at this period many women were still employed, from wartime. The difference between skilled and unskilled men was noticeable and seemed more pronounced than it is today.

At the end of their time many apprentices left, but a few managed to get a place in the drawing office for a short time if they had achieved success at 'classes'. From there they might go to the running department, or the works administration, usually into the progress department. There was not a great deal of work for the drawing office, most of it being plant and outdoor machinery, rather than locomotive and carriage and wagon. However the drawing office was the technical centre of the works and provided further insights into the ways of the railway.

◀
The reference numbers to the locations correspond to references in the text shown thus: [2]

1. Works offices
2. Machine Shop
3. Tool Shop
4. Loco Fitting Shop
5. Brake Shop
6. Spring Shop
7. Erecting Shop
8. Boiler Shop
9. Wheel Shop
10. Drawing Office
11. Weighbridge
12. Blacksmiths
13. Stripping Shop
14. Paint Shop
15. Running sheds
16. Engine Repair Shop
17. Crane tank shed

Lyn Brooks / Peter Walker

My first day, in the Machine Shop [2]

Much of this picture was unknown to me when I started at 7.30 one autumn morning in the Machine Shop. I made the journey from Wimbledon quite easily as the Central Line had just opened to Stratford. Living ten minutes from the station, I caught a Portsmouth 'semi fast' at 6.50am from Wimbledon, fast to Waterloo in ten minutes, down on to the Waterloo and City line to the Bank, another ten minutes, and then the Central line from the Bank to Stratford , arriving about 7.25am, just managing to 'clock in' before 7.30. It says much for the reliability of the trains in those days that I was rarely late. It was just over twelve miles and my privilege season ticket cost 5s 0d (25p) for three months!

The Machine Shop was a large area which was originally a group of shops, separated at one time from the Erecting Shop by a roadway, now roofed over and forming the Fitting Shop. The larger part had been originally the tender shop and paint shop and had a low wooden roof. It joined on to a higher roofed area which had been the old iron foundry, and was equipped with overhead cranes. The low roofed area contained most of the lathes and smaller machines, in no particular order. A lot of the machines were old and belt driven from overhead shafting. There were sufficient to warrant the services of a 'strappy', George, for repairing belts and replacing those that came off their lineshaft pulleys. In the other area were the large machines, cylinder borers, planers, large milling machines etc. requiring cranage for the

heavy parts. The marking off bench was here also. Adjoining the Machine Shop, towards the front of the works, was the Tool Shop, which appeared to be part of the machine shop territory, again formed by roofing over a former open space. In the traditional manner, the foreman's office was at a high level, above the tool stores, from where most of the shop could be seen.

A description of the machine tools at this time is worthwhile, but it must be remembered that this was only two years after the Second World War. I was told that a lot of the most modern machines had been removed to go to munitions factories, Woolwich Arsenal was one, and had been replaced by old equipment, some brought in from outstations. Some had not yet come back. Against the Tool Shop wall were three very old single spindle automatic lathes, making bolts, studs etc. which must have been some of the earliest autos built. I believe they dated from 1903 – they looked very similar to those illustrated in *The Engineer* for July 1903. They had large cam wheels to operate the various motions and were very noisy. Next were a number of capstan lathes, engaged on repetition work such as big end bolts. Some of these were still operated by women, a wartime legacy. A large old belt driven lathe, near the Fitting Shop, seemed to be employed exclusively on big ends (machined in the strap) and restoring crosshead taper bores, both faceplate jobs. The man operating this lathe appeared to only work about four days a week, and I was told that a good night at the 'dogs' usually resulted in his absence the next day! I suppose that so long as he fulfilled his quota of big ends etc. the management tolerated this. After all, you were only paid for the hours you worked. Next a row of mixed machines, including small slotters used for spring buckles, had a large centre lathe at each end. These were operated by two brothers, Eddie and George Stanton, who were said to have opposing political beliefs, and in consequence never spoke to one another. They were both expert turners, and did the most difficult jobs.

Generally the production lathes were quite modern, until one came to the boys' machines. These were a remarkable collection, all of which were belt driven. There were two ordinary 10 inch centre lathes, one of which had to be run with the headstock bolts loose. If these were tightened the mandrel seized! Next was a much superior lathe, with about 6 inch centres, probably originally a toolroom lathe, but it had the actions reversed to normal. Apprentices normally graduated to this lathe from a normal machine and would forget its reversed movement. This meant it had no chuck, a forgetful lad having wound the tool into it long ago. Apart from this it was in reasonable condition and was used for centre turning spindles, screw cutting etc. Then there was a small simple lathe with the rather odd feature of a belt driven shaft operating the self act on the saddle. It was usually operated by an apprentice whose turning ability was suspect, as it was very simple, doing odd jobs for the fitting and erecting shops. Most boys had the same trick played on them, the crossing of the self act drive belt, making the tool progress away from the chuck on engaging the self act.

▲ **The Machine Shop interior in 1960 where the apprentices' lathes were located on the right hand side**

The timber roof construction of the 1847 shop can be seen. The woodblock flooring was made from teak segments from old carriage wheels.

John Gardner

There was another ex toolroom lathe with about 6 inch centres in reasonable condition, on which good work could be done. The remaining lathe was a large 10 inch centres screw cutting machine made in 1883. I operated this for some time and managed to find most of the change wheels and did some screwcutting on it. The saddle traverse was by a large easily removable handle, rather like a GER regulator, and the self act was operated by a nut, tightened with an ordinary spanner. Other boys, usually from the big end bolt lathes, would frequently remove the handle and the spanner, when you had a cut on! It had a hollow mandrel, and was used for turning the ends of the long cross stays for Belpaire boilers, only on J-17 0-6-0s by then, ready for screwing. These came in lots of several hundred, or so it seemed! The belt drives were operated by a long handle hanging down moving the belt on 'fast' and 'loose' pulleys, and speed change was by stepped cone pulleys, changing the belt by hand using a stick. The belts were unguarded; I don't think belt guarding became a health and safety requirement until the late 1960s.

These lathes taught you how to turn without any of the modern aids. Tools were carbon steel, which you ground yourself. Screw cutting had to be done without the benefit of lead screw indicators, by synchronising painted marks on chuck and lead

screw and bringing the saddle back against a fixed stop every cut. We never saw a micrometer, repetition work such as spring hangers were turned to plug and ring gauges, many of which were of GER origin. The work varied, but in the main it was turning forgings like spring hangers, fitted bolts and rivets in motion work and special jobs for outstations.

Next was another boys' lathe over by the big end lathe, a 6 inch Colchester, with a geared headstock, and if you had displayed a bit of skill you would finish on this. It was used for better work, including turning new bushes for N-7 0-6-2T side rod joint pins. These were for the rod bench in the Fitting Shop and involved measuring the pins and bores on the bench and turning the bushes to fit. The bushes were pressed in, and you rapidly learnt about interference fits and clearances from the fitter who pressed them in. He expected them to press in easily and the pins to fit properly without much scraping. All this was done with calipers.

An event I remember was the installation of a new small lathe, called a 'Carbicut' for repetition work using carbide tipped tools. I was put on to this with our instructor Arthur Jelly, and we had to find out how to set it up. It had a single speed setting, altered by changing two gears, a set being provided from small to large, to give different ratios. The highest speed used the next to smallest gear; inevitably we had to try the smallest gear and get an even higher speed, which struck me as a serious design fault. We settled on doing carriage spring pins, which seemed to come in thousands and had a price fixed. Arthur had long experience of this. We found the best time and I worked a bit below this when the rate fixer checked the job. This was really my only experience of doing repetition work. Most work was piecework as soon as you were proficient and several of the machines had some 'stock' jobs lying about, which you might do some work on if there was nothing more pressing, and book money off. I recall sand box lids and B-17 slide bar lubricators ('jam pots') as two, and I suspect that eventually somebody had to finish them on day work as the money would have been used up!

Arthur was the shop steward, a very good turner and taught us a lot, particularly tool grinding and screw cutting. There seemed to be a difference between turners and machinists operating drilling machines as opposed to milling machines; the latter appeared to be classed as semi-skilled, despite it seeming to be a more difficult job setting up work on a milling machine. I think the difference was that the turners ground their own tools whereas the others used cutters etc. ground in the tool room.

The other major activity by apprentices in the shop was the turning and fitting of big end bolts. There were two lathes devoted to this, situated by the big double 'loco' drill. They were designed for drilling and machining locomotive side and connecting rods. GER engines, like most British engines, had strap and cotter type big ends on the inside cylinder types, the strap secured to the rod by two large tapered bolts, taper ⅛ inch to the foot and about 1¾ inch diameter. The strap and rod would be reamed out together, to clean up the bolt holes and restore them, then new bolts had to be turned to fit, tightly, between centres on the lathe. This was quite a difficult job and was performed by two trade apprentice turners 15-16 years old, their first job in the shop. If there was an excess of work, then the other boys had to help which was not liked. Turning the tapered bolts was not easy. The taper was set by setting over the tailstock, the bolts were turned by capstan lathes, oversize, and only the body of the bolt had to be turned to fit. The bolt head had to stand proud by about ¼ inch when knocked in, to be driven down fully when finally assembled. Take too much off the bolt and it was scrap, as there was a limit as to how much the head could be undercut.

The other machines were much more interesting, some were peculiar to locomotive work and some were quite old. The machining of connecting and coupling rods on the sides was done on a large old horizontal milling machine. There is a photograph of the inside connecting rod of the 'Decapod' 0-10-0T locomotive being machined in 1903. I am sure it is on this machine and it looked old then! Alongside the 1883 lathe was a screwing machine made by Durie of Glasgow, dated 1876. An old belt driven planer seemed to be used mostly for machining the large balanced slide valves for D-16 4-4-0s and J-17 0-6-0s. It was very noisy. All these machines were grouped together because they were belt driven and the remaining line shafting was in this part of the shop, driven by one large motor.

Piston rods and valve spindles were ground on an ordinary cylindrical grinder and slide bars on a surface grinder. Motion work was generally made from case-hardened steel, and had to have the wearing surfaces restored by grinding. Eccentric rod ends and links were done on a special grinder made by Beyer Peacock. The curved links were placed on a radius arm for grinding. There was an old axle keyway ing machine with two heads that I never saw used and several slotters used mainly for machining the round ends of connecting and side rods and crank webs. One old large slotter was used for the slide valve faces of inside cylinders. These were cast in one piece and only a slotter could get at the faces. A feature of this machine was that the slotting head was driven up and down by a pair of elliptical gears, a fascinating sight in motion, to get a slow cutting stroke and fast return. The machine was quite tall and the open gears could be clearly seen above the surrounding machines. The cylinder boring was done on normal horizontal boring machines, which were also used for other work. In the old days it appears that cylinder boring was regarded as a very dirty job and apprentices would be put on it as a punishment. Cast iron is dirty to machine as was evident from the making of piston and valve rings. Two vertical turntable machines were used for this, the rings being made from large cast iron cylinders, turned inside and outside and the rings parted off. They were looked after by one man, who seemed to have turned the colour of cast iron over the years, and

◀
The large machine bay of the Machine Shop in 1960, with horizontal boring machines on the left and new cylinders in the centre

This building was the old iron foundry before its replacement on the west side of the Works.

John Gardner

chain smoked cigarettes in a long holder.

A heavy job was the machining of the built up crank axle webs, large forged slabs. This was done on a large, quite modern, Butler planer, which I was told was recently returned from Woolwich Arsenal. The forgings for these heavy parts came from Shildon. Stratford's smith shop no longer had heavy hammers for such work. Presumably the LNER had concentrated production of certain things at cheaper works in the north. Castings likewise came from elsewhere, as our iron foundry had been damaged in the Blitz and shut down. Unlike lathe work, many of these machines would run with little attention after setting up, and their operators were glad to talk to you about the job. Much could be learnt this way.

Earlier I mentioned the electric motors driving the line shafting. These were part of the twice daily ritual of starting work. Everybody had a check number, the checks being wooden boards about 8 inch x 5 inch, kept in racks in the shop. The racks had roller shutters, which were closed promptly at starting times, 7.30am and 1.30pm, and opened at finishing times by the time clerk. If you were late and the rack was closed, you had to report to the foreman's office to get your check. Time was deducted in quarter hour increments; two minutes late could lose you a quarter of an hours pay.

The shop foreman or his deputy walked round the shop, and in the Machine Shop one could trace his progress by the sound of machines starting up. I think the lineshaft motor was started by George the strappy and if he was late nobody started until he came. A trick that had sometimes been played was to have some of the lathes with a cut on when the motor was started, producing a load it could not handle, as it had a 'star-delta' starter, thereby annoying George and delaying starting work. This was not altogether to one's advantage, as most were on piecework. This was another facet of industrial life you were introduced to as soon as you showed some ability. Most of the jobs were priced, as they were stock items, and generally the prices were such that you could earn 10-15% above the day-work wage. The prices appeared to be based on 1914 levels, about a quarter of the then current wage, the wage being comprised of this low base rate plus several fixed increments. Piecework earnings were calculated on the base rate, 'productivity' improvements had resulted in piecework percentages of 40-60% on the base rate, giving 10-15% on the actual wage. Some jobs were poorly priced, others seemed very high. If you did not complain about the low prices the management would turn a blind eye to the high ones!

At this period, two or three years after the War, the arrears of repairs on the engines meant that a lot of new parts were needed for old engines that would have to last another ten years or so. Materials were becoming available again, and this meant that there was a lot of work machining new connecting rods and side rods, motion parts, crank axles, etc. We were able to see how these components were machined, some of them requiring a lot of work. Batches of new boilers were also being made for Class J-15s, J-17s and D-16/3s. The typical connecting rod with strap and cotter big end is quite a complicated job. First the forging had to be marked off, on the marking off bench. It was not so easy to find the position that all the faces would clean up. The forging was then planed on the flat faces at the small end and the big end, usually several at a time. The rods were then stacked on a vertical slotter, to machine around the edge contours at the ends, four or six rods at a time. The radiused small end was placed in the centre of the table which rotated. The remaining surfaces were the sides and top of the rod between small and big ends which were milled on the horizontal milling machine. The rods then

passed to the double loco drill, where the small end and big end holes were machined out, using first a very large twist drill, then a cutter bar. The machine had two heads, two rods being done at once. Then the rods were set up vertically, to have the bolt holes drilled and reamed. Operations on the straps were similar, the faces being planed and the profile done on a slotter. The rod and strap were put together for drilling. Slots for the cotter had to be milled out in rod and strap. Add the bolts and cotter, glut and split brasses, and you get a very expensive component. The machining of several components together was common to cut costs.

Most of the GER engines had forged crank axles when built. In late GER days most had been changed to built up cranks, having three pieces of axle, four webs and two crank pins, shrunk together and keyed, with round plugs screwed in between web and axle. This was a stronger job and cheaper. The web was first planed on the flat faces, then stacked and the end profiles done on a slotter. The bores were then machined on the double locomotive drill. Two classes could not be altered, the 2-4-2 radial tanks and the 'Clauds'. These retained forged cranks to the end. The reason appeared to be space restrictions as the built up cranks had a larger diameter at the crank pin, and would foul the frame cross stay in front of the firebox.

Slide valves were all bronze and planed, again several at a time. The large balanced valves for Class J-17s and 'Clauds' were quite complicated, having grooves in the back for the cast iron balancing strips. Piston valve sleeves were turned and the ports cut out on a special jig on a milling machine.

Motion work is generally machined all over. However, eccentric rods with long blades were made by making forgings of the two ends only and machining them as small pieces, leaving the blade ends rough. These were then fire welded to the blade and finished smooth by the blacksmith. The eye end was case hardened before welding. All the wearing surfaces of rods, links, intermediate spindles, etc. were case hardened, by the old method of packing them into a sealed steel box with carburising material and heating to a high temperature in a furnace in the Smith Shop. They were heated for a long time and then quenched in water to harden them. Areas required to be soft were covered with fireclay. Motion pins however were hardened in salt baths. Motion parts generally were long lasting and not many new parts appeared to be made. When the expansion links were trued up by grinding the saddles with pins for the suspension links had to be removed. This meant that new cold rivets had to be turned up to fit, to rivet them back together again, another job for the boys' lathes.

The ordinary GE screw reverse used a triple start 'V' thread, 2 inches in diameter, having a threaded spindle running in a long bronze nut attached to the reversing wheel. This was neat and simple, but not simple to make. The 'V' thread is less than 50% efficient and meant that no lock was required, unlike the commonly used square thread, but a long length of chain with a hook was fitted to go in the wheel, just in case! The spindle was screwcut on a lathe and the bronze nut tapped with a very large tap, again in the lathe. George Stanton, mentioned previously, did these on his big lathe. He also did piston rods and looking at his lathe one day, we noticed that the thread chaser (4 threads per inch) was stamped 'ECR' and therefore dated to the days of the Eastern Counties Railway, pre-1862! I think all GER piston rods had been 4 t.p.i. for the nut since Robert Sinclair's days as engineer in the 1850s and 60s.

A wide range of work could be seen in the Machine Shop, but much of it had been done for over 50 years, on the same machine in some cases. Very few drawings could be seen, they were mostly in evidence on the marking off bench. I only saw one drawing, when making a new feed pump plunger for a Y-6 tram engine, 68082, being shopped then. This drawing was a coloured tracing, signed by T W Worsdell, and coloured for wrought iron, so we found a piece of old piston rod, reckoning it was good material! Most small work seemed to be done to sketches, and the chargehand on the marking off bench had a notebook with sketches of frequently made details, erecting shop chargehands among others had the same. Only one drawing was issued to the shops, usually signed by the Works Manager. It was a long walk to the drawing stores, and when you got there the drawing might be out. Finding it would often be a long job.

The Tool Shop [3]

The Tool Shop was quite large, and made a wide variety of tools and jigs. It also did special jobs, such as spherical bearings for turntables and the Works Manager's lawnmower! Many special taps and dies, reamers and drills were made and large milling cutters, together with carbon steel lathe tools. There were facilities for hardening and tempering and smith work. A fairly new facility was a jig borer, in a temperature controlled room under the foreman's office, for machining jigs. The foreman in charge of the Machine and Tool shops was Mr Brown, a former locomotive draughtsman who was credited with the design of many of the special tools used. In the early 1930s the drawing office had been much reduced in size and several draughtsmen had transferred to other jobs in the works. In GER days many tools were made 'in house' and a lot of these would have been specials, not easily obtainable commercially. There were many old GER tools still in use and these were of high quality, particularly spanners which were much better than the LNER drop stamped ones.

The Fitting Shop [4]

My next move was to the Fitting Shop, which was situated between the Machine Shop and the Erecting Shop, being originally an open space, now roofed over, in about 1930. Before then fitting was done in one side bay of the Erecting Shop, which then became mostly a detail stores for finished work. Stratford old works was on a very small site

and maximum use had been made of the space by the early 1930s.

There were a number of benches, each with a chargehand, ranged down the shop. Having a glass roof it was light and pleasant, although it could be hot in summer. There were piston rods, crossheads, coupling and connecting rods with Cyril Potter, motion work with Arthur Butler, regulators (only two fitters), brake work and buffers with George Head, and mixed work with Ted Witherick. Lastly there was a small bench for safety valves, with hydraulic test facilities.

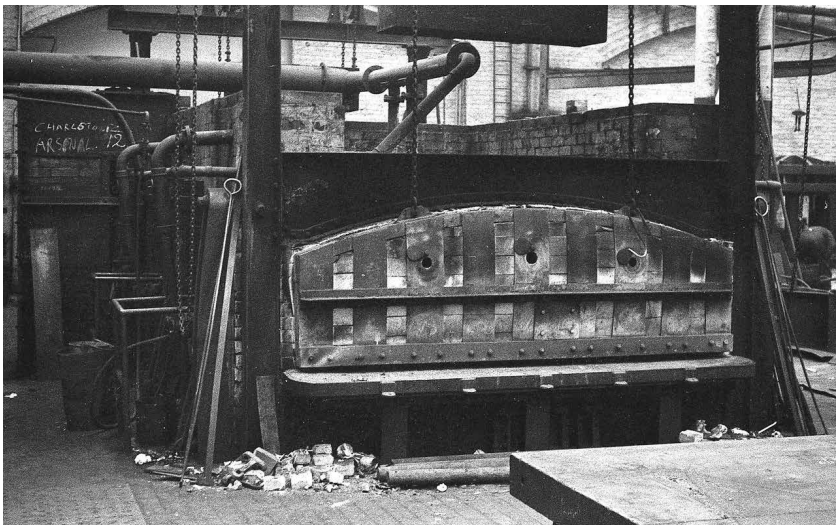
I started on Ted Witherick's bench, doing whistles and injector rods and cab windows. The injector rods frequently needed new ends, which involved a trip to the Smith Shop to see Ernie Rawlings who seemed to do all fitting and erecting shop work. He would fire weld new ends on. This introduced you to the Smith Shop and also to the sharp distinction between the labourers and skilled men. Each bench had a labourer, whose job was to move materials about. He took the rods to the blacksmith, not you!

We also did spring hangers, fitting new steel bushes and making the nuts fit easily. Spring hangers, brakework and couplings were annealed in a furnace in the Boiler Shop, and threads suffered a bit as the parts were oxidised.

We also worked on the simple steam brake valves, which seemed odd as logically they should have been done in the Brake Shop, and steam brake cylinders as well. I gathered that anomalies like this arose from chargehands in the past offering a lower price for a job!

Another job was sand gear, which involved going to the engine in the Erecting Shop and repairing the gear on the engine. Mostly this was simple, the standard GER arrangement being a small flat valve moving over a hole in the bottom of the box. D-16/3 and B-12/3 rebuilds had a most elaborate trailing sand gear arrangement fitted, involving a slotted tube and fluted rod and complex small castings, which seemed to offer no advantage at all over the old simple GER gear. By contrast, E-4 and J-15 trailing sands were one side only and comprised a simple funnel, to drop the sand down by hand! We also discovered that the Y-6 tram engine had a wooden sand box on top of the boiler also with a funnel. New B-1s were being shopped for the first time and I recall dismantling quite a lot of gear simply to see what a new engine was like and the quality of the North British Locomotive Co's work.

At this time the erecting shop foreman was Mr Potter (Cyril Potter in the Fitting Shop was his son). I was working on the sand gear of an early 'Claud' and he came up and remarked 'I helped build this engine in 1900'. He retired shortly after, so he would have been an apprentice, aged about 17 at the time. I remember thinking how different the works would have been then, probably with little electricity, gas lighting, steam driven machinery and flying rope drives to the Erecting Shop cranes.



▲
A furnace in the Boiler Shop, used for annealing brake parts, couplings, etc. and straightening buffer beams

John Gardner

Brake work and buffers

The next move was to George Head's bench, mostly doing brake work and buffers. Buffers were fitted with rubber springs, or 'rubbers', as were most spring hangers. During the War, with a shortage of rubber, wood pieces of similar size were substituted and were now being replaced. The GER was an early user of rubber for suspension etc., and appeared to have had an association for many years with the manufacturers Spencer Moulton. The rubber was bonded either side of a steel disc and each spring separated by a steel disc. One job I had to do was polishing the front coupling for the Royal engine 62614, in shops at the time. Superheater headers were also done on this bench, which seemed out of place, as were cast iron footplate air reservoirs, either new ones or repairing old ones removed from engines.

Motion bench

Finally I moved to the motion bench with Arthur Butler. Here the work was more precise. New pins had to be fitted to eccentric rods, mostly held by taper pins, which was a fairly easy job, using a round nose chisel and round file to cut the grooves in the pin and finish in the rod with a taper reamer. After fitting the pins were hardened in the Tool Shop. Saddles had to be cold riveted back onto expansion links and new die blocks and bushes fitted. Oilways in die blocks were cut with a small round nose chisel. Pins and die blocks were ground in with emery powder and oil by hand to get a good fit, an old practice. J-66 0-6-0Ts and early J-15 0-6-0s had single suspension links, which had a long pin on the link and long bores in the suspension links. Fitting the pins in the long bores could be difficult, requiring a lot of work with the emery powder to get a running fit. There was a large level slab, with supports for setting up the weighshaft and links for inside cylinder engines, to ensure they were true and square and worked smoothly.

The standard GER method of balancing the weighshaft was with a spring like a clock spring on one end, anchored to the bearing bracket with an adjusting screw. The spring was attached to the shaft by a taper sided 'key' type end on the spring, fitting in a taper sided keyway in the shaft, which was not easy

to fit and rather small. If the spring was not properly tempered it could break off here. One day a spring broke on a J-15 just out of shops, and I had to go with Arthur to replace it. There seemed to be a 'warranty' period on engines ex shops! These springs replaced balance weights after an accident in the early 1880s, where a balance weight dropped off. These were then removed from all engines. Old engines altered were fitted with a tension spring, usually attached to the reversing rod. A good job was doing the air reverse gear used on the 'Clauds', the part in the cab which was a complete unit with locking gear. I did one of these which involved replacing several small parts, requiring quite a lot of hand work as they were only partially machined. This gear looked rather delicate compared to other power reversing gears, but appeared to work well.

Piecework in the Fitting Shop was on a bench basis, not individual, probably a relic of the days when the chargehand was paid for the job and paid the hands directly. The foreman was Mr Cox, from Doncaster. One fitter on the motion bench came from Melton Constable, and I believe that there were only two ex M&GN men at that time in the works, apart from the Works Manager, J H P Lloyd, who also came from Melton Constable. The work in the Fitting Shop was all hand work, with files, chisels etc. There could be quite a lot of hand work on new components and even simple jobs like fitting injector handles on rods required accurately filing squares and square holes, good exercises in fitting! This work was probably unchanged since Victorian times and the various classes of fits were a matter of experience. Hand tools had to be acquired here, a hammer and some chisels, which had to be found. Nothing seemed to be issued and we tried to get tools marked GER. The benches were equipped with other tools, files, reamers, taps etc. It seemed difficult to get new tools from the stores. I am not sure whether this was due to wartime shortages or LNER parsimony.

The Brake Shop [5]

From the Fitting Shop we normally went to the Westinghouse or Brake Shop. This was situated on the north side of the Erecting Shop. There were two benches, one for vacuum ejectors, Westinghouse drivers' valves, proportional valves and triple valves and one for Westinghouse pumps. The foreman was Mr Basden, who had been in the navy in the First World War, on the battleship *Indomitable* at Jutland. He could easily be persuaded to tell some highly improbable stories about this, such as the captain calling for 'more steam Basden'.

I started on the bench with vacuum ejectors and this was rather different to the Fitting Shop. You had to repair a complete unit, either the older Gresham and Craven 'Dreadnought' ejector or the newer 'Solid Jet' type fitted to B-1s. There were one or two old Davies and Metcalf ejectors lying about but they did not appear to have been used for a long time. The 'Dreadnought' ejectors had a 'Banjo' type of air admission valve which had to be faced up and a large ejector steam valve operated by a cam working in a slot in the steam valve spindle, which needed careful fitting. The 'solid jet' was more modern and had a single beat valve for air admission which was simpler. When finished the ejectors were tested on a rig situated in the end of the Smith Shop, in the area of the Spring Shop. The test rig for the Westinghouse pumps was here also, together with a large steam 'scrag' for springs, probably because the Smith Shop had a good supply of steam at high pressure.

We also did the small GER type Westinghouse drivers' valves and the ordinary proportional valves (operating the engine air brake from the vacuum train brake) as these were quite simple. The more complex No.4 drivers' valves were done by one fitter, together with triple valves and some more complex proportional valves. Associated with the vacuum ejectors were engine steam brake valves, proportionally operated by the vacuum brake. There

▶ **The Fitting Shop looking east in 1960**

This was created in about 1932 by roofing over a previously open area between the Erecting Shop and the Machine Shop. George Head's bench is in foreground, surrounded by various superheater headers and brake components, which were his specialities.

John Gardner

The weighbridge in 1953 with Class J-15 0-6-0 65458 and F-6 2-4-2T 67235

At this time engines were not painted in the Erecting Shop but went to the Paint Shop. The general office building is in the background.

John Gardner

was a simple type and a more complex 'graduable' type, both by Gresham and Craven. This work was very interesting, as the operation of all the brake valves could be studied and the workings of the air and vacuum brakes understood. I am not sure whether vacuum brake cylinders were done on this bench, as few vacuum braked engines were going through shops, but I think they were. There was a good test bench for air brake equipment with triple valves and brake cylinder.

The Westinghouse pump bench was rather different. Here an apprentice worked with a fitter, as the pumps were heavy and quite a lot of work was involved. The two types of pump used were the old 6 inch GER made ones, with the old type side piston valves for steam distribution and the Westinghouse made 8 inch pumps with a slide valve in a 'tophead'. I believe the patent expired on the small pumps before 1900, when Stratford started to make their own, to the Westinghouse design. Westinghouse had 'upgraded' the 6 inch pump design to incorporate the improved 'tophead' and most companies seem to have adopted this, but Stratford stuck to the old design. The 8 inch pumps were introduced quite late on the N-7 0-6-2Ts in 1920. It was probably the requirements of suburban working that forced this, as most applications were to N-7s and 'Radial' tanks, with relatively few to B-12s and 'Clauds'. The 8 inch pumps were all made by Westinghouse and quite a lot of W.H. made spares were used, which seemed better quality than the Stratford made ones.

The assembly of a pump was not obvious at first sight and the starting point was to assemble the piston rod into the centre piece, with glands and pistons, then the steam and air cylinders were put on. The bottom cover for the air cylinder after air valves were fitted was next, and then the top head with the reversing valve rod working in the hollow piston rod was put on. This was not easy to do. Cover gaskets were annealed copper with a jointing compound. The air valves were single beat mushroom type and the lift had to be correct. Checking this was easy when you knew how, simply put a small piece of putty on the valve top, screw in the valve cover, then undo and measure the putty! I worked with a very good fitter, Stan, and learnt a lot about pumps. Stan said that when Sentinels were shopped, the engine unit was done on the pump bench and they were not popular. The pumps came in straight from the Stripping Shop, out of the caustic soda bosh, and had to be stripped down. This was messy as they tended to be full of caustic soda. The finished pump was put on a test rig in the Smith Shop, mounted on a frame and run under steam for several hours, then tested. It had to pump up a reservoir to 85 lb/sq in in a set number of strokes, and maintain pressure against a set leak. The air valves were also checked against leakage.

All engines with air and vacuum brakes were tested by a fitter from the pump bench, when steamed on the weighbridge. This was quite enjoyable, and involved checking all pipes for leaks. Soapy water was used for the air pipes and a flare lamp for the vacuum pipes, the flame would be sucked in at a leak. Stan reckoned that the best stuff for sealing vacuum leaks was old grease from a wagon axle box. Unfortunately there were very few grease boxes around by then. Testing could not be done until the engine had full pressure so it was usually around midday. Most engines with small 6 inch pumps did not have governors for the air pressure, to keep it at 85 lb/sq in. A trick that was sometimes played on the brake fitter was to pump up the reservoir to above 85 lb/sq in, make a full brake application and then let the air out of the reservoir back to 85 lb/sq in. The pressure in the brake cylinder was then higher than this and the triple valve would not work to release the brake. This would cause confusion although the brake cylinder pressure was shown on a gauge. The engines with 6 inch pumps had a reservoir air pressure gauge and a brake cylinder

gauge only, whereas the 8 inch pump engines had a Duplex gauge showing reservoir and train pipe pressure as well as a brake cylinder gauge. The old small pump and drivers valve was very simple, and it always seemed strange to me that many express engines had these and not the more sophisticated No.4 drivers' valve for main line work and heavy trains. I suppose that after the Grouping in 1923 it was thought that the vacuum brake would quickly replace the Westinghouse and it was not worth the expense of replacing the old pumps. I believe that in GER days a brake fitter went on a trial trip with engines after repair, together with the chargehand, motion erector and apprentice.

The weighbridge [11]

All this brought you into contact with the men on the bridge, the steam raisers, the bridge drivers and the inspector who did the weighing and tried the engines for steampipe leaks etc. Fridays were usually busy as weekly output targets had to be met. On occasion I believe that engines had been turned out incomplete and brought back to be finished the next week. It was on this work that I witnessed a very odd happening. There was a J-70 tram engine on the bridge, and at that time trams went on a trial trip, but only to Picketts Lock not Broxbourne. I noticed that as the tram left, there were quite a lot of people on board, all looking cheerful and ringing the bell! Usually the chargehand, motion erector and apprentice went on trip. Later I heard that the chargehand, Carpenter, had taken some others, including the labourer, and was suspended for a few days for this! You also discovered that a remarkable amount of water could accumulate in the pump exhaust and blow out when steam was turned on, hence the frequent cry of 'mind the water from the pump' heard on the bridge. Work in the Brake Shop was quite enjoyable, a lot could be learnt and contact made with live steam for the first time.

The Erecting Shop [7]

The final move was to the Erecting Shop, for about a year. There were seven chargehands, Bill Little, Mr Carpenter, Joe Clark, Fred Riley and Ted Corby on the south side and Tom Pye and Fred Aldous on the north side. Each usually had three pits. Engines appeared to be allocated to them as they came in. No one seemed to specialise in any one type, except that Fred Aldous usually did the Royal engine each time. He also did the maintenance on the works engines, which appeared to involve permanent Sunday work. This was probably a valuable perk.

The gang usually comprised three erectors with apprentices, mainly doing cylinders, motion work, axleboxes etc. Each person was allocated an engine. There was also a 'pipe' man and a general erector doing mainly 'backends' and smokeboxes, a driller and a labourer. I think the chargehand was responsible for organising the smooth flow of other work, by the boilermakers, coppersmiths, laggers, etc. Most of the work was actually done by other shops really, but you still thought of it as 'your engine' if you did the motion. Piecework was on a gang basis, but was lumped together and averaged for the shop, the individual gang earnings being displayed each week on the notice board. This would lead to comments about how your gang had 'let us down this week' if you had had problems and put in a low figure. Sometimes there would be delays on your job and you might be loaned to another chargehand for a specific job if he was short of labour.

To be continued

The north side of the Erecting Shop where Tom Pye's job was

On the left is a Class B-1 4-6-0 ready to leave and another B-1 being worked on. The cast iron crane runway beams and support columns probably dated from 1847 when the works was built.

John Gardner

GEMS FROM THE COLLECTION

George Powell goes on holiday

Saturday 23 July 1949

My holiday commenced today. I shall be spending the two weeks in Suffolk. So this morning saw me making an early start from home, leaving at 5.45am and catching the 5.55 from Kilburn to Broad Street. Everything was fresh and cool, but a clear sky gave promise of another hot day. Travelling over the North London line past Camden Town one looks down on quiet, deserted streets, which in a few hours will be noisy and hot.

George Powell

George Powell was a member of the Society from the early days until his death in 1999. Dick Riley was a long term friend and it was thanks to his contacts with the family that George's personal GER related photographs and detailed notebooks, describing his visits and observations along the way, were donated to the Society.

The text presented here has been transcribed from one of his original notebooks and is accompanied by a selection of his photographs. These provide a valuable record of rail services and travelling conditions shortly after Nationalisation in 1948. Therefore the observations and photographs refer to locomotives by the numbers they were carrying at the time, many of which were still those allocated by the LNER in 1946. Likewise the liveries reflect the transition that was taking place.

One of his favoured locations for photography was Marks Tey, which he visited several times in the course of the following two weeks. However this article concentrates on the first day of his summer holiday when he was exploring the branch lines around the Essex/Suffolk border on his way to visit relatives near Sudbury and Bures.

On arrival at Broad Street I made my way down the steps into Liverpool Street station. Few people were about then, although a steady trickle was passing through the barrier for the 6.50 Ipswich slow, as quite a number change at Shenfield for the Southend line. However this morning I did not follow them onto the 6.50. My train was its counterpart, the 6.56 Cambridge slow, for today's journey to Bures would be a long one. First to Elsenham, then a trip over the Elsenham and Thaxted light railway. Back to Elsenham and on to Audley End, changing there for the Saffron Walden branch. Then on to Bartlow, thence to complete my journey to Bures on the Cambridge to Marks Tey branch.

At Liverpool Street a J-39 0-6-0 4708 worked the 6.50 Ipswich slow. A green B-17 4-6-0 61618 *Wynyard Park* was in the locomotive siding. My train had a clean B-1 4-6-0 61287 in 'North Western' *[BR mixed traffic]* colours. We were away on time and soon up the bank, turning sharp left at Bethnal Green junction for the Cambridge main line. Even at this early hour the sun was hot, a taste of what it would be like later on. Through Clapton, the Lea valley and the factories of Tottenham and Enfield. A stop, not shown in the timetable, was made at Ponders End for parcels and later set back to pick up a van or horsebox.

At Broxbourne J-15 0-6-0 65468 was shunting and at Harlow a clean B-12 4-6-0 1533 in unlined black was noted on an up train. One is now well clear of

▲ **Elsenham station on Saturday 23 July 1949**

View north showing the staggered platform separated by the level crossing.

GERS / George Powell Collection

Thanks to Geoff Ashton for transcribing George's notes and selecting the photographs.

▶ **Sibleys station on Saturday 23 July 1949**

The diagram 15 covered wagon body replaced a 27ft five compartment carriage at some point, perhaps representing the only visible alteration made to this modest station.

GERS / George Powell Collection

▲
Class J-68 0-6-0T 8645 ready to depart from Elsenham with the 9.00am for Thaxted on Saturday 23 July 1949

The locomotive is still lettered LNER with its LNER number.

The train comprises a pair of converted ambulance train carriages, a third to diagram 443, No. 61471 and brake third to diagram 554, No. 62450 which in 1940 had replaced the original six wheeled stock modified to work on this branch.

GERS / George Powell Collection

London and can see the beauty of Essex at its best. An extremely heavy dew made everything wet as though a shower had fallen during the night. At Bishop's Stortford an F-5 2-4-2T 7194 with stovepipe chimney was ready with the 8.55 departure for Witham.

On to the Thaxted light railway

Elsenham was reached a few minutes later than the timetabled 8.20. As at many GER stations there are staggered platforms. No over bridge is provided and a level crossing for a second class road comes at the platform ends where they are opposite, an awkward place. Branch trains arrive on the opposite face of an up platform. The signal box is in the centre of the down platform and the crossing gates are opened by a porter. The most striking thing about the station is its large and well kept platform gardens. The bank opposite the branch platform is clipped and planted with small shrubs and roses. The Thaxted train was in, so I put my case aboard.

There being some minutes to spare there was time for a chat with the driver and to take a photograph of the train. Our loco was a spick and span J-68 0-6-0T 8645 still lettered LNER and has not yet had 60000 added to the number. The train was made up of two ex-GER bogie coaches, a third class saloon divided into smoking and non-smoking parts and a brake third coach. The driver told me they used to have six wheeled vehicles similar to those on the Kelvedon and Tollesbury.

A punctual start was made at 9.00am, the branch curving away sharply to the right. Our journey had not really commenced when after travelling a couple of hundred yards we set back into the adjacent siding to pick up three loaded coal wagons and a brake van. Mill Road Halt 1 mile out was passed, as was Henham Halt at 1¾ miles. At Sibleys, 3 miles out, we stopped and a packet of newspapers was put out. We also shunted one of our coal trucks into the little yard. The points into the sidings were unlocked by the guard with a point key. The vibration of our movements started coal cascading from the top of a large heap in the yard every time we passed. Shunting completed we continued our journey, not stopping for Cutler's Green Halt at 4½ miles. Thaxted was reached a little late owing to the time spent picking up wagons at Elsenham and shunting at Sibleys. Perhaps one should give the full name, Sibleys for Chickney and Broxted without the 'Halt' after, the most important intermediate station.

At Thaxted station

On arrival at Thaxted, 5½ miles from Elsenham, 8645 uncoupled and went on shed for coal and water, the coaches being left in the station. Like those along the branch this only has very low platforms,

extra steps being fitted to the coaches. Being a light railway, no crossing gates are provided, hence there is much whistling on approach and speed is of course limited. No signalling is necessary as only one engine in steam is permissible. Tickets – single only – are issued by the guard. They are on thick white paper of the same design as issued on the Tollesbury branch. On the outward journey I was the only passenger.

After taking coal and water the loco proceeded to shunt in the yard, which is quite extensive for such a small place. The engine shed is a miniature of GER standard practice built of red brick with slate roof and wooden doors. It holds one locomotive and is provided with an inspection pit, fitters bench, vice, spanners etc. Outside is a miniature cast iron water tank. The locomotive is stationed there at night and the train crew live in Thaxted village, which unfortunately is one mile from the station. One wonders why the railway was not brought nearer. I took a number of photographs including one of 8645 for the driver with him looking out.

The station buildings are worth inspection being extremely well kept. They are of wood construction like the rest on this branch and were last painted in

▼ **J-68 0-6-0T 8645 shunting at Thaxted after arrival with the branch line train from Elsenham on Saturday 23 July 1949**

Built in 1912 as Class C72 No. 49, it was one of several of its class experimentally fitted with grease lubrication by the LNER, but had reverted to normal by this date and was withdrawn in November 1959.

GERS / George Powell Collection

◀ **Thaxted station on Saturday 23 July 1949**

The wagons and goods brake on the right stand in the two siding goods yard.

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▲ **The driver, fireman and guard of the Thaxted branch train on arrival at Elsenham on 23 July 1949**

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▼ **B-2 4-6-0 61617** *Ford Castle* **with the 10.25am departure from Elsenham**

This train was the 9.05am departure from Ely and called at all stations to Bishop's Stortford where it terminated at 10.36. Connection was made here with the 10.53 to Liverpool Street.

Known as 'The Parly' or 'the parliamentary' because it harked back to the Railway Regulation Act, 1844 which obliged all railway companies to run at least one train a day which stopped at all stations.

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1942, in two shades of grey, including Elsenham. Everything inside was spotless and tidy, even the brass dial of the spring balance in the tiny parcels office was polished. No speck of dust was visible in the waiting room, the linoleum was polished as were table and chairs and a vase of flowers decorated the table. A public telephone is in here and on the table there was the telephone directory. I spent some minutes rescuing a peacock butterfly fluttering in the window and with patience managed to catch and liberate it into the sunshine.

We departed at 9.55am sharp. Trade was more brisk as there were six passengers apart from myself when we started. No stop was made at Cutlers Green Halt. On arrival at Sibleys we found that the bundle of papers deposited on our down journey were now on sale in the waiting room, a man and woman being there. On the side of the line I noticed several clumps of chicory with lovely blue blossoms.

A stop was made at Henham Halt where four more passengers got out and two got in. We also picked up two more passengers at Mill Road Halt. Elsenham was reached at 10.19. On arrival I took a photograph of the driver, fireman and guard.

The train does not stay long, departing empty to Thaxted as soon as the locomotive has run round the train. Passengers are not carried as this journey is not advertised in the public timetable. The next up train from Thaxted departs at 11.50am. From the little shop at the end of the down platform tea and lemonade can be obtained.

While waiting for my train to Audley End I took one photograph of the 'up Parly' due to leave Elsenham at 10.25am. The locomotive was a dirty B-2 4-6-0 61617 *Ford Castle* in unlined black. A through down express, hauled by B-12 4-6-0 61525, passed at 11.06.

Ex War Department 2-8-0 77309 passing Audley End with a down mixed freight train on Saturday 23 July 1949

Built in May 1943 by the North British Locomotive Co. in Glasgow and placed on loan to the LNER, it was returned to the War Department in January 1945 for storage and possible deployment overseas, but was loaned to the LNER again in August 1947. It was absorbed into British Railways stock in December 1948 and subsequently renumbered 90224, being withdrawn in March 1964.

Four cattle wagons and a goods brake lead, followed by empty mineral wagons.

Despite the rather rural location of this station the platforms were illuminated by gas as shown by the fancy top to the lamp case.

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My train departing at 11.15 had an N-7 0-6-2T 69728 with stock composed of LNER bogie compartment coaches. This train commences at Bishop's Stortford departing at 11.02 and reaching Audley End at 11.29. I had three quarters of an hour to wait for my train to Saffron Walden. While waiting an ex War Department 2-8-0 77309 came through on a down freight. On the up 11.40 there was an L-1 2-6-4T 67732. The best turned out was the 10.50am Saturdays only from Liverpool Street worked by 'Royal' locomotive B-2 4-6-0 61671 *Royal Sovereign* in very clean condition, which I photographed.

The platform for Saffron Walden is a little away from the main station, being reached by walking across the station courtyard. The junction with the main line faces London. The main line station has staggered platforms and the buildings of brick. Those on the up platform, which contain the ticket office etc., are of stucco outside and from the courtyard do not look unlike a country mansion. Brick buildings are provided on the branch platform.

The branch train arrived at 12.04pm worked by ex-GNR C-12 4-4-2T 67360 with two coaches, a newly painted ex-NER clerestory and an LNER 1st/3rd corridor composite. The door and grab handles were highly polished, which is rare in these times. We departed at 12.15, the 1¾ miles to Saffron Walden taking four minutes where the train terminated. There are twenty trains from Audley End on Saturdays, but only five work through to Bartlow. My train for Bartlow did not leave Saffron Walden until 1.19. So leaving my bag in the luggage room, there was just time to visit the lovely church for a quick look round. Walking was not inviting, it now being extremely hot and well up into the 80s.

Back at the station I took a photograph of the ex-GNR tank engine, which was not too good as the sun was behind it. The Bartlow train, hauled by J-15 0-6-0

B-2 4-6-0 61671 ***Royal Sovereign*** **passing Audley End with the 10.50am Saturdays only service from Liverpool Street on 23 July 1949**

This was a 'holiday camps special', travelling a rather circuitous route via Ely, Norwich and North Walsham to Caister on Sea, stopping only at Hemsby and Caister Camp Halt.

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The exterior of Audley End station

The station frontage and delightful porte cochere survive to this day, though the courtyard is now a bus station and a glass covered bus stop shelter partly obscures the view.

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65477 running tender first, arrived at 1.16. It was well filled but I managed to get a seat, travelling in an ex-GCR corridor coach, a comfortable well built vehicle. There is one intermediate station at Ashdon Halt, 5¼ miles from Audley End. We reached Bartlow, 7¼ miles, at 1.33. The branch platform is away from the station, passengers have about 50 yards walk on a cinder path to reach the main station. However the walk is made bright with flowers growing in well kept borders. The station platforms are bright with flowers too in several neat beds.

Our train from Cambridge was some minutes late. It was hot waiting in the full sun. Without sunglasses it would have been most uncomfortable. As expected an ex-GER 'Intermediate' 2-4-0 62781 was to be the locomotive. Approaching the station round a curve from behind a clump of trees it made an attractive picture, really Edwardian pre-Grouping.

Instead of leaving at 1.47 it was 2.03, 16 minutes late. Immediately after leaving the station we passed between two well-known burial mounds. Even with the windows wide open it was more than hot, sweat just poured off. At Haverhill I was unable to note the J-15 for the Colne Valley train. Progressing through the sun-drenched countryside was slower on some of the stiff up grades and really express speeds were reached on down grades. More passengers got in than out at several stations, so we were full by the time Sudbury was reached.

There we had to wait for the 2.30 from Marks Tey, also late, due from Sudbury at 2.58. It was worked by a Gresley Claud 4-4-0 62527. As soon as the staff had been taken and the road was set we were away. Nine minutes later we arrived at Bures where I left the train, she to continue to Colchester, I to face a car journey to Assington along hot roads. Even in spite of the heat it had been an enjoyable day travelling over the old 'Great Eastern'.

Former Great Northern Railway C-12 4-4-2T 67360 at Saffron Walden on Saturday 23 July 1949

Built in March 1899 by the GNR as Class C2 No. 1502. The sixty strong class became LNER class C-12 and 1502 became No. 4502. In the early 1930s one engine was transferred to the GE Section and, following trials in the Norwich area, it settled at Parkeston. Two more, including 4502, were transferred to Yarmouth Beach in 1937. Others followed and by the date of the photograph No. 4502 had been renumbered by BR as 67360. It was one of a number stationed at Cambridge and latterly worked on cross-country services to Colchester, being withdrawn in January 1955.

The leading coach is an ex-North Eastern Railway clerestory.

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