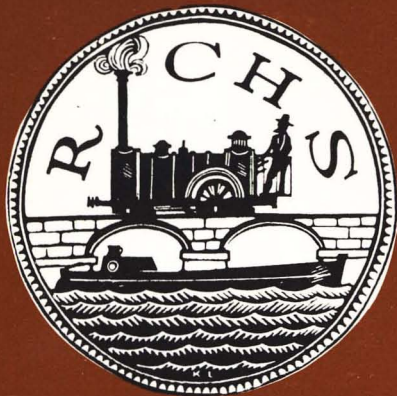




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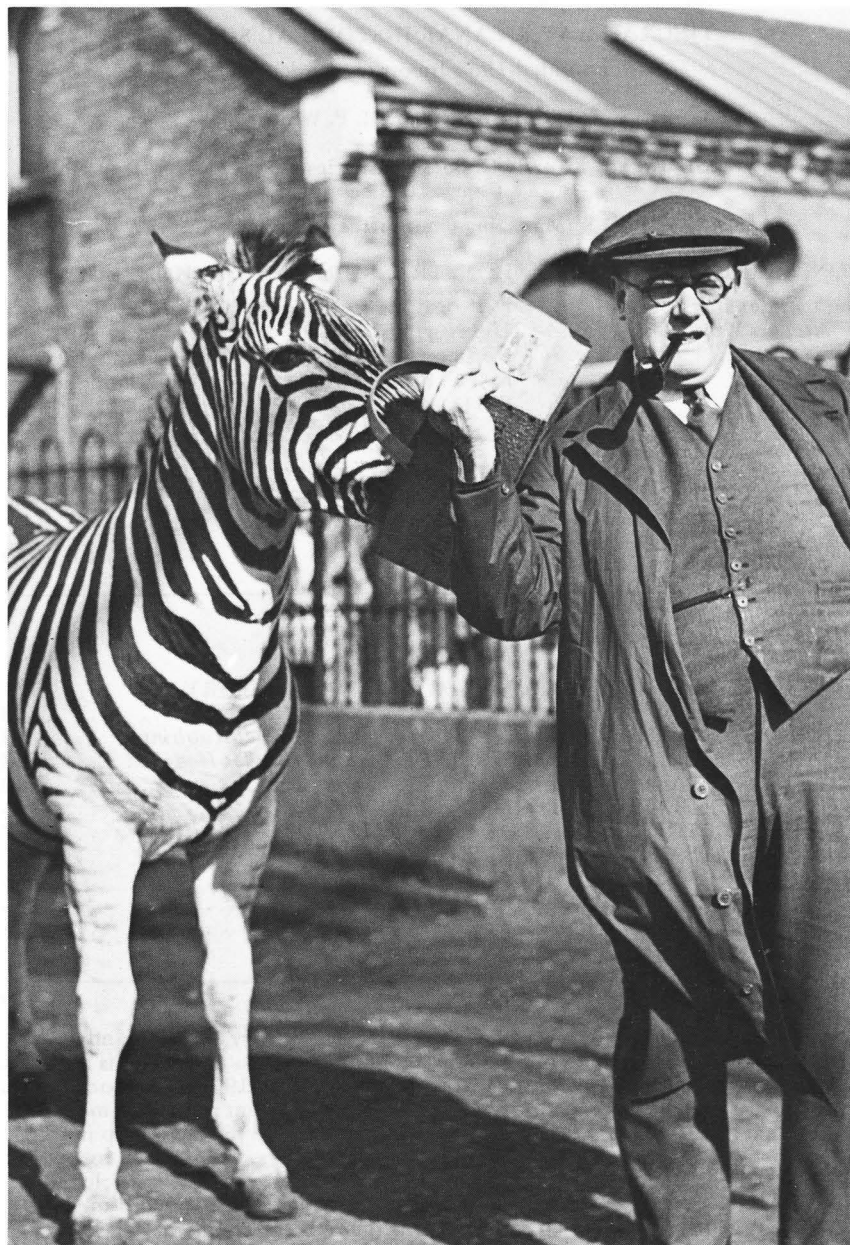
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CONTENTS

SOME PITFALLS IN RESEARCH INTO RAILWAY HISTORY

<i>M. D. Greville</i>	83
DESPERATION AT LIVERPOOL STREET, 1922 <i>Michael Robbins</i> ..	89
EVOLUTION OF THE CANAL INCLINED PLANE <i>Charles Hadfield</i> ..	94
A STUDY IN STATIONS <i>Geoffrey Holt</i>	102
INDEFINABLE RAILWAY TERMS <i>M. D. Greville</i>	105
RAILWAY HISTORY IN ACTS OF PARLIAMENT <i>C. R. Clinker</i> ..	107
A TRIBUTE TO A MAN OF PRECISION <i>Charles E. Lee</i>	111
THE CASE OF THE VANISHING STATION <i>Harry Paar</i>	113
M.D.G. AND THE RAILWAY PUB <i>Jeoffry Spence</i>	116
ON A MATTER OF OPINION <i>Harry Paar</i>	118

This issue, although numbered and paginated as an ordinary *Journal* (and therefore possible to include in a general index or bind into a volume) is a special issue in memory of the late Maurice Greville, who died in 1977. The Society was a beneficiary under his Will, and it was felt by members that a suitable memorial to the Society's first subscriber, and one who had done so much to help in its early days, was in a literary form. A number of members, well known to M. D. Greville, either volunteered, or were asked, to write a special article, not necessarily about him, but about something that would have pleased him. This extra issue, which includes two of his early articles, is the result.



MDG was at home with any animal. This was taken a good many years ago, but his appearance physically or sartorially never really altered.

Some Pitfalls in Research into Railway History

BY M. D. GREVILLE

This was originally a paper read to the Society by Mr. Greville at Birmingham on 19 March 1956, and to the Railway Club, London, on 4 May 1956. It was printed in the Journal in Vol.II No. 4 (July 1956).

Those who have done any considerable amount of research into railway history will probably be fully alive to most of the points which I propose to make in this address. But to those whose experience of this fascinating, if sometimes exasperating, pursuit is not so great, or to those proposing to adventure upon it for the first time, a brief exposition of the dangers and difficulties to be encountered may be useful. I think I may claim that I am particularly qualified to deal with the pitfalls of railway history as, in the course of a good many years research, I have myself fallen into most of them.

The methods of the study of railway history, like those of national and international history, have undergone great changes of recent years. In earlier days, the main idea was to give a general picture, without much attention to detail, or without worrying very much as to the accuracy of such details as did creep in. The real pioneer of the modern factual style of the writing of railway history was Tomlinson, whose history of the North Eastern Railway was published in 1914. It was not, however, until well after the first World War, with the appearance of MacDermot's *History of the Great Western Railway*, and the works of Grote Lewin, together with a general improvement in the quality of the historical articles in the *Railway Magazine*, that the new style began to be established; and it has steadily developed into the commendable thoroughness and accuracy of a great deal of modern work.

We will suppose that it is decided to make a complete study of some early railway — perhaps later absorbed by one of the greater lines. The first thing, of course, is to know its name, but this is less elementary than would at first appear. A railway may have been generally known by, and quoted under, a certain title; yet a reference to its Act may show that it was incorporated under an entirely different name, and the name in the Act of Incorporation can, and must be, the only correct one.

We now come to the plans which had to be deposited with each Bill presented to Parliament. These represent exactly what was proposed, but it should be remembered that adjustments and alterations were sometimes enforced, or made by agreement, during the passage of the Bill. Parts authorized may never have been carried out, or there may have been deviations or alterations made in a later Act. Frequently there was attached to the plans, especially those of fairly extensive lines, a copy of the 1" Ordnance map of the district, with the proposed line marked on it. Too much attention should not be paid to this, as I think the lines were sometimes rather roughly done, and not taken into great consideration.

Now here is a warning. Never forget to make notes of the sources of information, and keep them where they can easily be found. I have suffered embarrassment in the past from not being able to lay my hands on notes of sources, although I knew they were reliable ones.

Minute Books. It can be considered that, making due allowance for human fallibility, entries in minute books are true and reliable statements of the matter

recorded. But it should be remembered that, very often, they contain only records of decisions arrived at, and the fact that a decision was made that a particular course of action should be taken — for instance, the opening of a line on a certain date — is not proof that it was always done. Some unforeseen cause may have prevented it, and quite possibly no further reference to it is to be found in the minutes. The practice varied considerably. In some cases it was customary to minute reports from the General Manager, or other Officers, of events which had taken place; others confined themselves strictly to reporting the proceedings and decisions of the Board. The fact that an event is not recorded is not necessarily evidence that it did not happen. Most of the larger Companies had Directors' or Officers' Committees, and the minutes of these were frequently more helpful. When questions arise with regard to dealings with other companies it is essential, if possible, to follow them up in the minutes of those other companies, otherwise a rather one-sided view may be obtained. In the matter of disputes (in which most early railways seem to have managed to be involved at frequent intervals) an inspection of the minutes of *all* contestants may put a different light on things.

Official Records. Many of the great railways had lists, sometimes printed, sometimes in manuscripts, giving particulars of the opening and closing of lines and stations, widenings, etc. Although these can be very useful, and should be consulted when available, they require handling with discretion. They were generally started at some later period in the company's life, so that the later entries, say from the eighties or nineties, would be contemporary and presumably reliable. The earlier entries, and those referring to smaller lines absorbed, had been compiled from whatever sources were available, and are quite often wrong, as well as incomplete.

Bradshaw's Manual. This was at one time considered to provide a reliable framework by most students. It should certainly be consulted at the start to get a basis on which to build. Unfortunately, a large number of inaccuracies crept into it, either from carelessness, from misprints, or from too much compression. It will sometimes be found, on going through successive years, that the information given in one year is different from that in another; and in the table given each year, of lines opened during the previous year, the opening date often disagrees with that in the body of the book. I do not suggest that *Bradshaw's Manual* should be dismissed as of no value; in fact, it may well happen that information can be obtained from it for which no other — or no more reliable — source can be found.

The Press. Now let us consider one of the most important and fruitful sources, the Press, both the ordinary daily (or, in earlier times, more often weekly) papers, and the Railway press, such as the *Railway Times*, *Herapath's Journal* and the *Scottish Railway Gazette*. The value of these is obvious, as providing contemporary evidence of all sorts. One of the points to be borne in mind, however, is the existence of bias and local jealousies. It might be that the chief promoters or directors of a railway were in business rivalry with the proprietors of a local paper, or that the paper was not given advertisements, or that its reporters were not invited to meetings or functions, the result being that events were not always reported, or else misrepresented. It is not generally realized that even political bias had quite an important influence at times in early days. It might happen that a railway was promoted, and when opened, controlled by a Whig or Tory interest, and the local press, with opposite views, would oppose it before opening, attack it afterwards, and frequently give a garbled account of its activities — purely for political reasons. If there were two or more local papers, it is always wiser, when investigating, to consult all reports. Even with the Railway press, the same state

of affairs was liable to obtain; it sometimes happened that anything in favour of a railway was to be found in *Herapath's Journal*, and everything against it in the *Railway Times*, or vice versa.

It must be remembered that journalists are likely to be too intent on getting the news into the papers always to worry about meticulous accuracy and are, moreover, generally working at high pressure, and I should like to mention one aspect in this connexion. It happened, all too often, that a report was sent in of the opening of a line on, say, 'Monday last' — for insertion in the Saturday issue of the paper. Then, owing to its arriving too late, or being crowded out, it was held over to the following Saturday — but nobody thought of altering the wording. Therefore, if with such a wording one gets a date exactly a week different from that obtained from other sources, it should be regarded as suspect.

When preparing a list of centenary openings of 1856, for the October *Journal*, I first collected all the dates concerned from *Bradshaw's Manual* and other sources and then, wherever possible, checked them by contemporary press reports. In the case of the Loughton branch of the Great Eastern, I found that *Bradshaw's Manual* gave the opening date as 29 August, confirmed by the *Railway Times*. Later I found incontrovertible evidence that the actual date was 22 August, from reports in *The Times* of the following day. So I had fallen into the 'last Monday' trap quite innocently, having no reason to suspect anything wrong. Even without evidence to cause doubt it is really wiser, if in a paper published on a Saturday, the expression 'last Friday' is used, to be suspicious. If it *had* been the previous day, it is more likely that they would have said 'yesterday'.

Sometimes it was reported that a line was to be opened on some future date. This should never be accepted as the opening date; more often than not the Inspecting Officer did not pass it, or the company failed to get an engine at the last moment. One disconcerting fact is that, in the early and middle periods of the 19th century, the local papers took the place now occupied by the national press, and when there was a glut of national news such as the Crimean War or the death of the Prince Consort, local matters were apt to be squeezed out. No doubt it was thought that everyone knew about events which had occurred in the town (especially in a small town). Though there were several papers in Carlisle at the time, in none of them is there any reference to the opening of Citadel station, with the result that no one knows *exactly* when it took place.

Local Histories. These works, of towns or districts, can sometimes be very useful. The difficulty is to know how much a work of this kind can be relied upon, unless the author is known as a conscientious historian. It should be read and studied carefully; it may then be possible to judge whether it has been compiled from notes or diaries, or from the study of contemporary documents, etc., or whether it has been patched up from memory or unreliable statements — things which 'they say'. If it is written in a chatty, popular style, generally speaking it should be distrusted.

Maps. When studying any railway or area, it is essential to consult maps but, at the same time, it is imperative to be careful and distrustful. If 6" or, better still, 25" maps are available for the area and period required, all is well; but it may be that one is interested in an area at a time before the first large scale survey was made for that part — or long before the next — and many years lapsed between one survey and the next. If, therefore, all one has to go upon is the 1" map, it must be pointed out that they were not always accurate as far as railways were concerned. Far too often stations were shown in the wrong place, and in some early editions they were not marked at all. I have also come across instances where single lines were shown as double, and vice versa.

As to other small scale maps, too much reliance upon them can be very misleading. In general, railways were liable to be handled in an offhand manner and even ostensibly railway maps such as Cheffin's or Macaulay's were, more often than not, full of traps — stations misplaced or misnamed, and proposed lines and lines under construction shown as though in being.

Railway Clearing House maps, both the Area maps and Junction Diagrams, are invaluable and trustworthy, although errors are known to have occurred in them. Their predecessors, Airey's, were done in a much more rough and ready fashion and are not by any means free from error.

Bradshaw. This is one source of research which is highly important and essential and, at the same time, exasperating. Generally speaking, it is hardly conceivable to think of undertaking research without consulting *Bradshaw*, but it cannot be too strongly stressed that the greatest care should be taken in doing so, especially in early days, when the main causes of trouble were careless and obscure compilation, misprints, time-lag in the receipt of information (or lack of it altogether) and compression — the last presumably to save space. One of the best examples I know of careless lack of revision concerns Perth. On one occasion, as a result of a dispute between the Scottish Central and the Scottish North-Eastern, the latter put up a temporary station, north of the General station, known as Glasgow Road. The dispute lasted only a few months, but for 17 years — long after both lines had been absorbed by the Caledonian — *Bradshaw* continued to show Glasgow Road for all trains to and from the north.

One curiosity perpetrated by *Bradshaw* was the occasional lifting of tables from their usual place and cramming them into some quite improbable position. As an example, in 1865, at the very end, following the Irish lines, are three pages containing (i) the L&NW Manchester, Wigan & Bolton lines (ii) the Brecon & Merthyr and Mid-Wales (iii) the Midland's Birmingham and Leicester line and (iv) the summary table, Fleetwood, Blackpool & Lytham of the Preston & Wyre! Stations, and even lines, were sometimes omitted for short or long periods, giving the impression that they were closed. For a period of about 18 months about 1850, the Cockermouth & Workington Railway completely disappeared, the obvious inference being that passenger services had been suspended. Fortunately, the company's reports are available, and these make it quite clear that passenger traffic had been going on quite normally all the time.

Another difficulty arises when *Bradshaw* did not give services in tabular form: just that trains left A for B, and B for A at certain times, perhaps with a note that 'all trains called at' C. Although this may imply that C was the only intermediate station, there may have been others at which only certain trains called.

The lists which appeared, spasmodically, of openings, closings and changes of name, though useful as pointers, should not be trusted by themselves. During certain periods, actual dates of opening were quoted; as often as not they were wrong. Frequently the date given was the first of the month; all this generally meant was that this was the first month of its appearance in *Bradshaw*. Changes of name were not always what they seemed. In 1886, a change of name (on the Taff Vale) was recorded, from Pandy to Dinas. What really happened was that Pandy was closed and replaced by a new station — Dinas — some distance away.

Dates. There are some people who throw scorn upon dates and consider that those of us who are particular about them regard them as more important than the facts. This, of course, is quite untrue; but they are of considerable importance, and every effort should be made to obtain exact dates. No one would suggest, for instance, that 18 June 1815 had any importance in itself, but one can hardly

conceive a serious historian writing of the Battle of Waterloo without mentioning it. How much easier it would be, indeed, if dates could be ignored, for of all the bewildering and exasperating things, the way that a simple thing like a date can so frequently get itself tangled up and misquoted is really remarkable.

I have sometimes come across almost unbelievable disagreements on dates. The worst I ever struck was the opening of the short L&NW line from Denton to Dukinfield. For the two dates, — goods and passenger openings, — I got, — from *Bradshaw's Manual*, L&NW Official List, GCR Official List and G. P. Neele — six different dates; and when I finally established it definitely — from the L&NW Officers' Committee Minutes — I found that all four were wrong.

The principal sources for dates on which one has to fall back are: *Bradshaw's Manual*, RCH Records, Companies' Official Lists and previously published data in books and articles.

RCH records are generally fairly reliable, but there were periods when whoever kept them got careless and took to inserting only the date when the information was received. In this case it should have been marked 'Order', but sometimes this got omitted, and it is only after one has worked through them a good deal that one gets an idea where the danger periods occurred. The other sources I have already dealt with generally, but it may be of interest to note that, when I have found a discrepancy between MacDermot and Grote Lewin, I have almost invariably found Lewin to be right.

Great care should be taken to distinguish between formal, goods and passenger openings. In newspaper accounts it was often indicated that the opening was formal, and that regular traffic started on a subsequent date. Unfortunately, it was not always made clear, and as the public opening sometimes took place on the same day as the formal, sometimes later, and even, on occasions, earlier, this sort of thing can present a difficulty. On the occasion of the extension of the Newcastle & Carlisle to the Forth Station at Newcastle in November, 1846, although there was nothing in the published accounts to indicate it, the passenger service was not inaugurated until four months later. This was a fact of which I remained ignorant until I had the fortune to come across — in the York Railway Museum — a handbill announcing it.

One should always try and find out whether the line had been opened earlier for goods traffic, but I must admit that this is often easier said than done. Frequently, all one can discover is that the line — or part of it — had been in use for goods for 'some time previous', and even this meagre information is often only obtainable from the Half-Yearly Reports.

Station Names. There is one snag to which I frankly do not know the answer, and that is the correct naming of stations. Nowadays, of course, official notices are usually issued stating that a new station at so-and-so will be opened, or that on such-and-such a date a station will be renamed. In early days, one gets the impression that the name was often regarded as of minor importance. One comes across all sorts of references to the station *at* a certain place — which it probably was — but its name might be something quite different. I have struck more than one instance in early minute books where a station was referred to by different names on successive pages, and I have known cases where it has been given differently in the public and working timetables.

There have been cases where a station was called one name by one company, and something else by another. Warrington Junction, on the Liverpool & Manchester was always called Newton Junction by the Grand Junction Railway. This is comparatively simple, as one assumes the name used by the owning company to

be the right one. But what is one to do when it is a joint station? When the Lancashire & Yorkshire and East Lancashire opened their joint line to Liverpool, one called the station Great Howard Street, and the other Borough Gaol; and when they extended to the present terminus it was Exchange to one and Tithebarn Street to the other. Much the same happened at Portsmouth when, for years, the L&SW and LB&SC seemed to find it difficult to agree on the correct name of the Town station. One thing is certain — and this applies to this day [1956] — the nameboards at stations are no guide. They frequently disagree with the names in the timetables, and sometimes with themselves. Netherfield & Colwick, which had its name changed several times had, at one time, all the versions in different parts of the station, including one which it had never had at all.

I would add one final warning: never accept, without investigation, that a station, or even a line, supposed to have been joint, really was so. There were so many varieties of joint ownership — sometimes it was a case of merely statutory powers of use, or a joint staff but not joint ownership, and all sorts of similar complications. As an example, Manchester (Victoria) seems to have always been regarded as a joint station when the L&NW used it, but this was not so. It was largely because of the L&Y's refusal to admit them to joint ownership when Victoria was enlarged that the L&NW built their own station at Exchange.

I should like to conclude with a plea to those who have not so far indulged in this absorbing occupation of research to consider doing so, in spite of all the difficulties. There remains an almost unlimited field of as yet barely touched research and, in these days of standardization, railway history is (apart from the purely operational and technical sides) by far the most interesting subject for study.



3 (1276)

Desperation at Liverpool Street, 1922

BY MICHAEL ROBBINS

It was an ironical feature of the Railways Act, 1921, that it imposed amalgamation, within the 'North Eastern, Eastern, and East Scottish' group, upon the Great Northern, Great Eastern, and Great Central Railways to whom Parliament had refused amalgamation, in the form of a 'working union', only twelve years earlier. It seemed natural that the 'three Greats' should go together: their territories were contiguous and in some places their lines interlaced, and they had many interworkings and joint interests. But, whatever the three companies may have thought of the advantages of union in 1908 and 1909, one of them had by 1922 very great doubts indeed; or, to be more precise, the general manager of one of them did, and he proceeded to a strange manoeuvre — no less than an attempt to reverse the enacted provision and instead to associate with a totally different grouping. This, by April 1922, the date of the documentary evidence here discussed, can be described only as a measure of desperation. The general manager was Sir Henry Thornton, of the Great Eastern Railway, a formidable character, and his attempted manoeuvre was startling. It must have been kept very secret, for there is, I believe, no reference to it in published literature, and the single documentary source — a carbon copy of a letter and memorandum — has survived outside the official archive of the company, as will be described.

Thornton's proposal, made through an intermediary to a group of American financiers who cannot now be identified, was to detach the Great Eastern from what became the LNER, and to associate it instead with the London Underground group and the Metropolitan Railway, with a view to the electrification of the GE suburban lines, through running from these lines by means of a tube into the West End of London, and a major property development at Liverpool Street station.

* * *

The document in question came into the possession of Mr. C. E. Whitworth, principal assistant to the general manager, Eastern Region, British Railways, when the Liverpool Street regional offices were being closed down upon the merger in 1967 with the former North Eastern Region and transferred to York. It was given to Mr. Whitworth by one of the staff about to retire, who had been a junior clerk in Thornton's office at the end of World War I. Parts of the document are reproduced here by courtesy of Mr. Whitworth, who is however, not responsible for any of the comments made. He intends to deposit the paper with the British Transport archives in the Public Record Office.

The document itself is double-spaced typing on plain white copy paper, foolscap size without watermark. Its present state is consistent with it having been kept in a confidential file — the code on the covering letter is simply 'L'; it has become rather dusty, and the first and last pages have become frayed and been repaired with Sellotape. It is made up as follows:

1 page: covering letter;

11 pages: general description of the Great Eastern Railway, with proposals (pages 9–11) for development:

'Exhibits' A to I

A — Suburban Lines and Connections map (from the public timetable)

B — Main Line system map

C — Metropolitan Railway map, 1920 printing

D–F — traffic and other statistics

G — photographs in half-tone

H — capital and revenue statements, 1903—1913

I — Continental map and list of agencies

The 'covering letter' carbon page, which is laid out consistently with it being used under a top page with printed heading, is initialised in pencil 'H.W.T.'; Mr. Whitworth comments that the letters H.W.T. resemble, to his recollection, the start of the facsimile of Thornton's signature, seen on a published document issued earlier over his name. They are rather different in form from his signature on letters of 1933 reproduced in D'Arcy Marsh's biography; but those date from eleven years later, in a period of the utmost strain which may well have affected his handwriting. But, given the provenance of this paper, there is no reason to doubt its authenticity; for who could have thought it worth while to forge such a thing?

The covering letter, which sets out the whole proposition in a nutshell (and raises more questions than it answers), runs as follows:

'10th April,

22.

L.

Dear Mr. Berger,

I enclose herewith, statement with respect to the Great Eastern Railway, which I trust will give you the information you desire. Obviously, it would be quite impossible to cover the whole field in such a report as I have prepared, and I have only attempted to put the matter in a very general way. Should your Principals feel disposed to go further with the matter, I shall, of course, be prepared to furnish more detailed information later on.

I am inclined to think that if we electrify your suburban zone and construct our own tube to the West End of London, or gain an access to that district by combination with some of the existing tubes, we would then be justified in asking the withdrawal of the Great Eastern Railway from the Eastern Group and forming either a new Group or a close working arrangement with the London Underground, The Metropolitan, and the London General Omnibus Company. We also might consider the projection of one of the London Tubes to Ilford, an improvement which has been discussed before and which is badly needed.

My reasons for suggesting the above is, that with the enormous suburban traffic of the Great Eastern Railway, we should naturally work in close harmony with the Tubes and the London General Omnibus Company, the latter, of course, being a strong competitor and one which should be gathered into the fold.

I hope I shall have an opportunity of seeing you before you return to America, as I consider it important we should discuss matters a little further after you have had an opportunity of reading my report.

Yours faithfully,

H.W.T.

E. T. Berger, Esq.,'

Who was this Mr. Berger, and who were his Principals? All that I have been able to find in the extensive collection of the City of New York Reference Library is that there was a firm, E. T. Berger & Co., Financiers, of 61 Broadway, and Mr. Berger's first name was Emanuel. He apparently had no private address in New York but was domiciled in Detroit, Michigan. His name does not appear in the American *Who Was Who*, nor is there any mention of him in the *New York Times* Obituary Index 1858–1968. It seems evident that he was not one of the big figures in the financial world; he was indeed a 'go-between'. It seems impossible to discover who was behind him, if anybody was. One thing seems certain; it cannot have been the Pennsylvania Railroad, to which, as his former employer, Thornton could have had immediate access.

* * *

The first eight pages of the memorandum contain a broad description of the GER and its principal traffics — suburban, coastal, agricultural, continental, and hotel business — which reads like a conventional production of some junior clerk in the advertising department. It is all rather commonplace, with some exaggerations and minor inaccuracies, together with evasiveness almost amounting to misrepresentation about the Midland's share of the Southend traffic. But the concluding paragraphs, outlining Thornton's ideas for the principal lines of development that the Great Eastern should adopt, are worth reproducing.

'It is now desired to deal with the future.

'The suburban passenger business has far outgrown the facilities of the Company to handle it either satisfactorily or economically. Trains during the peak periods are much over-crowded and are necessarily run upon such short headway that the slightest derangement, due to fog or any other unforeseen contingency, dislocates the entire services, with much inconvenience to the travelling public. The only satisfactory relief is Electrification. The position has already been investigated by Mr. George Gibbs, Chief Electrical Engineer of the Pennsylvania Railroad, who, about a year ago, at the instance of the Company, spent several weeks in London. Mr. Gibbs has reported that the conditions on the Great Eastern Railway, not only necessitate Electrification, but are ideal for economical working. The subject has been pursued by the Company and much data accumulated. Plans of a general nature have also been discussed. Briefly put, the Electrification of the Great Eastern suburban zone should include three parts:—

1. The Electrification of the Suburban Area, including the Power Station, certain flying junctions in the vicinity of Stratford to facilitate the movement of the traffic, and other minor signal and track re-arrangements.
2. The reconstruction and enlargement of Liverpool Street Station and the erection on this site of an office building for business purposes.
3. The projection of Great Eastern Railway services to the West End of London, with a terminal in the vicinity of Piccadilly Circus or Oxford Circus. This may be accomplished either by building a separate tube or using one of the existing tubes. In the latter instance, of course, enlargement with additional lines would be necessary.

'Most Americans will be familiar with the Real Estate Development made on the New York Central Railway in the construction of their New York Terminal. It is generally understood that the proceeds from Real Estate and building operations represent a very large annual sum, and it is proposed that such an opportunity for profit should not be ignored in the reconstruction of Liverpool

Street Station and in the establishment of a terminal in the West End of London.

'A capital sum of not less than 15 million pounds would certainly be required to complete all these three projects, and it is believed that a sufficient return can be shown to justify such an expenditure, especially when it is remembered that, with important transportation facilities, the suburban territory contiguous with the Great Eastern Railway would develop both through increased population and freight. The electrification of Railways serving suburban areas has invariably resulted in an increase of traffic in the course of a few years, from 50% to 100%. Perhaps one of the most striking instances of this, which will be familiar to American readers, is the electrification of the Long Island Railway and its expansion by means of tubes under the East River to the Pennsylvania Terminal on Manhattan Island. As a result of these facilities, the traffic of the Long Island Railway has increased enormously. The position of the Great Eastern Railway is infinitely more favourable to a rapid and large increase, as the result of electrification, than existed in the case of the Long Island.

'With respect to the extension of the Great Eastern Railway into the West End of London, it would be a pity to spend a large sum necessary to electrify the suburban zone only for the purpose of depositing passengers in the City. A terminal in the City is a valuable asset, as had already been pointed out, in so far as business men are concerned, but the ladies of the family will want to have access to the fashionable shopping, theatrical and hotel district, and until their requirements are cared for in the manner suggested, their influence will prevent business men acquiring suburban homes on the Great Eastern Railway, or, at least, it will act as a deterrent. There is also need for an additional tube between the City and the West End of London to care for the ordinary Metropolitan traffic passing between these two districts.

'The general Railway position in England has, of course, material bearing on the Great Eastern Railway. By the Railways Act, which has now become a law, the Railways of England are divided into four large Groups. The Group in which the Great Eastern Railway is placed includes the following Companies:—

- Great Northern Railway
- Great Central Railway
- North Eastern Railway
- Hull & Barnsley Railway
- North British Railway
- Great North of Scotland Railway

'If the projects for the electrification of the Great Eastern Railway and its extension to the West End of London by tubes should come about, it would probably be advantageous to consider withdrawing the Great Eastern from the group in which it is placed, and forming an amalgamation, or at least, a close working alliance with the Metropolitan Railway and the London Underground system. Possibly some such scheme might afford a profitable opportunity for the investment of American capital.'

* * *

One would suppose that, before putting out feelers for American capital, Thornton must have consulted, at the very least, the chairman of the two railway undertakings that he proposed should be associated with the Great Eastern in the new group: Lord Aberconway of the Metropolitan and Lord Ashfield of the

Underground. I have found nothing in the records of either company mentioning any approach; and indeed it is likely that any feeler on a matter of such delicacy must have been kept highly confidential. No private papers of Lord Aberconway or of Lord Ashfield have survived. The Metropolitan had in 1919 thrown out the idea of 'a complete fusion of interests' with the District, separated from the tubes and the bus and tram interests; but Ashfield, having skilfully established the 'Combine' by the acquisition of the London General Omnibus Company in 1912, would never have assented to amalgamation based solely on railway interests. Yet that is what Thornton's memorandum suggested, though the covering letter acknowledged the importance of the buses.

It might be thought that Ashfield and Thornton would be natural allies. Both were Americans brought over to rescue London railway companies faced with severe difficulties: Ashfield (then Albert Stanley) in 1907, at the instance of the American interests among the Underground stockholders, and Thornton in 1914, on the recommendation of Samuel Rea, president of the Pennsylvania RR, in response to a direct request from Lord Claud Hamilton, the Great Eastern's chairman. He had decided, much to the disgust of the British railway establishment, that he must look abroad for a general manager to succeed Walter Hyde, who seemed to have failed his railway badly by allowing the Midland to acquire the London, Tilbury & Southend in 1912. Stanley and Thornton may indeed have known each other in America; from 1903 to 1907 Stanley was with the Public Service Corporation of New Jersey, operating street cars, and Thornton was a divisional superintendent on the Pennsylvania RR. We have it on the evidence of D'Arcy Marsh's biography *The Tragedy of Henry Thornton* (Macmillan Co. of Canada, 1935) that Lord Ashfield was 'a friend of long standing' who had 'welcomed him to London before the Great War and performed such intimate services as to hire old Stirling as a chauffeur for him'. Marsh's book, which is almost wholly concerned with Thornton in Canada between 1922 and 1933, is by no means fully referenced to the sources he used; but he did generally acknowledge information from Thornton's wife and family, and he is probably trustworthy on this kind of detail.

Did Ashfield give Thornton any encouragement with his scheme? It is highly unlikely, but it is impossible to be sure. We may suspect that he had been consulted and may have left Thornton with a vague (if unjustified) feeling that he would be willing to support the idea. Ashfield was a master of procrastination; he was a very difficult man to 'read'; as I have written elsewhere, after discussing his character with people closely associated with him: 'it is risky to make any surmises about a character so complex that it normally baffled perceptive men who worked and did business with him over many years' (*History of London Transport*, ii (1974), p.201).

* * *

There is no known sequel to the letter from Thornton to Berger. The move seems to have been ill-prepared, the proposition to the Americans rather amateurishly put together; it was rather like a desperate throw against overwhelming odds. The men who were devising the structure and management of the LNER (mostly the nabobs of the North Eastern) would have fought hard, and surely successfully, against the omission of the Great Eastern from their group; and it must have been a great relief to them when they learned that the disturbing figure of Thornton, with his strong personality and all the prestige he had gained from his great services rendered and high rank obtained during the war, was to remove himself from the British railway scene and become president and chairman of the board of Canadian National Railways. (Marsh says that

J. H. Thomas first made, or transmitted, the proposal to Thornton, about the middle of 1922). So the field was left open for the appointment of Ralph Wedgwood as the LNER's chief general manager.

Ashfield crossed Thornton's path again in 1931-2, when as a member of the Royal Commission on Railways and Transportation in Canada he showed himself to be, if not hostile to Thornton, at any rate no partisan for him. 'Suave and slightly caustic', Marsh wrote of him at that time, 'whose sarcasm had a flavour of the brash'.

* * *

But, if the manoeuvre itself was ill-conceived and bound to fail, there remain Thornton's ideas of 1922 on the principal lines for development that the Great Eastern should follow. In these he was certainly right, and it is instructive to see how long it has taken for them to be adopted and in part realized by his successors:

1. *Suburban electrification*: authorized 1936, opened 1949;
2. *Projection of a London tube to Ilford*: authorized 1936, opened 1947.
3. *Redevelopment at Liverpool Street*: British Railways' plan published, 1975; outline approval given March 1979.

It is interesting, though fruitless, to speculate how the LNER would have developed between the wars if Thornton had been its chief general manager. It is just possible that he would have matched, or come near to, Herbert Walker's masterly managerial performance on the Southern.

The Evolution of the Canal Inclined Plane

BY CHARLES HADFIELD

Maurice Greville was interested in canals as well as railways, and in transport overseas as well as at home. Because most inclines combine railway and canal characteristics, and have developed worldwide, the subject is one that, I hope, fits this special issue of the *Journal*.

An inclined plane is a sloping structure, using little or no water, by means of which a boat can be transferred from one canal level to another. It is therefore an alternative to a lock flight, and in fact goes back further into canal history than does the pound-lock itself. For whereas the first known pound-lock (in China) dates from 984, double inclines are known there from at least 348, themselves perhaps deriving from spillway construction. A dam was built across a waterway with inclined ramps, probably cobbled, on each side. Boats were then hauled up and over the summit by ox-powered capstans, to be lowered again into the water on the other side¹.

And, in the 1790s, little had changed in China except the motive power:

'... a dam is made across the extremity of the upper canal, by means of a ... wall, the top of which is level with the surface of the upper water. A beam of wood is laid on the upper edge of the wall, which is rounded off towards the water. Beyond the wall a sloping plane, of stone work, extends

to the lower canal . . . with an inclination of about forty-five degrees, and descending near ten feet in perpendicular depth . . .’

Operation was by man-powered capstans on each side of the slope. A rope from these passed round the boat’s stern when hauling up. Going down, it was hauled over the cross-beam and then slid down under gravity.²

Flanders in the early Middle Ages had its parallel to the Chinese planes. These *overdraghe*, known from the twelfth century, were wooden slipways set into river dams, and over which water ran constantly. Boats, lashed fore and aft to a cable, could be slid down them, or hauled up by a windlass, horse-gin, or water-wheel.³ A modern equivalent is, perhaps, the canoe flume that by-passes some Continental locks.

Similar structures to the Chinese planes were then built on canals, and improved by being fitted with rollers. Probably the first European canal to have one — here called the *overtoom* — was that cut in the fifteenth century between Amsterdam and Haarlem. The very early Ypres-Yser canal had four, three being double-track and seemingly both counterbalanced and waterwheel-powered, the fourth being single-tracked and powered by two man-treadmills. The tracks were fitted with rollers.⁴ A similar plane existed at Watten on the Colme until it was destroyed at the siege of Saint-Omer in 1638.⁵

Similar single-track planes were seen by John Smeaton in the Netherlands in 1755:

‘I saw what they call a Windlass, for drawing Small Vessels over a Dyke, from one canal to another. The difference of Level of the 2 Canals was about 4 feet; the obliquity of the inclined plains being about 8 to one . . . The Axis of the Windlass was placed about 10 feet . . . above the highest part of the Dam, and the dam reached about 8 or 10 inches . . . above the . . . water in the higher canal, and equally sloped both ways; the Top of the dam was not an obtuse Angle . . . but a little rounded; the plains were smooth planked and the vessels were drawn upon moveable rollers of about 5 Inches Diamr’.

Power was derived from two 10 ft. diameter spoked wheels, one on each side of the plane, applied to a roller round which the rope was wound and unwound.⁶

Davis Ducart tried to build three such primitive single-track roller planes on the Tyrone Canal in Ireland in the 1770s, and failed⁷, though the Amsterdam *overtoom* survived until the nineteenth century. Such planes can still be seen today, for instance to launch lifeboats or to transfer small pleasure craft round locks.

But, in Italy, a major technological advance had been made. As far back as 1437, a plane enabled boats to get over the dam at Fusina between the Brenta river and the Venetian lagoons. Originally a slide, at some time before 1593 it was given a cradle upon which boats could be carried. A contemporary traveller wrote:

‘Over it the boat is taken on a great sledge with rollers, made for the purpose, by means of a clever traction with horses, as far as the sea’.⁸

The plane is illustrated in Vittorio Zonca’s *Nuovo Teatro di Machine ed Edifici*, 1607, and shows the cradle carried on wheels running in channelled rails, and powered by a horse-gin. It also shows it as double-track (Zonca thought it should be) and not single-track, as it was.

On the Ypres-Yser canal, as we have seen, one major advance has been made, the double track. With this, boats could be counter-balanced, thereby reducing the necessary power. At Fusina boats were put on a cradle, so lessening friction, power required and strain on boats’ hulls.

The inclined plane remained at these several stages of development until the 1770s, while engineering inventiveness went into improving the pound-lock. But in that decade another step forward took place. In *William Jessop, Engineer*, Professor A. W. Skempton and I have suggested that it may have been Jessop who, perhaps basing himself upon Zonca's picture of Fusina, recommended how Ducart's Tyrone Canal planes⁹ should be rebuilt. By 1777, in any case, Ducart had

'a cradle or frame with four wheels, brought under his boats; upon which, over a double railway, they alternately ascended . . . he made use of a horse-gin to draw his boats upon the ridge terminating the upper level'.¹⁰

Here two older ideas are first combined: counterbalance on double tracks, and cradles running on rails.

From the Tyrone Canal we move to Shropshire, where in 1788 William Reynolds opened England's first canal plane, that at Ketley. Whereas on the Tyrone as reconstructed, boats passing each incline had had to be hauled out of the upper pound and over the ridge by horse-gin, before being dropped down the main plane, at Ketley the summit was avoided by taking a boat into a lock where, as the water was drained, it settled upon its cradle to be lashed to it preparatory to the descent. Coming upwards, the filling of the lock lifted the boat off the cradle.¹¹ Ketley is also the first plane where boats are known to have been carried down while remaining horizontal (the cradle having large wheels at one end and small at the other) and where a brake acting on the rope barrel is mentioned.

The idea of using twin locks at the top of a plane had some descendants: in England an underground plane at Worsley, which dated from 1797, had them¹²; so did the first plane to be built in the United States, that by Benjamin Prescott at South Hadley Falls on the Connecticut river, opened in 1795.¹³ Thirdly, they were found for a time on the Morris Canal (see later).

However, the three inclines built near Ketley on the Shropshire Canal between 1788 and 1791 had summits. Each cradle had rear wheels larger than the front ones so as to keep the boat nearly level while travelling up the main slope. When it passed over the summit and began to fall to the canal's upper pound, however, a pair of larger wheels set outside and on the same axle as the leading small wheels picked up a special set of rails at a higher level. So the cradle was kept nearly level. On these inclines, too, for the first time stationary steam engines replaced men, horses or water to provide whatever power was needed additional to that given by counterbalance.¹⁴

We now have the standard upon which most English inclines of the Industrial Revolution period were built: counterbalanced, braked, cradles running on rails and kept roughly level as they passed the summits, powered by steam engines or waterwheels.

On the Continent this type, counterbalanced and powered by waterwheels, first appeared on four planes built in East Prussia on the Oberland Canal between 1844 and 1860, with a fifth added about 1880. These planes, the only European survivors of their type, still carry trip boats,¹⁵ though the canal is now called the Elblag and is in Poland.

The Oberland planes were followed by one at Beauval near Meaux in France, opened in the early 1880s, which joined the Marne to the Canal de l'Ourcq. The single 78¾ ft. long cradle, able to take barges of up to 75 tons, ran on two 4-wheeled bogies that could adjust to differences of slope. Instead of the turbine-powered cable directly hauling the cradle, it was used at first to drive a sprocket wheel engaging with a chain laid on the gentle 1 in 25 slope. This not answering

well, in 1888 the drive was altered to a cogwheel working on a rack laid beneath the cradle. Beauval incline worked until 1922.¹⁶

Across the Atlantic cradle planes were the rule. First came that remarkable transport line, the Morris Canal in New Jersey, 102 miles long, with a summit level of 914ft, opened in 1831. It had 23 planes, all single track as built, up which 25-ton boats were hauled on cradles by the power of water turbines. No effort was made to keep the barges level on slopes that varied from 1 in 10 to 1 in 12. Originally, some of the inclines were built with a lock at the upper end, others with a summit.

Because longer boats needed to use the canal, in 1835–6 all summit planes were converted to the lock type. Then in 1845 it was decided to enlarge the whole canal for bigger barges. The locks were now done away with, and bigger timber-framed 16-wheel cradles introduced that were hinged in the middle to pass easily over the summits. So were the longer section boats now introduced to the canal. These were really two separate boats, hinged at the junction, and jointly carrying up to 100 tons. Some planes were also now double-tracked to increase capacity. Each cradle had its own brakeman in case of failure of the winding rope. An interesting gadget was the geared indicator in the turbine house to show the operator the position of the cradle in foggy weather.

In this form the canal was for many years a successful coal-carrier. Thereafter it declined against railway competition, the last boat moving over a plane in 1924.¹⁷

In 1834 the Pennsylvania Main Line opened, part-railway, part-canal, between Philadelphia and Pittsburgh, perhaps the most astonishing technical achievement of the American canal age. To cross Allegheny Mountain and link two ends of canal at Hollidaysburg on the east and Johnstown on the west, the 37-mile Portage Railroad was built, with ten steam-powered counterbalanced inclines and a summit of 2,291ft. At first, all goods and passengers were transhipped to railway trucks and carriages at each end, but soon after opening a boat was carried, following which sectional boats were developed, craft that could be divided into three or four sections for carriage over the railroad. Therefore these planes, too, can be considered as cradle inclines, though ordinary trucks continued to be worked as well. Here, incidentally, we have the highest level to which canal boats have ever been carried.¹⁸

The Morris Canal planes, as reconstructed, were patterns for the two little-known planes of the Shubenacadie Canal in Nova Scotia, Canada, one built in 1855, the other in 1861,¹⁹ and also for the two on the Biwako Canal running from lake Biwa to Kyoto in Japan. On the latter canal, the planes were double track with 8-wheeled cradles, powered, perhaps for the first time, by electricity generated by canal water. The first was built between 1885 and 1890, the second about 1894. Remains can, I am told, still be seen.²⁰

In the twentieth century the last of the New World's cradle planes was built, the single-track marine railways put in to carry pleasure craft on the Trent-Severn Waterway in Canada at Swift Rapids and Big Chute when lock construction stopped during World War I. The former was replaced by a lock in 1965, but the latter, electrically powered, has just been given a much bigger cradle running, unlike the old ones, on rails set at different elevations, and able to take craft²¹ 100 ft x 24 ft x 6 ft. In Siberia, however, a comparatively new incline carries small boats and timber rafts over the dam of the Boguchany hydroelectric plant on the Angara river. The cradle, on the same principle as the Morris's later ones, is built in three hinged sections each 22m. long, to pass easily from the lower

slope on to the flat top of the dam and off again.²² It is, however, electrically self-propelled and does not use a cradle.

Let us now return to the canal age in Britain, when two alternatives to the cradle were tried: one, the wheeled boat, died out; the second, the wheeled caisson or tank in which a boat was carried floating, has become embodied in modern standard practice.

The wheeled boat was one of Robert Fulton's many bright ideas. It was adopted on the Bude and Torrington Canals but, to my knowledge, nowhere else. Standard-sized tub-boats used on these canals were fitted with four wheels each, and so ran directly on to the six planes without needing cradles. But they could not, of course, be kept level. Another of Fulton's ideas, to provide power by filling with water two large buckets which then alternately sank down and rose up a well, so drawing boats up the plane, was only installed on the Bude's Hobbacott Down plane, though it was also tried, and failed, at Wellisford on the Grand Western Canal.²³

To carry a boat floating in a caisson rather than dry on a cradle has several advantages: that, provided the water level remains constant, so does the combined weight of caisson, water, cargo and boat; that the weight of the carriage is evenly distributed; and that any size or shape of boat that can enter the caisson can be carried level at all times, and need not be lashed for fear that it will slip. Disadvantages are greater weight and, with big caissons, troubles with water surging in the tanks.

Perhaps derivative from the years 1797 to 1801, when Fulton was in France; the French engineer Francois-Gabriel de Solages in 1808 suggested an inclined plane instead of eight locks near Etreux on the Canal de l'Oise à la Sambre, then being built. Instead of a cradle, he proposed to use a 10-wheeled wooden caisson with, as counterbalances, two stone and water-filled 6-wheeled trucks. Here we have the first worked-out plan for using a caisson, and also for using counterbalance weights other than a second caisson or cradle. However, it was not built.²⁴

The first caisson planes seem to have been those built at Thornfalcon, Wragtage and Ilminster on the Chard Canal in Somerset, the first two opening in 1841, the third in 1842. These were double-tracked, counterbalanced, and used water for power. The idea perhaps derived from the vertical lifts of the nearby Grand Western Canal, where boats entered tanks to be transferred; they in turn derived from the earlier experimental lifts of the turn of the century. But why caissons were chosen I do not know; especially as the fourth and last incline on the canal, at Chard Common, was quite different; singletracked, using a cradle, and powered by a water turbine, it may have been influenced by the Morris Canal planes. In one respect the Chard Common plane can be awarded a tentative first: it was using wire rope in 1842, a year before it was introduced to the Portage Railroad.²⁵

When the caisson replaced the cradle, the old summit or hump of the plane disappeared. Instead, the top pounds of the canal were shut off by moveable gates. The caissons also had moveable gates. After the gate on the caisson had come together with that on the canal, the two were lifted or slid aside, and the boat moved in or out. The use of this technique on the Chard Canal would also have been taken from the Grand Western lifts.

There followed the first of the big modern caisson planes, that at Blackhill on the Monkland Canal in Scotland, opened in 1850. It was in one respect an oddity, for the existing flight of locks was kept open to work loaded barges, the plane being intended to carry those returning empty, and therefore having abnormally

shallow caissons, 70ft. x 13ft.4in. x only 2ft. 9in., which kept down the weight on the rails. The double-tracked incline, though counterbalanced, also had two 25hp steam engines, for use when the descending caisson began to enter the lower pound and so lost effective weight. The 20-wheeled caissons ran down a 1 in 10 slope. Hydraulic gates closed the upper ends of caisson and canal. In case of accident to the wire ropes, each caisson had beneath it a pawl intended to engage in a rack and so prevent a runaway. Blackhill worked until 1887.²⁶

Next came the Georgetown incline built to enable barges off the Chesapeake & Ohio Canal to reach Potomac river wharves. The Morris and Blackhill planes had become widely known, and in 1874 the company's engineer, W. H. Hutton, began to design an incline able to take 250-ton boats—much bigger than the then biggest, the reconstructed Morris planes. He designed a single-tracked incline using a caisson 112ft. x 16ft. 9in. x 7ft. 10in., carried on three bogies each having 12 wheels running on four rails down a slope of 1 in 12.

Four 16-wheeled waggons loaded with stone were provided as counterweights; they ran in pairs on rails laid on each side of the incline, but set at a slope of 1 in 10. Wire ropes ran from the caisson to two pairs of winding pulleys, one on each side; each rope made $2\frac{1}{2}$ turns round its pulley, was then taken down to a sheave on the counterweight and back to an anchor on the masonry headwall of the incline. The travel of each counterweight was thus half that of the caisson. Power came from a water turbine, and both pawl and ratchet and automatic friction brakes were provided.

The Georgetown incline opened in 1876. Unfortunately, not only had the need for it lessened with a fall in canal traffic, but Hutton had seriously underestimated the effect of the caisson's weight (some 400 tons) on his roadbed. He had therefore to make major changes, one of which was to carry loaded boats downwards in a dry caisson, and empty craft upwards in 20in. of water. The plane ceased to be used in 1879.

One side effect of its failure was to discourage the many schemes then being discussed for building a big ship railway across the isthmus of Tehuantepec in Mexico, feeling being that if 400 tons caused such roadbed problems, ships of 10,000 or 20,000 tons would create others that might well be insoluble.²⁷

Foxton incline on the then Grand Junction Canal in England, opened in 1900, was smaller than either Blackhill or Georgetown. Double-tracked, with steam-engine assistance to counterbalanced tanks and without counterweights, and with a slope of 1 in 4, it was in one respect innovative, for the caissons travelled transversely instead of lengthwise, because of the step ascent. Each moved on eight sets of wheels running on four pairs of rails. Too expensive to maintain for the traffic offering, it was taken out of use in 1910 and dismantled in 1926.²⁸

More than fifty years later, we have the gigantic leap in scale of the Ronquières incline in Belgium, opened in 1968. Descendant of Blackhill and Georgetown in using longitudinal caissons, and of de Solages' plan of 1808 and of Georgetown in its counterweights, Ronquières introduces an innovation. Though double-tracked, each caisson is independently operated, its counterweight being assisted by electrical power generated on site. Otherwise its remarkability is in its size. Almost a mile long, with a 1 in 20 slope, its caissons each weigh 5,700 tonnes and have 236 wheels running on four rails. They can take a 1,350 ton barge. The counterweights weigh 5,200 tonnes, and travel in troughs beneath the caissons. In a faint shadowing of troubles at Georgetown, after eight years the original chair-mounted rails began to develop waviness, and had to be replaced by those born on longitudinal concrete supports.²⁹

The smaller (350-ton) Arzwiller Saint Louis plane on the Canal de la Marne au Rhin in France was opened in 1969. It is single-tracked (though providing for a second track) and because of the very steep slope of 41%, the 32-wheeled caisson runs transversely, as at Foxton. Two 450-ton counterweights running in a trough balance most of the weight, with electric motors providing the rest of the power.³⁰

Last in development are two inclines each very much out of the ordinary, the Montech water slope and the Krasnoyarsk double incline.

In the south of France, near Montauban, opened in 1974, we have a water slope, a modernized version of the old slipway. A concrete flume with a gradient of some 3% runs from the lower to the upper pound, the latter being held back by a falling gate. Two locomotives, running one on each side of the flume, hold between them a curved steel shield almost of the flume's dimensions, which can be raised or lowered. A barge having entered the bottom of the flume, the shield is lowered behind it and the stern of the barge fastened to a horizontal fender. The locomotives then push the shield, the barge and the wedge of water on which it floats up the flume until, the water pressure having equalized, the top gate falls and enables the barge to move out.³¹

Finally, Krasnoyarsk on the Yenisey river in Siberia. Here the problem was to get large barges over the dam of a hydro-electric plant, where the difference in water levels was 331ft. Therefore one plane was required from the lower level to the top of the dam and, owing to ground configuration, another at a different angle down to the water of the dam, which might itself vary in height by up to 43ft. The answer was to provide a caisson that, having risen on the 1 in 10 slope from the lower level to the dam's top, there runs on to a 348ft. diameter turntable. This turns it through 142° before it descends to the dam level.

The caisson, with an inner width of 39½ft. and depth of 29½ft. runs on 156 wheels, electricity powering the hydraulic drive to rack rails for propulsion and braking. The incline therefore has no cables.³²

We have come a long way in technological development from Chinese boat slipways to Montech and Krasnoyarsk. But the end is not yet, for water transport, oldest of all modes, is prolific of new ideas.

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A Study in Stations

BY G. O. HOLT

Among the 'Miscellaneous Advertisements' in the *Railway Magazine* for March/April 1947 there appeared one which read:

EARLY RAILWAY HISTORY. Readers with knowledge of early railway history in any specific areas of the British Isles, and willing to assist with information regarding the opening and closing of lines and stations and alterations of station names are invited to communicate with J. G. Spence, Caterham, Surrey.

Looking back after more than thirty years this will be recognized as an important step towards the founding of the Railway & Canal Historical Society. 'Notes and News' in the same issue of the Magazine drew particular attention to the advertisement, explaining that two members of the Railway Club had been engaged in some extensive research and, having established upwards of 4,000 station names, they realized their list was still far from complete.

A list of 'Stations that have Disappeared' had been published in the *Railway Magazine* early in 1906 and gave the names of 452 stations (including several in Ireland) without dates of closure. It was evidently defective in some respect and I knew of further examples, also of instances where station names had been changed, and my reply to Jeoffry Spence led to the exchange of several letters. Some weeks went by before I heard unexpectedly from his partner in the project, Maurice Greville. He wrote from Devonshire but the points he raised showed him to be equally at home in Lancashire and the North of England. One of his first questions related to the original Low Gill station, closed in 1861. I had noticed this little building scores of times without recognizing some characteristics of an original Lancaster & Carlisle station but a brief visit satisfied me that this was what it was.

Greville had begun his study of closed stations about the year 1941. No official railway records were available for his research and he had visited the British Museum, the Bodleian and other great libraries to make his painstaking examinations of successive issues of *Bradshaw*. He had noted the appearance, disappearance, changes of station names, distances between the stations and any other clues the timetables might give. Now he was left with a considerable number of unanswered questions. He had enquired at numerous public libraries and consulted local histories without very much success; the social historians and writers of local history of that day showed but slight interest in the railway system, indeed someone had just published a history of a well-known Lancashire town which scarcely mentioned the railways to which it owed its prosperity and fame.

Greville's zeal for his task sprang from an enthusiasm for finding out more about the lesser-known railways in country districts. He found it fascinating to re-discover the curious and unexpected stations which had appeared, often quite briefly, and had set about visiting a number of sites to confirm that these stations had stood where he supposed. In many instances he had the satisfaction of finding the old building, or some remains of it, still standing, although put to a different use. Sometimes the building had gone but some unnatural levelling or clearing beside the line was enough to show where it had been. To qualify for a place in his list the old station should have occupied a site which was quite distinct from anything that might have replaced it later.

The search led us on to an interesting correspondence which had lasted for about a year when one of his letters brought an invitation to dine with him. He had planned to stay at a hotel in Penrith, where I lived, and his letter went on to ask questions about some local bus services. When we met I heard that he had spent the previous night at Glenridding and had come to Penrith by taking the Ullswater steamer to Pooley Bridge. He had spent the afternoon visiting Armathwaite and Kirkoswald and was leaving next morning for Kirkby Lonsdale and the valley of the Lune. During dinner our conversation ranged over many of the places in the neighbourhood and his life in the village close to Dartmoor to which he had retired some years earlier. The closed stations, which had been the subject of so many letters, were scarcely mentioned at all.

Later in 1948 he came to Penrith again and stayed with us for several days. On this occasion he came by train from Darlington and on subsequent visits he would arrive from Scotland, from West Cumberland and, on one occasion, from Norway via Newcastle. I was to meet him at the station quite a number of times before he came from the South by the train he might have been expected to take from the first. During these visits he would usually be out all day in his efforts to establish the site of some former station beyond any doubt. Something that looked like an old railway building on a possible site was not always sufficient for him and he would seek the support of old maps, early *Bradshaws*, or examine the files of the local newspaper for further evidence. At that time I had lately discovered the site of the original junction at Clifton where the Eden Valley Railway had once met the Lancaster & Carlisle, but it was not until he had carried out his own investigations that he collaborated with me in writing a short article about it for the *Railway Magazine*.

The publication of this (1950) brought me a letter from an old friend who asked whether M. D. Greville could be the Greville mentioned in the issue of the *Magazine* for April 1905 as joint secretary of the Railway Club. He was indeed and, further, I learned that his father, H. D. Greville, was the author of an article in Vol II (1898). 'The Nomenclature of Railway Stations' which appeared in March 1951 was Greville's next article and it turned out to be not only interesting but entertaining. It was here that he mentioned the former Lancashire & Yorkshire station named Preston Junction which, as he pointed out, was not in the town and nor did it serve as a junction for Preston. A year or so later he was much amused to see that British Railways had renamed it Todd Lane Junction.

His very thorough enquiries would sometimes lead to some long-forgotten incidents in the story of an early railway. The discovery of references to the short-lived 'Maxwell House' station in Preston (1842-1844) coincided with efforts to ascertain the date on which the Lancaster & Preston Junction's old terminus at Lancaster was closed. Both investigations showed there had been strained relationships with the neighbouring North Union and Lancaster & Carlisle companies. We set about finding what had happened between 1842 and 1849 and some of the material unearthed in the files of the Preston newspapers was so astonishing that we made further searches. The result, after several years, was a history of the Lancaster & Preston line which David & Charles published in 1961.

In 1953 Greville's *Chronological List of the Railways of Lancashire* came out in the Transactions of the Historic Society of Lancashire and Cheshire. This was followed, in 1954, by a companion booklet dealing with the Cheshire railways. His work on these lists did not cease with their publication and he followed up any further information that he might find. One has heard of authorities on railway history who decline to accept any correction when their work has

appeared in print but this was not the case with these Chronologies. At a meeting of the RCHS a Lancashire member approached the author with some trepidation saying he had doubts about a date Greville had quoted in an obscure part of Liverpool's railway system. 'I don't know that I agree with it myself' was the reply and he willingly undertook to have another look at it. All these amendments were carefully recorded and he was personally responsible for the revised versions of these two booklets which the RCHS published in 1973, an amazing achievement for one who was then in his 87th year.

In collaboration with Jeffery Spence he produced *Closed Passenger Lines*, the booklet listing those in England and Wales in 1955 and the Scottish section in 1963. An edition of 750 copies of the first was sold out in a few weeks when it was assumed that everybody who was interested would have bought a copy. Later the two sections were combined and published by the RCHS in 1974, again after a full revision and further work so that the period covered was extended from 3 September 1939 to 31 December 1947.

For a number of years he was responsible for producing a list of lines opened one hundred years before and this was published in the *Journal*. He was always on the lookout for information that might throw new light on material already published by reputable railway historians. The work of H. Grote Lewin was particularly valuable to him and, although he held it in high esteem, he realized how a little adjustment was needed in *The Railway Mania and its Aftermath*. Publication of the first *RCHS Journal* in January 1955 gave him the opportunity to invite members to send details of inaccuracies they might have noticed; he had already discovered a number and, in January 1956, a list of some fifty amendments was published. Similar alterations to *Early British Railways* would have involved a good deal of re-writing and this was never attempted.

His archaeological interests had always taken him to places where there was no railway, or at least no passenger line, and for a number of years one had been surprised by the arrival of a letter from some remote village in, say, Northumberland or Radnor or even Sutherland. In 1962, when he was 76, he visited Ireland for the second time in his life and travelled about widely. Although he never owned a car and, in his later years, disliked long bus journeys, he managed to visit many places after the closure of so many branch lines in the 'fifties and 'sixties. His friends would drive him to these out-of-the-way towns and villages; he would sit by the driver with an open map spread out on his knee and not miss any detail. He was always interested to see what had happened to small stations since their closure and found several put to unexpected uses. So even at the end of his life there was always something new to be discussed and, when he recalled happenings of long ago, one had seldom heard the story before. I had known him for at least twenty years before he casually mentioned a visit to the first Horseless Carriage Exhibition and recounted how he had watched Queen Victoria's funeral train pass, catching a glimpse of King Edward VII and the Kaiser glowering at each other.

In his eighties he moved into a flat in Dunmow; of all the counties in which he took a special interest Essex had been one of the favourites and he claimed to have visited every town and village in the county. The last weeks of his life were spent in hospital at Bishops Stortford and, visiting him there, I heard of his approval of a recently-published history of railways in the London area. The *Railway Magazine* for July 1977 lay beside his bed, a reminder that he had just completed eighty years as a reader, but it is to be regretted that, although we have so many works reflecting his intensive research, a great deal of his personal experience of the railways has gone unrecorded.

Indefinable Railway Terms

BY M. D. GREVILLE

(First printed in the Journal in Vol. VI No. 1 (January 1960))

When writing on historical subjects there are a number of things, the meanings of which are quite clear to us and, it is to be hoped, to our readers; but, were we asked to define them, we might find it difficult, or even impossible.

To begin at the beginning, we know, generally speaking, what we mean when we use the word 'railway', and when we refer to a 'tramway' we usually mean the ordinary urban street tramway, but is there any possible definition which clearly distinguishes between the two words? I think not.

It is usual to describe the early lines built from collieries or quarries to ports, canals, etc., as tramways. But is there any fundamental difference between these and a modern colliery branch from a main railway? These early lines were usually horse-worked, but the method of traction does not help; the Kilmarnock & Troon, the Edinburgh & Dalkeith and the Preston & Longridge were no less railways for being worked by horses, and the stream tramways that ran, in the late Victorian era, in the streets of so many towns, were certainly not railways. Even cable-working does not help — the Edinburgh tramways *were* tramways, whilst the Glasgow Subway and the Blackwall Railway were not. Electric traction, of course, was common to both. Nor is it that railways are self-contained and that tramways run in the streets; there are plenty of instances of railways running along, or at the side of, roads, and of ordinary tramways on reserved tracks (notably in Birmingham).

It cannot be argued that railways call at definite points only to take up or set down passengers, as the same applied to many tramways, especially on reserved tracks; or that railways carry goods — some do not, and some so-called tramways do.

The company's name does not help. It would not be easy, for instance, to say which of the following was a railway and which a tramway: the Glyn Valley Tramway, the Stratford & Moreton Railway, the Blackpool & Fleetwood Tramroad, The Wantage Tramway, the Wisbech & Upwell Tramway, the Burton & Ashby Light Railway, the Grimsby & Immingham Light Railway, the Rye & Camber Tramway, and the Portmadoc, Croesor & Beddgelert Tram Railway; or the Hundred of Manhood & Selsey Tramway which later changed its name to the West Sussex Railway (neither name, by the way, had any legal authority). The Oystermouth line was incorporated as the 'Oystermouth Railway or Tramroad Company' which seems to imply that someone considered there was a distinction — but what is it?

What is the distinction between a bridge and a viaduct? I have heard it suggested that a viaduct is just an extra long bridge — the Forth, Tay and Severn Bridges dispose of this — or that it is a bridge over a wide river or expanse of water, but the above-mentioned bridges, and the Ouse, Welwyn and Crumlin Viaducts contradict this. I fancy it is a distinction without a difference.

On a lower level, the question arises as to the exact difference between an overbridge and a tunnel. Superficially, it could be said that an overbridge is built over, and a tunnel bored through, but there are many instances where the railway has obviously been dug under a road; so what length does it have to be before it ranks as a tunnel?

The word 'junction' should be fairly simple — a place or station where one line joins another. But there are 'junction' boxes where there is no diverging line, merely the connection between, say, passenger and goods lines; and certain junction stations which are not (or were not, they have mostly disappeared) junctions, either physically or from the passenger's point of view. I do not refer to those survivals which the withdrawal of a passenger service has made no longer junctions (Dalston, Ilkeston, Rolleston etc.,) but such cases as Barnwell, Hyde and Little Mill.

I have often wondered what the subtle distinction is between a bank and an incline. Both are old words, bank presumably coming from the North Country word for a hill. Most of the early railway engineers came from the north. Incline was generally used for the steeper parts of the old tramways (or railways) especially those on which rope-haulage was used, but it still survives on some main lines, notable cases being Lickey and Cowlairs. I suppose that, in this case, there is nothing in it but two names for the same thing.

Finally, to turn to the other side of the Society's interests — what is a canal? Is it strictly a navigable waterway, or does it embrace cuts for drainage purposes (some of which bear the name of canal)? If the latter, as they vary from broad waterways to narrow ditches, where is the line to be drawn? The question is complicated by the fact that some of these drainage cuts (especially in the Fens) have, I think, been used to an extent for navigation purposes.

(Additional correspondence on this subject appears on pp. 29, 57, 58 and 77 of Vol. VI)



Railway History in Acts of Parliament

by C. R. CLINKER

When Maurice Greville came to reside with us I was about half-way through a detailed examination of all the seven thousand odd Local & Personal Acts affecting railway companies. I had, of course, used individual acts on many occasions but felt a reading of the whole in date order would be profitable; indeed, the 'profit' far exceeded my expectations.

The result of this, perhaps unique, experience was that I saw the whole academic history of the railways of Great Britain unfold steadily in front of me, new companies, incorporations, amalgamations, extensions, legal warfare, pathetic and incredible financial tangles, bankruptcies, frauds, abandonments, dissolutions, and so on, all part of an immense constantly changing pattern.

Quite early on, after a certain numbness of brain produced by this excess of reading what was at first an unfamiliar language, I came to three positive conclusions — (1) that there is a great deal more academic railway history to be found in the acts than the most avid student then realized, (2) that railway history as written over the previous seventy years or so would have been much more accurate and complete if the acts — which were available then, as now — had been consulted *and understood*, and (3) that it is unwise, indeed unsafe, to write or lecture upon any aspect of railway history without first reading and understanding the relevant acts because they are the basis of a company's existence.

A company's initial act, the Act of Incorporation, consists mainly of standardized provisions differing only in wording down the years. This act incorporates certain named persons and others into a company of proprietors under a specified style and title which is the company's own and indisputable legal name, whatever variant may appear on its seal, notepaper, etc. Power is given to make a railway or railways or other works, and to raise a certain amount of money by shares and loans for that and other specific purposes. Arrangements are made for the appointment of a receiver (judicial factor in Scotland) and the first directors are named. Certain periods are allowed for acquiring the land and completion of the works and maximum rates and fares are set out. Power is sometimes given to enter into arrangements with another company, or companies, to work, use and manage the line and/or to lease or sell it to that company under certain conditions. A straightforward, normal Act of Incorporation from the 1860s onwards contains about 48 sections. There may, of course, be additional and special provisions; some of these are of value to the railway history students.

The preamble to the Act of Incorporation may not be of much value, but thereafter this sets the stage for what is to follow by reciting the history of the undertaking and other information relative to the powers which are granted in the body of the act.

From an historical point of view, the preamble is undoubtedly the most valuable part of the act. A large proportion contain detailed and exhaustive particulars which include dates and terms of agreements, indentures, legal proceedings, arbitrators awards, etc. Much of this information is not easily traced elsewhere because copies of some of the agreements and indentures, long since dead, were of no practical value and have been destroyed. The preamble to the Stanhope & Tyne Railroad Act (1842) shows how the company was established by Deed of Settlement in 1834 and dissolved by Indenture of Settlement in 1841, prior to incorporation as the Pontop & South Shields Railway. It appears again in the

Wear Valley Act (1847) together with the Wear & Derwent Railway and Shildon Tunnel. The names of the various owners, of parties of the deeds, are shown here — Pease, Meynell, Stobart and Hopkins. Of a different kind is the preamble to the Edinburgh & Glasgow Act (1849), under which the Edinburgh & Glasgow Union Canal was transferred to the railway company. This gives much useful information on the available transport facilities, water and rail, between Leith, Edinburgh and Glasgow.

It is however, from about 1860 onwards that preamble become longer and of special value. Full particulars of the agreements which led to the London & North Western and Great Western setting up the Joint Committee of Management to take over the Birkenhead Railway are quoted at length in the Act (1861). The incorporation of the Perth General Station Joint Committee in 1865 was the occasion for a lengthy history of the origins of this joint station such as cannot readily be found elsewhere. Six pages are required to give a detailed account of the West Hartlepool Harbour & Railway and the Cleveland Railways on their amalgamation with the North Eastern in 1865.

Perhaps the most enlightening preamble of all is that to the act incorporating the Great Eastern Railway in 1862. This goes into great detail and sets out, as the present author thinks, very clearly, all the acts and full legal and financial history of the Eastern Counties (itself a most complex undertaking), East Anglian, Newmarket, Eastern Union and Norfolk Railways. No student of the Great Eastern or its constituents will need to be told how involved and closely interlocked were the finances of this group of companies. Here may be found a short cut to all the main facts behind one of the most complicated of earlier large railway amalgamations.

The financial straits in which some of the more substantial companies found themselves, either by their own folly or from causes only partially under their control, makes rather pathetic reading. It will come as no surprise that the London, Chatham & Dover was particularly noteworthy in this respect. Three of this company's acts, those of 1867, 1869 and 1871 give, in extraordinary detail, the pitiful financial story of a railway which, in the words of the 1867 act "is over one hundred miles long and in 1866 conveyed nearly eleven million passengers and upwards of 400,000 tons of goods". This is followed by a reference to the validity of certain leases and working agreements and numerous proceedings in the Court of Chancery relating thereto. The company was unable to pay its debenture interest "and meet other claims which are large and constantly increasing". The company had assigned all its rolling stock and other chattels to trustees — it was necessary to keep the line open for traffic, and so on. The schedules to this act are interesting: Schedule I lists the company's previous acts and Schedule II the capital statements of the general and separate undertakings.

The 1869 act refers to "... the multiplicity and complicated nature of the claims brought before the Court[Chancery] . . . and grave injury will continue to be inflicted on a multitude of persons unless some more speedy method is established for determining the relative rights of the parties. . ." Section 48 of this act mentions that Neilson & Company, Glasgow, had a contract to supply 14 locomotives at £46,900 but declined to deliver nine of these "by reason of the embarrassed state of the company's affairs". The awards of the arbitrators, the Marquess of Salisbury and Lord Cairns, appear as schedules to the 1871 act and cover 98 pages. They give a vast amount of detailed history of the company, its undertakings, finance, lawsuits, etc.

Similar embarrassments, on a smaller scale affected other companies including, in 1870, the Northampton & Banbury Junction some of whose land on which the

line was built had been auctioned by order of the Court of Chancery towards the company's £95,000 debts.

Accuracy in dates is another aspect in which the acts are invaluable. All too often, for example, dates of amalgamations have been quoted as coinciding with the Royal Assent. In fact, there is a large number of cases where the effective date is quite different, in the range eighteen months antedated to three years post dated. Anyone requiring the dates of the agreements under which the Eastern Counties worked the East Anglian, Eastern Union, Norfolk and Newmarket Railways should refer to the preamble of the Eastern Counties Act 1861 in preference to *Bradshaw's Manual* where some are given incorrectly.

Historical complications which arose through inter-company entanglements within a small area or where the affairs of two companies became inextricably mixed up for various reasons, can often be cleared up by a careful study of all the relevant acts. Examples of this are to be found at Burton-on-Trent (involving six parties), in the North Union (five parties) and in the financial and working arrangements between the Bristol & Gloucester, Great Western, Bristol & Exeter, South Devon, Cornwall and West Cornwall, in 1871, the last five referred to in the various acts as the "Associated Companies", being the Broad Gauge group of lines.

Another facet of accuracy is the misquotation of company names. Thus the Preston & Wyre's legal title was the Preston & Wyre Railway & Harbour Company, being an amalgamation of two companies; the Leigh and Kenyon was the Kenyon & Leigh Junction; the Oldham, Ashton & Guide Bridge, abbreviated as OA&GBJ, often has the 'J' transcribed as 'Joint' instead of 'Junction'.

Except in the very few straightforward cases, the setting up of joint undertakings usually has some interesting, and often complicated, historical background. In nearly all cases, the acts set forth the circumstances and machinery very clearly. The Bricklayers' Arms branch of the South Eastern and London & Croydon companies was the first statutory joint committee set up by act, in 1843. Other acts followed covering nearly all the well-known joint lines — North Union, Shrewsbury & Wellington, Shrewsbury & Hereford, Ashby & Nuneaton (a particularly interesting act of 1867) and the very involved Norfolk & Suffolk Joint Railway Committee of 1898. The Committee's property consisted of lines already in use, some partly made and some only authorized. The parties in this case were the Great Eastern and Midland & Great Northern Joint Committee.

Between Newcastle in 1845 and Nottingham Victoria in 1897, nineteen jointly-owned stations were authorized, or actually set up by acts. Of these, Perth (1859), Shrewsbury (1849) and Carlisle (1861) are of particular interest. Only two joint station committees appear to have been fully incorporated bodies with their own seal — Perth (1865) and Nottingham Victoria (1897). It may be noted that at least two stations commonly thought of as 'joint' were, in fact, owned solely by one company, viz: Welshpool and Derby (pre-1844).

The acts contain a vast number of provisions covering a wide range of miscellaneous subjects, mainly inserted for the protection of someone or somebody against something, real or imaginary, e.g. relevance of railway architecture to the existing buildings nearby (York Windsor and Bristol); construction powers suspended for a year whilst decision taken whether to pass in front or behind a bishop's palace (Carmarthen); building part of a line on arches so as not to obstruct the view from the country mansion (Furness); signal box not to have outside stairs and to burn only smokeless coal (North British, Princes Street Gardens, Edinburgh 1895); no shunting near Bristol Cathedral during Sunday services (1897); prevention of noise by laying the track on wood sleepers or on

rubber or similar material (Esholt, Aberdeen and Leeds cemetery). So far as the present author knows, there is only one instance in which a bridge carrying a railway over a road was to be constructed "so as to deaden the noise caused by the traffic passing over the bridge". This was at Wolverhampton, in 1893. However, there are references in the acts to the avoidance of damage caused, or expected to be caused, by the vibration of trains, though this was not a prominent feature, the South Eastern's Bill in the 1870 session for a shorter and cheaper line between Greenwich and Woolwich was withdrawn due to Admiralty fears of possible injury to Greenwich Observatory. As passed in 1871, the act provided for experiments being carried out at the railway's expense. At Shrewsbury the Great Western were required by their act of 1895 to underpin the gaol walls to ensure security of prisoners and submit to expert vibration tests by the Astronomer Royal. The Whitechapel & Bow, given power to erect an electric generating station in the parish of St. Leonard Bromley, "must use all reasonable care to prevent nuisance by vibration" (1897).

Legal provision of tunnels or covered ways to protect the amenity of estates is not common, not more than six such cases being noted. But others, e.g. Haddon (Midland) and Kemble (Great Western) were made by agreement between the companies and landowners.

The erection of protective screens between railways and adjoining roads was a common requirement in the early acts and as late as 1861 a Hammersmith & City act provided for a "screen to be erected at Hammersmith to prevent horses being frightened by the sight of the engines and carriages travelling on the railway". An earlier example is found in the Liverpool & Manchester act of 1842, where the company were compelled to shield New Bailey Prison by a wall or fence — but whether to shields the inmates from the passengers, or vice versa is not stated!

In order to obtain the consent of some landowners and the support of local people of influence when planning their lines, a number of companies agreed to insert in their bills sections making it an obligation to provide stations at certain places. There appears to be only one act which provides for the erection of a private station; otherwise these seem to have been agreed by negotiation between the parties. Provision was made for about sixty public stations and goods sidings. There were usually some conditions attached to these — that a certain number of trains should call — accommodation to be for passengers and goods — that the station must be "erected and for ever after maintained" and, in at least two cases, the name by which it shall be known. The first "compulsory" station was Fay Gate (London & Brighton 1845), the penultimate Charwelton (Manchester, Sheffield & Lincolnshire) and the last Woody Bay (Lynton & Barnstaple) "to be called Woody Bay Station with or without any other names, Woody Bay being the first of such names".

During the years Maurice Greville lived with us, we discussed at length the value of the acts as a source of vital historical information and amended some of his records. I remember clearly one of his last meetings in which he commented "you certainly opened my eyes to the value of the acts".



A Tribute to a Man of Precision

by CHARLES E. LEE

It was in the autumn of 1925 that I first met Greville. I use his surname advisedly, as it was not customary to use Christian or forenames in the period before the first World War. Those who recall school days then will remember that it was surnames only, and this practice survived. With Greville, I soon discovered that our mutual interest was in railway history and topography, as distinct from the keenness on locomotives and rolling stock which seemed to be the main attraction to many enthusiasts. Also, his researches were always characterized by precision and accuracy, relying on primary sources, and he was most generous in the help that he gave to other serious workers in the same field. We co-operated happily for nearly half a century and never was a request met with a refusal.

As is well known, Greville was a reader of the *Railway Magazine* from the beginning. The first issue became available on Saturday 10 July 1897 and his father gave him a copy on his eleventh birthday, which fell on 26 July. This has sometimes been interpreted as the beginning of his interest in railways, but in fact was probably gratifying an enthusiasm that had developed already. He was born in Croydon and in his early years heard of the difference of opinion between the London, Brighton & South Coast and the South Eastern Railways about the joint use of the line through Coulsdon and Redhill. This was resolved by the LBSC securing powers under its Act of 20 July 1894 to build an avoiding railway called the Quarry Line from Stoa's Nest to Earlswood. The work involved heavy excavation through chalk, and the cutting through the grounds of what was then Cane Hill Asylum was covered over for about 417 yards and the soil replaced. Work was begun in 1896 and Greville told me that he took every opportunity to see it in progress. I well recall him giving me his vivid recollections more than 50 years later, when we were standing on Cane Hill looking at traces of the Surrey Iron Railway and its extension. The Quarry line was opened for goods on 5 November 1899 and for passengers on 1 April 1900.

In 1904 Greville was elected a member of the Railway Club, which had been founded in July 1899 to provide a means of intercourse between persons intelligently interested in railway affairs; it was the pioneer enthusiast organization. There seems to have been a financial crisis in the affairs of the Railway Club at the end of 1904, probably because of the heavy loss incurred in running the *Railway Club Journal*. The annual meeting held at St. Bride's Institute on 22 December 1904 was unusually lengthy, and was adjourned until 10 January 1905, so that not only the financial difficulties but also the whole conduct and character of the club could be discussed at length. The outcome of this was a change in personnel of some of the officers and the introduction of an "economy regime" under the joint secretaryship of R. E. Charlewood and M. D. Greville. At the same time, the most desirable objective for the immediate future was defined as the securing of permanent club premises. His appointment to office at the age of 18 indicates that his merits were soon appreciated. Greville served as joint secretary for only two years, but it was a vital period for the club. Financial stability was achieved and club premises were secured, in the latter part of 1905, at 92 Victoria Street, Westminster. Incidentally, Greville continued to serve on the Committee until 1931 and was also Honorary Steward from 1920. Rawdon Edward Charlewood (1879-1950) was the son of a solicitor and developed an extensive knowledge of railway working. His own activities were

always characterized by accuracy and precision and doubtless this reinforced Greville's early tendencies.

Many will recall that one of Greville's enthusiasms was for holidays in Scandinavia, where he was often accompanied by H. A. Vallance. On their trip in July 1949 they decided to resolve, if possible, some uncertainties about the date of death and place of burial of George Bradshaw. Various reputable sources gave the date as 8 September 1853 and the place of burial as "Opolo". Bradshaw was on a visit to Norway in connexion with the activities of "friends of peace" and was one of some 600 persons who died in a cholera epidemic in what was then known as Christiania. At the time of the centenary of *Bradshaw's Guide* in October 1939, war conditions had precluded local research in Norway. Greville and Vallance visited the grave in Oslo Hospital Churchyard and established that the date of death was 6 (not 8) September 1853 and that the mysterious "Opolo" was in fact Oslo, the name by which the old part of the city had always been known, and which eventually replaced Christiania for the whole city. Presumably a written record had used the old-fashioned long "s" and this had been mistaken for the letters "po". I quote this as an example of the meticulous care which Greville was always prepared to expend in order to secure accuracy.

Doubtless others will write of the valuable behind-the-scenes work which he did for the Railway & Canal Historical Society. His literary contributions were not extensive, but his researches were of the highest merit and are exemplified by his *Chronological Lists* and his joint authorship of *Closed Passenger Lines*. I welcome the opportunity of paying tribute to the memory of a valued colleague and a man of precision.



The Case of the Vanishing Station: Boreham, Essex

by HARRY PAAR

Among the many curiosities of railway history which Maurice Greville brought to our notice was the strange affair of Boreham private station, in Essex. His account (*Journal*, September 1956) is reprinted as follows:

When the Eastern Counties Railway was extended, on 29 March 1843, from Brentwood to Colchester, a private station was provided at Boreham, about three miles north of Chelmsford. This was for the purpose of serving Boreham House, whose owner, Sir John Tyssen Tyrell, Bart., had applied pressure in the not uncommon fashion of the time — alleging injury to his property, though it is difficult to see what injury was suffered, unless a view of the E.C.R. trains from the house could be so regarded.

However, the railway bought off his opposition by building the station and giving him the right to stop any train. This privilege was not embodied in the Act, but a legal agreement was entered into. As in similar cases, this became, in later years, when the volume of traffic had greatly increased, a decided embarrassment, and although attempts were made from time to time to induce Sir John to give up, or modify, his rights, he firmly refused, and continued to avail himself of them up to 1877. On 19 September in that year, the good baronet died and, the Great Eastern's solicitor having pointed out that the agreement only lasted during Sir John's lifetime, prompt action was taken.

The proprieties were observed; nothing was done before the funeral a couple of days later, but the very next morning a gang of men was despatched and the station was demolished.

From entries in the minute books of the Eastern Counties Railway, now in the Public Record Office, Kew, some further particulars of this story can be put together. The matter seems to have been reopened in December 1858, when the Traffic, Locomotive & Permanent Way Committee declined to open a "flag station" at Boreham or Hatfield (i.e. Hatfield Peverel, a short distance down the line) "at present". This was presumably in response to a request from Tyrell, as the local inhabitants or the public in general do not figure in the proceedings.

In March 1859 the Committee discussed what had evidently become the irksome "practice of stopping trains at Boreham level crossing for the accommodation of Sir John Tyrell and friends". The Committee recommended the erection of a semaphore and two auxiliary signals, also a short length of platform on each side of the crossing, but also called upon the secretary to report if there was any obligation to stop trains there. From this it is quite evident that for sixteen years the privilege had been exercised without any formal arrangements for safety or convenience, and that the very existence of the obligation was in doubt, perhaps conveniently, so far as the railway officers were concerned.

In May the Committee considered the matter again, in the light of correspondence between their Chairman (Horatio Love) and Sir John. They recommended that the company should erect two short platforms at the crossing, on each side of the line, also two signals, and stoves were to be supplied for the use of the passengers. The company was to appoint a man to attend to the crossing and signals. Sir John was to pay £15 a year towards the man's wages, was to give at least two hours'

notice for a train to be stopped to take up passengers, and to give notice at the preceding station to set down. The privilege was to obtain for Sir John's life only, and his written assent was to be obtained.

All Sir John had to do was to sign on the dotted line, but he had different ideas. On 29 May he wrote from Boreham House to the Chairman:

I am obliged by your proprietors and it is with great regret that I have to state that practically the proposal number three will deprive me of all advantage hitherto arising from stopping any train. The putting up a flag at a moment's notice, and the time occasioned in the delay of a train never exceeded five minutes, seldom more than three, and in twenty years there has never been a train nearer than a quarter of an hour after one being stopped. I had hoped that taking up and setting down in the Ditch would have obviated all risk. I should have no objection to writing the day before when Colchester trains were stopped — that is — trains going to Colchester — the £15 p.a. is no consideration.

Without intending it I am sure your proposals would have the effect of depriving me of all that I get in lieu of having saved the Eastern Counties Rail some £13,000 in hard money.

It is true that I am only three miles from Chelmsford, and that it only takes twenty minutes to go there, but if I am to give two hours notice you must see that practically the privilege is withdrawn and the advantage to me would be almost nil. For twenty years there has not been the most trifling approach to an accident at the present time.

If your Directors have instructed you to propose these clauses which no doubt are intended for public safety I should feel obliged if you would allow me to appear before them and state my views and answer any questions they may please to put to me, and of course I must bow to their decision. I will give myself the pleasure of calling upon you during the week. I am, my dear sir, faithfully yours."

The Chairman replied on 7 June:

"Referring to the letter I had the honour of addressing to you on 28 ult., I wish you to observe in reading clause 3 I propose that the following words should stand as a prefix thereto, 'During foggy weather and after sunset'. In other words — previous notice is only to be given on the conditions named. With this alteration I should be glad to know whether you will agree to the conditions therein named. I am, my dear Sir John, Yours Truly."

When this correspondence was read at the Committee meeting on 8 June, the officers (who appear by then to have become rather bored with Boreham) resolved that "the arrangements contained in the Chairman's letter of 7th inst. be approved as final", without any apparent intention of even awaiting Tyrell's reply.

Yet in November 1859 the Committee once more resolved that "a small platform be constructed each side of the line at Boreham level crossing, auxiliary signals erected at the usual distance of 800 yards and the hut rendered suitable for habitation," at the proposal of the Chairman, Horatio Love.

The hut was probably provided for a crossing-keeper, who had evidently been withdrawn — the ECR was always on the look-out for such economies in this period. It will be seen that as the end of 1859 approached, the physical manifestation of the station was still awaited, and we might begin to wonder if indeed it ever did appear, especially as Sir John had managed for seventeen years without it. But fortunately Captain H. G. Pilleau of the Royal Engineers arrived in the district in 1874, and proceeded to survey it to a scale of 25.344 inches to the

foot. He recorded the tree-lined lane leading from the *General's Head* on the Chelmsford—Colchester Road, northward from a point nearly opposite to the drive of Boreham House, with its long ornamental lake as a frontispiece. Nearly a quarter of a mile along the lane (which widened obligingly at one point to skirt a tree growing in its centre), the captain faithfully plotted the level crossing, a house at its north-west corner, and to the east of it the two bare platforms, named as such on the map, and each (by scaling) about 80 feet long. The only platform "furniture" was a signal post, on the down side adjacent to the crossing.

The crossing was situated about 8 chains east of milepost 32 from London (Liverpool Street terminus had been opened on 2 February 1874, but this post probably still recorded the distance from Bishopsgate station, which remained open for passengers for nearly two years). The lane, incidentally, proceeded north to New Hall, a foundation of Henry VIII, and in 1874 (and today) a convent. Some 28 chains west of the crossing was another, while in the other direction, at about 15 chains, was a third level crossing. Thus, in half a mile there were three level crossings, the middle one apt to produce without warning Sir John Tyrell with or without friends, hailing a train much as one hails a taxi-cab today.

From the absence of further references in the T.L. & P.W.C. books up to 1866, and Mr. Greville's account of the removal of the station in 1877, we may conclude that it was erected shortly after November 1859, but it will be evident that the foregoing notes are by no means the last word on the subject. The writer has only searched the books for a limited period (1856—66) and there may well be further references before or after these dates, and also possibly others in the Essex County Records Office.

Today, the site of the level crossing can be detected, and there is a railway house, but probably not that of 1874, hard by the line on the north side, with another adjacent, formerly also railway property. A new multi-lane highway has been inserted between the old main road and the railway, and the lane, now a minor road, has been diverted to the east side of the crossing, a quite imposing bridge carrying it over the highway the railway and over the site of the platforms. The level crossing remained in use until the bridge was completed in recent years. Mr. Hockley, the former crossing-keeper, still occupies the house; in many years he had heard of no local place known as "the Ditch", so the present reference of Sir John's remains unexplained.

It may be added that this case was not unique, for in September 1862 the Great Eastern Railway T.L. & P.W. Committee considered the claims of Lord William Powlett that the privilege of stopping trains at Sexton Gate was conceded to him in August 1848, but that in 1850 the company had no record of it and as he could not find the letter concerned, the privilege was withdrawn. In 1862 the letter came to light and the Committee resolved that permission be granted to stop any train except an express, on notice being given to the Superintendent. Sexton Gate has not been located by the writer. Burke's *Extinct & Dormant Peerages* indicates that Townshend was the Powlett family name, and that when a member of the family who was vicar of Honingham, Norfolk, died in August 1866, the title became extinct.



M.D.G. and the Railway Pub

BY GEOFFREY SPENCE

Our friend Greville was always interested in pubs. His was no idle boast that he had “drunk beer for 83 years and smoked for 77,” for at the age of 8, looking rather thin and peaky, his mother had been told by the doctor to “give the boy half a pint of good beer every day.” From then on he claimed he never looked back, and maintained that beer was a wholesome food, and that the pub — apart from social considerations — was just as necessary as any shop.

Nevertheless, MDG was a sensible, moderate drinker even if, when occasion called, his intake would have stunned many people. He was lucky, too, in that Nature had been kind in providing him with the right sort of internal machinery for dealing with what some people regard as poison (and the rest of us contend was only true when so many breweries became vast soulless combines).

It is a fact that he had the occasional bout of gout (“my ancestors” he explained) and with the first attack, when he was living in Devonshire, he was laid off beer temporarily by the doctor. In order to ensure his *status quo* in his local (which was seven seconds from his front door) for pre-prandial socializing, he drank ginger ale instead. And had a worse attack of gout. (“I always knew there was something wrong about this non-alcoholic stuff, and even the doctor has apologized”).

MDG claimed that only once did he have a real hangover, on one of his 1920s trips with friends on the Norfolk Broads. He had indulged, he admitted, in “rather a lot of very strong ale” (which probably meant several quarts) and had, by some mistake, followed this with some whisky and, of all things, *port*. “It was the mixture that did it” he told me grandly, “and had nothing to do with the quantity.” He made a pattern in the soft Devon soil with his walking-stick. “And what is more, I did *not* have to be helped into the boat. I fell into it.”

All pubs were a matter of some concern to him, for their art and architecture, rusticity, comfort, even *hideousness* of design; all these things too were of interest — as indeed were the country churches about which he knew so much. As one might expect, he was attracted to railway or part-railway nomenclature of pubs. From early in the railway era, and following the older canal pattern, names of inns were adapted to a railway connotation if old, adopted if new.

There was the obvious *Railway Hotel*, of which Greville listed 251 he had visited in different parts of the country (and there must have been others he didn’t visit!). There was the *Railway Inn* (94), *Railway Tavern* (55), and *Station Hotel/Inn/Tavern* (192). *Junction Hotel* was also quite common, even at a place like Purston-Jaglin in Yorkshire, where the nearest junction seemed to be several miles away. There were the quaint and the unusual in names like *Safety Valve* at Forncett, Norfolk, or the *Chard Road* at Chard Junction, a reminder of the station’s original name, the *Wheel Tapper* at Taunton and *Sir Daniel Arms* at Swindon. He records only one *Puffing Billy*, at Exton (Devon), and two of the *Jolly Porter*, at Reading and Exeter, although there must be others. The *Flag & Whistle* at Margate presumably commemorates the guard.

Numerous pubs were named after the railway company which in many cases had given them birth. He had visited 10 (London &) *North Westerns* from Blaenau Ffestiniog to Wolverhampton, 21 *Great Northern*s, 6 *Great Eastern*s and 38 *Great Western*s (*Hotel/Inn/Arms/Vaults*) from Aberdare to Yeovil, and many other of the smaller companies: *Norfolk* (Norwich), *North Midland* (Stretton), *East*

Anglian (King's Lynn), and one that was known (and may be still) rather tersely as the *EUR* at Ipswich. How, one wonders, did the locals transmit messages to each other? "See you at the *EUR* then." Surely not! At the *Union*? At the *Eastern Union Railway*? Much too affected. We may never know, as it has probably disappeared under the pressure of modern living.

But what was the *Old Railway* at Leeds? Did it refer to an old building or a rusting or torn-up stretch of line? He seems never to have found an *Old Station*, which might have given him a clue in research work. It might also be asked how on earth the *New Euston* at Leighton Buzzard and the *North Euston* at Fleetwood acquired their names.

There was a variety of names joint with the railway: *Boat & Railway* (Stoke Works), *Railway & Bicycle* (Sevenoaks), *Railway & Linnet* (Middleton Junction), *Railway & Naturalist* (Prestwich), *Railway & Steamboat* (Lossiemouth). *Railway Terrace* at Longton, Staffs, may have an obvious meaning to some, but not to me. There was a *Railway View* at Macclesfield and, unbelievably, a *Railway Vue* at Histon, Cambridgeshire. Many of us were aware that MDG's writing was often difficult to read, but *Vue* had been carefully written.

Are all these pubs still extant, and under their old names? Perhaps they passed out of the railway era and became *Local Bus & Railway* or *Green Line*. But in these topsy-turvy days of doubt, when buses run to a timetable only on paper and are, if possible, ignored by the travelling public, the pubs may have been altered again to the *Motorway Contractor* or the *Tile & Teabreak*.

In his meticulous way, MDG noted down the names of any "railway" pubs he visited in this country — some of them more than once — and came up with a grand total of nearly a thousand of them. They could, of course, be checked and noted and listed again to see if their numbers have diminished in the same sad way that our list of station names has been depleted.

It was perhaps fitting that on the last evening of his life, when he had long refused solid food, he was given a pint of strong beer. "That was good stuff", said MDG and was content.



On a Matter of Opinion

In 1968 it appeared that a generation of great names in the world of railway history having passed away, it could be of some interest to those who were still enjoying their published work to have some brief notes on the authors themselves. This seemed the more appropriate, as the practice of giving some particulars of authors on the dust-jackets of their books was by then common, whereas writers up to the beginning of the second war were no more than names, unless they happened to be known to the reader personally.

Accordingly I wrote by way of experiment to Maurice Greville, citing four names as examples, and his reply indicates, I think, something of the writer himself, as well as of the author with whom he dealt at some length. I have no record of the fourth author now, but Greville's remarks — in his letter below — made me realize that consideration for others might inhibit such small biographies, and that perhaps, after all, the old adage should suffice: "By their works they shall be known." HARRY PAAR

Of the four authors you mention, I never knew Rosling Bennett or Ahrons. GWJ Potter I had a long acquaintance with — from 1904 when, at the age of 18, I joined the Railway Club of which he was, at the time, Secretary. He was either one of the original members of the Club when it was founded in 1899, or joined it very soon after. He did a great deal for the Club, and was afterwards editor of the Railway Club *Journal* for several years.

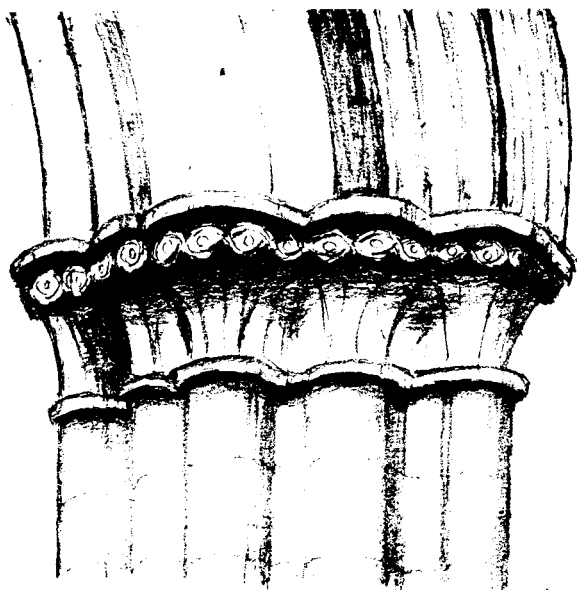
He had a rather gruff manner, and did not suffer fools gladly, but when one got to know him, he showed himself as kindly, and very helpful to those genuinely deserving — I have a great deal to thank him for. One peculiar thing about him was that he never talked of himself or his own affairs so that, although I knew him intimately right up to his death after the last war, I have no idea what, if any, his occupation was — but I strongly suspect he had an independent income. Apart from railways his chief interest was, I think, music, and he frequently played in orchestras, his instrument being, if my memory serves, the oboe.

He had a very wide knowledge of railways, but his special interests were the Great Eastern and the North Eastern. Had there been the same market for books on railway history in his day as there is now, I have no doubt we should have had other books from him of the standard of the *Whitby & Pickering*, which I have always considered one of the best and indeed one of the first of the histories of minor lines, especially considering the many sources available now which there were not then.

As to the other author you mention, I feel reluctant to say much, as I may be said to be biased. I had no opinion of him as a historian, and did not like him personally. When I was secretary of the Railway Club in the early 1900s, I had a good deal to do with him, and did not find him easy to deal with.

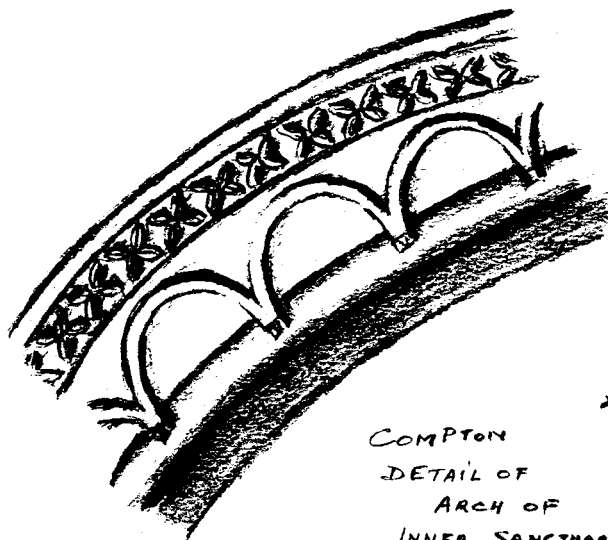
M. D. GREVILLE

M. D. Greville was a man of many parts; railway history, books, animals, churches and pubs did not exhaust the list of his interests. But one facet about which little is known was his capacity for sketching, in particular architectural details of churches — done in the 1920s and 1930s, mainly in the southern half of England. Three volumes were found among his books and papers, and three examples out of nearly 200 known drawings — printed direct from his original pencil sketches — are reproduced here.



SHIPTON-UNDER-WYCHWOOD
CAPITALS OF CHANCEL
ARCH (5th)

M.D.
17/4/30



COMPTON
DETAIL OF
ARCH OF
INNER SANCTUARY

M₂
21/3/60



WITNEY
GROTESQUE
ON SOUTH
WALL OF
NAVE

M₂
18/4/60

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