

THE UNIVERSITY OF HULL

**The Influence of Landowners' Attitudes on Railway Alignment
in Nineteenth Century England**

being a Thesis submitted for the Degree of

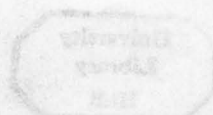
**Doctor of Philosophy
in the University of Hull**

by

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August 1974

J. Hepple, *Landowners and the Great Western Railway: or why the Oxford Line missed the train*, *Journal of Transport History* 2.2, vol. 11 no. 2 (Feb. 1974) pp. 155-65.



PREFACE

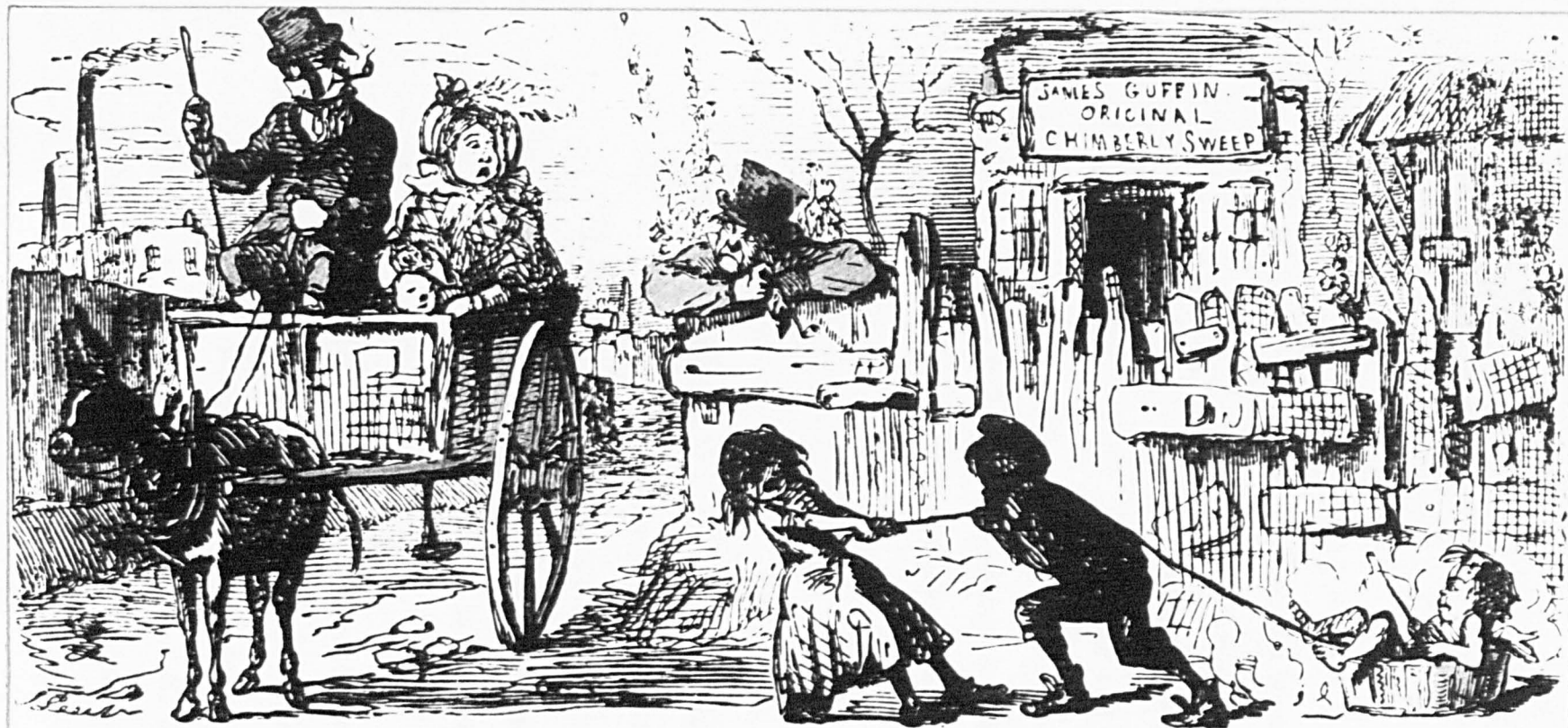
The argument, a discussion of the influence of landowners' attitudes on railway alignment in nineteenth century England, is presented in what might be termed a 'legal' framework. Firstly the initial proposition is put forward, that the landowners exerted an influence upon the alignment of the railways of England. The existing state of knowledge is then reviewed which places landed influence in the context of alignment theory in general. Having established the conventional wisdom a background is then presented which discusses the main aspects of the 'characters' of the two protagonists, i.e. of the railway interest and of landed society. This is complemented by a brief appraisal of the mechanics of the interaction, i.e. of the nineteenth century Parliamentary system within which such influence was exercised. The main body of evidence is then put forward. This is divided into four separate sections, split chronologically as justified in Chapter Three. The whole is then drawn together in a final chapter which summarises the main arguments and body of evidence to reach a conclusion as to the validity of the initial premise.

It is conceded that this study may be criticised as lacking depth as a direct consequence of the employment of a broad approach. This point was quickly recognised and thus an assessment of the merits of a more detailed approach was made with an in-depth study of one particular example.⁽¹⁾ It became rapidly apparent that this approach

(1) J. Hepple: Abingdon and the Great Western Railway: or why the Oxford line missed the town. *Journal of Transport History* N.S. vol.II no.3 (Feb. 1974) pp.155-66.

although personally satisfying, was extremely narrow and thus, taking into consideration the amount of time and finance available, it was preferred to utilise a broad view rather than research few examples in comprehensive detail. This has therefore militated against a close examination into the financial involvement of landed society, of the shares held, of the capital invested, as this material is not deposited centrally. As a consequence of the detailed study of Abingdon's relations with the Great Western Railway it was found that the local sources, the newspapers, estate papers et al, merely complemented and confirmed the evidence found in the Minutes of Evidence of the Select Committees of the Houses of Parliament. The research has therefore leaned heavily upon these Minutes of Evidence as a primary source but research has been undertaken into more local material as and when necessary.

The constraints of time and finance have also demanded that the research be limited to a study of the alignment of the railways of England rather than of Britain. In terms of mileage the English railway network was at least two-thirds of the total constructed and contained examples of every variety of line. As the railways of Scotland and Wales were promoted and aligned in a similar manner, as the Parliamentary process of authorisation of a railway company was identical, and as many of the engineers employed in England were also employed in both Scotland and Wales, it is felt that the conclusions reached in this piece of work are not invalid if extended to both Scotland and Wales, although some modifications may have to be made to allow for local conditions.



Railway Miseries.
No. VII.

BILL. *loq.*—"Hollo, Jim! yer looks out o' sorts.—Vot's the matter now?"

JIM.—"Why yer see, Bill—jist as I'd laid out my garding—built my summer 'ouse—and got all my traps about me—blow 'd if the Great Diddlesex Junction aint a comin' right through my property. It's enough to break von's 'art."

ACKNOWLEDGEMENTS

These go primarily to Mr. M. Bond, O.B.E., and his kind and very patient staff at the House of Lords Record Office who endured my continued presence for well over one year and a quarter, to the curator and staff of the British Transport Historical Records Office at Paddington, to the British Museum, and to the curator and staff of the following Record Offices:- Beverley, Chelmsford, Gloucester, Gosforth, Hertford, Kingston-upon-Thames, Maidstone, Northallerton, Northampton, Norwich, Nottingham, Preston, Reading, Shrewsbury, Stafford, Wakefield and Warwick.

Thanks must also go to Mr. B. Fisher for his very kind and efficient preparation of the illustrative material, to Mr. R. Dean for his useful advice on cartographic matters, to Professor H.R. Wilkinson for his assistance, and to the University of Hull for their financial aid. Some mention must also be made of the constructive criticism and healthy scepticism received from my colleagues and contemporaries within the research department of the Department of Geography of the University of Hull.

My grateful thanks must also go to Mrs. M. Hamilton who has so kindly typed up the thesis and also to my parents whose understanding and support during these years has proved so reassuring.

My warmest thanks must go to my supervisor Dr. J.H. Appleton for his patience, understanding, and constructive criticism so kindly offered and so gratefully received.

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81.44 metres = 267 1/2 yards
 1.61 kilometres = 1 mile
 16.09 kilometres = 10 miles

Area: 1 hectare = 2.4711 acres
 10 hectares = 24.71 acres

Financial: 1 new penny = 5.4 old pence
 10 new pence = 2 shillings
 50 new pence = 10 shillings
 100 new pence = £1

Footnote Convention with reference to the Minutes of Evidence.

ibid. - evidence drawn from the same day as that quoted immediately above.

idem. - evidence drawn from the same Committee but from a different day to that quoted immediately above.

Conversion Table.

Length: 0.91 metres = 1 yard
 91.44 metres = 100 yards
 1.61 kilometres = 1 mile
 16.09 kilometres = 10 miles

Area: 1 hectare = 2.4711 acres
 10 hectares = 24.71 acres

Financial: 1 new penny = 2.4 old pence
 10 new pence = 2 shillings
 50 new pence = 10 shillings
 100 new pence = £1

CHAPTER ONE. INTRODUCTION

There are a number of points which can usefully be discussed in this introductory chapter and it is therefore divided into four main sections:

- (A) A statement of the field of study allied to a brief description and summary of the content of the individual chapters.
- (B) A discussion of the sources used and the ways in which their characteristics have influenced the approach utilised.
- (C) The position of this thesis in relation to other work in the same field and in the wider context of Historical and Transport Geography, and Railway History.
- (D) A comment on the illustrative material used.

(A) The Field of Study

The subject of study is the alignment of certain railways of England. The term 'certain' is used advisedly inasmuch as these railway alignments which have been discussed in the main body of the evidence have been drawn from a wide ranging examination of the railways of England and are intended to illustrate points which are generally applicable. The purpose of the work is to examine the role of the landowner as an influence upon the alignment of a railway, how this process operated and what were its results. In a broader context its purpose is to assess whether the traditional morphological approach to alignment studies is enough to explain the location of the single route and whether these influences currently considered as determining the alignment of a routeway have taken the 'human' influences sufficiently into account.

The approach used has been relatively simple in that a comprehensive study of documentary material has been undertaken to discover whether the landed society of England played a significant role in influencing the alignment of railways. Because of the nature of the source material employed, which is discussed below, it was found to be impossible to utilise a sampling approach on a random basis. Consequently it was decided to consult a large number of secondary sources to discover examples of any such influence. Once a suitable quantity of broad examples in both spatial and chronological terms were discovered further detailed study was undertaken of primary sources which either complemented and confirmed the secondary sources or, in a number of cases, contradicted these sources. As the author became familiar with these primary sources, more especially the Minutes of Evidence of the Parliamentary Select Committees, further examples of influence were discovered.

As the study progressed it was found that certain general principles were quickly established which were applicable throughout the nineteenth century. This accounts for the apparent emphasis upon the earlier, formative years of the railway system and the discussion of the features of the years 1850-1900 is more concerned with points that arose specifically during these decades, and with modifications to the basic principles rather than a reiteration of the principles themselves.

Although the framework of the thesis has been discussed in the Preface it is felt that a summary of the content of the various chapters may prove of use.

Chapter Two reviews the various concepts which have considered the factors that determine the alignment of the single route. This is intended to present current thinking in this field and also to implicitly illustrate how little importance has been attached in the past to the impact of the 'human' factor in influencing alignment.

Chapter Three briefly discusses the major features of the evolution of the English railway system in both spatial and chronological terms.

Chapter Four briefly discusses the main characteristics of the landed society of England during the nineteenth century, their numbers, their distribution, their economic interests, their political power, their involvement in the industrialisation process, and their interest in emparkment.

Chapter Five discusses the mechanics of the interaction between the landed and railway interests. It comments upon the Parliamentary process by which a railway Bill was authorised and discusses how landed influence could be exercised. It also touches upon the cost of land as a part of railway constructional costs.

Chapters Six to Nine discuss the influence of landowners on railway alignment drawing upon a number of examples to illustrate various points.

Chapter Ten is a summary of all that has gone before and also contains a conclusion which discusses the problem in both a specific and general context.

Appendix 1 is a list of those matters discussed by a Parliamentary Select Committee.

Appendix 2 is a table of landowners subscribing to the Midland Counties Railway of 1836.

(B) Sources used

Three basic types of source material have been used and may be classified thus:-

- (a) Contemporary/Primary
- (b) Physical
- (c) Secondary

(a) Contemporary/Primary

Five main categories of this material have been utilised.

1. Minutes of Evidence of Parliamentary Select Committees.

These have been of paramount importance as a source of material for this study. The breadth of verbatim evidence presented can be assessed by reference to Appendix 1 which lists those points which had to be discussed before such a Committee. The procedure was such that before the Committee heard the arguments of the opposition it was the duty of the railway company's counsel to prove all the requisite points and this necessity happily encouraged the provision of voluminous amounts of evidence, each witness being cross-examined by the opponent's lawyers. Thus, in cases of conflict, there exists a great wealth of detailed evidence concerning the origins of the railway company, its intentions, and its prospects.

This is only found if the petition to Parliament, stating opposition to the proposals of the railway company, was acted upon. It occasionally happened that negotiations between the two parties ensued before the bill came before a Select Committee which thus removed the necessity for a lengthy hearing. In such instances the evidence of the need and merit of the line is at best cursory, at worst non-existent.

Apart from a number of volumes of Minutes of Evidence of the House of Commons destroyed in the great fire of October 1834, there are no physical constraints on access to this material, the House of Lords Record Office having a full set of handwritten evidence for the years 1825-1900. The data itself can vary in quality and usefulness, often according to the counsel engaged in the presentation of a case; for example it occasionally happens that the full texts of agreements, contracts, and letters have been introduced as

evidence and are incorporated into the Minutes. It must be conceded that the Minutes are rather poor on financial matters, for example counsel universally argued that they could not reveal the prices paid for pieces of land as they feared that other landowners on the same line of railway would draw invidious comparisons and thus negotiations would be jeopardised.

2. The letters, minutes, and notes of the railway engineers, promoters, and of the landowners themselves. The former material is to be found mostly at the B.T.H.R.O. at Paddington, the latter in local Record Offices and Estate Offices throughout England. These add useful background material to the more formal evidence of the Parliamentary Committees and often help to explain motives and intentions otherwise obscure.

3. Pamphlets and Articles published at the time. The former can be found in both the B.T.H.R.O. and in the British Museum, the latter in the monthly literary magazines of the nineteenth century. Both suffer, through their very nature, from a biased and often dogmatic interpretation of the contemporary situation but provide a good illustration of the points of view of the various interested parties and can prove most useful if used with care.

4. Contemporary Local Newspapers. The finest collection is to be found in the British Museum Library at Colindale. These are of great value in their reporting of speeches and resolutions made at public meetings held in the locality when a railway was proposed to be constructed. They also contain the advertisements of intent required by a Parliamentary Standing Order in order that the local populace could be informed of the railway company's proposals.

5. Other Sources.

(a) Hansard. These volumes are of particular use in reporting Parliamentary debates concerning railway legislation in general and also those specific railway bills which stimulated such interest that they were debated in one or both Houses.

(b) The Minutes of Evidence of the Parliamentary Select Committees which discussed railway legislation, and related topics, in a more general context. These have been published in full by the Irish University Press under the general heading of Transport and need no further comment.

(b) Physical

1. Ordnance Survey Maps, notably the one inch First Edition series which was closely studied to examine the relationships between the railway alignments (where added) and the boundaries of the parks, which are quite clearly marked on this edition. The 1:25,000 series was also used to analyse the alignments in terms of the general topography.

2. Contemporary Maps. These are essentially those maps deposited by the railway companies as one of the requirements of the Parliamentary Standing Orders. As many companies provided a one inch first edition map with their proposed alignment superimposed upon it, these proved invaluable and can be found in both the House of Lords Record Office and in local Record Offices throughout England.

3. Field Work. This was undertaken to assess the relationships discussed in the documents and to evaluate the arguments presented by counsel before the Select Committees. Its primary aim was to establish in the mind of the author an image of the area under discussion thus adding an extra dimension to the documentary and cartographic evidence previously examined.

(c) Secondary Sources

This field of historical geography has long been popular and has, in recent years, enjoyed a strong upsurge of interest. Much use has been

made of railway histories despite the fact that they tend to concentrate more on the chronological aspects of the railway company and often pay little regard to the relationships between the line of railway and the local topography. However the series of books which have appeared under the general title of the 'Regional History of the Railways of Great Britain' have proved most useful, as have those railway company histories published in the late nineteenth and early twentieth centuries. The author must agree, however, with J.R. Kellett's rather damning criticism of many of the works in this field of transport history.⁽¹⁾ On the whole the quality of scholarship is not all that it might be and these sources have therefore been used both selectively and with care, reliance having been placed firmly on original documentary material.

Use has also been made of many works in the field of local history and these have provided a useful background to the essentially local conflicts. Again the quality tends to vary but those published during the mid and late nineteenth century have frequently recognised the considerable significance of the coming of the railway to their immediate locality and have often written at some length of the circumstances of its arrival.

Frequent reference has also been made to the admirable articles which have appeared over the past two decades in the Journal of Transport History, Transport History, and in the Transactions of the Institute of British Geographers. A number of theses have also been consulted and have proved of value. Special mention must be made of G. Ottley's monumental bibliography of railway history which has proved most useful in locating secondary sources.

(1) J.R. Kellett: 'Writing on Victorian Railways: An Essay in Nostalgia' Victorian Studies vol.13 no.1 (Sept 1969)

(C) Perspective

As J.H. Appleton has so succinctly argued in his paper 'A Morphological Approach to the Geography of Transport', there is an urgent need to recognise the important contribution of morphological studies in any understanding of Transport Geography. Although the author subscribes to this basic philosophy he feels that even this may not go far enough. Thus far the debate over the factors that determine alignment has concerned itself largely with assessing the relative merits of the 'economic' and 'physical' influences. Within recent years it has been conceded that it is the 'total environment' which influences the location of a routeway. Once this broader influence is acknowledged it is felt that the essentially retrospective mode of analysis currently favoured by geographers, the close examination of the final alignment as it appears on the map, precludes a study of the many alternative alignments that were proposed and seriously considered at the time of construction and further, does not allow any conclusions to be drawn as to why this particular line was preferred to any other. It is argued that if the reasons for preference are to be fully understood a reorientation of the methodology currently practised will have to occur, which will necessitate a more detailed analysis of documentary evidence pertaining to the decision making process.

In a broader context the fundamental importance of the railway as an agent of change, in both abstract and physical terms, cannot be denied. Its vital significance in the rapid economic expansion of the nation has been widely acknowledged and yet the study of the alignments of the railways themselves, which surely governed the extent of change through their very absence or presence, has not been given the attention it deserves. To take a specific example, it has often been argued that the avoidance of a town by a main line of railway seriously hindered, if not totally impaired, the growth of that town during the crucial years of the mid nineteenth

century. Thus an enhanced understanding of those factors which determined the alignment can but assist in the overall understanding of the process of economic and social change which occurred during the nineteenth century. It might also be argued that an appreciation of the priorities considered important during the last century in terms of railway alignment have some relevance in the present decade in any discussion of motorway and by-pass alignment. (1)

The author also hopes that this work complements that of the 'new' school of railway historians, as typified by J.R. Kellett's 'The Impact of Railways on Victorian Cities' and H. Parris' 'Government and the Railways in Nineteenth Century Britain', in studying a theme common to all railways rather than discussing the growth of a network within a specific geographical area or under the management of a single company.

(D) Illustrative Material

This is primarily in the form of maps which illustrate the alignments under discussion and their importance is therefore paramount. In a number of instances it has been possible to include those other alignments also considered which will help to demonstrate the wide range of feasible alternatives available to the promoters and engineers responsible for the final decision. An attempt has also been made to include as many parks as possible on these maps in order that an impression might be gained of the density of their distribution.

A small number of plates have also been included. These are merely to give an impression of the setting of the various types of residences and their grounds threatened by railway construction.

(1) And also new railways - vide Sunday Times no.7881 June 30 1974 p.19 'This Britain' which discusses proposals of alternative alignments for a new line of railway between Croydon and Edenbridge.

CHAPTER TWO

There are many factors which determine the alignment of a railway and thus, before an understanding of the significance of the landowner's role in railway alignment can evolve, it is important to discuss these factors and therefore place the landowner's impact in a context.

The nineteenth century saw a number of authors attempt to describe the optimum mode of railway construction. Their works were of an essentially practical nature, written in the light of the author's experience, and tended to describe the various difficulties that might be encountered by an engineer rather than theoretical concepts and are therefore best discussed in the main body of the argument.⁽¹⁾ The theoretical approach to railway location stems largely from the work of A.M. Wellington which generated what might be called an 'empirical' school of thought with conclusions drawn from studies of particular rail-nets and specific alignments. In recent years a more abstract approach has evolved, concomitant with the revolution in the study of geography, being based, primarily, on network analysis. These approaches have been fundamentally different and it is therefore proposed to firstly consider the work of the 'empiricists' and subsequently that of the 'theorists'.

Wellington's arguments⁽²⁾ were based upon experience drawn from the planning and construction of railroads in Mexico and the United States in the latter half of the nineteenth century. His initial argument stated that there were three major categories of railway; those built purely for profit; those built for the general benefit that would accrue to the locality through which they ran; and those that were built for 'irregular'

(1) for example: P. Lecount: A Practical Treatise on Railways (1839)

(2) A.M. Wellington: Economic Theory of the Location of Railways:
(2nd Ed. 1887)

purposes, for example 'block lines' or those built for sale to a rival company.⁽¹⁾ He suggested, however, that despite the varying reasons for construction the same general law applied '... it is the plain interest of the constructors, in all cases, to obtain as good a road as they can for the money and to build it on business principles'.⁽²⁾

Wellington argued that the alignment of a railway was the result of a two-stage process, '... the first, and by very much the most important, is the selection of the general route between the two established termini or, as very often happens, the selection of one or both termini as well',⁽³⁾ and this decision was to be the sole responsibility of the promoters.⁽⁴⁾ Having decided upon a 'general' route the second stage then became applicable and was '... the adaptation of the line in detail to the topographical conditions which exist along the route selected'.⁽⁵⁾ This was to be the sole province of the engineer.⁽⁶⁾

He strengthened this argument by suggesting that there were 'major' and 'minor' factors that influenced an alignment. The 'major' factors were considered to be the generation of revenue,⁽⁷⁾ the probable volume of traffic,⁽⁸⁾ and the operating expenses,⁽⁹⁾ the 'minor' factors being the actual length of the line, its curvature and the 'rise and fall' (the latter being different to the ruling grade).⁽¹⁰⁾ He justified this

(1) *ibid.* pp.13-14

(2) *ibid.* p.14

(3) *ibid.* p.21

(4) *ibid.* pp.15-16

(5) *ibid.* p.21

(6) *ibid.* p.17

(7) *ibid.* pp.48-74

(8) *ibid.* pp.75-105

(9) *ibid.* pp.106-184

(10) *ibid.* p.185

categorisation by quoting C.B. Vignoles, the noted English railway engineer, who had argued that some three-fourths of expenses were independent of gradients and curves and thus improvements in these facets of alignment could cause only marginal reductions in operating expenditure.⁽¹⁾ Wellington was strongly critical of the idea that the optimal alignment of a railway was to be a straight line between two termini⁽²⁾ but conceded that the concept appeared to be '... commonly absurdly overestimated even in the minds of the engineer'.⁽³⁾

Wellington concluded that it was economic factors that were of prime importance in determining alignment and that physical influences were of significance merely in a local context. Although it has been said that the value of Wellington's work '... lies not in its absolute findings so much as in its illustration of the kind of locational problems faced in route construction',⁽⁴⁾ his ideas appear to have held considerable sway until recent years.

Work during the latter years of the 1930s was more concerned with the analysis of patterns of railnets rather than the study of the exact alignment of their constituent parts⁽⁵⁾ although Ullman, in his study of the railroad pattern of the United States, did make some passing reference to the factors controlling alignment. He suggested that railways were

(1) *ibid.* pp.186-193

(2) *ibid.* p.186

(3) *ibid.* p.237

(4) P. Haggett: Locational Analysis in Human Geography (1965) p.63

(5) for example: S.H. Beaver: 'The Railways of Great Cities' Geography vol.XXII (1937) pp.116-120; A.C. O'Dell: 'A Geographical Examination of the Development of Scottish Railways': Scottish Geographical Magazine: vol.55 no.3 (1939) pp.129-148; C.A. Fisher: 'Evolution of the Irish Railway System' Economic Geography: vol.17 no.3 (1941) pp.262-274

extremely sensitive to grades,⁽¹⁾ and that valley alignments, on a national scale, were 'discernible in many places'.⁽²⁾ He concluded 'sensitive though railroads are to grades, the predominating locating factor seems to be traffic . . . although relief strongly affects the local or site alignments . . . production and traffic appear as more important determinants of their regional arrangement and location'.⁽³⁾ Thus, conceding the fact that the author was essentially discussing pattern, the predominance of the economic influences were reiterated and reaffirmed.

Railway alignment, in the context of pattern analysis, was discussed briefly by O'Dell who employed an extremely broad approach and, as a result, his work became descriptive rather than analytical.⁽⁴⁾ The book was revised by P.S. Richards⁽⁵⁾ and in a brief discussion of the various criteria that could influence the location of a railway passing reference was made to those principles utilised by George and Robert Stephenson, in their choice of route for the London and Birmingham Railway of 1831.⁽⁶⁾ Despite this the concept was neither elaborated nor pursued.

The study of factors determining alignment took a considerable leap forward with the work of J.H. Appleton during the 1950s and 1960s. The first tentative steps were taken in 1951 with the publication of a brief paper discussing the relationship of railways and physical geography.⁽⁷⁾ The argument was based on the assumption that the optimal route between

(1) E.L. Ullman: 'The Railroad Pattern of the United States': Geographical Review: vol.39 (1949) pp.242-256, p.256

(2) *ibid.* p.256

(3) *ibid.* p.256

(4) A.C. O'Dell: Railways and Geography (1956)

(5) A.C. O'Dell and P.S. Richards: Railways and Geography (1971)

(6) *ibid.* p.44, see also below pp.

(7) J.H. Appleton: 'Railways and Physical Geography' Railway Magazine: June 1951 pp.409-11

two termini was a straight line and that any deviations were therefore suboptimal. He also put forward the interesting argument that in the immediate vicinity of a traffic focus the degree of flexibility was much reduced: consequently physical obstacles could no longer be avoided by deviations but must be overcome by engineering works. He then discussed various examples of the dominance of the physical landscape as a factor in influencing the final alignment but did concede that this was only one of many factors that determined the route of a railway.

Appleton's ideas on railway geography were refined during the 1950s with his M.Sc. thesis of 1956,⁽¹⁾ his paper discussing the pattern of the railway network of South Yorkshire,⁽²⁾ his Ph.D. thesis of 1963,⁽³⁾ and culminated in the publication of 'The Geography of Communications in Great Britain' in 1962.⁽⁴⁾ Appleton approached the problem in a different manner to Wellington in that he commenced by discussing the limitations of the specific mode of transport itself, the railway, and, once again, argued that 'ideally a railway should be perfectly level and perfectly straight'.⁽⁵⁾ He then stated that railway gradients had been decided upon more by local expediency than any fundamental philosophy and felt that this was equally true for the alignment of curves in that, after the initial experiments of the 1820s and 1830s, optima were quickly agreed upon which changed little during the remainder of the nineteenth century. He did, however, concede that the '... limitations [of railways] vary with the requirements of

- (1) J.H. Appleton: *The Historical Geography of Railways in Yorkshire* (Durham M.Sc. thesis 1956)
- (2) J.H. Appleton: 'Railway Network of Southern Yorkshire': Inst. of Brit. Geographers: Trans. and Papers no.22 (1956) pp.159-169
- (3) J.H. Appleton: *The Morphological Study of Inland Communications*: (Hull Ph.D. thesis 1963)
- (4) J.H. Appleton: The Geography of Communications in Great Britain: (1962)
- (5) *ibid.* p.10

different kinds of traffic'.⁽¹⁾ He then discussed the second factor, the land surface itself. He argued that as communications are usually built to link towns, and as most settlements are located in valleys, therefore most railways will be concerned with linking one valley site with another.⁽²⁾ He suggested that there are various difficulties inherent in the utilisation of a valley but feels that those valleys unsuitable for settlement and industry were also unsuitable for communications.⁽³⁾ He further refined his ideas concerning the influence of physical features on alignment⁽⁴⁾ and conceded that whilst 'physical features often exert a strong influence on the location of communications', and that they are in fact '... permissive or prohibitive, ... lines of communication will not be built unless there is some economic demand for them ...'.⁽⁵⁾ He then restated the basic qualification that '... lines of communication ... invariably reflect in their shape, arrangement and pattern, the purpose for which they were made'.⁽⁶⁾

Although he introduced an 'evolutionary factor'⁽⁷⁾ the overall implication would appear to be that physical influences play a far more significant role in determining alignment than Wellington et al had been prepared to concede. Appleton accepted that economic factors were an influence of importance but felt that the extent of this influence should be reduced. Perhaps the fundamental importance of Appleton's work was the recognition that there are a multiplicity of factors that can influence

(1) *ibid.* p.17

(2) *ibid.* p.21

(3) *ibid.* p.32

(4) *ibid.* pp.52-111

(5) *ibid.* p.112

(6) *ibid.* p.112

(7) *ibid.* Chap.6 pp.137-162

alignment. His ideas were further refined in a paper of 1965⁽¹⁾ which incorporated work by Dorschel, Meinig, and Vance that had appeared during the first half of the decade. To understand Appleton's revised approach some reference to this work is necessary.

Dorschel argued that there was a general relationship between a railway and the total environment, the linienfuhrung which could be divided into a Gross-linienfuhrung, this being the general alignment in relation to fixed topographical features and economic focii.⁽²⁾ He suggested that the relative significance of these factors was determined, to a certain extent, by the function of the railway itself. Secondly there was a Kleinlinien-fuhrung, this being the exact alignment in relation to the minor features of relief. Although Dorschel's ideas were limited to essentially physical constraints, stemming largely from the fact that the study was of railways of the Harz Mountains, he conceded that the entire environment influenced, both at a large and small scale, the morphology of a line of railway.

Whilst Dorschel provided neat classifications for the factors that influenced alignment his study threw little light on the identification and relative importance of each separate factor. His suggestion that it was the entire environment that influenced the routeway is axiomatic. The problem which demanded analysis was the exact content of the environment.

Vance argued that it was terrain domination, (i.e. physical influences) which was of prime importance and suggested that it was necessary for 'human' influences to be 'excluded' from studies of transportation.⁽³⁾

(1) J.H. Appleton: 'A Morphological Approach to the Geography of Transport': University of Hull Occasional Paper(1965)

(2) W. Dorschel: 'Über den Einfluss der Oberflächengestaltung auf die Linienfuhrung der Eisenbahnstrecke Wernigrode - Brocken': Geographische Berichte: 22 Heft 1 (1962) 48-68

(3) J.E. Vance: 'The Oregon Trail and Union Pacific Railroad: A contrast in purpose': AAAG Vol.51 (1961) pp.357-379

He further stated ' . . . of greater import are the exactions of geography in the provision and cost of transportation'.⁽¹⁾ This point of view was strongly challenged by Meinig whose study of the evolution of the Columbia Railnet demonstrated the significance of human influences in determining the alignment of a railway. He argued that his study had revealed

. . . the extent to which there were alternative routes toward any general objective. The necessarily intimate relationship of railroad lines with terrain variations makes it insidiously easy to infer that the particular route chosen was almost inevitable. Nothing is more devastating to this kind of correlative reasoning than to see a map of the possible routes actually considered by those making the decisions⁽²⁾

Whilst arguing that allowances should therefore be made for 'human influences' he offered a strong warning

This is not to say that one must penetrate to the ultimate reasons for each decision for, taken literally, such a path is likely to leave one stranded in the thickets of the decision making process . . . it does mean that, at the minimum, one must reconstruct as carefully as possible the geographical context of each decision, that constellation of situations, objectives and possibilities with which the 'decision makers' were faced. In short if we are to understand their results we must understand their geographical visions . . .⁽³⁾

The major contribution of Meinig's paper was the complete refutation

(1) *ibid.* p.374

(2) D.W. Meinig: 'A Comparative Historical Geography of Two Railnets: Columbia Basin and South Australia'. *AAAG* vol.52 (1962) pp.394-413, p.412

(3) *ibid.* p.412

of Vance's plea, that the human context should be ignored, and its modification by a doctrine that inferred locational studies would prove totally inadequate without recognition of the importance of the 'human' influences.

Appleton's paper of 1965 developed the themes propounded in his earlier work and also recognised the significance of Dorschel's and Meinig's papers. Although his argument was essentially a plea for a return to a morphological approach to the study of communications geography,⁽¹⁾ he refined his ideas in discussing the factors that influenced alignment.

Appleton argued that any alignment must be considered in an 'environmental context' which could be broken down into its constituent parts, for example a physical context, an economic context, and an historical context.⁽²⁾ His explanation of the various facets of a 'physical context' conformed closely to his ideas of 1962, with the small addition of a climatic factor.⁽³⁾ He argued that the 'economic context' was an influence at a large scale and had little impact on the detailed alignment.⁽⁴⁾

He then introduced what might be termed an 'human context' initially discussing the impact of political boundaries, conceding that their influence on alignment was at an extremely large scale.⁽⁵⁾ He suggested that there was an 'historical context' which could include for example, changes in technology or changes in the perception of the environment itself which were of obvious importance in determining alignment.⁽⁶⁾ He concluded '... in examining any one transport system, however, to obtain a balanced view one must consider all the facets of the environment which

(1) Generated to a large degree by the appearance of Kansky's work in Canada - see below p. 23

(2) J.H. Appleton: (1965) op.cit. p.14

(3) ibid. pp.17-19

(4) ibid. p.19

(5) ibid. pp.22-23

(6) ibid. pp.26-30

are relevant'.⁽¹⁾ The paper presented a more balanced assessment of the factors that determine alignment and significantly, in the light of Meinig's work, began to infer that the 'human context' was of far greater importance than had been conceded in the past.

Appleton's work was complemented by J.H. Farrington in his 'Morphological Studies of English Canals'.⁽²⁾ Farrington's stated aim was '... to examine the relationships which exist between these routes and their 'environment', comprising such factors as are of relevance in their influence on the routes.'⁽³⁾ He then listed those factors that he felt exerted an influence on alignment '... they include factors which operated during the promotion and construction of the canals; these may be loosely categorised as economic, engineering, hydrological, topographical and financial and less tangible influences such as inter company rivalry and cooperation, opposition from vested interests, and the impact of personalities'.⁽⁴⁾ Farrington then analysed the morphology of eleven of the trunk canals of England, firstly discussing the general economic influences from an historical viewpoint and then making a quantitative assessment of the relationship of the canal alignment and the physical topography. He concluded that '... economic factors determined the broad route of the canal - the termini and the important industrial or agricultural areas to be served between their termini. Physiographic factors, acting through engineering ability, moulded the route into a practicable line with a specific

(1) *ibid.* p.30

(2) J.H. Farrington: 'Morphological Studies of English Canals':
(Hull Ph.D. thesis 1969)

(3) *ibid.* p.1

(4) *ibid.* p.2

morphology. The degree to which the route was deviated by these factors depended on the cost of overcoming physical obstacles, and on the engineering ability to do so.⁽¹⁾

He then suggested that 'the effect of vested interests was to produce minor alterations in the physiographically and economically optimum route'.⁽²⁾

He also created a hypothetical model of route location of a canal which consisted of nine separate stages,⁽³⁾ suggesting that the second and third were concerned with the general economic alignment, the fourth and fifth the more detailed alignment, with the sixth stage being the accommodation of rival and complementary navigation interests. There was a seventh stage, the 'accommodation of landowners, and millowners, causing only minor deviations'.⁽⁴⁾ The implication was that the 'human context' was relatively insignificant and that it was economic influences and a 'theoretical desire line' that was of prime, general importance with the physiographic influences modifying this economic desire line to fit the topography. The rather loose category of 'vested interests' was recognised as being of significance but relegated to a very minor role. Farrington argued in a similar fashion in his study of the alignment of the Leeds and Liverpool Canal.⁽⁵⁾ He accepted that there were a variety of factors that influenced alignment and felt these to be '... the topography of the country to be traversed, the availability of water supplies, potential traffic flows and the opposition of vested interests

(1) *ibid.* pp.427-428

(2) *ibid.* p.428

(3) *ibid.* pp.426-427

(4) *ibid.* p.428

(5) J.H. Farrington: 'The Leeds and Liverpool Canal: a study in route selection': Transport History: vol.3 (1970): pp.52-79

... routes reflected to a large extent the locations of new or developing industrial areas'.⁽¹⁾

In his paper of 1972 Farrington pursued a rather different approach, moving away somewhat from empirical analysis, toward quantitative measurement.⁽²⁾ Once again he enumerated those factors that he felt influenced alignment, these being '... economic, engineering, hydrological, and topographic. Also included are less tangible influences such as inter-company rivalry and cooperation, opposition from vested interests and the impact of personalities'.⁽³⁾ It might be argued that the increasingly sophisticated appreciation of the 'human context' was a flickering recognition of its importance despite the fact that his conclusion stated that economic factors influenced the broad route, physiographic factors '... moulded the route into a practicable line with a specific morphology', and 'the effect of vested interests was usually to produce only minor alterations in the optimum compromise physiographic/economic line ...'.⁽⁴⁾

The significance of Farrington's work in morphological studies of routeway alignment cannot be underestimated. The delineation and evaluation of the relevant factors is of value and the formulation of quantitative techniques to measure degrees of variance is a great advance. His conclusions are of crucial importance in any evaluation of the relative significance of the various factors. The increasing awareness of the 'human context' is noted, despite the fact that little, if any, attempt was made to assess its impact upon canal alignment.

(1) *ibid.* p.52

(2) J.H. Farrington: 'Morphological Studies of English Canals':
University of Hull Occasional Paper in Geography no.20:(1972)

(3) *ibid.* p.ix

(4) *ibid.* p.63

The bulk of the 'empirical' work has evolved from a geographical viewpoint. However J. Simmons, an economic historian, has also created a hypothetical model for the study of railway alignment, fiercely empirical in that it is based firmly upon his wide-ranging studies of the history of British railways. He suggested that there '... may be said to be ... two sets of factors: historical and physical'⁽¹⁾ and argued that the origin of any railway route was to be found with the decision of the promoters that a line should be built from A to B and that having found sufficient capital '... it became necessary to settle the best route for the line to follow; and that was determined in the first place by the physical configuration of the land it had to cross'.⁽²⁾ He conceded that there were many other factors '... the attitude of landowners, for example, whose property the line would cross; the desirability of making detours to serve other towns en route'.⁽³⁾ He argued that the line could be altered during the parliamentary process and also after having gained authorisation in response to engineering difficulties.

... A piece of railway ... is therefore the product of a long series of decisions reached on many different grounds at different times ... not merely the physical, geographical factors ... they influenced but never could alone determine the decisions taken; nor yet the historical forces by themselves, for the railway had always to be laid out and operated on the ground, and that necessarily produced problems of its own.⁽⁴⁾ Simmons concluded '... the task that confronted the engineers was to lay out the best line possible, taking all the artificial, man-made factors

(1) J. Simmons: The Railways of Britain: (1961) p.52

(2) *ibid.* p.52

(3) *ibid.* pp.52-53

(4) *ibid.* p.53

into account'.⁽¹⁾

Although the analysis may be regarded as no more than an introduction to the problems of alignment the recognition of the complexity of factors and, more especially, the acceptance of the importance of the 'human context' is of great significance.

The 1960s and 1970s have seen a fundamental revision in the approach to the study of geographical phenomena. The study of the geography of communications, now more usually termed network analysis, has advanced dramatically and, as a spin-off from this, there has been a revival of interest in the theoretical approach to the explanation of factors determining the location of the single route. One of the earliest practitioners of the craft of network analysis was Kansky, a North American geographer, whose research paper of 1963⁽²⁾ was basically concerned with the structure of networks rather than an explanation of their constituent parts and, despite the formulation of an equation for 'circuitry' i.e. deviation away from an optimum route within a network,⁽³⁾ its main importance lay in the strong impetus it gave to network theory. Haggett capitalised upon this work and presented a brief synthesis of thought pertaining to network analysis in his 'Locational Analysis in Human Geography' some two years later.⁽⁴⁾ He suggested that 'route theory is one of the least developed parts of location theory' and immediately confirmed this by resorting to Wellington's ideas.⁽⁵⁾

Haggett felt that there were 'positive' deviations (as described by

(1) *ibid.* p.56

(2) K.J. Kansky 'The Structure of Transportation Networks': Department of Geography: Research Paper no.84: University of Chicago: (1963)

(3) *ibid.* p.31

(4) P. Haggett (1965) *op.cit.* pp.61-5

(5) *ibid.* p.61

Wellington) i.e. those movements away from a straight line constructed in order to capture increased revenue, and 'negative' deviations, i.e. those movements away from a straight line which were designed to avoid physical barriers or minimise the distance travelled through an area of high cost.⁽¹⁾ The latter idea was based upon a concept developed by A. Losch⁽²⁾ who had utilised the Laws of Refraction of Light, which therefore allowed the use of mathematical formulae in the explanation of large-scale deviations away from a straight line. Haggett did concede that '... empirical studies of individual routes ... show that in no case was the location ever as simple as Losch's geometry suggests'.⁽³⁾

Haggett's ideas were further developed during the latter half of the 1960s and in his 'Network Models in Geography'⁽⁴⁾ he argued, rather curiously, that '... the simplest component of a geographical network, the single line or path, would appear to pose few problems or provide much scope for worthwhile analysis'.⁽⁵⁾ This was either justifying the complete absence of viable theory at this level or attempting to argue that the only worthwhile approach was at the second stage, the network level. Even more curiously he then conceded '... both the location and the form of the single route are surprisingly difficult to explain'⁽⁶⁾ and concluded that there was still no rule for the location of the single route and deviations away from a desire line.⁽⁷⁾

(1) *ibid.* pp.62-64

(2) A. Losch: The Economics of Location (1954) p.184

(3) P. Haggett: (1965) *op.cit.* p.65

(4) P. Haggett: Network Models in Geography: in Integrated Models in Geography: (1967): pp.609-668

(5) *ibid.* p.609

(6) *ibid.* pp.610-611

(7) *ibid.* p.614: see also W.L. Garrison and D.F. Marble: The Structure of Transport Networks: (1962): p.65

In his 'Network Analysis in Geography' he introduced the concept of the 'geodesic path'.⁽¹⁾ It was argued that empirical studies show that in the majority of cases deviations from a straight line do occur and that 'if we are to treat such indirect paths as - in aggregate - rational, then we must assume that they represent some form of geodesic, or at least effort path'.⁽²⁾ The authors further suggested that they had discovered 'no difficulty' in providing explanations for the devious routes followed although they did accept that there were 'intricacies' in the problem.⁽³⁾

Losch's ideas of Refraction were extended by a Canadian Geographer, Werner who created a model that was essentially '... a method of identification of the transportation route that minimises total cost when the region containing the two terminal points is partitioned into any number of polygonal subregions that are homogeneous in those factors that determine cost'.⁽⁴⁾ and the whole model was based upon this cost factor. Despite this the author offered no reasons or methods of ascertaining why costs should vary and, whilst accepting that costs do differ according to the mode of transportation, he argued that the value of the model was its independence of the mode itself.⁽⁵⁾ In fact he went so far as to argue that relief '... does not sufficiently influence the total costs so that it can be disregarded'.⁽⁶⁾ and, in arguing that various non-economic considerations could be an influence, for example political boundaries or

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- (1) R.J. Chorley and P. Haggett: 'Network Analysis in Geography': (1969) pp.216-217
- (2) *ibid.* p.216
- (3) *ibid.* p.217
- (4) C. Werner: 'Laws of Refraction in Transportation Geography', Its Multivariate Extension': Canadian Geographer: vol.12 (1968) pp.28-40, p.28
- (5) *ibid.* p.40
- (6) *ibid.* p.39

land which is unavailable, suggested that such restricted areas should be awarded prohibitively high construction costs.⁽¹⁾

The model would appear to lack credibility in that it ignored relief and could only suggest purely arbitrary costs for the 'human' context. Werner argued that the estimates prepared for various alternative routes were crucial; it might be argued that to apply this concept to the construction of English railways during the nineteenth century would lead to great difficulties in that it was notorious for many engineering estimates to be inaccurate. The model presupposed that minimum cost of construction was the dominant factor in determining alignment; this apparently ignored the conflict discussed by Wellington, that of least cost versus maximum traffic generation.

A similar theory of even less value was propounded by Cole and King in 1968.⁽²⁾ The authors suggested that railway alignment could usefully be studied through the medium of game theory, the basic concept being that an area of hexagons, each hexagon having a certain value, should represent a region, in this instance the Derbyshire Peak District, and that the aim was to join two towns by the smallest value of hexagons, i.e. a geodesic path. This game is open to many criticisms, perhaps the main one being the completely arbitrary weighting of each hexagon.⁽³⁾

Some interesting work has emanated from the study of 'route factors' in the planning of the alignment of roads. Timbers postulated some modes of measuring the variance away from a straight line in terms of pure cost:- $\text{Cost} = \text{Direct Distance} \times \text{Cost per mile driven} \times \text{Route Factor}$ where the route factor was '... the ratio of the road distance to the

(1) *ibid.* p.40

(2) J.P. Cole and C.A.M. King: Quantitative Geography: (1968) p.518

(3) Allied to this their history is completely incorrect: see below p. 178

direct distance'.⁽¹⁾ However the work was essentially concerned with the refinement of techniques rather than applying it to specific alignments or offering reasons for deviations away from the straight line.⁽²⁾

The 1970s have seen the advent of what might be called 'review' works in the field of geography. These have attempted to synthesise the dramatic advances made during the 1960s and offer a coherent and comprehensive appraisal of current thought. In the context of route theory Morrill argued that deviations away from a straight line were primarily linked to costs and once again leaned heavily upon Wellington's ideas.⁽³⁾ Abler, Adams and Gould likewise made use of Wellington's ideas⁽⁴⁾ but both volumes were far more concerned with analysis of the second stage of the network, the structure and pattern of the network itself, rather than the paths of the single routes. By 1972 Haggett had decided that Wellington's ideas '... continue to represent a clear statement of the spatial compromise that route location entails'⁽⁵⁾ and once again used these ideas and those of Losch in his explanation of alignment.

Lloyd and Dicken offered the clearest analysis of the fundamental problems to be faced in any attempt to create a theory which explained the location of the single route.⁽⁶⁾ They accepted that there were two

- (1) J.A. Timbers: Route Factors in Road Networks: Traffic Engineering and Control: vol.9 (1967) p.392
- (2) Blunden developed this work and also discussed the route factor but added little to the original idea: J. Blunden: The Land Use/Transport System: (1972) pp.146-147
- (3) R.L. Morrill: The Spatial Organisation of Society (1970)
- (4) R. Abler, J.S. Adams, and P. Gould: Spatial Organisation: The Geographical View of the World (1971)
- (5) P. Haggett: Geography: A Modern Synthesis (1972) p.343
- (6) P.E. Lloyd and P. Dicken: Location in Space: A theoretical approach to Economic Geography (1972) pp.73-78

basic stages in the appraisal of the pattern of a network; an explanation of the paths of the routes themselves and then subsequent to this an analysis of the pattern of the network. In discussing the alignment of a routeway they conceded that the impact of physical influences '... is rather less than traditional geography would suggest'⁽¹⁾ and accepted that the 'natural routeway' is merely a means not an end in itself and thus the fundamental influence would be demand and the economic response. Because of the economic orientation of their argument costs become a prime factor and relief was recognised as an important determinant of costs. The authors concluded that through the influence and interaction of both physical and human factors, routeway alignment and networks 'have a complex spatial form'.⁽²⁾

Despite the fact that geography has advanced radically during the 1960s, scarcely any progress has been made in the realm of routeway theory. Authors are still dependent upon the flawed work of Wellington and the rather clumsy approach of Losch. It is highly significant that Lloyd and Dicken have conceded that the complexities in the evaluation of the factors that determine alignment are far from being resolved.

(1) *ibid.* p.73

(2) *ibid.* p.78

CHAPTER THREE

There has been no major work produced that explains the spatial evolution of the English railway system and it is therefore proposed to discuss the growth of the railway network of England in order to provide a background for the main argument.

Although there is no explanation of the growth of the national network, various authors have discussed the evolution of regional systems and a methodology has come into existence.

J.H. Appleton has expressly attempted to evaluate the merits and deficiencies of four disparate methodologies in a study of the railway geography of Yorkshire.⁽¹⁾ Prior to this O'Dell⁽²⁾ and Fisher⁽³⁾ had attempted to explain the growth of the Scottish and Irish railway networks respectively, and had both utilised a specific mode of analysis, that of explanation of maps of the system as it was at a particular point in time. Fisher argued that '... the maps ... provide the clearest method of analysing growth of the Irish railway network'⁽⁴⁾ and had used maps at irregular intervals at what he regarded were the termination of significant periods of growth (1837, 1852, 1863, 1883 and 1920). O'Dell had merely used maps arranged at regular ten yearly intervals.

J.H. Appleton complemented Fisher's approach in that he made use of three maps, these being of the Yorkshire system in 1843, 1851 and 1921. He argued for the validity of this approach '... as they represent the culmination of an important phase in the growth of the

(1) J.H. Appleton: (1956) op.cit.

(2) A.C. O'Dell: (1939) loc.cit.

(3) C.A. Fisher: (1941) loc.cit.

(4) ibid. p.266

network, [however] the inequality of the intervals ... does not mean that the changes brought about in the latter period are necessarily greater than those brought about in the former'.⁽¹⁾

This mode of explanation was further refined with Patmore's analysis of the railway networks of Merseyside⁽²⁾ and South East Lancashire.⁽³⁾ He implemented the use of histograms, which represented the extent of mileage opened each year, and this allowed a heightened precision in the identification of specific phases of growth. He argued '... when the dates of changes in the network are plotted on a line scale periods of activity are seen to alternate with periods of quiescence ... [and thus] dates were chosen at the close of each main period of activity ...'.⁽⁴⁾ Patmore's approach suggested that in any analysis of the growth of the railway system of a small area, the phases were bound to vary according to local influences. Thus for Merseyside the time series was 1845, 1860, 1875, 1890 and 1912; for south-east Lancashire it was 1842, 1850, 1870, 1885 and 1915: broadly similar yet having significant variations.

From an analysis of the graph of mileage of railway opened in the U.K. (Fig.1) it would appear that there were four distinct phases of growth.⁽⁵⁾ The initial phase from 1820 to 1840 and the second being

(1) J.H. Appleton: (1956) op.cit. p.120

(2) J.A. Patmore: 'The Railway Network of Merseyside': Inst. of British Geographers; Transactions and Papers no.29 (1961) 231-244

(3) J.A. Patmore: 'The Railway Network of the Manchester Conurbation': I.B.G.; Trans and Papers: no.34 (1964) pp.159-173

(4) ibid: p.162

(5) The statistics for the construction of the graph have been drawn from B.S. Mitchell and P. Deane: 'Abstract of British Historical Statistics': (1962) pp.225-227, which unfortunately refers to Great Britain, and also from a graph published in 'The Industrialisation Process': Open University: (1971) p.21.

Railway Mileage brought into Service
(average mileage per 5 years)

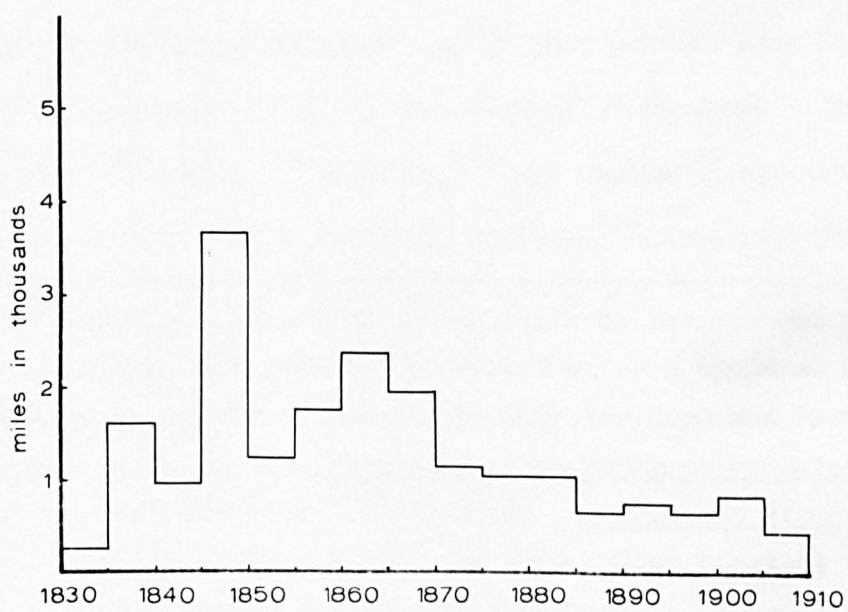


Fig. 1

1840 and 1850, these being two complete cycles. Between 1850 and 1870 there would appear to have been a steady period of quite rapid construction culminating in the years 1868 - 1870. This was succeeded by a period of steady expansion at a slower pace which lasted until the conclusion of the First War, when the maximum extent of route mileage was attained. Maps have therefore been drawn of the English railway system as it was in 1840, 1850, 1872 and 1922. (Figs. 2, 3, 4 and 5)⁽¹⁾

Although there have been few attempts to explain the growth of the national system in geographical terms,⁽²⁾ many authors have discussed either the 'chrono-historical' or the 'economic' aspects. Jackman,⁽³⁾ Hamilton-Ellis,⁽⁴⁾ Lewin,⁽⁵⁾ Simmons,⁽⁶⁾ and Course⁽⁷⁾ are prime practitioners of the former approach, Pollins,⁽⁸⁾ Dyos and Aldcroft,⁽⁹⁾

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- (1) Suitable maps to illustrate these divisions are few and far between. More often than not authors use maps that have appeared in earlier works and use has been made of the maps for 1840 and 1850 that were published in W. Smith: An Economic Geography of Britain: (1949) p.160 and for 1872 from J.H. Clapham: An Economic History of Modern Britain: (1930) vol.2p.184 (this being based on the map drawn for the Select Committee of that year). A suitable map for the ultimate mileage was less easy to discover and use has been made of a map of British railways that was published in the Times Atlas of 1922 (with due references to J.A. Patmore: 'The contraction of the network of Railway Passenger Services in England and Wales 1836 - 1962': I.B.G. Trans and Papers no.38, (1968) pp.105-117.
- (2) H.C. Darby (ed.) A New Historical Geography of England (1973) pp.509-14, 571-6, 646-51.
- (3) W.T. Jackman: 'The Development of Transportation in Modern England': (1916)
- (4) C.H. Ellis: 'British Railway History': 2 vols. (1954-9)
- (5) H.G. Lewin: 'Early British Railways': (1925)
- (6) J. Simmons: (1961) op.cit.
- (7) E. Course: The Railways of Southern England: The Main Lines (1973)
- (8) H. Pollins: Britain's Railways: An Industrial History: (1971)
- (9) H.J. Dyos and D. Aldcroft: British Transport: An Economic Survey from the Seventeenth Century to the twentieth (1969).

Savage,⁽¹⁾ Sherrington,⁽²⁾ and Pratt⁽³⁾ of the latter whilst Parris⁽⁴⁾ and Cleveland-Stevens⁽⁵⁾ have analysed the political ramifications of the growth of the system. These varying approaches all have their limitations and the brief analysis that follows is an amalgam of all in an attempt to provide a coherent framework.

The earliest English Railways had evolved in the mining areas and were usually, if not always, built to connect a mine or quarry with navigable water. With the general expansion of the canal system in the late eighteenth century a number of tramroads were built to link quarries et al with canal basins. By far the greatest mileage of mineral railways was to be found in the north-east of England, on Tyneside and in County Durham, and it was here that a pool of considerable expertise evolved and many aspects of the growing technology were tried and implemented. Perhaps the ultimate realisation of this technology was the construction of the Stockton and Darlington Railway, and its opening in 1825 marked the culmination of what might be called the 'tramroad phase'.⁽⁶⁾

The commencement of the succeeding phase, the Railway Age itself, is generally accepted to have occurred with the opening of the Liverpool and Manchester Railway in 1830.⁽⁷⁾ This placed the concept of the

(1) C.I. Savage: An Economic History of Transport (1961)

(2) C.E.R. Sherrington: The Economics of Rail Transport in Great Britain (1928)

(3) E.A. Pratt: A History of Inland Transport and Communications in England (1912)

(4) H. Parris: 'Government and the Railways in Nineteenth Century Britain (1965)

(5) E.C. Cleveland-Stevens: English Railways: Their Development and their relation to the state (1915)

(6) H. Pollins: op.cit. p.21

(7) ibid. p.17, M. Robbins: 'The Railway Age' (1962) p.21

railway on completely new criteria. Robbins has argued that the modern railway may be regarded as a combination of

. . . (a) specialized track; (b) accommodation of public traffic; (c) conveyance of passengers; . . . (d) mechanical traction . . . [and] (e) some measure of public control.⁽¹⁾

In geographical terms the line was of great importance in that traffic was to be carried in both directions rather than just one, as had been the usual practice in the mining areas. The significance of the Stockton and Darlington Railway has perhaps been overemphasised as a direct result of the misleading nature of its title. As J.H. Appleton has pointed out, the line was in fact from the South Durham coalfield to the navigable water of the Tees and not to link the two towns at all.⁽²⁾

As a result of the conspicuous success of the opening of the Liverpool and Manchester Railway in 1830 and the realisation of ' . . . the feasibility of a profitable railway . . . outside the mining areas',⁽³⁾ provincial investors began to seriously consider the idea of a rail link between South Lancashire and London, via Birmingham. The early 1820s had seen a number of proposals for such a trunk line but the various schemes had faded with the collapse of the investment boom in the latter months of 1825.⁽⁴⁾ Despite the considerable political turmoil of the early 1830s the promoters decided to submit a bill for the London and Birmingham Railway to Parliament for the session of 1832, having failed by a matter of weeks to have plans prepared for the preceding session.⁽⁵⁾

(1) M. Robbins (1962) op.cit. p.24

(2) J.H. Appleton: (1956) op.cit. p.24

(3) E.J. Hobsbawm: 'Industry and Empire': (Penguin ed. 1969) p.112

(4) S.G. Checkland: The Rise of Industrial Society in England 1815 - 1885: (1964) p.14

(5) L.T.C. Rolt: George and Robert Stephenson: The Railway Revolution (1960) p.215

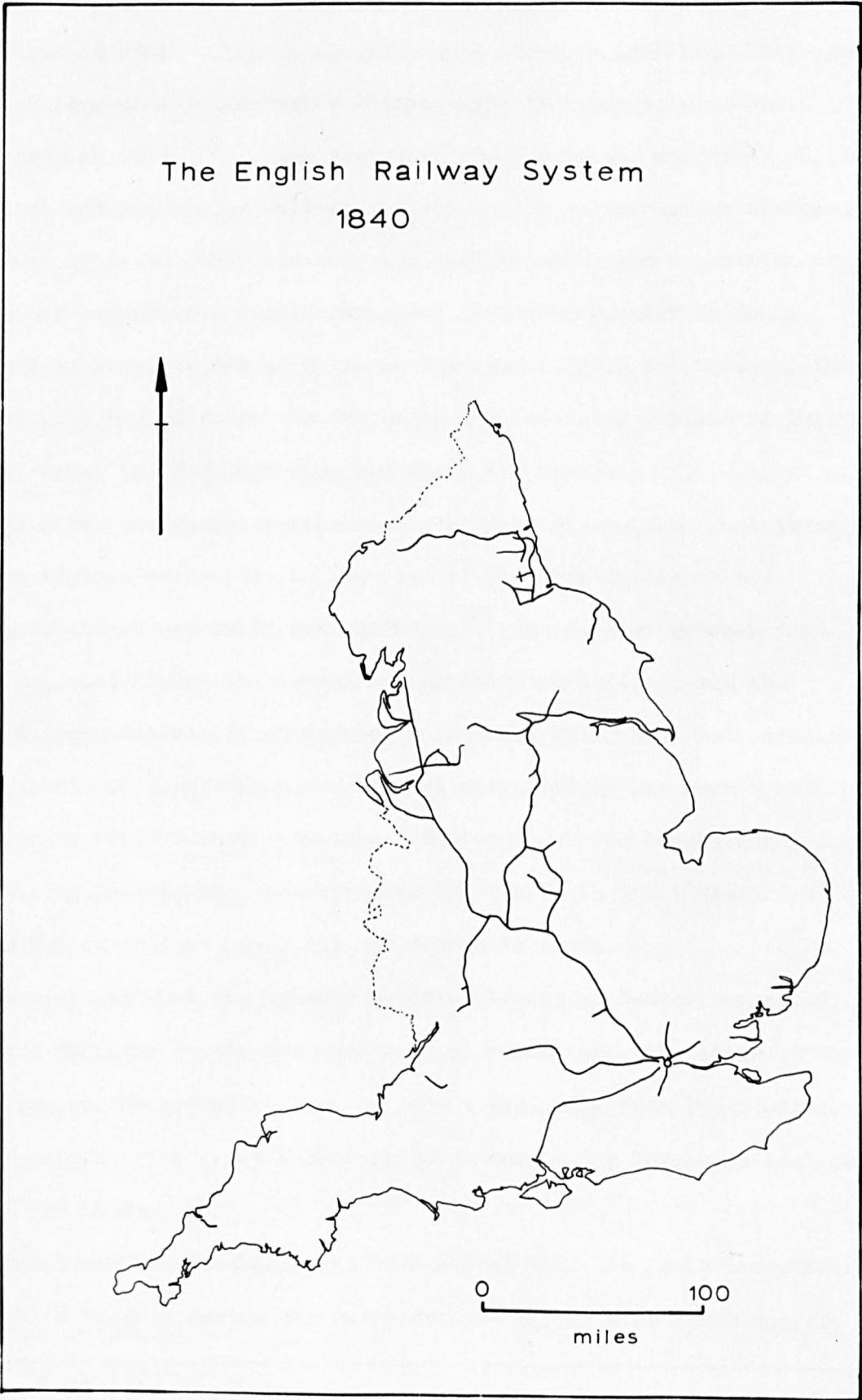


Fig. 2

The bill was rejected in 1832 but, having been slightly modified, was authorised in 1833. The Grand Junction Railway, a line from Birmingham to the Liverpool and Manchester Railway near Warrington, was also authorised in 1833.⁽¹⁾ Thus the seven years from the enactment of the Liverpool and Manchester Railway in 1826 to the authorisation of these two trunk lines in 1833, had seen the railway move from a position of mere local competitive significance, of immediate benefit to South Lancashire alone, to one of national importance, with the union of the capital city and docks to the two major manufacturing regions of England at that time, the West Midlands and South Lancashire.

With the successful parliamentary passage of the two trunk lines and the implied acceptance on the part of the legislature of the principle of and necessity for railways,⁽²⁾ two further schemes were promoted, these being the London and Southampton Railway, and the Great Western Railway (from Bristol to London) which had their origins in the ports of Southampton and Bristol respectively and were specifically designed to improve communications with London. The London and Southampton Railway was authorised in 1834, and the Great Western Railway, having failed in that year, was sanctioned in 1835.

A basic network was quickly evolving being, as Beaver suggested,⁽³⁾ oriented radially on the dominant city of London and this stage of the evolution of the network - i.e. of long radial arms from the provinces to the capital city - was heavily intensified during the investment boom of the mid 1830s.

Checkland and Hobsbawm have both argued that the rapid industrialisation of Britain during the early decades of the nineteenth century

(1) see below p. 110

(2) see below p. 122

(3) S.H. Beaver: (1937) loc.cit.

created capital far faster than it could, or had reason to be, invested.⁽¹⁾ Consequently, the railways were felt to be suitable for considerable investment of this surplus capital solely on the basis of the financial success of the Liverpool and Manchester Railway, the implicit Parliamentary acceptance of the need for major railway trunk routes and the return of relative political stability after the Reform crisis.⁽²⁾ Clapham rather scathingly argued that '... hope and the Liverpool and Manchester precedent were still the main justifications' for railway investment.⁽³⁾

The investment boom collapsed in 1837 as a result of a financial crisis⁽⁴⁾ and although 1836 and 1837 had seen the authorisation of a considerable mileage of railway, the final years of the decade saw the virtual cessation of all promotion, although a number of Acts were passed authorising the creation of further capital. There was a time lag between the authorisation of a line of railway and its eventual completion; for example the London and Birmingham Railway only came into service in 1838, and the Great Western, authorised in 1835, was not completed until 1841. Therefore, despite the fact that promotion came to a halt in 1837, this first phase of growth cannot be said to have been concluded until the early years of the 1840s with the opening of those lines authorised during the previous decade.

The map of the system of 1840 (Fig.2) shows that during the 1830s a basic framework, oriented strongly around London in the south of the country but focused more on the ports and industrial areas in the north

(1) S.G. Checkland: op.cit. pp.14-15, E.J. Hobsbawm: op.cit. pp75, 112-113.

(2) S.G. Checkland: op.cit. pp.14-15, E.J. Hobsbawm: op.cit. pp.112-113, H.J. Dyos and D.Aldcroft: op.cit. pp.122-123.

(3) J.H. Clapham: op.cit. vol.1 The Early Railway Age, 1820-1850 (1926) p.388.

(4) ibid. pp.511-517.

Fig 2

The English Railway System
1850



Fig. 3

and midlands, had come into existence. The Pennines can be seen to have exerted a strong influence on the pattern of development causing the main lines to the north to bifurcate at Rugby and Hampton-in-Arden. The primary east-west link from Liverpool to Hull via Leeds was open although the secondary, more difficult, route from Manchester to Sheffield was yet to be completed. The contrast between the trellised pattern of the north and the strong radial pattern of the south is striking.

This national pattern was already becoming confused with the construction of 'cut-off' lines, for example those between Manchester and Crewe, and also between Swindon and Cheltenham. Peripheral links were also developing, for example that between Birmingham and Gloucester. Although these lines tended to be promoted on a relatively small scale, Appleton has argued that they were often planned quite carefully, one in relation to the other, to be of maximum effect in a national as well as a local context.⁽¹⁾ The alignment of the York and North Midland Railway is a prime example of this concept in its relationship with the North Midland Railway, which in turn was strongly influenced by the alignment of the Midland Counties Railway and the Birmingham and Derby Junction Railway. All four railway companies were authorised in the same year, 1836.

Where a proposed railway was free of any such need to connect with another, many alternative routes were often seriously considered. For example the country between London and Brighton spawned five separate companies and three dominant routes; (Fig.14); I.K. Brunel, the engineer to the G.W. Rly., had a choice of two radically different alignments between Bristol and London, and the Stephenson's debated the merits of a line between Birmingham and London which ran via Oxford or

(1) J.H. Appleton (1956): op.cit. p.30

Coventry. The tentative approach and restrictions on overgenerous capital expenditure is reflected in the number of short branches from these main lines to adjacent towns, for example those to Sheffield and Aylesbury. This feature perhaps reflects the national, rather than local objectives of the promoters.

Although the 1820s and 1830s saw the railway pass from a position of local to national significance, lines were still largely promoted in the provinces, with the Lancashire interest being strongly represented upon many boards. In terms of investment the railway had still to be accepted on a national scale. This recognition was to occur in the middle years of the 1840s.

The English economy had entered the worst industrial recession of the nineteenth century in the last years of the 1830s⁽¹⁾ and it was not until 1842 that conditions began to improve with an excellent harvest and a rapid fall in prices.⁽²⁾ Industrialists found that they had large surpluses of capital to invest but with government stocks offering unfavourable rates of interest and with the, then, small scale economy being unable to absorb such amounts, they felt that large scale investment in railway construction was an ideal solution to their difficulties. During the 1820s and 1830s considerable sums of money had been invested overseas, often at great loss. Consequently British capital

was ready for investment in reliable Britain. In fact it surged into railways for want of anything equally capital absorbing and turned a valuable innovation in transport into a major national programme of capital investment . . .

[However] much of it was rashly, stupidly, some of it

(1) E.J. Hobsbawm: op.cit. p.114

(2) J.H. Clapham: (1926) op.cit. vol.1 p.391

insanely invested.⁽¹⁾ But why at this time? Perhaps because those railways that had been authorised during the 1830s had been completed and were operating with conspicuous success. Although the East Anglian lines had failed in their overall objectives, by and large the idea was seen to work on a national scale. This view was complemented by the fact that the Government had not only acquiesced to the idea of railways but appeared to be actively encouraging their construction with its reports of 1840 and 1841 discussing the most efficient rail links from the capital to Scotland and Ireland.⁽²⁾ The impression of Parliamentary support was strengthened by relaxations of the legislative procedure relating to railways which occurred in the early years of the 1840s.⁽³⁾ Thus the alliance of considerable sums of idle capital, the apparent success of the concept, and government approval coincided to create the most frenetic period of railway promotion ever seen in England.⁽⁴⁾

The mania began in 1844 with the authorisation of 805 miles of new railway, an increase of one third over the mileage of line open at that time. In 1845 2,700 miles were authorised and in 1846 a further 4,538 miles. The amount fell in 1847 when 1,354 miles were approved and the spate of promotion lapsed considerably in the last years of the decade; 1848 saw just 371 miles authorised, 1849 sixteen miles and in 1850 a mere eight miles.⁽⁵⁾ In 1843 1,952 miles of line were open; by 1850 this

(1) E.J. Hobsbawm: op.cit. p.113

(2) J.H. Clapham (1926) op.cit. vol.1 p.390

(3) H. Pollins: (1971) op.cit. p.36

(4) F. Clifford: A History of Private Bill Legislation (1885) vol.1 pp.86-7.

(5) figures are drawn from B.S. Mitchell and P. Deane: op.cit. pp. 225-227, H. Pollins: (1971) op.cit. p.40, E. Cleveland-Stevens: op.cit. pp.24 25.

had increased to 6,621. Prior to 1843 nearly £84 millions of capital expenditure had been authorised; between 1844 and 1850 a further £276 millions were so approved.

Share prices reached their peak during the summer of 1845 and remained relatively high during all of 1846. In 1847 speculation came to a sudden halt with a run on the Bank of England which quickly retaliated by suspending the Bank Charter Act and thus severely curtailed the availability of loans.⁽¹⁾ The years succeeding 1847 saw the various railway companies attempting to complete the mileage authorised by Parliament. Many did not do so. Although in toto some 9,792 miles of railway were approved between 1844 and 1850, by 1853 the previous decade had seen an increase in mileage of only 4,853 miles, i.e. some 50% of that authorised.⁽²⁾

The geographical significance of this increase cannot be minimised, as a comparison of the maps of 1840 and 1850 (Fig.3) will illustrate. Strong expansion had occurred to the east of the London and North Western main line. The Great Northern Railway duplicated the main route to the north and, in so doing, had encouraged the construction of many intermediary links to the other radial arms in this area of England. East Anglia was better provided for as was Kent and Sussex. However that quadrant of country to the west of the London and South Western Railway main line and the London and North Western Railway main line had seen little successful development. Although the G.W.Rly. main line to the west had been extended from Exeter to Plymouth and the London and South Western now ran as far as Dorchester, fierce rivalry between the two companies had proved mutually destructive and thus it was to the north

(1) H. Pollins: (1971) op.cit. p.39

(2) E. Cleveland-Stevens: op.cit. pp.24-5

of the G.W.R. main line, with the extension of the Oxford branch toward Rugby and Wolverhampton, that the greatest development occurred. In the far north the Pennines, north of Leeds, saw little railway construction, as did Cumberland. Perhaps the most rapid expansion had occurred in Lancashire and the West Riding of Yorkshire, with the Huddersfield and Manchester Railway replacing the much less direct route of the Manchester and Leeds Railway of some ten years earlier.

Although some argued that the national network was now complete⁽¹⁾ there was obviously a need for further refinement in the expansion of the system. Various authors have suggested that the 1850s and the 1860s form a coherent unit in the evolution of the English railway network.⁽²⁾ Pollins has suggested that

some 8,000 miles were built between 1850 and 1870, part of this having been authorised in the mid 1840s. Improved trade in the early fifties led to a veritable boom in 1852 and 1853, and again in 1856 (the Crimean War intervening). After the financial crisis of 1857 the period of 1858-1865 was full of railway excitement, particularly in 1863-1865 and by 1870 some 15,000 miles were open in the United Kingdom.⁽³⁾

In fact in 1850 there were 6,621 miles of railway open; by 1871 this had increased to 13,388 miles, more than double the earlier figure.⁽⁴⁾ A comparison of the maps of the network for 1850 and 1872 (Fig.4) high-

(1) J.H. Clapham: (1926) op.cit. vol.1 p.392, M. Robbins: (1962) op.cit. p.33

(2) for example C.I. Savage: op.cit. p.60, H.J. Dyos and D. Aldcroft op.cit. p.140.

(3) H. Pollins: 'Aspects of Railway Accounting before 1868': in 'Railways in the Victorian Economy' ed. M.C. Reed (1969) p.141

(4) B.S. Mitchell and P. Deane: op.cit. pp.225-227.

lights the extent of this growth during these years. Many lines were authorised in predominantly agricultural areas, especially in the south and east of England.⁽¹⁾ Despite the fact that the histories of railway construction dwindle away quite remarkably after 1850⁽²⁾ some basic trends have been identified.

Savage believed that '... extensions to the railway system in this period [1850-1870] consisted of some additional trunk lines, together with many branch lines and short connecting links'.⁽³⁾ Dyos and Aldcroft were less definite; they felt that the years after 1850 saw a period of 'maturity' which implied '... filling the gaps, or more correctly perceiving the gaps that might be filled'.⁽⁴⁾ Clapham argued that the two decades saw the construction of '... a number of new trunk lines in England ... and a great number of branch lines, link lines and short competitive stretches everywhere ...'.⁽⁵⁾ and Robbins has suggested that 1850 - 1870 was the 'Age of the Interlopers ... the age when railways were carried to the fringes of Britain - the margins which had been left outside the pattern of 1850'.⁽⁶⁾

The years between 1850 and 1870 saw the continuous and quite rapid expansion of the English railway network. A great many of these new lines were local in character, however, and promoted on completely different criteria to those of the earlier decades. Clapham has argued

(1) H. Dyos and D. Aldcroft: op.cit. p.139, J. Simmons: (1961) op.cit. p.199.

(2) H. Pollins: 'Railway Contractors and the Finance of Railway Development in Britain' in M.C. Reed (1969) p.228

(3) C.I. Savage: op.cit. p.60

(4) H. Dyos and D. Aldcroft: op.cit. p.140

(5) J.H. Clapham: (1930) op.cit. vol.2: p.181

(6) M. Robbins: (1962) op.cit. p.40

The English Railway System
1872

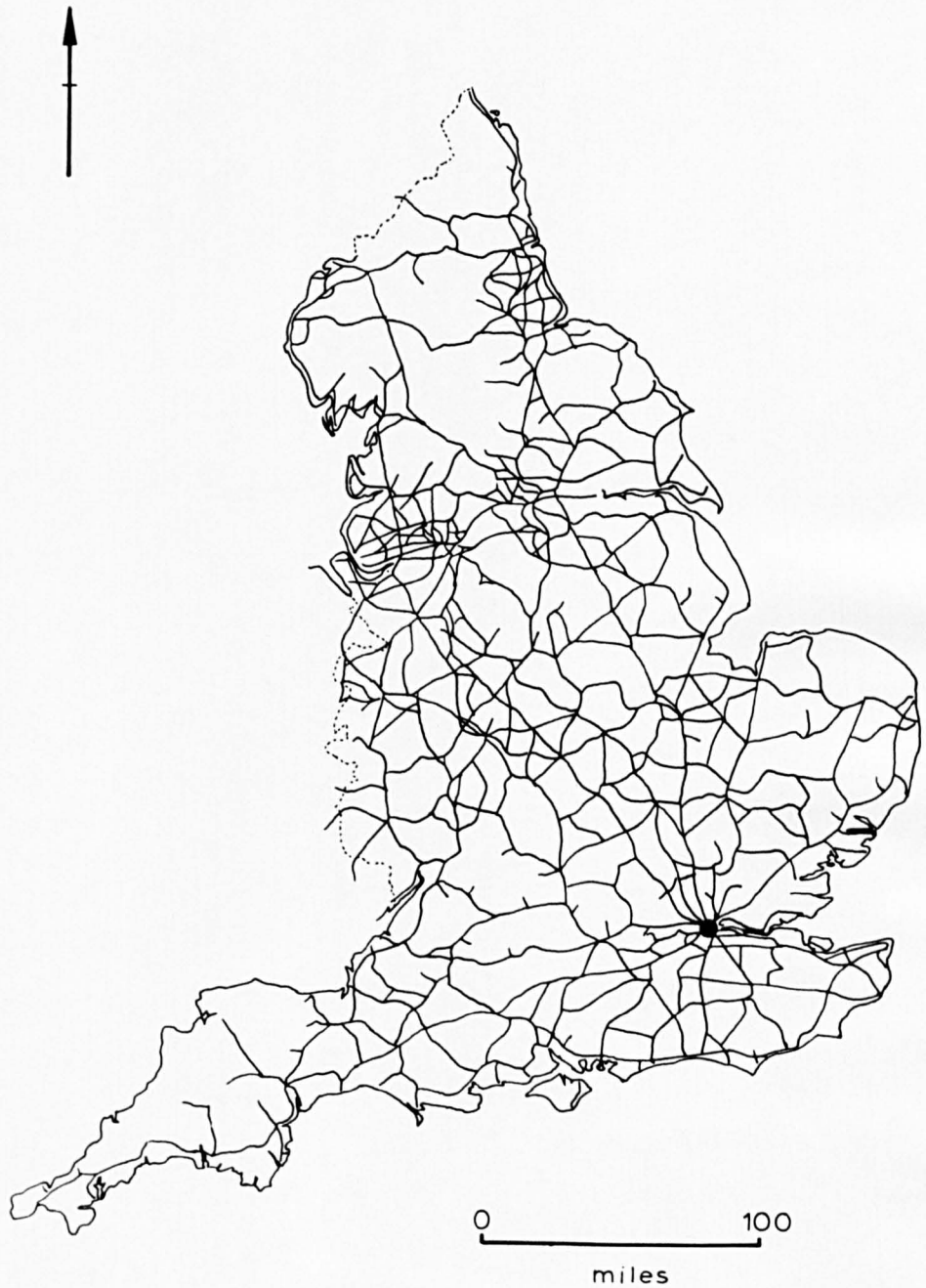


Fig. 4

that initially railways were promoted locally and in the provinces, and that London was rather wary of the idea. This attitude altered during the 1840s and saw the London Stock Exchange investing heavily in railways and dealing freely in railway company shares.⁽¹⁾ As has been argued this investment was rather negative in that it was seen to be more a useful solution to the problems of a capital glut rather than to encourage railway development per se. Considerable sums of money were invested blindly without any apparent reference to local conditions. The 1850s saw a strong change in emphasis and Pollins has suggested that

judging by the course of share prices and the comments of such observers as Herbert Spencer, railways were no longer the favourite child of the investors or the public . . . though an extensive mileage was built between 1850 and 1870, the period was one of financial difficulties for the railways.⁽²⁾

The sources of finance for railway construction are of obvious significance in any discussion of factors that determine alignment. Pollins has reviewed the various sources of capital available during this period in some detail and has argued that it was a considerable achievement to build so much mileage at a time of 'acute difficulty Broadly, for a generation after the mania, British railway companies, old or newly established, found it hard to raise money'.⁽³⁾ He felt that this was because of the low dividends of the 1850s, the unprofessional conduct of railway servants, the long wait between investment and the first dividend, and concluded that it was generally felt that ' . . . the most profitable routes had already been built'.⁽⁴⁾

(1) J.H. Clapham: (1930) op.cit. vol.2 p.357

(2) H. Pollins: in M.C. Reed op.cit. p.141

(3) H. Pollins in M.C. Reed op.cit. pp.214-15

(4) *ibid.* p.215

The basic implication was, therefore, that investment after 1850 occurred not for motives of pure profit but for other, less obvious reasons. This would tend to explain the increasing 'localness' of railway companies and offer some reason for the construction of 'strategic lines' built for competitive purposes or for improving existing routes. Pollins further suggested that attractive alternatives were becoming increasingly available for investors, a feeling confirmed by the L & N.W.R. chairman, Sir Richard Moon, in 1863.

You will find that capital is going out to India, and all over the world seeking for employment in railways . . . (in England) there are no proprietors willing to come forward to make a railway. They are made by contractors, engineers, and speculators who live on the fears of the companies.⁽¹⁾

Pollins therefore argued that capital tended to come from three main sources, (a) the old established companies ' . . . building to meet the demands of traffic or for self preservation' i.e. to prevent areas falling into the hands of competitors; (b) '(although) new lines might be promoted in the 'traditional' manner with local meetings at which subscriptions might be obtained, it became normal practice for new companies to try to get the support of a main line company';⁽²⁾ and finally (c) new companies associated with contractors i.e. those lines promoted by and financed heavily, if not totally, by contractors.⁽³⁾

Robbins complemented these ideas but introduced an important

(1) *ibid.* pp.215-16

(2) a classic example being that of the East Gloucestershire Railway receiving promises of support from the Midland Railway during 1862 - 1864 E.T. MacDermot: History of the Great Western Railway (1931) vol.2 pp.8-14

(3) H. Pollins in M.C. Reed *op.cit.* p.216

qualification. 'After 1850 the state of things was different. Apart from quite local schemes, . . . which were meant simply to link a town with the nearest main line and were locally promoted, there were two main sources of finance: the big railway company already in existence . . . and . . . the contractor . . . (who) was the chief source of finance for new railways in this period'.⁽¹⁾ The local line is therefore of great significance at this time, especially in the context of landed investment in such railways.

With the collapse of the promotional boom in May 1866, the subsequent years of the nineteenth century saw a steady, but unspectacular, growth of the railway network, with less and less mileage being opened in each decade. There seems to be a general consensus that by 1870 the system was all but complete. Robbins has argued that ' . . . by 1870 the railway map of Britain . . . showed not only in outline but also in its details most of the twentieth century system'⁽²⁾ and Perkin stated ' . . . apart from the London Tube and a few light railways in out of the way places there was little new railway building'.⁽³⁾ Cleveland-Stevens felt that ' . . . the English railway system in 1872 was in its main outlines little different from that of today [1915]'⁽⁴⁾ and implied that the construction of the last decades was largely inconsequential.

The statistics, however, show that in 1870 the route mileage open in England and Wales was some 11,043 and by 1911 it had reached 16,200 miles - an addition of 5,157 miles, one third of the route mileage ever built.⁽⁵⁾ The maps of 1872 and 1922 (Figs.4 and 5) illustrate how the system was

(1) M. Robbins: (1962) op.cit. pp.94-5

(2) ibid. p.40

(3) H. Perkin: Age of the Railway: (1970) p.280

(4) E. Cleveland-Stevens: op.cit. p.237

(5) ibid. p.237

completed and the peripheral areas, North Norfolk, North Cornwall all gained branch lines.

The lack of any study of the general expansion of the late Victorian network is keenly felt and consequently conclusions on the type of line built are necessarily vague. Clapham believed that '... the new mileage of 1870-1886 was almost all branch, link, or local'⁽¹⁾ and Cleveland-Stevens felt that the great companies 'activities since then [1870] have consisted chiefly in the construction of branches and in outlay on widenings and improvements of permanent way'.⁽²⁾ Ashworth has argued that despite the rapid expansion of the 1850s and 1860s there was still a great deal to do. The new generation that had been brought up with the railways felt no antipathy toward them.⁽³⁾ This point of view was complemented by Perkin who argued that the late nineteenth century saw the railways in a position of 'unchallenged supremacy in every major field of transport'⁽⁴⁾ and was regarded as a basic necessity for any neighbourhood. The years from 1870 to 1914 saw '... a great extension of developments already well begun ... [and] even for local traffic in both rural and urban areas, their position was stronger in the late nineteenth century than at any other time'.⁽⁵⁾ Ashworth concluded that the extensions took the form of short cuts, colliery, and suburban lines. Although there were few major trunk lines constructed, the Great Central main line to London being the most notorious example, many rural branch lines were authorised, this latter movement being epitomised by the Light Railway Act of 1896.

(1) J.H. Clapham: (1930) op.cit. vol.2 p.182

(2) E. Cleveland-Stevens: op.cit. p.237

(3) W. Ashworth: An Economic History of England 1870-1939 (1960) p.109

(4) H. Perkin: (1970) op.cit. pp.281-3

(5) W. Ashworth: op.cit. pp.109-110

By far the greatest expansion occurred in rural and suburban districts. A fine example of the former is the Golden Valley Railway of Herefordshire⁽¹⁾ but, unfortunately, apart from various studies of the more important cross-country lines of this period,⁽²⁾ little work has been produced which explains the major features of these late arrivals. Again with suburban lines there are few adequate studies. Despite this it would appear that the majority of these lines were often promoted independently and then sold or leased, where possible, to a larger company; failing this they usually sank into genteel penury.

The Light Railways Act of 1896 is of significance in its philosophy of attempting to bring the railway at low cost to rural areas. Sharpe had argued for such lines as early as 1857⁽³⁾ and Fox had suggested legislation in 1867 remarkably similar to that created some thirty years later.⁽⁴⁾ Austin pointed out that the aims of the Act were two fold: '... to simplify and cheapen the procedure for acquiring power to make light railways, and to confer upon the promoters of light railway schemes compulsory powers to take lands necessary for the scheme without recourse to Parliament'.⁽⁵⁾ This Act proved far superior to the previous attempts of 1864 and 1868 and an initial burst of 102 applications were studied in the four years immediately subsequent to the passage of the Act.⁽⁶⁾ The numbers dropped away in the first two years of the twentieth century and

(1) C.L. Mowatt: The Golden Valley Railway (1964)

(2) for example, C. Maggs: The Midland and South Western Junction Railway (1967), T.B. Sands: The Didcot, Newbury and Southampton Railway (1959)

(3) E. Sharpe: 'A letter on branch railways addressed to the Rt. Hon. Lord Stanley of Alderley, President of the Board of Trade: London: (1857)

(4) C.D. Fox: On the construction of future branch railways in the U.K.: (1867)

(5) E. Austin: The Light Railways Act and the Rules of the Board of Trade (1896) p.v

(6) J.S. Oxley: Light Railway Procedure: Reports and Precedents vol.1 (1901)

The English Railway System
1922



Fig. 5

Oxley suggested that '... the schemes for which there was a more pressing need were brought forward at once'.⁽¹⁾

The nineteenth century was an era of great change for the landed society of England. Although their numbers remained fairly constant, their position and power within society as a whole was considerably eroded and it is felt that their attitude towards railway construction cannot be fully understood without some appreciation of their numbers, their economic fortunes, and their decline in status and influence.

Thompson has argued

as the only solid point in a sea of conjecture, the New Domesday Book is indispensable to any discussion of the distribution of land in England, both as to the state of compilation and in the century which preceded and the half century which followed it, during which changes in landownership were not enough to render it obsolete.⁽²⁾

The New Domesday Book referred to was J. B. Haskins' book 'The Great Landowners of Great Britain and Ireland', first published in 1870. His data was based on statistics which had been gathered during 1870 relating to the ownership of land in Great Britain. The figures were immediately subjected to strong criticism⁽³⁾ and it was not until 1960, with the publication of the fourth edition of the work, that the statistics were felt to approach credibility and Haskins has argued that '... instead of being a perfect record of owners the New Domesday Book is, at best, an imperfect record of queries'.⁽⁴⁾

(1) F.H.C. Thompson, *Social History in the Nineteenth Century*

(1) *ibid.* p.111 = *English Land and English Landlords* (1961) p.108

(2) *ibid.* p.109

CHAPTER FOUR

The nineteenth century was an era of great change for the landed society of England. Although their numbers remained fairly constant, their position and power within society as a whole was considerably eroded and it is felt that their attitude toward railway construction cannot be fully understood without some explanation of their numbers, their economic fortunes, and their decline in status and influence.

Thompson has argued

as the only solid point in a sea of conjecture, the New Domesday Book is indispensable to any discussion of the distribution of land in England, both as to the date of compilation and in the century which preceded and the half century which followed it, during which changes in landownership were not sweeping enough to render it inapplicable.⁽¹⁾

The New Domesday Book referred to was J. Bateman's book 'The Great Landowners of Great Britain and Ireland', first published in 1876. His data was based on statistics which had been gathered during 1873 relating to the ownership of land in Great Britain. The figures were immediately subjected to strong criticism⁽²⁾ and it wasn't until 1883, with the publication of the Fourth edition of the work, that the statistics were felt to approach credibility and Brodrick has argued that '... instead of being a perfect record of owners the New Domesday Book is, at best, an imperfect record of estates'.⁽³⁾

(1) F.M.L. Thompson: English Landed Society in the Nineteenth Century: (1963) p.27

(2) G.C. Brodrick: English Land and English Landlords: (1881) p.158

(3) *ibid.* p.163

Despite this justifiable criticism, Bateman's statistics are of considerable value. An analysis of the county figures for England gives a strong impression of how landownership was concentrated into few hands.⁽¹⁾

	Number	%	Groups in acres	Total Acreage	%
Peers	373	0.04	over 10,000	5,233,188	17.2
Great Landowners	1,148	0.12	3,000-10,000	7,296,993	24.1
Squires	2,151	0.23	1,000- 3,000	3,670,771	12.1
Great Yeomen	8,432	0.92	300- 1,000	4,206,127	13.8
Small Yeomen	21,736	2.35	100- 300	3,689,352	12.2
Small Proprietors	202,126	21.92	1- 100	3,546,950	11.6
Cottagers	672,667	72.92	below 1	144,910	0.5
Public Bodies	13,857	1.50	-	1,378,167	4.6
Waste	-	-	-	1,196,656	3.9
Total	922,490	100.00	-	30,363,114	100.0

The peers, the great landowners, and the squires, have often been regarded as the 'landed society' of England.⁽²⁾ This general classification can be broken down into two further groups, the landed aristocracy and the landed gentry. It would appear that the 'Peers' were generally felt to be the 'landed aristocracy' and Thompson, whilst conceding that a minimum requirement of 10,000 acres of land was '... a reasonably reliable guide'⁽³⁾ to the membership of the landed aristocracy, argued that a further essential prerequisite was a landed income of at least £10,000

(1) J. Bateman: The Great Landowners of Great Britain and Ireland: Fourth Edition (1883)

(2) see below p. 55

(3) F.M.L. Thompson (1963) op.cit. p.27

per annum,⁽¹⁾ thus limiting membership considerably. The second group, the great landowners and the squirearchy, have been classified as the 'landed gentry'. It has been suggested that the landed gentry '... formed a reasonably homogeneous group, the solid core of the landed interest'.⁽²⁾ This latter group of 3,299 individuals owned 36.2% of England; just over one-third of the country.

Thus the landed aristocracy and the landed gentry, totalling some 3,672 individuals, possessed 53.4% of England, just over one-half of the country. In fact the concentration of landownership was such that 67% of the land was in the hands of 12,104 persons and 80% of the country was held by just 3.6% of the landowners. In practical terms, therefore, in two cases out of every three a railway company would be dealing with one of 12,000 individuals and in one case in two it would be negotiating with a member of either the landed aristocracy or the landed gentry, i.e. with one of just 3,672 persons.

The term, 'landowner' has often been used to indicate membership of either the landed aristocracy or the landed gentry; similarly, the term 'landed interest' has tended to be used to describe those landowners belonging to the two main groups, the landed aristocracy and the landed gentry.⁽³⁾ It is therefore intended to maintain this shorthand. Mingay has suggested that the Yeomen class constituted a declining and perhaps less dynamic sector of the landowners during the nineteenth century,⁽⁴⁾

(1) *ibid.* p.27

(2) *ibid.* p.109

(3) D. Spring: *English Landowners and Nineteenth Century Industrialism*: in J.T. Ward and R.G. Wilson: Land and Industry: The Landed Estate and the Industrial Revolution (1971) p.16, F.M.L. Thompson: (1963) *op.cit.* pp.4-5, E.J. Hobsbawm: *op.cit.* p.98

(4) G.E. Mingay: 'The Agricultural Revolution in English History: A Reconsideration' in Essays in Agrarian History vol.2 ed. W. Minchinton (1968): pp.15-17

and, by implication were therefore of relatively little importance as a power bloc in the context of the term 'landed interest'.

In the vast majority of English counties the 'landed interest' owned at least one half of the land, although there were two main areas where this did not occur, these being Cumberland and Westmoreland (Bateman having excluded ownership of wasteland from his figures) and Surrey, Middlesex, and Essex. Thompson has argued that the demand for estates near London had forced up the price of land thus preventing the creation of large estates and suggested that the great estates had been formed by substantial purchases of poor, cheap land in the counties.⁽¹⁾ Overall the landed interest was strongly represented in every county throughout England and although the size of estates was smaller near London, there was a far greater density of great houses and their parks. (Fig.6)

'The science in which members of the peerage took the keenest interest was, owing to its practical applications, that of agriculture'⁽²⁾ and they manifested this interest through their encouragement and application of new agricultural techniques and innovations.⁽³⁾ Perkin has argued that '... whatever else they were interested in, landed gentlemen were interested in increasing the returns from their estates'⁽⁴⁾ and this automatically implied the improvement of the returns from agriculture. As Spring has pointed out '... in the period 1815-1846 ... the economic interest of English landowners was largely rooted in agriculture'.⁽⁵⁾ Agriculture was extremely important to the landed society throughout the nineteenth

(1) F.M.L. Thompson: (1963) op.cit. p.33

(2) A.S. Turberville: The House of Lords in the Age of Reform: 1784-1837 (1958) p.388

(3) H. Perkin : Origins of Modern English Society 1780-1880 (1969) p.75, G.E. Mingay: loc.cit. pp.15-16

(4) H. Perkin: (1969) op.cit. p.74

(5) D. Spring: (1971) loc.cit. p.52

century.⁽¹⁾ In many cases it provided the major part of a landowner's income; in virtually every case it was a subject that concerned him greatly.

The agricultural history of the nineteenth century can be divided into four distinct periods, the years of prosperity which occurred during the Napoleonic Wars (1790-1815), the subsequent decades terminating with the repeal of the Corn Laws in 1846 (1815-1850), the so-called 'Golden Age' (1850-1870), and finally the decades from 1870 onwards usually termed the Great Depression (1870-1914). The years 1790 to 1815 saw a rapid rise in agricultural prices due largely to the dislocation of the cereal trade caused by the disruption of the French Wars.⁽²⁾ The rise in income caused a considerable extension of the limits of cultivation and an increased rate of enclosure of the remaining open fields.⁽³⁾ This heavy investment on the part of the landowners had been undertaken at high rates of interest and rents had also been increased in step with the higher prices.⁽⁴⁾ Thus, with the termination of the War in 1815 and the prospect of rapidly falling incomes, the landed interest quickly passed the Corn Laws which were designed to bolster up their artificially inflated incomes in order to pay off their expensive loans.⁽⁵⁾ The interest in the improvement of agriculture that had been awakened by the expectation of lucrative returns during the war years, was continued as the landowners attempted to maintain their high incomes of the early years of the century.

The years after 1815 have been called the 'Hesitant Decades'.⁽⁶⁾ If

(1) A.S. Turberville: (1958) op.cit. p.404

(2) E.J. Hobsbawm: op.cit. pp.99-100, F.M.L. Thompson: (1963) op.cit. pp.

(3) 213-215

(3) F.M.L. Thompson: (1963) op.cit. pp.214-215

(4) ibid. p.232

(5) ibid. p.233, H. Perkin: (1969) op.cit. p.192, E.J. Hobsbawm: op.cit. p.197

(6) E.J. Hobsbawm: op.cit. p.106

there was no overall depression in agriculture between 1815 and 1850,⁽¹⁾ there was '... an era of low prices and discouraged farmers'.⁽²⁾ Although some areas suffered more than others there was a definite downswing in the fortunes of the landed society.⁽³⁾ Despite this the 1840s saw the rapid application of a number of new techniques and innovations and it is widely felt that the period of 'High Farming' began during this decade.⁽⁴⁾

The debate over the repeal of the Corn Laws during the 1840s had caused the landowners to undertake a careful appraisal of their economic position⁽⁵⁾ and the slump in cereal prices in 1850 led many landowners to invest heavily in order to improve the efficiency of cereal production.⁽⁶⁾ The landed interest saw '... this whole complex of improvements as a rescue operation',⁽⁷⁾ merely to maintain their rents rather than increase them. Although, initially, returns were favourable and both the consumption and prices of agricultural products increased during the 1850s and 1860s,⁽⁸⁾ the returns were never as favourable as had been expected. Despite a movement toward pasture farming,⁽⁹⁾ the basic instability of English farming was becoming apparent⁽¹⁰⁾ and, overall, the two decades saw '... a distinct weakening in the economic position of agricultural landowners'.⁽¹¹⁾

(1) F.M.L. Thompson: (1963) op.cit. p.231

(2) J.H. Clapham: (1926) op.cit. vol.1 p.465

(3) F.M.L. Thompson: (1963) op.cit. pp.232-3

(4) E.J. Hobsbawm: op.cit. p.106, S.G. Checkland: op.cit. pp.181-2

(5) F.M.L. Thompson: (1963) op.cit. p.249, E.J. Hobsbawm: op.cit. p.106

(6) F.M.L. Thompson: (1963) op.cit. p.242

(7) *ibid.* p.248

(8) E.L. Jones: 'Changing Basis of Agricultural Prosperity: 1853-1873' in Essays in Agrarian History vol.2 ed. W. Minchinton (1968)

(9) *ibid.*

(10) S.G. Checkland: op.cit. p.183

(11) F.M.L. Thompson: (1963) op.cit. p.240

The great depression in English agriculture began with what appeared to be no more than an unusual run of bad luck. Appalling weather throughout the 1870s culminated in 1879 with the worst harvest of the century. In previous decades poor harvests had been compensated for by higher prices but during the 1870s new structural features of world agriculture became apparent which ruthlessly exposed the instability of English farming.⁽¹⁾ The depression was essentially restricted to those counties specialising in cereal and wool production, with livestock and dairy farming scarcely affected.⁽²⁾ Wheat acreages fell by half from 3.6 million in 1874 to 1.8 million acres in 1900⁽³⁾ but of far greater import was the fall in rents. In England and Wales they fell by 24% between the 1870s and the early 1890s and in the arable east of England, landed incomes fell by 30%.⁽⁴⁾ With the drastic fall in income landowners ceased to invest in agriculture.⁽⁵⁾ Thus 'the late nineteenth century was the true period of large scale rural decline in England . . . the landlord class had suffered a permanent loss of capital and income'.⁽⁶⁾ The closing decades of the century had seen 'the structure of agricultural society . . . severely shaken and the landowner's power much weakened'.⁽⁷⁾

Landed power was therefore seen to be in rapid decline with the collapse of traditional agriculture in the last decades of the century. However the erosion of their power was merely the culmination of a process that had begun as early as the turn of the century. In 1804 William Marshall had written "Landed property . . . is the basis on which every

(1) W. Ashworth: op.cit. p.53

(2) T.W. Fletcher: 'The Great Depression of English Agriculture: 1873-1896': in Essays in Agrarian History vol.2 ed. W. Minchinton (1968)

(3) S.G. Checkland: op.cit. p.187

(4) *ibid.* pp.186-7, W. Ashworth: op.cit. p.61

(5) W. Ashworth: op.cit. p.62

(6) *ibid.* pp.69-70

(7) F.M.L. Thompson: (1963) op.cit. p.316

other species of material property rests; on it alone mankind can be said to live, to move, and have its being".⁽¹⁾ This form of society relied upon the existence of patronage, thus maintaining a vertically, rather than horizontally, stratified society,⁽²⁾ and the recognition and acceptance of considerable social mobility allowing the absorption of the nouveaux riches on to the land and younger sons of the landed society into the middle classes.⁽³⁾ The stability of such a structure depended upon four factors; that society remained in small units, i.e. villages or small towns, thus allowing patronage to be effective through personal contact; that the 'new men' could be quickly assimilated into landed society - should this not occur there was the likelihood of the creation of a hostile bourgeoisie critical of, and frustrated by, landed society; that no socially disruptive forms of money-making appeared to challenge the traditional methods; and finally, that the landed aristocracy did not abandon their paternal responsibilities.⁽⁴⁾

Although all of these pressures began to manifest themselves during the Napoleonic Wars, they were held in check, in the national interest, and it was only with the arrival of peace in 1815 that class conflict was kindled into flame.⁽⁵⁾ During the 1820s the middle classes began to assert themselves and commenced a struggle for parliamentary representation.⁽⁶⁾ The Reform crisis of 1831-2 advanced the cause of the middle classes,⁽⁷⁾ but they achieved their success only because the landed aristocracy saw a fine distinction between those who wished to abolish

(1) Quoted in H. Perkin: (1969) op.cit. pp.41-2

(2) ibid. p.49

(3) ibid. pp.58-61

(4) ibid. pp.51-62

(5) ibid. p.192

(6) ibid. p.214

(7) G.B.A.M. Finlayson: England in the Eighteen Thirties: Decade of Reform: (1969) p.18

property and patronage, and those who merely wished to eradicate patronage, to which they were prepared to concede.⁽¹⁾

The middle classes therefore gained an 'indirect' control over the reins of power, and although there was no large anti-aristocratic 'block vote' in parliament there was a considerable fear on the part of the landed society that one might be created should the wishes of the middle classes not be respected.⁽²⁾

Thus

it was the middle classes that enjoyed the benefits of the Reform Act; and once possessed of the political influence which they regarded as their due, they became not the critics but the defenders of existing authorities. If their point of view never became the same as that of the landed classes it tended to approximate to it; if their property was of a different nature still they were property owners and very zealous for its protection and for the maintenance of rights appertaining to it.⁽³⁾

This empathy was intensified as a result of the attack by John Bright et al upon the landed interest during the 1850s. The wealthy middle classes realised that '... attacks on the free disposal of landed property by its owners were extensible to other forms of property'⁽⁴⁾ and in the 1870s the debate over landownership further crystallised the political position of the two classes in that it was felt that '... its association with interference with the rights of private property made it a contributory factor in the tendency for landowners and wealthy business-

(1) H. Perkin: (1969) op.cit. p.310

(2) *ibid.* p.315

(3) A.S. Turberville: (1958) op.cit. p.327

(4) F.M.L. Thompson: (1963) op.cit. p.284

men to range themselves on one side . . .⁽¹⁾ This mutual respect for property is crucial to an understanding of nineteenth century attitudes.⁽²⁾

The middle classes having gained actual, though indirect, power needed the political expertise of the landed aristocracy to govern on their behalf⁽³⁾ and also to act as a focus for their social aspirations.⁽⁴⁾ Turberville has argued that ' . . . early Victorian middle class England had a most succulent appreciation of the peerage'⁽⁵⁾ and this view has been complemented by the interesting argument that ' . . . the aristocrat and the substantial member of the gentry were believed to be in intimate contact with the countryside, a point of great importance in a society in which urbanisation was not fully accepted emotionally'.⁽⁶⁾ Once the power structure had been altered in their favour the middle class respect for the landed aristocracy reasserted itself.⁽⁷⁾

Although the landed interest became increasingly divorced from the rest of society during the years after 1850,⁽⁸⁾ it was in the last decades of the century that ' . . . the foundations of a British society dominated by the landed classes all collapsed together with and during the great depression. Landownership ceased, with some exceptions, to be the basis of great wealth and became merely a status symbol'.⁽⁹⁾ The 1880s saw an increasing number of wealthy industrialists taking advantage of the

(1) *ibid.* p.285

(2) see G. Kitson Clark: The Making of Victorian England: (1962) p.97

(3) S.G. Checkland: *op.cit.* p.284

(4) A.S. Turberville: (1958) *op.cit.* p.427, see also G.M. Young: Early Victorian England: vol.2 (1934) p.486

(5) A.S. Turberville: (1958) *op.cit.* p.395

(6) S.G. Checkland: *op.cit.* p.285

(7) H. Perkin: (1969) *op.cit.* pp.370-6

(8) S.G. Checkland: *op.cit.* p.284, see also A.S. Turberville: (1958) *op.cit.* p.372, 389-391

(9) E.J. Hobsbawm: *op.cit.* p.202

fall in value of agricultural land and purchasing large estates in order to achieve the ethos of becoming members of landed society.⁽¹⁾

Thus the century as a whole saw the decline of the influence and power of the landed interest. It was '... a gradual process of transformation throughout the nineteenth century, simultaneous with the general transformation of society'.⁽²⁾

Although the landed ethic was defeated during the nineteenth century, the tangible realisation of the power of the landed interest, Parliament, was far less easily vanquished. As all railways had to be authorised by Parliament and many were debated before Select Committees of members of either the House of Lords or House of Commons,⁽³⁾ the structure of Parliament was of great importance in this context.

A.S. Turberville has argued that the House of Commons having achieved independence of the Crown in the late seventeenth century, became dependent upon the aristocracy and thus gained independence of action whilst sacrificing its independence of composition.⁽⁴⁾ During the eighteenth century the aristocratic grip on the House of Commons tightened and by the first decades of the nineteenth century

the House of Lords consisted almost entirely of great Landowners.

In the House of Commons . . . three-quarters of the members between 1734 and 1832 were landowners or their near relations, and those of the rest who were not their friends or nominees were rich business and professional men often with one foot on

(1) F.M.L. Thompson: (1963) op.cit. pp.293-7, G. Kitson Clark: op.cit. pp.249-51

(2) D. Spring: The role of the aristocracy in the late nineteenth century: Victorian Studies 1960-1 vol.4 p.57, see also F.M.L. Thompson: (1963) op.cit. p.273, G.M. Young: Victorian England: Portrait of an Age: 2nd edition (1953) pp.144-8

(3) see below pp.77-9

(4) A.S. Turberville: (1958) op.cit. p.244

the land.⁽¹⁾

Thompson has argued that the House of Lords was '... the direct institutional expression of the political power of the nobility'⁽²⁾ and that the landowners also exercised strong control over the Commons. In fact before a man could become an M.P. '... he had to possess a certain amount of property, and until 1838, only landed property could be counted'.⁽³⁾

Despite the apparent social emasculation of the Reform Act of 1832, in Parliament the power of the landed interest was scarcely diminished.⁽⁴⁾

It was

the landed aristocracy which continued to occupy the main positions of power down to the 1880s and beyond. The landed class possessed a clear majority of the House of Commons until 1885 . . . and of the House of Lords until long after the Parliament Act of 1911 drastically reduced its powers.⁽⁵⁾

Thus during the whole of the century an extremely strong landed interest sat in both Houses and although it might be argued that they yielded increasingly to the demands of the ascendant middle classes, it was still a landed body and one that was intensely concerned with any proposal that directly impinged upon its interests.

Having established some idea of the numbers of the landed society, their strong involvement in the agricultural sector, and their political power in a changing society, their attitudes toward industrialisation can be more fully explained. Recent research has suggested that the land-

(1) H. Perkin: (1969) op.cit. p.39

(2) F.M.L. Thompson: (1963) op.cit. p.45

(3) G.B.A.M. Finlayson: op.cit. p.17

(4) ibid. pp.17-18, see also H. Perkin: (1969) op.cit. p.56, F.M.L. Thompson: (1963) op.cit. pp.45-9, G.M. Young: (1953) op.cit. pp.29-30, 106

(5) H. Perkin: (1969) op.cit. pp.271-2

owner's role in industrialisation, especially during the early years of the 'Industrial Revolution', was of far greater significance than has, in the past, been supposed.⁽¹⁾

It has been argued that the landowners were perhaps the most important factor in the initial stimulus of the 'Industrial Revolution' in England and that the spontaneity of the 'take-off' of the 'Industrial Revolution' was a direct result of a full complement of economic resources and the psychological attitudes within the right kind of society.⁽²⁾ During the eighteenth century the landowners had held the view that

it was the duty of a nation's rulers to take positive action to increase its wealth and power relative to its neighbours . . . and out of pure self-interest they created the political conditions - personal liberty, absolute security of property, the minimum of internal intervention and adequate protection from foreign competition.⁽³⁾

The system of land tenure has often been taken for granted in any discussion of the origins of the Industrial Revolution⁽⁴⁾ and the fact that the land was owned absolutely '. . . in large viable blocks by a comparatively small number of owners, alert to their interest in every extension of economic activity',⁽⁵⁾ was of great importance. Allied to this was the existence of a fluid society in which ideas were quickly diffused, inventors sponsored, and the 'partial toleration or ineffective

(1) for example see J.T. Ward and R.G. Wilson (1971) op.cit. F.M.L. Thompson: (1963) op.cit., D. Spring: 'The English Landed Estate in the Age of Coal and Iron 1830-1880': Journal of Economic History vol.11 (1951), J.T. Ward: 'Some West Cumberland Landowners and Industry': Industrial Archaeology: vol.9 no.4 (1972)

(2) H. Perkin: (1969) op.cit. p.16

(3) ibid. pp.66-7

(4) ibid. p.73

(5) ibid. p.73

intolerance¹ of Dissenters allowed the diversion of their energies away from politics toward trade and industry.⁽¹⁾ The landowner's role was '... not direct industrial enterprise. It was rather to provide both the land ... and the pre-conditions for the enterprise of others'.⁽²⁾ Their function was '... to create the climate and conditions in which a spontaneous industrial revolution could take place and to give it effective legislative encouragement when and where it required it'.⁽³⁾

Under English law the owner of any land also owned the minerals below the soil and consequently this made '... landowner and mining exploiter practically synonymous'.⁽⁴⁾ Consequently the landed interests' main involvement in the late eighteenth and early nineteenth centuries tended to be in the field of mining and, stemming from this, in transport improvements.⁽⁵⁾ However, '... it is unlikely ... that more than a handful of estates in the first half of the nineteenth century derived a half or more of their gross income from such [non-agricultural] sources'.⁽⁶⁾ Despite this the means of getting money were widely extended during these decades⁽⁷⁾ and the landed interest were not slow in moving toward the maximisation of their incomes. This was possibly a result of the fact that by the 1840s many landed estates were often deeply in debt, although this was far from obvious.⁽⁸⁾ The latter decades of the eighteenth

(1) *ibid.* pp.68-71

(2) *ibid.* p.74

(3) *ibid.* p.78

(4) *ibid.* p.75

(5) see especially J.T. Ward: 'Landowners and Mining': in Land and Industry: The Landed Estate and the Industrial Revolution (1971) eds. J.T. Ward and R.G. Wilson, also D. Spring (1971) *loc.cit.* pp. 27-38, H. Perkin: (1969) *op.cit.* pp.74-6, S.G. Checkland: *op.cit.* p.282, A.S. Turberville: (1958) *op.cit.* pp.374-5

(6) D. Spring: (1971) *loc.cit.* p.52

(7) A.S. Turberville: (1958) *op.cit.* p.374

(8) D. Spring: (1951) *loc.cit.* pp.14-15

century and the early years of the nineteenth had seen considerable extravagance on the part of the landowners,⁽¹⁾ and Checkland has suggested '... from the accession of Victoria down to the eighties the landed interest ... sought to redeem the debts of the past and to place their estates on a sound and self-perpetuating basis'.⁽²⁾

The mid 1840s also saw a reappraisal of the financial basis of land-ownership generated by the debate over the repeal of the Corn Laws. During this decade the landowners began to retreat from active involvement in industry and move toward a position of mere rentier, this occurring particularly in the field of mining.⁽³⁾ Thus increasing numbers became interested in potential sources of non-agricultural income and investment occurred largely in the passive form of stocks, shares, directorates, and various forms of rent from mines and urbanisation. Ashworth feels that the movement into stocks and shares took place in the 1860s⁽⁴⁾ as does Spring,⁽⁵⁾ although Thompson feels it came slightly later.⁽⁶⁾ The landed aristocracy's movement into directorships also dates from this period.⁽⁷⁾

One of the most lucrative sources of non-agricultural income was from urbanisation. Land values increased tremendously during the 1860s and 1870s '... owing to the growth of towns and industry',⁽⁸⁾ and suburban rental values rose dramatically in these decades.⁽⁹⁾ Landowners played

(1) see below pp. 68-72 in discussion of emparkment

(2) S.G. Checkland: op.cit. p.283

(3) F.M.L. Thompson: (1963) op.cit. pp.264-5, also D. Spring (1971) loc.cit. p.51, E.J. Hobsbawm: op.cit. pp.107, 109, G. Best: Mid Victorian Britain: 1851-1875 (1971) pp.243, 245, H. Perkin: (1969) op.cit. p.435

(4) W. Ashworth: op.cit. p.51

(5) D. Spring (1971) loc.cit. pp.52-3

(6) F.M.L. Thompson: (1963) op.cit. pp.306-8

(7) S.G. Checkland: op.cit. p.283, G. Best: op.cit. p.243

(8) D. Spring: (1971) loc.cit. p.51

(9) J.R. Kellest: The Impact of Railways on Victorian Cities (1969) p.392

a very active role in the development of the towns themselves, for example Barrow,⁽¹⁾ Glossop,⁽²⁾ and the resort of Eastbourne⁽³⁾ and although many of the plans had been prepared during the 1840s it wasn't until the 1860s that the value of the rents began to increase significantly.⁽⁴⁾

However not all the landed interest benefitted from non-agricultural sources of income and Thompson has suggested that a dichotomy developed between the great landowners and the gentry and once agricultural incomes began to stagnate this dichotomy became startlingly apparent.⁽⁵⁾ The larger landowners often invested their non-agricultural income in agriculture itself, thus further widening the gulf, and the security created by the existence of this rentier income goes some way toward explaining why the landed aristocracy of Parliament partially abandoned agriculture in 1846⁽⁶⁾ and did so completely in 1879. 'They were conscious of their position as industrial and urban landowners and could afford to be (more) indifferent to falling rents than many of the gentry'.⁽⁷⁾

One of the major factors contributing to the indebtedness of the aristocracy and, to a lesser extent, the gentry, was their indulgence in the creation of landscaped parks. (Fig.6) Although parks had been created by the Normans⁽⁸⁾ these were few in number and it was not until the sixteenth century that emparkment became widely established, and an

(1) S. Pollard: 'Barrow in Furness and the Seventh Duke of Devonshire' Economic History Review: 2nd Series: vol.8 (1955)

(2) H. Perkin: (1970) op.cit. pp.126-7

(3) D. Spring: (1971) loc.cit. pp.43-4

(4) F.M.L. Thompson: (1963) op.cit. pp.267-8, S.G. Checkland: op.cit. p.282, A. Briggs: Victorian Cities: (1963) p.13, D. Spring (1971) loc.cit. pp.38-45

(5) F.M.L. Thompson: (1963) op.cit. p.268

(6) E.J. Hobsbawm: op.cit. p.107

(7) F.M.L. Thompson: (1963) op.cit. p.268

(8) H.C. Darby (ed.) op.cit. p.55

analysis of Saxton's maps of 1574-79 has suggested that there were 817 such Deer Parks in England and Wales at that time.⁽¹⁾ The early and middle years of the seventeenth century were not conducive to the creation of parkland but revival of interest occurred after 1670 in response to the Restoration and the publication of John Evelyn's plea for increased woodland. However the parks that were landscaped at that time were of limited extent in that they conformed to the contemporary French idea of a formal garden laid out in geometric symmetry. This fashion held sway until the 1720s when a strong reaction to this stylised concept occurred and a freer form, much better suited to the varied English countryside, was advocated.⁽²⁾

The first, tentative steps were taken by William Kent et al but it was not until the 1760s that the style matured with the work of its finest exponent, Lancelot Brown.⁽³⁾ The latter half of the eighteenth century saw a rapid acceleration in park construction and, in the Chilterns alone, the number of parks doubled in these years. Not only were new houses and parks being constructed but also many of the pre-existing residences were rebuilt and their parks enlarged.

Perhaps the basic tenet of the new philosophy was the location of the house in a dominant position, which overlooked the newly landscaped terrain. It has been suggested that the most typical houses and parks of this, 'the most creative years of landscape gardening',⁽⁴⁾ were on a small scale and a quintessential example of this trend is Courteenhall House and park, in Northamptonshire.⁽⁵⁾ Although the construction was undertaken nationally,

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- (1) H.C. Prince: Parks in England (1967), see also H.C. Prince 'Parkland in the Chilterns' Geographical Review vol.XLIX (1959) pp.18-31
- (2) H. Nicholson: The Age of Reason (1968) pp.517-521
- (3) H.C. Darby (ed.) op.cit. pp.329-30, 344-49
- (4) H.C. Prince: (1967) op.cit. p.7 (1760-1820)
- (5) W.G. Hoskins The Making of the English Landscape (1955) pp.129-30, (see Fig.9)

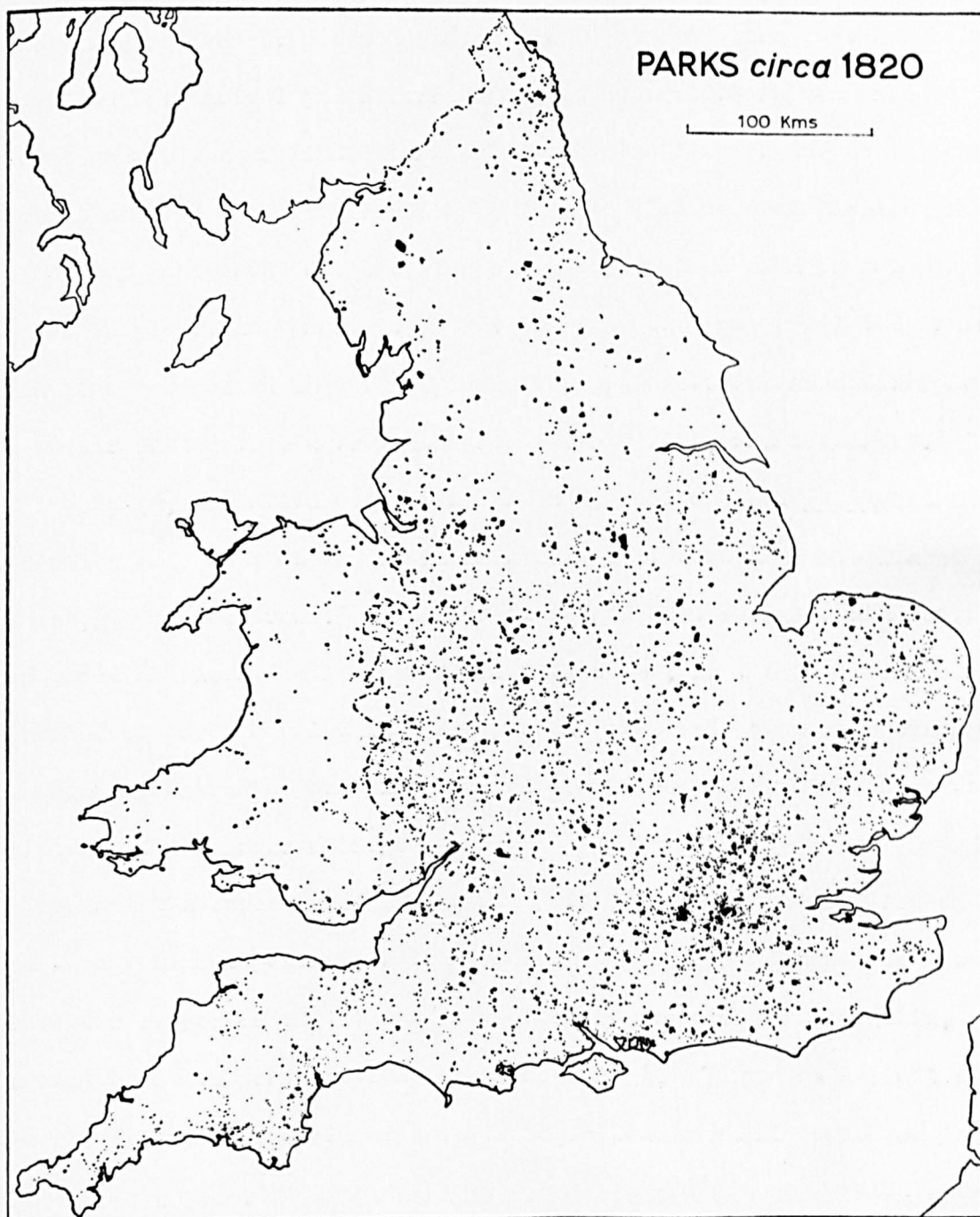


Fig. 6

proportionally there was a vast increase in the number of parks in the vicinity of London, with many of these being located on, or near, the main roads leaving the city.

Humphry Repton continued Brown's work into the nineteenth century, the fashion for emparkment losing none of its momentum. In fact a heated controversy occurred in the 1790s and 1800s over the relative merits of the 'picturesque' style, as opposed to the less dramatic work of Brown and his disciples. This would seem to indicate the considerable interest shown in landscape architecture at this time. The construction of great houses continued into the nineteenth century and ambitious schemes were undertaken during the War years; for example, the eighth Earl of Beaconsfield completely rebuilt Ashridge, to the north of Berkhamsted, between 1808 and 1817 and had the park landscaped by Repton, and the Duke of Bedford had a '... modest cottage ornée' (built) in 1810, which apparently cost between £70,000 and £80,000, and the grounds laid out in inimitable taste, must have cost thousands more'.⁽¹⁾

One of the most significant points arising from the creation of such vistas was that the park did not reach maturity until some decades had elapsed subsequent to their being laid out. Therefore many would not have realised their full potential until the early years of the nineteenth century and a considerable number not until the middle years. Thus any landowner who had invested large sums of money in the creation of a landscape would tend to look askance at any attempt to impose an alien feature, a railway, upon his carefully composed vista.

This understandable reaction was complemented by a dislike of further disturbance to the countryside after the upheavals of the late eighteenth

(1) F.M.L. Thompson: (1963) op.cit. p.91 (quoting from the Greville Memoirs 1888 VI p.211)

century. These decades had not only seen the creation of numerous landscaped parks but also the digging of canals and often the enclosure of the remaining open fields. Although neither of the latter were of national extent the phenomena were widespread enough to provoke comment. John Clare, writing in his diary of 4 June 1825, noted that a proposed London to Manchester Railway was to run near Helpston, in Northamptonshire.

'... I little thought that fresh intrusions would interrupt and spoil my solitudes. After the enclosure they will despoil a boggy place that is famous for orchises'.⁽¹⁾

Park construction and expansion continued unabated during the remainder of the nineteenth century⁽²⁾ and the numbers of parks reached their peak by 1880.⁽³⁾ The railways helped in this expansion in that the more remote locations became easier of access and consequently allowed parks to become even more dispersed in their distribution.

Thus the nineteenth century opened with the landowners showing considerable interest in, and awareness of, the landscape which was amply reflected in the widespread creation of parks. This interest was maintained throughout the century and although fewer new parks were laid out, many of those already in existence were extended, usually to increase the timber resources and sporting amenities.

(1) W.G. Hoskins op.cit. p.203 (my italics)

(2) H.C. Darby (ed.) op.cit. p.538

(3) H.C. Prince (1959) loc.cit. p.29

CHAPTER FIVE

By the beginning of the nineteenth century the land of England was owned in toto by a relatively small number of individuals who showed great interest in their estates and, as a result of their monopolistic position in Parliament, had established a legislative procedure that provided an extremely strong protection against any incursion onto their property. This procedure had evolved as an outcome of the private legislation of the seventeenth and eighteenth centuries which had authorised the construction of turnpikes, the enclosure of fields, and the building of canals. Thus, by the early nineteenth century, a complex series of standing orders had come into existence which related to the compulsory purchase of land for commercial purposes and, further to this, there also existed a comprehensive platform for appeal in the form of the Parliamentary Select Committee before which any landowner, whose property was scheduled to be taken, could appeal.

The initial private bills had been limited both in scope and capital, and were highly localised. The procedure at that time took the form of a presentation to Parliament of a petition which merely stated the existing difficulties and suggested proposed remedies. It was only with the dramatic increase in private legislation resulting from the promotion of numerous canals that led to a drastic reappraisal of Standing Order procedure.

By and large it had been the landowners themselves who had built the turnpikes and enclosed the open fields, whereas it was the commercial and industrial members of society that had tended to promote the canals. The landowners realised that as it was extremely rare for them to be involved in the planning of the alignment of the canals, it was important that any landowner whose property was to be affected should be aware of

the intentions of the canal promoters. Consequently the rapid expansion of the scope of the Standing Orders was due to the increased demands for knowledge of the proposals and for time to appraise them.

During the 1790s, the period of the 'canal mania', the Standing Orders of Parliament were considerably extended.⁽¹⁾ They began to include requirements that notices of intent should be published in the local papers, maps of the proposed route should be deposited both locally and nationally, a Book of Reference which named each individual landowner affected and recorded whether he assented, dissented, or remained neutral, was to be presented and, significantly, that proof had to be given that these orders had been complied with. All of the above informed both the landowner and Parliament of the exact intentions of a group of promoters. This dramatic increase in both the number and extent of the Standing Orders placed great pressure on Parliament and in 1810 a Private Bill Office was created and a Standing Orders Committee was established in 1824.

In 1799 it was decided that the Standing Orders relating to canals were to be extended to cover any proposed railways that came before Parliament⁽²⁾ and this was applied in 1803 with the enactment of the Surrey Iron Railway.⁽³⁾ In 1814 the position of the landowner was further strengthened with the amendment of all the existing orders and the addition of various others. A map was to be deposited at the parish

(1) The material for the following section leans heavily on the work of O.C. Williams: 'The Historical Development of Private Bill Procedure and Standing Orders in the House of Commons' (1948) vols. 1 and 2.

(2) *ibid.* p.266

(3) M. Bond: 'Materials for Transport History amongst the Records of Parliament': Journal of Transport History vol.4 no.1 (May 1959) pp.37-52.

level and it was also necessary that dissenting landowners should have seen a copy of the bill and a map of how it affected their property and evidence to this effect, in their own handwriting, had to be produced.

Thus by the early years of the 1830s the landed society had created a structure that ensured '... no bills involving property could be rushed through, undermining owners' rights to oppose by keeping them in ignorance'.⁽¹⁾ However there was considerable dissatisfaction with the fact that the railways had inherited a set of standing orders that were patently unsuitable for their needs. In debate Sir James Graham remarked '... that with regard to all other public works they had well framed standing orders; but as regards railroads the standing orders relating to the construction of canals had been rudely and imperfectly made to fit'.⁽²⁾

In response to these criticisms major revisions occurred in 1836. Whilst confirming the dominant philosophy of protection of the landowner, safeguards were also provided for the investor.⁽³⁾ The principles that had become established were maintained and made even more stringent in detail.⁽⁴⁾ Notices of intent now had to be published in both local and national newspapers in the spring and maps of the proposed route of a railway had to be prepared and submitted by 1 March of the year preceding the relevant Parliamentary session (for example: 1 March 1838 for the session of 1838 - 1839). These maps were to be of not less than four inches to one mile scale and the sections not less than one inch to one hundred feet; in the vicinity of houses the scale was to

(1) J.R. Kellest: (1969) op.cit. p.28

(2) O.C. Williams: op.cit. vol.1 p.61

(3) J.R. Kellest: (1969) op.cit. p.30

(4) The whole series of orders can be found in HC Journal 1837 vol.92, 13 July, pp.636-644.

be considerably larger and the powers of deviation were lessened; estimates of expense and a deposit of funds were also demanded. Parliament was especially concerned that there should be no unauthorised alterations in alignment once an Act had been gained and six Standing Orders were framed accordingly.⁽¹⁾

There had been considerable criticism of the procedure of proving compliance with the Standing Orders and in 1836 this was also refined and a Select Committee was established that was to decide whether the Bill could proceed through Parliament. Despite these reforms there were many complaints that because of the cumbersome nature of the Standing Orders it was virtually impossible to comply with all and every one of them. Burke, a noted Parliamentary Agent of the time, argued in 1837 '... that it would save valuable time if any rule could be laid down by which vexatious opposition on Standing Orders could be avoided, since it was impossible to fulfil all the minute requirements with accuracy'.⁽²⁾ This dissatisfaction continued into the 1840s and Burke, once again, stated that non-compliance was practically unavoidable and further argued that the Committee examining the petitions should be given greater discretion to ignore minor failings. In 1847 both the House of Lords and House of Commons accepted this argument and created the Examiners of Petitions; in the same year they also discontinued the practice of proving all documents in person.

The railway engineers had strongly criticised the Order requiring the map of the line to be completed by 1 March of the preceding year and in 1842 it was decided to revert to the practice of submission by the 30 November i.e. during the Parliamentary Session itself. The

(1) O.C. Williams: op.cit. vol.1 p.65

(2) ibid. p.72

Parliamentary notices were also changed from publication during the spring to the autumn.

The dramatic increase in railway promotion in 1844 and 1845 led to the rapid authorisation in 1845 of two public Acts specifically designed to facilitate the passage of railway Bills through Parliament, these being the Railway Clauses Consolidation Act and the Land Clauses Consolidation Act. They were incorporated into each individual railway bill, thus shortening the bills considerably and allowed Parliament to deal with them far more quickly.⁽¹⁾ By 1851 the Standing Orders relating to railway construction had reached their maximum extent. Because of their complexity non-compliance could prove fatal to many schemes, especially in the context of rivalry between companies, as discrepancies were often pointed out by one to frustrate the ambitions of another.⁽²⁾ There was little change in the quantity or quality of Standing Orders relative to railway construction during the latter half of the nineteenth century, the legislature being more concerned in dealing with the schemes for the provision of local government facilities that increasingly came before them. In 1853 the 'Shaftesbury' Order was added which was particularly concerned with the protection of working class housing⁽³⁾ and the amount of capital that had to be deposited was finalised in 1867 at 5% of the estimated expenditure.⁽⁴⁾

Thus forearmed by the comprehensive knowledge of the proposals of the railway company, the landowner could, if he so wished, offer reasoned opposition before a Select Committee of either the House of Commons or

(1) *ibid.* p.107

(2) T.R. Gourvish: Mark Huish and the London and North Western Railway: A Study of Management (1972) p.22.

(3) J.R. Kellett: (1969) *op.cit.* p.53

(4) O.C. Williams: *op.cit.* vol.1, p.136

the House of Lords, or, occasionally, both. The vital importance of the Select Committee Stage in terms of the impact of the landowners on railway alignment, cannot be understated. As early as 1834 it had been recognised that the Select Committee stage was to be used as the forum for debate of objections to the details of specific railways and problems would be discussed and resolved in Committee.⁽¹⁾ In the summer of 1844 a Railway Board was established '... whose duty it would be to examine every scheme to be laid before Parliament ... and to report in favour of, or against, each scheme for the guidance of the Select Committee ...'⁽²⁾ This inquiry into the merits and deficiencies of each scheme would '... not embrace questions of private property or interest, which will be reserved altogether for the consideration of the legislature'⁽³⁾ i.e. before the Select Committee.

Thus throughout the nineteenth century any conflict between a landowner and a railway company over matters of 'detail' i.e. alignment, was discussed before a Select Committee. Originally these Committees had been established to hear the arguments put forward in the petition and '... to consider and amend it and report it to the House together ... with a report as to the allegations of the Bill as to the consent or dissent of the parties'.⁽⁴⁾ The primary function was to act as a forum if this was so needed; however, should a bill be unopposed '... the proving of the preamble was very perfunctory'.⁽⁵⁾

In 1836 the criticisms of Parliamentary procedure relative to

(1) H. Parris: op.cit. p.18

(2) H.G. Lewin: The Railway Mania and Its Aftermath (1936) p.12

(3) ibid. p.14, see also H. Parris: op.cit. p.84

(4) O.C. Williams: op.cit. vol.1 p.16

(5) ibid. p.34

railway construction led to a revision of the methods of assessment of a railway bill before a Select Committee. Twenty points were drawn up⁽¹⁾ which had to be proved to the satisfaction of the Committee. These fell into four main categories (a) the sources of capital for the railway (b) the existing and expected traffic (c) the engineering details and the estimates of constructional costs and (d) whether there were any petitions against the proposals. The onus of proof lay firmly on the railway company, this being accentuated by the fact that they had to present a broad case which could then be opposed, rather than the opponents presenting a case which could be answered by the railway company.⁽²⁾ The Select Committees obviously had considerable power of decision in that they could amend, reject, or pass purely on the evidence presented. The railway companies were at their most vulnerable at the Committee stage and thus skilful counsel were willingly retained to minimise the possibility of rejection.

There were strong criticisms of certain aspects of the Committee's procedure. Initially it was felt that the advantages of local knowledge of the members of the Committee far outweighed the disadvantage of local bias, and, consequently, the Committees had no restrictions concerning local interest. However by 1837 the House of Lords had realised the importance of the Committee stage and therefore instituted new regulations. Attendance was to be compulsory; there was to be no local interest; the Committee was to consist of five members who would elect their own chairman and it would sit from eleven o'clock in the morning until four in the afternoon. The House of Commons was less

(1) see appendix no.1

(2) This was strongly criticised by G.P. Bidder in 1863 as wasting a great deal of time and therefore money: H.C.Sel.Cttee. on Private Bill Legislation (1863) Q.2334, p.226.

easily convinced of the value of change but with Gladstone's recommendations of 1844, local representation was removed from those Committees hearing evidence on competing railways and the Committee would also consist of just five members. In 1845 this was extended to cover all railway bills.

The problem of who could appear before a Select Committee in opposition was less easily resolved and it was here that the landowner played a crucial role. 'It must be realised that by long practice (and not by Standing Order) any landowner, the smallest fraction of whose land was to be compulsorily taken under a bill, had an unlimited locus standi'.⁽¹⁾ Williams has argued that

the effect of this was that, until Committees from about 1848 onwards came to admit competition as a ground of locus standi, the opposition of existing or contemplated railways to other proposed new lines was conducted under the cover of petitions lodged by landowners, who were indemnified for all expense by the real opponents.⁽²⁾

The problem of hidden opposition was ameliorated somewhat in 1853 with the acceptance of competition as a valid ground for appeal against a line, although this did depend upon the discretion of the chairman. It was also decided that if a proposed railway interfered with an existing railways' works the latter railway could be heard in opposition, as could municipal authorities and the inhabitants of towns who felt that they would be 'injuriously affected' by the passage of a bill.⁽³⁾

Despite these relaxations the decision of locus standi still rested with the chairman. As was pointed out, in 1863 landowners were still

(1) O.C. Williams: op.cit. vol.1 p.140

(2) *ibid.*

(3) *ibid.* p.140

being used by the railway companies as a front for their opposition because the companies thought that they either had no locus standi of competition or '... that the ground would not find favour with the Committee'.⁽¹⁾ Problems of locus standi were never fully solved but, by and large, by the end of the 1860s the railway companies had little necessity to use the landowners as a platform of opposition.

The structure of the Committee itself was also open to criticism. Kellett has argued that it would only deal 'specifically and piecemeal' with individual projects and had little power of suggestion if it felt the line to be a bad one; 'all they could do was to send the promoters back to think again'.⁽²⁾ He further argued that despite the removal of local members, the committees were still constructed of 'interested' individuals and, finally, a criticism which was widely subscribed to, that the committees were essentially 'amateur' in status; there was no continuity of membership and no compilation of experience.⁽³⁾

A further criticism was that, in spite of the unlimited locus standi, the landowners found themselves limited by the practical nature of opposition in that the legal costs of representation before a Committee were enormous. G.K. Richards, Counsel to the Speaker, pointed out that counsel received 10 gns. per day for attendance before a committee, and 5 gns. for a consultation.⁽⁴⁾ The procedure was such that the landowner had no choice in the matter, he was forced to employ counsel at that price.⁽⁵⁾ Robert Baxter stated that there were cases

(1) H.C.Sel.Cttee. on Private Bill Legislation (1863) J. Booth Q.229, p.24, also Q.1123

(2) J.R. Kellett: (1969) op.cit. p.103

(3) ibid. pp.103-105

(4) H.C.Sel.Cttee. on Private Bill Legislation (1863) Q.378 p.38

(5) ibid.

'... in which a landowner may be as deeply interested as to involve the loss of many thousands of pounds'.⁽¹⁾ It was argued that '... with small proprietors, and I would class with them all the middle men, the costs of a petition to Parliament are so heavy that they are all afraid of it'.⁽²⁾ and it was remarked that the railway companies themselves preferred to minimise their legal costs by negotiating with landed opponents rather than fight them at length before a committee.⁽³⁾ Kellett has suggested that the legal profession usually attempted to maximise its income from railway business and thus 'spin-out' cases.⁽⁴⁾

Having gained its Act the railway company then began to exercise its right of compulsory purchase. This was a necessary feature of any transport improvement and had evolved largely from the canal legislation of the eighteenth century and was adopted and further refined by railway procedure. 'This statutory power, to which even the greatest landowners had to bow once the Private Bill had been passed ...'.⁽⁵⁾ took a relatively simple form. Once the railway was sanctioned the landowner was informed that a certain amount of his land was required and he was asked to assess its value, both directly and indirectly, the latter encompassing such factors as loss, deterioration and severance.⁽⁶⁾ If the claim was acceptable the amount was quickly paid. If it was felt to be too excessive the claim went to arbitration, this procedure having been established by the Land Clauses Consolidation Act of 1845.⁽⁷⁾

(1) *ibid.* Q.3198, p.316

(2) HL Sessional Papers 1845 vol.18, Select Committee on Compensation
evid. of J. Clutton, Q.141.

(3) *ibid.* Q.'s 54, 55.

(4) J.R. Kellett: (1969) *op.cit.* p.73

(5) *ibid.* p.27

(6) *ibid.* pp.434-435

(7) For a full discussion of the difficulties of compensation see
below pp.168-170

The exact cost of land for railway construction and its percentage of total costs, has long been a controversial topic. This stems largely from the writings of contemporary authors who bitterly condemned the rapacity of the landowners.⁽¹⁾ This attitude, that land costs were extortionate, has long been popular but in 1952 Pollins offered a tabular analysis of railway constructional costs, and concluded that the cost of land averaged some 14% for the period 1830 to 1850.⁽²⁾ He argued that although there were instances of large sums being paid for inconsequential acreages, land costs, on the whole, were of much less significance than had been supposed.

Kellett argued that Pollins had overcompensated and, to justify this point of view, produced figures that suggested that land costs in fact averaged 16.5% of total costs for that period, but, despite the increase of 2.5%, implied that the land costs were not of crucial significance in the factors that determined alignment.⁽³⁾ He argued that the figure of 16.5% was probably valid until the 1870s and only in the final decades of the nineteenth century did it fall to 10 or 11%.⁽⁴⁾

Pollins has clarified his argument by stating that in the past great emphasis had been placed ' . . . on the cost of obtaining Acts and on the cost of land. In practice these expenditures were not very high proportionately'.⁽⁵⁾ Robbins has argued that although some landowners were paid excessive sums the average percentage paid for land ' . . . does show that the somewhat eager or excessive payments so often quoted

(1) see below pp. 108-109

(2) H. Pollins: 'A Note on Railway Constructional Costs 1825 - 1850' Economica: N.S. vol.19 no.76 (Nov. 1952) pp.395-407

(3) J.R. Kellett: (1969) op.cit. p.430

(4) *ibid.* p.431

(5) H. Pollins: (1971) op.cit. p.31

were singular and not characteristic'.⁽¹⁾ The problem of land costs is a thorny one. It is suggested, however, that whether it was 14% or 16.5%, the land cost was, not insignificant, but certainly of less importance than has been implied in the past.

(1) M. Robbins: (1962) op.cit. p.38

CHAPTER SIX: 1820 - 1840

Railway construction in England during the 1820s and 1830s can be divided into three distinct stages. The 1820s saw the transition from the mineral railway, as typified in its ultimate form by the Stockton and Darlington Railway, to the fully fledged public railway, with the opening of the Liverpool and Manchester Railway in September 1830.⁽¹⁾ Despite the fact that radical new principles were established with the construction of the line between Liverpool and Manchester, the railway, as a concept, was still felt to be applicable solely in an industrial context and it was not until the authorisation of the London and Birmingham and Grand Junction Railways in 1833 that it was seen to have a national significance. The second stage can therefore be seen as the laying out of the basic skeleton of the national network during the years 1833 to 1835 with the authorisation of the four main trunk railways from south Lancashire, the West Midlands, Southampton, and from Bristol to London. The third stage merely elaborated all that had gone before and the mid 1830s saw Parliament sanction a considerable mileage of railway that extended and refined the evolving network.

The fundamental importance of the Liverpool and Manchester Railway cannot be understated.⁽²⁾ Its merits and deficiencies were widely debated throughout the 1820s,⁽³⁾ promoters and engineers involved with other railway projects watched with interest as techniques and ideas were tried and evaluated; the opponents of the general expansion of railways, the canal, turnpike, and coaching interests, and the landowners

(1) see above pp. 33-4

(2) The following section owes a great deal to R.E. Carlson: The Liverpool and Manchester Railway Project: 1821-1831 (1969).

(3) *ibid.* pp. 11-16

were especially interested in the parliamentary conflict of 1825 and 1826. In fact it was suggested at the time that many canal companies had concluded that '... if they succeed in quashing this, they will be secure against all others'.⁽¹⁾ Thus the principles involved in the planning and construction of the railway were seen to have far wider significance than the immediate area of South Lancashire.

The planning of this railway's alignment occurred during the years 1821 to 1825. During 1819 and 1820 South Lancashire had enjoyed a strong expansion in trade and the existing transport system between the two cities, based largely on three canals, was found to be completely inadequate.⁽²⁾ A group of Liverpool merchants were therefore extremely receptive to the suggestion of William James, a noted land agent and ardent champion of the cause of the expansion of the railway network, that a line should be built between the two cities. James discussed this idea with Joseph Sandars, the spokesman for the merchants, in July 1821 and agreed to undertake a feasibility study to determine whether construction of a line was possible.⁽³⁾ A significant division of labour was immediately established in that James was concerned merely with the choice of a suitable alignment whilst the merchants were responsible for the promotion and finance of the project.

During 1821 James completed a cursory survey that indicated it was possible for a railway to be built. The merchants therefore approached the canal interests in a final attempt to gain an improved service and, having been brusquely refused, decided to proceed with the promotion of

(1) (J. Barrow) Canals and Railroads: Quarterly Review vol.31 no.32 (March 1825) p.376

(2) R.E. Carlson: op.cit. pp.40-1

(3) *ibid.* p.43

the railway.⁽¹⁾ The engineer undertook a comprehensive survey during the spring and summer of 1822 and met considerable physical opposition from the local populace which had been instigated by the local landowners and, to a lesser extent, by the canal companies. Initially the opposition caused delays in the completion of the survey but more significantly, it also caused James to change his mind about the proposed route.

The engineer produced a preliminary report during 1822 which explained to the promoters the factors he had taken into consideration in determining the alignment of the railway. He listed a number of 'positive' factors, amongst them the nature and quality of minerals, the extent of agriculture and manufactures, and the location of the population. He also suggested that there were a number of 'negative' factors, and paramount amongst these was the influence of the landed attitudes. 'He noted that, in order to escape from the 'prejudice, ignorance and the contracted views of self-interest' of many individuals he had avoided as much as possible the homes and preserves of the nobility and gentry'.⁽²⁾ He had also minimised interference with the canals and turnpikes. In a letter of February 1823 to the promoters he further argued that the delays in the completion of the survey stemmed from '... the additional time required by the decision to avoid the estates of the Earl of Derby and other noblemen'.⁽³⁾

This delay stretched well into 1823 and as a result the promoters decided to employ George Stephenson who was to complete the survey and this appointment took place in the spring of 1824.⁽⁴⁾ (Stephenson had been previously employed in the realignment of the Stockton and

(1) *ibid.* pp.53-4

(2) *ibid.* p.55

(3) *ibid.* p.59

(4) *ibid.* p.59

Darlington Railway during the early years of the decade and one of the prime factors that had influenced the location of his revised line had been the necessity of paying due regard to the local landed interests.⁽¹⁾ The Liverpool Committee had asked James in 1823 to resurvey his railway to reduce the formidable weight of opposition against it⁽²⁾ and had then appointed an engineer who was already extremely aware of the importance of minimising such landed opposition by means of a tactful alignment. It is significant that the promoters felt that they could ameliorate this opposition by means of alterations in the alignment rather than by bribery, propaganda, or negotiation.

Stephenson decided to follow James' route and consequently met even greater hostility than that which had been suffered by the original surveyors in 1822.⁽³⁾ By the autumn of 1824 the final route had been established (Fig.7) and ran from Liverpool to the north of Knowsley Park (property of Lord Derby), and then followed the Sankey valley before turning east-north-eastwards across Chat Moss to Manchester. The finalisation of the alignment allowed the first prospectus to be published on 29 October 1824 and the authors made a strong policy statement in regard to interference with local landed interests.

In deciding upon the proposed route the Committee have been anxious, at considerable inconvenience and expense, to select a line which may not only be eligible considered in itself, but may be as little objectionable as possible with reference to individual and local interests.⁽⁴⁾

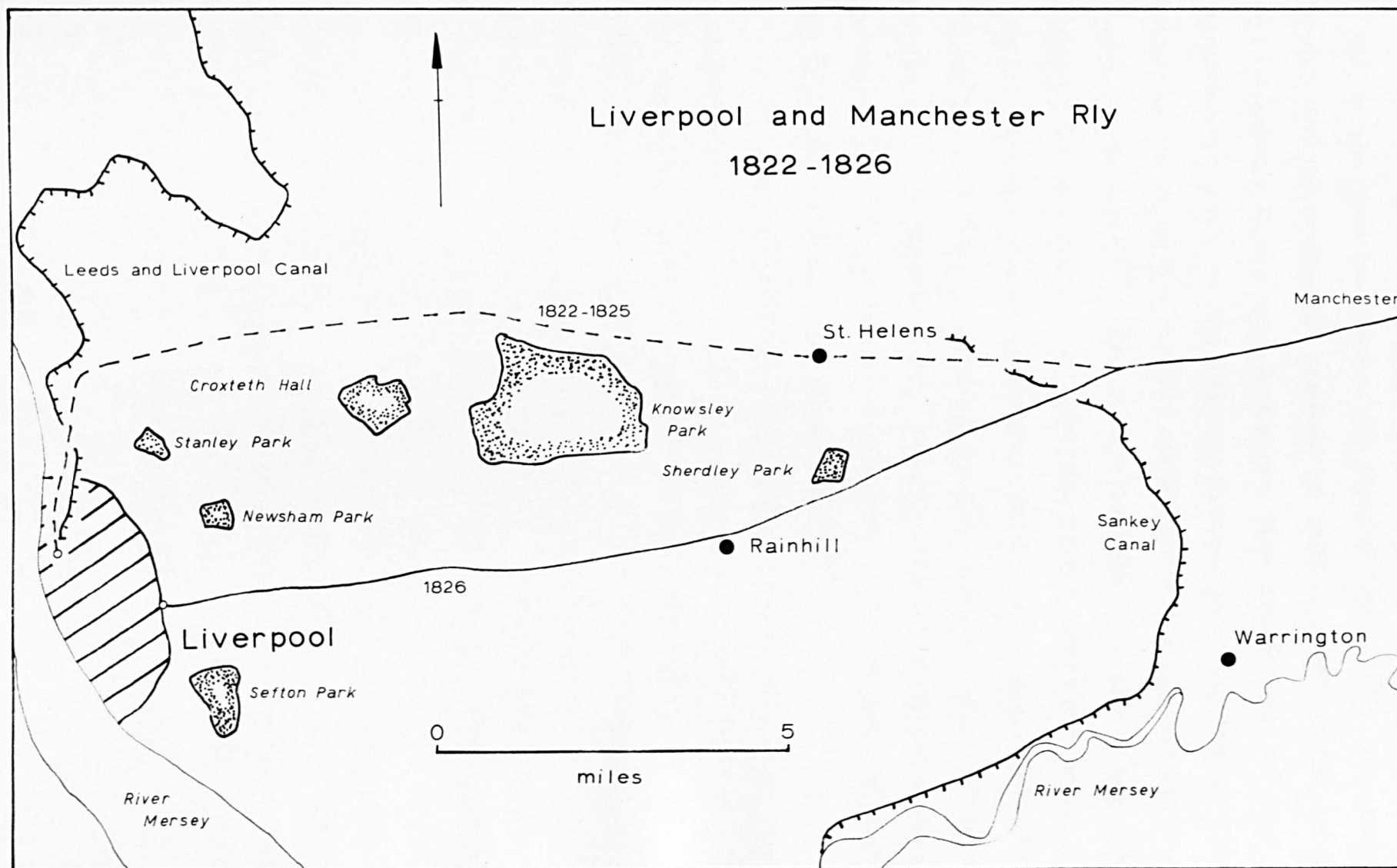
(1) W.W. Tomlinson: The North Eastern Railway: Its Rise and Development (1915) pp.75-85

(2) L.T.C. Rolt: (1960) op.cit. p.93

(3) R.E. Carlson: op.cit. p.71

(4) Original prospectus quoted in ibid. p.82

Fig. 7



Despite these strong concessions to local feelings the Bill failed in 1825 at the Committee stage of the House of Commons.⁽¹⁾ The promoters decided that the incompetent testimony of their engineer and the contentious alignment were the major reasons for their failure and, in resolving to reintroduce a bill in the following session, they decided to dismiss Stephenson and to appoint two well established engineers, John and George Rennie, in his stead.⁽²⁾ They also decided that the railway should be realigned and demanded '... a line that would minimise as much as possible the objections of landowners, tenants and the canal interests'.⁽³⁾ The revised line (Fig.7) was considered less favourable than Stephenson's and was also more expensive, but the great reduction in landed opposition encouraged the railway committee to conclude '... that the new line's advantages far outweighed its disadvantages'.⁽⁴⁾

In December 1825 a further prospectus was issued which once again prominently stated a clear policy in regard to the landed interests. 'The line proposed would not touch or intersect any of Lord Sefton's estates and would cross only a few fields belonging to Lord Derby; also it had been altered at many points to accommodate the wishes of proprietors whose estates it did cross'.⁽⁵⁾ Although Lords Derby and Sefton opposed the Bill it enjoyed a successful passage through Parliament and received its Royal Assent early in May 1826.⁽⁶⁾

It is clearly apparent that the promoters of the Bill met considerable opposition during the years 1822 to 1826 which had a significant impact on the ultimate alignment of the railway. The opposition came

(1) *ibid.* p.132

(2) *ibid.* pp.142-3

(3) *ibid.* p.144

(4) *ibid.* p.146

(5) *ibid.* p.150

(6) *ibid.* pp.157-168

from two main sources, from the canal, turnpike, and coaching interests of South Lancashire, which might be termed the 'vested interests' of the area, and from the local landed society.

The opposition of the vested interests was primarily for financial reasons. Although the Bridgewater Canal had been in operation since the 1760s, the majority of the English canals had been constructed during the latter years of the eighteenth century and many had not come into service until the first decades of the nineteenth.⁽¹⁾ Similarly, numerous turnpike companies had invested large sums of money in improvements in the early years of the nineteenth century, which had resulted in heavy debts in the form of large mortgages. Apart from the opposition of the Bridgewater Canal, which was to maintain the inordinately high profits made during the French Wars, by and large canal and turnpike opposition to the coming of the railway was to protect their sources of income in order to liquidate their debts.

The landed opposition was far more complex. Between 1822 and 1824 the landowners conducted a virulent campaign against the railway which tapped the springs of prejudice and ignorance existing in the local populace at that time. Although there were numerous reasons advanced for their hostility, landed arguments became distilled into a basic view that '... the steam locomotive was an infernal machine'.⁽²⁾ This opposition was refined and presented with great clarity and cogency in the Houses of Parliament. It was argued that their property would be violated by the steam locomotive and the railway

was a major threat to the value of their holdings

... [once] private joint stock companies asked for

(1) J.H. Farrington: (1969) op.cit. pp.43-235

(2) R.E. Carlson: op.cit. p.72

and received permission to interfere with private property, the traditional protection given to property under the law and the constitution was lost and the value of property would automatically depreciate⁽¹⁾

The latter part of the argument is rather curious in that the canal companies had already achieved that which the landowners were attempting to resist. The argument was summarised thus '... the rights of private property . . . should be sacrificed only in the face of clear and decisive evidence proving public necessity and with the guarantee of liberal compensation'.⁽²⁾ This statement was made repeatedly throughout the nineteenth century and became the basic tenet of landed arguments in opposition to interference by a proposed railway. The promoters of the Liverpool and Manchester Railway regarded it of such significance as to reply:-

The progress needed in transportation facilities must inevitably cause inconveniences and financial loss to some, under which conditions it was the responsibility of government and the projectors to guarantee that these inconveniences and losses were held to a minimum and that reasonable recompense be made to the injured,⁽³⁾ a plain statement that they were prepared to subscribe to the principle of tactful alignment, to minimise damage to an estate and, should this prove inadequate, the payment of generous compensation to alleviate the depreciation in value of the property.

In the light of the above the failure of 1825 can be seen in

(1) *ibid.* p.125

(2) *ibid.* p.165

(3) *ibid.* p.167

perspective. A prime requirement for a railway company was to prove an overwhelming public necessity for their railway. The inadequately prepared traffic case and the incoherently presented engineering evidence of 1825 scarcely constituted clear and decisive public need. The crucial importance of the Select Committee stage of a railway bill was therefore immediately recognised by the promoters and this recognition set the tone for the rest of the century. The preparation of their case for the Select Committees of 1826 was infinitely superior to that of the previous year with a tactful realignment, the competent presentation of evidence of potential traffic, the scant references to the proposed use of steam locomotives, and the clarity of C.B. Vignoles' engineering evidence, relative to that of Stephenson's of the year before.

The considerable interest shown in the outcome of the submission of this railway to Parliament ensured that the principles involved were widely discussed. The results of the landed influence on the railway's alignment and, more importantly, the decision of the railway company to prefer to alter the alignment rather than make use of any other alternative in order to minimise landed opposition, set a strong precedent for the years to come.

There were a number of lines promoted during the mid 1820s, one being a line from Leeds eastwards to Hull which was comparable, in many respects, to the Liverpool and Manchester Railway. In this instance it was the merchants of the inland city who wished to improve communications with their outport rather than the reverse, but, once again, there was a choice between a low level line and a more expensive, but more direct, high level railway and, once again, the chief engineer was George Stephenson.

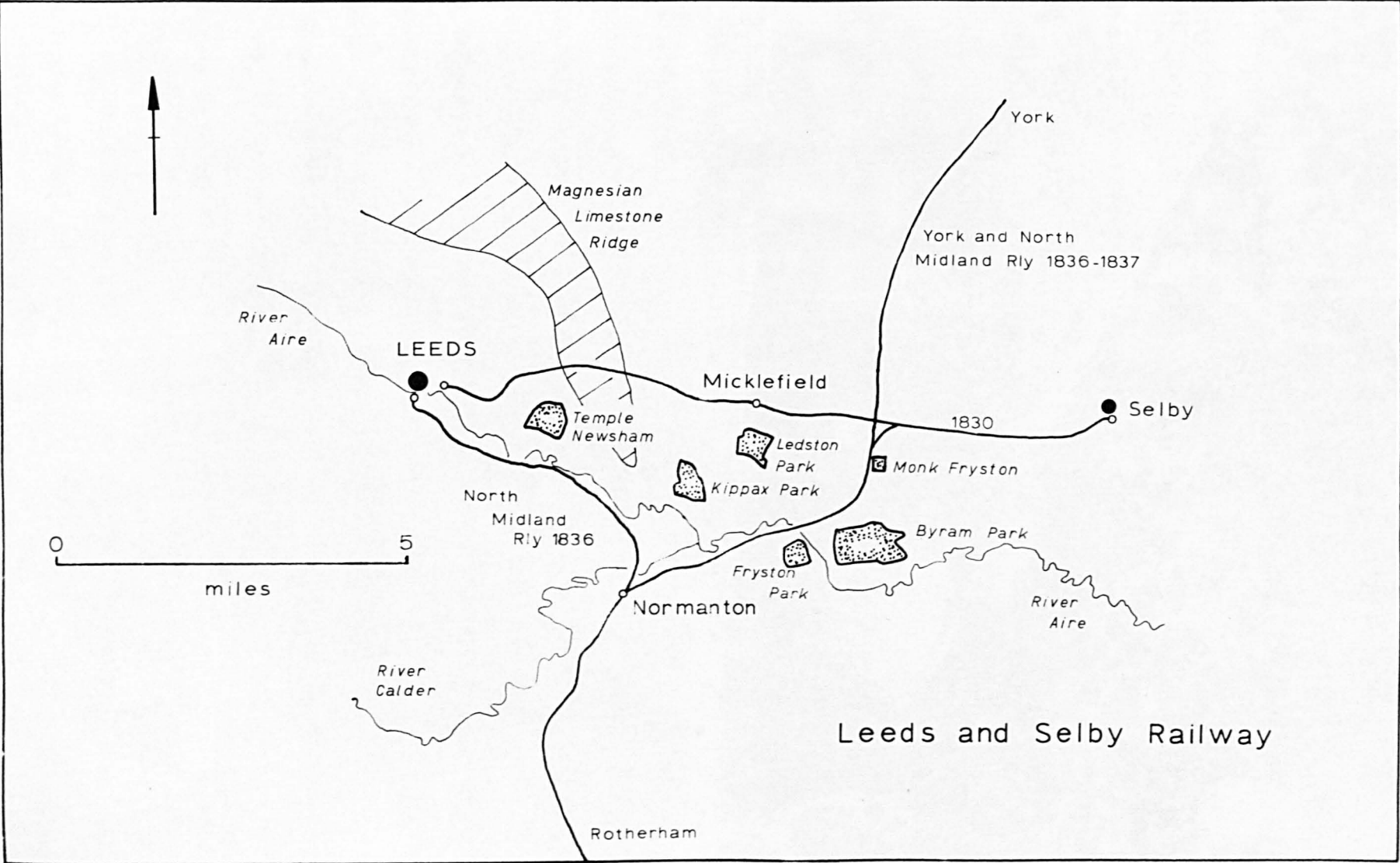
The railway company had been created in December 1824 with a

Mr. J. Marshall of Leeds elected as chairman.⁽¹⁾ Stephenson was appointed as engineer in the January of 1825, a few months before his humiliation before the House of Commons Select Committee. The Leeds promoters themselves recognised that there were two main alternative routes between Leeds and Selby (Fig.8), a low level route utilising the Aire valley, curving southward to avoid the ridge of Magnesian Limestone which lay between the two towns, and the alternative, this being a direct line running due eastwards across the limestone ridge to Selby. The promoters argued that the Aire Valley route was '... attended with great difficulties on account of the gentlemen's seats through which or near which it would have to pass'.⁽²⁾ Although they did not prohibit Stephenson from choosing the valley line they felt that should he do so the railway would meet with considerable landed opposition. Stephenson said that he had attempted to convince the promoters to use the Aire valley but their fear of the potential opposition was such that he had decided to use the alternative, more difficult line.⁽³⁾ The scheme foundered in the general financial collapse of late 1825 but was partially revived in 1829 with the promotion of a line from Leeds to Selby. James Walker was employed as the engineer and he decided to follow Stephenson's direct line. The line came before Parliament in 1830 and, meeting with very little landed opposition, was authorised in that year.⁽⁴⁾

The controversy concerning the alignment of the Liverpool and

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- (1) D. Brooke: The Origins of the Constituent companies of the North Eastern Railway: (Hull M.A. thesis 1961) pp.1-3
 - (2) HLRO Min. of Evid. HC 1836 vol.40 York and North Midland Railway 26 April p.86
 - (3) idem 21 April p.52
 - (4) W.W. Tomlinson: op.cit. p.204

Fig. 8



Manchester Railway therefore had considerable repercussions in the West Riding in that the power of the landed society of the Aire valley was never even challenged. The promoters thoughtfully realised that if a credible alternative was available there was little point in needlessly antagonising the landowners and perhaps instigating conflict that could lead to the rejection of their bill in Parliament. It is rather curious that despite his experiences in South Lancashire, Stephenson felt it necessary to recommend the utilisation of the Aire valley route in the full knowledge of the possible consequences. The promoters' attitude proved far more realistic and although the line of 1829-30 was more expensive than that by the valley, the landed opposition was minimal and the parliamentary passage was exceptionally easy. The landed impact was therefore of considerable significance in that the promoters' fear of potential rather than actual opposition strongly influenced the location of the whole line between Leeds and Selby.

The longest railway promoted during the 'tentative' years of the 1820s was that between Newcastle and Carlisle, this being a distance of some sixty miles. This railway differed in some respects from the Liverpool and Manchester, and Leeds and Hull Railways in that the choice of alignment was strongly limited by the constraints of the valleys of the River Tyne and River Irthing. This is in marked contrast with the flexibility available further south. The line was also promoted in an area already familiar with the concept of railways and, to a lesser extent, the steam locomotive. Thus a far more favourable attitude existed on the part of the landed society toward the idea of a railway between the two cities.

Although the idea of a canal linking the two seas had been discussed in the early years of the century, it was decided in March 1825 that the

construction of a railway between Newcastle and Carlisle would be of greater benefit to the region. During the summer and autumn of 1825 various alternative alignments on the north and south banks of the Tyne were discussed but it wasn't until the November of that year that it was decided to align the railway on the south bank and plans were deposited with Parliament for the session of 1826.⁽¹⁾ The winter of 1825-6 saw the largest landowners on the proposed line, the Greenwich Hospital Estates, employ Joseph Locke, a young railway engineer, to survey an alternative alignment that would be more suitable to their particular requirements than that suggested by the promoters.⁽²⁾ Although nothing came of this idea it is of considerable significance as one of the earliest instances of a landowner employing a reputable engineer to provide a satisfactory alternative to the 'official' proposals.

In February 1826 the bill was withdrawn from Parliament and the promoters stated that this was in response to complaints received from the landowners who were concerned about the alignment. The company therefore had decided that their proposals should be shelved and negotiations reopened so that a mutually satisfactory route could be achieved.⁽³⁾ They further admitted that the survey of 1825 had been hastily executed in order to meet the parliamentary deadline and consequently there had been insufficient time allowed for consultations with the local landed interests. They argued that it was extremely difficult not to encroach upon the privacy of the estates and avoid damaging plantations.⁽⁴⁾

(1) J.S. Maclean: The Newcastle and Carlisle Railway 1825-62 (1948)

p.11

(2) *ibid.* p.13

(3) *ibid.* p.14

(4) *ibid.* p.18

The survey was therefore recommenced during 1826 as were the negotiations. Despite the constraints imposed upon the engineer by the narrowness of the valleys, many alternative routes were proposed and discussed, with most, if not all, of these being attempts to choose a satisfactory alignment for the landowners. The promoters conceded that the negotiations with the landowners had been most constructive due very largely to the warm support they had for the coming of the railway.⁽¹⁾

A route was finalised in April 1828 and came before Parliament in 1829 where it was opposed by a Mr. C. Bacon of Styford Hall, near Riding Mill, in the Tyne valley. Although the landowner felt that the railway would prove '... a blot on the landscape, an eyesore, and a nuisance',⁽²⁾ he also argued that the line was not the best possible and was likely to be damaged by flooding. The promoters were eventually forced to offer Bacon £3,000 for the seven acres of his land that they required and his opposition was withdrawn.⁽³⁾

Tomlinson has argued that the time had long gone by when men such as Bacon could lead public opinion, implying that unqualified hostility toward the railway was an archaic attitude in the Tyne valley at that time.⁽⁴⁾ Perhaps this was the case but despite the support of the landowners for the line it was still necessary for the engineer to select an alignment that caused minimal damage to their estates, and the fact that this took three years to achieve is evidence enough of the difficulty of the task. It is also significant that where a negotiated alignment failed, the sole recourse of the railway company was the payment of 'generous' compensation to an opponent in order to remove the hindrance

(1) *ibid.* p.18

(2) W.W. Tomlinson: *op.cit.* p.196

(3) J.S. Maclean: *op.cit.* pp.21-2

(4) W.W. Tomlinson: *op.cit.* p.196

of his opposition. The railway company clearly recognised that this course of action was far cheaper than confrontation and possible defeat in Parliament, with the consequent delay of at least one year.

The 1820s therefore saw the establishment of a number of precedents. Although the lines discussed above tended to be longer than the average for this decade, the general principle of the minimisation of interference with landed estates through tactful alignment, was equally applicable in the case of the shorter, more local lines.⁽¹⁾

During the final years of the decade changes in attitudes toward the railways began to occur. In 1830 the Quarterly Review, which had argued in 1825 that a limit of 8 or 9 miles per hour should be placed upon steam locomotives,⁽²⁾ was arguing that 20 m.p.h. was a desirable maximum speed and was strongly in favour of a national system of railways.⁽³⁾ Also in 1830, Lord Sefton, one of the major opponents to the Liverpool and Manchester Railway, supported a proposal for a railway from Liverpool to Leeds that was intended to cross his estate⁽⁴⁾ and both Lord Derby and Lord Sefton were favourably impressed by the successful opening and operation of the Liverpool and Manchester Railway.⁽⁵⁾

The merchants of Birmingham also noted the success of the South Lancashire line and in late 1830 quickly reformed their committee for the promotion of a railway to London. In the October of that year they appointed George and Robert Stephenson as their engineers and asked them

(1) for example: B. Reed: Crewe to Carlisle (1969) p.15, discussing the alignment of the Warrington and Newton Railway of 1829.

(2) (J. Barrow) loc. cit. p.361

(3) (G. Buchanan): Railroads. Quarterly Review vol.42 no.229 (March 1830) pp.377-404

(4) R.E. Carlson: op.cit. p.73

(5) *ibid.* p.227

to prepare plans for a line between the two cities.⁽¹⁾ The promoters had hoped to submit a bill to Parliament for the session of 1831 but the time available proved completely inadequate and it was not until the spring and summer of 1831 that the various alternative routes were surveyed in any detail.⁽²⁾

The promoters were merely concerned with linking Birmingham and London and consequently, during the course of the year, at least six alternative lines were considered, although the discussion essentially revolved around the choice of a route via Oxford or via Coventry.⁽³⁾

G. Stephenson decided upon the Coventry route and reported to the promoters on September 23 1831 with the completed survey. His report contained the three basic principles to which he subscribed in determining the alignment of any railway. They differed from those propounded by James in that the 'positive' factors concentrated more on the engineering aspects rather than the traffic, but in one respect they were significantly alike, in their mutual recognition of the importance of the avoidance of estates. Stephenson argued that there was:-

- (a) the need to select the lowest relief possible for the line.
- (b) consistent with this (which would involve an economy of fuel) is the need to choose the line which is the least expensive to build even if it is not the most direct.
- (c) lastly, there is the need to avoid parks and pleasure grounds in every practicable case.⁽⁴⁾

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- (1) P.S. Richards: A Geographical Analysis of some of the surveys made for the London and Birmingham Railway Line: Transactions and Proceedings of the Birmingham Archaeological Society vol.80 (1962) pp.17-25, W.T. Jackman: op.cit. p.550
 - (2) J. Wake: Northampton vindicated: or Why the Main Line missed the Town (1935) p.5
 - (3) P.S. Richards: loc.cit. pp.17-8
 - (4) *ibid.* p.21

The history of the alignment of the railway between Birmingham and London illustrates the importance of this final factor. Initially Stephenson had intended to pass through the Chiltern Hills via Aylesbury, and Uxbridge and thence to London.⁽¹⁾ However this proposal was fiercely opposed by the local landowners and consequently the Countess of Bridgewater suggested to Stephenson that the line should be located parallel to the Grand Junction Canal, through her estate at Tring. She felt that the land was already 'gashed' and therefore severance, and thus compensation, would be reduced, and also argued that the engineer could make use of the level of the canal in his surveying, if he so wished. Stephenson agreed to this request and the line was rerouted accordingly.

The railway had four major foci - the two termini and the two gaps in the intervening ridges of hills, at Watford Gap in Northamptonshire, and at Tring in the Chilterns.⁽²⁾ The three intermediary sections of railway enjoyed a greater flexibility in the choice of location, this being reflected in the concessions made to landed pressure. At Watford, in Hertfordshire, the railway approached the parks of two noted opponents, Lords Essex and Clarendon, and this caused Stephenson to deviate the line to the east of the town which necessitated the construction of a tunnel and an acute curve.⁽³⁾ Near Tring itself the route of 1831 had been altered in order to avoid the 'pleasure grounds' of Lady Bridgewater.⁽⁴⁾

The railway was aligned some way to the west of Northampton in

(1) J.K. Fowler: Recollections of Old Country Life (1894) p.125

(2) J.H. Appleton: The Communications of the Watford Gap: I.B.G. Trans. and Papers no.8 (1960) pp.215-224

(3) HLRO Min. of Evid. HL 1832 vol.16 London and Birmingham Railway 3 July p.103.

(4) idem. 5 July p.187

(4) HLRO Min. of Evid. HL 1832 vol.16 25. 26 June 3, 3 July

(4) idem. 10 July p.197

response to landed pressure⁽¹⁾ and in running via Weedon the railway company was forced to pay particular regard to the estate of Mr. J. Thornton of Brockhall (Fig.9). Stephenson stated that considerable difficulties had arisen with Mr. Thornton and the railway had been aligned specifically to avoid the park⁽²⁾ (despite this the problem was not fully resolved until 1835⁽³⁾).

The Bill came before Parliament in 1832 and reached the House of Lords Select Committee stage on 28 June. Despite the efforts of the engineers to minimise damage to the estates and the competent presentation of their case,⁽⁴⁾ a resolution was passed by the Committee on 10 July which stated:

It is moved that the case for the promoters of the bill having been concluded it does not appear to the Committee that they have made out such a case as would warrant the forcing of the proposed railway through the lands and property of so great a proportion of dissentient landowners and proprietors.⁽⁵⁾

This was carried by 19 votes in favour with 12 against. There was no necessity for the opposition to present a case.

The failure of the Bill can only be explained in the political and social context of the time. 1831 and 1832 had seen the monumental struggle in Parliament by Lord Grey to obtain the authorisation of the first Reform Act and during 1831 England had been perilously close to

(1) J. Wake: op.cit., and V.A. Hatley: Northampton revindicated: Northamptonshire Past and Present 11 no.6 (1959).

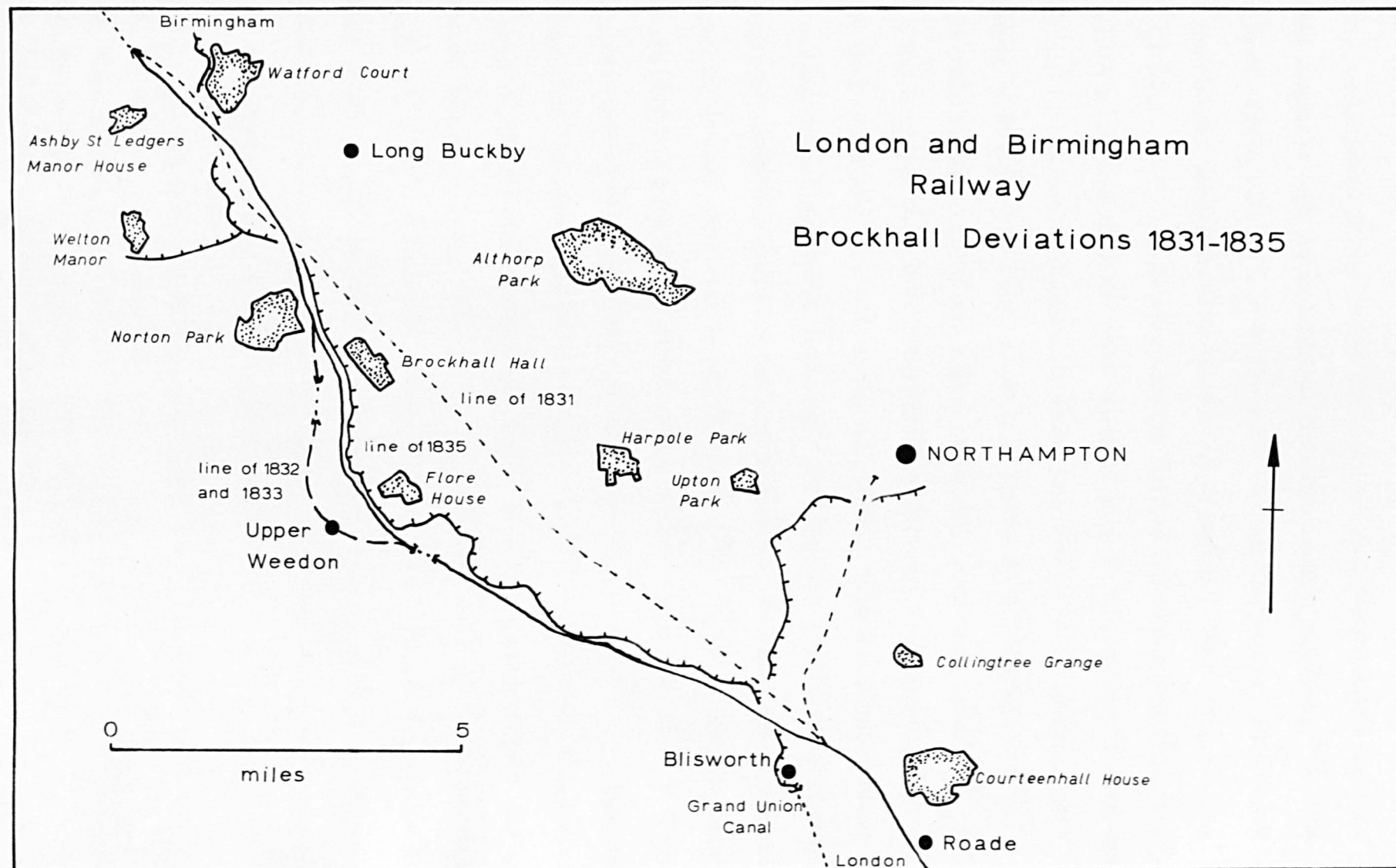
(2) HLRO Min. of Evid. HL 1832 vol.16 3 July p.103, J. Wake: op.cit. p.15

(3) see below p.145

(4) HLRO Min. of Evid. HL 1832 vol.16 28, 29 June 2, 3 July

(5) idem. 10 July p.197

Fig. 9



revolution.⁽¹⁾ The pamphleteering of the 1820s and the political turmoil of the early years of the 1830s had resulted in a heightened sense of social conflict with class conflict becoming clearly apparent.⁽²⁾ It has been argued that '... to the more serious the railway epitomised the quickening challenge from industrial growth and the middle classes'⁽³⁾ and to some the '... railway was the Industrial Revolution incarnate'.⁽⁴⁾ It could be argued that the most damaging blow to the railway's case came from one of its own spokesmen, J. Ross, who stated '... a great deal depends on whether the line is got from London to Birmingham; if the great line is got I think all other lines will join them (sic).'⁽⁵⁾

The conflict over this particular railway was far more clearly cut than that which had occurred in the mid 1820s. The promotional committee was uncomplicated by landed investment and, because the line ran through a district which was almost totally agricultural, no confusion arose from vested industrial interests along the route.⁽⁶⁾ It was also felt that the railway was promoted by townsmen for townsmen and thus clashed directly with the agricultural interests of rural landed society.⁽⁷⁾ J. Wake has argued that the opponents to the railway were '... the most conservative classes in the country (being) the landed gentry and the clergy', and any idea of damage to their estates '... threw many of them into a perfect frenzy ... they saw besides danger to the travelling public, damage to their stock, injury to their favourite sport, and no particular advantage

(1) A.S. Turberville: (1958) op.cit. pp.244-297

(2) see above p.60

(3) F.M.L. Thompson: (1963) op.cit. p.191

(4) D. Spring: (1971) loc.cit. p.18

(5) HLRO Min. of Evid. HL 1832 vol.16 2 July p.95

(6) D. Spring: (1971) loc.cit. pp.20-1

(7) L.T.C. Rolt: (1960) op.cit. p.218-9

to the countryside'.⁽¹⁾

A number of the landowners had specific objections. Some objected to the invasion of their estates (Lord Essex and Lord Clarendon), some felt that the railway would destroy the coaching interests of their tenants (Lord John Scott), some that their tenant's farming would be damaged (Lord Hastings), and some that their canal shares would depreciate (Mr. Grant). Lord Craven opposed merely out of loyalty to his neighbour Lord John Scott.⁽²⁾ All of these reasons were to become familiar to railway promoters during the 1830s as they invaded rural England. The objections put forward to this specific line were equally applicable to any railway promoted through the countryside at this time.

The basic argument put forward by rural society crystallised into an '... objection on the score of damage to hunting coupled with fear - not wholly unjustified - of injury through the cutting up of their estates.'⁽³⁾ By the 1830s fox-hunting had become of paramount importance in the social fabric of the countryside and had become highly organised by the beginning of this decade.⁽⁴⁾ A diatribe published in 1839 began '... how far, or in what manner, this trebly accursed revolution of railroads may affect the breed of horses, and fox-hunting generally it is impossible to say'⁽⁵⁾ and continued by complementing the general arguments then advanced that the railway was an iniquitous attack upon the rural way of life. The author concluded '... to us, as sportsmen, the intersection of any country by canal, or railroad furnishes food

(1) J. Wake: op.cit. p.4

(2) D. Spring: (1971) loc.cit. p.21

(3) J. Wake: op.cit. p.10

(4) F.M.L. Thompson: (1963) op.cit. pp.144-150

(5) F.P. Delmé Radcliffe: The Noble Science: A Few General Ideas on Foxhunting (1839) p.128.

enough in itself for lamentation; we bewail the beauty of a district spoiled, and, as an obstacle to our amusement, we denounce the barrier hostile to our sport'.⁽¹⁾

In general therefore '... there was a considerable reluctance to sell, inspired in no small degree by a genuine fear that rural amenities would be shattered by the grimy thundering machines'.⁽²⁾ There was a deep rooted fear of the invasion of privacy. It has been argued that '... respect for property was one of the cardinal features of early Victorian society',⁽³⁾ and in confirmation of this C.B. Vignoles, a railway engineer, stated before a Select Committee in 1836 that he had met great difficulties in surveying a line during 1832 and 1833 as a direct result of '... the exceeding excitement that prevailed in the minds of most of the landed proprietors at that time ... of any interference with private property'.⁽⁴⁾

It might be argued that rural society was deeply suspicious of this new mode of transport in that they feared the implications of the coming of the railway, believing it symbolised the burgeoning middle classes and it was this that stimulated their opposition rather than hostility toward the railway per se. On the other side of the coin J. Francis, admittedly an extremely biased observer, has suggested that the commercial classes felt that the House of Lords were taking petty revenge for the enforced acceptance of the Reform Act by rejecting the railway bill out of hand.⁽⁵⁾ Further to this Christie has offered the rather neat

(1) *ibid.* p.129, see also E.A. Pratt: *op.cit.* pp.246-8

(2) D. Spring: (1951) *loc.cit.* p.7, J. Wake *op.cit.* p.20 points out that the railway companies recognised this fear.

(3) J.R. Kellett: (1969) *op.cit.* p.27

(4) HLRO Min. of Evid. HL Sessional Papers 1836 vol.34 Brighton Railway 11 July p.207.

(5) J. Francis: The English Railway: Its Social Relations and Revelations: (1851) vol.1 p.184, see also W. Steel: History of the London and North Western Railway: (1914) p.52

analogy between the passage of the Reform Act and the authorisation of the first railways in that the two had very similar social ideals and '... very much the same people opposed the one as the other, and from very much the same sentiments'.⁽¹⁾

The failure of July 1832 led to a meeting that month of the railway promoters and their supporters. Lord Wharncliffe, who had chaired the House of Lords Select Committee, argued

that landowners who might yet differ with him be treated sympathetically; they were faced by an omnipotent Parliament ready to violate the rights of private property and their resentment was understandable. Accordingly he counselled that landowners should not be 'hurried and forced, but rather wooed and won'.⁽²⁾

By the October of 1832 the railway promoters had agreed to this policy of conciliation and felt '... it is manifest that the chance of diminished opposition must rest mainly on the result of negotiations with the great landowners, especially amongst the Lords'.⁽³⁾ The 'negotiations', euphemistically referred to before the Select Committee of 1833 as 'bargains', took the form of bribery⁽⁴⁾ and this purchase of neutrality has caused a considerable amount of controversy over the general relationships of the landowners and the railway companies during the early years of railway construction. Spring has put the 'negotiations' into perspective by demonstrating that the ultimate cost of land

(1) O.F. Christie: Transition from the Aristocracy: 1832-1867 (1927) p.222

(2) D. Spring: (1971) loc.cit. p.22

(3) J. Wake: op.cit. p.20

(4) HLRO Min. of Evid. HL Sessional Papers 1833 London and Birmingham Railway 25 April p.28.

totalled £506,500, this being double the revised estimate of £250,000 that Stephenson had submitted to Parliament. The original estimate had been for £413,000 with the proviso that the necessary land could cost as much as £481,000.⁽¹⁾

It is possible to extend this argument further in that the original Parliamentary estimate for the total cost of construction of the railway was for £2,500,000, however the actual cost came to £4,750,000;⁽²⁾ thus the final cost of land was only some 10.6% of total constructional costs. Should Francis' less reliable figures be used, which stated that the land cost £750,000, this still totalled just 15.7% of overall costs.⁽³⁾ With reference to the estimates, the original figure of £413,000 for land alone was 16.5% of the original overall estimate, the revised estimate, i.e. that which was put to Parliament, of £250,000 was just 10% of the total estimate for construction. Therefore if these figures are compared with Pollins' and Kellett's calculations,⁽⁴⁾ it would appear that the traditional argument that the cost of land for the construction of the London and Birmingham Railway was a large percentage of capital costs, stands in need of some correction.

Despite this a considerable body of opinion rapidly evolved which argued that the landowners had extorted huge sums of money from the railway companies in recompense for the compulsory purchase of their land. Lecount felt that the landowners had employed '... one vast system of plunder from beginning to end'⁽⁵⁾ in their dealings with railway companies. Francis was perhaps the most outspoken critic of

(1) D. Spring: (1971) loc.cit. p.24

(2) H. Pollins: (1971) op.cit. p.30

(3) J. Francis: op.cit. vol.1 p.203

(4) see above pp. 83-4

(5) P. Lecount: op.cit. p.52

the landowners 'rapacity' and his book of 1851 contained a furious attack on the landed interests 'immorality'.⁽¹⁾ Robert Stephenson, in a speech to the Institute of Civil Engineers in 1856, put forward the rather hysterical view that 25% of railway constructional costs were for the purchase of land and he was fiercely critical of the landowner's '... extraordinary demands for compensation'.⁽²⁾ His argument was further amplified in an article that appeared in the *Edinburgh Review* of April 1858. The author concluded that the railways were unremunerative because of their heavy initial costs which had resulted from large Parliamentary expenses and '... the exorbitant prices [paid] for land and compensation'.⁽³⁾

However, even during the nineteenth century, this point of view was under considerable attack. G. Buchanan writing in the *Quarterly Review* of March 1830, had remarked that '... the purchase of land is a material item of expense and great difficulties occur in the extensive interference with property which must take place throughout the line' and, tacitly accepting that land costs would be high in order to compensate for damage, pursued his argument without further comment on this point.⁽⁴⁾

The landed position was comprehensively defended by W.E. Aytoun in the December of 1851.⁽⁵⁾ He began by arguing that the railways were a commercial speculation and that shares were never taken out of 'disinterested philanthropy', they were taken to make a profit. He felt

(1) J. Francis: op.cit. vol.1 pp.186-9, 203-5, 217-8

(2) Address of Robert Stephenson to the Institute of Civil Engineers 8 January 1856 p.19

(3) (D. Galton) *The Railways of Great Britain: Edinburgh Review*: vol.107 no.218 (April 1858) pp.396-419, p.405

(4) (G. Buchanan) loc.cit. p.403

(5) (W.E. Aytoun) *Champions of the Rail: Blackwoods*: vol.70 no.434 (December 1851) pp.739-750 (Review of J. Francis: *A History of the English Railway*)

that the landowners did not want the railways '. . . their wish is to preserve their property undissevered, and to be spared from the spectacle of engines roaring by at all hours of the day and night close to the bottom of the lawn'. However, because they were forced to give up their land compulsorily, they naturally asked a high price for it, this price taking into consideration the fact that the land was required for speculative purposes. He then roundly criticised the idea that the land should be offered at the agricultural value and put forward the analogy of a railway company wishing to purchase land in the immediate vicinity of a town for building purposes and then offering the owner no more than agricultural value for it. Aytoun concluded that the railway companies had discovered the landowners to be the '. . . readiest scapegoat' for their own mismanagement and that their high capital expenditure had, in fact, resulted from fruitless legal battles in Parliament and had been wasted by ambitious engineers. (1)

There were obviously valid points in both cases but the basic argument was pithily summarised by W. Reed, the secretary to the London and Southampton Railway, in his evidence to a Parliamentary Select Committee of 1839:-

Q.1240: Did the company consider that the power those persons had to stop the bill was such as to make it advisable to pay them so large a sum?

Reed: That was the fact. (2)

The Grand Junction Railway, running northwards from the West Midlands to South Lancashire, was also authorised in 1833. Again the basic aim of the promoters was to link two termini and once again this

(1) see also T.R. Gourvish: op.cit. pp.22-3

(2) First Report from the Select Committee on Railways 1839:

26 April p.63 Q.1240, evid. of W. Reed, see also W.T. Jackman: op.cit. p.595

allowed considerable flexibility in alignment. A bill for the line had been before Parliament as early as 1824 but had been rejected in the House of Commons.⁽¹⁾ As a result of this failure the line was resurveyed and the engineers, Jessop and Rennie, took full advantage of the freedom allowed them in the location of the railway. They took '... the greatest care ... to render the route as satisfactory as possible to the largest number of landed proprietors, although there were some they were unable to conciliate'.⁽²⁾ The scheme went into abeyance until 1830 when the promoters reformed their Committee and appointed George Stephenson as chief engineer.⁽³⁾

Stephenson discovered that a route had already been aligned on the basis of minimal interference with landed estates. This, allied to his own principles of avoidance,⁽⁴⁾ and to the extremely successful work of the railway company's solicitor, J. Swift, who played a vital role in negotiations with the landowners with his extreme tact and offers of generous compensation,⁽⁵⁾ led to the exceptionally easy passage of the Bill through Parliament in 1833.

The two stages of the conciliation of landed opposition are again apparent. Firstly the attempts on the part of the engineers to align the railway in such a manner as to cause the minimum amount of interference to landed estates and secondly, having decided upon a line, negotiations with the relevant landowners occurred which obtained their neutrality toward the line as a result of generous payment for the

(1) N.W. Webster: Britain's First Trunk Line. (The Grand Junction Railway) (1972) p.16

(2) W.T. Jackman: op.cit. p.539

(3) N.W. Webster: op.cit. p.20

(4) see above pp. 100-1

(5) N.W. Webster: op.cit. pp.24-5

necessary land.

The success of the Liverpool and Manchester Railway also caused a group of Southampton merchants to form a Committee in October 1830 to promote a railway from their port to the city of London.⁽¹⁾ They immediately employed a Mr. Doswell to survey a possible route and he suggested an alignment between Southampton and Weybridge, in Surrey, that differed little from that eventually constructed but at Weybridge he proposed that the line should cross the Thames and run through Middlesex to a terminus in West London near Paddington.⁽²⁾ Doswell's proposals were not accepted and the Committee then appointed Francis Giles, a canal engineer familiar with that area of southern England, who managed to produce a route by the end of 1830. Giles decided to abandon his predecessors' western approach to London, contrary to the advice of his Committee.

Q. Had you any instructions originally to consider the propriety of an entrance upon the northern side of the metropolis?

Giles: I was strongly recommended by the Committee to take a line through Middlesex but I always saw serious objection to it and earnestly recommended them not to adopt it.

Q. Was one of those objections that it interfered with residence property?

Giles: That was the chief one.⁽³⁾

Having decided to abandon the Middlesex line Giles chose a route through western Surrey and spent 1831 refining the details of the align-

(1) R.A. Williams: The London and South Western Railway: vol.1 The Formative Years (1968) pp.11-17

(2) *ibid.* pp.13-14

(3) HLRO Min. of Evid: HL Sessional Papers 1834 vol.23 part 2, 5 June p.141

ment. The promoters held many local meetings during that year to inform the landowners of their intentions and discussed the landed requirements for the location of the railway.⁽¹⁾ As a result of these negotiations, and of Giles' own insistence of minimal interference with landed estates, it was possible for W.C. Milne, a noted civil engineer, to argue before the Select Committee of 1834

Q. In your judgement does the line, at present, thread through different residences in that neighbourhood avoiding them as much as possible?

Milne: I think it is so laid out.⁽²⁾

and for Giles himself to state

Q. Does your line interfere much with residence property?

Giles: It certainly approaches residence property going out of London for some distance but it does not take any houses of consequence. It is the most free of any line I could select.⁽³⁾

Giles admitted that the railway company had met considerable problems in the vicinity of Weybridge where the line had to pass between Oatlands Park (property of Sir F. Egerton) and Burwood Park (property of Sir R. Frederick) (Fig.10) but the engineer stated that he had managed to select an alignment that was satisfactory to both parties although this had necessitated the deep cutting to the north side of St. Georges Hill.⁽⁴⁾

Despite the fact that the alignment had been finalised during 1831,

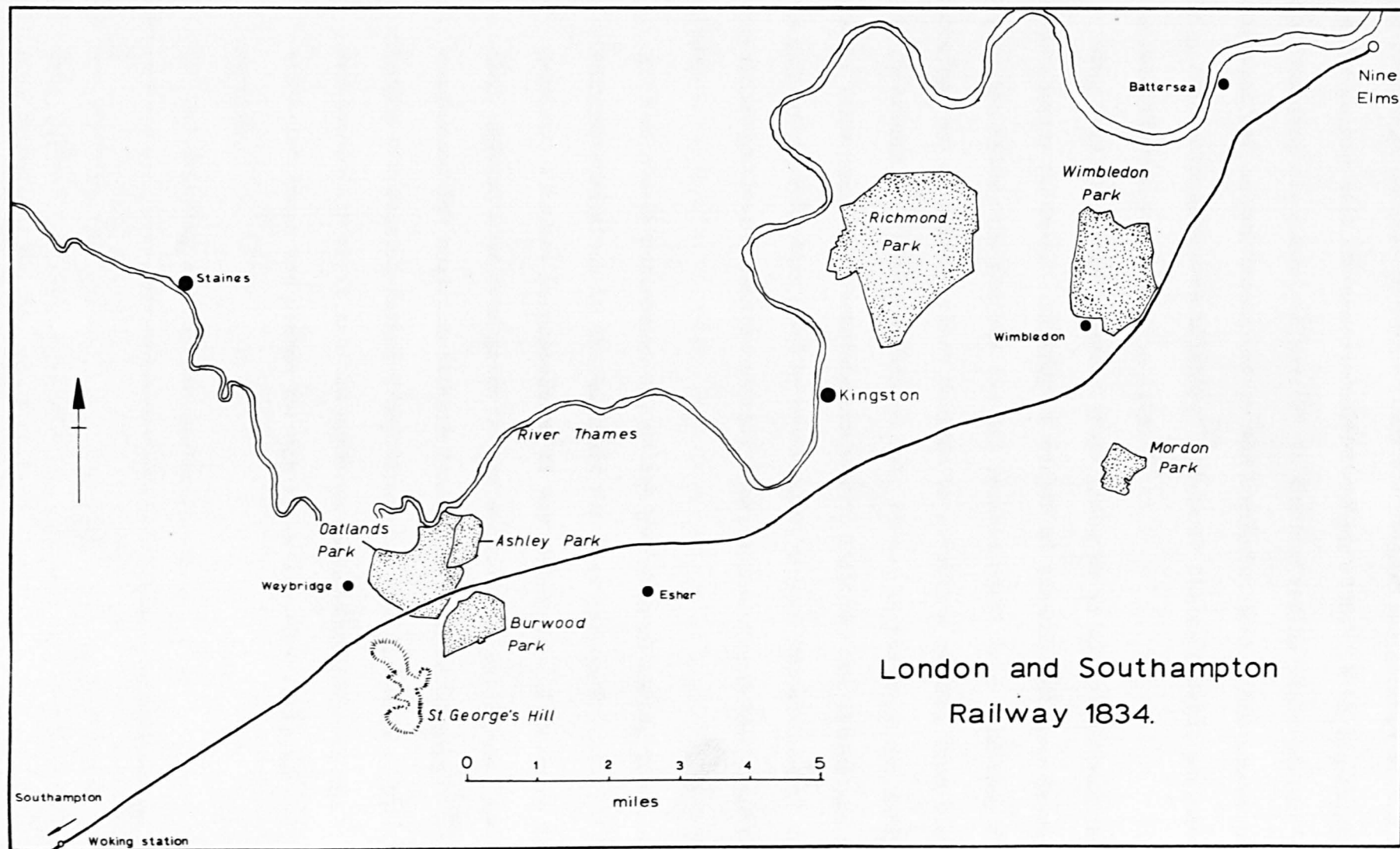
(1) *idem.* 2 June pp.55-7

(2) *idem.* 16 June p.212

(3) *idem.* 5 June p.142

(4) *idem.* 7 June p.181, see also the evidence of W. Reed *loc.cit.* 26 April 1839 Q.1242 '... we (the London and Southampton Railway) were afraid of attacking Oatlands Park which was considered rather sacred'.

Fig.10



the Committee decided to wait for the outcome of the passage of the London and Birmingham Bill through Parliament during 1832. With its rejection the Committee considered it prudent to further refine their railway's alignment and an additional survey was conducted during the summer of 1833. This, allied to extensive bribery,⁽¹⁾ ensured the successful passage of the Bill through Parliament in 1834.⁽²⁾

The last of the three great trunk lines to be authorised was the Great Western Railway. Although a number of schemes had been discussed during the 1820s, the project was not revived until late 1832 when a committee met in Bristol which decided to promote a railway from their city to London.⁽³⁾ They appointed I.K. Brunel as the engineer early in 1833. Once again the promoters aim was to link the two cities and this was comprehensively discussed by Mr. Walker, one of the members of the provisional railway committee at that time, before the Select Committee of 1835

Q. Are you in possession of, or are you able to state, the instructions given to the engineer for that purpose?

Walker: I am not in possession of any document. I am aware that instructions were given to the engineer to select what he considered the best practicable line to be adopted between London and Bristol taking everything into consideration - the practicability of it and the cheapness and convenience to the different towns and places through which the line could be carried.

Q. Not pointing out any one particular line . . . ?

(1) see above p. 110

(2) R.A. Williams: op.cit. pp.17-20

(3) E.T. MacDermot: op.cit. vol.1 pp.1-13

Walker: Certainly, no line whatever was pointed out to the engineer.⁽¹⁾

Blessed with this freedom of choice Brunel considered two main alternatives running to the north and the south of the Marlborough Downs. Initially he preferred the southern route but discovered that it had poor engineering potential and little local traffic.⁽²⁾ He therefore recommended that the northern line should be adopted on the basis of the better engineering and commercial prospects.⁽³⁾ Plans were completed in time for the Parliamentary session of 1834, but, unfortunately, subscriptions had proved inadequate to finance the submission of the complete line and thus only those sections between Bath and Bristol, and Reading and London came before Parliament for its approval.

Brunel had considered three alternative locations for the London terminus and concomitantly three alternative approaches to the city, these being a line terminating at Waterloo Bridge, a line terminating at Paddington, and a line, which he eventually selected, via South Acton, Hammersmith, Brompton, and Pimlico to terminate at Vauxhall Bridge.⁽⁴⁾ This latter route was fiercely opposed by Lord Cardigan, spokesman for the landowners and residents of Brompton,⁽⁵⁾ and as a result of this hostility two miles of the railway were abandoned and the terminus re-located at the Hoop and Toy public house, in West Brompton, although this was also opposed.⁽⁶⁾ The Bill was eventually rejected by the

(1) HLRO Min. of Evid. HL 1835 vol.1 Great Western Railway 19 June pp.4-5

(2) *idem.* 20 June p.82

(3) HLRO Min. of Evid. HC 1835 vol.4 GWR 23 March p.6, see also E.T. MacDermot *op.cit.* vol.1 p.5

(4) HLRO Min. of Evid. HL 1835 vol.1 GWR 25 June pp.150-1

(5) HLRO Min. of Evid. HC 1835 vol.4 GWR 26 March p.62

(6) E.T. MacDermot: *op.cit.* vol.1 p.7

House of Lords Select Committee in 1834.⁽¹⁾

The conflict with the landowners of West London caused Brunel to revise the alignment of his railway for the Parliamentary session of 1835 and forced him also to amend his general policy toward landowners. His engineering philosophy in this context was closely examined before the House of Commons Select Committee:

Q. What has been your object with reference to the landowners on the line?

Brunel: I have endeavoured between last year and this to see as many as possible of them and in the first place I endeavoured to lay down a line as far as possible to avoid property of a valuable description, or property that persons might attach a fancied value to or mineral property and I think I have done so as successfully as most lines of railway through so extensive a country and I have seen many individuals and consulted them upon the direction of the line and as far as possible adopted their suggestions.⁽²⁾

Q. Was your motive for choosing the present line because it was the least expensive or because it interfered least with valuable property?

Brunel: Decidedly because it interfered least with valuable property; that is a much more important object than the little difference of the expense of the line.⁽³⁾

The secretary for the railway company stated that it had been decided, largely as a result of the opposition of the Brompton residents, that there should be only the one terminus in north London and consequently

(1) *ibid.* p.8

(2) HLRO Min. of Evid. HC 1835 vol.4 GWR 23 March p.109

(3) *idem.* 26 March p.68

negotiations had been undertaken with the London and Birmingham Railway company to achieve this object.⁽¹⁾ Brunel confirmed this point and further agreed that the realignment was largely intended to minimise interference with property.⁽²⁾ (Fig.12)

In avoiding one group of landed opponents, the railway company discovered that their new line interfered with another landowner's property in Ealing. Brunel argued that he had aligned the railway through this property in a manner he felt would cause the least amount of damage but did concede that he had not discussed his proposals with the landowner and further admitted that he was completely unaware of whether they were to the landowner's satisfaction. The opposition manifested itself during the House of Commons Select Committee stage and, as a result, the alignment was altered to the property owner's requirements, a suitable price was agreed for the necessary land, and the opposition was withdrawn.⁽³⁾

Although Brunel's ideas of minimum damage in this instance did not coincide with those of the landowner, the negotiations that eventually occurred did settle the problem to the satisfaction of both parties. In this instance the initial difficulty had been caused by Brunel's failure to discuss the proposals with the property owner before finalising the alignment. It was possible for the extreme opposite to occur. Brunel stated that in attempting to negotiate with Mr. R. Palmer MP, the owner of an estate to the immediate east of Reading, he had offered the MP whatever alignment he so desired but had received no positive indications at all from him.⁽⁴⁾ The engineer eventually decided to pass through the edge of the estate by means of a tunnel (Fig.11) but in 1835

(1) *idem.* 23 March p.37, see also *idem* 23 March p.107

(2) *idem.* 26 March p.68

(3) HLRO Min. of Evid. HL 1835 vol.1 GWR 20 June p.107

(4) *idem.* 20 June pp.103-4

Fig.11

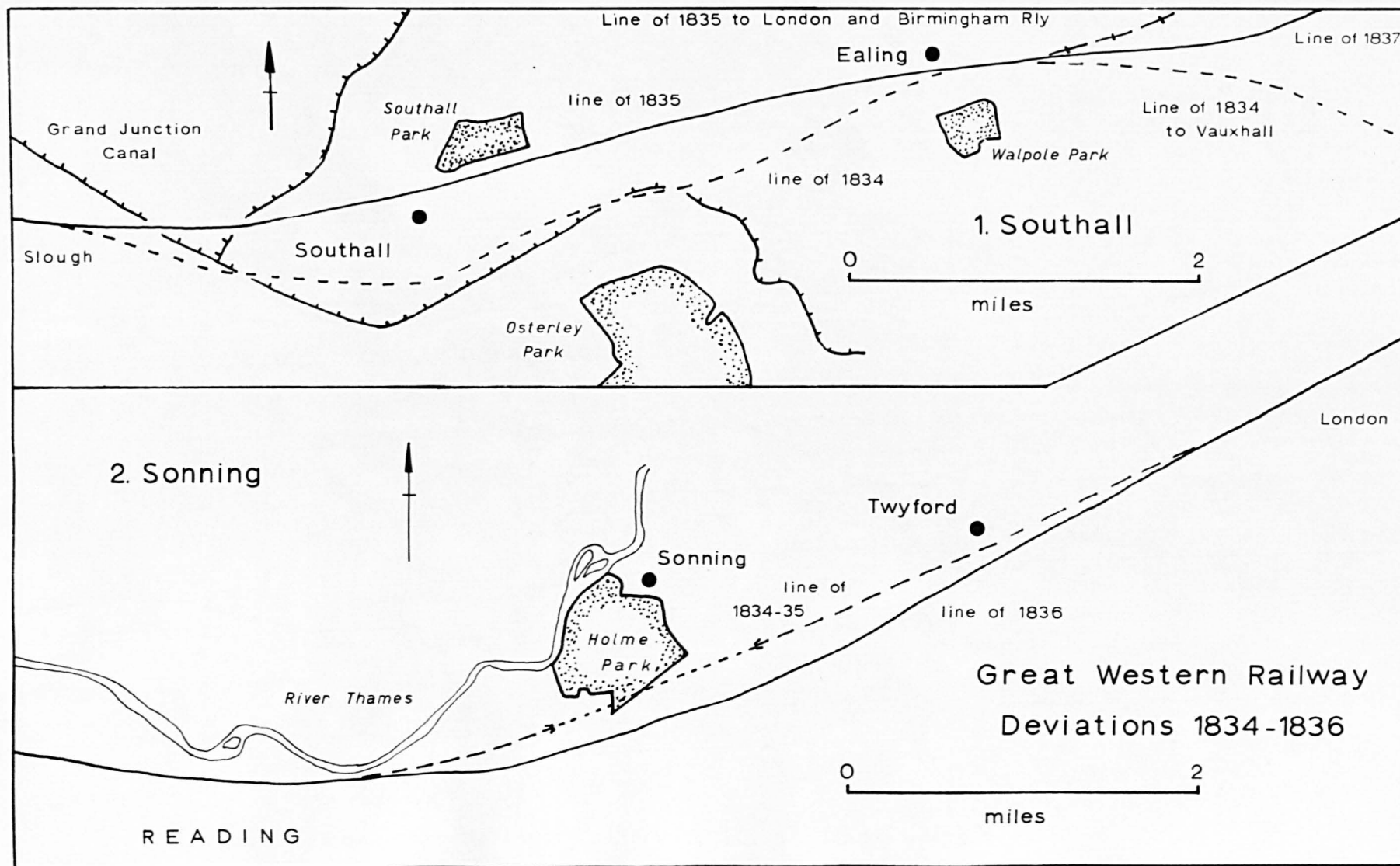
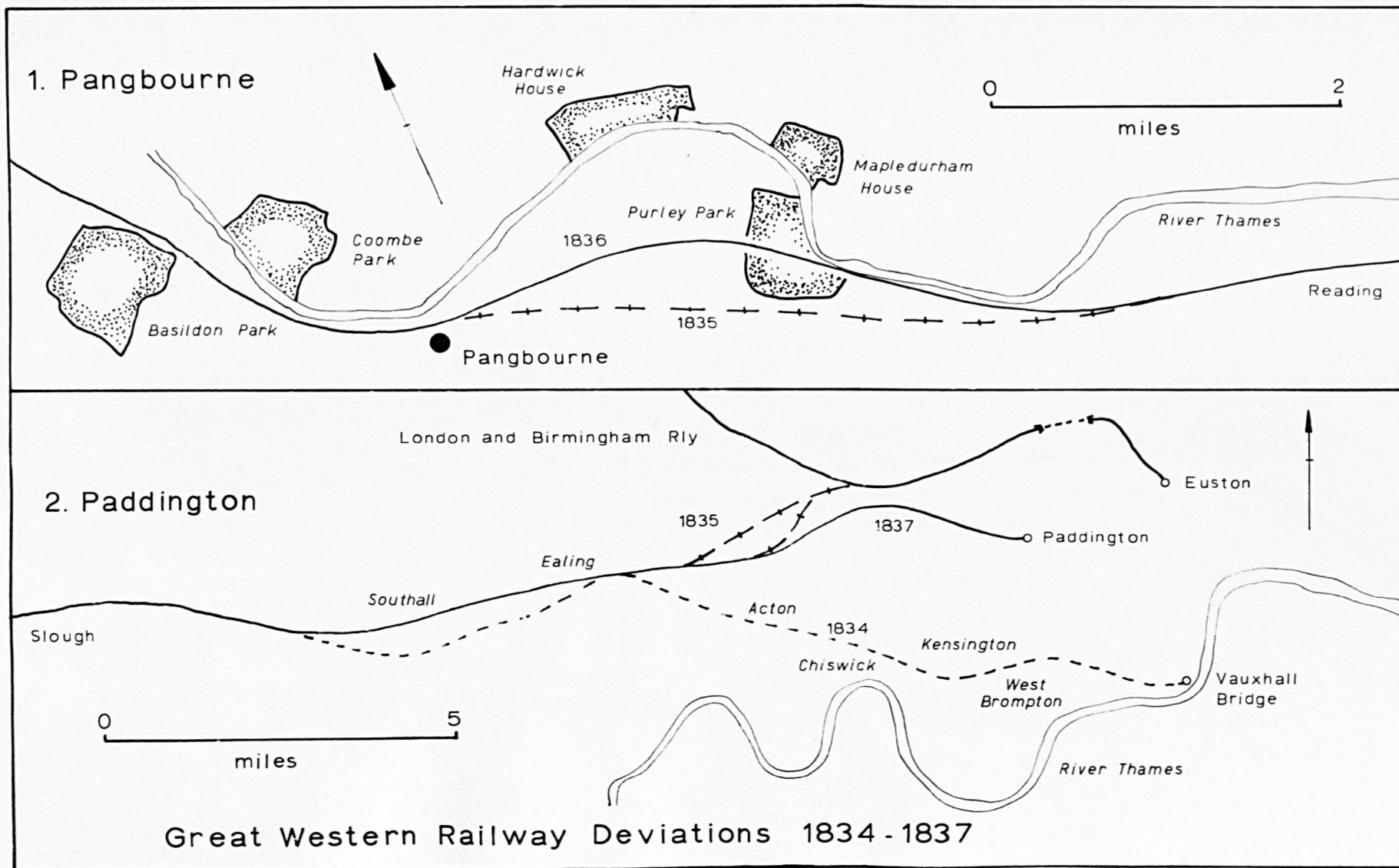


Fig. 12



Palmer made up his mind and thus in 1836 the railway company obtained a deviation Act with respect to this section of their line which authorised the construction of Sonning cutting rather than the tunnel.⁽¹⁾

Brunel had, however, concluded successful negotiations with Lord Jersey, the owner of Southall Park, his Lordships agent, and his engineer, concerning the proposed alignment of the railway through the estate (Fig. 11) which was amended to Lord Jersey's satisfaction.⁽²⁾ Similarly, in relation to an estate near Pangbourne, Brunel stated that the '... natural direction of the line would be directly through the house and grounds'⁽³⁾ but he had avoided this by means of a tunnel (later amended by a deviation Act). (Fig.12)

The choice of three different lines had been offered to the Town Corporation of Bath and they had decided upon the route that ran via the Ham Gardens rather than the second alternative which ran to the south of the town or the third which tunnelled under it.⁽⁴⁾ At Tiverton negotiations held during 1834 had allowed the engineer to alter the line chosen in 1833 and thus save the necessity of two river bridges.⁽⁵⁾ Brunel further stated that in approaching Bristol he had avoided part of the Avon valley because '... it is occupied very much by residences and gardens and altogether very valuable'.⁽⁶⁾

Some subsidiary points arose from the discussion before the Select Committees. It was stated that many of the Berkshire landowners had

(1) E.T. MacDermot: op.cit. vol.1 p.20

(2) HLRO Min. of Evid. HC 1835 vol.4 GWR 23 March p.110, idem 26 March pp.64-6

(3) HLRO Min. of Evid. HL 1835 vol.1 GWR 20 June pp.101-2

(4) *ibid.* p.89

(5) *ibid.* p.91

(6) *ibid.* pp.90-1

opposed the railway simply because of their interest in canal property,⁽¹⁾ and it was also willingly conceded on the part of the railway company that bribes had been given to landowners along the route to remove their opposition.⁽²⁾ The G.W.R. company registered the first complaint that a rival railway company, in this instance the London and Southampton Railway, was using landed opposition to conceal its own ambitions of having the G.W.R. Bill rejected.⁽³⁾

The opposition of Eton College to the railway has long passed into folklore⁽⁴⁾ but, in fact, the importance attached to their hostility by the G.W.R. was very slight. Brunel mentioned, almost in passing, that the company had intended to construct a branch line to Windsor but '... we abandoned it at once at the wish of Eton College and have never thought of it since'.⁽⁵⁾ This would appear to be consistent with the general policy of conciliation adopted toward landowners along the proposed route.

Finally, a point of some considerable significance arose from the decision of the chairmen of both Select Committees that the necessity for the line was proven and that the debate before each committee was merely to establish whether the line, as proposed, was suitable for the region.⁽⁶⁾ This was extremely encouraging for the promoters of other railway companies throughout England at this time in that it appeared that the concept of the railway, as a railway, was accepted in Parliamentary circles⁽⁷⁾ and therefore lines would no longer be rejected out of hand simply because they were railways but were to be considered on their merits.

(1) HLRO Min. of Evid. HC 1835 vol.4 GWR 23 March p.61

(2) *ibid.* p.65

(3) *idem.* 8 April pp.80-90

(4) see W.T. Jackman: *op.cit.* p.503, E.T. MacDermot: *op.cit.* vol.1 p.12

(5) HLRO Min. of Evid. HL 1835 vol.1 GWR 20 June p.107

(6) *ibid.* p.58, HC 1835 vol.4 GWR 20 March p.14

(7) see H. Parris: *op.cit.* p.18

The mid 1830s saw the rapid and considerable expansion of the number of railway companies both promoted and authorised.⁽¹⁾ The promoters and engineers had learnt a great deal during 1830-5 from close observation of the difficulties of the trunk lines and the majority of the companies took full advantage of this vicarious experience in that many were finally surveyed during the summer of 1835, subsequent to the authorisation of the Great Western Railway. One of the lessons that most promoters and engineers quickly learned was a considerable respect for the private estates of influential landowners. Paradoxically this is best illustrated by Parliament's rejection of a railway aligned by an engineer who had conspicuously failed to recognise this state of affairs.

Early in 1835 Joseph Gibbs, 'a clever and sanguine' engineer,⁽²⁾ projected a railway from London to York to run via Dunmow, Cambridge, Sleaford and Lincoln, known as the Great Northern Railway, which came before Parliament in 1836. Although Grinling has insisted that Gibbs was a competent engineer, Gordon has suggested that some of the techniques employed by the engineer were of dubious merit.⁽³⁾ However the engineer '... conceived his project in an enlightened and far sighted spirit. But full of its national importance, he took no pains to conciliate private interests'.⁽⁴⁾ The railway was also strongly opposed by the

(1) see above p.37

(2) C.H. Grinling: The History of the Great Northern Railway 1845-95 (1898) p.2

(3) D.I. Gordon: A Regional History of the Railways of Great Britain: vol.5 the Eastern Counties (1968) pp.102-3

(4) C.H. Grinling: op.cit. pp.3-4, see also Report of Mr. Gibbs (Civil Engineer) upon the several proposed lines for a Brighton railway (1836) pp.28-9 It is '... very important to consider deeply the alignment ... such a line should not be for the benefit of a particular town or of a particular class, ... but it should be such a line as is capable of diffusing the greatest amount of advantage, and contributing in the highest degree to the benefit of the country generally'.

rival Northern and Eastern Railway, which similarly proposed to construct a line between London and York.

The Bill for Gibbs' railway came before the House of Commons for its second reading on 26 April 1836 where it met considerable opposition from the landed MP's. Colonel Sibthorpe, a notorious opponent of all railways, proposed that the second reading should be postponed and this was seconded by Major Handley who conceded that although the Great Northern Railway, in its alignment through Lincolnshire, was the most convenient line for his purposes, he hoped '... that the House would interfere to protect private property from the ruthless hands of rash speculators'.⁽¹⁾ Mr. Heathcote then spoke and also demanded that the House should protect private property remarking that the rival scheme, the Northern and Eastern, '... proposed none of these encroachments on private rights'.⁽²⁾ that the Great Northern envisaged. Colonel Sibthorpe's motion was carried by 99 votes in favour with 85 against.⁽³⁾

The landowners were therefore not opposing the railway per se but merely registering their dislike of unnecessary incursions on to their estates. The total failure of the engineer to consider their viewpoint resulted in the bill's rejection before it was even discussed by a Select Committee.

The significance of landed influence was commented upon by a relatively impartial observer of that time, Captain Alderson of the Royal Engineers, in his reports to the Government on the Manchester, Cheshire, Staffordshire and the South Union Railways, and also the Brighton lines. He wrote:-

I trust I shall not be considered as calling in question the

(1) Hansard 3rd series vol.33 26 April 1836 cols 309-11

(2) *ibid.*

(3) C.H. Grinling: *op.cit.* p.4

skill and talent of the engineers employed . . . but I am well aware, that in laying out lines of railroad, in order to obtain support from towns on the line, as well as from influential individuals whose property is affected, an engineer is compelled to deviate from that route which (considered professionally only) he would otherwise recommend.⁽¹⁾

and in discussing the proposed alignment of one of the railways in the Trent valley, near Tamworth, he stated:

It is apparent too that . . . the ornamental property which abounds here . . . has obliged the engineer to deviate from that route which, considered professionally, he would otherwise have adopted; . . . in a valley of this kind it is only surprising that this does not occur more frequently⁽²⁾

This recognition of landed influence also appeared in Lecount's 'Practical Treatise on Railways' published in 1839.⁽³⁾ The author had been closely associated with the planning and construction of the London and Birmingham Railway and although not an engineer he discussed in some detail the optimum mode of determining the best alignment of a railway.

He suggested that the promoters, having decided upon their termini, should then appoint a secretary, an engineer, and a solicitor, who would then determine the detailed alignment. He argued that the first necessity was to establish the quantity of potential traffic in the general area through which the line would run and, contemporary with this, that the engineer should determine the principal points along which the line was

(1) Captain Alderson: Report X: Report on the Manchester, Cheshire, Staffordshire and the South Union Lines of Railway: 24/4/1837
Royal Engineers Papers vol.2 pp.91-102, pp.97-8

(2) *ibid.* p.100

(3) P. Lecount: *op.cit.* pp.1-24

to run. 'During the same time the solicitor will have been feeling his way amongst the landowners and the occupiers, so that where much dissent is manifested that property may, if possible, be avoided'.⁽¹⁾ In choosing the final alignment the engineer '... should run through no more seats or ornamental pleasure grounds than possible and avoid towns and villages where the land would be expensive'.⁽²⁾ He concluded that the engineer '... should enter into all enquiries to enable him to choose the best line and construct it at the least cost'.⁽³⁾

The extent to which the railway promoters and engineers were prepared to amend the alignment of their railway in order to placate landed opposition varied considerably but one factor of significance was the importance the promoters attached to the value of intermediary traffic between the two termini. Where they felt it to be of relatively little importance, compared to the overall objective of obtaining the authorisation of a railway between point A and point B, large deviations were often made to avoid areas of landed hostility. The alteration of the London and Dover Railway during the years 1834-36 is one of the best examples of this practice.

The initial proposal for a line from London to Dover was an extension of the London and Greenwich Railway, which had been authorised in 1833,⁽⁴⁾ south-eastwards through North Kent. A route had been suggested by Colonel Landmann that ran via Woolwich, Erith, Gravesend, Cobham, Cuxton, Maidstone, and Ashford to Folkestone (Fig.13).⁽⁵⁾ The first advertise-

(1) *ibid.* p.13

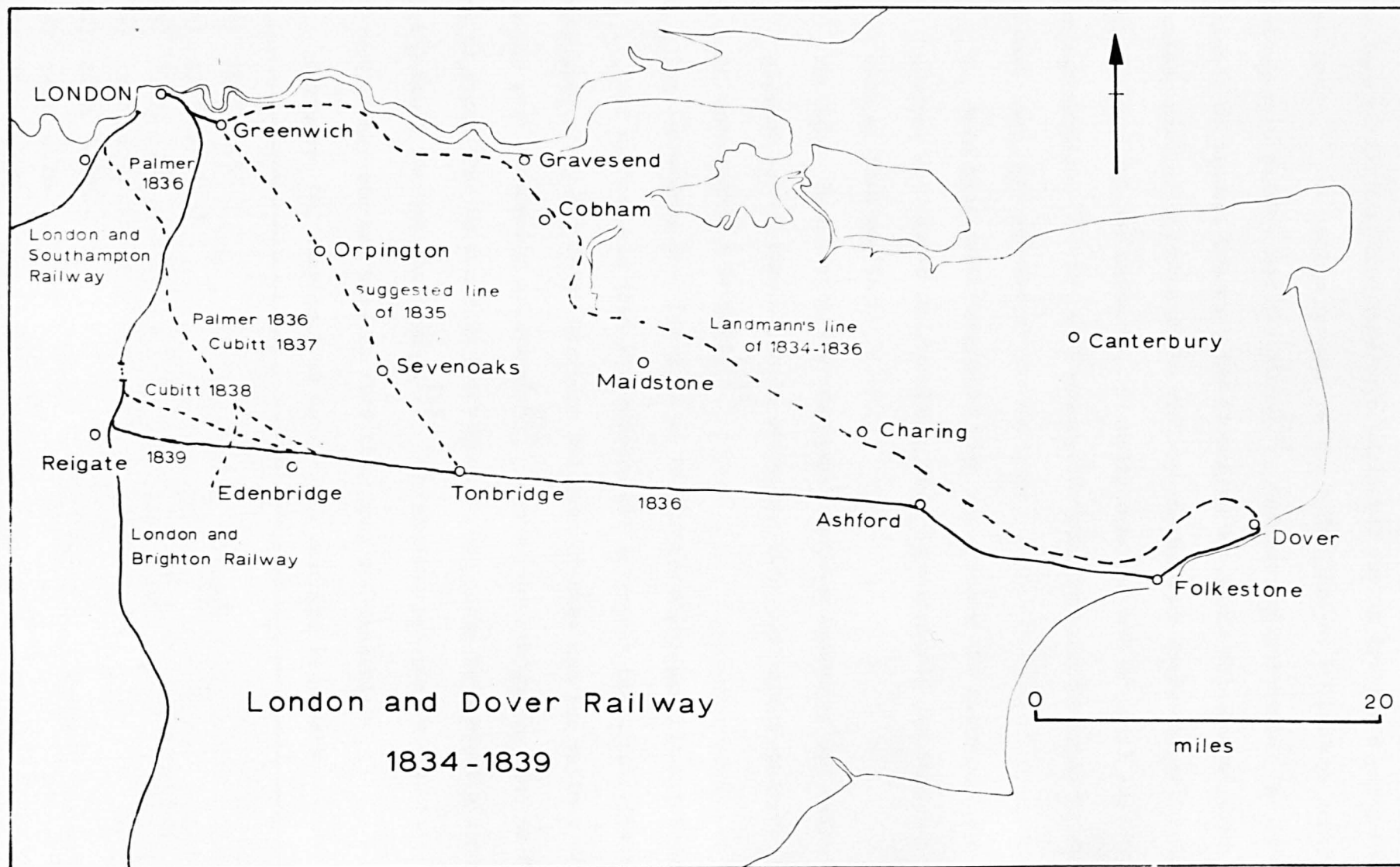
(2) *ibid.* p.17

(3) *ibid.* p.17

(4) H.P. White: A Regional History of the Railways of Great Britain: vol.2: Southern England: (1961) p.19

(5) HLRO Min. of Evid. HC 1846 vol.22 South Eastern Railway (North Kent Lines) 28 April pp.1-42

Fig. 13



ments for the railway appeared in the local newspapers during March 1834 and maps of the proposed line were published during April and early May of that year.⁽¹⁾ A public meeting on the 3 May 1834 at Folkestone expressed enthusiastic support for the line.⁽²⁾ Between Folkestone and the immediate vicinity of London, however, the promoters met implacable landed opposition.⁽³⁾ A public meeting to discuss the railway was held at Maidstone on 10 June and, although it was informal, virtually every person of local importance was represented.⁽⁴⁾ Mr. J. Pearson, the solicitor for the railway company at that time, was present at the meeting:

Q. Upon your exhibiting that plan and stating the nature of the project and course of your line, what reception did you meet with at that meeting?

Pearson: We met with the most universal expression of not only dissent but of opposition in every way that they could contrive to oppose such a project.⁽⁵⁾

The landowners had then gone on to express their general attitude '... the feeling was that the country was extremely beautiful, the roads were good, they had water carriage and good coaches and the railway would be the most abominable nuisance'.⁽⁶⁾ One of the landowners went as far as to state that he would do everything in his power to prevent a line being built through the county.⁽⁷⁾ The meeting had concluded:

Q. They did not believe that the thing was feasible?

Pearson: No, they took it as a thing that was very well

(1) *ibid.* p.5

(2) *ibid.* pp.14-5

(3) *ibid.* p.16

(4) *ibid.* p.17

(5) *ibid.* p.19

(6) *ibid.* p.20

(7) *ibid.* p.21

for carrying cotton and coal in manufacturing districts and in places where there was no beautiful country to be interfered with. (1)

The promoters therefore decided to abandon their proposal to pierce the North Downs via the Medway valley and Maidstone, and turned their attention to the gap between St. Mary Cray, Orpington and Tonbridge. (2) Once again they met with considerable landed opposition which precluded utilising this route and the promoters ultimately decided upon a line that ran due southwards from London, crossing the Downs near Oxted, and then running eastwards via Tonbridge to Folkestone. (3) Pearson concluded:

Q. You tell me the landowning opposition induced you to abandon the plan of taking the northern line?

Pearson: Yes, undoubtedly that was the great reason. (4)

The North Downs also exerted a strong influence on the alignment of the London and Brighton Railway in that a basic dichotomy appeared in the ranks of the civil engineers at that time, as to the best mode of traversing them. Once again the promoters of the various companies were merely attempting to link the resort and the capital city and tended to show little concern for potential traffic between the two termini. The engineers surveying the routes preferred either a 'natural' route, which made use of strategic gaps and valleys in the chalk hills, or a 'direct' route, which was more independent of these constraints.

Robert Stephenson was the prime advocate of the natural philosophy and had his disciples in N. Cundy, and, to a lesser extent, C. Vignoles and J. Gibbs. Sir John Rennie preferred a direct line, as did Palmer

(1) *ibid.* p.29

(2) *ibid.* p.30

(3) *ibid.* p.35

(4) *ibid.* p.90

of the South Eastern Railway company.⁽¹⁾

Vignoles had attempted to survey a line between the two termini during 1832 and 1833 and had proposed to pass through the North Downs by way of the Vale of Mickleham, between Leatherhead and Dorking (Fig.14),⁽²⁾ but had '... found insuperable objections to it on the part of the landowners'.⁽³⁾ Vignoles therefore abandoned this idea, because of '... what I might be excused in calling the violent prejudices of the landowners against any approximation of the railway to their estates and houses'.⁽⁴⁾ He felt that a line further to the east would be more practicable and '... thought it better to take it rather than encounter the opposition of the landowners; I considered that it would be useless to bring it into Parliament'.⁽⁵⁾ When pressed on this point he remarked that he considered it hopeless to attempt to obtain the consent of the landowners:

Q. On what account did you consider it hopeless?

Vignoles: On account of money not being able to obtain the consent of the proprietors of the property.⁽⁶⁾

Robert Stephenson had been employed late in 1833 by a rival company and he also proposed to make use of the Vale of Mickleham.⁽⁷⁾ Stephenson's assistant engineer, G.P. Bidder, argued that the engineer had produced a line that was satisfactory to the landowners,⁽⁸⁾ although he did concede that other engineers had met considerable difficulty in attempting to

(1) H.P. White: (1961) op.cit. pp.72-4

(2) HLRO Min. of Evid. HL Sessional Papers 1836 vol.34 Brighton Railways 11 July p.181

(3) Sir John Rennies Line: Speech of Mr. Joy before the Committee of the House of Commons: May 19 1836 p.5

(4) Min. of Evid. HL 1836 vol.34 11 July p.207

(5) *ibid.* p.207

(6) Min. of Evid. HC 1837 vol.17 Brighton Railways 9 March pp.92-3

(7) HLRO Min. of Evid. HL 1836 vol.34 7 July p.94

(8) *ibid.* p.74

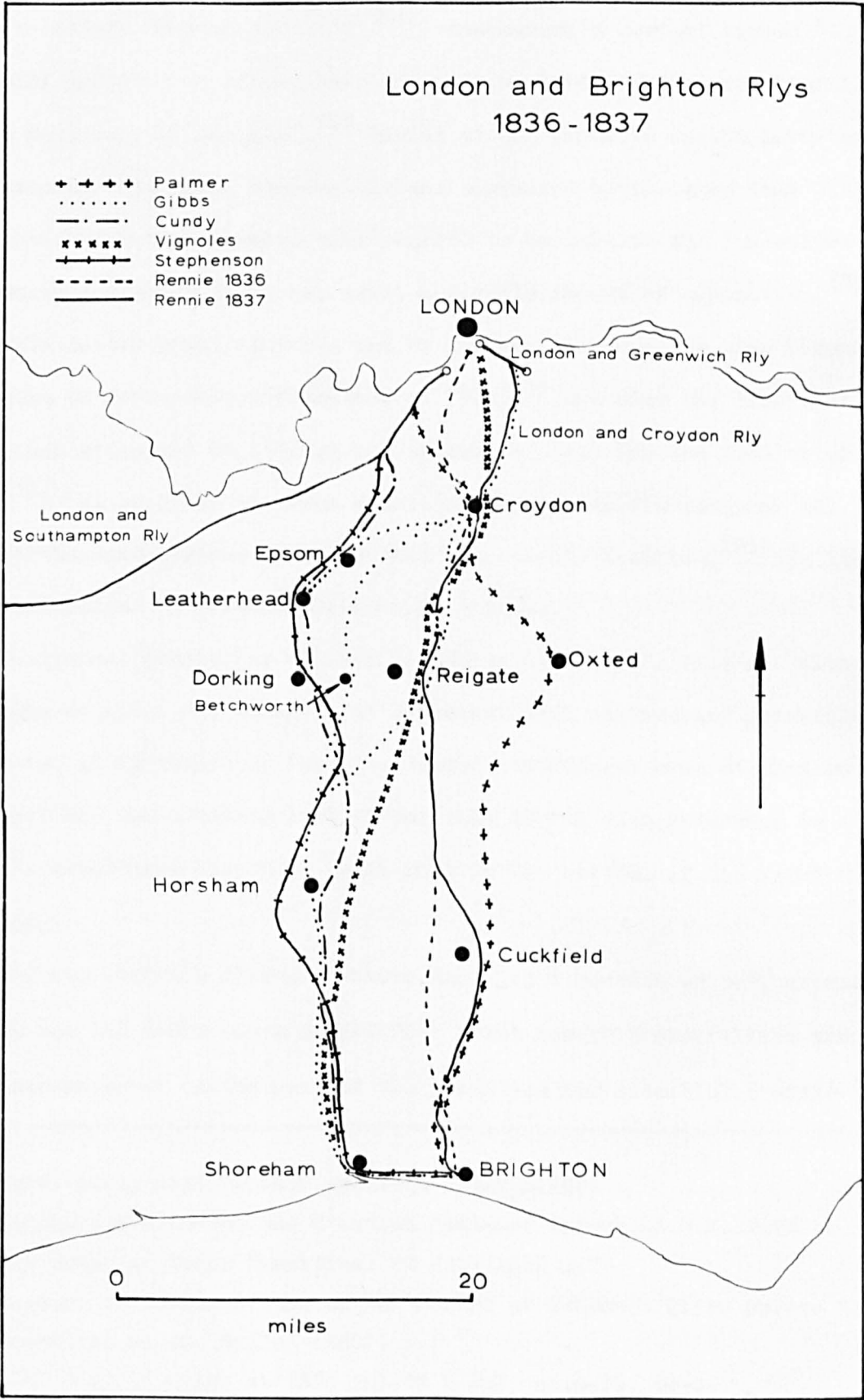


Fig. 14

align a railway through the Vale.⁽¹⁾ Stephenson's counsel argued '... that difficulty which others have met with we have combated successfully by the position of the line',⁽²⁾ laying strong emphasis on the importance of a tactful alignment, although it was suggested at the time that '... notwithstanding the enormous sums' agreed to be paid to the landowners by Stephenson's company there was still a certain amount of opposition.⁽³⁾

This latter point is borne out by the criticism of the line before the House of Lords Select Committee of 1836,⁽⁴⁾ and also the fact that Stephenson attempted to realign his railway of 1836 for the session of 1837.⁽⁵⁾ In contrast Sir John Rennie's direct line via Merstham met very little landed opposition and this was quickly pacified,⁽⁶⁾ his line being criticised on largely engineering grounds.

Parliament eventually decided in favour of Rennie's line and although the basic conflict was essentially concerned with engineering principles and costs, it is suggested that the landed controversy over Stephenson's alignment and the complete lack of any such debate with reference to Rennie's would have played no small part in the outcome of the final decision.

The two railways discussed above were, to a certain extent, anomalous in that the mid 1830s saw a significant trend toward shorter lines and more concern shown on the part of the promoters for potential traffic

(1) *ibid.* p.74, also HL 1836 vol.34 10 July p.142

(2) Stephenson's London and Brighton Railway: Speech of W.P. Wood to the House of Lords Committee: 22 July 1836 p.7

(3) Answers to 'Observations on the Result of Evidence given before the Committee on the Bills' (1837) p.5

(4) HLRO Min. of Evid. HL 1836 vol.34 6 July pp.8-12, 50-2

(5) HLRO Min. of Evid. HC 1837 vol.17 3 March p.56

(6) HLRO Min. of Evid. HL 1836 vol.34 18 July p.445, HC 1837 vol.17 15 March p.60

along the proposed route. The trunk railways of 1833-5 were, on average, some 95 miles in length,⁽¹⁾ whereas those authorised during 1836-7 averaged just 34 miles.⁽²⁾ Further to this Robert Stephenson spoke in support of the Birmingham and Gloucester Railway of 1836 and was closely questioned on the potential traffic along the proposed route. He argued that such potential traffic was of considerable significance in determining alignment and that, in some respects, it was more important than better gradients. He felt that the final route was a blend of traffic and engineering factors and concluded that if there were a direct choice between superior engineering and the possibility of increased traffic receipts '... I should be much inclined to consider favourably the line that went through the commercial country'.⁽³⁾ Thus both the diminishing overall length of a railway and the increased awareness of the importance of intervening traffic, began to militate against the flexibility enjoyed by the earlier lines.

Despite this, or perhaps because of it, a two stage process of alignment of a railway relative to a landed estate evolved. The first stage was the process of 'initial avoidance', the second being negotiation with the relevant landowner, using this alignment as the basis for discussion.⁽⁴⁾

Vignoles spoke strongly in favour of this idea of initial avoidance in 1836 when he stated: '... proximity to houses and parks of a large character are undesirable and when you can get other lines equally good it is better to avoid them'.⁽⁵⁾ This argument was complemented by one

(1) J. Simmons (1961) op.cit. p.5

(2) H. Pollins (1971) op.cit. p.28 (44 Acts - 1,500 miles)

(3) HLRO Min. of Evid. HC 1836 vol.1 Birmingham and Gloucester Railway 8 March pp.113-32, p.124

(4) see above p.125, Lecount's discussion of the alignment of a railway

(5) HLRO Min. of Evid. HC 1836 vol.29 Midland Counties Railway 24 March p.123

of the principal directors of the South Eastern Railway company in the same year: 'Q. Your anxiety is . . . to avoid the inconvenience of proprietors who have ornamental property if you can do it? A. Yes'.⁽¹⁾

Brunel was a strong advocate of this principle⁽²⁾ and put it into practice with the alignment of his Cheltenham and Great Western Union Railway in the vicinity of Kemble. The line came before Parliament in 1836 and was proposed to run from Swindon via Kemble, Sapperton, Stroud, and Gloucester to Cheltenham.⁽³⁾ The railway touched the estate of Squire Robert Gordon of Kemble, who appeared before the House of Commons Select Committee in opposition. Brunel argued that he had taken special care, as engineer, to get the best alignment possible:

Q. Have you, in your endeavour to avoid annoyance to the house, kept the junction as far from the house as you can and in that place, which in your judgement, would be the least objectionable to the house?

Brunel: Yes I think so; I knew whose house it was and I endeavoured to lay down my line and arranged it so.

Q. Did you, in passing through the property of Mr. Gordon's, endeavour to the best of your judgement, to lay down a line in such a way as should be as little objectionable to that mansion and to the occupier of it as possible?

Brunel: Yes, I thought this line would be the least objectionable.⁽⁴⁾
The success of this policy is amply reflected in the fact that the align-

(1) HLRO Min. of Evid. HC 1836 vol.36 South Eastern Railway 22 April p.25a

(2) see above p.118

(3) E.T. MacDermot: op.cit. vol.1 pp.79-80, see also J. Simmons (1961) op.cit. pp.53-5

(4) HLRO Min. of Evid. HC 1836 vol.3 Cheltenham and Great Western Union Railway 18 March pp.85-6

ment remained as it was and Gordon merely obtained stringent protective clauses.⁽¹⁾ (Fig.60)

It was comparatively rare for this stage to succeed without further negotiation as it was solely the engineer's opinion as to what constituted minimum damage to an estate. A far more satisfactory process was the implementation of both the first and second stages, as occurred in the alignment of the Hull and Selby Railway, in the vicinity of Kingston-upon-Hull.

Although a line between Leeds and Hull had been contemplated as early as 1825, it was not until 1830 that a railway was authorised between Leeds and Selby.⁽²⁾ Plans to extend the line eastwards from Selby to Hull were revived in the spring of 1834.⁽³⁾ The engineer, James Walker, began surveying in the spring of that year⁽⁴⁾ and had given his assistant, Alexander Comrie, explicit instructions that, in choosing the alignment, he was specifically to avoid '... the conveniences or the interests of the landed proprietors'.⁽⁵⁾ The main problem arose at Welton (Fig.15) where any latitude in the alignment was strongly limited by the need to pass through a relatively narrow area of suitable land that lay between the south of the Wolds and the Humber estuary. The estate was owned by Robert Raikes who had recently rebuilt the house and had had the grounds landscaped by Repton.⁽⁶⁾ In 1825 Stephenson had proposed to align the railway just one-half of a mile away from the front of the house, whereas

(1) E.T. MacDermot: op.cit. vol.1 p.80

(2) see above p.⁹³

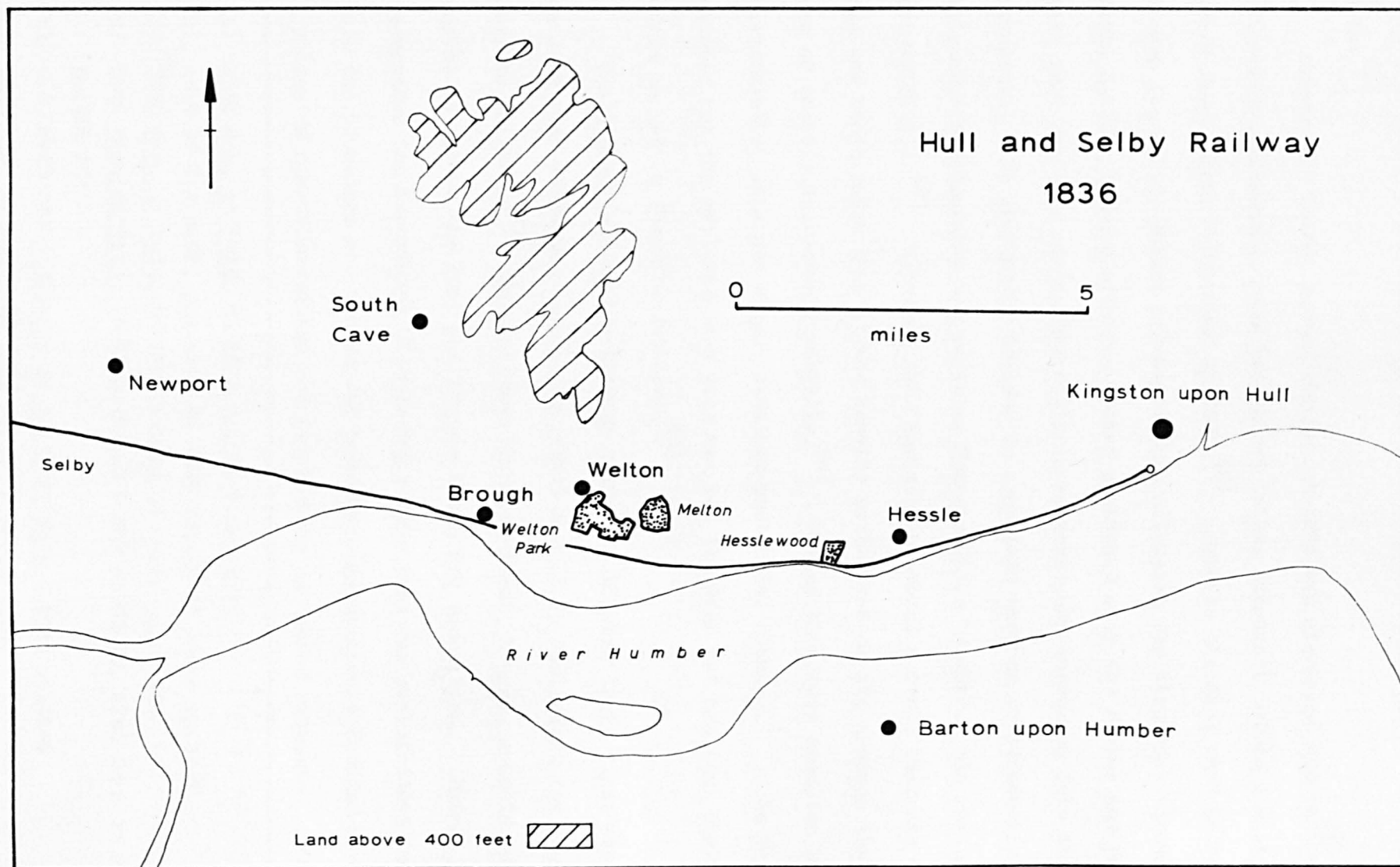
(3) K.A. MacMahon: The Beginnings of the East Yorkshire Railways: East Yorkshire Local History Society (1953) no.3 p.4, K. Hoole: A Regional History of the Railways of Great Britain: vol.4: North East England (1965) p.44

(4) HLRO Min. of Evid. HC 1836 vol.12 Hull and Selby Railway 15 March p.82

(5) idem 9 March p.110, also HL 1836 vol.15 Hull and Selby Rly 16 May p.87

(6) HLRO Min. of Evid. HC 1836 vol.12 11 March pp.11, 101-2, also idem 14 March pp.3-7

Fig. 15



Walker's initial suggestion was for a line at least five-eighths of a mile away.⁽¹⁾

Comrie met Raikes during the May of 1834 and discussed the various alternative alignments with him before Raikes eventually chose the line which came before Parliament in 1836.⁽²⁾ Despite the fact that he had chosen the route, Raikes persisted in criticising the alignment throughout 1835, largely because his home looked southward over the Humber and he felt that any line of railway would be an unwelcome intrusion into the landscape. He eventually decided to ascertain whether an alternative alignment was feasible and employed Francis Giles to survey the various possibilities.⁽³⁾ Although this engineer produced a route that was one and one third miles away it was heavily criticised on the grounds that it was of greatly increased visibility.⁽⁴⁾ Raikes therefore accepted the Parliamentary line and merely obtained protective clauses.⁽⁵⁾ As Walker pointed out the parliamentary line was not the best but the best that could be had in the circumstances.⁽⁶⁾

The Bristol and Exeter Railway company published their first prospectus on 1 October 1835 and proposed to submit a bill to Parliament for the session of 1836.⁽⁷⁾ This allowed their engineer, Brunel, exactly two months to survey the line and prepare plans for deposition. Brunel recognised the importance of choosing a line that was satisfactory to both the promoters and the landed interests and therefore decided upon a policy of non-intervention and acquiescence to landed requests. The

(1) HLRO Min. of Evid. HL 1836 vol.15 9 May p.67

(2) idem 16 May p.88, see also HC 1836 vol.12 15 March pp.86-7

(3) HLRO Min. of Evid. HC 1836 vol.12 14 March pp.97-160

(4) HLRO Min. of Evid. HL 1836 vol.15 9 May pp.69-72, also idem 16 May pp.101-114

(5) G.G. MacTurk: A History of Hull Railways (1879) pp.47-8

(6) HLRO Min. of Evid. HC 1836 vol.12 9 March p.114

(7) E.T. MacDermot: op.cit. vol.2 p.68

line ran from Bristol via Bridgwater, Taunton, Wellington and then entered the valley of the River Culm which joined the River Exe some two to three miles to the north of Exeter. The engineer had avoided an estate at Bridgwater at the request of a landowner and had also abandoned the idea of approaching Taunton 'more closely' because he felt it would interfere with too much property. Most of the difficulties had arisen with the landowners of the Culm Valley and Brunel stated that he had concluded satisfactory negotiations with dissident landowners at Silverton, Rewe, Stoke Cannon, Cowley Bridge and between Stoke Cannon and Cowley Bridge (Fig.16).⁽¹⁾ Thus the detailed alignment between Exeter and Cullompton, a distance of some twelve miles, was determined by the wishes of the landowners. Brunel's approach proved a conspicuous success in that, despite the rapidity of the survey, the line met with no landed opposition of note in Parliament⁽²⁾ and the line was authorised with little difficulty in 1836.

It might be supposed that the need for 'economy' in the construction of a railway, the desire on the part of the promoters to keep the initial capital costs to a minimum, either through choice or sheer lack of funds, would preclude the tolerance of deviations to avoid landed estates. However it has been suggested that it was felt, by promoters and engineers, to be cheaper to do so rather than face the possibility of opposition and consequent failure in Parliament.⁽³⁾ This is borne out by a study of the factors that influenced the alignment of the Birmingham and Gloucester Railway in 1836.

Captain Moorsom had been appointed engineer during 1833 and had commenced to survey a line between the two towns. He was explicitly

(1) HLRO Min. of Evid. HC 1836 vol.2 Bristol and Exeter Railway
17 March pp.1-223

(2) idem 14 March p.1

(3) see above p.79

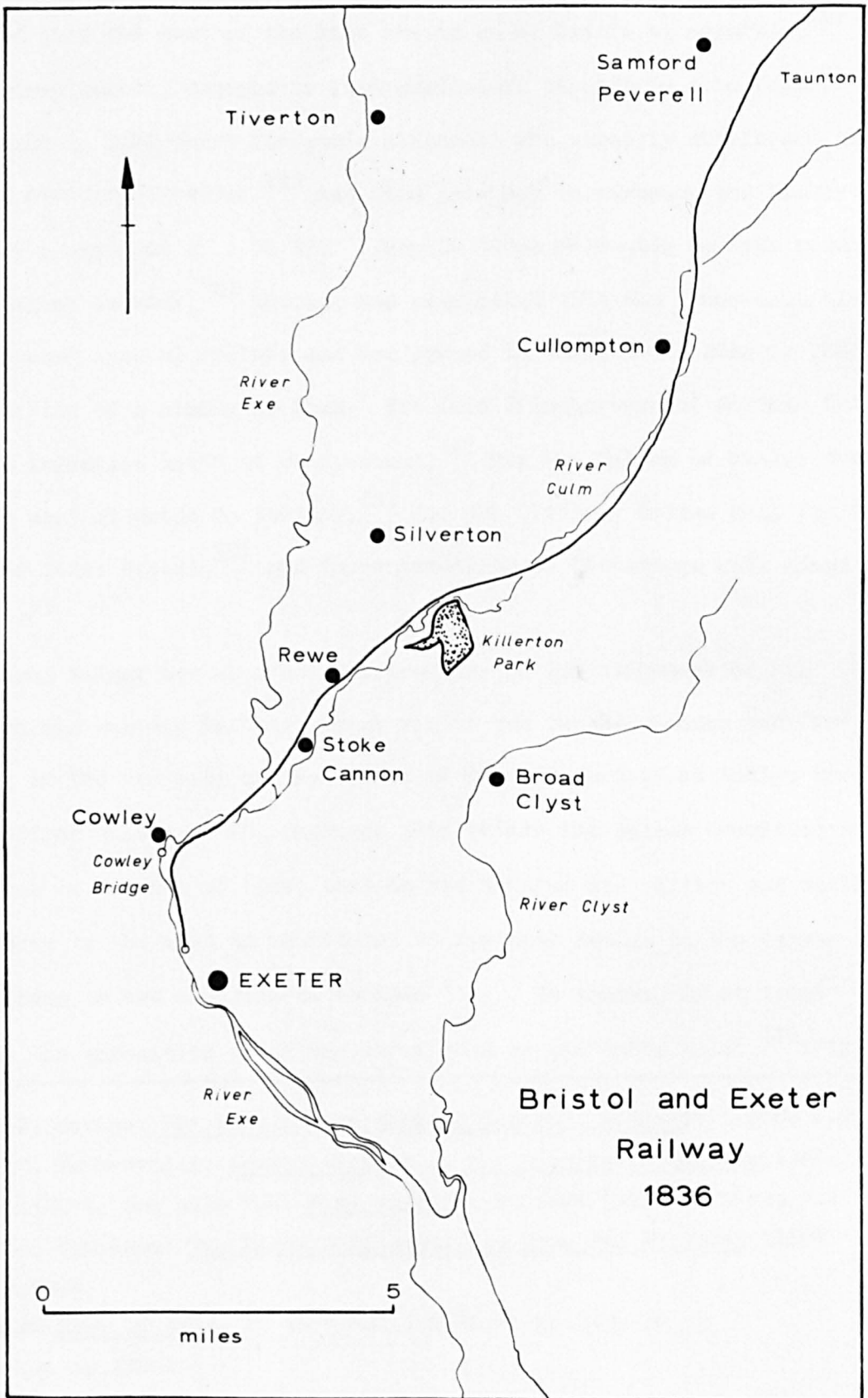


Fig. 16

informed that the cost of the line should be as little as possible.⁽¹⁾ The railway company managed to find sufficient capital to come before Parliament in 1836 where Moorsom's alignment was strongly criticised in that it avoided Worcester,⁽²⁾ and also intended to surmount the Lickey Hills by a gradient of 1 in 37. Despite these painfully obvious results of stringent economy,⁽³⁾ Moorsom had negotiated with the landowners along the proposed line of railway and had agreed to deviate the line to the satisfaction of a number of them; for Lord Ellenborough of Southam Hall (to the immediate north of Cheltenham),⁽⁴⁾ for Mr. Galton of Hanley Grange (to the east of Upton on Severn),⁽⁵⁾ for Mr. Clive of Cofton Hall (to the north of Barnt Green),⁽⁶⁾ and for a landowner at Cotteridge near Kings Norton.⁽⁷⁾

James Walker had also met difficulties in the alignment of his Northern and Eastern Railway, which was to run between London and Cambridge, in the vicinity of the estate of Lord Braybrooke at Audley End, near Saffron Walden. The engineer said before the Select Committee of the House of Commons of 1836, that he had altered his railway and deviated it further to the west in an attempt to minimise damage to the estate and had decided to use a series of tunnels '... to remove, or at least reduce, the opposition which was threatened by the noble Lord'.⁽⁸⁾ (Fig.17)

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- (1) E.G. Barnes: The Rise of the Midland Railway: 1844-74: (1966) p.99
 - (2) T.C. Turberville: Worcestershire in the Nineteenth Century (1852) pp.150-4, see also HLRO Min. of Evid. HC 1836 vol.1 11 March p.1
 - (3) F.S. Williams: The Midland Railway: Its Rise and Progress (1877) pp.72-4
 - (4) HLRO Min. of Evid. HC 1836 vol.1 9 March pp. 13, 36
 - (5) *ibid.* pp.136-7
 - (6) *idem* 10 March pp.33-5
 - (7) *idem* 9 March p.141
 - (8) HLRO Min. of Evid. HC 1836 vol.18 Northern and Eastern Railway: 20 April p.119, see also *idem* 19 April pp.9-148

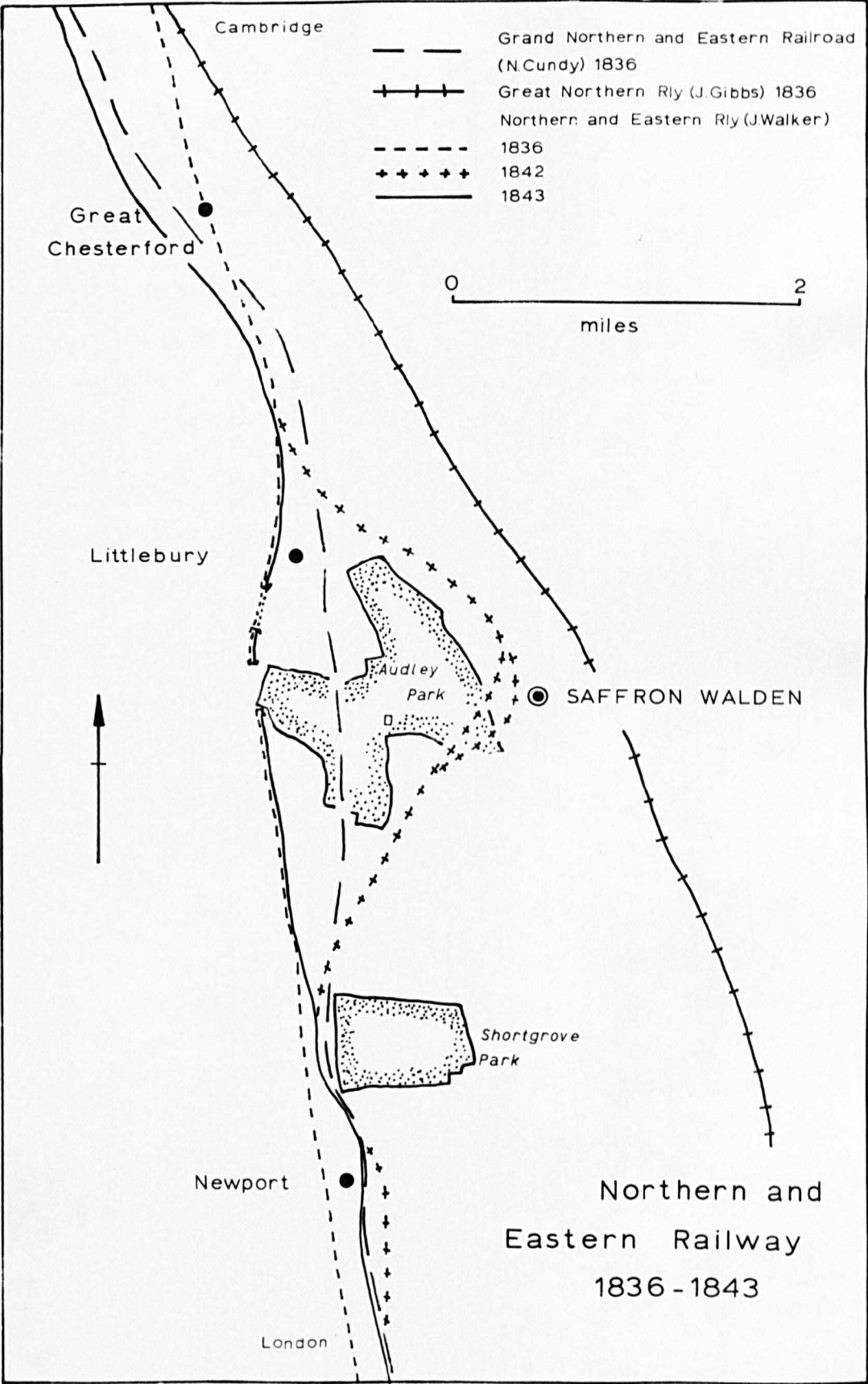


Fig. 17



PLATE 1.

Audley End, Saffron Walden.

see Fig. 17

The promoters of the line originally intended to continue the line northwards through Lincolnshire to terminate in York, and Walker had tentatively suggested a route that the railway might follow. When he was questioned on this extension he stated: '... one is obliged in a country like this to meet the wishes of the proprietors and in accomplishing that object in Lincolnshire I shall make a deviation from the line I have laid down'.⁽¹⁾

It was possible for promoters, as well as engineers, to completely miscalculate the influence that a landowner possessed. A line had originally been surveyed during the summer of 1835 to run from the Great Western Railway's main line at Didcot via Abingdon to Oxford, but nothing came of this proposal until it was revived by enthusiastic local interests early in 1836.⁽²⁾ They employed Brunel as their engineer to survey two alternative routes, one being a curved line via Abingdon, the other being a more direct line between Didcot and Oxford that left Abingdon some little way to the west. Having completed the survey the two lines were then submitted to the major landowner of the area, Captain G.R. Pechell MP, whose estate lay to the south-east of Abingdon (Fig.18). He rejected the line that caused his estate the greatest damage but implied that he did not necessarily approve of the alternative.⁽³⁾ The railway company acceded to his wishes and submitted the direct line to Parliament for the session of 1837. However Pechell successfully opposed the railway on the grounds of interference and the bill was rejected.⁽⁴⁾ Brunel

(1) *ibid.* p.155

(2) J. Hepple: Abingdon and the Great Western Railway: or Why the Oxford Line missed the Town. Journal of Transport History N.S. vol.II no.3 (Feb. 1974) pp.155-66

(3) HLRO Min. of Evid. HL 1837 vol.3 Oxford and Great Western Union Railway: 4 May p.84

(4) *idem* 26 April - 23 May 1837

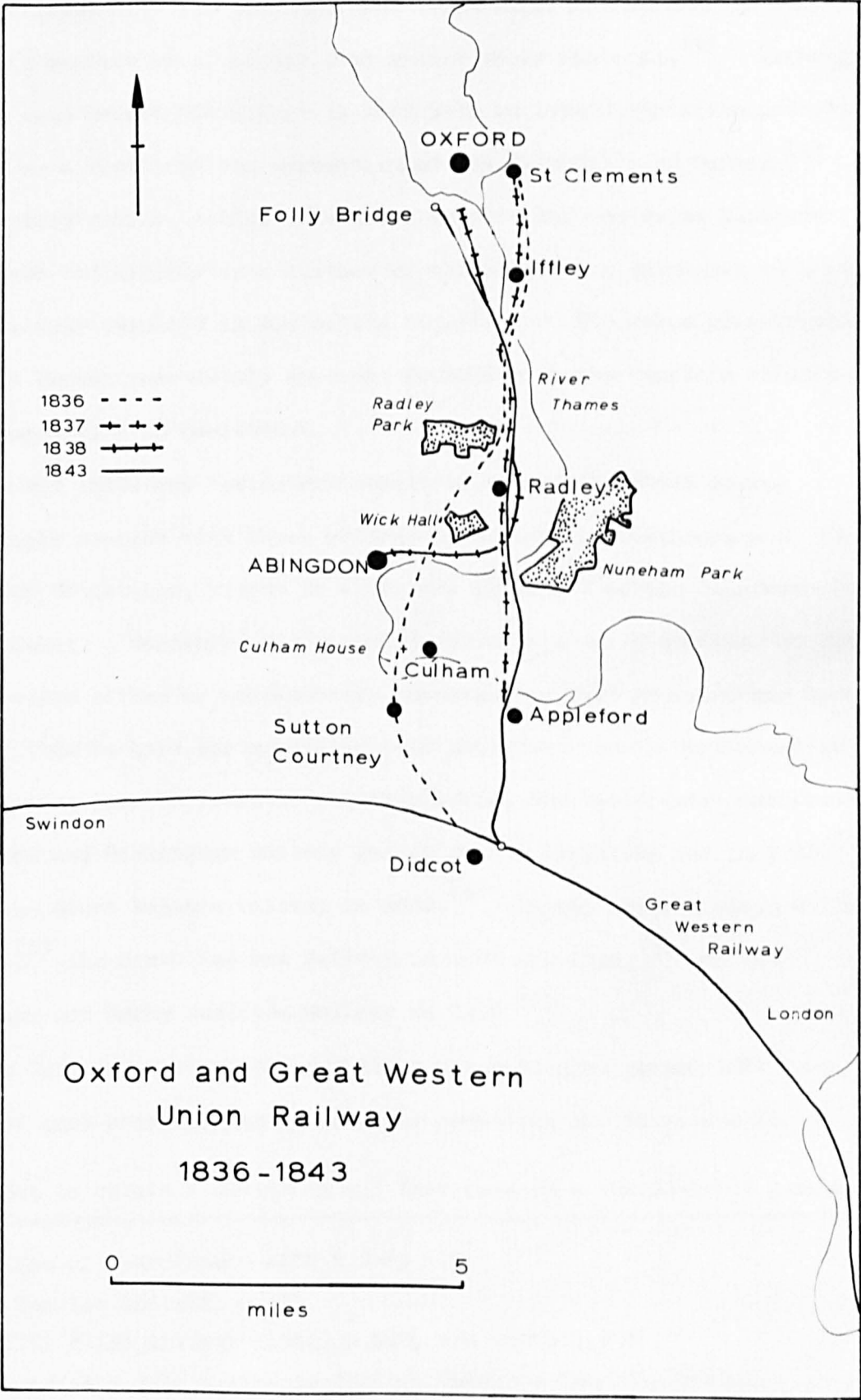


Fig. 18

then negotiated with the landowner and other dissident neighbours and managed to achieve an alignment that gained their approval.⁽¹⁾ Although the bill came before Parliament in 1838 with no landed opposition, it was rejected as a result of the opposition of the University of Oxford.⁽²⁾ The promoters' rather tactless behaviour in offering the major landowner of the area two alternatives neither of which had been discussed with him, unsurprisingly resulted in the bill's rejection. The value of a negotiated alignment became immediately apparent in 1838 with the complete absence of landed opposition in Parliament.

The mid 1830s saw the establishment of a practice which became increasingly popular with those railway promoters and engineers who, for one reason or another, wished to alter the alignment of the line authorised by Parliament. Companies occasionally found that small sections of the railway would either be considerably improved, or that pressure had been put upon them to have parts altered, and thus returned to Parliament in the following year or years to obtain sanction for these small amendments. The London and Birmingham Railway gained such a deviation act in 1835,⁽³⁾ as did the Great Western Railway in 1836,⁽⁴⁾ and the North Midland Railway in 1837,⁽⁵⁾ the South Eastern Railway in 1837 and 1839,⁽⁶⁾ and the Birmingham and Derby Junction Railway in 1838.⁽⁷⁾

The York and North Midland Railway was realigned during 1836 as a result of such pressure and in 1837 the promoters had to return to Parliament to obtain a deviation act that amended a considerable length

(1) HL End of Year Papers 1838 2 July p.7

(2) J. Hepple: loc.cit. p.163

(3) L.T.C. Rolt: op.cit. (1960) p.240, see above p.102

(4) see above p.121 deviation through Palmer's land at Sonning.

(5) see below p.148

(6) see below p.150

(7) see below p.154

of their railway. The company had been formed in October 1835 and had appointed George Stephenson as their engineer. His task was to survey a line that would link York with the North Midland Railway in the vicinity of Normanton.⁽¹⁾ Unfortunately this necessitated a rapid survey at a time when Stephenson was particularly busy and when the bill came before Parliament in 1836 the chairman of the railway company, George Hudson, decided that ' . . . in order to push the York and North Midland Bill through the House of Lords, [he] had made promises to an obstructive peer, Lord Howden'⁽²⁾ that committed the company to shifting the railway from the borders of Lord Howden's estate of Grimston Park.

The deviation bill came before Parliament in 1837 and was bitterly criticised in that the railway company had argued in 1836 that the curve at Grimston had been laid down specifically to serve the Tadcaster region and that now the company proposed to straighten the curve and pass this area some little way to the east (Fig.19).⁽³⁾ The surveyor, Thomas Cabry, was closely questioned by the opposition counsel and eventually conceded that Hudson had pledged to alter the line.

Q. You were told just to get beyond 100 yards of Lord Howden's property and then to take the line?

Cabry: I was not told so . . .

Q. Have you not just contrived to do so?

Cabry: I believe it does do so but whether it is a contrivance or not I cannot say.

Q. It does do so, do you mean to say that you were not told

(1) K. Hoole: op.cit. pp.30-1

(2) R.S. Lambert: The Railway King: 1800-1871: A Study of George Hudson and the Business Morals of his time: (1934) p.41

(3) HLRO Min. of Evid. HC 1837 vol.25 York and North Midland Railway
13 April p.119

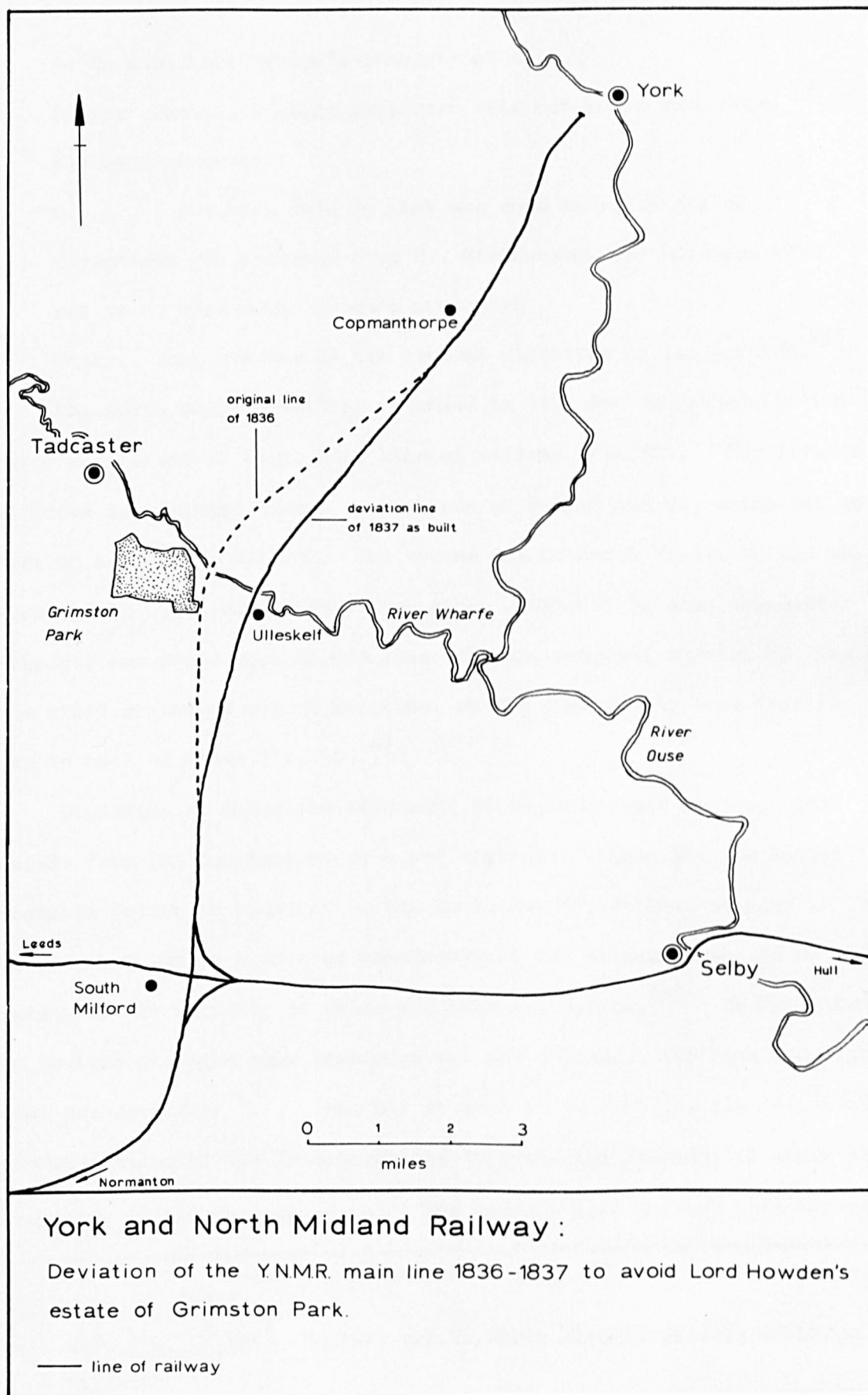


Fig. 19

to go upon Lord Howden's property at all?

Cabry: Perhaps I might have been told not to go upon Lord Howden's property.

Q. . . . you have told me that was done in pursuance of directions you received from Mr. Stephenson, who said you were not to go upon Lord Howden's property?

Cabry: Yes; it was by the general direction of the parties.⁽¹⁾

The North Midland Railway returned in 1837 for the authorisation of three deviations of their main line of railway (Fig.20). The first was intended to minimise damage to the town of Belper and was estimated to cost an additional £34,000; the second was at South Wingfield and was designed to shift the railway from close proximity to some ornamental property and would cost £1,600 less than the original stretch of line. The final deviation was at Beighton, on the property of Lord Manvers, and was to cost an extra £13,000.⁽²⁾

Decisions to alter the alignment of an authorised railway could result from the appointment of a new engineer. When William Cubitt replaced Palmer as engineer to the South Eastern Railway company in 1836, he proposed that a number of amendments of the alignment should be made, mainly in the vicinity of Oxted and near Folkestone.⁽³⁾ He had intended to deviate the line near Tonbridge but had abandoned the idea and arguing that the deviation ' . . . was not so much to improve the line as to avoid the objections of the landowners and to avoid the purchase of expensive property, it has been given up. The company have entered into arrange-

(1) *ibid.* pp.126-7

(2) HLRO Min. of Evid. HC 1837 vol.22 North Midland Railway 14 March pp.2-14

(3) HLRO Min. of Evid. HL 1837 vol.4 South Eastern Railway 26 April pp.2-9

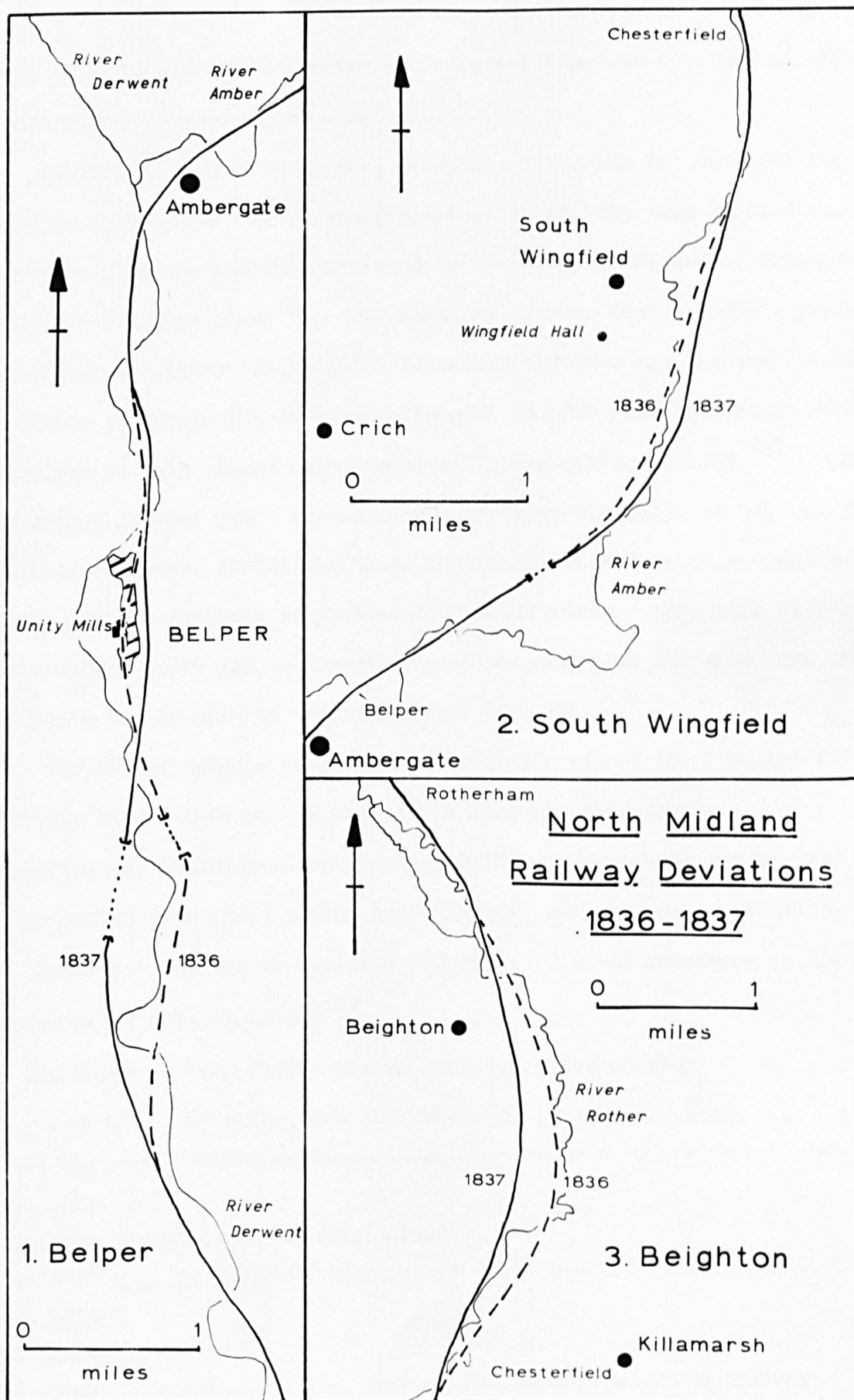


Fig. 20

ments with the parties to render the original line satisfactory to them; it always was satisfactory to me'.⁽¹⁾

Cubitt was forced to further amend his proposals for the line via Oxted as a result of the Government directive of 1837 that decreed there should be just the one rail approach to London from the south, which was to be the Brighton line.⁽²⁾ The engineer decided that the South Eastern Railway should leave the Brighton line near Merstham and run east-south-eastwards to rejoin the original alignment of 1836 near Edenbridge (Fig.21) and plans to this effect were deposited in the spring of 1838.⁽³⁾ During the summer of that year, the residents of Tilburton Hill, to the immediate south of Godstone, registered their strong opposition to these proposals⁽⁴⁾ and caused the engineer to further revise his plans. The line as eventually authorised in 1839 ran due eastwards before rejoining the 1836 line some two miles to the east of the village of Four Elms.⁽⁵⁾

Cubitt had taken a very forceful attitude toward the realignment of 1838 and stated that he had chosen the line via Godstone '... without regarding the landowners, in looking over the line I took the nearest line I could find from the Brighton after passing through the chalk hills.

Q. Without reference to expense? Cubitt: Without reference to the landowners or the expense'.⁽⁶⁾

He had taken an even firmer stance some two years earlier:

I made no deviation with that view [to avoid an estate]. I

(1) *ibid.* p.21

(2) H.P. White: (1961) *op.cit.* pp.26-7

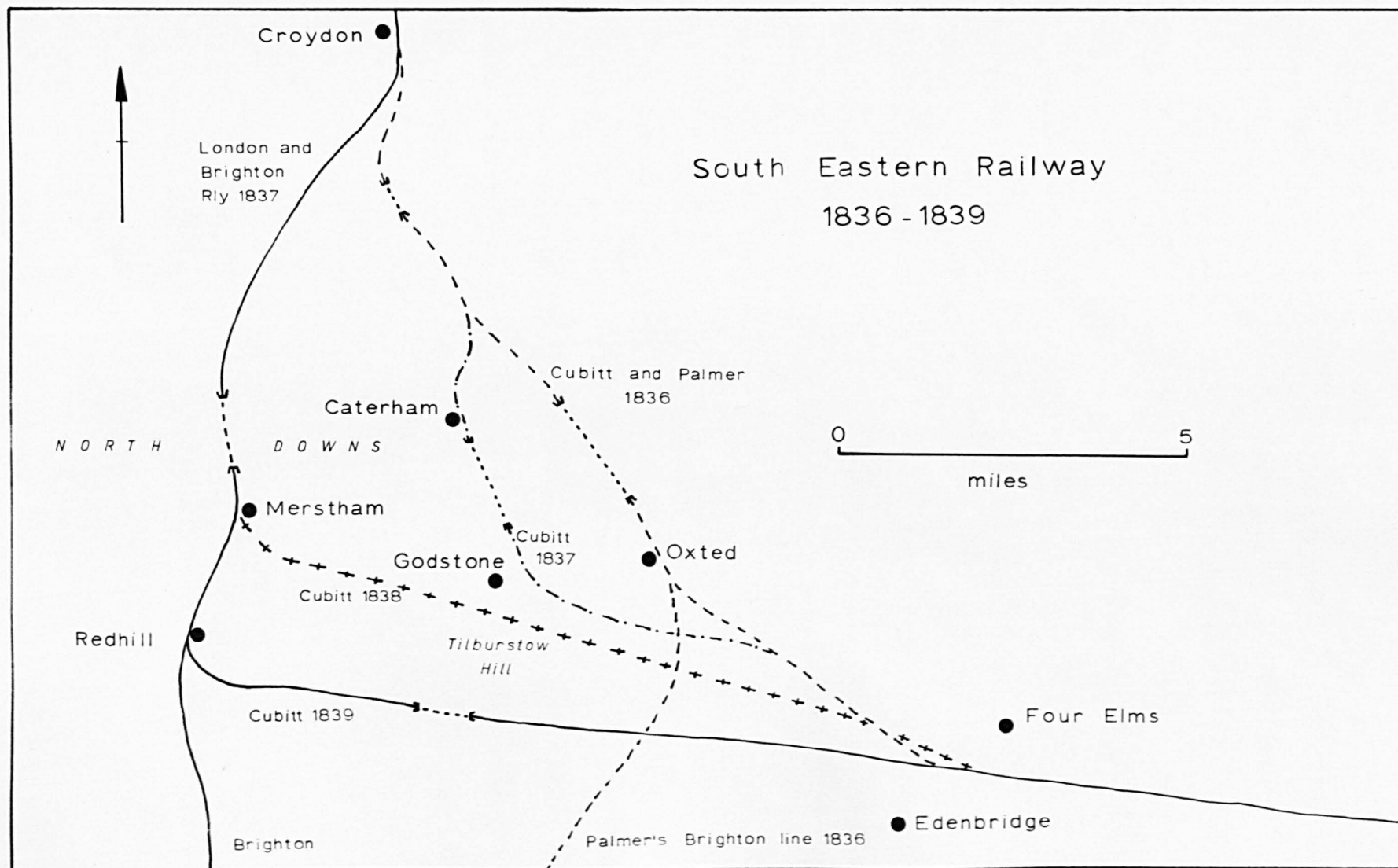
(3) HLRO Min. of Evid. HC 1839 vol.14 South Eastern Railway 26 April pp.5-7

(4) *ibid.* p.7

(5) *ibid.* p.9, see also E.A. Course: *The Evolution of the Railway Network of South East England*: (London Ph.D. Thesis 1958) pp.37-8

(6) HLRO Min. of Evid. HC 1839 vol.14 SER 26 April p.11

Fig. 21



should state that I received no instructions what to make deviations for; I went on the line as a plain sheet of paper and I suggested such improvements as was thought necessary nor did I know as to the particular landownership on the line. (1)

The rapidly expanding number of railway companies during the latter years of the 1830s demanded an increasing number of engineers and surveyors to lay out the new lines. This, allied to the mounting confidence on the part of the promoters, began to encourage a less tentative attitude toward landed society on the part of some of the practitioners of railway construction. Frederick Swanwick had been employed in 1834 as George Stephenson's assistant engineer in the planning of the Sheffield and Rotherham Railway. When asked whether he had '... paid attention to private property as an object of great consideration' he replied '... certainly, so long as it is compatible with the public interest I have considered it'. (2)

Nicholas Cundy had been employed as an engineer for the Grand Northern and Eastern Railroad company which was intended to link London and York. Cundy believed that public benefit far outweighed private considerations (3) and in practicing this rather hostile philosophy, aligned his railway through Lord Braybrooke's estate at Audley End in such a manner that James Walker exclaimed '... nothing but something amounting to necessity would justify a line through Lord Braybrooke's Park in the way Mr. Cundy has

(1) HLRO Min. of Evid. HL 1837 vol.4 SER 26 April pp.22-3

(2) HLRO Min. of Evid. HC 1835 vol.8 Sheffield and Rotherham Railway 19 May p.145

(3) N.W. Cundy: Observations on Railways addressed to the nobility, gentry, clergy, agriculturalists etc. in connection with the Grand Northern and Eastern Railroad (1834)

carried it'.⁽¹⁾ (Fig.17)

The second half of the decade also saw the modification of landed attitudes.⁽²⁾ Sir George Bowyer, whose estate at Radley was to be crossed by the Oxford and Great Western Union Railway, originally assented to the line via Abingdon as he felt it was in the public interest. When he discovered that the railway had been realigned to avoid Abingdon and had thus lost a considerable amount of local support, he felt that he was no longer justified in assenting to a line that still interfered with his estate yet was considered to be a poor line for the locality. He therefore opposed the line in Parliament but only because he felt that the original line was superior to that before the Select Committee.⁽³⁾

Robert Raikes also found that he had to weigh public benefit against private convenience in his negotiations with the surveyors of the Hull and Selby Railway.⁽⁴⁾ In a letter of October 1835 he conceded that Hull was in great need of a railway and also that he was strongly in favour of it for the public good but argued that he wanted the best line compatible with the needs of his estate.⁽⁵⁾

An implicit indication of the changing attitude was the promotion and authorisation of the North Midland Railway through the Aire valley, to the south east of Leeds, in the years 1835-6. Ten years earlier the engineer

- (1) HLRO Min. of Evid. HC 1836 vol.18 Northern and Eastern Railway 29 April pp.46-7 see also discussion of the ideas of Joseph Gibbs above p. 123
- (2) D. Spring: (1971) loc.cit. p.26 'Obviously from the very first the opposition of landowners to the coming of the railways was a very mixed affair'
- (3) HLRO Min. of Evid. HL 1837 vol.3 O. & G.W.U. Rly. 26 April pp.8-10 see also D. Spring (1971) loc.cit. p.26
- (4) see above p. 137
- (5) HLRO Min. of Evid. HC 1836 vol.12 Hull and Selby Rly. 14 March pp.47-50

to this railway, George Stephenson, had been strongly discouraged from even attempting to align a railway through the valley because the promoters feared that the landed opposition would defeat any scheme.⁽¹⁾ The tacit approval of 1836 is indicative of the rapidly changing attitudes prevalent during this decade.

The Birmingham and Derby Junction Railway, authorised in 1836, had been strongly supported by the local landowners and was sanctioned to fall into the London and Birmingham Railway to the east of Hampton station. This necessitated cutting through the western perimeter of Packington Park, property of the Earl of Aylesford. His Lordship decided in 1837 that he would prefer the line to run outside his park and the railway company therefore obtained a deviation act in 1838 to achieve this purpose (Fig.22). The Earl met the cost of this deviation act himself and appears to have held the view that as the alignment was for his benefit alone he should therefore pay for it, which was rather unusual for the time, but quite significant.⁽²⁾

The rejection of the Sheffield and Rotherham Railway Bill in 1835 was a direct result of the economic rivalry between the Duke of Norfolk and Lord Fitzwilliam. The latter nobleman supported the railway, as it would greatly benefit his collieries, but the former owned the majority of land along the proposed route and felt that his mining interests would suffer with its construction. The Duke of Norfolk's opposition proved successful and the bill was rejected.⁽³⁾ He petitioned against the line in 1836 but negotiations ensued and his opposition was withdrawn, thus

(1) see above p. 94

(2) C.R. Clinker: The Birmingham and Derby Junction Railway: Dugdale Society Occasional Paper no.11 (1956) p.10

(3) HLRO Min. of Evid. HC 1835 vol.8 S & R Rly. 14-27 May, HL 1835 vol.3 S & R Rly. 6-23 July

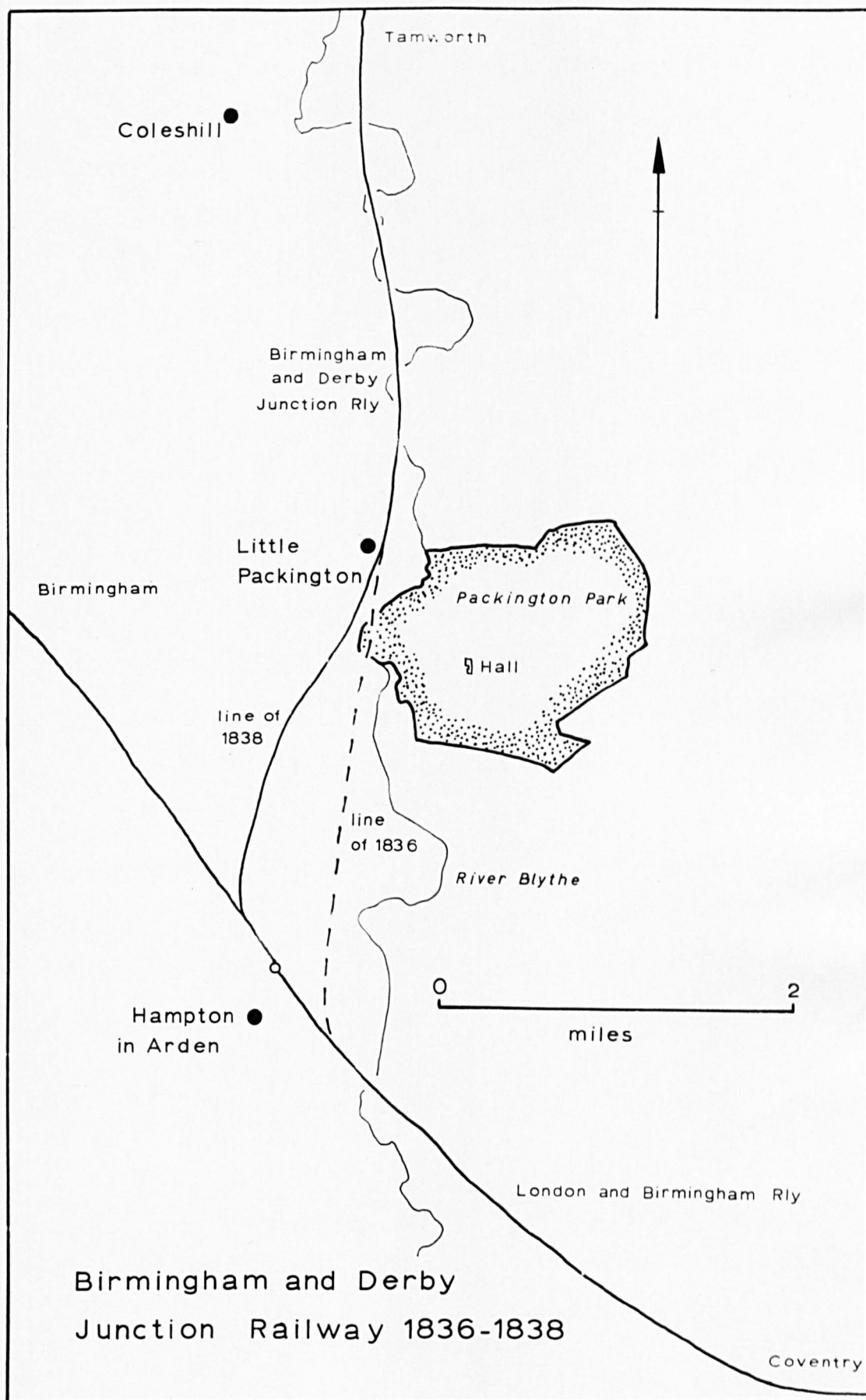


Fig. 22

allowing the bill a successful passage through Parliament.⁽¹⁾ In fact Lord Fitzwilliam's attitude toward railway companies varied according to the type of promoters who were sponsoring the scheme; he warmly supported those companies he considered to be locally promoted and of public benefit but entertained bitter hostility toward those promoted purely for speculative purposes, with no reference to local interest.⁽²⁾

Although there are indications of a movement toward acceptance of the coming of the railway on the part of a number of landowners, both Broadbridge⁽³⁾ and Spring,⁽⁴⁾ have argued that investment in railway stock by landed society during this decade was of little, if any, significance. By and large the general landed attitude during the 1830s was one of suspicion and fear, manifested by the resentment of the invasion of the privacy of their estates. In general both promoters and engineers recognised this resentment and aligned their railways accordingly. This was equally applicable in an urban as well as a rural context.

It has been argued that railway companies preferred to stay outside the urban 'fabric' as they found penetration into the centre far too costly at this time.⁽⁵⁾ Occasionally, however, it was necessary to align a railway through an urban area and Kellett has suggested that in such instances the promoters attempted to reduce their costs by making use of 'fissures' of substantial blocks of property, thus keeping the cost of legal transactions to a minimum. He felt that '... the main consideration in their siting was to achieve the cheapest and simplest approach

(1) HL Journal 1836 19 April p.125, see also F.M.L. Thompson: (1963) op.cit. pp.261-2

(2) F.M.L. Thompson: (1963) op.cit. p.261

(3) S.A. Broadbridge: 'The Sources of Railway Share Capital' in M.C. Reed op.cit. pp.184-211

(4) D. Spring: (1951) loc.cit. pp.6-7

(5) J.R. Kellett: (1969) op.cit. pp.4-9

and terminus, with the minimum disturbance of property'.⁽¹⁾

In discussing the alignment of the Midland Counties Railway through Leicester, Vignoles, the engineer, argued that he had had a choice of two main alternative routes to the east and the west of the town. He said he preferred the eastern route largely because there was no interference with private property, it had the better gradients, and was closer to the traffic centre.⁽²⁾

Between 1825 and 1845 the English economy passed through the worst industrial slump of the nineteenth century⁽³⁾ which created a very unfavourable financial climate for investment. Allied to this the railway companies already in existence were financially exhausted after completing their lines authorized during the 1820s and were solely concerned with the establishment of smooth operation. Both of these factors militated against further railway promotion. However, from 1841 onwards, many of the new rail lines came into service and the general public began to appreciate, perhaps for the first time, the benefits of a national railway network.⁽⁴⁾ The public began to favour the construction of further railways, as did the Government, with its implicit support for the expansion of the network found in its reports of 1841 concerning the construction of lines to both Scotland and Ireland. This change of attitude is well reflected in the decision of the University of Oxford to propose for the construction of a railway between Oxford and London.

This line had been before Parliament in 1837 and 1838⁽⁵⁾ but had been

(1) *ibid.* p.4

(2) HLRO Min. of Evid. HC 1836 vol.29 Midland Counties Railway
23 March pp.75-9

(3) *see above* p.113

CHAPTER SEVEN: 1840 - 1850

The chronology of the promotion of railways in England during the 1840s duplicated, in many respects, that of the previous decade. Between 1840 and 1843 few new companies were authorised but in 1844 a significant increase in the number of bills approved by Parliament occurred. This increase gathered momentum during 1845 to culminate in the 'Railway Mania' of 1845-46. The promotional boom collapsed in the latter months of 1846 and the final years of the decade saw the sanction of little new mileage.⁽¹⁾

Between 1838 and 1842 the English economy passed through the worst industrial slump of the nineteenth century⁽²⁾ which created a very unfavourable fiscal climate for investment. Allied to this the railway companies already in existence were financially exhausted after completing their lines authorised during the 1830s and were solely concerned with the establishment of smooth operation. Both of these factors militated against further railway promotion. However, from 1841 onwards, many of the new main lines came into service and the general public began to appreciate, perhaps for the first time, the benefits of a national railway network.⁽³⁾ The public began to favour the construction of further railways, as did the Government, with its implicit support for the expansion of the network found in its reports of 1841 concerning the construction of lines to both Scotland and Ireland. This change of attitude is well reflected in the reaction of the University of Oxford to the proposal for the construction of a railway between Didcot and Oxford.

This line had been before Parliament in 1837 and 1838⁽⁴⁾ but had been

(1) see above pp. 41-2

(2) E.J. Hobsbawm: op.cit. p.114

(3) F.M.L. Thompson: (1963) op.cit. p.257

(4) see above p. 143

rejected on both occasions, in 1838 largely as a result of the opposition of the University. They had argued, quite cogently, that the case for the further expansion of the railway network was not yet proven and if a railway were to be forced upon them there was a basic necessity for overwhelming proof of public benefit to be presented. They concluded that the railways were far too new a concept to be accepted blindly.⁽¹⁾

However, in 1842, the Great Western Railway revived the company and, after toying with the idea of an alignment that ran some way to the east of the original proposals, eventually decided to resubmit the line that had been rejected in 1838, for the session of 1843.⁽²⁾ (Fig.18) Before depositing the final plans the engineer, I.K. Brunel, discussed the alignment with the University of Oxford who merely suggested that a minor amendment should be made in the vicinity of the town and promised that they would offer no opposition providing certain conditions were met.⁽³⁾ The University asked that the line should approach the town on the west side⁽⁴⁾ and that '... the station ... in Oxford be so situate as not to interfere with the ornamental property of any of the colleges'.⁽⁵⁾ The line was authorised in 1843,⁽⁶⁾ the University having accepted that the case for railways was now proven.

One of the most notable features of railway promotion of the early 1840s was the parochial nature of the companies created at this time, largely stemming from the fact that the major railway companies were disinclined to undertake any promotion on their own account. This implied

(1) HL End of Year Papers 1838 Oxford and Great Western Union Railway:

(2) E.T. MacDermot: op.cit. vol.1 p.86 | 4 July pp.94-100

(3) HLRO Min. of Evid. HL 1843 O. & G.W.U.Rly 5 April p.105

(4) *ibid.* p.102

(5) *ibid.* p.105

(6) E.T. MacDermot: op.cit. vol.1 p.87

that a railway company that was both locally promoted and financed, for purely local objectives, found that local support was a major prerequisite for the success of their scheme. This was most easily achieved by the application of those principles of initial avoidance of estates and of negotiation with the landowners on the proposed route, first formulated during the 1830s.

As a result of a meeting held at Bodmin in the October of 1840 a Committee was created to promote a railway to run from Exeter south-westwards into Cornwall. They appointed Captain Moorsom as their engineer and he surveyed a line during the winter of that year. In the spring of 1841 plans of the proposed railway were deposited locally, the Committee having decided that an opportunity should

be afforded to the landowners and others interested to examine the line and ascertain its general character. From this examination it was hoped that the engineer and the Committee would derive much valuable information respecting such deviations from the original plans as might be required to meet local views and obviate objections.⁽¹⁾

Moorsom continued to survey possible routes during the summer and presented a second report to the Committee in the November of 1841. He was critical of the proposal for a 'southern' line from Exeter to Plymouth and Falmouth, and argued that it would prove impracticable because it would have to cross all the main streams and minor ridges in such a way as to involve the construction of very expensive works. He said that further objections also exist to some extent, both . . . in Devon, and

(1) Devon and Cornwall Railway: Report of the Committee (21 October 1840): To inquire into the practicability of constructing a railway through the County of Cornwall: Truro (1841) pp.3-4

also in Cornwall, along any southern line in respect of valuable and ornamental property, which could hardly be avoided without running into still greater difficulties.⁽¹⁾

Moorsom's ideas pertaining to alignment are highly indicative of the significance attached to the avoidance of parks and estates at that time. In fact, the second report implied that it was axiomatic that such avoidance should occur.

Moorsom further pointed out that the Cornwall Railway was extremely short of capital. He argued that as the landowners would be the greatest beneficiaries from the construction of the railway he hoped that they would offer their land at agricultural prices, or even as a gift. He felt that the demonstration of strong local support was of paramount importance if the company were to gain the confidence of strangers who would invest in the line.⁽²⁾ Implicit within this argument was the suggestion that the local support should not be compromised by an antagonistic alignment.

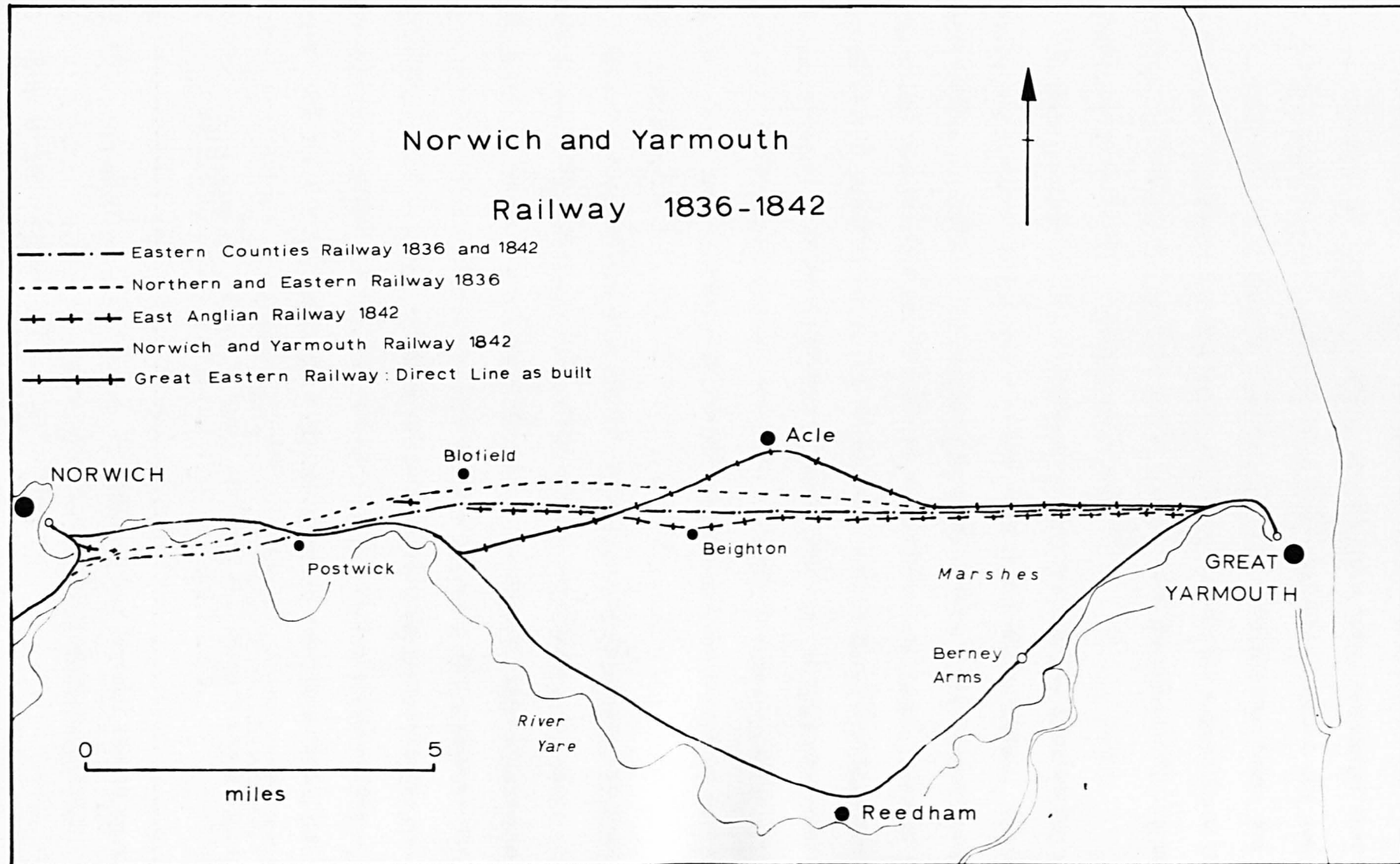
Similarly, in East Anglia, the landowners played a decisive role in the choice of the alignment of the railway between Norwich and Yarmouth. The company had been formed in 1841 because the citizens of Norwich had concluded that there was little likelihood of the Eastern Counties Railway ever constructing the railway, linking their city and Yarmouth, which had been authorised in 1836.⁽³⁾ In January 1841 George and Robert Stephenson were appointed as engineers and their alignment, as authorised in 1842, showed a marked contrast with that of 1836 in that the later line strongly reflected the local origins of the company, whereas the earlier route reflected regional, if not national, objectives. (Fig.23)

(1) Second Report of Captain Moorsom: (22 November 1841) London p.27

(2) *ibid.* p.32

(3) G.C. Allen: The Great Eastern Railway: (1967) p.21

Fig. 23



The Stephenson had undertaken comprehensive negotiations with the local landowners who, whilst warmly supporting the line, requested that the railway be aligned in such a manner as to radically improve the drainage of the region.⁽¹⁾ In addition the engineers had implemented their own engineering principles, as propounded in 1831,⁽²⁾ and had argued that the line they had chosen was preferable to that of 1836 because it '... would interfere with much less valuable property'.⁽³⁾

The warm support of the landowners of the Yare valley illustrates an attitude that became increasingly common during the early 1840s. Landed society began to perceive the railway as no more than a significant contribution to the general improvement of agriculture, so keenly pursued at this time, and its advent was therefore to be encouraged.⁽⁴⁾ This feeling was also noted by a House of Commons Select Committee of 1844 who remarked that the railways were meeting with '... greatly increased favour and support ... from the owners of landed property in the districts through which they pass'.⁽⁵⁾

Both the East Anglian and Oxford schemes had their origins in the 1830s inasmuch as their alignments had already been discussed before Parliamentary Select Committees during that decade and these alignments were then used as the basis for the routes eventually authorised in the early 1840s. Thus truly contemporary engineering opinion relative to alignment and landed estates was revealed in the philosophies of the engineer of the Cornwall Railway. As this scheme came to nothing, it

(1) HLRO Min. of Evid. HC 1842 vol.12 Yarmouth and Norwich Rly 19 April pp.130, 152

(2) see above p. 100

(3) HLRO Min. of Evid. HC 1842 vol.12 Yarmouth and Norwich Rly 19 April p.176

(4) D. Spring: The English Landed Estate in the Nineteenth Century: Its Administration: (1963) pp.47, 71

(5) J.R. Kellett: (1969) op.cit. p.4

was with the authorisation of the Blisworth and Peterborough Railway, in 1843, that these principles were realised in practice. The alignment of this railway encapsulated the experience of the 1830s in its shameless application of the criteria of initial avoidance and negotiation.

The basic idea for the railway stemmed from the Stephenson's' work on the Norwich and Yarmouth Railway during 1841. They realised that the East Midlands and Northern East Anglia were in need of railway facilities and therefore encouraged the promotion of a railway leaving the London and Birmingham main line at Blisworth and running north-eastwards through the Nene valley to Peterborough. However, when it came to the detailed alignment the engineers, Robert Stephenson and G.P. Bidder, found that the valley was occupied by a considerable number of estates and parks.

Leaving the main line the first problems arose immediately to the south of Northampton where it was initially intended to align the railway along the southern bank of the River Nene, through the northern edge of the park of Delapre Abbey. (Fig.24) The owner of the estate, General Bouverie, suggested that the railway should be relocated on the northern bank of the River. Both the railway company and the Mayor of the town argued that Bouverie's alignment would cause considerable difficulties in the location of the station as the only feasible site would prove too cramped, the approach roads were inadequate, and that such a deviation would cost an extra £50,000 to £60,000.⁽¹⁾ The engineer then offered Bouverie any alignment he cared for, so long as it was on the southern bank of the river, and an agreement was eventually reached in Parliament that the line originally submitted by the railway company, would be altered

(1) HLRO Min. of Evid. HL 1843 vol.2 Blisworth and Peterborough Rly
20 June pp.215-8, HLRO Min. of Evid. HC 1843 vol.16 B. & P. Rly
20 March p.209

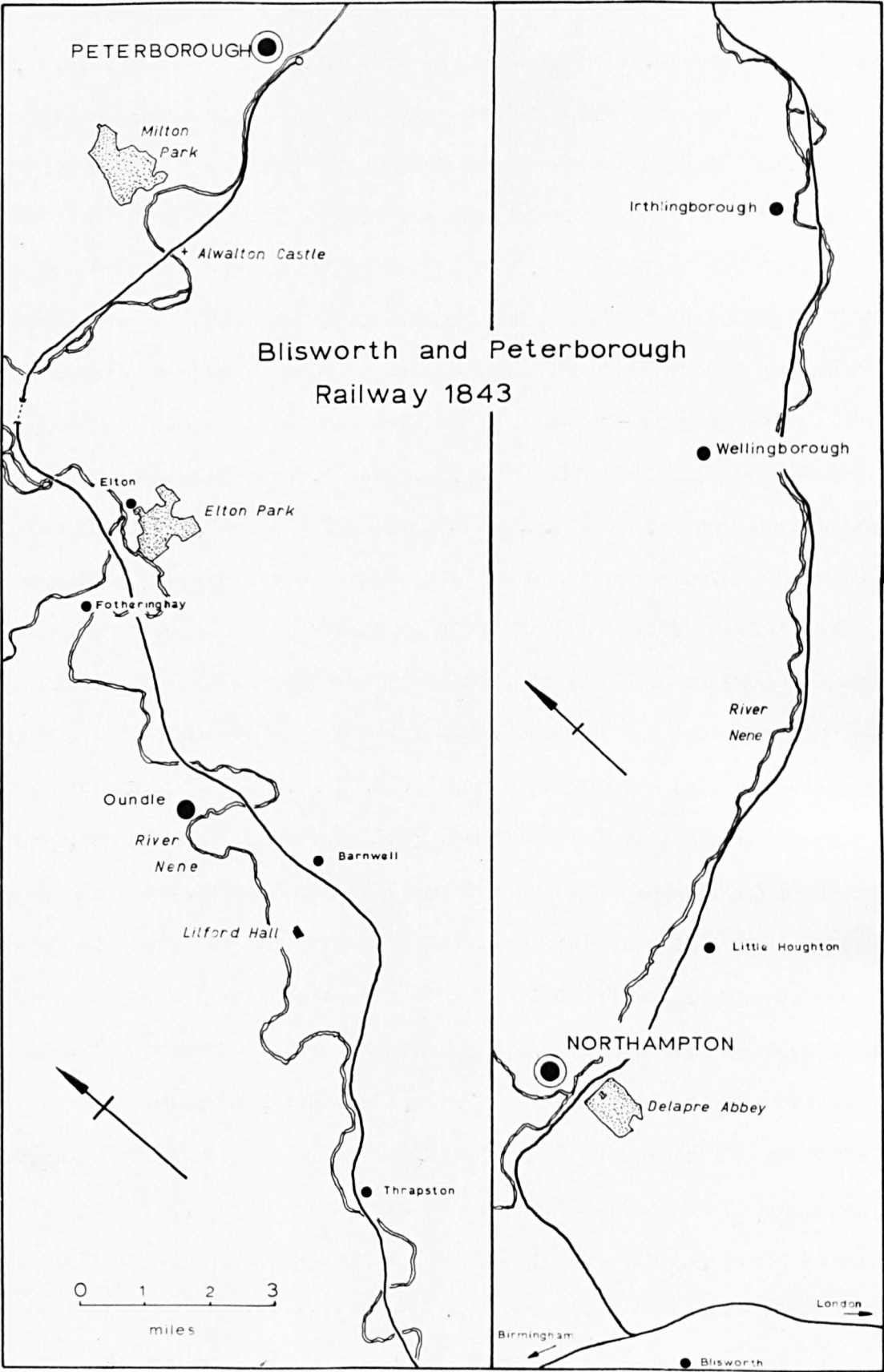


Fig. 24

so as to run some 150 yards further to the north.⁽¹⁾

To the immediate south-east of Northampton, at Houghton, the railway was realigned further from the Nene to meet the wishes of Lord Aboyne.⁽²⁾

Some miles to the north, at Thrapston, the alignment had been chosen with respect to the wishes of the Duke of Dorset and Lord Boston, in order to minimise damage to their fields.⁽³⁾

A major deviation occurred at Lilford, to the south of Oundle. Lilford Hall was situated on the eastern bank of the river and the owner of the property had created some ornamental gardens on the opposite bank.

Stephenson said '... on examining the valley originally, I found the situation of the house [Lilford Hall] was such that it would be inapplicable to keep the line in the valley, therefore a deviation was made'.⁽⁴⁾ This deviation was to be some four miles in length and run one and one half miles to the east of the house, and was expected to cost an extra £25,000.⁽⁵⁾ However, in avoiding Lilford, the railway interfered with the village of Barnwell and Barnwell Castle, property of Lord Montagu. Stephenson pointed out that as the castle was unoccupied it would therefore suffer less damage than Lilford,⁽⁶⁾ but his assistant, Bidder, conceded that Barnwell was '... exceedingly beautiful' and the railway company would therefore deviate the line as far as possible from the village.⁽⁷⁾

To the north of Oundle, at Elton, the railway had been aligned to meet the wishes of Lord Carysford, the owner of Elton Hall, and was thus kept

(1) HLRO Min. of Evid. HL 1843 vol.2 B. & P. Rly 20 June pp.219-220

(This amendment of 150 yards was possible because the one landowner owned all the land involved)

(2) HLRO Min. of Evid. HC 1843 vol.16 B. & P. Rly 23 March pp.154, 165

(3) *ibid.* pp.69-70

(4) HLRO Min. of Evid. HL 1843 B. & P. Rly 20 June p.222

(5) HLRO Min. of Evid. HL 1843 vol.2 B. & P. Rly 16 June pp.60-3

(6) *idem* 20 June p.223

(7) HLRO Min. of Evid. HC 1843 vol.16 B. & P. Rly 23 March pp.67-8

on the western bank of the river, the Hall being hidden behind some plantations on the east bank.⁽¹⁾ Finally, approaching Peterborough itself, the railway still aligned adjacent to the River Nene, Earl Fitzwilliam of Milton Park suggested that the line should avoid the Allwalton Meadows, which lay on the south bank of the river. The railway company agreed merely to deviate within the Parliamentary limits and said they would meet the wishes of the Earl, if at all possible.⁽²⁾ Emboldened by his success the Earl suggested further deviations, one of which was '... to clear a certain fox cover that would have made a very great detour in the line'⁽³⁾ and also a direct line between Elton and Peterborough eliminating the curve toward Stamford. Both of these were rejected by the railway company.

Thus, in detail, virtually the whole railway was aligned to meet the wishes of the landowners. Estates were avoided wherever possible but if this proved impracticable, as at Delapre, a 'practical' line, i.e. one that was not too expensive for the promoters but would minimise damage to the estate, was conceded by the railway engineers. One of the major difficulties of deviating to avoid an estate is well illustrated by the amendment of the line near Lilford. In avoiding the house and grounds the railway company found themselves ensnared by another estate, and were thus forced to alter their alignment once again, in order to placate the landowner.

The period of relative calm ended in late 1843 and the following year saw a considerable increase in the mileage of new railway authorised by Parliament. This increase rapidly developed into a sharp burst of speculative fever, lasting from 1845 to 1846, which has become known as the Railway Mania. In 1846 alone some 815 plans were deposited for the

(1) *ibid.* pp.70-1

(2) *ibid.* p.60

(3) *ibid.* pp.61-2

construction of 20,687 miles of new railway - a mileage similar in extent to that of the ultimate English railway network.⁽¹⁾ Brunel felt that the whole railway world had gone completely mad⁽²⁾ and, to quite a large extent, the general public, certainly the investing public, shared in this madness,⁽³⁾ and the phenomenon of the railway was widely discussed.⁽⁴⁾ Thus the sheer number of schemes allied to this acute public interest ensured that few, if any, person in a position of influence could lack an opinion as to the benefits, or otherwise, of the coming of the railway.

The landowner immediately assumed a position of no small importance: for a time the country gentleman stood aghast and aloof; but the railway solicitor found him out, and whispered his importance in his ear. He could do something in support of a scheme, but his opposition could entirely destroy it, if he could but substantiate those terrible words 'residential injury.'⁽⁵⁾

The House of Lords were quick to realise the implications of the boom in railway promotion and as early as 1845 had convened a Select Committee to determine '... the practicability and the expediency of establishing some principles of compensation to be made to the owners of real property whose lands etc. may be compulsorily taken for the construction of public

- (1) F. Clifford: op.cit. vol.1 p.88
- (2) C. Hadfield: Atmospheric Railways: A Victorian Venture in Silent Speed: (1967) p.73
- (3) see for example (W.E. Aytoun) 'How we got up the Glenmutchkin Railway, and how we got out of it' Blackwoods vol.58 no.160(October 1845)pp. 453-66
- (4) In B. Disraeli: Sybil (1845) set during the mania, a dinner party immediately discussed the railways, implying that the topic was to the forefront of attention in those circles pp.117-9
- (5) L.H. Ruegg: The History of a Railway: (1878) p.20 (The author further pointed out that Sir William Tite, a noted architect of the period, defined a 'small residential injury as simply the sound of a whistle')

railways'.⁽¹⁾ The Committee had concluded that it was impossible to '... establish any fixed rate upon which damage arising from severance and other injuries to property can be assessed and compensated'.⁽²⁾ This allowed the landowners and the railway companies to persist with their system of negotiation based completely on the merits of each individual case. The Committee suggested that not less than 50% of the original value of the land should be given in compensation for the compulsion alone and that severance and damage were to be further considerations.⁽³⁾ They further stated:

public advantage may require all these private considerations to be sacrificed but as it is the only ground upon which a Man can justly be deprived of his property and enjoyments, so, in the case of railways, though the public may be considered ultimately the gainers, the immediate motive to their construction is the interest of speculators who have no right to complain of being obliged to purchase, at a somewhat high rate, the means of carrying on their speculation.⁽⁴⁾

The witnesses that appeared before the Committee were drawn largely from the ranks of those employed by the railway companies and their evidence throws valuable light onto the methods of negotiation practised at that time. Two of the witnesses admitted that bribery of influential landowners

(1) HL Sessional Papers 1845 vol.18 "The practicability and the expediency of establishing some principles of compensation to be made to the owners of real property whose lands etc. may be compulsorily taken for the construction of public railways; and also further to take into consideration the question of severance and that of injury to residences".

(2) *ibid.* p.3

(3) *ibid.* p.3

(4) *ibid.* p.3, a similar argument was put forward by W.E. Aytoun in 1851 see above p. 109

usually occurred before the line came to Parliament, and J. Duncan argued that the amount of compensation did vary according to the '... weight of his opposition and influence'.⁽¹⁾ This was complemented by the evidence of J. Clutton, who stated that '... only parties who have some influence in opposing railway companies ... are settled with before the passing of the bill'.⁽²⁾ However the vast majority of the evidence was concerned with financial practices, modes of evaluating land, and the estimation of costs resulting from 'damage'.

The Committee was of importance in that it inferred that landowners were in need of a formal structure of protection against the incursions of the railway companies. The mere existence of the Committee would have been effective in that knowledge of railway practice and procedure would have become widely available at a time when many landowners were dealing with railway companies, in earnest, for the very first time.

During the mania itself landed attitudes toward the railway became even more confused than they had been at the end of the 1830s. Ward has shown that numerous members of the landed society of the West Riding invested quite heavily in the railway companies during this decade, and a number of individuals actually served on the Provisional Committees. He concluded that the available evidence indicated the landed contribution, in terms of investment and management, was considerable.⁽³⁾

J. Francis felt that the radical change of attitude on the part of the landowners since the 1830s had occurred from the basest of motives, that of greed.⁽⁴⁾ Disraeli took an equally cynical stance and when Lord de Mowbray

(1) *ibid.* p.7 (Q.54)

(2) *ibid.* p.15 (Q.140)

(3) J.T. Ward: *West Riding Landowners and the Railways*; Journal of Transport History vol.4 no.4 (November 1960) pp.242-51

(4) J. Francis: *op.cit.* vol.2 p.171, see also H. Dyos and D. Aldcroft: *op.cit.* p.128 '... the towering opposition of the threatened property interests were tending to dissolve into tacit, well greased alliance'

expressed some surprise to the news that Lord Marney had consented to the passage of a railway through his estate, Lady Marney replied that her husband had not consented ' . . . until the compensation was settled . . . George never opposes them after that. He gave up all opposition to the Marham Line when they agreed to his terms'.⁽¹⁾

Greed permeated both camps and the railway promoters have been heavily criticised for their brutal, insensitive attitudes. Aytoun writing in 1847, after the worst excesses of the mania had occurred, concluded ironically, ' . . . we have been taught a new lesson with regard to the sacredness of rights and property; and the sooner those antiquated hereditary notions are kicked out of the minds of the landowners, the better'.⁽²⁾ The same author, in his savage attack on the railway interest in 1851, argued that the railway promoters thought that all land ' . . . no matter of what kind - is to be estimated according to the amount of its yearly return and handed over without further question'.⁽³⁾ At a public meeting at Sherborne, held in March 1846, a Mr. Rutter ' . . . reminded them [the landowners] that they were living in 1846 when many noblemen were required to be reminded that their interests and conveniences must give way to the interests of the public'.⁽⁴⁾

R. Ritchie, writing in 1846, was more conciliatory toward the landed interest. In discussing railway construction he argued that, ideally, a railway should be as straight and as level as possible. 'It need hardly

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- (1) B. Disraeli: op.cit. p.117, see also p.144 'Railways are very good things with high compensation' and p.369 in discussing the 'Cut and Come Again Branch line; they have refused me my compensation and I am not going to have my estate cut up into ribbons without compensation'
- (2) (W.E. Aytoun) Letter from a railway witness in London: Blackwoods vol.62 no.181 (July 1847) pp.68-70
- (3) W.E. Aytoun: (1851) loc.cit. p.746
- (4) L.H. Ruegg: op.cit. pp.13-4

be observed, however' he wrote 'that in several cases it is impossible to avoid a curvilinear route, as in approaching domains',⁽¹⁾ implying that avoidance of estates was a factor that had to be tolerated in the alignment of any railway.

Although the landed attitudes became less hostile during this decade this is not to suggest that they ceased to oppose railways altogether. The arrogance of many of the promoters, allied to the fact that a railway did cause a certain amount of damage no matter where it was located, ensured that their dislike did not completely disappear. Lord Brougham, who had suffered at the hands of the Lancaster and Carlisle Railway, argued in a House of Lords debate of 20 May 1844 '... that these railway projects assumed the most unprecedented and alarming powers of interfering with private property and the rights of individuals' and, although utilising some remarkable hyperbole, he then articulated the fears that haunted many of the landowners at this time

it was no light matter . . . to have one of these railways formed near one's private residence - to be driven from one's home - to find it impossible to remain in a place where they and their ancestors had resided for perhaps 800 or 900 years - in consequence of a railway being formed near them. To this they were exposed by the intrigues of attornies, land-measurers, land-surveyors, and land jobbers, who, under pretence of consulting the public good, were pursuing their private interest - and if they could trench upon your gardens, your pleasure grounds, or your woods, without control what was to prevent them from driving a Railway through your hall or . . . sitting room.⁽²⁾

(1) R. Ritchie: Railways: Their Rise, Progress, and Construction (1846) pp.125-6

(2) Hansard 3rd series 1844 House of Lords 20 May cols. 1297-99

He concluded:

He would not allow himself to be trampled on by a railway company, merely because they had large sums of money at their disposal.⁽¹⁾

Despite his fears Lord Brougham had 'ultimately yielded' to the railway company: 'he sacrificed his private convenience to the public good'.⁽²⁾

1844 saw the grounds of landed opposition restricted by a ruling of the House of Lords Select Committee reviewing the evidence of the Eastern Union Railway Bill. A rival company, the Eastern Counties Railway, had appealed to the Committee that the landowners of the locality through which both lines were intended to run, far preferred their alignment and therefore the Eastern Union line should be rejected. The Committee upheld a ruling made by the Leeds and Bradford Committee of the same year, that had stated a landowner could offer opposition for no other reason than the protection of his private interests. The Eastern Union Committee added that a landowner could only oppose a line of railway if his property was seriously affected.⁽³⁾

The railway companies themselves found their freedom of action seriously impaired in that the sheer number of schemes promoted to serve any one area at any one time (occasionally there were as many as three or four companies contesting the same piece of country cf. western East Anglia, and the lower Thames Valley), severely limited any large scale flexibility in alignment. This is in marked contrast to the latitude available to the engineers of the previous decade.⁽⁴⁾

Despite this there were instances of large scale realignment to

(1) *ibid.*

(2) *ibid.*

(3) HLRO Min. of Evid. HC vol.8 Eastern Union Rly 8 May pp.2-17,
HL 1844 vol.6 Eastern Union Rly 5 July pp.1-6

(4) see above, discussion of London and Dover Railway p. 126

placate landed hostility. In its simplest form the Lancashire Yorkshire and North Eastern Railway of 1846 was intended to run from Skipton, through Wharfedale, to Wetherby, and thence to York.⁽¹⁾ However that section of line between Arlington (where the L.Y. & N.E. Rly crossed the Leeds and Thirsk Railway) and York was strongly opposed by some influential landowners, notably Lord Harewood. The engineer, Alfred Gee, conceded that '... we went six miles through his property and he objected very strongly to it - I think that was the reason why that portion of the line was given up'.⁽²⁾ He went on to explain that as the East and West Yorkshire Railway, which was to run between Knaresborough and York, had been aligned to the satisfaction of the landowners, his company had decided to abandon their line and make use of the alternative.⁽³⁾

The Syston and Peterborough line, from Leicester via Stamford to Peterborough, was realigned under similar circumstances. The railway was rapidly promoted late in 1844 by George Hudson, chairman of the newly created Midland Railway company, who wished to prevent the London and York Railway from capturing the East Midlands.⁽⁴⁾ The original idea was that the line should leave the erstwhile Midland Counties Railway to the immediate north of Leicester, at Syston, and run east-south-eastwards via Twyford, Owston, and Manton, and thus to Stamford, to terminate at Peterborough. (Fig.25) The engineers were George and Robert Stephenson.

George Stephenson agreed that he had initially suggested this line:

Q. Did you never yourself, with your own mouth, to propose a line via Twyford, Manton and so to Stamford that way?

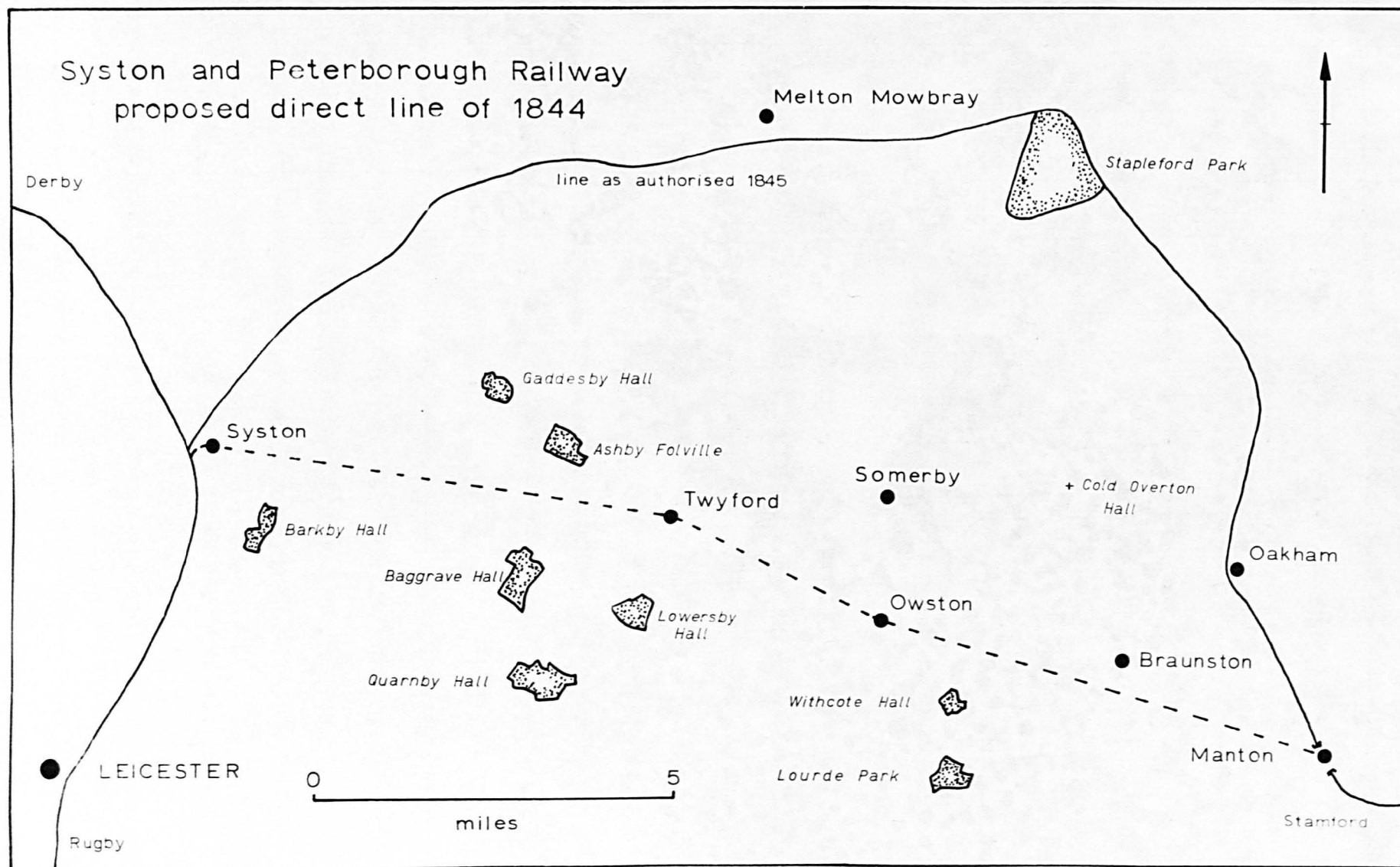
(1) HLRO Min. of Evid. HC 1846 vol.66 Lancashire, Yorkshire and North Eastern Rly 19 May pp.25, 59

(2) *idem* 21 May p.11

(3) *ibid.* pp.72-4

(4) J. Simmons: 'Railways': in Victoria County History of Leicestershire vol.3 (1955) p.117

Fig. 25



Stephenson: I did and have explained fully why I gave it up.⁽¹⁾

His assistant engineer, Charles Liddell, further explained why this line had been abandoned:

Q. . . . (is there) any engineering difficulty which interfered with the making of the line by Twyford?

Liddell: There is a very heavy tunnel at Owston and very bad materials.

Q. Was that the reason the line was abandoned?

Liddell: Partially - I believe that, together with the desire to accommodate Melton . . .⁽²⁾

His chairman, George Hudson, gave a somewhat different version:

It was in consequence of a deputation consisting of Mr. Green, the Master of the Quorn Hounds, and 14 or 15 other gentlemen connected with the district, waiting on me and bringing with them a statement of the population as showing me that the line, by diverging towards Melton, would accommodate a much larger population than by the route originally proposed and also on a representation of Mr. Stephenson that the Twyford line would involve a tunnel of a mile and a half, at all events three quarters of a mile.⁽³⁾

He further argued that the huntsmen had not objected per se but had merely suggested that the Melton line would prove more lucrative.

Stephenson, however, attempted to deny the hunting influence:

Q. Had you not had some complaints from the foxhunters before

(1) HLRO Min. of Evid. HC 1845 vol.64 Syston and Peterborough Rly 23 April p.193

(2) HLRO Min. of Evid. HL 1845 vol.2 S. & P. Rly 20 June pp.25-6, see also HC 1845 vol.64 S. & P. Rly 23 April p.240 (ibid. p.100 describes the 'bad materials' as the same strata as at Kilsby)

(3) HLRO Min. of Evid. HL 1845 S. & P. Rly 20 June p.52

you altered your plan?

G. Stephenson: I do not know that I had but I dare say there were, I will grant that there was a large deputation.

Q. As to cutting up the hunting country?

G. Stephenson: I never think about the hunting country. I want the best line. . . .

Q. You know that was an objection made, do not you?

G. Stephenson: It might have been but not to me⁽¹⁾

However Robert Stephenson suggested that the decision to amend the alignment was taken by the directors of the railway company. 'Q. I believe the directors generally determine what shall be the line do not they, after having had the views of the engineers? R. Stephenson: Yes'.⁽²⁾ In fact, as late as the October of 1844 the elder Stephenson had stated at a public meeting at Stamford that he far preferred the 'direct' line via Twyford, and Robert Stephenson also felt that his father believed the 'direct' line to be the best, despite the necessity of a tunnel.⁽³⁾

However, the railway was realigned northward via Melton Mowbray and, as a result, ran into great difficulty in attempting to circumscribe Stapleford Park, property of Lord Harborough.⁽⁴⁾ Perhaps the most interesting point stems from the suggestion of the Quorn that the northern line would prove more profitable for the railway company in that they offered a positive contribution to the debate rather than purely negative opposition. The Master of the Quorn, Mr. Green, who had only been in office since 1841, was attempting to revive the fortunes of the Hunt and it was generally agreed

(1) HLRO Min. of Evid. HC 1845 vol.64 S. & P. Rly 23 April p.194, (HL 1845 vol.2 S. & P. Rly 20 June p.26 Liddell agreed that there had been strong foxhunting pressure against the 'direct' line.)

(2) *ibid.* p.256

(3) *ibid.* p.238

(4) see below p. 214

that he was both a fine huntsman and an exceptional organiser.⁽¹⁾ The historian of the Quorn has merely suggested that the Melton line followed the '... old natural barriers of the rivers fairly closely'.⁽²⁾ A combination of factors would appear to have dictated this realignment but it would appear that without the initial, and perhaps continuous, pressure from the Quorn, the deviation would never have been considered.

A large scale realignment also occurred in the Derbyshire Peak district. In this instance the extent of the deviation was dictated by the availability of feasible routeways through the highland and caused one of the most considerable amendments of the decade. The line in question was that between Manchester and Derby, the Manchester Buxton Matlock and Midland Junction Railway.

A scheme had been proposed for the session of 1844, this being for a railway to run from Stockport to Buxton, but this failed on Standing Orders.⁽³⁾ The idea lapsed until the early months of 1845 when it was revived as a company intended to link Stockport with Ambergate, on the old North Midland Railway main line, via Buxton.⁽⁴⁾ Lord George Cavendish became chairman of the company and George Stephenson was appointed as engineer,⁽⁵⁾ with Joseph Paxton, agent to the Duke of Devonshire, also a member of the directorate.⁽⁶⁾

The physical topography of the region completely dominated the choice of possible routes. To the north of Ambergate lay the Derwent valley which bifurcates at Rowsley with Haddon Hall straddling the western valley, the River Wye, and Chatsworth Hall commanding the northern valley of the

(1) C.D.B. Ellis: Leicestershire and the Quorn Hunt (1951) pp.70-7

(2) *ibid.* p.94, see below p. 214

(3) HLRO Min. of Evid. HC 1860 vol.37 Midland Rly 23 February p.4

(4) H.G. Lewin: (1936) *op.cit.* p.180

(5) HLRO Min. of Evid. HC 1860 vol.37 Midland Rly 23 February p.4

(6) HLRO Min. of Evid. HC 1847 vol.69 M.B.M. & M.J. Rly 5 May p.66

Derwent. It was the Wye valley that led directly to Bakewell and Buxton, and apart from these two valleys the region was so mountainous and lacking in traffic that there was little likelihood of any alternative route being entertained.

Stephenson originally decided that the line was to run along the southern bank of the River Wye, in front of Haddon Hall and was to be in a shallow tunnel; it would then follow a 'low-level' alignment through Bakewell before continuing along the valley to Buxton.⁽¹⁾ (Fig.26) However the Duke of Rutland, the owner of Haddon Hall was distinctly unenthusiastic about the idea of a 'low-level' line and had made it clear that he '... disliked a line down the valley at all',⁽²⁾ and had told Stephenson so.⁽³⁾ In addition the town of Bakewell had addressed a memorial to his Grace the Duke of Rutland, denoting their opposition to the 'low-level' line in that they felt a higher line would cause less damage, and would link with the proposed North Derbyshire Union Railway. They therefore pleaded with the Duke to use his influence to have the railway realigned.⁽⁴⁾ The Duke replied on the 3 November 1845 agreeing with their arguments and added that '... it was a great consideration that Haddon should not be interfered with'.⁽⁵⁾

The autumn of 1845 therefore saw the railway company in something of a quandary. Their original choice of alignment was threatened by powerful interests and yet there was time available for realignment before any submission was made to Parliament (the final date for the deposition of

(1) *ibid.* p.67

(2) *idem* 6 May p.5, also *idem* 5 May p.87

(3) HLRO Min. of Evid. HL 1847 vol.8 M.B.M. & M.J. Rly 30 June p.95

(4) HLRO Min. of Evid. HC 1847 vol.70 M.B.M. & M.J. Rly 7 May p.39, Memorial dated 27/10/45 see also *ibid.* pp.41-4, HL 1847 vol.8 M.B.M. & M.J. Rly 30 June p.98

(5) HLRO Min. of Evid. HC 1847 vol.69 M.B.M. & M.J. Rly 5 May p.67

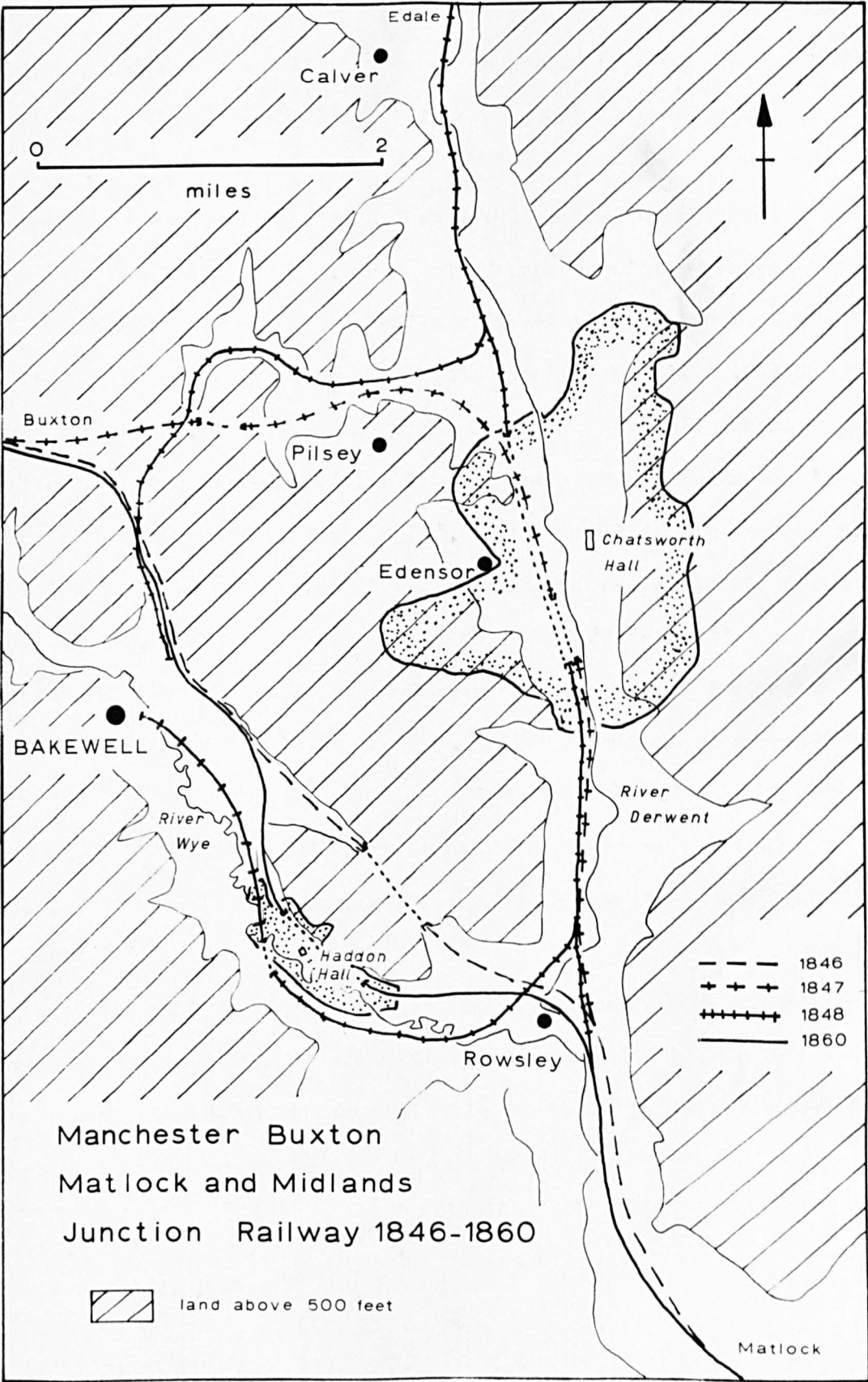


Fig.26

plans being 30 November). The Duke of Devonshire, owner of Chatsworth Hall had suggested to Cavendish '... "I understand you have great difficulty in getting the Bakewell valley - you are welcome to come through any part of my park if you can come through it in a tunnel"'.⁽¹⁾ Although the promoters of the M.B.M. & M.J. Rly company had considered this proposal they felt that it was impracticable, at that time.⁽²⁾

The promoters were placed in further difficulties as their engineer, George Stephenson, had gone to Spain in the October of 1845 to survey a railway there.⁽³⁾ Thus, in an attempt to ensure the successful Parliamentary passage of their line, they agreed to deviate the railway some way to the north of Haddon, so as to run at a much higher level. This necessitated the construction of a considerable tunnel and was agreed with the Duke of Rutland in the first weeks of November.⁽⁴⁾ This high level line had been suggested by Paxton during the summer of 1845 and was cursorily surveyed by Stephenson who had dismissed it as being too expensive.⁽⁵⁾ Paxton was questioned on this decision:

Q. In adopting this high level line were you influenced by the desire to avoid the opposition of the Duke of Rutland?

Paxton: Yes.⁽⁶⁾

The revised line came before Parliament in 1846 with the cordial support of the Duke of Rutland (despite the offer from a 'particular quarter' that any costs incurred in opposing the M.B.M. & M.J. Rly would be defrayed,⁽⁷⁾)

(1) HLRO Min. of Evid. HL 1847 vol.8 M.B.M. & M.J. Rly 29 June p.159

(2) *ibid.* p.160

(3) L.T.C. Rolt: (1960) *op.cit.* p.288

(4) HLRO Min. of Evid. HC 1847 vol.69 M.B.M. & M.J. Rly 5 May p.139

(5) *ibid.* pp.97-104

(6) *ibid.* p.71

(7) HLRO Min. of Evid. HL 1847 vol.8 M.B.M. & M.J. Rly 30 June p.110

but with the railway company's own engineer unhappy with the alignment. Stephenson disliked that '... part of the line behind Haddon - he considered it very bad and very treacherous ground and wished to divert the railway from that particular locality'.⁽¹⁾

Despite the authorisation of the line in 1846 the summer of that year saw the engineer surveying alternative routes away from Haddon. The only feasible substitute was for a line via Chatsworth and at this juncture the Duke of Devonshire made two rather remarkable statements: Firstly that '... he considers it of great public advantage and he also felt, I think, that it would be a very creditable thing to be associated with Mr. Stephenson in carrying a line through Derbyshire'.⁽²⁾ and secondly that '... he said he was willing, for a great public object, that a main line should be carried through Chatsworth Park but that he should not wish a branch line from Rowsley up the Derwent valley'.⁽³⁾

Stephenson then argued that had he known that the Chatsworth line was available he would never have attempted to take the line via Bakewell,⁽⁴⁾ whilst Paxton firmly denied that any 'financial arrangements' had been made with the Duke of Devonshire.⁽⁵⁾ (In 1848 the Duke of Devonshire stated that the original line via the Wye valley had been chosen in order not to bother him.)⁽⁶⁾

In the August of 1846 the Duke of Rutland, learning of Stephenson's intentions to amend the authorised line, wrote to the railway company stating that he could not consent to any idea of a deviation in the line

(1) HLRO Min. of Evid. HC 1860 vol.37 Midland Rly 23 February p.8

(2) HLRO Min. of Evid. HC 1847 vol.69 M.B.M. & M.J. Rly 6 May p.71 (Cavendish)

(3) HLRO Min. of Evid. HL 1847 vol.8 M.B.M. & M.J. Rly 29 June p.153

(4) *ibid.* p.191

(5) HLRO Min. of Evid. HC 1847 vol.69 M.B.M. & M.J. Rly 5 May p.77

(6) HLRO Min. of Evid. HL 1848 vol.9 M.B.M. & M.J. Rly 8 August p.13

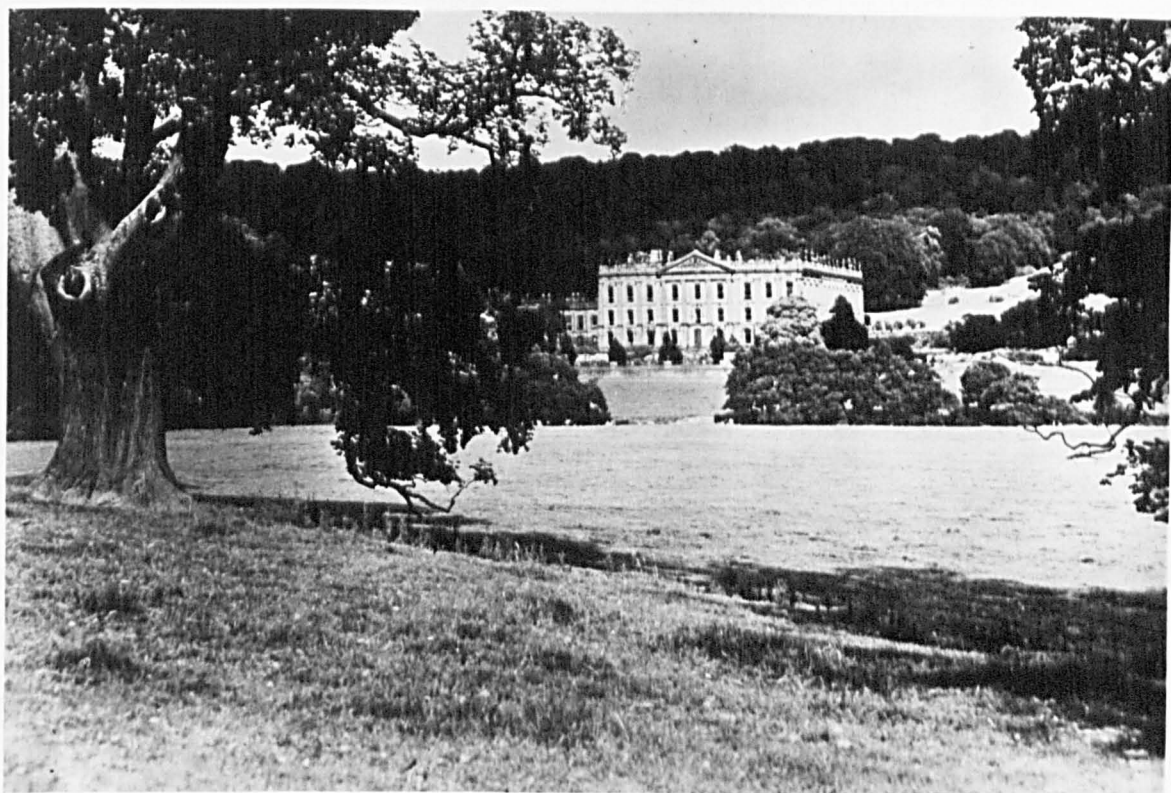


PLATE 2.

Chatsworth House, Derbyshire.

see Fig. 26.

because Bakewell would lose the railway facilities granted by an Act of Parliament.⁽¹⁾ His Grace and the town of Bakewell therefore joined forces to oppose the amended line - which now ran from Rowsley up the Derwent valley as far as Baslow to turn westwards and rejoin the original line to the north west of Bakewell, near Headstone. Their joint opposition failed in the House of Commons but in the House of Lords, where the debate raged over the viability of the tunnel, it was decided that the tunnel could be built and the deviation was therefore rejected.⁽²⁾

The summer of 1847 saw the railway company no further forward. The promoters then took the major step of realigning the whole railway between Stockport and Rowsley. The railway made use of the Derwent valley as far as Hathersage, turning westwards through Edale and then tunnelling under the Pennines to Chinley. The company planned to construct a branch from Baslow to Bakewell and also a somewhat longer branch to Buxton. The Duke of Rutland was satisfied with the Bakewell branch, although the residents of the town were not,⁽³⁾ and although the Buxton branch was rejected, Parliament authorised this drastic realignment.

By the time the company decided that they had a satisfactory alignment the financial climate was so unfavourable that only the southern section, between Rowsley and Ambergate, was ever built. The problems the railway company encountered stemmed largely from the power that a single landowner, in a strategic location, could exercise, although the deviations would never have been so extensive had it not been for the mountainous nature of the area. It is of interest to see that as the railway company attempted to solve the problem of avoidance of Haddon the distance they were prepared

(1) HLRO Min. of Evid. HL 1847 vol.8 M.B.M. & M.J. Rly 29 June p.166

(2) idem 20-30 June, 1 July

(3) HLRO Min. of Evid. HC 1848 vol.20 M.B.M. & M.J. Rly 5 June p.121

to deviate their line increased each year. The fact that the railway was perceived as a trunk line, to link Manchester with the East Midlands, was of considerable importance as it allowed this great flexibility in location. Although the landed opposition was scarcely intransigent, and, if anyone, it was the railway company who overreacted, the impact of the opposition was total in that the line was never built at all at that time and the Wye valley had to wait another twelve years before the scheme was revived.⁽¹⁾

It is curious that the promoters of the M.B.M. & M.J. Rly, in applying the principles of initial avoidance, chose the wrong park to avoid, the owner of Haddon proving antipathetic to the idea of having a railway in close proximity to his park, whereas the owner of Chatsworth was prepared to offer it qualified support. The reorientation of the promoters' attitudes resulted in considerable delay and confusion. This is all the more remarkable in that a similar instance occurred in Staffordshire with the alignment of the main line of the North Staffordshire Railway between Stoke and Colwich Junction.

1845 had seen various lines proposed to serve the area but all had failed largely as a result of mutual recrimination.⁽²⁾ By 1846 the rival factions had formed an alliance and had formulated comprehensive plans for the provision of railways for the region. One of the lines was to run from Stoke via Stone to the Trent Valley Railway at Colwich. The engineers had aligned the railway at Great Haywood in a considerable cutting in order to avoid impinging upon Shugborough Park, property of Lord Lichfield. During 1846 the railway company discovered that Lord Lichfield was prepared to allow the line to pass through the perimeter of his park, despite the fact that this brought the line much closer to the Hall, and in 1847 part of the North Staffordshire Deviation Act incorporated

(1) see below p. 284

(2) H.G. Lewin: (1936) op.cit. pp.37-8

this amendment.⁽¹⁾ Forsyth, the engineer, felt that the two and one half mile deviation would save some 12 months work.⁽²⁾

In East Anglia the initial avoidance only came to light as a result of the sale of an estate that the railway was intended to avoid. In 1836 a branch line had been proposed by the Eastern Counties Railway to run from their main line, near Ardleigh, to Harwich. Although the Eastern Counties Railway managed to reach Colchester the powers to construct the branch were never exercised. However, in 1844, both the Eastern Union Railway company and the Eastern Counties Railway promoted a branch to serve the port. Joseph Locke, engineer to the Eastern Union Railway, proposed that the line should follow that suggested by Braithwaite in 1836, Braithwaite being the engineer to the Eastern Counties Railway at that time, (Fig.27) whereas Braithwaite himself (still being the engineer to the Eastern Counties Railway), proposed that a line should be built some way to the south of his route of the previous decade. Both bills failed in Committee on the grounds of insufficient traffic and it was suggested that the rivals should get together to promote a satisfactory line.⁽³⁾

In 1844 Lord Rivers estate at Mistley, on the southern bank of the Stour estuary, was broken up and sold. When planning his alignment Locke had felt that utilisation of the south bank was impossible:

Q. You gave that up as a hopeless course?

Locke: I did . . .⁽⁴⁾

but with the sale of the estate it was obviously now possible to pass through that area that had once been the park ' . . . hitherto regarded as

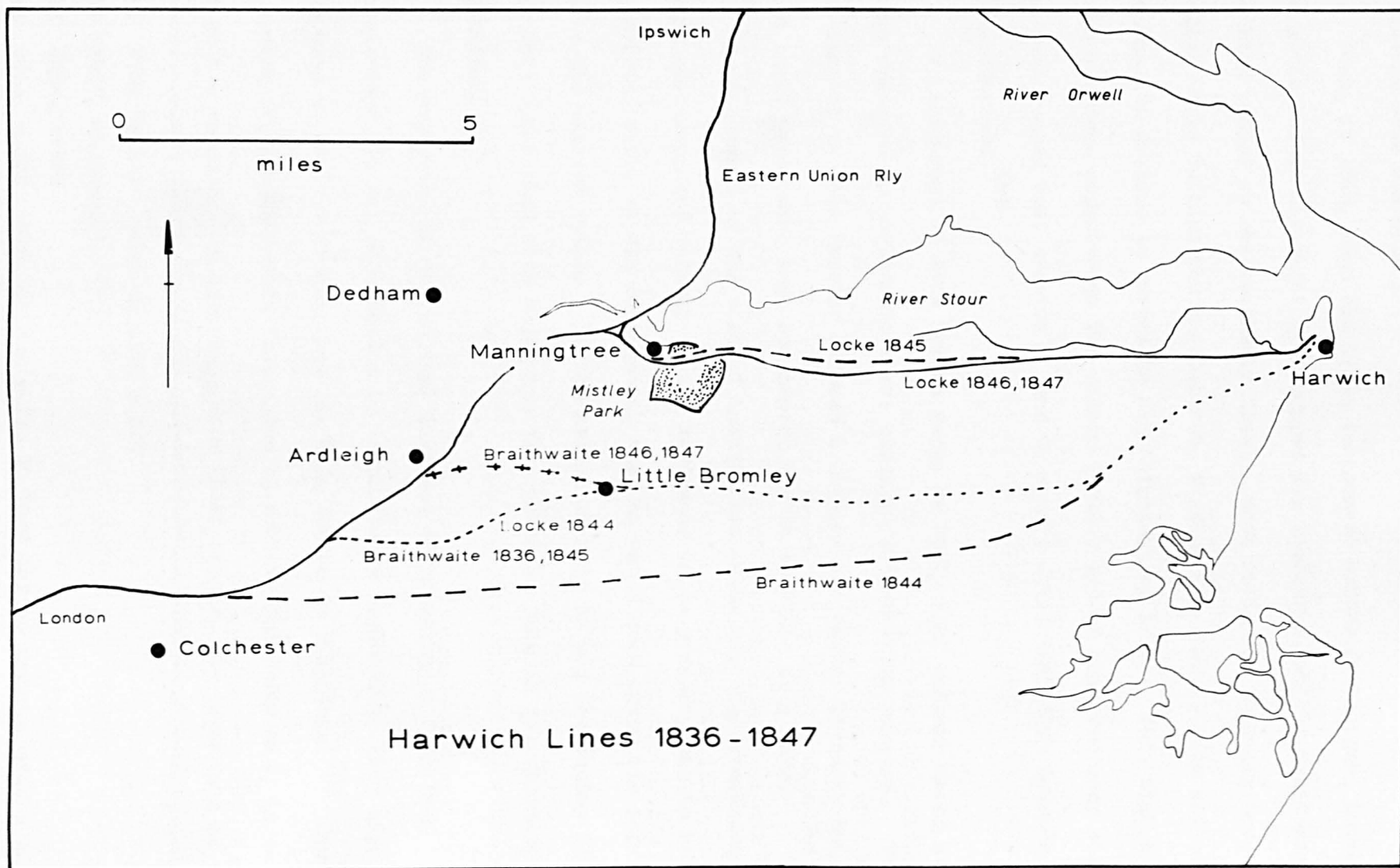
(1) R. Christiansen and R. Miller: The North Staffordshire Railway (1971)

(2) HLRO Min. of Evid. HC 1847 vol.71 North Staffordshire Rly. 11 May pp.40-3
pp.16-7

(3) H.G. Lewin: (1936) op.cit. p.160

(4) HLRO Min. of Evid. HC 1847 vol.31 Harwich Rlys 7 June p.171

Fig. 27



an insuperable obstacle'.⁽¹⁾

Thus, in 1845, when the bills reappeared before Parliament, Locke had preferred an alignment that hugged the shoreline, whilst Braithwaite remained wedded to his southerly line. Both failed on Standing Orders.⁽²⁾ In 1846 Locke refined his Manningtree, Mistley and Harwich line whilst Braithwaite decided to revert to his alignment of 1836. This time both proposals were rejected on the rather tenuous ground that too many bills had been passed that session⁽³⁾ and it wasn't until 1847 that Locke's line was authorised.⁽⁴⁾

The alignment of this branch seems to imply that certain areas were still regarded as inviolable where credible alternatives existed. Thus the removal of this barrier offered a cheaper and easier routeway but one that could never have been considered had it remained as a park.

A refinement of the idea of initial avoidance was the submission of plans of a proposed railway to the landowner whose property was to be interfered with, in the expectation that he would then offer his suggestions as to the desired route. In the autumn of 1845 it was the Jockey Club who were approached with reference to a proposed line in the vicinity of Newmarket.

The promoters of the railway intended to construct a line from Chesterford via Six Mile Bottom to terminate at Newmarket; they also proposed to build a branch from Six Mile Bottom to Cambridge.⁽⁵⁾ However a number of companies were interested in serving this area and, in order to gain a considerable advantage over their rivals, the promoters of the

(1) H.G. Lewin: (1936) op.cit. p.160

(2) ibid. pp.160-1

(3) ibid. p.161

(4) ibid. p.306, HLRO Min. of Evid. HC 1847 vol.31 Harwich Rlys 7 June p.41

(5) H.G. Lewin: (1936) op.cit. pp.161-2

Newmarket and Chesterford Railway approached the Jockey Club, in an attempt to gain their support by acceding to any viable alignment that the Club might choose. The Steward of the Club, Lt. Colonel Anson, spoke in evidence:

Q. I believe they, before finally determining that line, submitted their line to the Jockey Club for its approbation?

Anson: Yes.

Q. And the Jockey Club made suggestions with respect to the mode in which the line should be laid down?

Anson: Yes, they did.⁽¹⁾

The Jockey Club had not only determined the alignment but had also chosen the location of the station.⁽²⁾

During the summer of 1846 it was proposed to extend the railway northward from Newmarket toward Ely and eastward toward Bury St. Edmunds. Once more there was considerable rivalry and again the Newmarket and Chesterford Railway company had great need of the Jockey Club's support. The major problem stemmed from interference with the Exercise Ground, which lay to the immediate north-east of Newmarket, (Fig.28) and the railway company therefore asked the Jockey Club to select the route they felt would cause the least amount of damage. Lt. Colonel Anson, the Duke of Rutland, and Lord Exeter had ridden out one day in late summer 1846 and had chosen the alignment which came before Parliament, and was authorised by them, in 1847.⁽³⁾

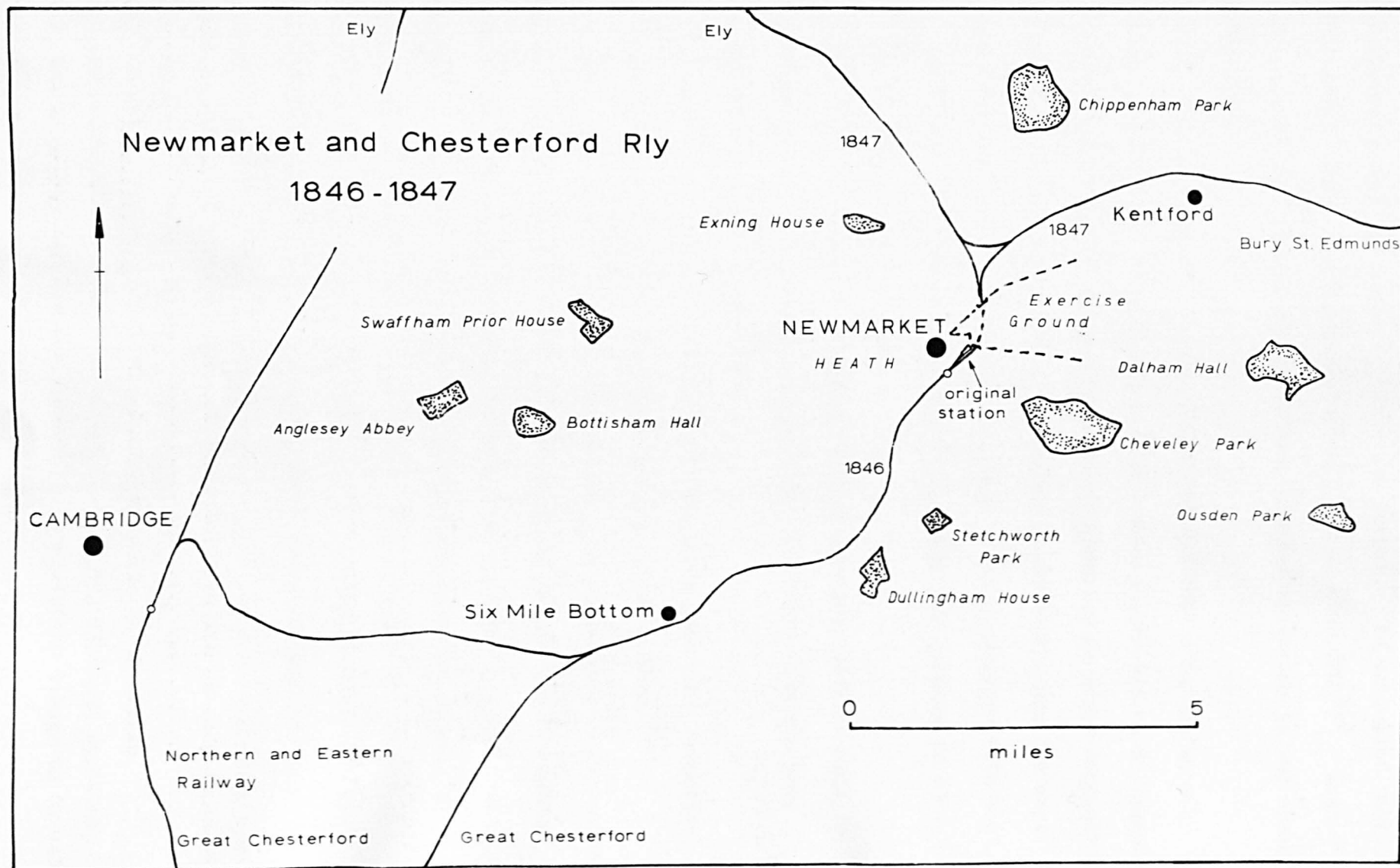
The railway engineer said that the Club had demanded certain precautions - a 1,639 yard long tunnel under the Exercise Ground, and a high

(1) HLRO Min. of Evid. HC 1847 vol.37 Newmarket and Chesterford Rly
22 March p.115

(2) *ibid.* p.117, see also *ibid.* p.206

(3) *ibid.* p.128

Fig. 28



embankment to screen the railway from the Ground. He estimated that the two features would cost approximately £90,000 to £100,000.⁽¹⁾ Anson confirmed the willingness of the railway company to accede to the demands of the Club.

Q. Are you able to say that these two railways (the Ely branch and the Bury St. Edmunds branch) have been so adapted as to consult the convenience of the Jockey Club of Newmarket in every respect?

Anson: So far as Newmarket is concerned, entirely, and the rest of the remaining project of the company being connected with that, the Jockey Club sanctioned the whole project and agreed to give their support to it . . .

Q. Have the promoters adopted those precautions with respect to those grounds which were suggested by the Jockey Club and were deemed essential to safety?

Anson: Yes, they have adopted all the plans that were suggested by persons interested in race horses, to protect them.⁽²⁾

The alignment of this railway reflects the philosophy of increasing the expenditure upon engineering works in order to placate the landed interests, rather than ignoring them and risking complete, and very expensive, failure in Parliament. In this instance the success of the policy can perhaps be traced to the fact that the chairman of the company was the son of the Duke of Rutland.⁽³⁾ It is also of note that Lt. Colonel Anson stated that, having had the railway aligned to their satisfaction, the Jockey Club then supported the railway company's pro-

(1) *ibid.* pp.203-381 but especially pps. 215, 324, 342

(2) *HLRO Min. of Evid.* HL 1847 vol.1 N. & C. Rly 11 May p.140

(3) *HLRO Min. of Evid.* HC 1847 vol.37 N. & C. Rly 22 March pp.147-8, the line had also been so aligned as to avoid any damage to Cheveley Park, property of the Duke of Rutland.

posals in toto.

The discretion given to a landowner in the choice of route depended to a large extent upon the attitudes of the railway promoters and engineer. The classic idea of polarisation of attitudes, perhaps typical of the first years of the 1830s, was confused by the mid 1840s (for example landowners were strongly represented on the directorate of the Newmarket and Chesterford Railway) and thus, relationships between the two parties could be extremely amicable. This was not always the case and in Northumberland the intransigence of the engineer and, to a lesser extent, the chairman of the railway company concerned, created a rather curious situation.

A railway to run between Newcastle and Berwick upon Tweed was initially proposed during the latter years of the 1830s and, in 1838, a plan was deposited for such a line.⁽¹⁾ The engineer was George Stephenson and he had suggested that the railway should pass between Howick Hall, the property of Lord Grey, and the German Ocean. (Fig.29) Although the proposals came to nothing at that time they were discussed by the Commissioners concerned with the improvement of the rail communication with Scotland at the turn of the decade.⁽²⁾ One of the Commissioners had, in fact, visited Howick Hall and agreed with Lord Howick, the son of Lord Grey, that there was no reason why the line should not pass to the west of the estate.⁽³⁾ The scheme was revived during the summer of 1843 and Stephenson again favoured an alignment that ran between the Hall and the sea.⁽⁴⁾ Lord Grey was strongly opposed to this because, as his son argued, the eastern line would pass across Lord Grey's favourite daily walk to the sea and, in addition, '... a portion of a village which he

(1) HLRO Min. of Evid. HL 1845 vol.4 Newcastle and Berwick Rly 27 June p.12

(2) ibid. p.12

(3) idem 28 June p.34

(4) ibid. p.35

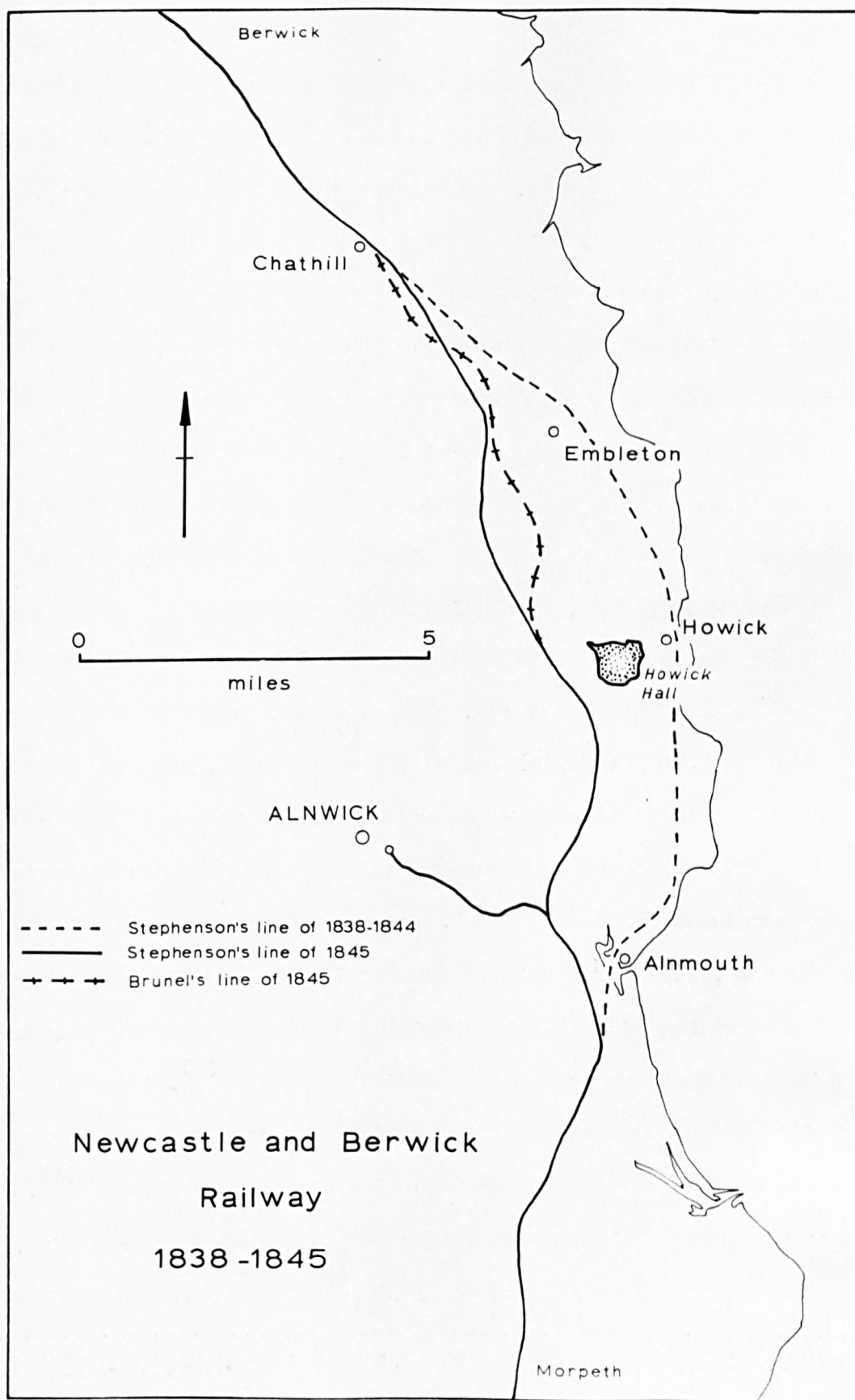


Fig. 29

has very lately taken great pride and pleasure in rebuilding and ornamenting would have to be pulled down and, in short, a railway there would be the greatest possible annoyance'.⁽¹⁾

Stephenson was incensed by their attitude and in a letter of December 1843 he wrote

I am rather astonished at Lord Howick's observations about the line passing Howick. It does not go through any of their pleasure grounds, it passes over one of the drives which run down a dingle to the coast . . . it is compensation they want and nothing else. The line cannot be moved to the place Lord Howick alludes to, west of the house; it would require a tunnel a mile long . . . is the great thoroughfare through England and Scotland to be turned aside injuriously for the frivolous remarks made by Lord Howick? No! The times are changed . . . I can have no patience with them.⁽²⁾

Lord Howick called upon Stephenson in the May of 1844, in an attempt to have the railway realigned. He discussed the problem with the engineer and stated:

that if he could carry that railway through the county in the manner best adapted to the public convenience, paying, at the same time, due respect to private property, he should have my best support and co-operation⁽³⁾

This is perhaps the most pithy and articulate statement of landed attitudes of this period, in its encapsulation of recognition of the national interest yet demands for the protection of the privacy of the estate. Stephenson, however, refused to make any concessions and said

(1) *ibid.* p.31

(2) L.T.C. Rolt: (1960) *op.cit.* pp.278-9

(3) HLRO Min. of Evid. HL 1845 vol.4 N. & B. Rly 28 June p.35

that the western line was 'impracticable', whereupon Lord Howick angrily replied that it was not impracticable, the engineer merely chose not to make it.⁽¹⁾

Lord Howick then decided that in order best to achieve his aim, he would have to create his own railway company which would construct a line between Newcastle and Berwick.⁽²⁾ He felt that this was the only possible alternative largely because he considered that any opposition to Stephenson's line on residential grounds would prove an insufficient basis for a valid case before Parliament.⁽³⁾ He consulted his father and although Lord Grey was not particularly keen on the western line and '... did not like the idea of a railway coming even so near as that, yet for a great public object he would not resist it'.⁽⁴⁾

Lord Howick therefore contacted I.K. Brunel and employed him as engineer to his own company, the Northumberland Railway. Brunel pointed out that George Hudson, the chairman of the rival Newcastle and Berwick Railway, would immediately offer Lord Howick the deviation that the landowner desired and that he was therefore not to be used merely as a tool to achieve this small aim.⁽⁵⁾ Lord Howick accepted that the line was to be bona fide and, despite the fact that Hudson did write in the first week of August 1844, agreeing to deviate his line to the west of Howick,⁽⁶⁾ the two lines came before Parliament in 1845.

(1) *ibid.* p.36

(2) *ibid.* p.42, see also Letter of Lord Howick on the Northumberland Railway dated 14 October 1844, Reply of George Hudson to the landowners of the County of Northumberland: dated 22 October 1844, W.W. Tomlinson: *op.cit.* p.455

(3) HLRO Min. of Evid. HL 1845 vol.4 N. & B. Rly 28 June p.40

(4) *ibid.* p.32

(5) *ibid.* p.41

(6) Report of George and Robert Stephenson on the merits of the Newcastle and Berwick Railway to the Board of Trade: 1845 p.2

The Railway Commissioners at the Board of Trade reported on the two lines early in 1845 and, in discussing the Newcastle and Berwick Railway, stated:

from a correspondence which has been made public, it appears that there would have been no likelihood of opposition to it had not the line as originally laid out threatened to interfere in a particular instance with private property in a manner considered so objectionable that an opposition company was got up for the express purpose of averting the injury.⁽¹⁾

They then argued that it did not concern them at all why railways were promoted as long as they were of reasonable public advantage.⁽²⁾

Brunel intended to employ the Atmospheric principle of locomotion on his railway but this was discounted by the Board of Trade and the two lines were compared as if both would be operated by steam locomotives. This mode of comparison was repeated by the Select Committees in Parliament, to the detriment of the Northumberland Railway, which was rejected.

Lord Howick therefore gained his deviation, but at considerable personal expense. Perhaps the most interesting feature was the attitudes of the parties involved. Lord Howick's acceptance of the public necessity but his rather curious assumption that a purely residential case would prove too trivial as a foundation for opposition, appears eminently reasonable and this contrasts markedly with the intransigence of the engineer and the duplicity of the chairman of the railway company.⁽³⁾ Robert Stephenson

(1) Report from the Railway Commissioners: HL Sessional Papers 1845 vol.39 p.19

(2) *ibid.*

(3) HLRO Min. of Evid. HL 1845 vol.4 N. & B. Rly 28 June p.37

Lord Howick had seen Hudson in 1844 and Hudson had stated that he would try to get the line amended but he was in the hands of his engineers.

agreed that the cost of the deviation was to be just £30,000 - not a considerable sum. (1)

The realignment of the Newcastle and Berwick Railway is perhaps anomalous in that there was a considerable time available for negotiations to take place before the line came before Parliament. One of the major features of the mania period was the rapidity with which railways were promoted, the speed at which policies were altered, and the swiftness with which rivals changed positions. In East Lancashire two railways were promoted in late 1845, which came before Parliament in 1846, that were to run between the Huddersfield and Manchester Railway at Friezland and Oldham. One was to be a branch of the Huddersfield and Manchester Railway itself, the other was sponsored by the Manchester and Leeds Railway, and was named the Oldham District Railway. (2)

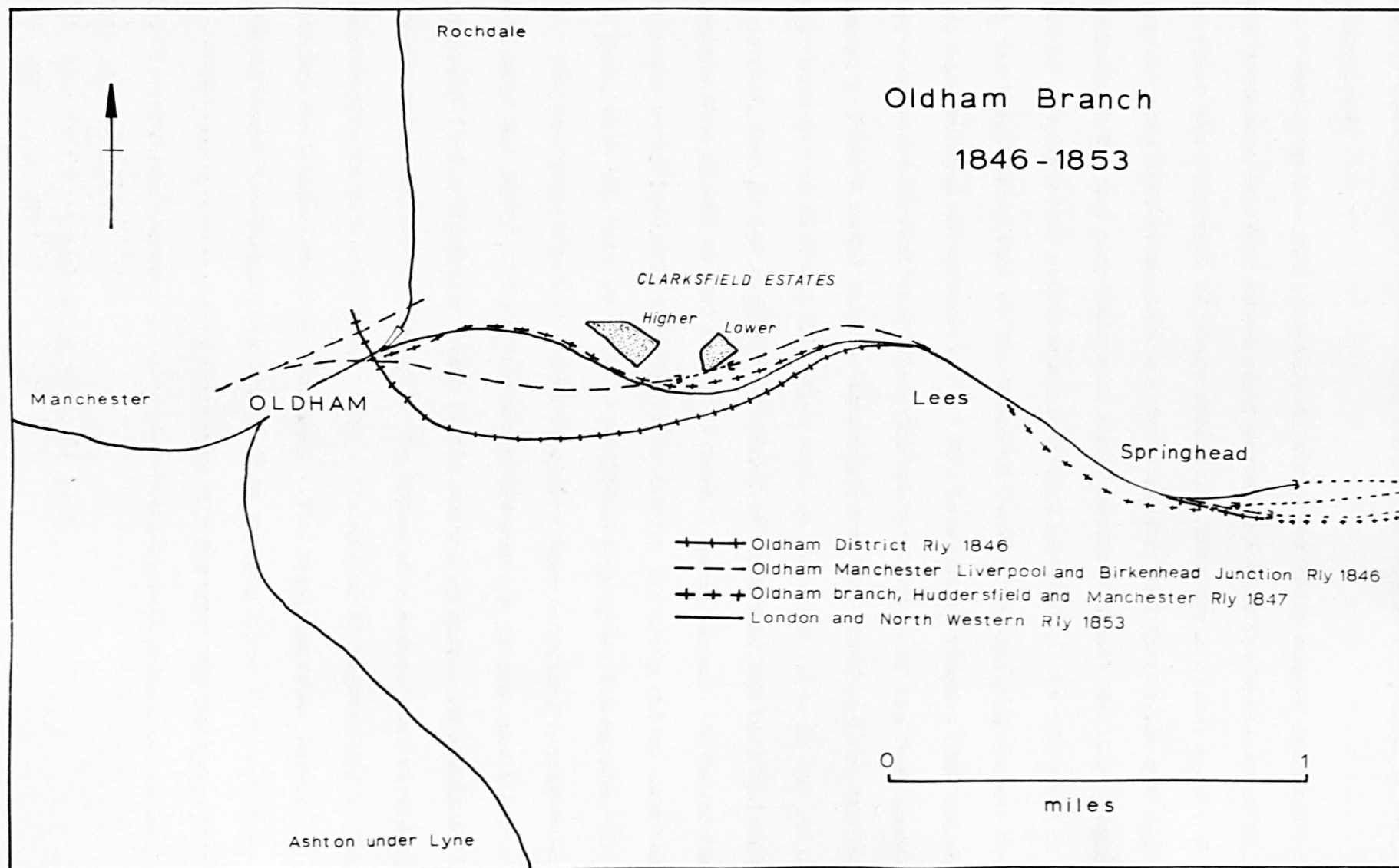
A Mr. Lees, who owned the Clarksfield estate to the east of Oldham, petitioned against the Oldham District Railway on the grounds of damage to his estate. (Fig.30) Lees stated that the Huddersfield and Manchester Railway had intimated to him that should his opposition prove successful, they would reimburse him his expenses. (3) Lees had therefore opposed the line at a cost of £1,500 and had caused it to be rejected by the House of Commons Select Committee who had sanctioned its rival. The Huddersfield and Manchester company then refused to pay Lees his expenses but did agree that they would amend the alignment of their branch before it came before the House of Lords Committee stage, by deviating it further to the south, away from the Clarksfield estate, if Lees would agree not to oppose them

(1) idem 27 June p.225

(2) H.G. Lewin: (1936) op.cit. p.180

(3) HLRO Min. of Evid. HC 1853 vol.19 London and North Western Rly (Oldham branch) 27 April p.15

Fig. 30



at the Committee stage.⁽¹⁾ This Lees agreed to do and the branch was authorised.

Having gained Parliamentary approval for their branch the Huddersfield and Manchester Railway immediately promoted a bill for the session of 1847 to alter the alignment of their railway. This was a direct result of negotiations held with their erstwhile rivals, the Manchester and Leeds Railway. The new proposals once again interfered with Mr. Lees property and he was forced to petition against this new bill. At the first sitting of the Select Committee of the House of Commons the railway company and Mr. Lees reached an agreement.⁽²⁾ Mr. Lees was to receive £500 costs, the line would be realigned along the southern limit of the Parliamentary fence, a station could only be constructed on the south side of the line, and there was to be a six foot high wall on the north side of the railway. Lees felt that he had very little chance of defeating the bill and therefore decided that he had no option but to accept these terms. Although the line was authorised it was never built during the 1840s but it reappeared in 1852, with Mr. Lees once more attempting to protect his estate.⁽³⁾

The landowner therefore gained no more than a minimal deviation in both 1846 and 1847. It is especially interesting to see that Lees concluded that a landowner stood little chance of defeating a railway and therefore had decided to assent to the terms of a treaty that were patently unfavourable to his interests. The difficulties of negotiating in Parliament are well illustrated by his case. The legal expenses during the Commons Committee Stage alone amounted to £1,500.

The rivalry prevalent at this time implied that the landowners

(1) *ibid.* pp.18-20

(2) *ibid.* p.34, treaty dated 13 April 1847

(3) see below p.²⁹¹

bargaining position often increased in strength if his estate was in a particularly strategic location. A thoughtful company recognised this danger and occasionally prepared alternative alignments for submission to Parliament. The South Eastern Railway found itself in such a position in 1846.

1845 had seen three companies proposing to serve North Kent, these being the South Eastern Railway, the London Chatham and North Kent Railway, and the Croydon Railway, all of which were rejected in Committee.⁽¹⁾ All three schemes were resubmitted for the session of 1846 but only the South Eastern and the North Kent (as the London Chatham and North Kent had become), proposed to pass through Greenwich Park.

The engineer for the South Eastern Railway was Robert Stephenson and he initially proposed that the railway should pass through the Park in a shallow tunnel between Deptford and Woolwich. He felt that because of the controversial nature of his proposals, an alternative line was necessary and he therefore surveyed a loop line that ran to the immediate south of the Park via Blackheath. (Fig.31) He also surveyed a third alternative that ran some way to the south via Eltham.

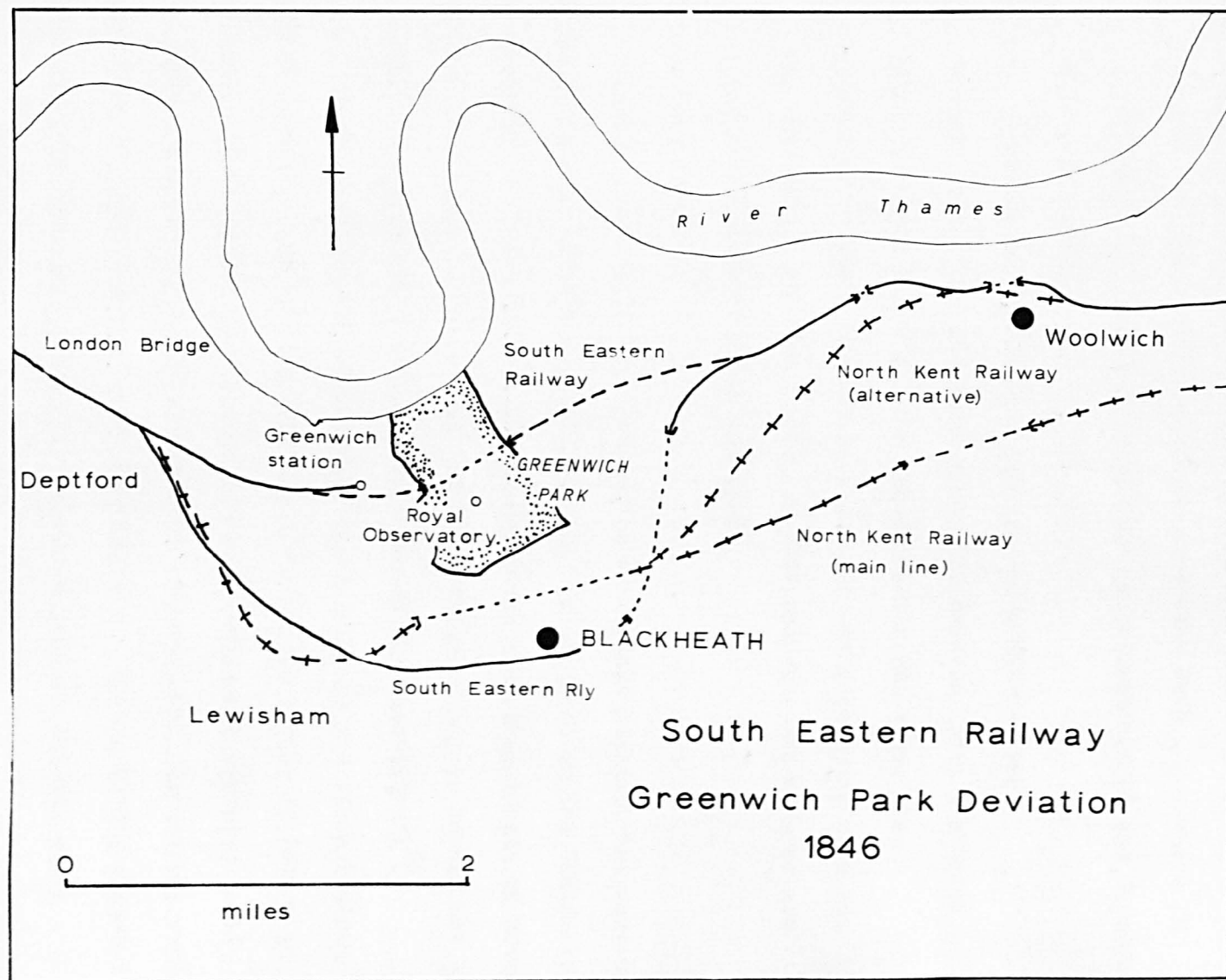
Perhaps because of the available alternatives Pearson, the South Eastern Railway solicitor, didn't write to the Admiralty for permission to pass through the Park until 19 January 1846. He stated in his letter that Stephenson had undertaken experiments that proved no damage would occur to the instruments of the Royal Observatory.⁽²⁾ Despite this the Admiralty replied on 4 February '... that under no circumstances whatever will their Lordships permit a railway of any description to be carried through or under Greenwich Park'.⁽³⁾ Pearson then wrote to the Commissioners of

(1) H.G. Lewin: (1936) op.cit. pp.23-4

(2) HLRO Min. of Evid. HC 1846 vol.21 South Eastern Rly 28 April pp.299-308

(3) ibid. pp.305-6

Fig. 31



Woods and Forests on the 13 February who also indicated that they could not tolerate a line through the Park.⁽¹⁾

Bidder, the deputy engineer, discussed the alternative alignment before the House of Commons Committee of 1846 and said of the original line passing through the lower part of Greenwich Park . . . there is no intention of proceeding with that in consequence of the dissent of the Admiralty.

Q. That was an alternative line on the northern loop?

Bidder: Yes; it would have been a preferable line, a shorter line, a cheaper line with better gradients but where the Admiralty dissented of course it was no use proceeding with it.

Q. Anticipating a difficulty, in that respect, the alternative line (via Blackheath) was adopted?

Bidder: It was.⁽²⁾

Vignoles, the engineer to the rival North Kent Railway, had also been forced to avoid the Park in order to gain the approval of the Admiralty. He said that he had had to ' . . . tunnel under the whole length of Blackheath - it was also a requirement of the Admiralty that we should not come within nine hundred and fifty yards of Greenwich Observatory'.⁽³⁾

Despite the apparent acquiescence on the part of the South Eastern Railway company, negotiations continued during the spring of 1846 with both the Admiralty and the Commissioners for Woods and Forests. All the while Stephenson had been attempting to prove that the railway would not affect the instruments of the Observatory. On the 12 May a letter from the Admiralty was produced by the South Eastern Railway which

(1) *ibid.* pp.307-13 (reply dated 26 March 1846)

(2) *idem* 31 March pp.142-3: Stephenson confirmed this point and felt that the loop would cost an extra £100,000 *idem* 27 April p.176

(3) *HLRO Min. of Evid.* HC 1846 vol.20 North Kent Rly 18 March p.48

indicated their consent to the original line through the Park,⁽¹⁾ and on the 15th a letter from the Commissioners of Woods and Forests was produced which also withdrew their opposition.⁽²⁾ On the 18 May the Committee decided in favour of the South Eastern line and rejected the North Kent proposals.

Almost immediately the North Kent managed to get an MP, Sir Robert Inglis, to ask a question in the House of Commons on their behalf.⁽³⁾ He asked the Prime Minister, Sir Robert Peel, whether the position had been clarified as to possible damage to the Royal Observatory by the construction of a railway.⁽⁴⁾ A further question was asked on the 15th June⁽⁵⁾ which resulted in the Admiralty reversing their decision and, in so doing, overuled the Astronomer Royal (who agreed with Stephenson). This necessitated the South Eastern company promoting the Blackheath loop in the House of Lords. It was this line that was authorised late in 1846, and the line through the Park was not achieved until the 1870s.⁽⁶⁾

Thus the intelligent planning of the South Eastern Railway company nearly succeeded and it was only the action of a vindictive rival that ultimately thwarted their ambitions. The existence of the alternative alignments allowed an unusual amount of freedom within the negotiations as there were none of the normal pressures of an 'all or nothing' outcome. It may also reflect the increasing confidence of the promoters in that

(1) HLRO Min. of Evid. HC 1846 vol.22 S.E. Rly 12 May pp.5-6

(2) idem 15 May pp.2-14

(3) Hansard 3rd series vol.87 5 June 1846 p.102

(4) see also H.G. Lewin: (1936) op.cit. p.146

(5) Hansard 3rd series vol.87 15 June 1846 p.480

(6) C.D. Marshall: History of the Southern Railway (1936) pp.412, 421, H.P. White: Regional History of the Railways of Great Britain vol.3: London (1963) pp.45-8, R.W. Kidner: The South Eastern and Chatham Railway (1953) p.14

they actually attempted to pass directly through the Park, and, even more surprisingly, almost succeeded.

The examples discussed above illustrate the importance of negotiation between the railway company and the landowner if a mutually satisfactory alignment was to be attained. By and large, if a railway company found that its proposed alignment was opposed in Parliament, it was rare for a landowner to be content with the one hundred yards allowed in Parliament or for the company to have an alternative prepared that it could fall back on. More usually, should strong landed opposition manifest itself in Parliament, and a bill be rejected, negotiations would occur during the summer and the bill would return to Parliament for the subsequent session, often having gained the support of the landowner.

The Berkshire and Hampshire Railway is a case in point. The railway companies proposed to serve southern Berkshire and northern Hampshire late in 1843, the Great Western Railway promoting a line to run from Reading to Newbury, and the London and South Western Railway promoting a line from Basingstoke running northward to Reading.⁽¹⁾ Both lines came before Parliament in 1844, the House of Commons Select Committee rejecting the G.W.R. scheme on the grounds of landed opposition, and the L. & S.W.R. line being rejected by the House of Lords Select Committee because they felt that the G.W.R. proposals were superior.⁽²⁾

Both lines were resubmitted for the session of 1845 but in the January of 1845 the Board of Trade reported in favour of the Berks and Hants Railway and, as a result, the G.W.R. and the L. & S.W.R. reached an agreement, that the Berks and Hants Railway was to be unopposed by the L. & S.W.R. company.⁽³⁾ The G.W.R. had also ameliorated landed opposition

(1) H.G. Lewin: (1936) op.cit. p.167

(2) E.T. MacDermot: op.cit. vol.1 pp.142-4

(3) *ibid.*

to the proposed route by considerable negotiations and realignments.⁽¹⁾

The engineer to the Berks and Hants Railway, I.K. Brunel, stated that ' . . . those landowners generally, without committing themselves on that occasion, stated that if certain modifications of the line could be adopted to meet certain objections of theirs, they would generally assent to the measure'.⁽²⁾ Thus, during the summer of 1844, subsequent to the rejection in Parliament, the railway company had negotiated with the landowners to reach an alignment that was acceptable to all. The most difficult landowner was a Mr. Fowke of Midgham, whose estate lay midway between Reading and Newbury. (Fig.32) Brunel had met Mr. Fowke and the landowner had shown him the line he preferred, this being parallel to the Kennet and Avon Canal. Brunel argued that if this alignment was submitted to Parliament the Canal company would have a valid case of disturbance. A compromise was eventually reached that necessitated the construction of a considerable curve in the railway where it passed through the property.⁽³⁾ Brunel had said ' . . . it was nothing but the extreme desire at that time to stand well with the landowners there, that would have induced the company or justified them in making such a bend'.⁽⁴⁾ The line was authorised in 1845 with little, if any, opposition. Perhaps the most important aspect is Brunel's linking of the wish 'to stand well with the landowners' and the 'justification' of such a disadvantageous realignment.

In Cheshire the North Staffordshire Railway proposed to construct a branch from their main line at Kids Grove westwards to Crewe. This was intended to pass Crewe Hall, property of Lord Crewe, on the north side

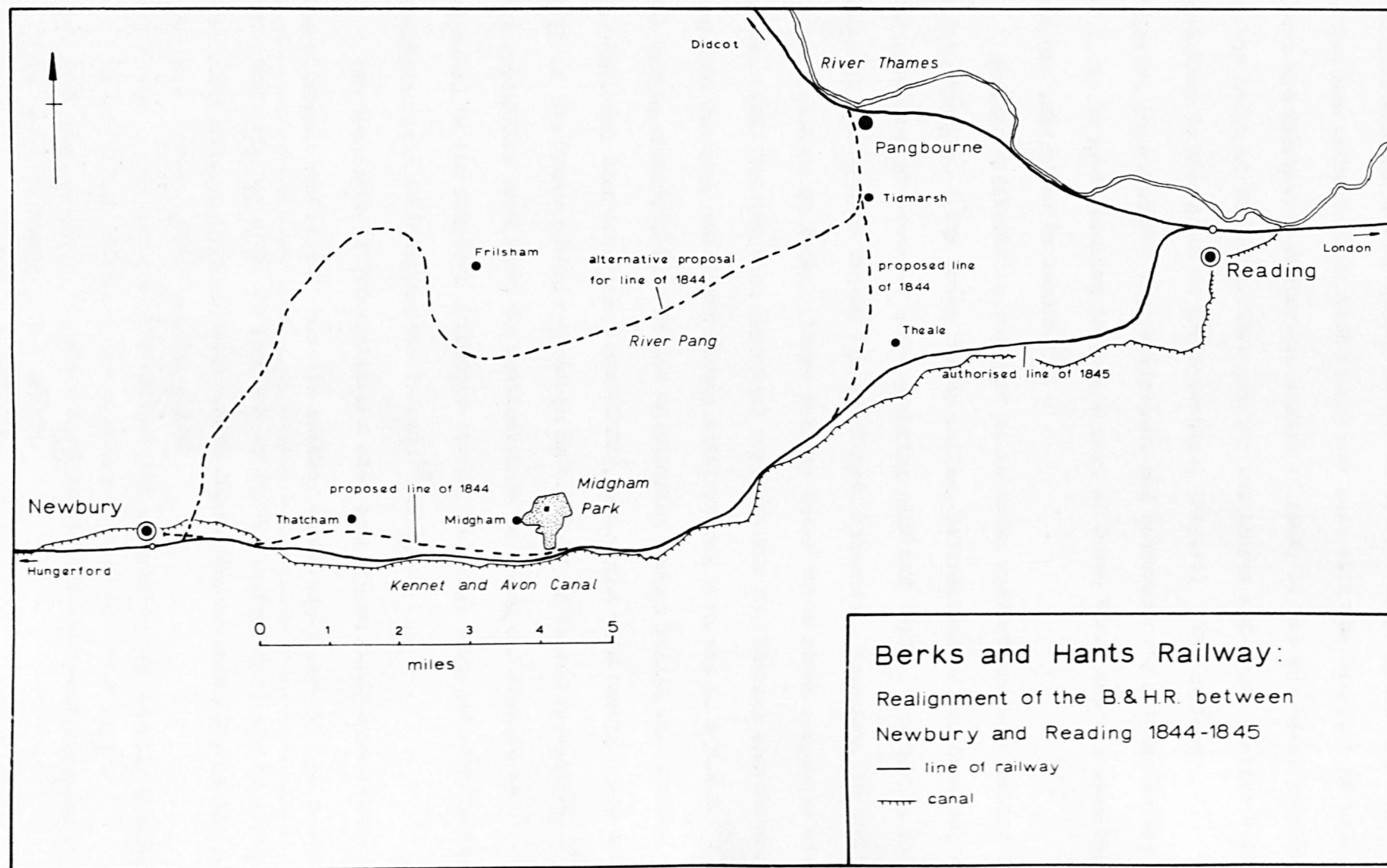
(1) H.G. Lewin: (1936) op.cit. pp.28-9

(2) HLRO Min. of Evid. HC 1845 vol.4 Berks and Hants Rly 29 April p.16

(3) *ibid.* pp.16-52

(4) *ibid.* p.52

Fig. 32



and just touched the periphery of the Park.⁽¹⁾ Despite the fact that this branch was authorised in 1846 it did not meet with the approval of Lord Crewe and therefore, during the summer of 1846, it was realigned to pass to the south of the Park, thus joining the London and North Western Railway main line to the south of Crewe station. (Fig.33) The engineer, J. Forsyth, described why the realignment had occurred: '... the object of it is to avoid passing through a part of Crewe Park' and was some three and one half miles in length.⁽²⁾

Similar difficulties occurred in an urban context and were solved in a like fashion. The lower Thames valley, between London and Windsor, saw the promotion of numerous schemes during 1846 and 1847. The G.W.R. had proposed a line from Ealing via Brentford, Isleworth, Hounslow, to Staines for the session of 1846. There were at least three rival companies also in the field but the most important opponent was the Staines and Richmond Junction Railway, which had strong affiliations with the L. & S.W.R.⁽³⁾ The G.W.R. sponsored line failed on standing orders whilst the Staines and Richmond Junction line successfully surmounted this hurdle, only to fail in the Commons Committee stage as a result of landed opposition.⁽⁴⁾ The opposition came from the Commissioners of Woods and Forests who objected to the proposed alignment through the Deer Park and also to the suggested mode of bridging the Thames.⁽⁵⁾ (Fig.34)

The residents of Twickenham had also registered their opposition to the alignment and argued that the railway would cut their village in two

(1) HLRO Min. of Evid. HC 1846 vol.47 North Staffordshire Rly 27 April p.30

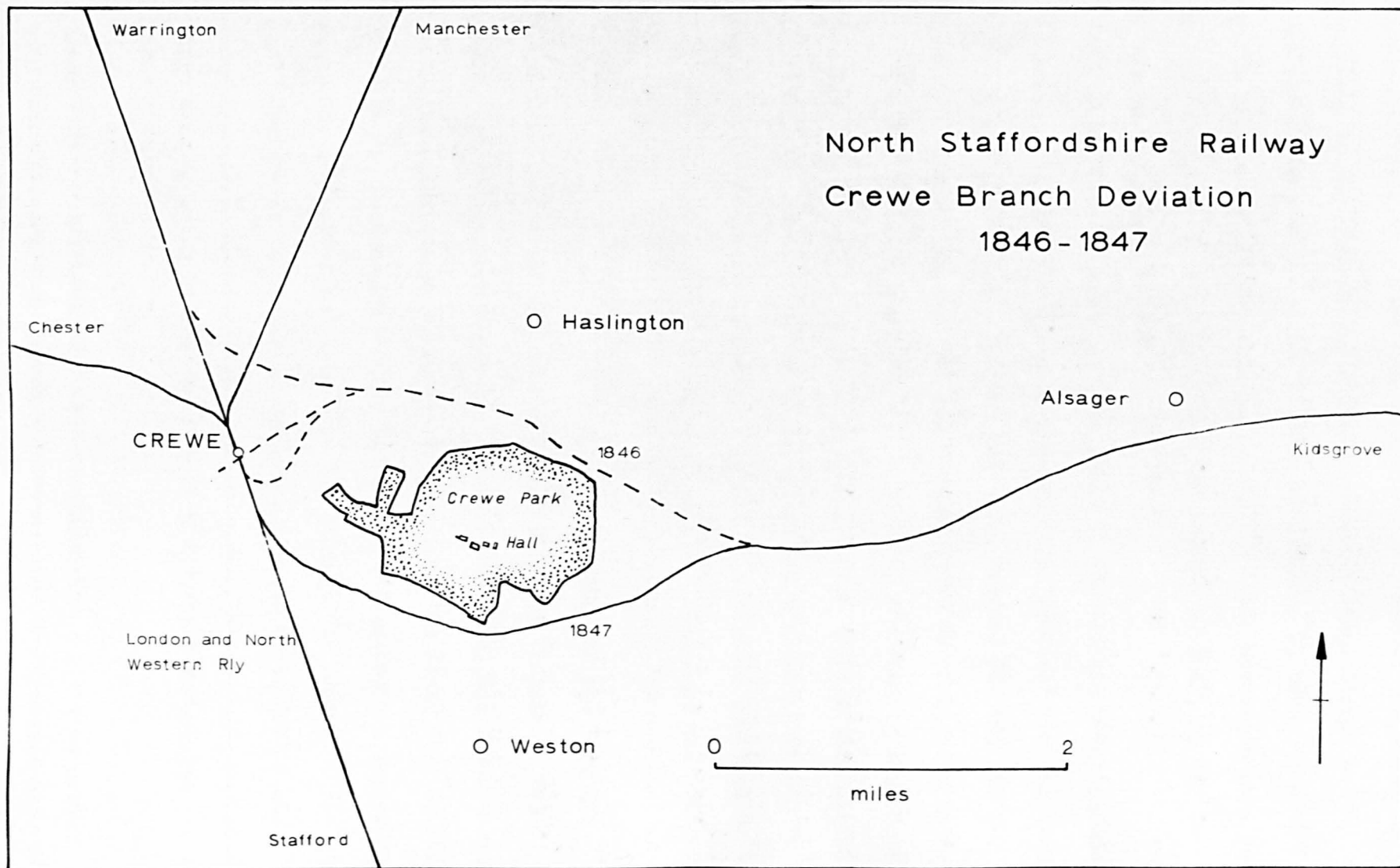
(2) HLRO Min. of Evid. HC 1847 vol.71 North Staffordshire Rly 11 May p.9

(3) H.G. Lewin: (1936) op.cit. p.140

(4) ibid. p.140 Lewin suggested that the opposition was largely instigated by the G.W.R. disappointed with the failure of their scheme

(5) HLRO Min. of Evid. HC 1846 vol.37 Staines and Richmond Junction Rly 29 April pp.40-52, 4 May pp.7-30

Fig. 33



and would seriously interfere with property.⁽¹⁾ During the summer of 1846 the engineer to the Staines and Richmond Junction line, Joseph Locke, amended his railway where it ran through Twickenham, in order to minimise damage to residences and the village itself.⁽²⁾ The promoters then re-submitted their line to Parliament for the session of 1847, as did the promoters of the G.W.R. scheme.

At a public meeting held at Twickenham to discuss the rival schemes, the consensus was that the G.W.R. proposals were 'useless' for the locality's needs but the Windsor, Staines and South Western Railway (as the Staines and Richmond Junction had now become) would be of benefit to the area. The meeting then resolved '... that, in addition to the above merits, the W.S. & S.W.Rly is so judiciously traced through this parish as to produce the least possible amount of injury and inconvenience to private property and private individuals and is therefore entitled to the cordial approval and support of the meeting'.⁽³⁾ The line was authorised in 1847.⁽⁴⁾

A similar problem had arisen with the alignment of the York and Scarborough Railway which had come before Parliament in 1844. The engineers, Robert Stephenson and his deputy Birkenshaw, had found great difficulty in selecting an alignment that crossed the River Ouse to the satisfaction of the Conservators of the River. Eventually a satisfactory alignment was determined but this then ran through the centre of the village of Clifton before it turned north-eastwards and ran on to Malton and

(1) HLRO Min. of Evid. HL 1847 vol.2 W.S. & S.W.Rly 7 June p.147

(2) *idem* 8 June p.163

(3) *idem* 7 June p.159

(4) *idem* 8 June p.163 Locke had also realigned the railway to avoid the Deer Park and thus gained the approval of the Commissioners of Woods and Forests

Lower Thames Valley 1846-1849

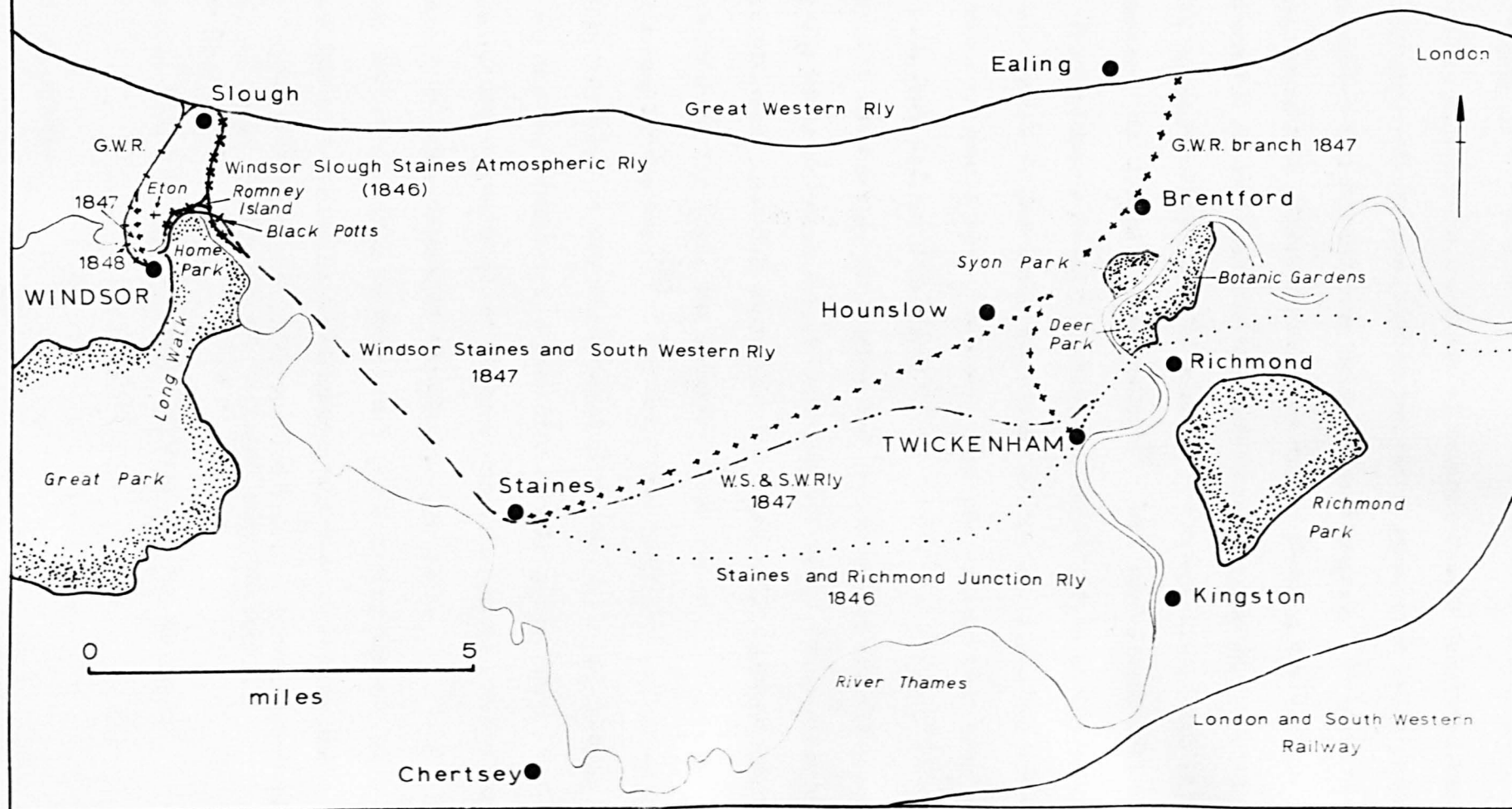


Fig. 34

Scarborough.⁽¹⁾ (Fig.35)

When the line came before the House of Commons Select Committee the residents of Clifton offered some rather tentative opposition which proved inadequate to defeat the bill and the railway was accepted.⁽²⁾ As a result of this opposition, negotiations were opened between the railway company, represented by its chairman George Hudson, and the inhabitants of Clifton, their spokesman being Earl de Grey.⁽³⁾ Various deviations of the line were discussed but little was resolved.⁽⁴⁾ The inhabitants felt that the value of their property would fall with the construction of the railway and thus merely wanted it away from the centre of their village but weren't at all sure where it should run. However, they did concede that they supported the general idea of a railway.⁽⁵⁾

Many feasible alternative alignments had been proposed and all were discussed by the House of Lords Select Committee of 1844. Birkenshaw, the assistant engineer, admitted there were no engineering difficulties in the construction of the line, the locality being extremely flat, and it was merely a matter of expense.⁽⁶⁾ The Committee therefore adjourned and, after a further two weeks of fruitless negotiation had occurred between the railway company and the landowners, reconvened at the end of May. The Committee decided that as nothing had come of the discussions, they felt that although the bill was obviously of great public merit,

they feel that in the mode in which that great public benefit is to be carried into effect an interference has been made with the

- (1) HLRO Min. of Evid. HC 1844 vol.44 York and North Midland Rly 19 March pp.1-80
- (2) HLRO Min. of Evid. HL 1844 vol.1 Y. & N.M.Rly 17 May pp.29-30
- (3) *ibid.* p.36
- (4) *ibid.* p.41
- (5) *ibid.* pp.52, 54-80
- (6) *ibid.* p.34

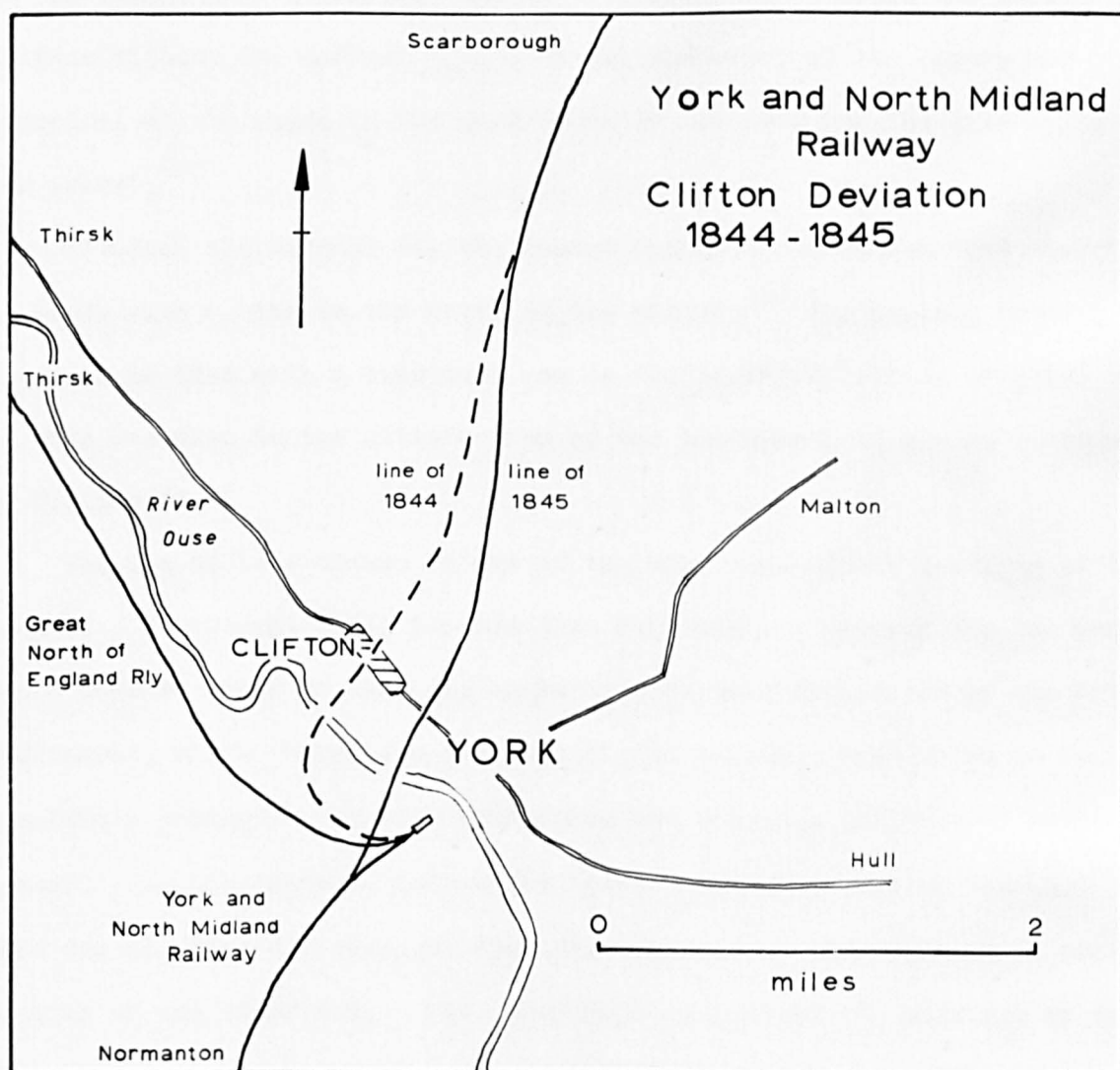


Fig. 35

rights of private property which they do not consider essentially necessary to the carrying out of the principle of the measure.⁽¹⁾

They therefore introduced a clause, which was accepted by both parties, to the effect that no railway was to be constructed through the parish of Clifton without the consent ' . . . of all and every of the owners and occupiers of the lands in the said township required for the said railway and works'.⁽²⁾

Although the counsel for the landed opponents intimated that they would be happy with a line to the north of the village⁽³⁾ the railway company returned in 1845 with a line that ran to the south of Clifton (Fig.35) and as this was also to the satisfaction of the landowners it met no opposition in Parliament.

The use of this clause is one of the most significant features of the decade. It automatically implied that negotiations between the two parties would have to occur or that the whole area of land delineated by the Act of Parliament, which authorised the rest of the railway, would have to be completely avoided. It also highlights the changing attitude of Parliament itself. In the instance quoted the Lords Committee accepted the basic need for the line and realised that the controversy affected only a small section of the alignment. They therefore authorised the majority of the line thus saving the promoters a great deal of time and extra expense.

One of the noted counsel of the period, Sergeant Hope, spoke on the benefits of this clause and argued that it allowed any landowner who felt any cause for grievance whatsoever, but was so confused by rival railway interests that he felt he could not assent to anything, a considerable measure of time to ponder the implications of a scheme and not be hustled

(1) *idem* 31 May p.10

(2) Local and Personal Act 7 & 8 Vict. cap. LXI (61) clause 2

(3) HLRO Min. of Evid. HL 1844 vol.1 Y. & N.M.Rly 31 May p.14

into a decision. He further argued the clause was of benefit to a railway company as a sub-optimal line was not forced upon them through pressures of time and allowed them to return the following year with a suitable deviation.⁽¹⁾

The clause was also applied in what appears to have become accepted as the most notorious instance of landed hostility toward a railway company seen during the mania, this being the conflict over the proposed alignment of the Syston and Peterborough Railway through Stapleford Park. The clause was again introduced because a number of feasible alternative alignments had been suggested to avoid the Park and the Committee of the House of Lords felt that further negotiation between the landowner and the railway company should occur.

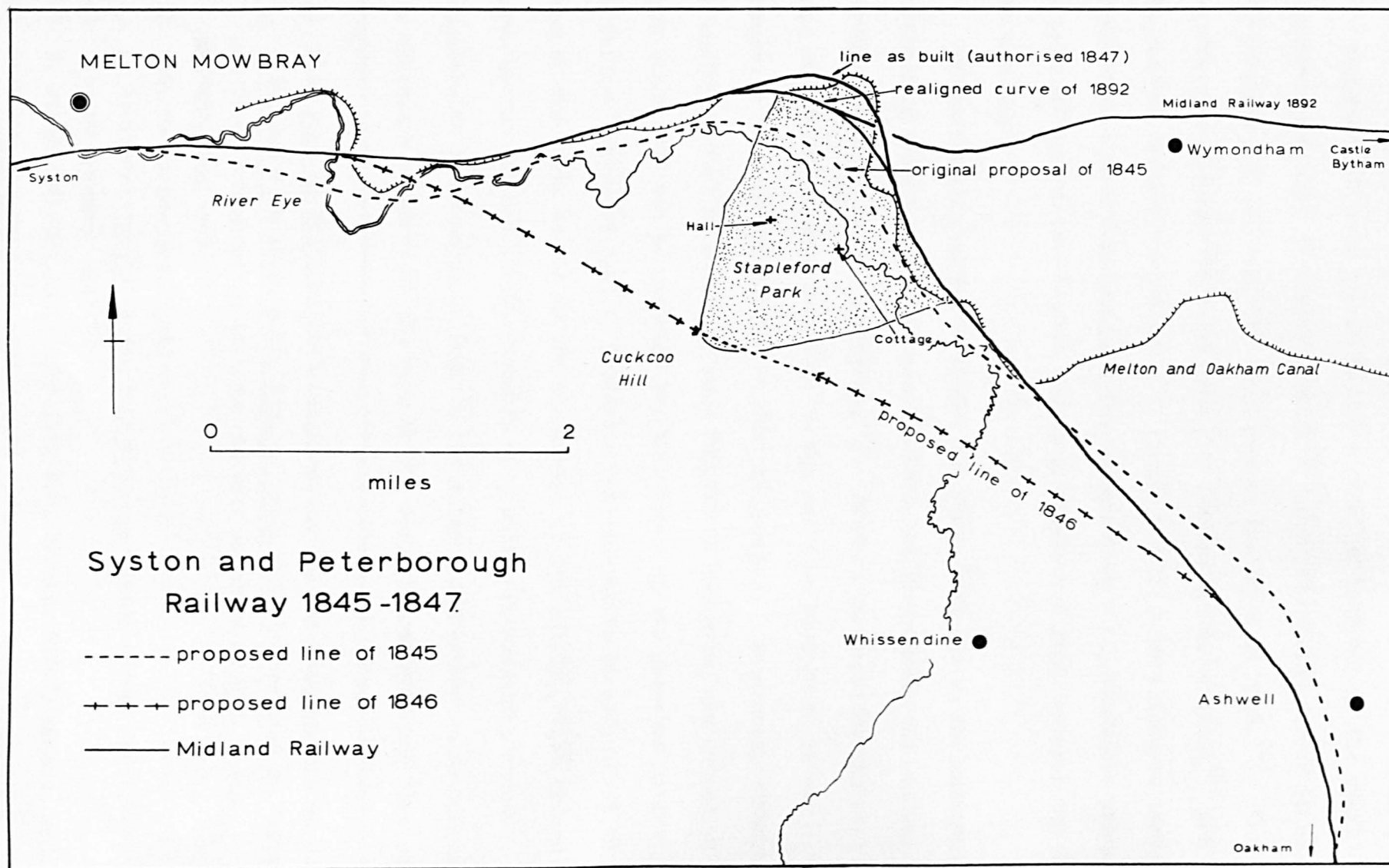
In choosing to follow the valley of the River Eye⁽²⁾ the railway company closely followed the course of the Oakham Canal, which skirted Stapleford Park on its northern and eastern boundaries. (Fig.36) Hudson, chairman of the Syston and Peterborough Railway company, therefore felt that the purchase of the canal and its conversion into a railway would solve many problems in the attempt to avoid the Stapleford estate:

Hudson: I have always had an objection to buying a canal and consequently I have always refused . . . but this was a case out of the common way - not a competing canal . . . I agreed with the promoters of that bill to take the railway along the bed of the canal and by those means I had hoped to get rid of

(1) Speech by Mr. Hope on behalf of the Huddersfield and Manchester Railway's Bradford Branch before the House of Commons Committee dealing with the West Riding Union and Huddersfield and Manchester Railways: (1846) pp.7-8

(2) see above p. 174

Fig. 36



my Lord Harborough's opposition.⁽¹⁾

Negotiations were opened in the October of 1844 and as the canal company was in dire financial straits⁽²⁾ it quite quickly agreed to sell. The purchase was successfully concluded in the April of 1845.⁽³⁾ The negotiations spanned the final date for the submission of plans⁽⁴⁾ and the railway company, not wishing to commit itself to an alignment that might prove impracticable should the negotiations fail, therefore proposed to pass through the north-east sector of Stapleford Park, between the Hall and the canal.

It was this decision, to invade the Park, that led to the infamous 'Battles of Saxby' in the November of 1844, fought between the railway surveyors and the estate employees.⁽⁵⁾ Despite the conflict the line came before the Commons Committee in the April of 1845 where it was opposed by Lord Harborough on residential grounds. He argued, through an employee, that he had spent some £80,000 on improving and extending the Park since 1830 and he resented the incursions of the proposed railway.⁽⁶⁾ He further suggested that he preferred the railway to be aligned at the back of the Park, to run to the south-west of the estate, which became known as the 'direct line', although this would, necessarily, involve considerable excavations. Despite the potential disturbance he offered the necessary 20 acres at the rear of the Park, for £20,000 and then stated

(1) HLRO Min. of Evid. HL 1845 vol.2 Syston and Peterborough Rly 20 June p.56, see also ibid. p.39, Min. of Evid. Select Committee on Railway and Canal Amalgamation 1846 2nd Report: evidence of G.H. Betts Q's 480, 504, 505

(2) G.H. Betts loc.cit. Q.497

(3) C. Hadfield: Canals of the East Midlands (1966) p.190

(4) i.e. 30 November 1844

(5) J. Simmons (1955) loc.cit. p.118, E.G. Barnes: (1966) op.cit. vol.1 p.76

(6) HLRO Min. of Evid. HC 1845 vol.64 S.&P.Rly 25 April pp.169-83

that one acre of land at the front of the Park would cost the railway company an equivalent £20,000.⁽¹⁾

Liddell, one of the railway engineers, recognised the difficulties of attempting to pass the estate:

Q. From what you know of Lord Harborough's views with respect to railways should not you have been very glad if you could have laid out your railway without touching his property at all?

Liddell: Certainly.

Q. Would not that have been an object if it could have been affected without serious detriment to the line?

Liddell: Most certainly, we tried every plan we could.⁽²⁾

However the chief engineer, George Stephenson, was less conciliatory. He was asked about the 'direct line':

Q. Is not that a practicable line?

Stephenson: No - any line can be called a practicable line if there is plenty of money . . .

Q. It would be more expensive?

Stephenson: It could cut up Lord Harborough's ground far worse than this - we should then make some heavy cuttings . . .

The line would also have necessitated the construction of a tunnel:-

Q. What would be the length of your tunnel?

Stephenson: I cannot say but the thing was so absurd that I abandoned it altogether⁽³⁾

thus dismissing the idea out of hand.

The Commons Committee reviewed three possible alternatives; the Parliamentary line through the Park, Lord Harborough's line to the rear

(1) *ibid.* pp.159-69

(2) *idem* 23 April p.235

(3) *ibid.* pp.178-80

of the Park, and finally the canal line along the north-eastern edge of the Park. They argued that as part of Lord Harborough's case rested upon the opinion that the canal was worse than the railway, therefore the railway should be built on the bed of the canal.⁽¹⁾

During the weeks that intervened between the sitting of the Commons Committee and that of the Lords, Hudson again attempted to negotiate with Lord Harborough but failed to reach a satisfactory solution.⁽²⁾ Earl Fitzwilliam, having earlier in the year advised Hudson to reach a rapid settlement with Lord Harborough,⁽³⁾ proposed a further possible alternative alignment, which ran some way to the north of the canal.⁽⁴⁾ Thus four separate alignments came before the Lords Committee, with Lord Harborough still in opposition.

The Lords Committee took a distinctly biased attitude, with some very hostile questioning of railway witnesses,⁽⁵⁾ and, despite Hudson's plea (or perhaps because of it)

I am quite ready on behalf of this company to deviate this line if it becomes a matter of expense, rather than interfere with Lord Harborough - we would rather increase the expense than cause annoyance to his Lordship⁽⁶⁾

the Lords recommended that a clause be introduced into the Act which prevented access by the railway company onto any part of Lord Harborough land without his written consent. They further recommended that the tunnel line should be used.⁽⁷⁾

(1) *idem* 28 April pp.1-6

(2) HLRO Min. of Evid. HL 1845 vol.2 S. & P. Rly 20 June pp.52-59

(3) F.M.L. Thompson: (1963) *op.cit.* p.259

(4) HLRO Min. of Evid. HL 1845 vol.2 S. & P. Rly 20 June p.42

(5) *ibid.* p.15

(6) *ibid.* p.59

(7) *ibid.* p.80

The company returned to Parliament in 1846 promoting a line that ran under the Cuckoo Plantation to the south west of the Hall. (Fig.36) However Lord Harborough still appeared in opposition as he now felt that the Parliamentary limit of deviation should be moved so as to be completely outside his Park. He complained that the Railway company's choice of alignment was dissimilar to his suggestions of the previous year⁽¹⁾ and, although the railway company protested, they agreed to deviate the line further to the west.⁽²⁾ The company attempted to tunnel under the Plantation but as a result of the enforced, inadequate surveying, the tunnel collapsed.⁽³⁾

In 1847 the company returned to ask for authorisation of a line now using the bed of the old canal. This was unopposed by Lord Harborough (who received £24,800 for his 'land').⁽⁴⁾ The line between Melton Mowbray and Oakham was therefore complete but at the price of a very sharp curve. This was realigned in 1892, following, almost exactly, the proposed route of 1845.

The case highlights a number of interesting points perhaps the most obvious being the difficulty created by a landowner who refused to negotiate, to the extent of not even allowing surveyors onto his land. The collapse of the tunnel can be directly attributed to this restriction. The role of the two Committees of 1845 also appears rather curious. The eminently reasonable attitude of the members of the Commons Committee, who recommended the construction of the line that was eventually built, contrasted sharply with the biased Lords Committee, which recommended the doomed tunnel line. It is also of interest to see the one mode of

(1) HLRO Min. of Evid. HC 1846 vol.50 S. & P. Rly 30 March p.91

(2) *idem* 31 March p.2

(3) E.G. Barnes: (1966) *op.cit.* vol.1 p.78

(4) Local and Personal Act: 10 & 11 Vict. cap. CCXV (215) especially clause 12

transport superceding the other, with the railway being built on the bed of the canal. Once again the clause preventing access without written consent was of great value to both parties.

Although the purpose of the clause was self-evident it was possible for some railway companies to behave extremely foolishly and attempt to ignore it. The North Staffordshire Railway, in its bill of 1846, proposed to construct a line through the Churnet valley to join the Midland Railway to the south of Derby, at Willington. That portion of the line between Willington and Marston, a matter of two miles (Fig.37) was opposed, in the House of Lords, by Sir Henry Every of Egginton, largely on the grounds of severance. The Lords Committee therefore proposed that the clause be enacted and that the railway company should '... abandon that portion of the line passing through Sir Henry Every's property'.⁽¹⁾

During the summer of 1846 the railway company failed to contact Sir Henry and merely deviated the line to a position that they considered was satisfactory.⁽²⁾ When the line came before Parliament in 1847 Sir Henry once again registered his opposition in the House of Lords and although the railway engineer argued that it had been shifted some half a mile and that the level crossings had been replaced by bridges,⁽³⁾ the Lords Committee agreed with Sir Henry that despite this, the railway company had completely contravened the purpose of the clause. Sir Henry himself proposed a line which the railway company dismissed as being too circuitous and that it interfered just as badly with other landowner's property.⁽⁴⁾

The railway company offered a deviation to the northern limit of the

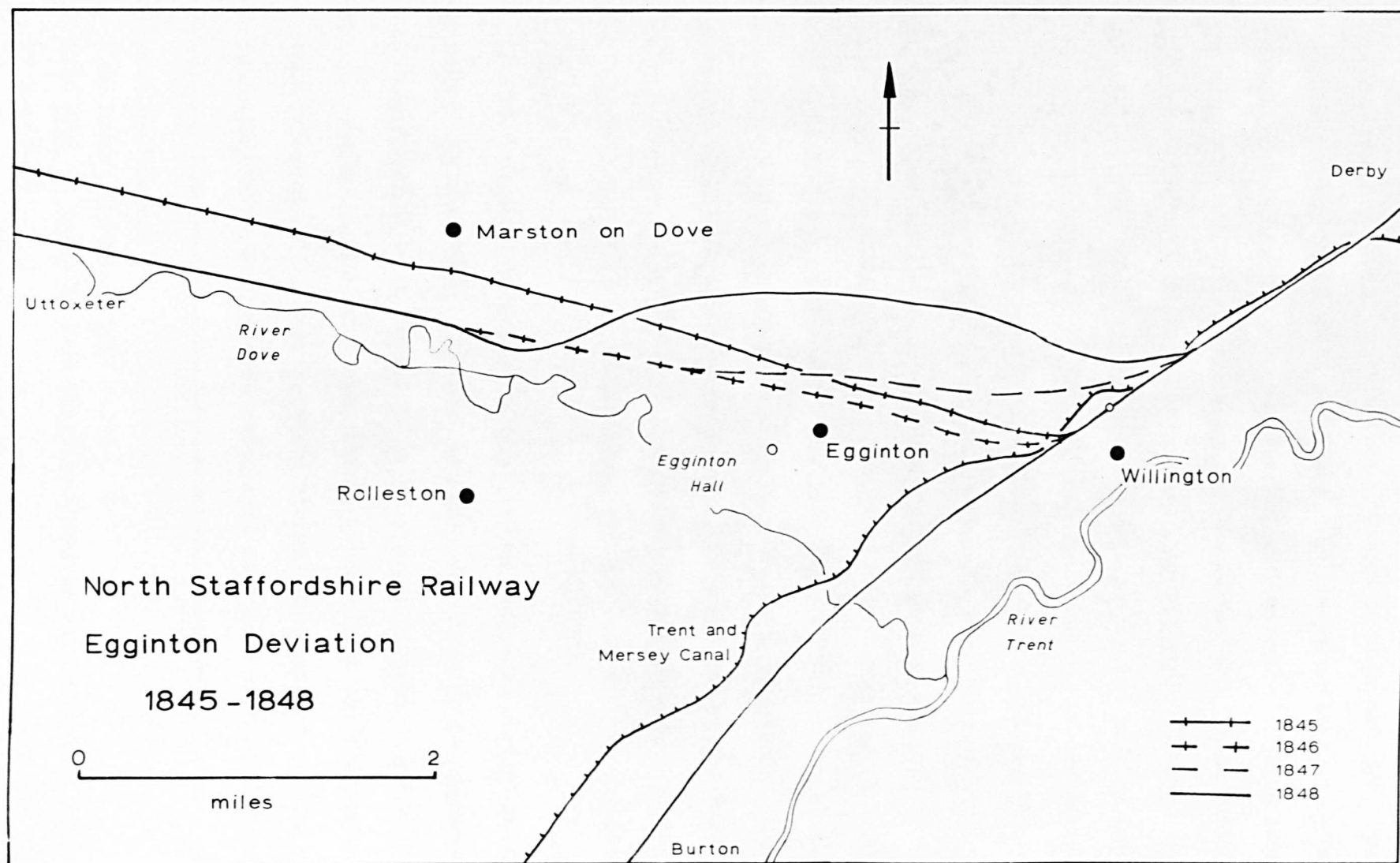
(1) HLRO Min. of Evid. HL 1846 vol.14 North Staffordshire Rly
12 June p.225

(2) HLRO Min. of Evid. HL 1847 vol.4 N.S. Rly 18 June p.11

(3) HLRO Min. of Evid. HC 1847 vol.71 N.S. Rly 11 May p.18

(4) HLRO Min. of Evid. HL 1847 vol.4 N.S. Rly 18 June pp.75-93

Fig. 37



parliamentary fence and £5,000 costs but this was refused by the landowner,⁽¹⁾ and the line was rejected. The company returned in 1848 and, as a direct result of having negotiated with Sir Henry, and having achieved a mutually satisfactory alignment, the bill was quickly authorised.⁽²⁾ This clearly illustrates the value of the clause in the protection of a landowner.

The negotiations that occurred to select an alignment that was to the satisfaction of both the landowner and the railway company usually involved just these two participants. However, in one such case, it was decided to employ the services of an impartial arbiter. In 1844 a railway had been promoted by a Mr. Castleman to run from Southampton via Ringwood to Dorchester. Captain Moorsom, the railway company's engineer, found that his concept of a suitable alignment through the New Forest and that of the Commissioners of Woods and Forests, the body responsible for the protection of Crown property, differed quite radically. Moorsom's original idea was for a reasonably direct line to run between Lyndhurst and Brockenhurst, across the south-eastern corner of the Forest, but he conceded, in evidence '... I know they wished us to go nearer their boundary. At any rate that is my belief'.⁽³⁾

In order to resolve this difficulty it was announced during the Commons Committee stage that Mr. I.K. Brunel had been appointed as an independent arbiter and it would be up to him to decide upon a suitable line.⁽⁴⁾ Brunel discussed his role and said that he compared Captain Moorsom's line with that favoured by the Commissioners of the Woods and Forests, and felt that he could remove the latter's objections without deviating Moorsom's

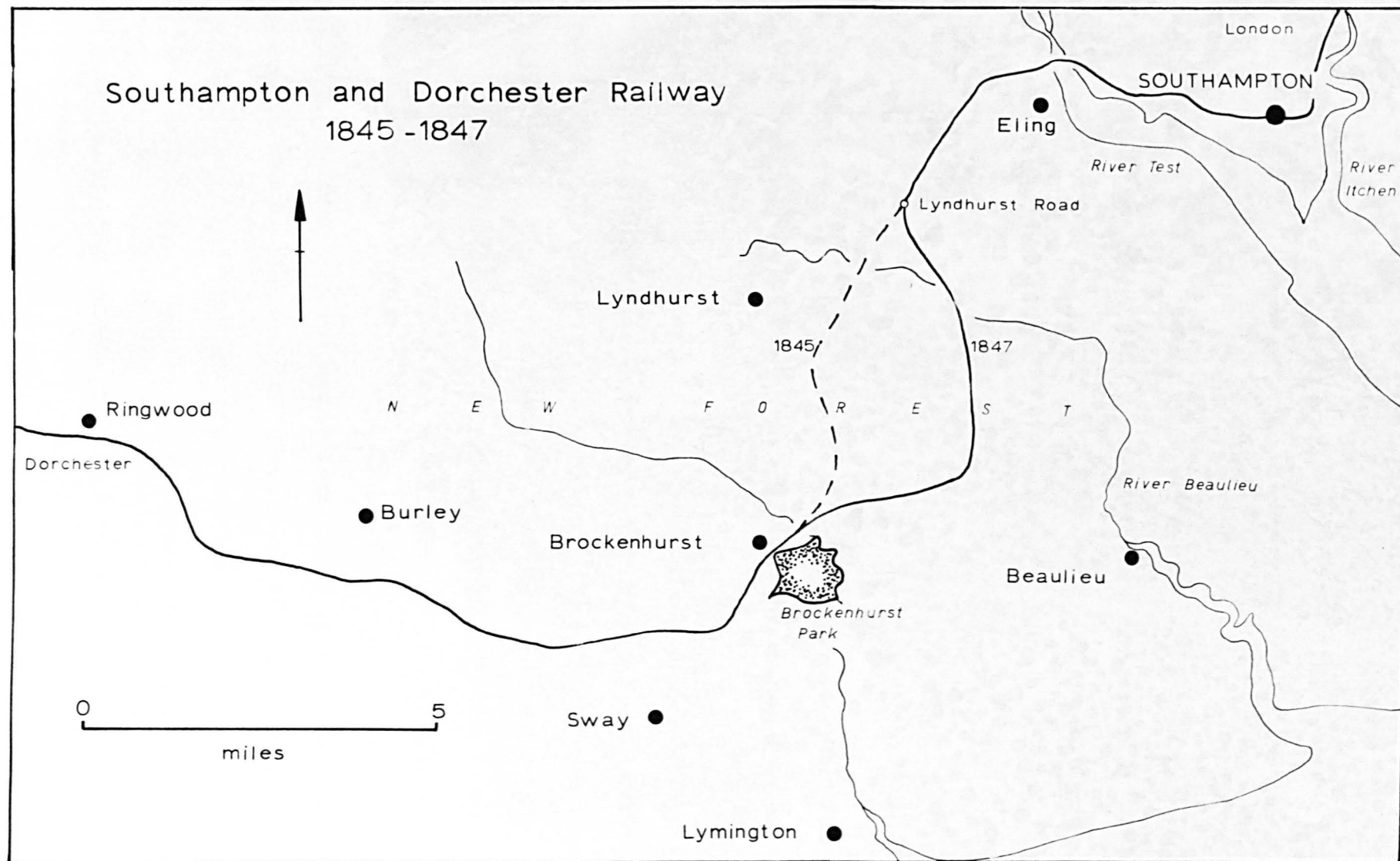
(1) *idem* 19 June p.1

(2) H.G. Lewin: (1936) *op.cit.* p.370

(3) HLRO Min. of Evid. HL 1845 vol.2 Southampton and Dorchester Rly 23 June p.60

(4) HLRO Min. of Evid. HC 1845 vol.76 S. & D. Rly 7 May p.1

Fig. 38



line to a great extent.⁽¹⁾ Further discussion ensued and Brunel eventually recommended that the clause preventing access without consent be introduced to allow time for a satisfactory alignment to be determined. This eventually occurred in the summer of 1846 and a deviated line was authorised in 1847. (Fig.38)

The success of the negotiations depended, to a large extent, upon the willingness of each party to discuss the various alternatives. The attitudes of the railway companies often proved far more flexible than those of the landowners, owing to the numerous elements that influenced their decisions pertaining to alignment. Rival companies could become allies, or a branch line might be rejected in Parliament, thus rendering the location of a junction redundant; promoters of a specific railway company, or their engineers, might be replaced or resign and this could also cause a radical change of opinion as to the importance of the various factors that determined alignment.

The London and York Railway Company, having been initially promoted during the 1830s,⁽²⁾ was revived in the early months of 1844 and Joseph Locke was appointed as engineer. As a result of his resignation in the September of that year, the promoters employed William Cubitt as his replacement.⁽³⁾ Locke's plans were almost finalised and Cubitt found it virtually impossible to amend them if the Parliamentary deadline was to be met. Consequently he was forced to defend another's engineering during 1845 and 1846 whilst planning improvements of his own. He was also negotiating with the landowners along the route to incorporate any improvements that they considered would prove beneficial.

Thus in 1847 Cubitt returned to Parliament with proposals for a large

(1) HLRO Min. of Evid. HL 1845 vol.2 S. & D. Rly 23 June p.100

(2) see above p.123

(3) C. Grinling: op.cit. pp.22-3

number of deviations and realignments.⁽¹⁾ At Doncaster the main line was moved from the east to the west side of the town at the request of the inhabitants.⁽²⁾ This was also a matter of strategy on the part of the railway company as the failure of their Bawtry and Sheffield branch line in 1845, and the authorisation of the Doncaster to Sheffield line necessitated a station in that locality.⁽³⁾ (Fig.39)

Similarly, at Grantham, the line was moved from the east to the west side of the town, once again to meet the wishes of the inhabitants.⁽⁴⁾ In so doing it interfered with the property of a Mr. Ostler, to the north of the proposed station. He complained of residential damage and the Committee suggested that the clause preventing access without permission be incorporated into the bill. The deviation to avoid Ostler's land was no more than 200 yards.⁽⁵⁾ (Fig.40)

At Hatfield the main line had been amended:

Q. Now as to the Hatfield deviation, is the object of that to give better accommodation to the town of Hatfield?

Cubitt: Yes.

Q. And also to remove some residential objections on the part of Lord Salisbury?

Cubitt: Yes.⁽⁶⁾

The line in fact was altered to run closer to Hatfield Park but in such a manner as to merge with some road and field improvements proposed by Lord

(1) H.G. Lewin: (1936) op.cit. p.312

(2) HLRO Min. of Evid. HC 1847 vol.79 London and York Rly 7 June p.209

(3) HLRO Min. of Evid. HC 1847 vol.85 L. & Y. Rly 14 May pp.6-17

(4) HLRO Min. of Evid. HC 1847 vol.48 L. & Y. Rly 14 May pp.76-107, HL vol.13 L. & Y. Rly 8 July pp.6-7

(5) HLRO Min. of Evid. HC 1847 vol.48 L. & Y. Rly 17 May pp.59-60

(6) HLRO Min. of Evid. HL 1847 vol.13 L. & Y. Rly 8 July p.3

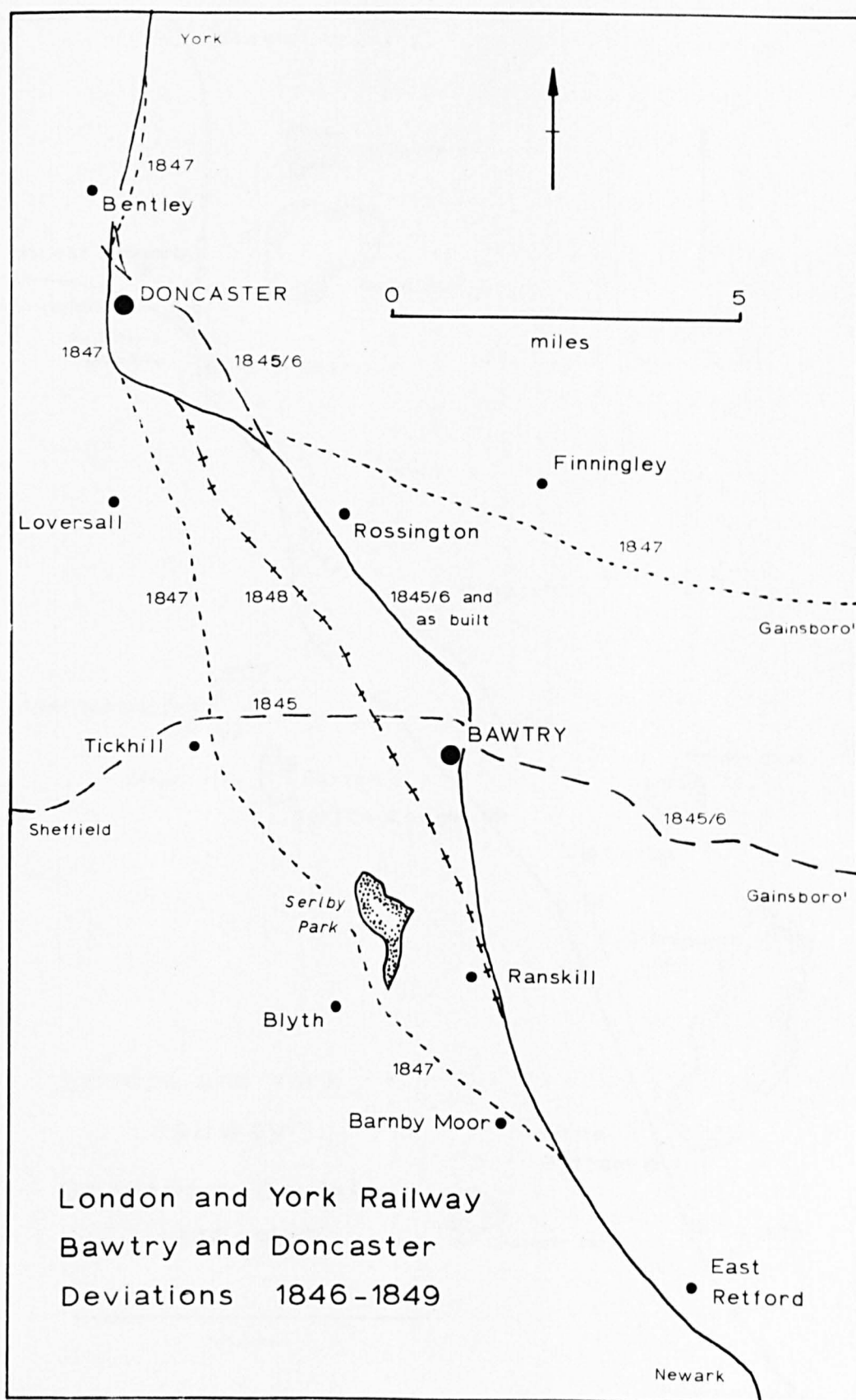


Fig. 39

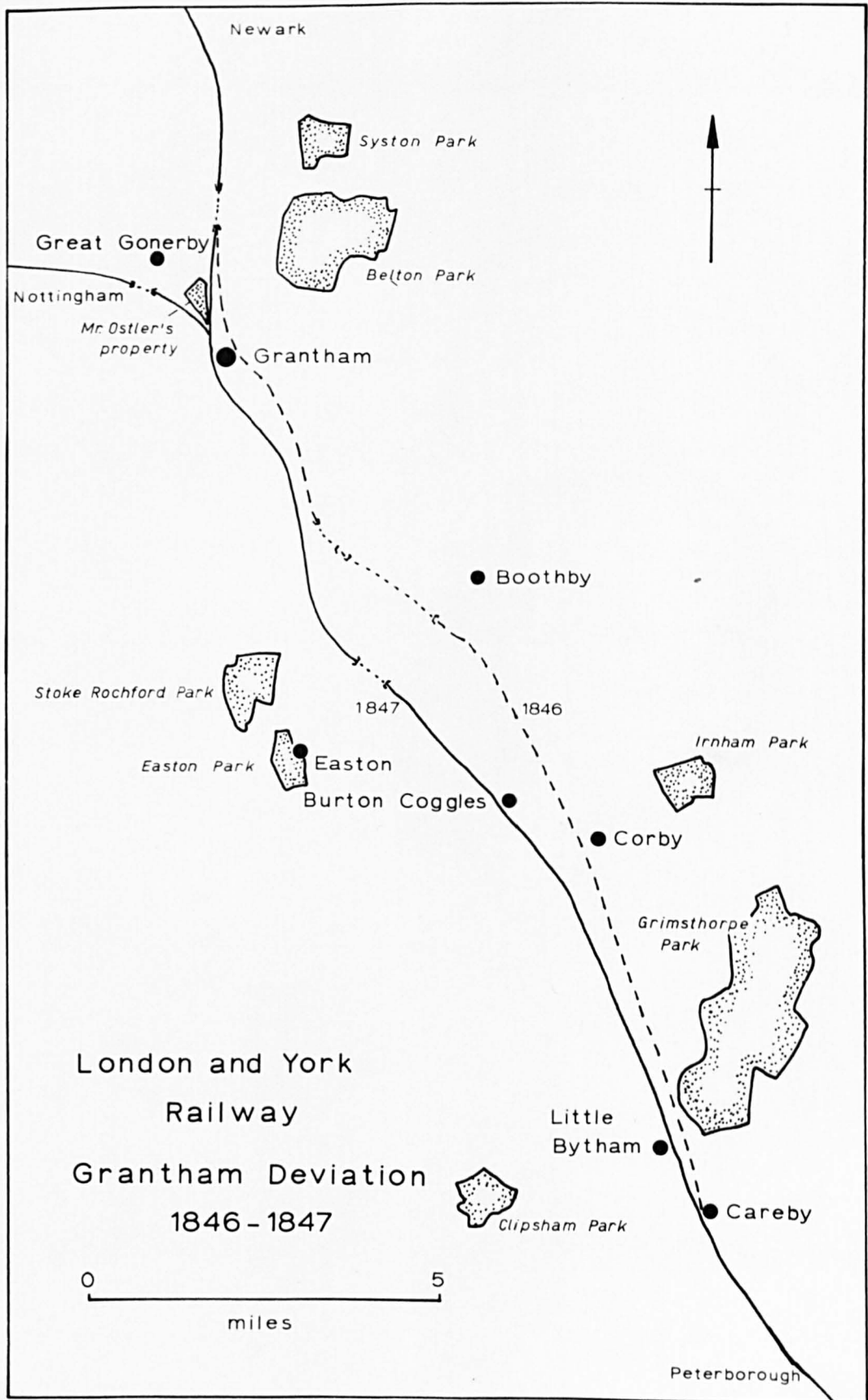


Fig. 40

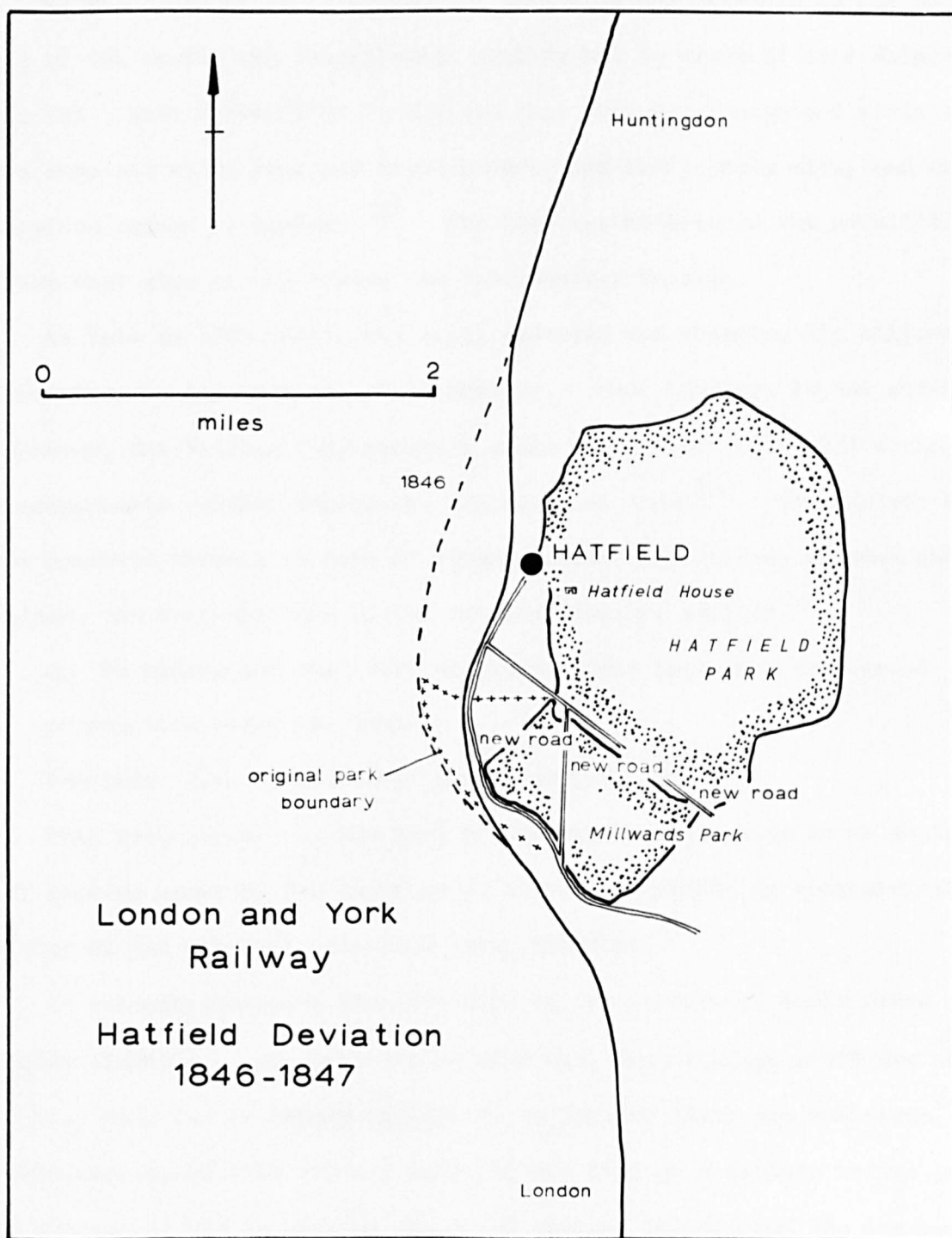


Fig. 41

Salisbury. (Fig.41)

To the north of Peterborough the main line was intended to run to the west of the Syston and Peterborough Railway and to cross it near Helpston. (Fig.42) Earl Fitzwilliam complained that this would create a strip of land some six miles long and three hundred and fifty yards wide, and would therefore render it useless.⁽¹⁾ The line was altered to run parallel and on the east side of the Syston and Peterborough Railway.

As late as 1849 Cubitt was still altering and amending his alignment in response to the requests of landowners. Near Bentley, to the north of Doncaster, Sir William Copp gained a small two and one half mile deviation to accommodate certain fences and divisions of land.⁽²⁾ The railway had been promoted through an area of strong landed support and, in discussion, Denison, the vice chairman of the railway company, stated:

Q. We understand that this originated very much with the landed proprietors along the line?

Denison: Yes, it had their entire support.⁽³⁾

This warm support on the part of the landowners allied to an engineer with greater sympathy for their point of view, resulted in a considerable mileage of the original alignment being modified.

In certain instances the attitudes of the landowners could prove equally flexible. As Ruegg has pointed out, unscrupulous promoters could, and did, make use of landed opposition to further their own ambitions⁽⁴⁾ and a landowner could find himself opposing one line on principle whilst supporting another. The efforts of the Great Western Railway and the London and

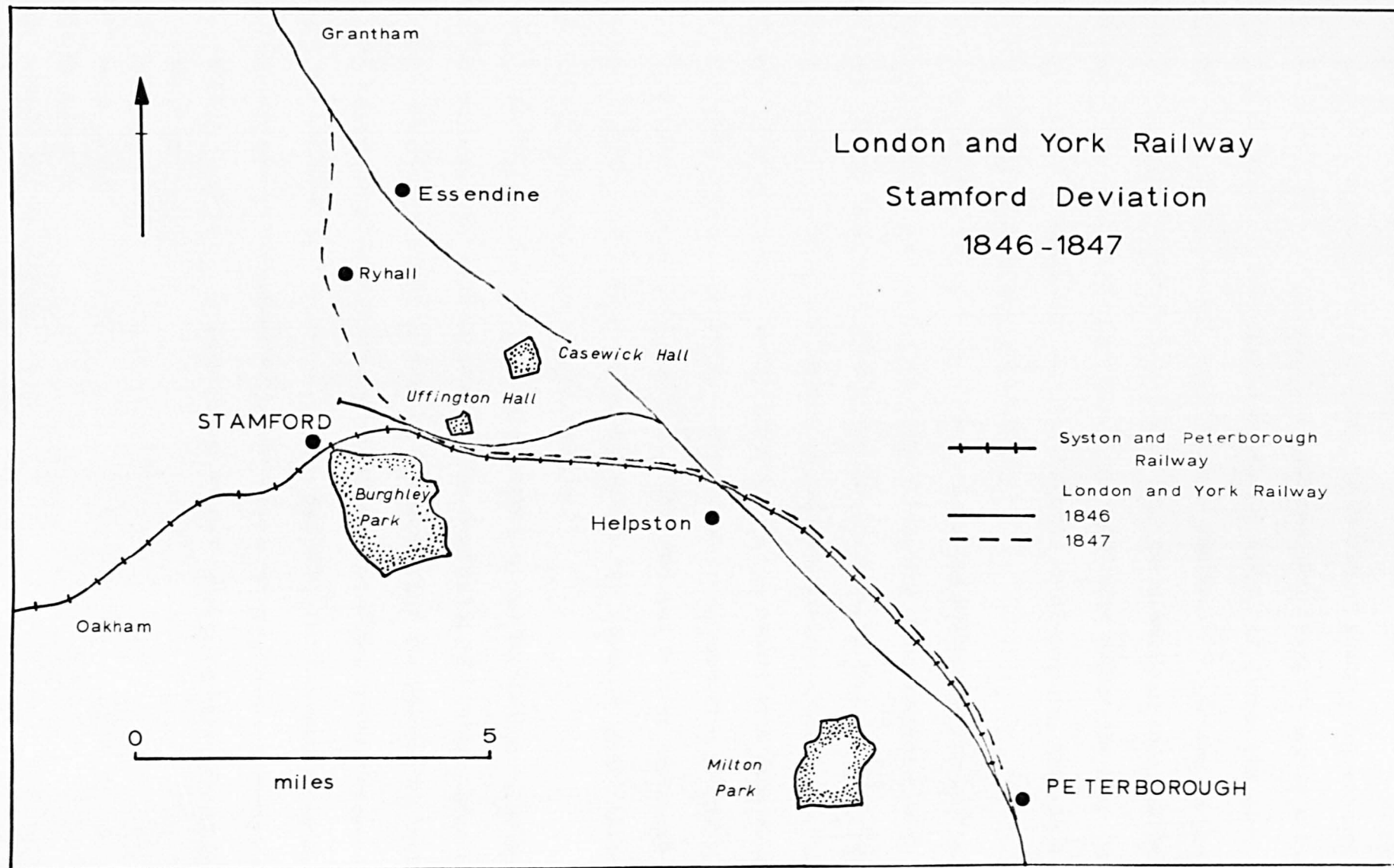
(1) HLRO Min. of Evid. HL 1846 vol.8 L. & Y. Rly 21 May pp.106-11, HL 1847 vol.13 L. & Y. Rly 8 July p.4

(2) HLRO Min. of Evid. HC 1849 vol.29 L. & Y. Rly 12 June pp.2-3

(3) HLRO Min. of Evid. HL 1846 vol.7 L. & Y. Rly 18 May pp.9-10

(4) see below p.²³⁵

Fig. 42



South Western Railway to serve Windsor illustrate this point.

The town of Windsor was strongly in favour of railway accommodation and in October 1844 had employed an engineer, Mr. Page, to survey a line that was intended to link the town with the G.W.R. at Slough and also suggested that a branch should run down to Staines.⁽¹⁾ Access to the town was extremely limited (Fig.34) in that the grounds of Eton College dominated the northern and north-eastern approaches whilst the Home Park, adjacent to the Thames, guarded the southern, south-eastern, and, to a certain extent, the eastern approaches.

The engineer therefore decided to align his railway to run between Eton and the Home Park as far as Black Potts, and then bifurcate, with the northern branch running to Slough and the southern to Staines.⁽²⁾ The company was to be named the Windsor, Slough and Staines Atmospheric Railway. The engineer stated that his criteria were '... selecting a line which will accommodate the intervening villages, avoiding expensive property and free from practical difficulties'.⁽³⁾ The chairman further explained that the railway had been planned to coincide with the ideas of Prince Albert who wished to improve the town of Windsor.⁽⁴⁾

These ideas failed to gain the approval of the Commissioners of Woods and Forests, who were responsible for the Home Park, and it was therefore decided not to submit the railway to Parliament for the session of 1845.⁽⁵⁾ In the summer of that year the directors of the railway company approached Page, who declined to resurvey his line, and thus, in the June of 1845,

- (1) HLRO Min. of Evid. HC 1846 vol.37 Windsor Slough Staines Atmospheric Rly 8 May p.136
- (2) *ibid.* pp.185-87
- (3) *ibid.* p.181
- (4) *ibid.* p.169
- (5) *idem* 18 May pp.71-2

C.B. Vignoles was appointed as their engineer. Vignoles had discussed the line with Page who said:

I stated to Mr. Vignoles that the line which he had taken between Black Potts and Eton was not acceptable to the Board of the Commissioners of Woods and Forests and the line which I had suggested to the west of Eton would be preferred by them.⁽¹⁾

Vignoles wrote to the Commissioners of Woods and Forests suggesting either a line via Black Potts or a line to the south of the town crossing the Long Walk. Both of these were rejected.⁽²⁾ Vignoles therefore decided to make use of Romney Island situated in the middle of the Thames, which would touch neither Eton's property nor that of the Crown⁽³⁾ despite the fact that the Woods and Forests were ill disposed toward any line between the Home Park and Eton College.⁽⁴⁾

The Windsor Slough Staines Atmospheric Railway came before the House of Commons Committee in May of 1846 being opposed by Eton College and the Commissioners of Woods and Forests. The Town Clerk of Windsor immediately stated that Eton had bought Romney Island solely to oppose the railway company.⁽⁵⁾ Although the College attempted to deny this⁽⁶⁾ further witnesses suggested that this was in fact so.⁽⁷⁾ Vignoles said that he had attempted to ascertain from the Woods and Forests whether they had an alignment they preferred for the access of a railway into Windsor, and then stated that he had discovered that they had none prepared.⁽⁸⁾ As a

(1) *ibid.* pp.73-4

(2) HLRO Min. of Evid. HC 1847 vol.2 Windsor Staines and South Western Rly 8 June p.127

(3) *ibid.*

(4) HLRO Min. of Evid. HC 1846 vol.37 W.S.S.A.Rly 18 May p.77

(5) *idem* 5 May p.16

(6) *ibid.* p.51

(7) *ibid.* p.52

(8) *idem* 6 May pp.46-50, also *idem* 15 May pp.110-11

result he had chosen the alignment that he preferred. The Commissioners conceded that they were agreeable to the idea of a line but did want one that was unobjectionable to the Crown.⁽¹⁾ The House of Commons Committee decided that although no one was quite sure what the best alignment might be, there was strong evidence to suggest that the W.S.S.A.Rly wasn't it and consequently rejected it on 19 May 1846.

The G.W.R. then made its attempt on the town. Lewin has suggested that the G.W.R. "squared" Eton College and the Woods and Forests in favour of its intended line from Slough to Windsor and had also attempted to take over the remains of the W.S.S.A.Rly after its failure in 1846.⁽²⁾ The shareholders of the latter railway rebelled against this and had quickly allied themselves with the London and South Western Railway, the Windsor Staines and South Western Railway coming into existence in the October of 1846.⁽³⁾

The summer of 1846 saw a great deal of negotiation between the rival bodies. The G.W.R. were intending to promote a branch from Slough to run to the west of Eton, whilst the W.S. & S.W. Rly (under the aegis of the L. & S.W. Rly) decided to leave the whole matter of alignment into Windsor in the hands of the Woods and Forests '... to determine where the terminus and station should be'⁽⁴⁾ and '... in short, we consulted the convenience of the court in every possible way and made every concession'.⁽⁵⁾

By the May of 1847 the L. & S.W. Rly and the Woods and Forests had reached agreement. The L. & S.W. Rly were to pay the Crown £60,000, the station was to be built where indicated, all the railway works were to be

(1) idem 15 May p.80

(2) H.G. Lewin: (1936) op.cit. p.141

(3) R.A. Williams: op.cit. vol.1 pp.171-2

(4) HLRO Min. of Evid. HL 1847 vol.2 W.S. & S.W. Rly 8 June p.39

(5) ibid. p.40

approved, there was to be no extension into Windsor without the consent of the Commissioners of the Woods and Forests (the line was to terminate at Black Potts), and should the G.W. Rly attempt to reach Windsor the opposition was to be merely on technical grounds.⁽¹⁾ This agreement was linked very closely with a Bill for the Improvement of Windsor also before Parliament in 1847. The G.W. Rly having had their branch rejected by the Commons Committee of 1847 as a result of the opposition of Eton to the proposed destruction of the Brocas Clump,⁽²⁾ appealed to Lord Morpeth, one of the Commissioners of the Woods and Forests, that the Improvement Bill was far too favourable to the L. & S.W. Rly and thus, on 1 June 1847, the Commissioners informed the L. & S.W. Rly that they intended to withdraw the Improvement Bill.⁽³⁾ The W.S. & S.W. Rly was therefore authorised as far as Black Potts.

During the summer of 1847 the Woods and Forests hoped that the G.W. Rly and the L. & S.W. Rly would reach an agreement on the alignment of just one line to serve Windsor.⁽⁴⁾ Although the G.W. Rly had deposited plans for a branch from Slough, which had been amended so as to run some way to the west of their line of 1847 to placate Eton, a conference was arranged between the two parties for March 1848.⁽⁵⁾ The G.W. Rly then revealed that it had pledged to Eton College that it would never pass by on the east side of the grounds and were therefore unable to join the W.S. and S.W. Rly at Black Potts.⁽⁶⁾ The idea of one set of rails into Windsor thus came to nothing and the G.W. Rly achieved their wish of independent

(1) *ibid.* pp.281-324 (Full Text of agreement)

(2) *ibid.* p.113

(3) *idem* 9 June p.140, HC 1848 vol.26 W.S. & S.W. Rly 19 May p.107

(4) *HLRO Min. of Evid.* HC 1848 vol.26 W.S. & S.W. Rly 19 May p.31

(5) *ibid.* p.53

(6) *ibid.* p.158 (full text *idem* 23 May pp.9-12)

access with the authorisation of their branch in 1848, which had the doubtful support of Eton College:

A: . . . it has been very much a choice of evils with the authorities of Eton; they would rather not have any of these lines.

Q. They do not object to it?

A: No, they do not; they feel the necessity of it⁽¹⁾

In the November of 1847 the W.S. & S.W. Rly and the Woods and Forests had reached a further agreement⁽²⁾ which stated that the Slough branch promoted by that company would be abandoned⁽³⁾ and should the G.W.R. gain access to Windsor, the W.S. & S.W. Rly would be allowed to construct its line through the Home Park.⁽⁴⁾ This was so authorised in 1849.

The influence of the G.W. Rly on the decisions of the Woods and Forests is self-evident. Their use of a landowner to delay a rival's ambitions of serving a traffic centre is a fine example of one railway company taking advantage of the landed locus standi. The role of the Crown in its attempts to utilise the ambition of a railway company to finance developments of its own is also of interest.

An even more blatant instance of such duplicity occurred in the West Riding where the internecine conflicts of 1845 had left the field clear for the promotion, by two rival companies, for the session of 1846, of schemes to serve that area of country between Bradford and the Calder valley.⁽⁵⁾ The West Riding Union Railway, strongly supported by the Manchester and Leeds Railway company, was the most ambitious and proposed to construct a number of lines, its rival being the Huddersfield and Manchester Railway

(1) *ibid.* pp.122-26

(2) *idem* 22 May pp.99-140

(3) H.G. Lewin: (1936) *op.cit.* p.378, R.A. Williams: *op.cit.* vol.1 p.173

(4) HLRO Min. of Evid. HC 1849 vol.23 W.S. & S.W. Rly 30 April p.17

(5) H.G. Lewin: (1936) *op.cit.* p.182

who intended to extend their main line northward to Bradford, which necessitated passing through the eastern edge of Kirklees Park. (Fig.43)

The Huddersfield and Manchester Railway branch was rejected by the Commons Committee on the grounds of residential damage to Kirklees Park, despite an eloquent speech by Sergeant Hope pleading that the preventive clause should be applied.⁽¹⁾ The Huddersfield and Manchester company therefore bitterly opposed the West Riding Union in the Lords and argued that it was notorious that the owner of Kirklees, Sir George Armytage, was in the pocket of the Manchester and Leeds company, and that the tenant of the Park, Mr. Wickham, was the chairman of the West Riding Union Railway.⁽²⁾ Despite the fact that the Huddersfield and Manchester company offered Sir George a deviation that would have cost an estimated £70,000, their pleas were rejected.

Numerous landowners felt, as did Eton, that although they resented the damage that the railway would cause, they felt obliged to accept it for the general good of the nation, but requested that it should be aligned in such a fashion as to cause them the least amount of harm. Some landowners, however, felt that a proposed line of railway would be intolerable and was also inimical to the general interest of the country. They therefore asserted the maximum influence possible on any alignment in that they had it rejected by Parliament and had the satisfaction of never seeing it reappear in that particular form. The line via Kirklees is a case in point, but the most controversial instance of the decade occurred at Stamford, in Lincolnshire.⁽³⁾

In April 1844 the Great Northern Rly, with Joseph Gibbs as its

(1) see above p.213

(2) HLRO Min. of Evid. HL 1846 vol.38 West Riding Union Rly 5 August pp.1-88 especially pp's 8, 56

(3) W.G. Hoskins: op.cit. p.288

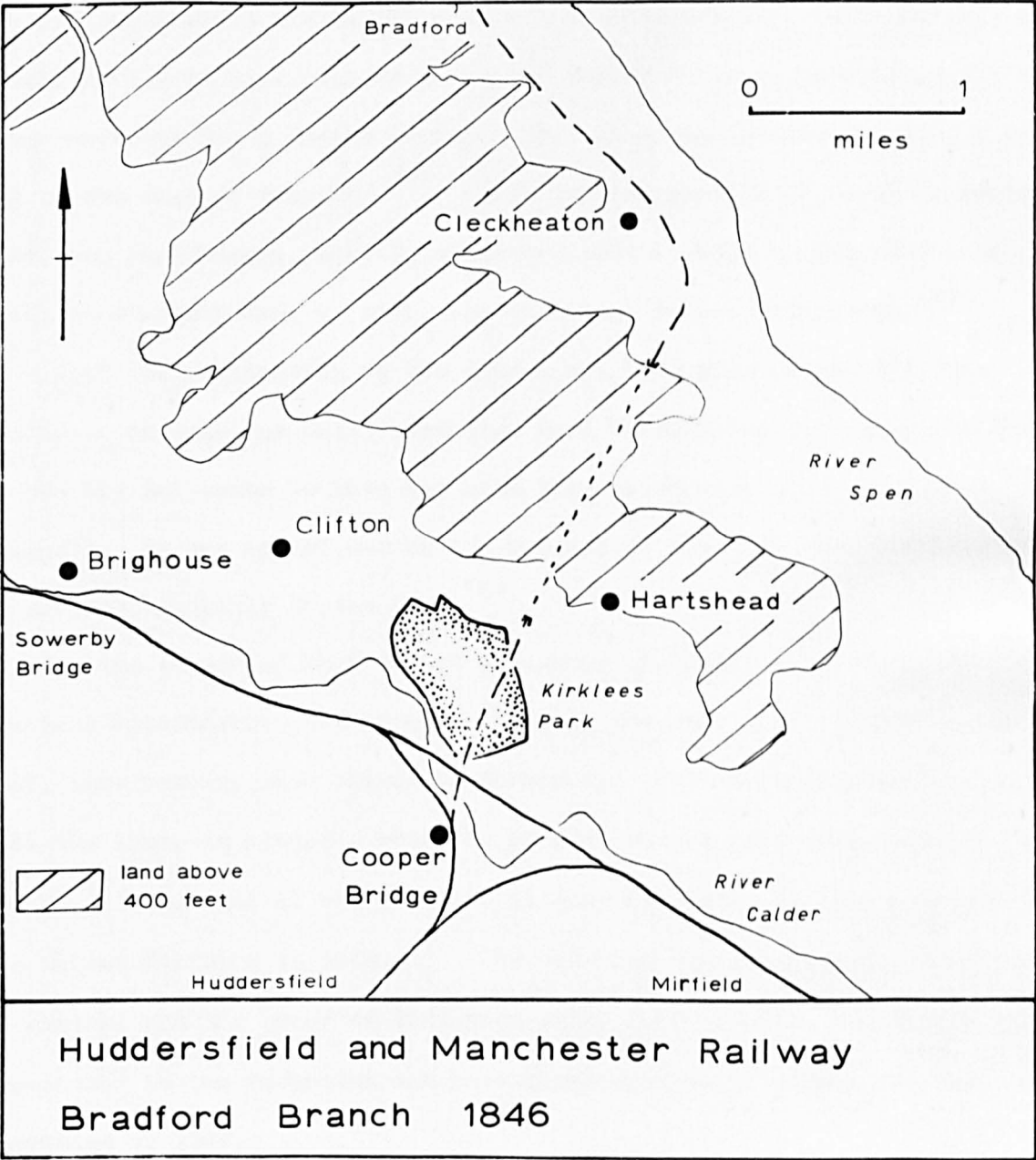


Fig. 43

engineer, published its prospectus and proposed that its line would run through Lincolnshire via Stamford, on its way northward to York.⁽¹⁾ In the following month the London and York Railway company, which quickly allied itself with a further company named the Direct Northern, published its route, their engineer being Joseph Locke. This line was intended to pass a little way to the east of Stamford.⁽²⁾ With the resignation of Locke in September 1844, his replacement, Cubitt, suggested that a small branch should be built to Stamford and, as such, the bill went before Parliament.⁽³⁾

With the publication of the London and York prospectus, Sir John Trollope, of Casewick Hall, contacted Earl Fitzwilliam and asked the Earl to use his influence to have the main line moved away from his estate.⁽⁴⁾ (Fig.41) It was agreed during the passage of the bill that the line would be deviated slightly to the east.⁽⁵⁾

In the summer of 1846 Cubitt announced his plans for realignment in Southern Lincolnshire and proposed to push the main line further to the west, thus passing much closer to Stamford. The Mayor of Stamford stated that the line, as planned, would be no more than a mile away from the town centre,⁽⁶⁾ and that it was similar, in many respects, to that proposed by the Direct Northern in 1844.⁽⁷⁾ The owner of Burghley House, the Marquis of Exeter, and the owner of Uffington Hall, Lord Lindsey, registered strong opposition to the deviation and petitioned against it before the Commons Committee of 1847.

(1) C. Grinling: op.cit. pp.13-4

(2) *ibid.* p.21

(3) *ibid.* p.25

(4) F.M.L. Thompson: (1963) op.cit. p.259

(5) HLRO Min. of Evid. HL 1846 vol.8 L. & Y. Rly 22 May p.52

(6) HLRO Min. of Evid. HC 1847 vol.47 L. & Y. Rly 11 May p.44

(7) *ibid.* p.86



PLATE 3.

Burghley House, Stamford.

see Figs. 42, 45.

Lord Lindsey argued that in 1844 he had been presented with proposals for three separate lines, the Midland Railway's Syston and Peterborough, the Direct Northern Railway, and the London and York Railway. He said that as the Board of Trade had sanctioned the Midland line and had rejected the others, he had therefore decided to come to terms with the Midland company, as had Lord Exeter.⁽¹⁾ During 1846 the Direct Northern had been revived and was aligned in such a manner as to pass between Uffington and Casewick. Lord Lindsey had decided to consent to this in preference to the London and York's new proposals for a line that passed Uffington on the south side.⁽²⁾

The Direct Northern and the London and York companies had amalgamated in 1846 and Lord Lindsey found himself indirectly supporting that which he was attempting to defeat.⁽³⁾ Both he and Lord Exeter offered opposition on the grounds of considerable residential damage and, although the London and York was intended to parallel the Syston and Peterborough line, this rather doubtful plea was accepted by the Commons Committee and the deviation via Stamford was rejected.⁽⁴⁾

Lee has argued that it was felt at that time '... [Lord Exeter's control of Stamford is] a state of barbarous intervention and blindness'⁽⁵⁾ and that restrictions had been placed on the growth of the town for political purposes.⁽⁶⁾ In fact Lee concluded '... the building of the Midland line ... and the new political situation which made the town more important to the Protectionist wing of the Conservative party, to which Lord Exeter

(1) *idem* 12 May pp.123-81

(2) *ibid.* pp.189-92

(3) *ibid.* p.192

(4) *ibid.* pp's 79-80, 138-40

(5) J.M. Lee: 'Modern Stamford' in The Making of Stamford ed. A. Rogers (1965) p.94

(6) *ibid.* p.98

belonged, made possible his opposition'.⁽¹⁾ The railway company therefore reverted to their original idea of a main line to the east of Casewick Hall.

The London and York company attempted a similar realignment to the immediate south of Doncaster. Their failure on this occasion stemmed more from appalling public relations than any other factor. With the failure of the Bawtry to Sheffield branch in 1845, the London and York decided to realign the northern sector of their Lincolnshire loop to run from Doncaster to Gainsborough, and also to realign their main line from Doncaster so that it would run directly to East Retford, thus leaving Bawtry without any form of railway service.⁽²⁾

The line between East Retford and Doncaster was to run via Blyth and Tickhill and in so doing crossed the estate of Lord Galway, whose property lay to the west of Bawtry at Serlby Hall. (Fig.39) Cubitt argued that he had considered the views of the landowners:

Q. You have done your best to avoid residential injury?

Cubitt: I did and no part of the railway where it is objected to runs through Lord Galway's property . . .⁽³⁾

Lord Galway then argued that he had met Denison, the Vice-Chairman of the railway company, during the September of 1846 and had discussed the realignment with him. Lord Galway said that Denison had behaved in an extremely offhand manner and had suggested that his Lordship should blame the engineer, Cubitt.⁽⁴⁾ Lord Galway became very annoyed and had written to the London and York company in September 1846 discussing the new alignment, and had said ' . . . I consider it is so great an affliction upon me,

(1) *ibid.* p.102

(2) see above p.²²⁵, also H.G. Lewin: (1936) *op.cit.* p.312, HC 1847 vol.79 L. & Y. Rly 7 June pp.13-4

(3) HLRO Min. of Evid. HC 1847 vol.79 L. & Y. Rly 7 June p.35

(4) *idem* 9 June p.133

by cutting directly through the very best property I possess and going within hearing and sight of the front of my residence' that he was therefore willing to oppose the railway company in Parliament. He further stated that he was dissatisfied with the blame attached to Cubitt.⁽¹⁾

He then assembled an impressive array of evidence before the House of Commons Committee of 1847. He argued that he had helped and supported the London and York Railway in its early and most difficult years and had been content with minimal compensation for damage to one of his farms.⁽²⁾ The Earl of Lincoln argued on his behalf that the proposed realignment was scarcely in the public interest,⁽³⁾ and Lord Galway himself pointed out that there wasn't a single assent to the new line, whereas there wasn't a single dissent to the original main line.⁽⁴⁾ Mr. Vernon, MP for Retford, argued that Serlby Hall would be seriously damaged, as would the property of other landowners.⁽⁵⁾

Grinling has suggested that Lord Galway's opposition was merely to maintain the status quo inasmuch as his father in law, Pemberton Milnes, was to receive a large sum of money from the London and York in compensation for damage to his land.⁽⁶⁾ This was, in fact, discussed in evidence and Lord Galway vehemently denied any such interest⁽⁷⁾ and it was Pemberton Milnes himself who argued that he had bought some land on the strength of the promise of the London and York company to pay him £25,000.⁽⁸⁾ He further argued that had the landowners not stood by the London and York in

(1) *ibid.* pp.136-9 (Full Text of letter)

(2) *ibid.* pp.123-33

(3) *idem* 7 June p.181

(4) *idem* 9 June p.140

(5) *ibid.* p.102

(6) C. Grinling: *op.cit.* p.76

(7) HLRO Min. of Evid. HC 1847 vol.79 L. & Y. Rly 9 June p.163

(8) *ibid.* pp.166-85



PLATE 4.

Serlby Hall, near Bawtry, Nottinghamshire.

Typical of the smaller country house.

see Fig. 39.

1845 and 1846, there would have been a strong likelihood of the line's failure.⁽¹⁾ Lord Galway made the additional point, in a brief discussion on foxhunting, that opposition to a line of railway on the grounds of damage to the hunting country, would be scarcely adequate as an objection,⁽²⁾ which is in conflict with Grinling's ideas on this facet of the case.⁽³⁾

The proposed line via Blyth, and the realigned northern loop, were both rejected by the Commons Committee. The failure seems to stem directly from the shabby treatment meted out by the London and York railway to its supporters. It also adds weight to the argument that a landowner could argue a line of railway caused him considerable damage to his estate no matter how it was proposed to pass through it; should the landowner support the line, however, the damage was accepted as necessary and minimised because of the benefits the construction of the railway would bring.

The Isle of Wight saw a much less complex form of opposition. A notice appeared in the Railway Times of 8 November 1845. It read . . . at a general meeting of the landowners and ratepayers of the island held at Newport on the 26th June last, resolutions were carried declaring the opinion of the meeting to be adverse to the introduction of railways into the island and that a committee of gentlemen was at the same time appointed to watch the proceedings of the railway projectors. And I am further directed by this committee to state that not only will the scheme be opposed by the most influential landed proprietors through whose estates the railways would pass but that it is also intended to offer a vigorous public opposition to the project in Parliament should

(1) *ibid.* p.167

(2) HLRO Min. of Evid. HC 1847 vol.85 L. & Y. Rly 17 May p.22

(3) C. Grinling: *op.cit.* p.76

a bill be sought for.⁽¹⁾

There were no lines of railway authorised for the Isle of Wight in the 1840s.

Such statements of outright hostility were comparatively rare during these years. However the dramatic nature of such opposition and its impact on alignment (for example at Stapleford⁽²⁾), has tended to obscure the role of those landowners who either maintained a position of benevolent neutrality or went so far as to provide active support and encouragement for a proposed line of railway.

The Books of Reference were divided into three separate sections in ascertaining the attitude of a landowner to a line of railway, being Assent, Dissent, and Neuter. By and large, the railway companies assumed that if a landowner signified neutrality it conveyed tacit assent. For example the evidence of the engineer J.C. Birkenshaw:

Q. Are the landowners on our line very well satisfied with its course and direction?

Birkenshaw: Yes, the majority are either assenting or not opposing.

Q. A very large majority is it not?

Birkenshaw: Yes, I believe more than $\frac{3}{4}$ s of the line.⁽³⁾

Usually, those who supported a line could have little impact on its alignment, as Ruegg has indicated,⁽⁴⁾ but it was difficult for the engineer and promoters planning the alignment to have any conception of the attitudes that a landowner might take and therefore neutrality or assent were always aimed for:

Q. I believe as you laid out the line you made it your business

(1) Quoted in R.M. Robbins: The Isle of Wight Railways (1963) p.2

(2) see above p. 214

(3) HLRO Min. of Evid. HC 1847 vol.97 Harrogate Knaresborough and Boroughbridge Extension Rly 20 May p.138

(4) see above p. 168

to avoid interfering with any ornamental property?

Birkenshaw: Yes, I did.

Q. Did you accomplish that purpose?

Birkenshaw: I believe so, I believe we do not affect any ornamental property whatever. (1)

Birkenshaw's alignment gained the result quoted above, three quarters of the landowners either assented or registered neutrality. The element of neutrality would appear to imply a passive assent on the part of the landowner, an acceptance of that alignment selected by the railway engineer, rather than contributing more positively by suggesting a certain alignment to the engineer.

It was far less common to find the more active landed supporter of a railway being able to influence its alignment to any marked extent although a good example of this did occur in the East Midlands. One of the many deviations that Cubitt proposed for the London and York Railway in the summer of 1846 was in the vicinity of Tuxford. An alteration of nine and three-quarter miles of the line was intended:

Q. I believe it was suggested by the Duke of Newcastle?

Cubitt: Yes, and the understanding was that although the Bill passed as it was originally, a bill should be brought into Parliament for this deviation.

. . .

Q. Was it not to conciliate his Grace's support that you gave the assurance that this deviation should be applied for, is that a correct representation?

Cubitt: Partly, you put it as if it was solely with that view. It was a matter which was wished for by the Duke of Newcastle and

(1) HLRO Min. of Evid. HC 1847 vol.97 H.K. & B. Extn. Rly 20 May p.138

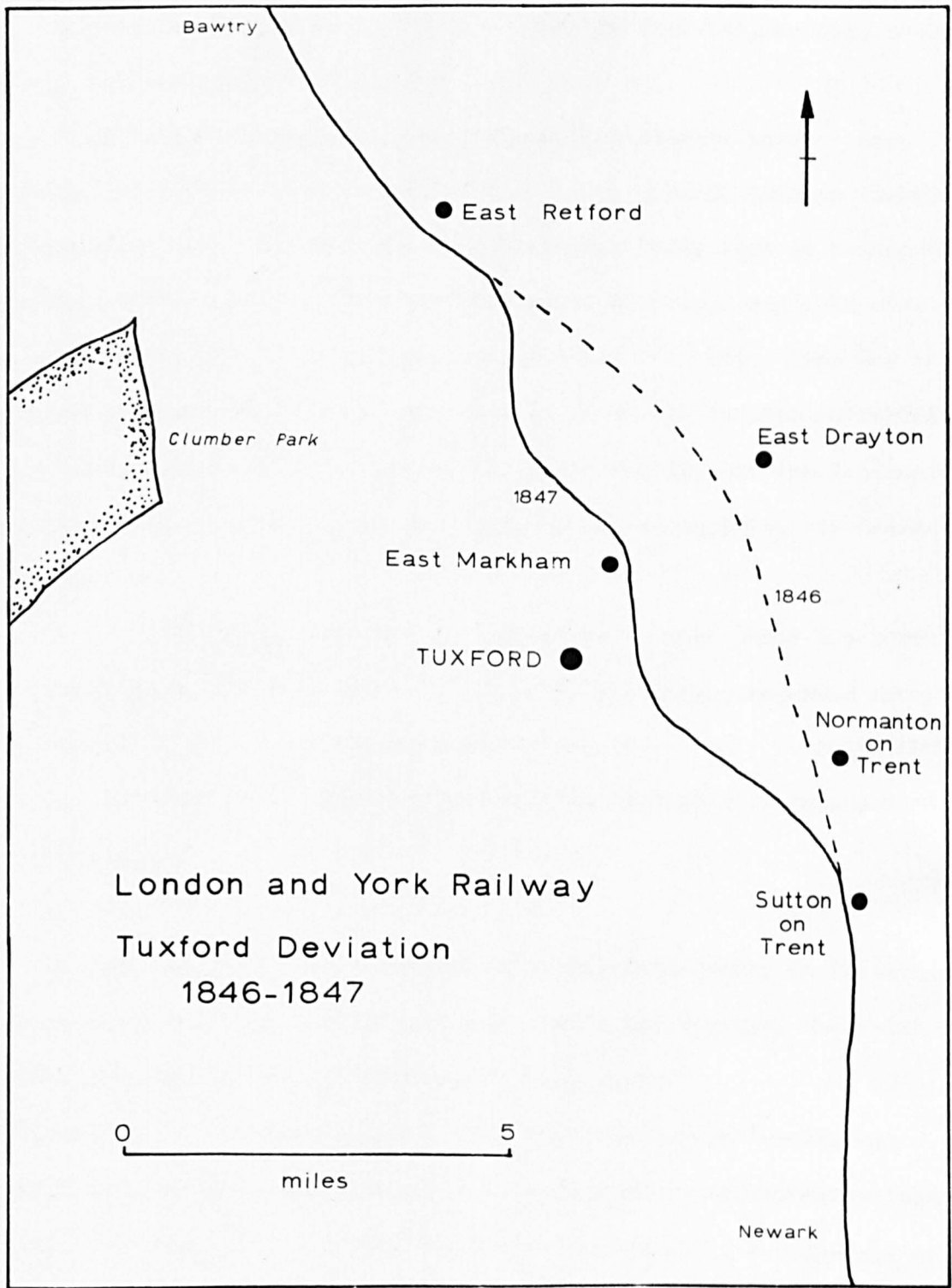


Fig. 44

the inhabitants of Tuxford . . . being asked by his Grace and Tuxford being the centre of a considerable district, we consented to the deviation.⁽¹⁾ (Fig.44)

In Kent the landowners played a somewhat different role. Once the main line of railway between Redhill and Dover, passing through Tonbridge, was opened in 1842, the landowners of Tunbridge Wells were so anxious to gain the benefits of a railway for themselves that they began to construct one without waiting for Parliamentary sanction.⁽²⁾ Their line was thus finished just two months after the passage of an Act in 1845 authorising its construction. Despite the enthusiasm on the part of the landowners for the railway, the alignment was still chosen to minimise any damage to property:

A: . . . the object of that [a tunnel] is to pass under the town.

There would not be so great a length of tunnelling required except for the purpose of avoiding valuable property

Q. You mean that tunnel is to avoid interfering with residential property?

A: Yes.⁽³⁾

It would be reasonable to assume that the landowners, in financing the line in order to benefit their property, would not diminish the value of their residences by the close proximity of a railway.

Landowners also took a stance that might be termed 'benevolent neutrality', typified by a desire, on the part of a paternalistic landowner, to gain the 'best' line for the locality. At Stamford the Marquis of Exeter, vilified for his opposition to the main line of the London and York

(1) HLRO Min. of Evid. HC 1847 vol.79 L. & Y. Rly 10 June p.84, see also pp.190-1

(2) H.G. Lewin: (1936) op.cit. pp.91-2

(3) HLRO Min. of Evid. HL 1845 vol.13 Tunbridge Wells branch 25 July p.8

Railway,⁽¹⁾ took a much more sympathetic position toward the proposed Syston and Peterborough Railway of 1844-5. The initial idea was that the line should pass through the centre of Stamford on the north bank of the River Welland. (Fig.45) Although the townsfolk were strongly in favour of this alignment,⁽²⁾ the Marquis felt that a line skirting the north of the town would prove of greater benefit and therefore retained Francis Giles to evaluate this idea.⁽³⁾ Giles' engineering and proposed alignment were heavily criticised by the engineers of the Syston and Peterborough Railway, the Stephensons, and the scheme came to naught.⁽⁴⁾ Despite the criticism, Giles argued cogently that the Marquis of Exeter was promoting the northern line solely because he felt that it was better for the town⁽⁵⁾ and stated '... his Lordship wishes well to the railway. I know, he said so to me and wishes to support it'.⁽⁶⁾

With the approval of the Syston and Peterborough Railway's proposals the Marquis decided not to pursue the matter in the House of Lords and the line was thus authorised. However, in 1846, the railway company returned to Parliament for the approval of a deviation at Stamford.

A: It was at the request of Lord Exeter that it was made in order to go through the town of Stamford more easily than the plans which were prepared last year . . .⁽⁷⁾

The railway had been realigned to pass through the town on the south bank of the Welland and was quickly authorised in that year. (Fig.45)

(1) see above p. 237

(2) HLRO Min. of Evid. HC 1845 vol.64 Syston and Peterborough Rly 22 April p.70

(3) idem 25 April p.71

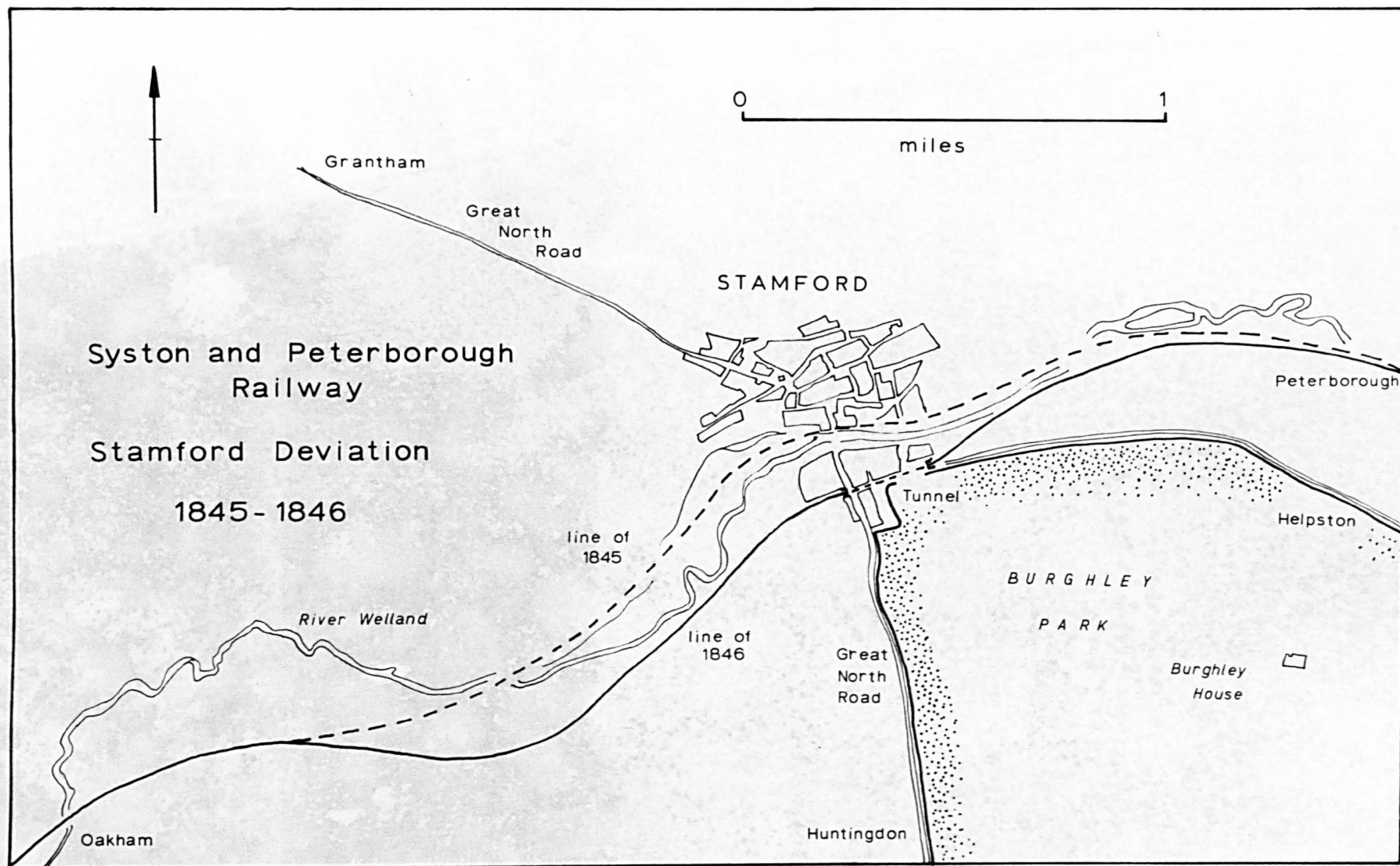
(4) idem 23 April pp.93-207

(5) ibid. pp.65-6

(6) idem 25 April p.98

(7) HLRO Min. of Evid. HC 1846 vol.50 Syston and Peterborough Rly 30 March p.16

Fig. 45



On the whole landowners tended to play a more passive role in support and this often manifested itself by considerable financial assistance. Ward has fully documented the West Riding landed involvement during this decade⁽¹⁾ and there are other such examples. The Duke of Buccleuch and Lord Burlington gave large and wide ranging support to the formation of the Furness Railway,⁽²⁾ Mr. Whitbread, who owned some 15,000 acres of land in Bedfordshire, warmly supported the Leicester and Hitchin Railway of 1847,⁽³⁾ and the Wisbech St. Ives and Cambridge Railway, authorised in 1846, has been classed as a pure 'landowners' line.⁽⁴⁾

Where landowners supported a line they often appeared before a Select Committee in order to present evidence in favour of the railway. This was obviously of some importance to lines such as the London and York Railway.⁽⁵⁾ In this instance the witnesses were drawn from the ranks of the foremost landowners of eastern England; the Earl of Sandwich (Lord Lieutenant of Huntingdon),⁽⁶⁾ the Earl of Brownlow (Lord Lieutenant of Lincoln),⁽⁷⁾ and Lord Worsley (MP for North Lincoln and owner of 60,000 acres of land in the county).⁽⁸⁾ The evidence of the Marquis of Granby, who spoke on behalf of the Duke of Rutland, in favour of the Newmarket and Chesterford Extension

- (1) J.T. Ward: loc.cit., see also D. Brooke: 'The promotion of Four Yorkshire Railways and the Share Capital Market': Transport History: vol.5 no.3 Nov. 1972 pp.243-273
- (2) S. Pollard and J.D. Marshall: 'The Furness Railway and the Growth of Barrow': Journal of Transport History vol.1 no.2 (1953) p.112
- (3) HLRO Min. of Evid. HC 1847 vol.47 Leicester and Hitchin Rly 10 May p.17
- (4) D.I. Gordon: op.cit. p.215, HLRO Min. of Evid. HC 1846 vol.11 W.St.I. & C. Rly 20-22 July
- (5) see above p.242 evidence of Pemberton Milnes.
- (6) HLRO Min. of Evid. HC 1846 vol.7 L. & Y. Rly 14 May pp.1-25
- (7) idem 15 May pp.33-7
- (8) idem 18 May pp.61-87

Railway of 1847,⁽¹⁾ or the Duke of Devonshire who spoke in favour of the Manchester Buxton Matlock and Midlands Junction Railway in 1848,⁽²⁾ was of considerable weight as was that of the less illustrious - a Colonel Northcliffe, of Langston Hall near Malton in Yorkshire, who spoke in favour of the Scarborough line of the York and North Midland company in 1844; he said that the railway was '... the greatest boon that was ever given in the county'.⁽³⁾

Perhaps it is fitting to conclude with an instance that involved an individual who was possibly the most important railway promoter of the period, but, on this occasion, was cast in the unfamiliar role of landowner, George Hudson. The juxtaposition had occurred in late 1845 when the York and North Midland Railway company, of which George Hudson was the chairman, decided to thwart the ambitions of the Manchester and Leeds Railway, who were attempting to reach Hull via a gap in the Wolds near Market Weighton. Hudson quickly blocked this avenue of approach by the purchase of the extensive Londesborough estate from the impecunious Duke of Devonshire. Any railway that wished to pass through the Wolds would have to cross this estate. Hudson then promoted the York and North Midland branch from York via Market Weighton to Beverley, which conclusively 'blocked' the area.⁽⁴⁾ Regarded as a great coup at the time,⁽⁵⁾ it was later discovered that Hudson had made a profit of £18,000 from the sale of land to his railway company for the privilege of passing through his estate.⁽⁶⁾

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- (1) HLRO Min. of Evid. HC 1847 vol.37 N. & C.E. Rly 22 March pp.67-71
 - (2) HLRO Min. of Evid. HL 1848 vol.9 M.B.M. & M.J. Rly 8 August pp.5-21
 - (3) HLRO Min. of Evid. HL 1844 vol.1 Y.N.M. Rly 17 May p.28
 - (4) R.S. Lambert: op.cit. pp.159-60
 - (5) J. Francis: op.cit. vol.2 pp.213, 219
 - (6) R.S. Lambert (op.cit.) pp.272-3

CHAPTER EIGHT: 1850 - 1870

The speculative fever in railway promotion prevalent during the 1840s had a considerable impact on the expansion of the English railway network in the subsequent decades of the 1850s and 1860s. The 1840s had seen the authorisation of nearly 10,000 miles of railway, of which just over 3,500 miles had been constructed by 1850.⁽¹⁾ In addition to those lines actually sanctioned by Parliament, there were a vast number that had been rejected either in Committee or, more frequently, because of failure to comply with Standing Orders. As has been stated 1846 alone saw plans deposited for the construction of 20,000 miles of line.⁽²⁾

By 1850 the railway had ventured into virtually every region of the country. Although many schemes were never actually completed, landowners became extremely familiar with the primary stages of railway construction, of promotion, of finance, and of alignment. Those companies that were authorised had implicitly gained the assent or, at least, the neutrality of the landowners of the locality through which the line was intended to run. More importantly, this approval would imply that a satisfactory alignment had been selected, often as a result of negotiation between the landowner and the railway company. Thus the companies of the 1850s and 1860s often found that, in a considerable number of cases, alignments were already in existence that could be used either as the basis for further negotiation with the landowner or could be duplicated, on the assumption that having once gained approval it would do so again.

A further consequence of the mania was a strong reaction on the part

(1) see above p.⁴¹

(2) see above p.¹⁶⁸

of the major railway companies against the idea of further extensions to their networks which resulted in a vigorous movement toward locally promoted lines.⁽¹⁾ Herbert Spencer was extremely critical of the rapid increase in the number of branch lines authorised in the early years of the 1850s.⁽²⁾ He suggested that the unwillingness of the major railway companies to extend their systems stemmed from the fear that, if they did, the value of their overall dividend would fall.⁽³⁾ The shareholders of such companies began to argue that it would be most desirable if the capital accounts were closed⁽⁴⁾ and this automatically precluded the construction of unremunerative branch lines. Spencer then argued that the new lines were in fact promoted locally by speculative lawyers, engineers, and contractors, usually with landed support, who then sold the company to an adjacent larger railway company.⁽⁵⁾ He concluded that these factors, allied to an increasing pressure on the part of the local interests of the small towns and rural districts for railway accommodation, were tending to produce schemes that were much more local in character and felt that predominant amongst these local interests were the landowners who, he said, were '... once the greatest obstacles to railway enterprise, (they) have of late years been amongst its chief promoters'.⁽⁶⁾ He went so far as to complain that lines were no longer being constructed for profit but more for local convenience; '... it has of late become common for landowners, merchants, and others

(1) see above p.⁴⁴

(2) H. Spencer: *Railway Morals and Railway Policy*: Edinburgh Review vol.100 (October 1854)

(3) *ibid.* p.423

(4) H. Pollins: (1971) *op.cit.* p.43,

(5) H. Spencer: *loc.cit.* pp.424-7, 431, 434

(6) *ibid.* p.428

locally interested to get up railways for their own accommodation, which they do not expect to pay satisfactory dividends'.⁽¹⁾

This trend of landed support for the construction of railways, in order to increase the value of land, culminated in a House of Lords Select Committee of 1863 convened to ascertain possible methods of Charging Entailed Estates for Railways. The fact that it was convened by the House of Lords, the archetypal edifice of landed society, is indicative of the concern felt at that time by the landowners for the encouragement of the provision of railway facilities to benefit their estates.

The witnesses before the Committee were unanimous that the proximity of a railway to an estate increased the value of the land considerably⁽²⁾ and J. Dickson pointed out that farmers and tenants '... are very willing to do everything they can at the present time to promote the formation of railways in their district'.⁽³⁾ A further witness, in discussing the financial arrangements of the Wansbeck Valley Railway, in central Northumberland, said that Sir Walter Trevelyan, the large landowner of Wallington, had subscribed £30,000 '... not from an expectation of a dividend upon his shares but with a view to the advantage which he expected his land would derive from increased communication'.⁽⁴⁾

The Report concluded that the value of land was increased by proximity to a railway but, at that time, landowners found a great deal of difficulty in raising sufficient capital to invest in railways that would be of benefit to their estates. It further concluded that had the procedure been more flexible there would have been an increased amount of investment.

(1) *ibid.* p.457

(2) F.M.L. Thompson: (1963) *op.cit.* p.256

(3) HL Select Committee 1863 The Charging of Entailed Estates for Railways. 18 March p.9

(4) *ibid.* q.112 p.12

Their recommendations were immediately implemented in the Improvement of Land Act of 1864, which incorporated clauses allowing such investment and two further Acts, the Railway Construction Facilities Act 1864 and the Regulation of Railways Act 1868.⁽¹⁾

Similar suggestions had come from the pamphleteers of the time, Sharpe having proposed in 1857 that the traditional, massively engineered, branch lines typical of the period were uneconomic for rural areas and that light railways should be built.⁽²⁾ In 1867 Fox argued that despite the 1864 Act rural branches were unremunerative because of the high costs of construction and therefore light railways, heavily financed by the landowners, should be promoted in those areas still without railway facilities.⁽³⁾

The 1850s and 1860s saw the increasing involvement of landed society in railway promotion, largely in recognition of the considerable contribution a railway could make to the rural economy. The Salisbury and Yeovil Railway was revived in 1852, having been originally authorised in 1848, and a provisional Committee was created whose members included such notable local landowners as Lord Westminster, Lord Sherborne, Lord Rivers, the Rt. Hon. Sidney Herbert, and Joseph Locke, the railway engineer, the latter having purchased an estate at Honiton. The landowners and local populace subscribed £550,000 of the required £1,100,000 and an Act to construct the railway was gained in 1854.⁽⁴⁾

The Leicester and Hitchin Railway, also abandoned after authorisation in 1847, was revived in 1852 and in this instance the landowners of Bedfordshire played the fears of the Midland Railway against the ambitions of the

(1) E. Austin: op.cit: introd: p.xiii

(2) E. Sharpe: op.cit.

(3) C.D. Fox: op.cit.

(4) L.H. Ruegg: op.cit. pp.28-30, 36, R.A. Williams: op.cit. vol.1 p.88

Great Northern Company in order to achieve their objective of a line through the county.⁽¹⁾ The local populace were strongly in favour of the line and their spokesman, Mr. Whitbread, said that he was '... very much obliged to the company for coming through my property'.⁽²⁾

In East Kent the landowners had suffered in a like manner, in that those lines proposed during the mania had come to nothing and in 1852 they had therefore decided to promote their own line to run from Canterbury to Strood. In a pamphlet of November of that year they argued that the South Eastern Railway had pledged every year to extend their North Kent line but had never done so.⁽³⁾ The South Eastern immediately replied, that the landowners of the district had '... always been clamorous for the line but has never rendered that

effective aid by which alone the line could be won. It has neither subscribed its money nor has it offered to take agricultural prices for its land - two main considerations without which ... but little (if any) railway extension will, in these days, take place in districts mainly agricultural'.⁽⁴⁾

However the strong landed support defeated the South Eastern company's opposition and the independent, local line was authorised in 1853.⁽⁵⁾

In north-west Norfolk the Fakenham to Wells line was promoted in 1853 with the strong support of the Earl of Leicester, of Holkham, and the local landowners. Of the necessary £70,000 the Earl subscribed £10,000 and the other landowners £30,000.⁽⁶⁾ In Wensleydale financial difficulties

(1) F.S. Williams: op.cit. p.139, E.G. Barnes: op.cit. vol.1 pp.140-4

(2) HLRO Min. of Evid. HC 1853 vol.19 Leicester and Hitchin Rly. 28 April p.8

(3) HLRO Min. of Evid. HC 1853 vol.53 Canterbury and Strood Rly 21 May p.156

(4) *ibid.* p.156

(5) H.P. White; (1961) op.cit. vol.2 p.39

(6) D.I. Gordon: op.cit. p.207

forced the Bedale and Leyburn Railway company to appeal to the local landowners for support. They responded generously, particularly Lord Bolton, and, as a result, the cost of land for the construction of the railway was kept to a remarkably low figure.⁽¹⁾

The early years of the 1850s saw the landowners to the east of Oldham demand the construction of the branch from Oldham to the Manchester and Leeds Railway at Greenfield, near Saddleworth, originally authorised in 1847 but abandoned. The line was sanctioned in 1853.⁽²⁾ On the Welsh borders the landowners in the vicinity of Hay and Brecon 'strongly supported' the promotion of a line and, under the direction of Captain the Hon. Walter Deveraux of Tregoyd, gained an Act for their railway in 1859.⁽³⁾ In Dorset the major landowners of the area were all firmly in favour of the introduction of railways. Lord Rivers took £10,000 worth of shares in the Dorset Central Railway and suggested that Lord Westminster and Lord Portman would do so also.⁽⁴⁾ Another prominent landowner in favour of the line was Sir Ivor Guest of Canford Manor whose father, Sir John Guest, the noted Welsh Ironmaster, had bought the estate in 1846, this being a good example of an industrialist moving onto the land and encouraging the construction of a railway.⁽⁵⁾

If anything the involvement increased during the 1860s. In East Gloucestershire the failure of the major companies to provide railway facilities caused the landowners to promote their own company and they met in the spring of 1861 at Fairford where most, if not all, of the

(1) H. Parris: Northallerton to Hawes: A Study in Branch line History: Journal of Transport History vol.2 no.4 (1956) pp.238-40

(2) HLRO Min. of Evid. HC 1853 vol.19 L. & N.W. Rly 26 April pp.21-2

(3) C.R. Clinker: The Hay Railway (1960) pp.42-3

(4) HLRO Min. of Evid. HC 1857 vol.14 Dorset Central Rly 12 June pp.42-3

(5) R. Atthill: The Somerset and Dorset Railway (1970) p.34

important local landowners either subscribed to, or warmly supported, the line.⁽¹⁾ The landed financial support for the Wansbeck Railway was considerable. Of the £44,260 worth of shares offered to the general public, three local landowners subscribed £40,000.⁽²⁾ The East and West Junction Railway, promoted through Northamptonshire in 1863, was equally well supported by local landed society and the agent of Lord Cardigan wrote '... "the Duke of Grafton, Lord Southampton, and Lord Pomfret are all anxious for the line"'.⁽³⁾ Of the £35,000 needed for the construction of the Chippenham and Calne branch line of 1860, more than half was provided by the local Harris family,⁽⁴⁾ and, similarly, the Marlborough Railway, authorised in 1861, was locally promoted by the Marquess of Ailesbury.⁽⁵⁾

Landed investment in the railways of these two decades was obviously of some considerable importance and this involvement was reflected to quite a marked degree in the alignment of these lines. Spencer had been critical of locally promoted companies because he felt that the speculative element dominated the purely local interests to such an extent that the railway often served its chosen locality extremely inefficiently in its attempt to take advantage of the rivalry of the larger railway companies.⁽⁶⁾ This concept of the 'best' alignment was extensively debated in an important Parliamentary Select Committee of 1863.⁽⁷⁾

(1) HLRO Min. of Evid. HC 1864 vol.15 East Gloucestershire Rly 31 May pp.8-14, also HLRO Min. of Evid. HC 1881 vol.54 Swindon Cheltenham Extension Rly. 7 March p.130

(2) F.M.L. Thompson: (1963) op.cit. p.256

(3) J. Wake: op.cit. p.19

(4) C.R. Clinker: 'Railways' in Victoria County History of Wiltshire vol.4 (1959) p.287

(5) *ibid.* pp.287-8

(6) H. Spencer: loc.cit. p.459

(7) F. Clifford: op.cit. vol.2 pp.867-8, HC Select Committee on Private Bill Legislation 1863

The consensus of the witnesses before this Committee, which ostensibly discussed Parliamentary railway procedure in general, but concentrated largely upon the role of the landowner, was that landed society, on the whole, was in favour of the continued expansion of the railway network,⁽¹⁾ but wished to be certain that a proposed line of railway was the best possible. G.P. Bidder, the railway engineer stated:

that if a landowner's land is to be taken against his will he is, at all events, entitled to know that that is the best line which the country will afford: that I have no right to sacrifice A in order to avoid B but that I should make the line through B's property if that is the best line.⁽²⁾

When asked

Q. With regard to a landowner, if he objects to a railway, is he to be confined to his own special case?

Bidder: No, I think that every landowner has a right to say that the railway is not wanted, or that a better line can be had: I do not think that you can limit a landowner be he who he will.⁽³⁾

Bidder further agreed that if a landowner's property was to be taken any landowner should be entitled to oppose a railway if he felt the alignment was not the best possible.⁽⁴⁾

This latter point had also been advocated by Lord Grey, formerly Lord Howick:

I do not think that it is at all true that the interest of a landowner . . . with reference to a railway, is really limited

(1) *ibid.* Q.'s 2613, 3316, 2818

(2) *ibid.* Q.2372

(3) *ibid.* Q.2352

(4) *ibid.* Q.2369

by the fact of what is done upon his own land. The scheme may not, in that particular point, be an injury to him but every person inhabiting a district has a very great interest in having the best line of communication which is practicable and the line may be laid out either injudiciously or unfairly; it may be laid out with a view to afford unfair advantage to one individual at the expense of another; I think that every landowner should therefore have an opportunity of opposing a bill upon its general merits, as well as upon the manner in which it affects his own land, because the construction of one bad line through a particular country will, almost invariably, make the construction of a good one impracticable, so that if the line is badly laid out all persons inhabiting that district should have the power of being heard against it.⁽¹⁾

This point of view was complemented by the evidence of many other witnesses. Mr. Blenkinsopp, solicitor to the London and North Western Railway, felt that the landowner was the best judge whether a line of railway was needed at all and, by implication, should therefore have the freedom of general opposition.⁽²⁾

Thus the attitudes of the railway engineer, the railway solicitor, and a major landowner were united in the view that the landowner played, and should continue to play, a major role in the selection of the 'best' alignment of a railway in a locality. In discussing railway interference with parks and estates in general, Blenkinsopp argued that the criteria applied by Stephenson and Vignoles in the 1830s were equally applicable

(1) *ibid.* Q.1019 5 July p.183

(2) *ibid.* Q.2594 p.25, also *ibid.* (1892) p.149

(3) *ibid.* (1892) 7 July p.240

in the 1860s.⁽¹⁾ He said that interference with a gentleman's park, or a proposal to run near his house, were cases of 'solid objection' and that '. . . it is perfectly right that that should not be allowed'.⁽²⁾ Whalley complemented this and suggested a hypothetical method for the determination of an alignment of a new railway. A submission should be made that a line of railway between A and B was necessary; a general line would then be surveyed and submitted to a tribunal who would then refer the line to the relevant landowners. The plans could then be altered '. . . deviate them, if requisite, in order to meet the views of landowners'.⁽³⁾

The witnesses made copious reference to a case that had been before Parliament the previous year when Lord Crewe had opposed the alignment of a railway that was intended to run from Market Drayton eastwards via Madeley to Silverdale, in Staffordshire. The line had originally been suggested in 1858 as no more than a short railway from the London and North Western main line at Madeley, running north-eastwards to the North Staffordshire at Silverdale. (Fig.46). This had been promoted by Ralph Sneyd and the L. & N.W. Rly and had come before Parliament in 1859,⁽⁴⁾ where Lord Crewe had opposed it on the grounds that it was both unnecessary and destructive.⁽⁵⁾ The engineer, Mr. Gregory, had argued that his sole intention was to construct a mineral line and had therefore located the railway accordingly, parallel to an existing tramway.⁽⁶⁾ This bill was rejected by the House of Commons Select Committee.

(1) see above pp. 100, 133

(2) *ibid.* Q.2600

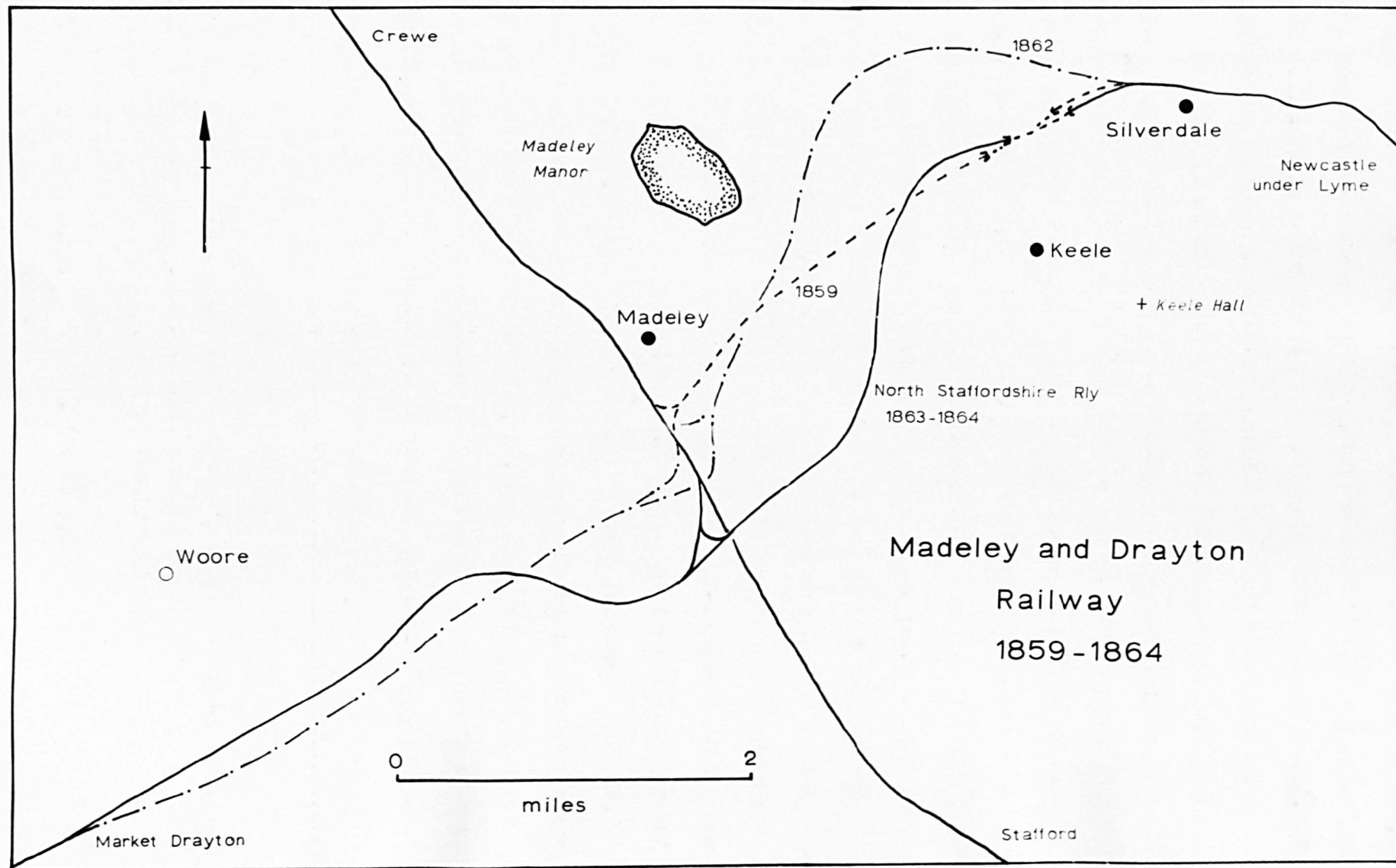
(3) *ibid.* Q.2856 (very similar to Moorsom's ideas of 1840-1 see above p.160)

(4) HLRO Min. of Evid. HL 1864 vol.32 North Staffordshire Rly 19 July p.24
also HLRO Min. of Evid. HL 1862 vol.17 Wellington Drayton and Newcastle Rly 8 July p.153

(5) *ibid.* (1864) p.25, also *ibid.* (1862) p.149

(6) *idem.* (1862) 7 July p.240

Fig. 46



The scheme was revived in 1861 in a modified form and was intended to leave the G.W.R. at Wellington and run northwards to Market Drayton turning north-eastwards to cross the L.N.W. Rly near Madeley, and joining the North Staffordshire line at Silverdale. In the autumn of 1861 the engineer of this railway, Mr. Ashdown, encouraged the agent to the railway company to write to Lord Crewe's agent in order that his Lordship's feelings might be ascertained as to the alignment of the railway across his estate, between Madeley and Silverdale.⁽¹⁾ The agent replied that Lord Crewe would not support such an idea which he felt would be '... so detrimental to his valuable property at Madeley'.⁽²⁾

Clifford felt that the opposition on the part of Lord Crewe to this railway was poorly presented before the House of Commons Select Committee and, as a result, the bill had little difficulty in gaining the Committee's approval.⁽³⁾ In the Lords the case was argued with far greater clarity. The railway engineer said that he had studied the evidence of 1859, particularly that of the then engineer Gregory, and, having clarified Lord Crewe's opinions as to the alignment, he had located his railway accordingly.⁽⁴⁾ He qualified this by remarking that Gregory was concerned with the location of a mineral railway whereas he was to locate both a mineral line and a through route.⁽⁵⁾ He continued had he gone further to the south he would have avoided the minerals,⁽⁶⁾ this latter point being confirmed by Sir Charles Fox.⁽⁷⁾

Lord Crewe's agent replied that the Madeley estate, the central point

(1) HLRO Min. of Evid. HL 1862 vol.17 W.D. & N. Rly 4 July pp.64-8

(2) *ibid.* p.68

(3) F. Clifford: *op.cit.* vol.2 p.868

(4) HLRO Min. of Evid. HL 1862 vol.17 W.D. & N. Rly 7 July p.239

(5) *ibid.* p.240

(6) *idem* 8 July p.16

(7) *ibid.* p.78

being Madeley Manor and the Park, was a favourite residence of Lord Crewe and that the proposed railway would cause a great deal of damage on three counts: (a) that it was to run through the most beautiful part of the estate (b) secondly that it was to cross the best and most valuable land (c) and finally that it was to intersect five or six farms injuriously.⁽¹⁾ The agent agreed that Lord Crewe was willing to accede to the view that a line was necessary but felt that the alignment that had been selected was extremely poor.⁽²⁾ This was the crux of the opposition case.

Gregory, the engineer of the 1859 line was highly critical of the quality of the engineering:

Q. Does this line bear traces as a whole of having been hastily laid out?

Gregory: I think so; I think that any line is hastily laid out which recklessly runs through a landowner's estate at a very large cost when it might have done very much less damage and where there may have been a saving of £40,000 to the promoters.⁽³⁾

G.P. Bidder strongly agreed with this analysis⁽⁴⁾ and further stated the quality of railway engineering in general was deteriorating to such an extent that advances in locomotive technology were being negated by increasingly worse gradients.⁽⁵⁾

This hastily prepared and poorly planned scheme was also heavily criticised because the chief promoter, a Mr. Garrard, had already successfully promoted a railway from Staines to Wokingham in 1858, which he had then sold to the L. & S.W. Rly. It was inferred by the opponents of the

(1) *ibid.* p.102

(2) *ibid.* p.113

(3) *ibid.* p.171

(4) *ibid.* pp.194-5

(5) *HLRO Min. of Evid.* HC 1862 vol.76 W.D. & N. Rly 16 May pp.236-9

Wellington and Newcastle line that this line had also been promoted for purely speculative purposes.⁽¹⁾

The railway was rejected by the House of Lords Select Committee and was taken up by the North Staffordshire Railway company who completely realigned it. They gained an Act in 1864 for a line to run from Silverdale to Market Drayton, which ran some distance to the south of the lines of both Ashdown (1862) and Gregory (1859). The opposition of Lord Crewe had therefore prevented the construction of what was generally regarded as a 'poor' line and necessitated a drastic amendment of the railway's alignment before it was possible for a line to gain Parliamentary sanction in that area.

Bidder, during the course of the hearing, had made some important statements pertaining to the engineering ethics of interference with a landowner's estate:

From long experience now I have never ventured to take a line through any large estate without taking care that that should be the best line which the country could afford. I have frequently had occasion to change the line to obviate the objections of landowners and to incur considerable expense in so doing but never in the whole course of my experience have I attempted adversely to an important landowner to take a line through his estate which was not, in an engineering point of view, the best.⁽²⁾

He concluded:

Q. In your practice have you incurred additional expense in order to obviate the landowners objection?

Bidder: Yes, and I have never brought a line before a Committee

(1) HLRO Min. of Evid. HL 1862 vol.17 W.D. & N. Rly 8 July p.218

(2) ibid. p.193

adverse to a landowner that I had not shown was the best in an engineering point of view - never.⁽¹⁾

The influence of the landowner took a more orthodox form in the selection of the alignment of what might be considered a typical railway of this period, the Bedford Northampton and Weedon Railway. The railway had been independently promoted and had strong local support;⁽²⁾ it was intended to run through a rural area linking two county towns via a number of small villages. Significantly, it was on the borders of two major railway companies, the L. & N.W. Rly to the west and the Midland Rly to the east. The line therefore ran through an area of relatively little traffic and depended, to a considerable extent, upon the support of the local landowners.

The scheme was originally proposed in the years 1861-62 but had come to nothing.⁽³⁾ It was revived in 1864, the chairman of the company being the notable Bedfordshire landowner, Mr. Whitbread, who had also been involved in the promotion of the Leicester and Hitchin Railway some years previously.⁽⁴⁾

Mr. Whitbread had written to Lieut. General Bouverie, owner of Delapre Abbey which lay to the immediate south of Northampton, for his opinion of the proposed railway and any preferences he might have as to the alignment. Bouverie had replied suggesting a line of railway away from his park running close to the River Nene and further intimated that he disliked all railways.⁽⁵⁾ The assistant engineer, Mr. Risley, pointed

(1) *ibid.* p.194

(2) F.S. Williams (1876) *op.cit.* p.198

(3) Rev. G.F.W. Munby: Former Days at Turvey (1908) p.79

(4) HLRO Min. of Evid. HC 1865 vol.6 Bedford, Northampton and Weedon Rly 16 March p.233

(5) *ibid.* p.233, *idem* 17 March p.108

out in evidence that it was widely known that Bouverie was hostile to all railways and therefore the engineer had decided to follow the best engineering line outside the park.⁽¹⁾ Liddell, the chief engineer, agreed that Bouverie was hostile toward all railways,⁽²⁾ and admitted that the initial proposal was to align the railway much closer to the park but this had been amended and it now ran further to the north and it was in this latter form that it came before Parliament. It crossed the Blisworth and Peterborough Railway by an overbridge and joined it from the north. This alignment was chosen to placate a landowner who had conceded that there would be no residential damage to his estate and his opposition was based solely on a general dislike of railways.⁽³⁾ (Fig.47)

Further to the east, at Little Houghton, the engineers had negotiated with the bailiff of the landowner, Mr. Smythe, and the two parties had agreed upon a mutually satisfactory alignment.⁽⁴⁾ The line was carried as close to the edge of the estate as possible and Liddell felt that it was aligned '... in the least objectionable way that it could be to the property'.⁽⁵⁾

At Weston Underwood the landowner, Sir H.W. Throgmorton, had never been available for consultation with the railway engineers⁽⁶⁾ and, despite the fact that there was no residence on the estate, and that the land was almost totally agricultural,⁽⁷⁾ the line ran some 300 yards to the north of the corner of an old park thus minimising any possible claim of residential damage.⁽⁸⁾

(1) HLRO Min. of Evid. HC 1865 vol.6 B.N. & W.Rly 16 March p.238

(2) idem 17 March p.108

(3) idem 16 March p.235

(4) ibid. p.206, idem 17 March p.104

(5) idem 17 March pp.99, 104

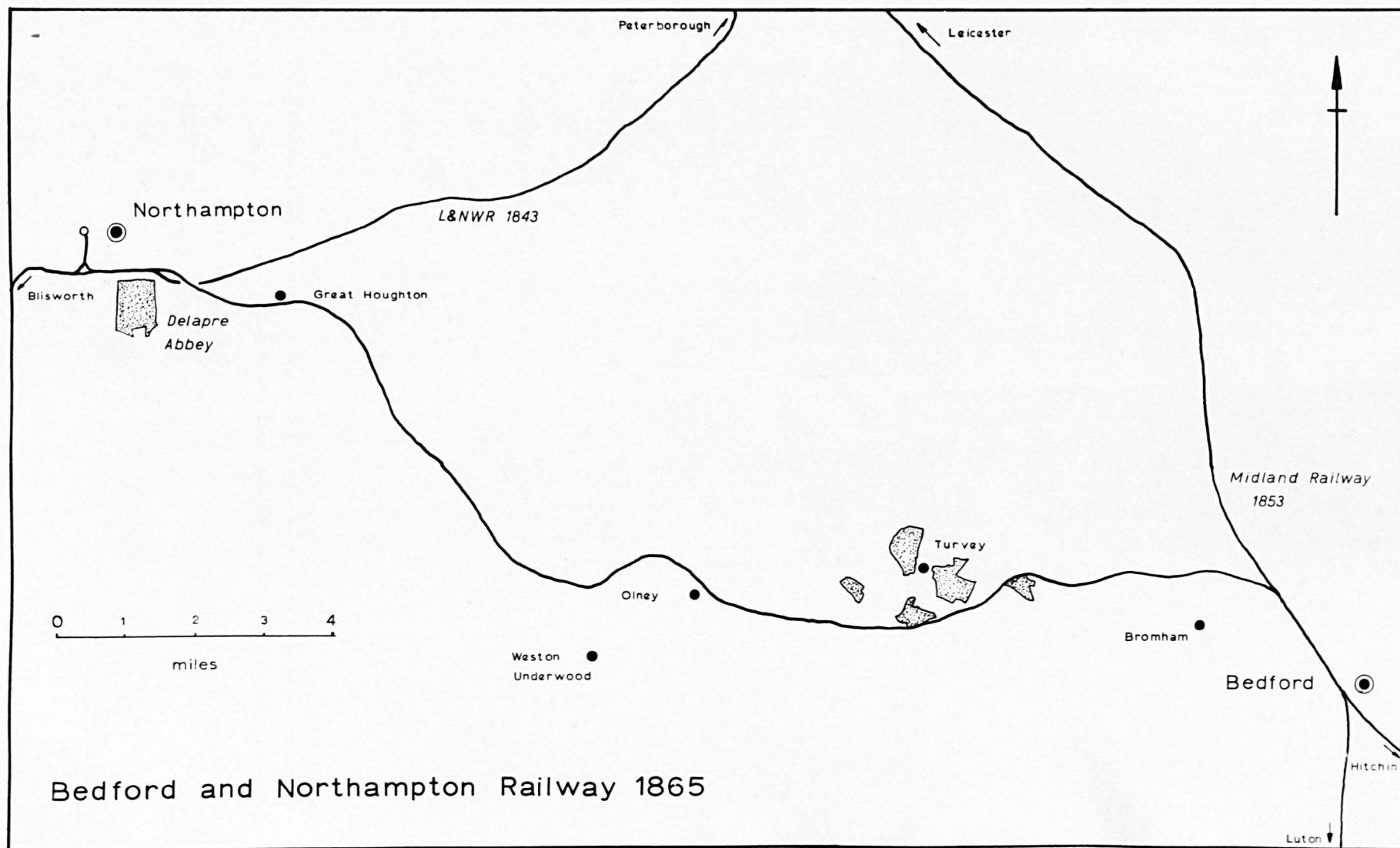
(6) idem 16 March p.216

(7) ibid. p.143

(8) ibid. p.210

Fig. 47

Fig. 47



One of the strongest supporters of the railway was the squire of the village of Turvey, Colonel Higgins.⁽¹⁾ As in the cases of opposition so it was in support, the railway was aligned to his satisfaction:

One peculiar feature in favour of this line is that the engineer has chosen the most advantageous line he possibly could, not only through my own parish but through a neighbouring parish, inasmuch as he has taken its course through all the bad land and avoided all the good land and of course that makes it particularly advantageous.⁽²⁾

Liddell also made some important general statements relative to the alignment of this railway and the landed interests which neatly reflect contemporary engineering philosophy toward the landowners.

This plan . . . will show all the lines that Mr. Risley has levelled all through the country and it will show that we have tried every possible line that could have been selected in this county and we selected this as the best having regard to the landowners and to the getting of a good line.⁽³⁾

Further to this he added:

Q. With reference to all those landowners I will ask you the general question - you have carried your line so as to make it least objectionable to all parties and most satisfactory in an engineering point of view?

Liddell: We have tried with all our power to do so and we have

(1) idem 17 March pp.9-38, see also Rev. G.F.W. Munby: op.cit. pp.79-80

(2) HLRO Min. of Evid. HC 1865 vol.6 B.N. & W.Rly 17 March p.15, This would appear to contradict R.M. Robbins: Points and Signals (1967) p.211

(3) ibid. p.112

tried to ascertain the general views of parties either directly or indirectly.

Q. You had it in view in this case to conciliate as far as you could?

Liddell: Certainly, we always do our best to accommodate parties that are hostile or are likely to be hostile.⁽¹⁾

The line was authorised in 1865 and came into service in 1872.⁽²⁾

The promotion of a railway in the north-east of England, whilst illustrating the changing attitudes of promoters toward a major landowner over the decades, is also a prime example of the relationships which quickly evolved in the years after the mania. As early as 1832 the inhabitants of Barnard Castle, a small market town of south-west County Durham, had decided that their town needed a railway and they therefore approached Joseph Pease, the chairman of the Stockton and Darlington Railway for assistance.⁽³⁾ Pease '... warned them that the Duke of Cleveland would be sure to oppose it, and advised the deputation not to enter into a Parliamentary contest with his Grace'.⁽⁴⁾ The Duke owned most of the land to the north-east and east of Barnard Castle and

it was well known that he had a great objection to railways.

The inhabitants of Barnard Castle felt it would be useless to attempt to obtain subscribers to make a railway to the town with the certainty of being opposed by a wealthy and powerful nobleman.⁽⁵⁾

Thus the idea of a railway was dismissed until the succession of the

(1) *ibid.* pp.206-7

(2) F.S. Williams: (1876) *op.cit.* p.281

(3) (T. Richardson): History of the Darlington and Barnard Castle Railway (1877) p.23

(4) *ibid.* p.23

(5) *ibid.* p.24

second Duke of Cleveland in 1842. The townspeople approached him during 1844 but he rejected the idea of a branch line and told them '... if a place was within twenty miles of a railway it was all that could be wished or desired'.⁽¹⁾

In 1846 the Northern Counties Union Railway was authorised to run from Bishop Auckland via Barnard Castle across the northern Pennines to Tebay.⁽²⁾ It was reported that the railway company had gained the Duke of Cleveland's approval for their line, which approached Barnard Castle from the northeast and ran to the west of Raby Castle, by the payment of £35,000.⁽³⁾ The financial difficulties of the years after 1847 precluded the construction of the line and the scheme came to nothing.⁽⁴⁾

In 1849 cholera devastated the town and the local economy collapsed.⁽⁵⁾ As a result, in the early summer of 1852, it was felt by the residents of Barnard Castle that only a railway could revive their town's fortunes. Meetings were held and it was argued that the best line was one that would run directly to Darlington along the Tees valley rather than north-eastwards across more difficult terrain to Bishop Auckland. The Duke of Cleveland had expressly stated in 1844 his opposition to any railway despoiling the Tees valley and this decision was therefore a considerable challenge to his authority.⁽⁶⁾

The railway company appointed Thomas Bouch as their engineer and although he was asked to align the railway through the valley of the River Tees, he was expressly told '... to interfere as little as possible with

(1) *ibid.* p.27 (meeting held 17 October 1844)

(2) H.G. Lewin: (1936) *op.cit.* p.196

(3) T. Richardson: *op.cit.* p.32

(4) H.G. Lewin: (1936) *op.cit.* p.459

(5) T. Richardson: *op.cit.* p.34

(6) *ibid.* p.36

the Raby estate'.⁽¹⁾ The railway company wrote to the Duke during October 1852 and stated '... "they are resolved to make every effort to conciliate your Grace's good wishes by interfering in the least possible degree with your estates" ...'.⁽²⁾ The major difficulty arose with the avoidance of Selaby Park, situated on the north bank of the Tees. The primary stage of alignment was implemented when the promoters and engineers took great pains to avoid the Park and minimise any damage to the estate of the Duke. The second stage of negotiation was then applied and a meeting was held at Raby Castle on 19 October 1852 between the promoters and his Grace. The railway representatives used a map to point out '... to him the proposed line of railway and offered to make any deviations which he might request'.⁽³⁾ By this time the Duke had decided that he preferred the Tees valley route to any other and '... made several suggestions as to the way he wished the line to go ... and said it was the least objectionable line that had been submitted to his consideration'.⁽⁴⁾ Despite this the Duke refrained from committing himself to unqualified support and later that year discovered that his tenant farmers were opposed to the railway and although he attempted to ameliorate their opposition, his efforts proved fruitless. As a result he decided to oppose the railway when it came before Parliament in 1853.⁽⁵⁾ The railway promoters wrote to the Duke of Cleveland on the 15 March 1853 in an attempt to persuade him to withdraw his opposition. They argued that '... from first to last we have entertained the most anxious desire to conciliate your Grace, and to interfere with your property as little as possible'.⁽⁶⁾ but despite this the Duke replied on 17 March

(1) *ibid.* p.38

(2) *ibid.* p.40

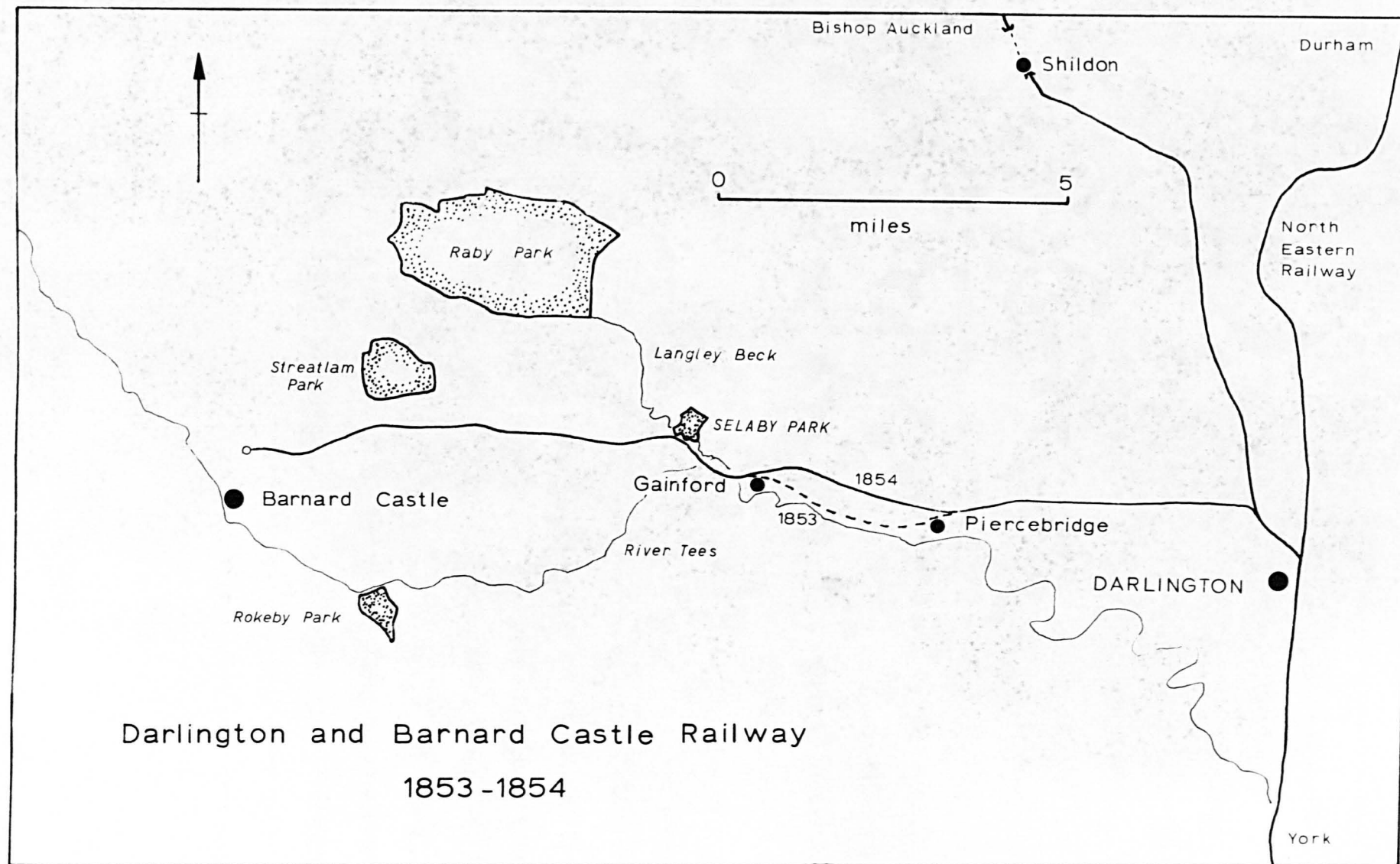
(3) *ibid.* p.40

(4) *ibid.* p.40

(5) *ibid.* pp.44-6

(6) *ibid.* p.49

Fig. 48



re-emphasising his opposition and stated:

Is it then a modest request . . . to make landowners sacrifice their property against their will when they set a value upon it, for the speculative profit and advantage of a few interested individuals who live in the towns of Barnard Castle and Darlington? I will not disguise that I have always had the greatest aversion to having my property cut up by railroads, and I believe, as a landowner, I am not singular in that respect. I am perfectly ready, however, to allow that all trunk lines are essential for the public good, and must be subjected to; with branch lines, however, it is very different, they are almost all vicious in principle, and ought to be resisted as more detrimental than advantageous to the district, but, whenever they are permitted, it ought to be from the landowners taking the initiative, and from being the promoters, to be the principal shareholders themselves. (1)

The Bill came before Parliament in 1853 and although the traffic case was quite easily proved the Duke of Cleveland managed to have it rejected by the House of Commons Select Committee on an engineering technicality. (2) The promoters resurveyed their line during 1853 and yielded further to the Duke in acceding to his request for a deviation between Gainford and Piercebridge. (Fig.48) This was to avoid Snow Hall, the owner being a personal friend of his Grace. (3) The line was resubmitted and authorised in 1854.

During the hearings of 1854 two witnesses had put forward interesting

(1) *ibid.* pp.51-2

(2) *ibid.* pp.54-6, see also HLRO Min. of Evid. HC 1853 vols. 72-4
Darlington and Barnard Castle Rly 26 May - 7 June

(3) HLRO Min. of Evid. HL 1854 vol.4 D. & B.C. Rly 19 June p.94

points of view. Sir William Eden, the chairman of the rival Bishop Auckland and Barnard Castle Railway, was asked for his opinion as a land-owner as to the advent of railways. He stated that personally he was much averse to railways cutting up his property and gained little, if any, personal advantage whilst sustaining a great deal of private injury. However, he said he was reconciled to the fact that railways were to come sooner or later and that it might as well be now and concluded that the line he was promoting was of great public benefit.⁽¹⁾

Thomas Smurthwaite, a tenant farmer of Hope House near Piercebridge, spoke for all those directly affected by the construction of a new line. He stated that he ran a farm of some 650 acres and despite negotiations with the railway company over the alignment,⁽²⁾ he said that 8 fields would be made into 13 of all shapes and sizes. He exclaimed that he had been 'slaving' for thirty years to improve his farm and that there could be no adequate financial compensation for this utter destruction.⁽³⁾ At a time of considerable agricultural improvement the severance of farms and damage to recently enclosed fields, was obviously a heavy blow to the smaller farmer.⁽⁴⁾

A further point that arose from the conflict in the Tees valley was the amount of legal expenses in Parliament of both the Duke of Cleveland and the railway company. Richardson has calculated that both parties spent £10,000 each over the two years.⁽⁵⁾

(1) HLRO Min. of Evid. HC 1854 vol.44 D. & B.C. Rly 27 March pp.29-33

(2) (T. Richardson): op.cit. p.48

(3) HLRO Min. of Evid. HC 1854 vol.44 D. & B.C. Rly 28 March pp.198-213, also HLRO Min. of Evid. HL 1854 vol.4 D. & B.C. Rly 19 June pp.128-40

(4) HL Sessional Papers vol.18 1845 Select Committee on Compensation Q.141, p.15 see above p.¹⁶⁹

(5) (T. Richardson): op.cit. p.89

In southern Surrey the railway engineer and promoters found similar difficulties in the alignment of their railway through a valley. The Horsham and Guildford Railway was an independent company promoted on the frontiers of the L. & S.W. Rly and the London Brighton and South Coast Railway. The scheme was first proposed in 1859 and was quickly supported by the majority of landowners between the two towns; the sole opponent was Lord Grantley of Womersley.⁽¹⁾

The engineer, Mr. E. Woods, originally intended to utilise the bed of the Wey and Arun Canal but felt that Lord Grantley would disapprove of this and therefore selected an alignment some little way to the west of the canal.⁽²⁾ (Fig.49) Again the engineer refrained from determining the exact alignment until he had discussed the matter with the hostile landowner, and Woods visited Lord Grantley during June 1859.⁽³⁾ His Lordship was intransigent and could see no public necessity for the line and therefore had decided to oppose it.⁽⁴⁾ Woods argued that he could not avoid Lord Grantley's estate by making a major deviation to the west of the village of Bramley as this would cause considerable damage to the property of Lord Leconfield and would also run in front of Gosden House. Woods explained his difficulties:

Commencing from Horsham to Cranleigh the country is not difficult as to properties but after that the ground becomes much more beautiful; the whole valley is studded with ornamental property of various kinds; therefore the object being to lay out a line passing through those properties without doing them injury, the

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- (1) HLRO Min. of Evid. HL 1860 vol.13 Horsham and Guildford Direct Rly 3 July pp.1-118
 (2) idem 10 July p.15
 (3) ibid. pp.18-9
 (4) ibid. pp.20-2

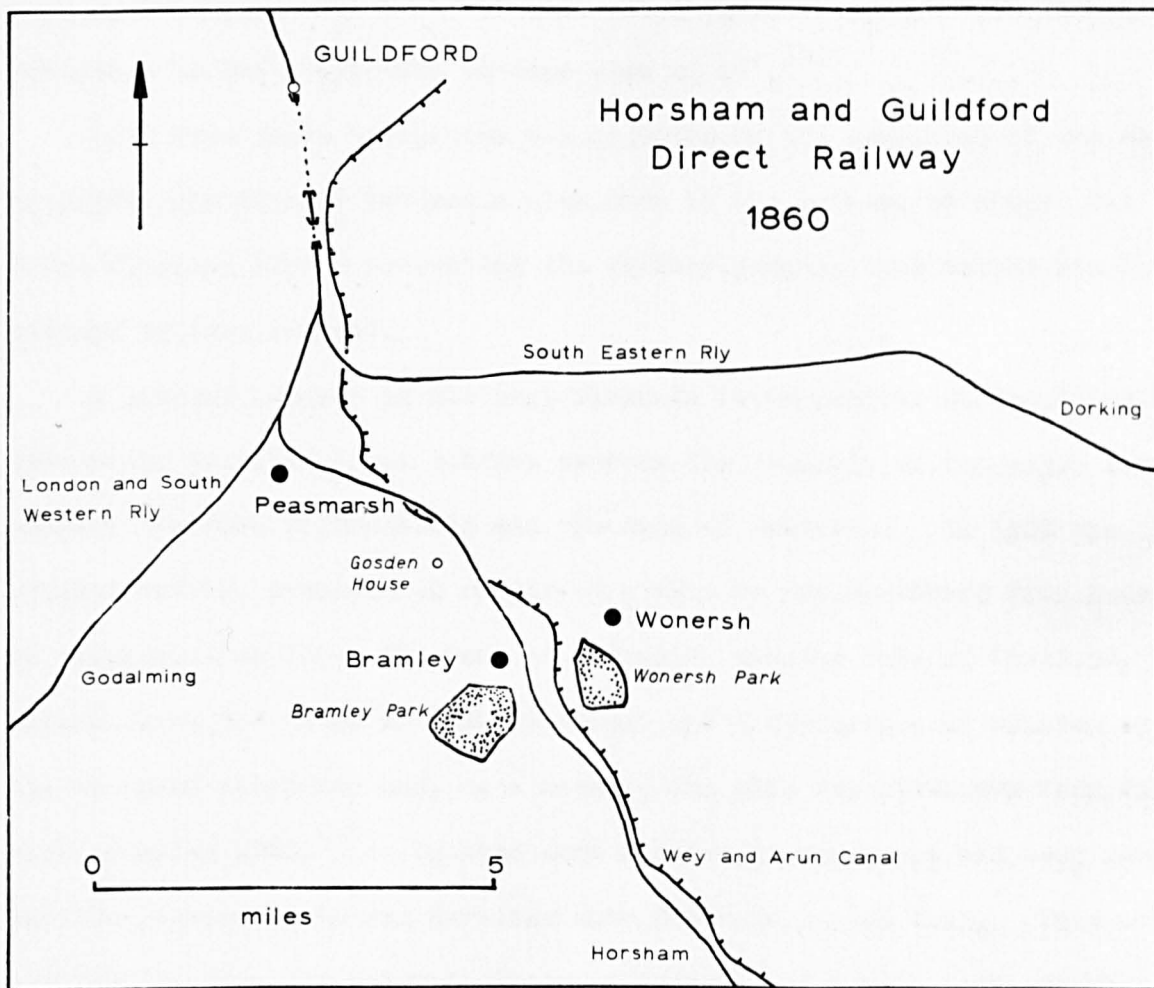


Fig. 49

line which I selected, in my opinion, affects that object.⁽¹⁾

This was firmly supported by the evidence of J. Hawkshaw, a noted railway engineer of the time, who said ' . . . the line of Mr. Woods is best in an engineering point of view and I consider it the best line having reference to the properties on each side of it'.⁽²⁾

Lord Grantley's opposition was rejected by the Committee of the House of Lords, who further refused a plea made by his counsel to insert the usual delaying clause preventing the railway company from taking his land without written consent.

A railway company in the east Midlands found similar difficulties in attempting to align their railway between the property of two major land-owners, the Duke of Newcastle and the Duke of Portland. In 1859 the Midland Railway proposed to construct a line to run northward from Mansfield to Worksop. (Fig.50) The Duke of Newcastle and the Duke of Portland, the latter being the owner of Welbeck Abbey, had a difference of opinion over the proposed alignment and, as a result, the bill was withdrawn from Parliament early in 1860.⁽³⁾ By 1864 some measure of agreement had been reached and the proposed line was deviated some distance to the west. This avoided encroaching upon the Creswell Crag, a noted local beauty spot, on the Welbeck estate.⁽⁴⁾ The agent for the Duke of Portland suggested that his Grace should intimate some approval for the Midland Railway's proposals but his Lordship

reasonably retorted that, when the supporters of the Midland project came to him and said they proposed to run a line across

(1) *ibid.* p.53

(2) *ibid.* p.70

(3) HLRO Min. of Evid. HC 1865 vol.45 Midland Rly 19 June p.199,
F.S. Williams: *op.cit.* p.193

(4) HLRO Min. of Evid. HC 1865 vol.45 M. Rly 19 June p.213

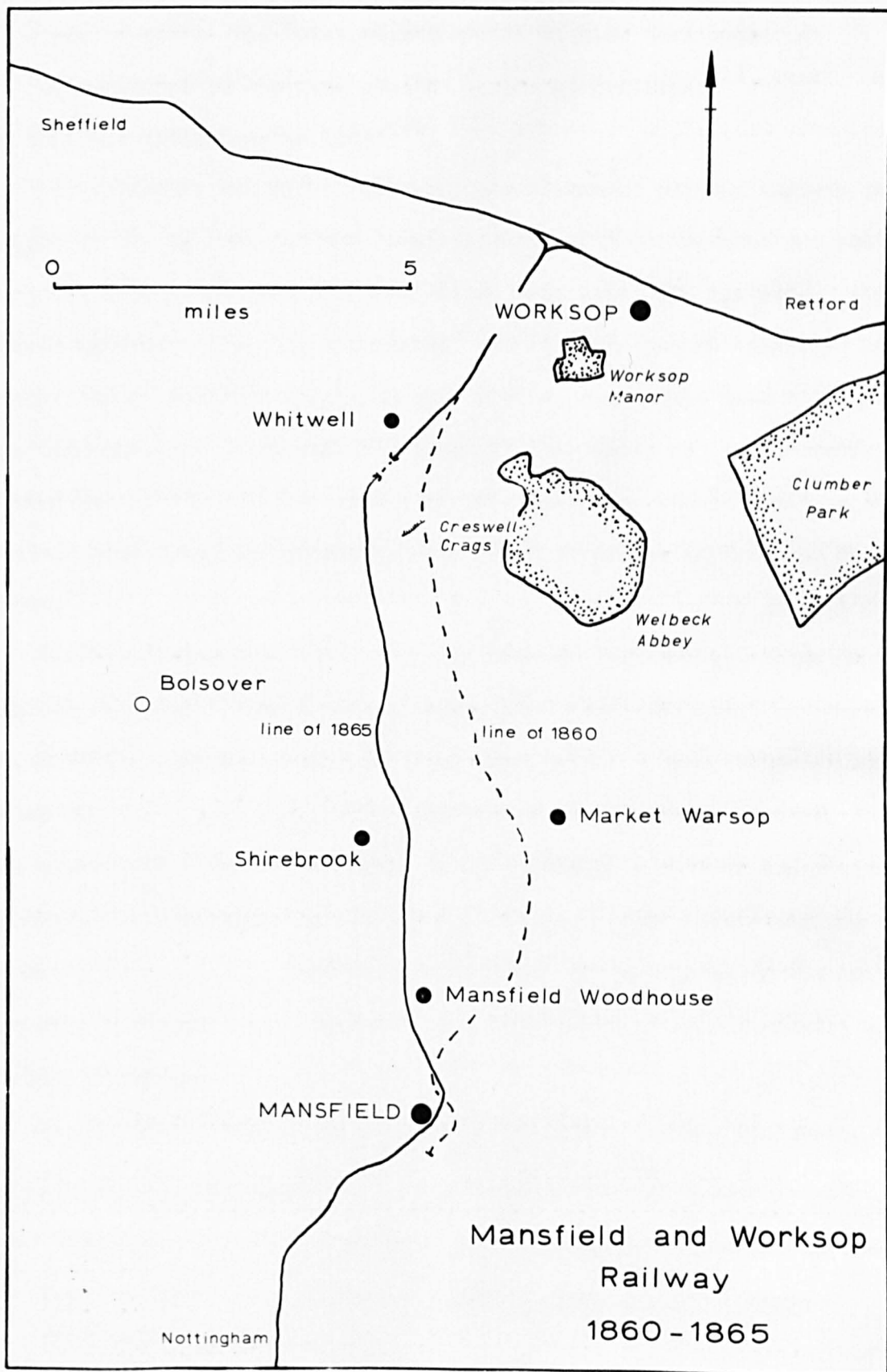


Fig. 50

his land, whether he liked it or not, and he told them which route would be the least objectionable to him, that could not be construed as implying consent to the proposition.⁽¹⁾

The line was authorised in 1865.⁽²⁾

In discussing the difficulties of the alignment of this railway the manager of the Midland Railway company, James Allport, pointed out that there was little the company could do but wait until the landowners had reached agreement over the alignment. He implied that no competing railway company could construct a line in that area as they would meet with the same difficulties. Although the delay of four years was considerable, waiting for consent was far safer, in this instance, than attempting to force an unsatisfactory alignment upon two hostile and influential landowners.⁽³⁾

Finally it is significant that the Duke of Portland's dislike of the original alignment stemmed from a desire to protect the local environment. F.S. Williams, the self-confessed historian of the Midland Railway company, stated that '... it would have been much more convenient to carry the line somewhat farther to the right (east), through a natural depression in the range of hills known as the Creswell Craggs,⁽⁴⁾ the stress falling on the word 'convenient'. The Duke of Portland was merely using his considerable influence to protect an area of outstanding natural beauty against private enterprise.

On the Welsh Borders the landowners exerted a similar influence. Benjamin Piercy, the engineer of the proposed Oswestry Ellesmere and

(1) A.S. Turberville: A History of Welbeck Abbey and its Owners: vol.2 (1939) p.415

(2) F.S. Williams: (1876) op.cit. p.193

(3) HLRO Min. of Evid. HC 1865 vol.45 M. Rly 19 June p.210

(4) F.S. Williams: (1876) op.cit. p.581

Whitchurch Railway of 1861, stated that his alignment avoided any interference with residences and valuable property in an '... exceedingly fortunate manner' and further argued that he always took the greatest pains in aligning his railways to minimise such damage.⁽¹⁾ This was confirmed by Seymour Clarke⁽²⁾ and George Farmer,⁽³⁾ the latter being a local land valuer. Farmer pointed out that the G.W. Rly scheme for a line between Oswestry and Ellesmere was strongly disliked by the local landowners in that it caused far greater damage to property.⁽⁴⁾

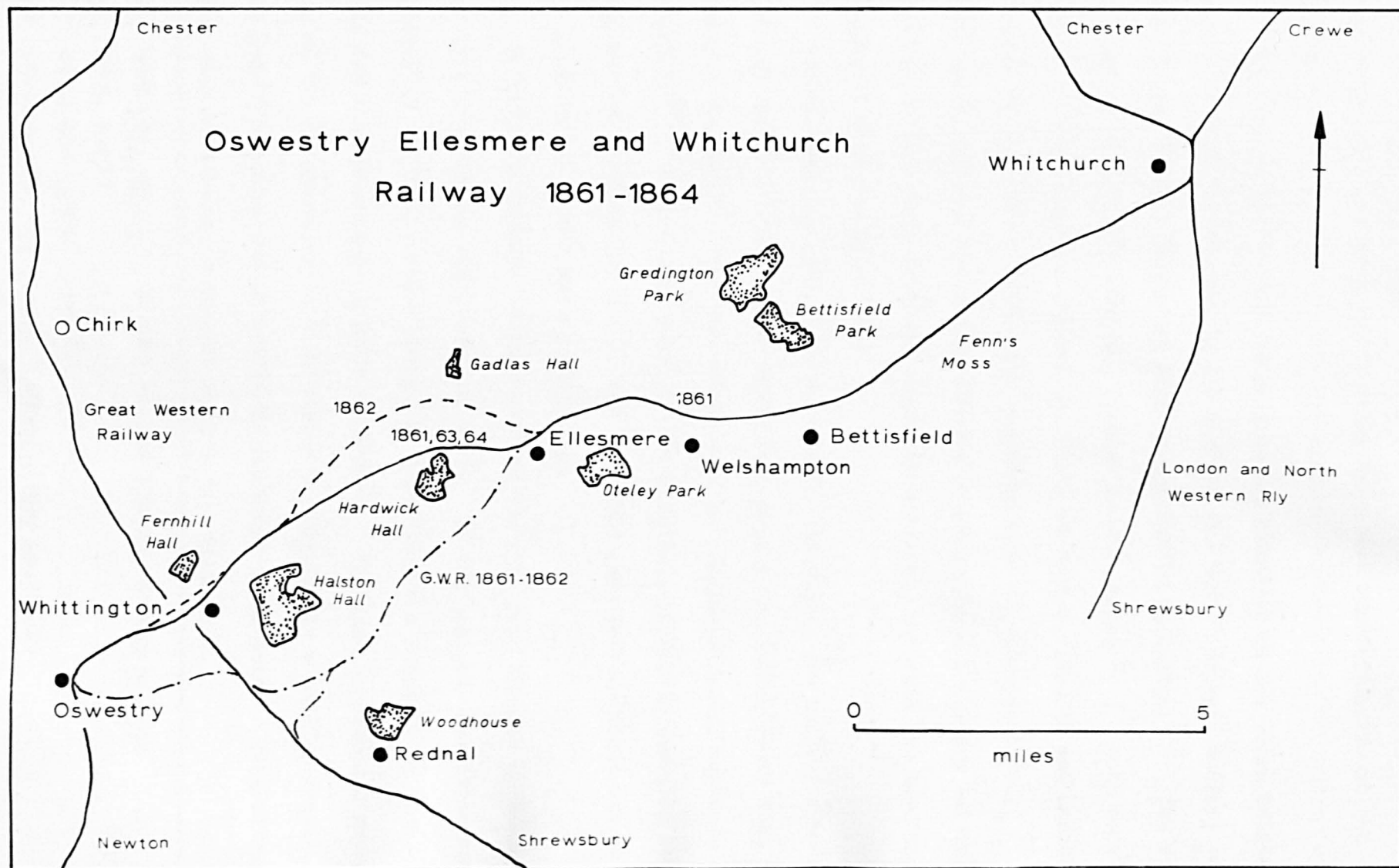
Sir John Hammer MP, of Bettisfield, had suggested to Piercy that the proposed railway should avoid Bettisfield Wood and the intersection of some 'beautiful fields' in the area. The line was therefore deviated to the south and consequently forced to cross Whixall Moss.⁽⁵⁾ (Fig.51) Hammer also made some rather dramatic remarks about the impact of a railway upon the landscape:

I may be peculiar but I do not object to a railway; I look upon a railway as a fine work of art - I look upon a locomotive engine as a fine work of art and I look upon a puff of steam as such a feature in the landscape that if I were a landscape painter I should paint it in the horizon - therefore I do not object to a railway upon the common, hackneyed objection.⁽⁶⁾

Thus, whilst the landowner was a strong supporter of the idea of the railway, he had suggested to the engineer an alignment which minimised

- (1) HLRO Min. of Evid. HC 1861 vol.60 Oswestry Ellesmere and Whitchurch Rly 21 March pp.14-5
- (2) *ibid.* pp.245-6
- (3) *idem* 20 March p.246
- (4) *ibid.* p.249
- (5) *idem* vol.61 16 April pp.61-2, see also R. Christiansen and R. Miller: Cambrian Railways : vol.1 (1967) p.54
- (6) HLRO Min. of Evid. HC 1861 vol.61 O.E. & W. Rly 16 April pp.23, 56

Fig. 51



damage to his estate. This feature of strong support yet taking great pains to protect the environment is an important characteristic of the period.

The Gainsborough to Doncaster line was promoted in the years 1863-4 and was yet another attempt on the part of the Great Northern Railway to complete the eastern loop line first projected in the 1840s.⁽¹⁾ The Vice-Chairman of the railway company, Colonel Packe, stated '... both Lord Galway and Lord Houghton support the bill, we have altered it and amended it until we got into a shape that was acceptable to those gentlemen',⁽²⁾ which again stressed the strong element of negotiation necessary before a mutually satisfactory alignment could be selected, but with the landowner tending to hold the upper hand.

During these decades, more especially the 1850s, the railway companies that had failed to build lines authorised during the mania, found that their proposed alignment of the mid 1840s could be renegotiated and improvements effected.⁽³⁾ This was probably due to attitudes gradually changing through time but more especially due to the fact that negotiations could proceed at a far slower pace than during the mania.

In 1859 the Midland Railway revived the line from Rowsley to Buxton,⁽⁴⁾ and this came before Parliament in 1860. It met minimal opposition and was aligned to run from Rowsley along the Wye valley via Bakewell to Buxton, thus reviving Stephenson's ideas of 1845-6. The line as proposed in 1860 ran to the immediate north of Haddon Hall (Fig.26) in a shallow tunnel, and not some three-quarters of a mile to the north as in 1846. This allowed a much cheaper and more efficient line to be constructed.

(1) HLRO Min. of Evid. HL 1864 vol.26 G.N. Rly 5 July pp.1-10

(2) *ibid.* p.15

(3) see above p. 180

(4) see above p.178, also J. Simmons (1961) pp.209-22

Similarly in the south of England the promoters of the Salisbury and Yeovil Railway found that after further negotiations with a landowner the alignment selected during the mania could be modified to the railway company's advantage. The original idea of 1847-8 had been to pass to the north of the town of Sherborne to minimise damage to the residence of Lord Digby, who owned Sherborne Castle, (and was also a strong supporter of the Great Western Railway backed scheme for the area).⁽¹⁾ Lord Digby had caused the Salisbury and Yeovil proposals of 1846 to be rejected in the House of Lords on a plea of residential damage.⁽²⁾ The line selected in 1847 was eventually authorised in 1848⁽³⁾ but the powers were never taken up and it was not until 1853 that the scheme was revived.⁽⁴⁾

The alignment selected was that of 1848 but in 1855, after the passage of the main Act in 1854, it was realised that Sherborne Castle had a new owner, Mr. Wingfield Digby, who proved much more sympathetic to the railway than his predecessor. As a result a deviation act was gained in 1857 which radically improved the engineering of the line by making use of the shallow valley to the immediate south of the town.⁽⁵⁾ (Fig.52) Thus at both Haddon and Sherborne the landowner's wishes were consulted and in both cases the lines selected were much nearer an engineering optimum than they had been in the mid 1840s.

The landowners privately felt a great deal of distaste for the passage of a railway through their estates but tolerated their incursions because they felt there was a public necessity for the line. Occasionally this latent opposition predominated and the landowner successfully opposed a

(1) L.H. Ruegg: op.cit. pp.22-4

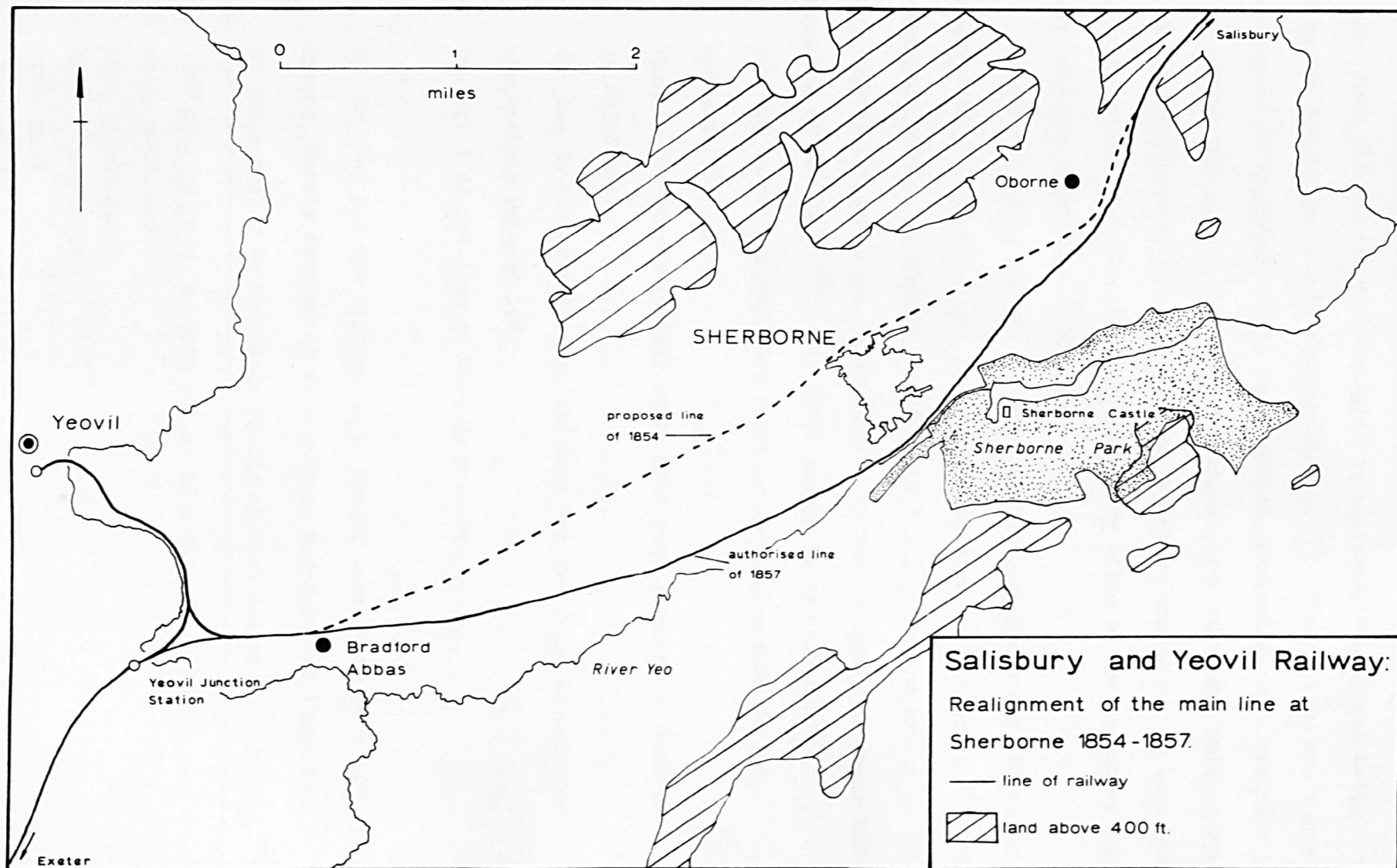
(2) *ibid.* p.17

(3) H.G. Lewin: (1936) op.cit. p.370

(4) L.H. Ruegg: op.cit. pp.28-30, 36-40

(5) *ibid.* pp.40, 44

Fig. 52



proposed railway. In 1853 an independent company was created to promote a line from Watford via Rickmansworth to Amersham, the scheme being taken up by the London and North Western Railway.⁽¹⁾ The railway was opposed by Lord Essex of Cassiobury Park, near Watford, Admiral Percy whose park lay near Rickmansworth, Mr. J. Arden of Rickmansworth Park, Mr. Hayward whose park was in Amersham, and Mr. T. Drake who owned two thirds of Amersham;⁽²⁾ in fact, of the eleven miles of railway four miles of the necessary land were owned by opponents.⁽³⁾ (Fig.53)

Mr. Arden argued that ' . . . they cannot compensate me; it is not a question of compensation with me it is a question of destruction'⁽⁴⁾ this being complemented by Lord Essex who said ' . . . the proportion of land they take is so very small in proportion to the excessive nuisance and annoyance it creates'.⁽⁵⁾ Mr. Drake summed up the argument:

Q. You do not suggest that there is any injury done to you personally?

Drake: Wherever a railway comes over your property I think it is injurious.

Q. You do not suggest that you have any grievance beyond your own feeling against it?

Drake: I do not like to have my property cut up.

. . .

Q. So that you are opposed to it merely because it is a railway?

Drake: Merely because it is a railway and I do not think it is at all required by the wants or the necessities of the country.⁽⁶⁾

(1) HLRO Min. of Evid. HC 1853 vol.37 L. & N.W. Rly 3 June p.197

(2) *ibid.* pp.22-203

(3) *idem* 2 June p.159

(4) *idem* 3 June p.152

(5) *ibid.* p.28

(6) *ibid.* p.201

The interchange then lapsed into light banter but this was quite indicative of contemporary feeling:

Q. You have captured a theodolite or two I suppose?

Drake: I am not aware.

Q. You have got them and keep them as trophies?

Drake: I have not had one - I would have got them if I could.⁽¹⁾

The landowners in this case also called a number of railway engineers on their behalf who testified that the railway was poorly aligned with respect to residential property.⁽²⁾ James Adie stated:

the gentlemen opposing here have a good right to complain.

You [the L. & N.W.R.] wish to accommodate the public. I have nothing to say against you doing so but I mean to say that you should, in going through such a country as this, take care that you get the cheapest line and do no damage, either in a public or private point of view, to any of the pretty places lying in the district.⁽³⁾

The line was rejected by the Commons Committee and never reappeared.

In Devon the Dartmouth and Torbay Railway decided to amend their line by altering the location of their terminus from Kingswear to a site on the opposite bank of the River Dart. This implied crossing the estuary at Greenway. (Fig.54) The proposal was rejected by Parliament in 1861 as a result of the strong opposition of Mr. Harvey, the owner of Greenway House, and the railway reverted to its original plan.⁽⁴⁾ In the East Riding of Yorkshire Sir George Strickland of Boynton opposed the proposal for a line, suggested in the early years of the 1860s, to run from Malton to Hornsea,

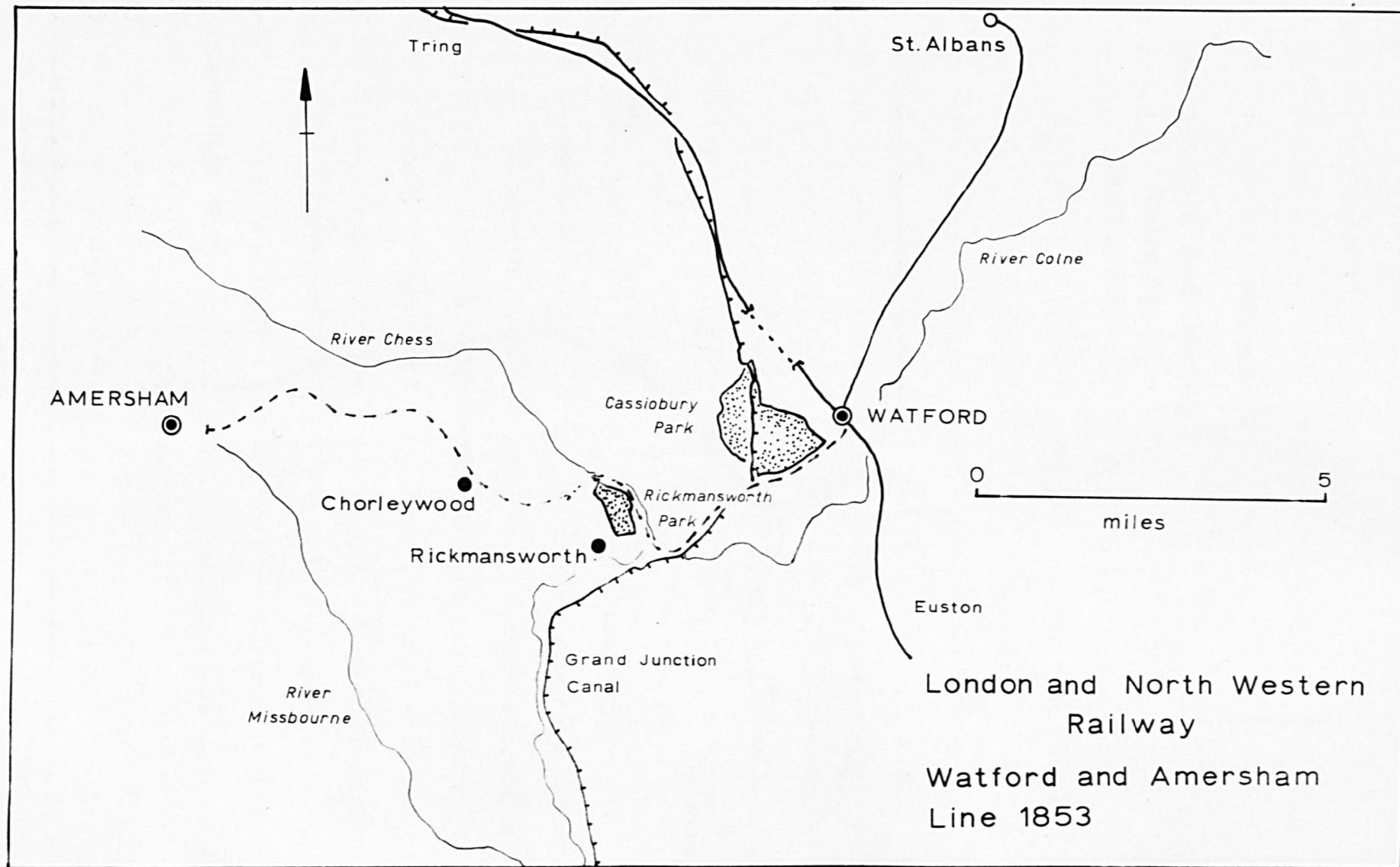
(1) *ibid.* pp.202-3

(2) *idem* 10 June pp.1-56

(3) *ibid.* p.41

(4) E.T. MacDermot: *op.cit.* vol.2 p.125

Fig. 53



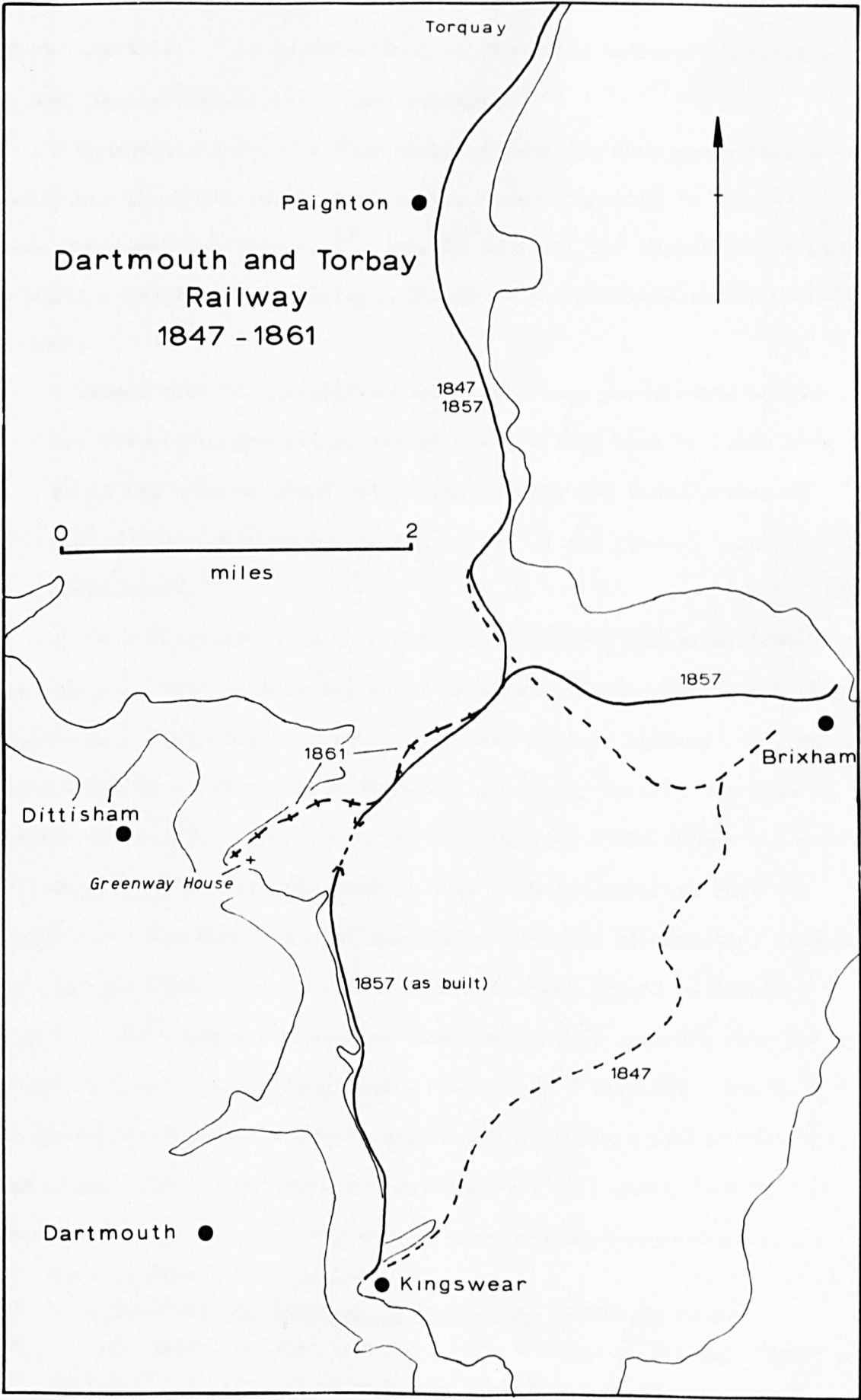


Fig. 54

across the Wolds. As he owned most of the Wolds between Driffield and Malton, unsurprisingly the scheme collapsed.⁽¹⁾

A conflict occurred in Wharfedale between the more conservative landed gentry and the local industrialists who were attempting to improve the local transport facilities.⁽²⁾ Mr. J. Garnett, who supported the proposal to build a railway in the dale, highlighted the problems in his pamphlet of 1861:

I assert that the present scheme is the best practicable scheme for the public generally, and if not the very best we could have, it is the best we could obtain considering the indifference of many and the decided opposition of two of our largest landed proprietors.⁽³⁾

In East Lancashire the L. & N.W. Rly revived a scheme of 1846-7 in the summer of 1852. This was for a line from the Manchester and Leeds Railway near Saddleworth to run to the east side of Oldham. Mr. Lees, whose property at Shaw lay on the proposed route, opposed the line in Parliament in 1853. He argued that the railway would damage his estate but, more importantly, said that in 1847 he had negotiated with the Huddersfield and Manchester Railway and a mutually satisfactory alignment had been selected. He felt that this agreement should be honoured by the L. & N.W. Rly who now intended to encroach further upon his property than either of the lines promoted during the mania.⁽⁴⁾ (Fig.30) The L. & N.W. Rly gradually acceded to Lees' demands and ultimately agreed that they could construct a line utilising an alignment very similar to that of

(1) K.A. MacMahon: op.cit. p.19

(2) P.E. Baughan: The Railways of Wharfedale (1969) pp.77-87

(3) A Reply to Mr. Fawkes' remarks on the Wharfedale Railway (1861) p.5

(4) HLRO Min. of Evid. HC 1853 vol.19 L. & N.W. Rly 27 April pp.150-250, see above p. 197

1846.⁽¹⁾

There is quite a strong contrast between the rapid negotiations and concessions on the part of the railway company in 1847,⁽²⁾ and the grudging acceptance of the landowner's requests in 1853. The power of the landowner is still apparent with Lees gaining his requirements and protecting his estate from any incursions on the part of the railway company.

Further examples of such concessions by the railway companies were found with the alignment of the Buntingford and Ware Railway of 1858,⁽³⁾ and the Sevenoaks Railway of 1859.⁽⁴⁾ In the former instance the location of a junction was affected by landed opposition, in the latter landed doubts prevented the access of the railway into the town and caused the station to be inconveniently located on the boundary of the town. This latter was rectified just three years later. Significantly neither railway was opposed in Parliament these alignments having been negotiated and determined beforehand.

Railways were introduced into the Isle of Wight during the 1850s and the landowners here used their considerable power in an unusual manner. After various attempts had been made during the 1850s to gain sanction for a line from Ryde to Ventnor, a bill for such a line came before Parliament in 1860. It was introduced into the House of Lords where it was opposed by the landowners at the Committee stage on public, not private grounds. They argued that the two companies, one intending to build a line from Ryde to Ventnor, the other a line from Ryde to Newport, were far too small to be efficient and thus felt that they should merge together to form one

(1) *ibid.* pp.238-330

(2) see above p.199

(3) D.I. Gordon: *op.cit.* p.127

(4) H.P. White: (1961) p.61

complete system.⁽¹⁾ (Fig.55)

The preamble of the bills were approved at this stage on the understanding that the landed opposition would be withdrawn if the two companies merged together. This occurred in April 1860 and all major opposition was withdrawn. Both lines were authorised that year.⁽²⁾ The idea of introduction of railways into the island had been bitterly opposed as late as 1853 when the two major landowners, Lord Yarborough and Sir R. Simeon, had said that it was vital '... to the interests of the Isle of Wight that immediate steps should be adopted to prevent the formation of railways in the island'.⁽³⁾ The Bill of 1853 was defeated at its second reading before the House of Commons. Yet just seven years later the landowners were taking positive steps to ensure that if they were to have a railway system it was to be the best possible.

In the North Riding of Yorkshire the landowners also played an important role in railway politics. In 1862 Lord Feversham of Duncombe Park, to the immediate west of Helmsley, was the prime mover of a scheme to construct a railway from Stonegrave via Helmsley to Kirkby Moorside.⁽⁴⁾ Although this line had the verbal support of the local landowners it proved impossible for them to raise sufficient capital. The line was therefore offered to the North Eastern Railway company who replied that if the landowners built the line they, the North Eastern, would run it at cost price.⁽⁵⁾ As the landowners had inadequate finances the scheme collapsed, much to their annoyance.

In 1864 an independent company, the Leeds North Yorkshire and Durham

(1) HLRO Min. of Evid. HL 1860 vol.5 Isle of Wight Rlys 23 March pp.1-152

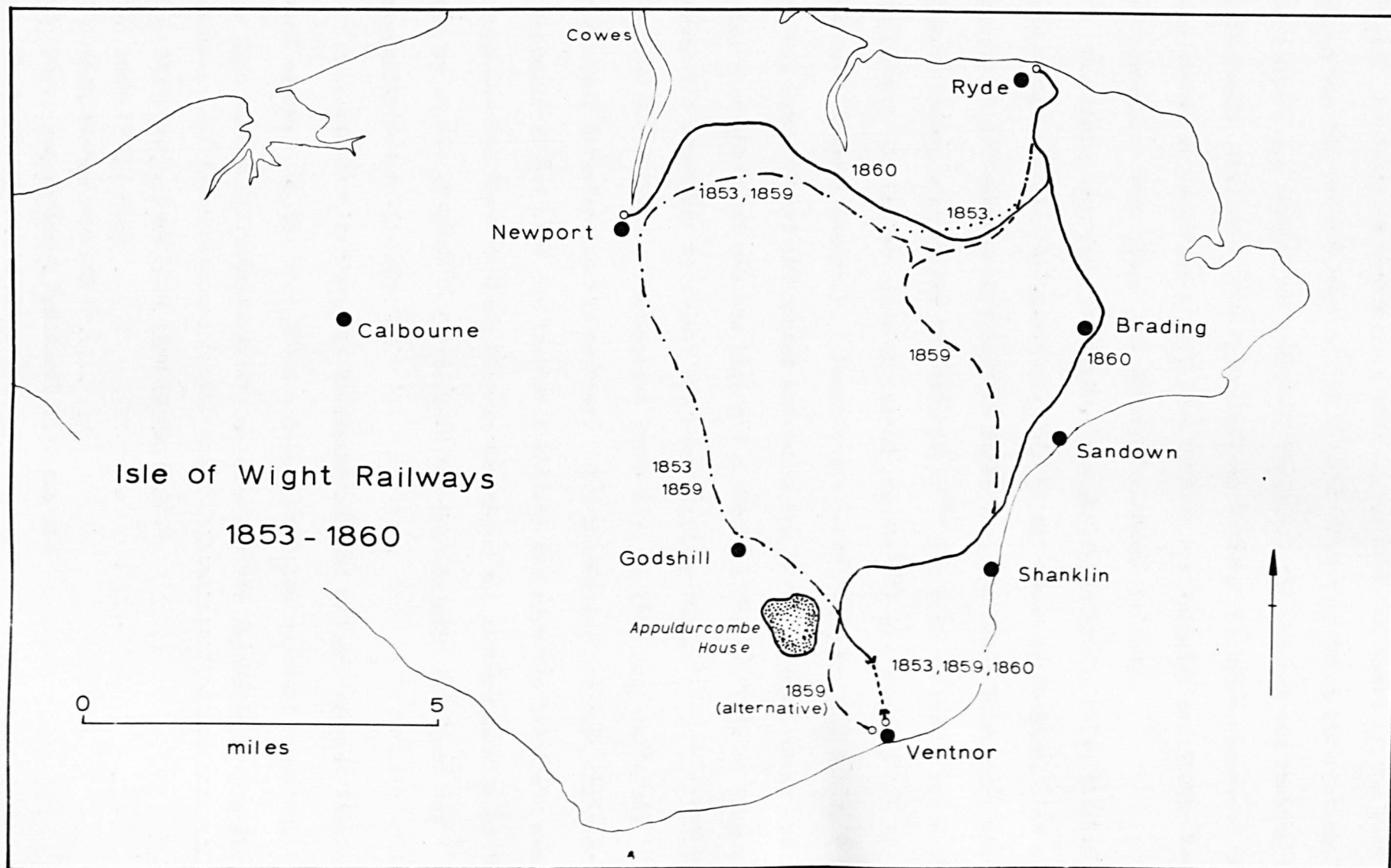
(2) HLRO Min. of Evid. HC 1860 vol.20 I. of W. Rlys 29 June pp.61-78

(3) R.M. Robbins (1963) op.cit. p.5

(4) HLRO Min. of Evid. HC 1865 vol.50 North Eastern Rly 15 May pp.17-24

(5) idem 11 May pp.7-74

Fig. 55



Railway, proposed to construct a line to run from the heart of the West Riding via the western edge of the Vale of Pickering there bifurcating, the western arm running northward to Teesside, the eastern arm running to Scarborough. (Fig.56) The North Eastern Railway therefore responded to this attack by promoting a line from Gilling via Helmsley and Kirkby Moorside to Pickering; both lines came before Parliament in 1865.

The landowners were incensed at the duplicity of the North Eastern company and strongly opposed their line in the House of Commons. At a meeting of 20 February 1865 held at Pickering, the local landowners had pledged strong support for the interloper⁽¹⁾ (in fact of its 95 miles the L.N.Y. & D. Rly had 76 miles of landed support⁽²⁾) and strongly criticised the North Eastern monopoly. Despite the landed support, the L.N.Y. & D. Rly was rejected and the landed attack on the North Eastern, their case being that the North Eastern line was a poor one for the Vale of Pickering,⁽³⁾ caused the committee to reject the North Eastern Bill.

The North Eastern resubmitted their bill in 1866 and, as it was unopposed, Helmsley got its railway. The landowners had been fighting a monopoly rather than the idea of a railway and once the immediate danger had passed the North Eastern company abandoned the eastern section of the line by an Act of 1869⁽⁴⁾ although it was subsequently realigned and eventually opened in 1875.⁽⁵⁾

This conflict between the landowner and the railway was not limited to rural areas. In the late 1860s a significant new opponent appeared. In the West Riding an industrialist, whose plans for expansion of his factory

(1) *ibid.* p.87, (see also *idem* 12 May p.117)

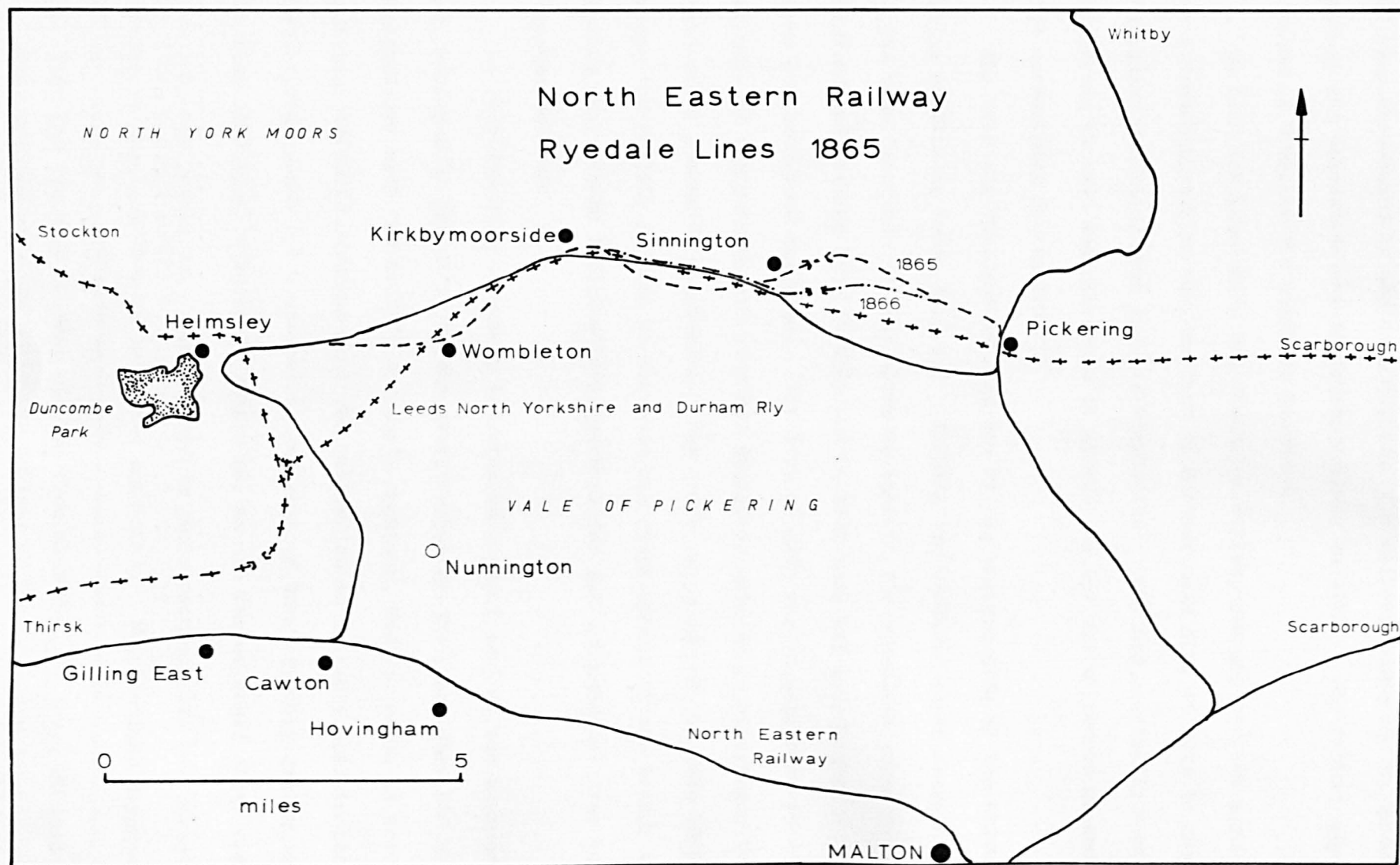
(2) *idem* 15 May p.90

(3) *idem* 11 May pp.75-117

(4) Local and Personal Act 32-33 Vict.cap 105

(5) K. Hoole: *op.cit.* p.88

Fig. 56



had been threatened by the construction of a railway, appeared in opposition against the Lancashire and Yorkshire Railway in 1872. His factory was located at Wyke, to the south of Bradford.

In 1865 the Lancashire and Yorkshire Railway company revived a scheme for a branch line from the Bradford to Halifax main line at Wyke to the Manchester and Leeds main line at Brighouse. This had originally been authorised in 1846 and abandoned in 1852. An Act was therefore gained in 1866 authorising the railway.⁽¹⁾

The line was intended to make use of the eastern side of the narrow valley of Clifton Beck. (Fig.57) In 1862 two brothers named Sharp had bought some five and one half acres of land to the immediate south of the Bradford and Halifax line at Wyke and in 1864 they had established a dye-works and commenced business. The line of 1866 was to pass some yards to the east of their works and they had therefore offered no opposition to the railway company's proposals. The trade recession of the late 1860s caused the railway company to postpone the construction of the branch and in 1868 they gained Parliamentary approval for the extension of time of its construction.

In 1869 the Sharp brothers had ordered a great deal of new equipment and, confused by the delay in the construction of the line, they had opened negotiations with the railway company's engineer, Sturges Meek, in order to gain some definite promises that the railway would follow a certain alignment. They asked for a viaduct to the east of their factory rather than the wide embankment originally suggested, as the former would allow them more room for expansion. Meek agreed to their requests but his directorate refused to sanction them as being too expensive. Negotiations dragged on

(1) This and the rest of this section from HLRO Min. of Evid. HC 1873 vol.23 Lancashire and Yorkshire Railway 16 May pp.1-219

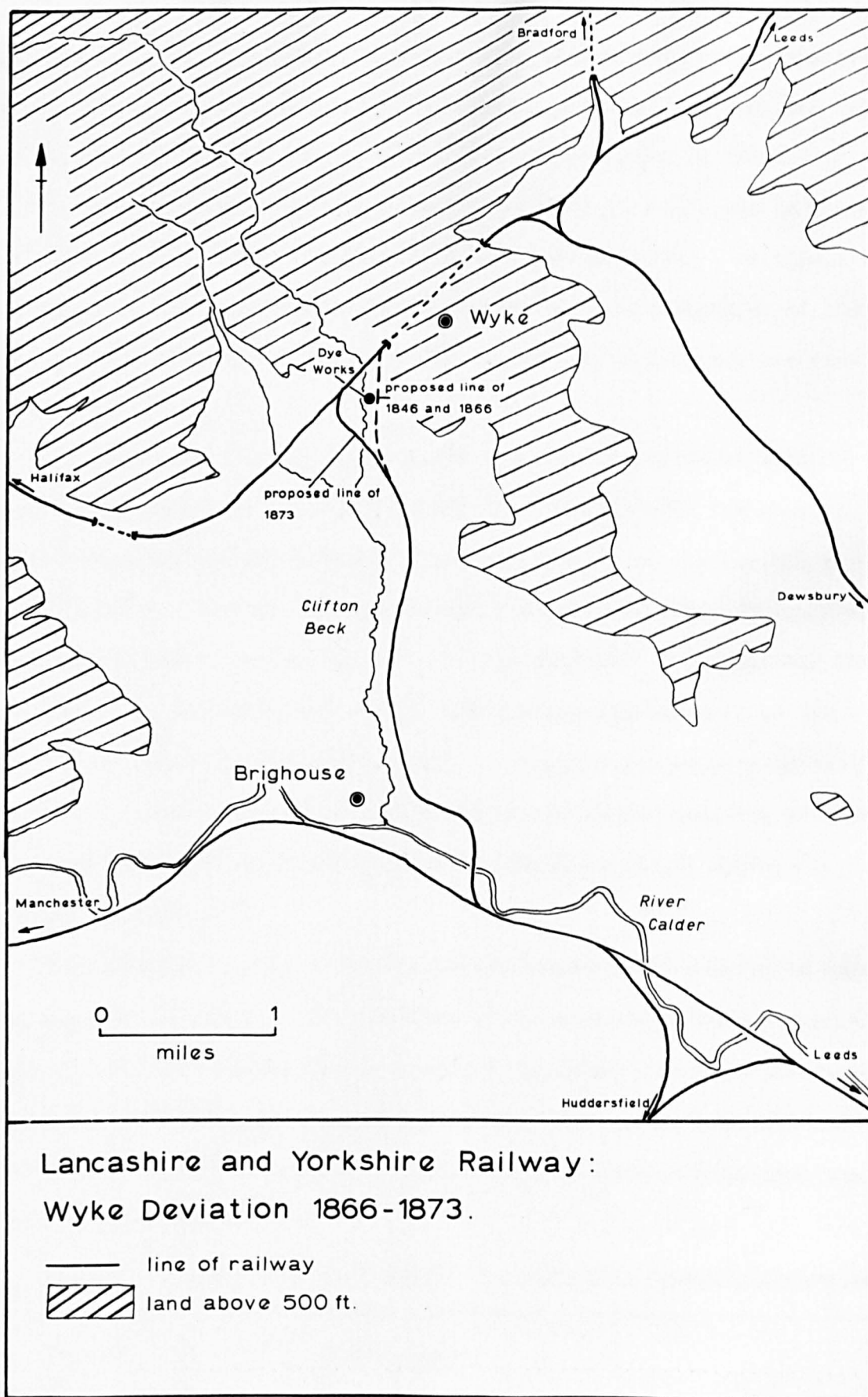


Fig. 57

into 1872 when the railway directors finally decided to realign the branch line utilising the western side of the valley at Wyke, and crossing the beck by a tall viaduct. This decision was implemented by the Act of 1873.

The House of Commons awarded the Sharp brothers costs and compensation for the difficulties the railway company had caused them. The result was, in principle, similar to more bucolic examples, the realignment of the railway away from an area of land, but the change of emphasis was most significant.

The years 1850 to 1870 also saw the railway companies striving to improve their urban facilities which in turn necessitated the building of numerous stations, both passenger and goods, nearer to the central core of the cities. Kellett has argued that the 1830s had seen the railway companies terminate on the edge of the city centres⁽¹⁾ and that the 1840s were also a period where the emphasis of development lay more on the provision of links between urban areas. Wherever it had been necessary to penetrate the urban fabric, the 1830s and 1840s had seen the widespread use of 'fissures of land' which had facilitated access by minimising legal problems and costs.⁽²⁾

The 1850s and 1860s saw the companies move away from mutually harmful rate wars to the concept of attracting increased traffic by means of improved physical services, usually in the form of more convenient facilities in urban areas.⁽³⁾ Kellett has suggested that most of the removals and demolitions between the years 1853 and 1901 were concentrated into the period 1859 to 1867.⁽⁴⁾

In 1861 a railway was promoted to run eastwards from Cheltenham to

(1) J.R. Kellett: (1969) op.cit. p.4

(2) *ibid.* p.9

(3) *ibid.* pp.65-70

(4) *ibid.* p.68

Faringdon and thence to London. The promoters were landowners of East Gloucestershire⁽¹⁾ and also '... some influential residents of Cheltenham who felt that their town was badly treated by the Great Western'.⁽²⁾ A meeting was held in October 1861 where 800 residents of the town discussed the best mode of entry for the new railway. The meeting decided that another main station would be '... altogether objectionable ... to the general convenience and property of the inhabitants of Cheltenham',⁽³⁾ and concluded that a line from Lansdowne Road, on the G.W. Rly, to Bath Road in a tunnel would prove the least destructive.⁽⁴⁾ (Fig.58) The engineer to the railway company was to be J. Fowler, a man who had gained considerable experience in the construction of urban railways.

The line as proposed was opposed by two individuals, a Mr. Parsonage who owned a small amount of land in the Bayshill district,⁽⁵⁾ and a Mr. Skillicome of Montpellier Terrace,⁽⁶⁾ who both argued that the advent of the railway would radically reduce property values and that it would be impossible to further develop the area for building purposes. They opposed the Bill in both Houses and managed to convince the House of Lords of the validity of their case. As a result Fowler was instructed to lay out alternative alignments for an eastern approach and entrance into Cheltenham.

The railway company returned to Parliament in 1864 and stated that Fowler had surveyed eight major routes and, with alternatives, there were in toto fourteen different, feasible alignments.⁽⁷⁾ The southern line

(1) see above p.258

(2) E.T. MacDermot: op.cit. vol.2 p.13

(3) HLRO Min. of Evid. HC 1862 vol.28 East Gloucestershire Rly 6 March pp.32-3

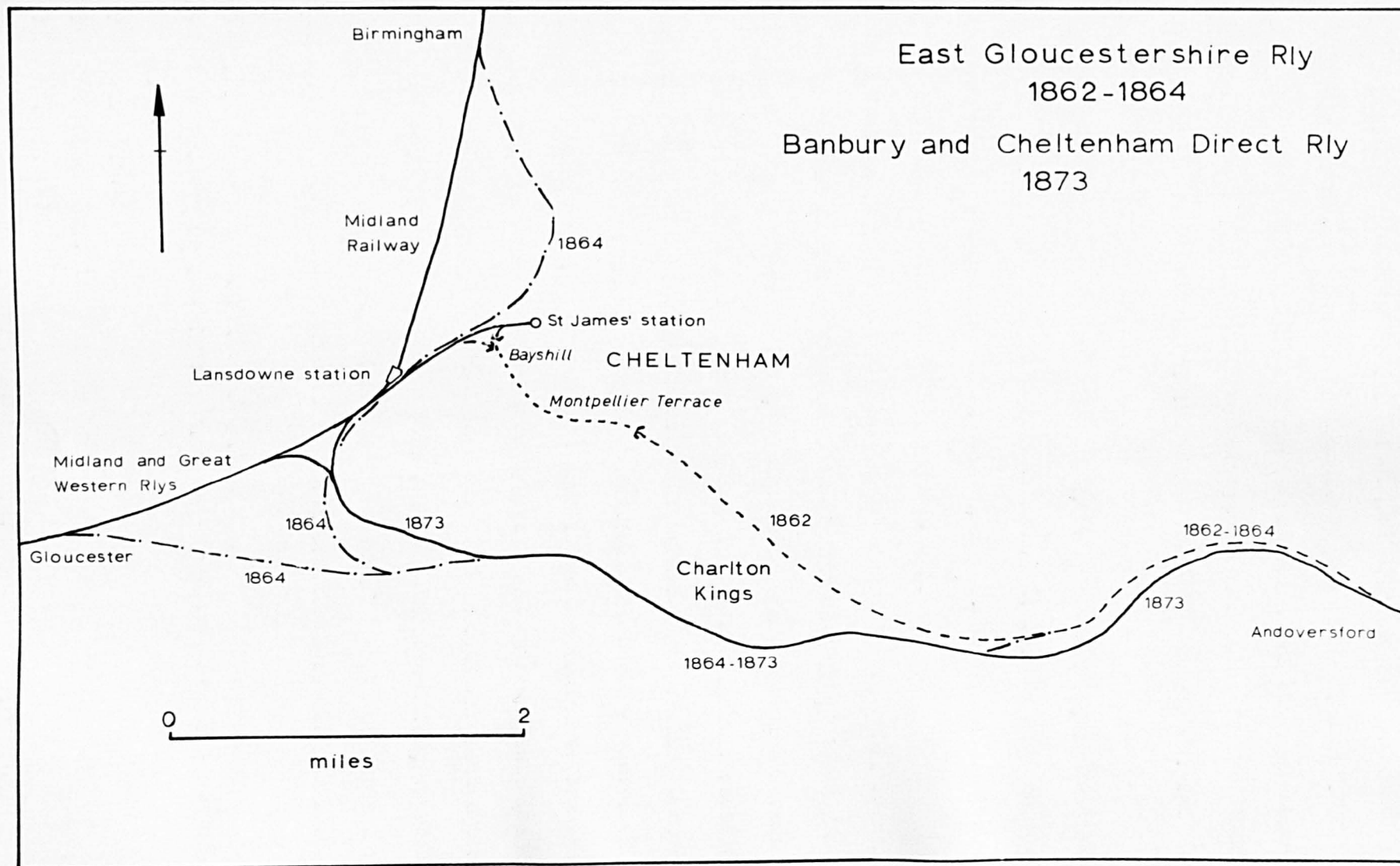
(4) ibid. pp.27-35

(5) idem 11 March p.24

(6) ibid. pp.89-184

(7) HLRO Min. of Evid. HC 1864 vol.15 E.G. Rly 31 May p.39

Fig. 58



(Fig.58) was eventually selected as being the most satisfactory and it was authorised in 1864.

The financial collapse of 1866 prevented the East Gloucestershire company from carrying out their proposals and it was the Banbury and Cheltenham Direct Railway of 1873 that eventually constructed the line - utilising the alignment of 1864 rather than attempting a more controversial route.

In 1863 the Midland Railway proposed to extend its main line southwards into London. The sole opponents proved to be the residents of Camden Square, in the vicinity of Kentish Town. The railway company had in fact reached an agreement with the landowner, Lord Camden, who had accepted a covered way through his property rather than a cutting. Despite this it was the residents themselves who appeared before the House of Commons Select Committee of 1863 in an attempt to defeat the Bill on the grounds of residential damage.⁽¹⁾ They received short shrift from the Committee and merely gained assurances from the railway company that any damage would be kept to a minimum. The line was authorised in 1863.

In Leeds the L. & N.W. Rly and the North Eastern Railway proposed to link their existing termini and, in so doing, construct a new central station. The original alignment of 1864 was intended to run slightly to the north of the line as was eventually built (Fig.59) and was withdrawn from Parliament on the representations of the Leeds City Council. This was discussed in 1865:

Q. I believe that the line which the railway now takes is in accordance with resolutions passed by the Corporation and at a meeting of the inhabitants last year?

A. Yes, they objected to the line we laid out last year and

(1) HLRO Min. of Evid. HC 1863 vol.22 Midland Railway 4 March pp.207-9

fixed the line which we have now adopted.⁽¹⁾

. . .

Q. The scheme of last year, as far as the extension goes, was to carry the line further north through the town and bring the station down on to the Infirmary ground?

A. It was.

Q. That would have had the effect of cutting the centre of the town in half?

A. It was objected to by the Corporation and by the inhabitants as interfering with their principal streets.⁽²⁾

Thus the railway company bowed not so much to landowning pressure per se, although it was the Corporation who exercised its right of opposition, but more to public opinion which was concerned with environmental damage, the destruction of the centre of their city.

This period of widespread construction of new terminal facilities and improved links through urban areas, had a great impact on the working class sectors of the larger cities. Kellett has suggested that this idea of utilising an approach to a city centre via an area of poor housing was first put forward during the mania years by the new Municipal Authorities who felt that there were ' . . . desirable areas for demolition'.⁽³⁾ This trend was intensified during the 1850s and 1860s⁽⁴⁾ and it has been argued that ' . . . the railways, wherever possible, made their approaches to the urban core through working class housing'⁽⁵⁾ solely because the slum-dwellers had no legal rights of objection and could therefore offer little, if any,

(1) HLRO Min. of Evid. HC 1865 vol.50 North Eastern Rly 17 May p.3

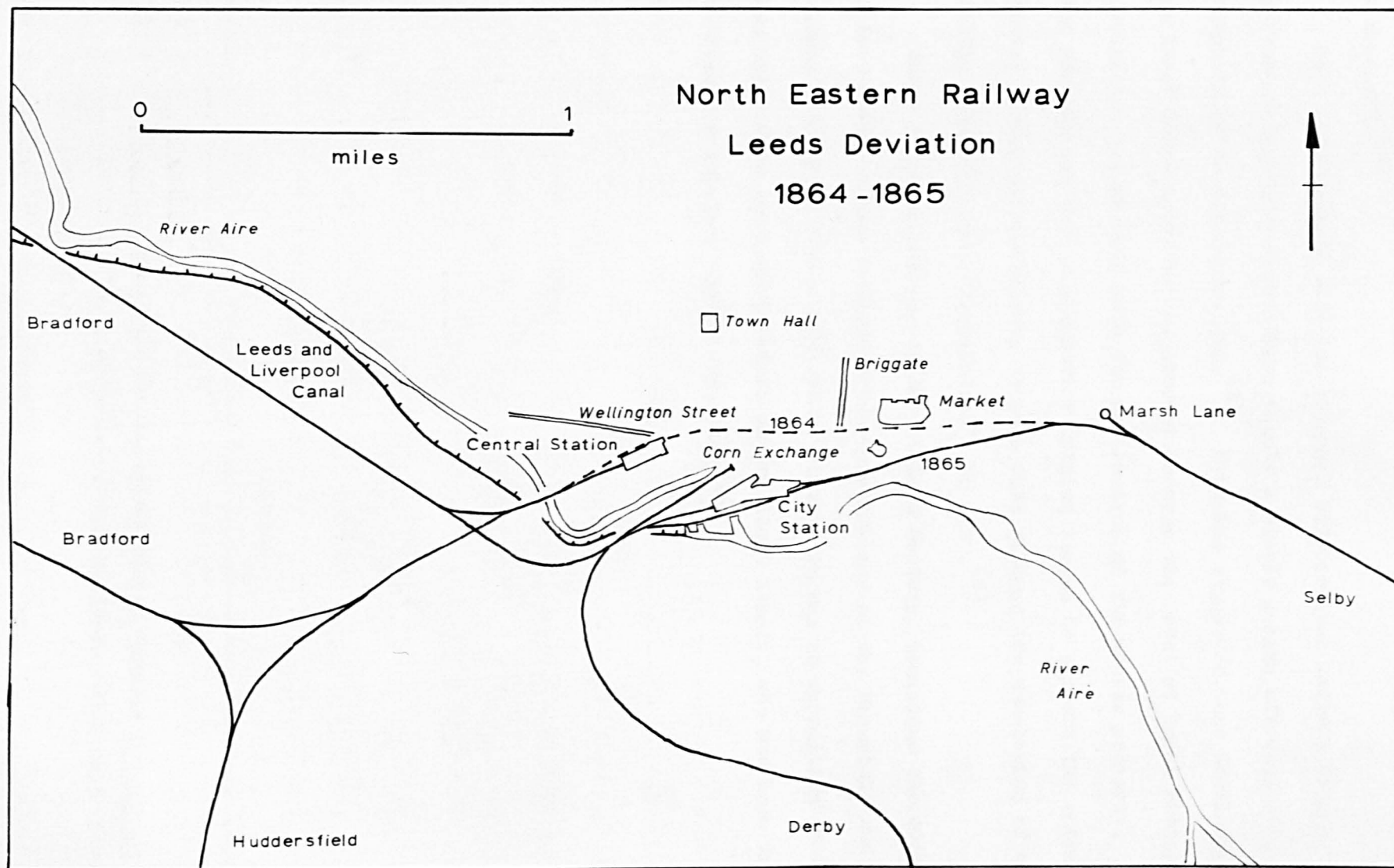
(2) HLRO Min. of Evid. HL 1865 vol.19 N.E. Rly 20 June p.12

(3) J.R. Kellett: (1969) op.cit. p.13 who suggested that this occurred in both Manchester and Birmingham

(4) *ibid.* pp.108-9

(5) *ibid.* p.322

Fig. 59



opposition. The pattern of landownership also tended to favour this manner of approach.⁽¹⁾

Lord Derby argued that the original Metropolitan Railway Bill of 1854 had been unopposed because there wasn't a single person affected with means enough to offer any opposition.⁽²⁾ Dyos has suggested that local opposition was least where property was poorest because the level of local rating liabilities was reduced with the destruction of the poorer property. He also pointed out that contemporary opinion tended to support the enforced removal of the slum-dwellers, because this allowed the demolition of unhealthy districts thus 'ventilating' the city.⁽³⁾

James Allport, manager of the Midland Railway, confirmed the opinion of Lord Derby in his discussion of the alignment of the Mansfield and Worksop Railway of 1865. He stated that there was no opposition to the line apart from some small owners in Mansfield itself, who had been unable to present a petition against the line.⁽⁴⁾

(1) *ibid.* pp.332-4

(2) H.J. Dyos; *Railways and Housing in Victorian London: Journal of Transport History* vol.2 no.1 (May 1955) pp.11-9, vol.2 no.2 (November 1955) pp.94-7, p.95

(3) H.J. Dyos: *loc.cit.* pp.95-7

(4) *HLRO Min. of Evid.* HC 1865 vol.45 Midland Rly 19 June p.202

CHAPTER NINE: 1870 - 1900

The 1870s saw a significant downturn in the fortunes of the English economy, both in industry and, more especially, agriculture,⁽¹⁾ and the latter decades of the nineteenth century saw the British economy begin to lose its dynamism and élan.⁽²⁾ This conservatism affected the major railway companies who tended to concentrate more on the improvement of their existing networks rather than undertaking new construction.⁽³⁾ By and large, the majority of the new route mileage of these years was built by small, and sometimes not so small, independent companies who were often able to lease or sell their line to an interested larger railway company. These smaller companies were usually, if not always, locally promoted and the landowners played a highly important role in the promotion of such lines.

These companies tended to fall into two major categories, those in rural areas, where the landowners promoted a railway to increase the efficiency of agricultural production from their estates, and those in the vicinity of the cities, the suburban lines, often promoted by smaller landowners who wished to develop their estates for speculative building purposes and who regarded the railway as a major prerequisite.⁽⁴⁾

The latter years of the nineteenth century also saw the first theoretical discussions of the factors that determine railway alignment. A.M. Wellington had published his *Economic Theory of the Location of Railways* in 1882 in the United States of America,⁽⁵⁾ whilst, in 1874,

(1) see above p.59

(2) E.J. Hobsbawm: op.cit. pp.172-94

(3) see above p. 49

(4) see above p. 50

(5) A.M. Wellington: op.cit., see above p. 10

Sir R. MacDonald Stephenson published 'The Science of Railway Construction' which referred, somewhat briefly, to the factors of alignment. He wrote '... the natural unevenness of the earth's surface renders the use of curves in railways absolutely necessary . . . to avoid various other natural and artificial obstructions . . . also towns, parks, pleasure grounds, etc.'⁽¹⁾ In 1898 W.H. Mills published 'Railway Construction' which discussed such influences in far greater detail and argued that:

in a rich country, with thickly populated districts and large industrial enterprises, there are towns to be served, manufacturing centres to be accommodated, and harbours to be brought into connection; while, at the same time, there may be important estates which must be avoided and private properties which must not be entered. Each point will present its own individual claim for consideration when selecting the route . . . ⁽²⁾

The influence of parks and estates as a negative factor was therefore considered worthy of stress as late as the last years of the century. The continued impact of the landowners was to be felt throughout these years but it was to be modified by their increased involvement in promotion, especially in rural England.

On the borders of western Berkshire and northern Hampshire the local landowners had revived a scheme for a line which ran southwards from Didcot via Newbury toward Southampton. This railway had originally been authorised in 1873, as a line from Didcot to Micheldever, and in 1879 the promoters submitted a bill to Parliament for its abandonment. The bill very nearly passed but in the early summer of 1879 the Earl of

(1) R. MacDonald Stephenson: The Science of Railway Construction; (1874) p.52

(2) W.H. Mills: Railway Construction: (1898) p.1

Carnarvon, and other landowners of the Newbury area, rescued the line and introduced a bill for the session of 1880 to construct the railway but this time saw it as no more than a local line to serve their immediate interests. The Bill passed quite easily.⁽¹⁾ In discussing the line Colonel R.J. Loyd Lindsay said that he had taken the agricultural value for his land and also £5,000 worth of shares in the company and concluded that the landowners of the district felt '... the greatest possible anxiety for the construction of the line'.⁽²⁾

The landowners tended to support less ambitious schemes that were of service to their locality as in Oxfordshire where the Woodstock branch of 1887, just three miles in length, was constructed '... mainly at the expense of the Duke of Marlborough'.⁽³⁾ In the Isle of Wight, the Freshwater Yarmouth and Newport Railway of 1880 had the strong support of the local inhabitants⁽⁴⁾ whilst in Devonshire, the Culm Valley line, authorised in 1876, the landowners and farmers professed strong support and were 'very eager' for the branch.⁽⁵⁾

The late 1890s saw the construction of many light railways in response to the Light Railways Act of 1896.⁽⁶⁾ Landowners often opposed the construction of such lines and the Light Railway Commissioners, the body who

- (1) T.B. Sands: The Didcot Newbury and Southampton Railway: Paper to Railway Club meeting 6 November 1953 p.1 also T.B. Sands: The Didcot Newbury and Southampton Railway: Railway Magazine (February 1955) p.75
- (2) HLRO Min. of Evid. HC 1880 vol.11 Didcot Newbury and Soton Rly 10 March pp.3-15
- (3) G.D. Parkes: The Woodstock Branch: Railway Magazine (August 1952) p.521
- (4) H.P. White: (1961) op.cit. p.149
- (5) D. St J. Thomas: Regional History of the Railways of Great Britain: vol.1 The West Country (1960) p.28, see also Railway Times 11 January 1873 p.30
- (6) J.S. Oxley: op.cit.

decided whether a line was to be built or not, argued that a light railway should never be built in the face of local opposition,⁽¹⁾ but where the scheme had landed support, usually because it was the landowners themselves who were promoting the line, the light railway was generally approved.⁽²⁾

The promotion of a small branch line was a common feature in late Victorian rural England and this process has been studied in some depth by C.L. Mowat.⁽³⁾ The history of the Golden Valley Railway clearly demonstrates the important contribution that the landowners made to the creation of such companies.

The initial proposal to construct a line through the valley came in a letter published in August 1875 appealing to the local landowners to take up the idea. This plea was answered by Sir Richard Green-Price whose estate lay in Radnorshire but whose family came from the Golden Valley, and he quickly organised the local landed support at a public meeting in September 1875. There was one opponent, also a landowner, who argued, from experience, that the roads would be damaged out of all proportion to any benefit gained. Despite this the mood of the meeting was strongly in favour of construction of the railway and the landowners pledged financial support and no opposition. The prospectus stressed the fact that it was a landowner's line and that the landowners were taking agricultural prices for their land, and also accepting quantities of shares.

The landowners expressed a wish to be brought into the nineteenth century by '... "the great civiliser of the human race"',⁽⁴⁾ and their rather touching faith is best illustrated by the prospectus, with its expectation of financial success in an area of minimal potential. There

(1) *ibid.* pps. 54, 56, 66, 24, 104

(2) *ibid.* pps. 60, 97, 98, 100

(3) C.L. Mowat: *op.cit.* pp.7-16

(4) *ibid.* p.10

were many such lines built during these years. With agriculture badly hit by the depression the advent of a railway into a previously isolated area was regarded as a saviour of the local economy, with its 'improvement of the value of estates'.

A line of a slightly different origins but of similar general features was that which ran from Swindon southwards via Marlborough toward Southampton, initially proposed by an engineer named Sewell in 1871. In the May of 1872 it was adopted by a group of nine landowners, of the Marlborough district, led by Lord Ernest Bruce. 'Unfortunately, from the very first, the route was not discussed on engineering merits but where the landowners wanted it built'.⁽¹⁾ Financial difficulties caused the line's construction to be delayed, after its authorisation in 1873, and in 1879 a further Act was gained abandoning a section of the original alignment and deviating much of the remainder in an effort to lessen constructional costs.⁽²⁾ However these amendments damaged a farm of the Marquess of Ailesbury, who insisted that the railway company should reconstruct those farm buildings that would be damaged, in a new location, away from the revised alignment. The promoters decided that a further realignment would prove cheaper and an Act was gained in 1881.⁽³⁾

This railway therefore incorporated many of the characteristics of the period in that it was supported by the local landowners and also aligned to their wishes. In attempting to realise their requests the potential constructional costs proved prohibitive which resulted in a revised, and much less ambitious, scheme being built some years later.

To the north of Swindon the local landowners exerted a similar impact upon the alignment of the Swindon and Cheltenham Extension Railway of

(1) C. Maggs: op.cit. p.18

(2) ibid. p.23

(3) ibid. pp.24-6

1881. (Fig.60) The witnesses who appeared before the House of Commons Select Committee in favour of the line were all major landowners of the area. The Earl of Bathurst pledged his strong support for the line, which ran through two and one half miles of his estate.⁽¹⁾ The agent for Sir J. Goldsmidt of Rencombe, said that his employer had just paid between £300,000 and £350,000 for the estate and felt that the railway would add a great deal of value to the land despite the depression in the land market. He further agreed that '... the line was laid out specially so that it should not affect the residential character of the property'.⁽²⁾

The agent for Lord Eldon spoke of his employer's warm support for the line, which passed through two miles of his property, and stressed the consideration the promoters of the company had given to his employer's wishes:

Q. Has the line been laid out in deference to his Lordship's wishes so as to avoid the Coln valley?

A. . . . the line does not go very close to the Coln valley.

He has great objection to any line that would go down the Coln valley itself.

Q. The line is laid out, as I understand you, in the best way to accommodate his Lordship?

A. It is.⁽³⁾

The engineer, Mr. Shopland, explained the difficulties in selecting an alignment that was to the satisfaction of the interested landowners⁽⁴⁾

- (1) HLRO Min. of Evid. HC 1881 vol.54 Swindon and Cheltenham Extension Rly 7 March pp.6-7 see also C. Maggs: op.cit. pp.32-3
- (2) HLRO Min. of Evid. HC 1881 vol.54 S. & C.E.Rly 7 March p.113
- (3) *ibid.* p.116
- (4) *idem* 9 March pp.45-109

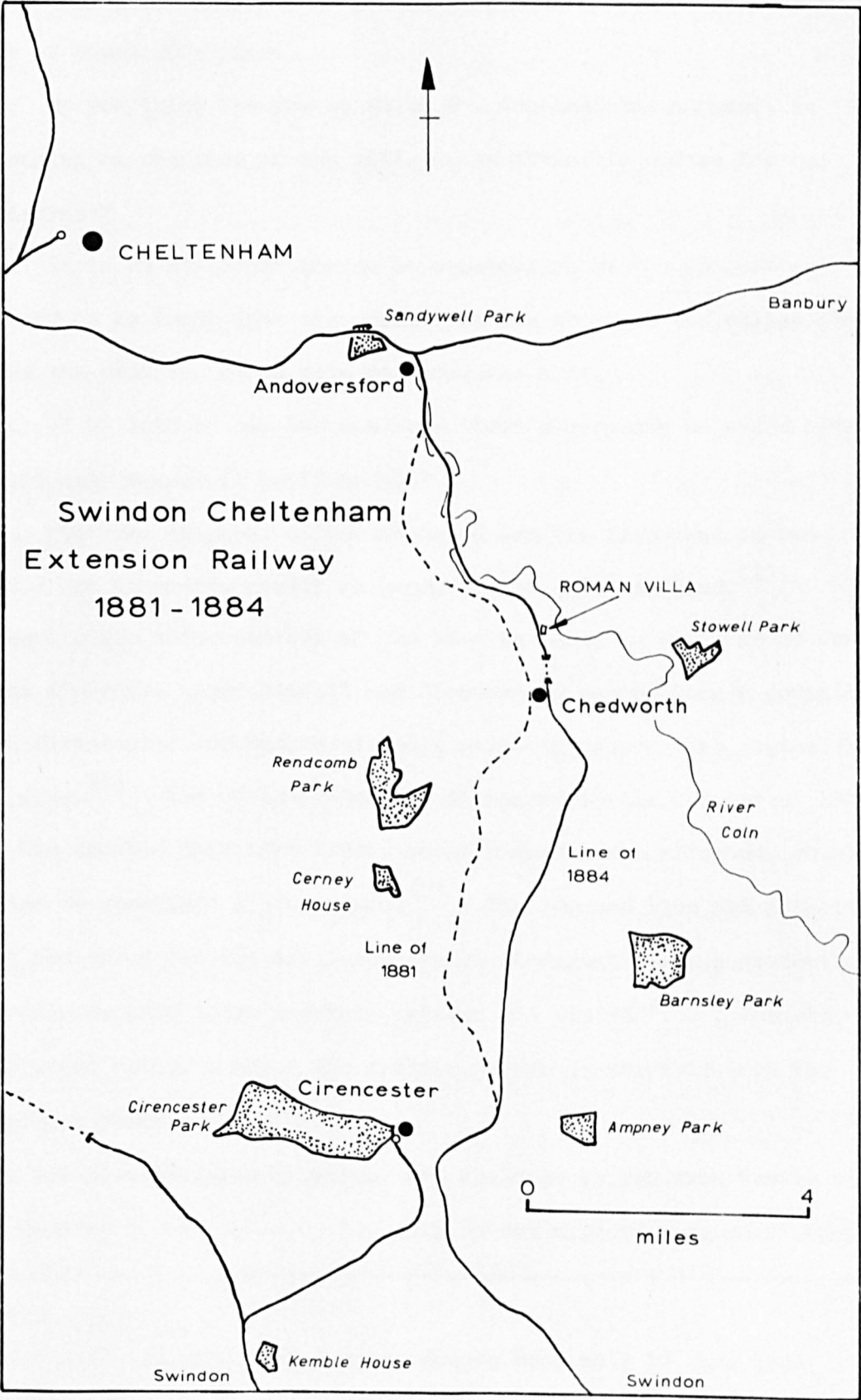


Fig. 60

and C. Liddell, the engineer to the Midland Railway company, spoke in support of Shopland's line:

Q. Do you think the course which Mr. Shopland has pursued, in keeping on the side of the hill, is an advisable course for the district?

A. It is an advisable course in consequence of the properties. There is no doubt that the opposition was great to the valley line and the best course to take was over the hill.

Q. If he laid it out through Lord Eldon's property he would have seriously injured it would he not?

A. That was the very matter objected and the line that he has laid out is pretty nearly as good, if not quite as good.⁽¹⁾

Despite the authorisation of the line in 1881, as early as 27 June 1882 the directors asked Liddell and Shopland to reconnoitre a deviation between Cirencester and Andoversford in order to improve the engineering of the line.⁽²⁾ The revised line was discussed in the October of 1882 and it was decided that Lord Eldon, whose property was affected, should be consulted to ascertain his opinions.⁽³⁾ The amended line was authorised in 1884 and the deviation act incorporated stringent clauses protecting a Roman villa on Lord Eldon's estate, clause one stated '... the object at such point being to place the railway as far as possible from the remains of a Roman villa'.⁽⁴⁾

In the East Midlands a railway was promoted to run from Newark via Melton Mowbray to Leicester. Its origins and history were more complex

(1) *ibid.* p.111

(2) Director's Minutes S. & C.E.Rly Minute Book no.1 27 June 1882 p.29a

(3) *idem* 17 October p.47

(4) Local and Personal Act 47-48 Vict cap LXVIII R.A. 23 June 1884

than those purely rural lines discussed above.⁽¹⁾ Despite this increased complexity the basic influence of the landowner can be seen quite clearly both in the promotion of the line and in the opposition to it.⁽²⁾

The idea of a railway through the Vale of Belvoir had long been considered by various groups of railway promoters and during the 1860s a number of schemes had been floated. The Steward of the Duke of Rutland had suggested that a line running north-south through the Vale should be constructed but this, and all the other schemes, had met with the Duke's disapproval and nothing had come of them.⁽³⁾ The Duke of Rutland owned some 33,000 acres of the Vale of Belvoir, an area of land 17 miles long by 6 miles wide, and thus it is clear that without his approval it was virtually, if not totally, impossible for any line to be authorised by Parliament.⁽⁴⁾

In 1870 the Duke's attitude toward railway construction changed quite radically with the discovery of considerable deposits of iron ore on his land at Waltham.⁽⁵⁾ He therefore wrote to the Great Northern Railway asking them to build a railway to serve the Waltham area and said that his '... scruples as to a railway from Melton to Grantham have been removed by the consideration that it would be beneficial to the district'.⁽⁶⁾ The railway company replied in a very curt manner and informed the Duke that no railway was possible but an interview could be arranged if the

(1) C. Grinling: op.cit. pp.265-8, 281-2, 289-92, 298, see also J. Simmons (1955) loc.cit. pp.123, 126

(2) Simmons has referred to it as one of the last great battles between the landowners and the railway promoters.

(3) HLRO Min. of Evid. HC 1872 vol.50 Newark Melton and Leicester Rly 10 June pp.133-5

(4) *ibid.* p.130

(5) C. Grinling: op.cit. p.268

(6) HLRO Min. of Evid. HC 1872 vol.50 N.M. & L.Rly 10 June pp.136-7 letter of 14 February 1871

Duke wished it.⁽¹⁾ This would appear to be a further example of this company's poor public relations. The railway's rather offhand manner is worth bearing in mind in the discussion of the landed opposition to this railway.⁽²⁾

The Duke then contacted the Midland Railway company who offered a scheme which he felt would prove totally inadequate for his requirements.⁽³⁾ In October 1871 he was approached by a Mr. Firth who proposed to create an independent company which would construct a railway from Newark via Melton to Leicester and would then offer it to the Great Northern Railway company.⁽⁴⁾ The engineers of this line were interviewed by the Duke who laid out the route of the railway himself.⁽⁵⁾ Because of their consideration the Duke decided to support this scheme in preference to the Midland Railway's proposals, to which he registered strong opposition.⁽⁶⁾

The line came before Parliament in 1872 and this section of the line, between Newark and Melton Mowbray, through the Vale of Belvoir, passed with little difficulty. The importance of the influence of the Duke of Rutland cannot be underestimated. His prejudice against all railways had prevented a large area of land from being served by a railway. When he had decided that a railway was desirable, the line was aligned in the direction he wished it to run.

To the south of Melton Mowbray, however, the railway company found that its proposed alignment in the vicinity of Scraptoft was bitterly

(1) *ibid.* p.138

(2) see below p. 316

(3) *ibid.* pp.151-3

(4) C. Grinling: *op.cit.* pp.266-7

(5) HLRO Min. of Evid. HC 1872 vol.50 N.M. & L.Rly 10 June p.157

(6) *ibid.* p.155 (in a letter of 8 November 1871 to the Midland Rly his Grace had said that he did not feel that their proposals were '... the kind of accommodation the district requires and as such His Grace could not support it' *ibid.* p.154)

opposed by a landowner and his tenant. It was originally intended that the railway should run to the north of the village, some 350 yards to the north of Scraftoft Hall. The property was owned by a Mr. Hartopp and let to a Mr. Barclay MP.⁽¹⁾ It was argued that (a) the line crossed the whole estate (the railway passed through some 3 miles of Mr. Hartopp's land) (b) that the railway would sever the House from the farms and that (c) this severance was exacerbated by the fact that the line would either be in a cutting or on an embankment, and to the immediate north of the House the line was to run in a cutting some 52 feet deep.⁽²⁾ The line was sanctioned by the House of Commons Committee but in the House of Lords the opposition case was strengthened and that section of line between Melton and Leicester was rejected.⁽³⁾ (Fig.61)

A great deal of discussion ensued as a result of the decision by the Lords committee. A meeting in Leicester strongly censured the House of Lords for its action⁽⁴⁾ and the chairman of the Great Northern Railway company, Mr. Denison, was quoted ' "there is no kind of public case against this line and as far as the two landowner's cases, I am afraid I must offend them again by laughing at them. I can only call them ridiculous"'.⁽⁵⁾

Grinling believed that the reason for the opposition was based solely on the grounds of disturbance to the hunting country of East Leicestershire⁽⁶⁾ as does Simmons.⁽⁷⁾ The evidence before the Select Committee on this point

(1) *idem* 12 June pp.155-61

(2) *ibid.* p.185

(3) HLRO Min. of Evid. HL 1872 vol.16 N.M. & L.Rly. 17 July p.188

(4) J. Simmons (1955) *loc.cit.* p.123

(5) C. Grinling: *op.cit.* p.275

(6) *ibid.* p.275

(7) J. Simmons (1955) *loc.cit.* p.123, there is also evidence to suggest that the Midland Railway had a hand in the opposition of Hartopp see Herapath 17 August 1872 p.882, 24 August 1872 p.907

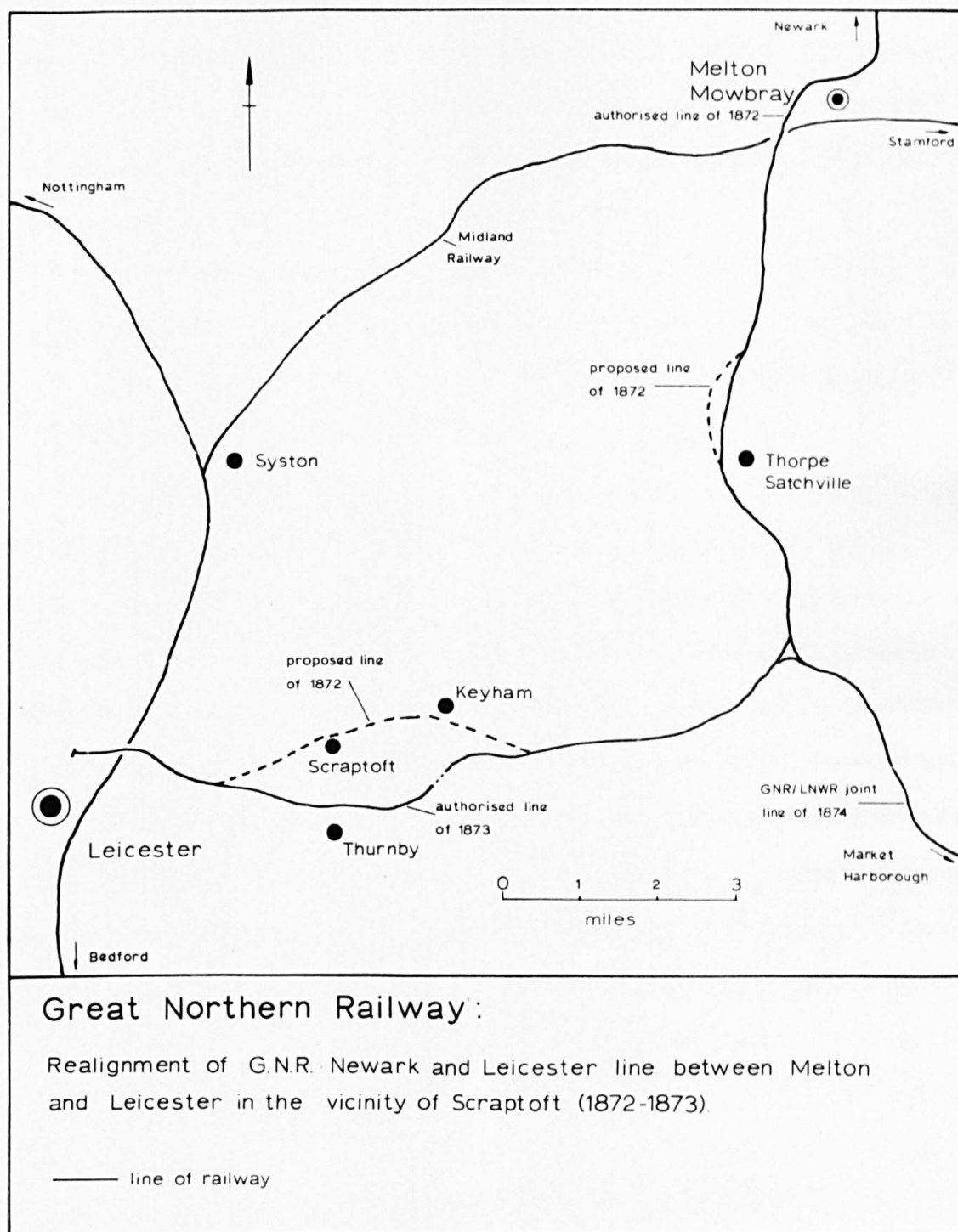


Fig. 61

is inconclusive. Barclay agreed that the hunting had taken him to East Leicestershire in the first place but then argued that he had settled in the county some 25 years earlier and that Scraptoft was now his home.⁽¹⁾ He said that he found it convenient as a hunting lodge and a country residence.⁽²⁾ In the House of Lords he made an equivocal statement which can scarcely be construed as conclusive:

Barclay: . . . if the Quorn country was destroyed I might go and hunt somewhere else.

Q. Do you think that this present line will destroy the Quorn Country?

Barclay: Partly.⁽³⁾

Despite the fact that the historian of the Quorn Hunt felt that ' . . . the new line from Market Harborough to Melton cut a fearful gash across the best country . . .',⁽⁴⁾ i.e. along the edge of the Friday country, he went on to suggest that initially the huntsmen had opposed the coming of the railway, back in the 1830s and 1840s based on the ' . . . first and natural fear - that trains would scare the foxes out of the country and railway lines make runs impossible - [but this] was very soon disproved by experience',⁽⁵⁾ and felt that the hunting opposition was based more on the fear of the disbenefits of increased accessibility provided by the railways.⁽⁶⁾

The landowner and his tenant made a far stronger case for residential damage that would be caused by the railway. Huskisson, a land agent, said

(1) HLRO Min. of Evid. HC 1872 vol.50 N.M. & L.Rly. 12 June p.175

(2) ibid. p.168

(3) HLRO Min. of Evid. HL 1872 vol.16 N.M. & L.Rly. 17 July p.119

(4) C.D.B. Ellis: op.cit. p.94

(5) ibid. p.94

(6) see also HLRO Min. of Evid. HC 1873 vol.18 N.M. & L.Rly. 27 March p.248

that '... the intersection of the railway would be an extreme injury to the property and disastrous in a high degree'.⁽¹⁾ In the House of Lords Huskisson further argued that the damage to the estate and house could only be justified by '... imperative public necessity'.⁽²⁾ This might be considered a rather traditional argument, but taken in the context of the railway company's rather arrogant attitude it carried a good deal more weight.

The promoters felt that the case warranted no more than compensation and that the problem could be easily settled.⁽³⁾ The deputy engineer to the railway company, Fraser, stated

At Scraftoft Hall I learned that he (Mr. Hartopp) was not a resident and never resided there and that it has been let to tenants, therefore it could not be so important to him - I kept the line off at a reasonable distance.⁽⁴⁾

The chief engineer, Mr. Fowler, made one of the more significant statements of the hearing when he argued:

There can be no public justification in order to take it away from Mr. Hartopp's land that you should carry the public for three quarters of a mile of greater distance and then explained that he had met similar 'difficulties' with the alignment of the Mansfield and Worksop Railway in 1859.⁽⁵⁾

I felt obliged to tell the Duke of Newcastle . . . I would prefer going into Parliament with a line which would be three-quarters of a mile shorter with his Grace's opposition than

(1) HLRO Min. of Evid. HC 1872 vol.50 N.M. & L.Rly. 12 June p.185

(2) HLRO Min. of Evid. HL 1872 vol.16 N.M. & L.Rly. 17 July p.67

(3) *idem* 13 July p.59

(4) HLRO Min. of Evid. HC 1872 vol.50 N.M. & L.Rly. 11 June p.216

(5) see above p. 279

with a line three-quarters of a mile longer with his Grace's support. That was when what may be called landowner's cases were considered more important and the companies made greater public sacrifices to avoid landowner's opposition than we do in these days.⁽¹⁾

Fowler then concluded by saying that the railway company could not afford to alter the line to avoid such a small property.⁽²⁾

The attitude of both engineers toward the landowner's case fell between the grudging and the uncompromising and the attitude of the Great Northern Railway company itself toward the Duke of Rutland and Mr. Hartopp was one of unfriendliness and unwillingness to consider the landed point of view. It is of some significance that in this 'conflict' both landowners won considerable victories, the Duke of Rutland gained a line that was to his satisfaction and Mr. Hartopp forced the railway company to return to Parliament in 1873 with a line that was deviated some distance from his property '... almost entirely for the purpose of avoiding the opposition of landowners'.⁽³⁾

The railway company learnt their lesson extremely quickly and when Fraser discussed the alignment of the proposed branch from the Melton to Leicester line, that ran south-westwards down to Market Harborough he conceded that all the landowners on the proposed route had been consulted with and their wishes had been respected.⁽⁴⁾ He further agreed that not one landowner had petitioned against the line.⁽⁵⁾ Both the amended line from Melton and the branch to Market Harborough were authorised in 1873.

(1) HLRO Min. of Evid. HL 1872 vol.16 N.M. & L.Rly. 15 July pp.239-42

(2) *ibid.* p.242

(3) HLRO Min. of Evid. HC 1873 vol.19 N.M. & L.Rly. 31 March p.222

(4) *idem* vol.18 28 March p.199

(5) *ibid.* p.261

In the West Riding of Yorkshire similar modifications were made in the alignment of a railway to meet the wishes of a landowner. The proposed Leeds and Yeadon District Railway of 1881, which was intended to leave the Leeds to Harrogate main line between Headingley and Horsforth stations, was to run westwards to Yeadon and rejoin the Midland Railway at Guiseley. This route was '... later altered to avoid Horsforth Hall as desired by Mr. Stanhope'.⁽¹⁾ The scheme in fact came to nothing and a small branch was authorised to run from Guiseley to Yeadon in 1885.⁽²⁾

Concerted opposition on the part of the landowners was often extremely effective during these decades as many of the proposed rural railways were of doubtful financial viability. In rural districts potential traffic was light and if there was strong opposition on the part of the local inhabitants, who were, essentially, the sole recipients of any possible benefit, schemes usually stood little chance of Parliamentary approval. The North Eastern Railway promoted a line to run from Scorton, on their Richmond branch, to Spennithorne, on their Bedale branch, in 1883.⁽³⁾ (Fig.62) It has been suggested that the railway was to be no more than a 'block line'⁽⁴⁾ and was thus not locally promoted. The landowners strongly opposed the idea of a line and at a meeting, held on 26 July 1883 at York, the railway company explained to its shareholders that as a result of the opposition they had discussed the whole concept with the local landowners and had subsequently decided to withdraw the bill.⁽⁵⁾

In 1898 a line was promoted to run from Dorking southwards via Leith

(1) P.E. Baughan: op.cit. pp.146-7

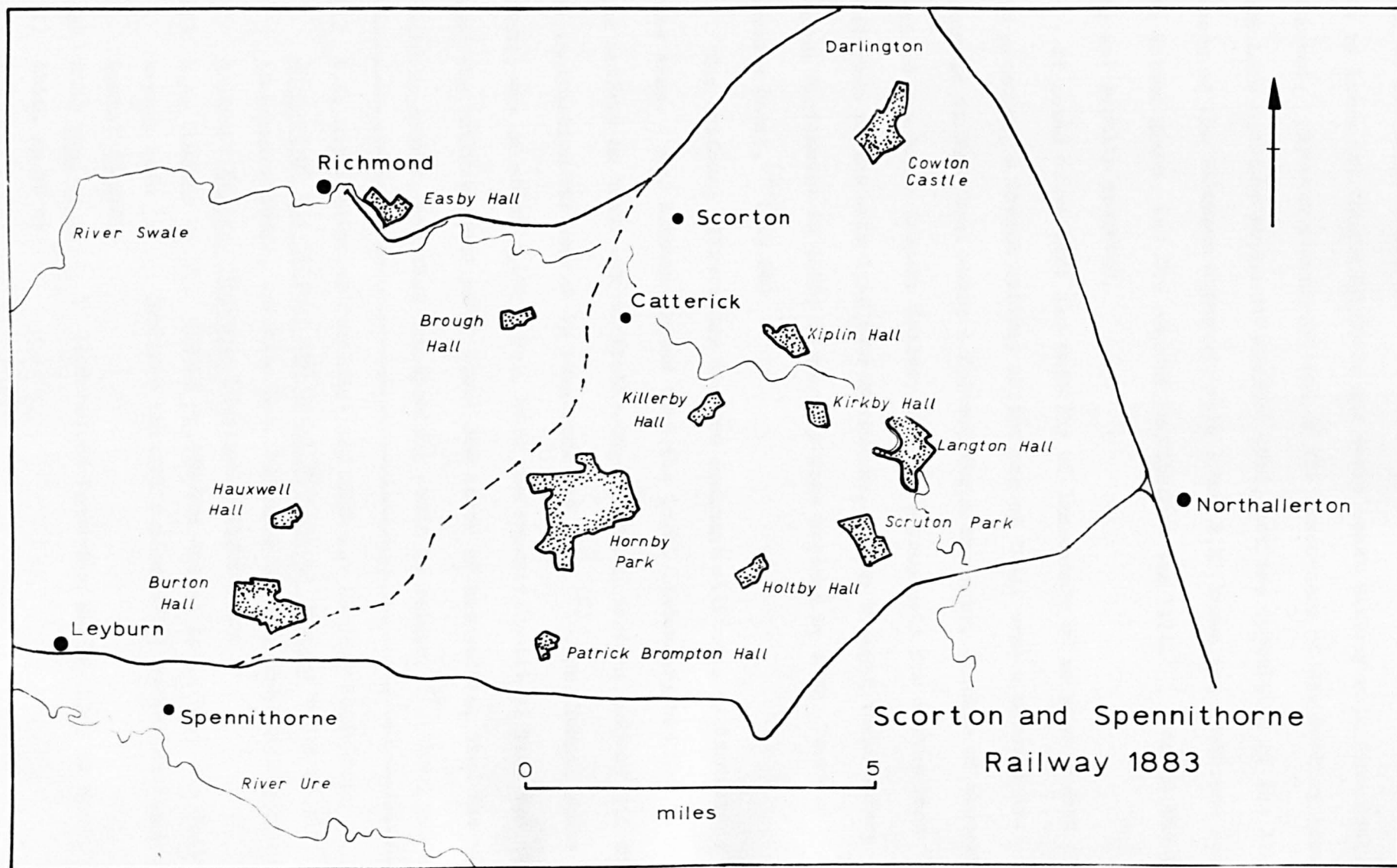
(2) HLRO Min. of Evid. HC 1885 vol.10 Guiseley Yeadon and Rawdon Rly. 14 April pp.53-4

(3) W.W. Tomlinson: op.cit. p.690

(4) P.E. Baughan: op.cit. p.172

(5) Herapath 4 August 1883 p.936

Fig. 62



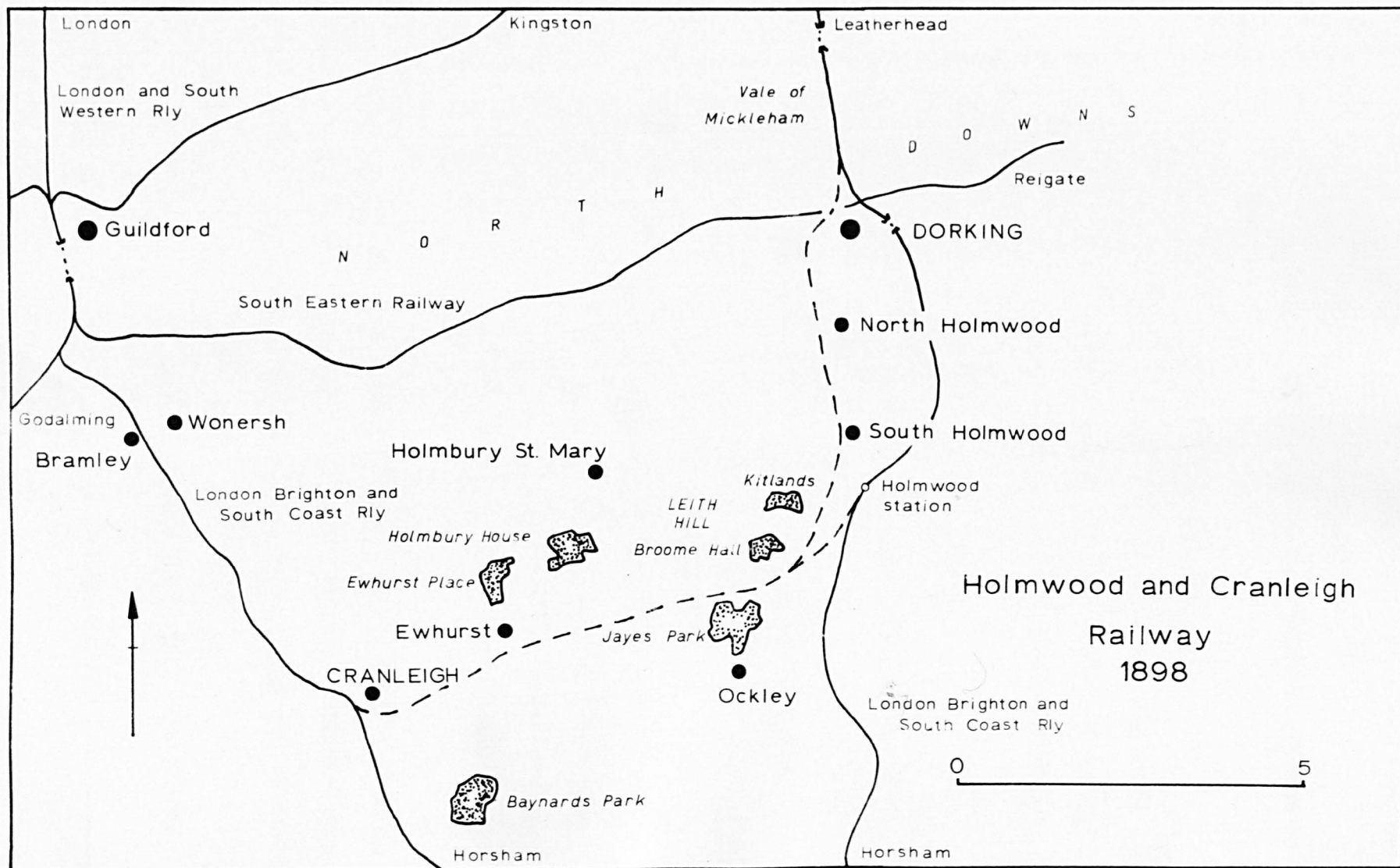
Hill to Cranleigh (Fig.63); an alternative line was also suggested that was to leave the London Brighton and South Coast Railway main line near Holmwood. However the opposition of the landowners of the Dorking area, with Lord Ashcombe prominent amongst them, and the opposition of the landowners of the Holmwood district, with a Mr. A.H. Brown the spokesman for the latter group, led the company to withdraw the bill.⁽¹⁾ Again the line was not locally promoted.

It could arise that the majority of landowners of an area wished for, and promoted, a branch railway whilst one of their number opposed it. This occurred in West Kent where a Colonel Warde and a Mr. Kitchen of Westerham revived the South Eastern Railway company's proposals for a line from Westerham to the main line near Sevenoaks. They brought their scheme before Parliament in 1876, where they were opposed by a Mr. Tonge of Morants Court.⁽²⁾ (Fig.64)

The evidence illustrates the two dominant attitudes of landowners at this time. Mr. Kitchen argued that the local landowners had had to promote the railway on their own initiative as the South Eastern company had showed no inclination whatsoever to construct the line.⁽³⁾ Mr. Tonge, whose estate was of about 1,000 acres, took the opposite point of view and argued that the railway would sever about 100 acres of his estate, that the view would be spoilt, and that his shooting would be ruined.⁽⁴⁾ Much was made

- (1) H.W. Hart: Holmwood Cranleigh and Midhurst Railway 1884-1905: Journal of the Railway and Canal Historical Society vol.8 no.5 (September 1962), see also H.A. Vallance Horsham and Guildford Direct Railway: Railway Magazine (September 1950) p.587
- (2) E.A. Course: op.cit. (1958) pp.368-70: Course feels that the whole branch line '... had been carefully planned to avoid gentlemen's seats' (p.370)
- (3) HLRO Min. of Evid. HC 1876 vol.42 Westerham Valley Rly. 22 March pp.2-22
- (4) ibid. pp.88-98

Fig. 63



of this latter point and the railway company eventually presented evidence to the effect that pheasants quite liked railways.⁽¹⁾

However Mr. Tonge argued out a basic point concerning damage to his estate:

Q. What harm do you apprehend from this line?

Tonge: I apprehend this harm that as it is I have now every accommodation that I want - I am within three miles of a first class express station and within one mile of a slow station - a man cannot have much better than that.

Q. But what harm would this railway do you?

Tonge: Simply because it severs my estate right in two

Q. What other harm will it do you?

Tonge: It is a small property and I do not see what money will compensate me for a place that I like.⁽²⁾

The argument then reached a rather dramatic conclusion:

Q. Do you mean to represent that to see trains pass upon a railway at a distance of 1,000 yards is a serious residential damage which ought to prevent the people of Westerham having the accommodation that they want, you being a neighbour of theirs?

Tonge: Looking at it in that light, or rather looking at it in the light that it is placed before me, I say every man for himself.

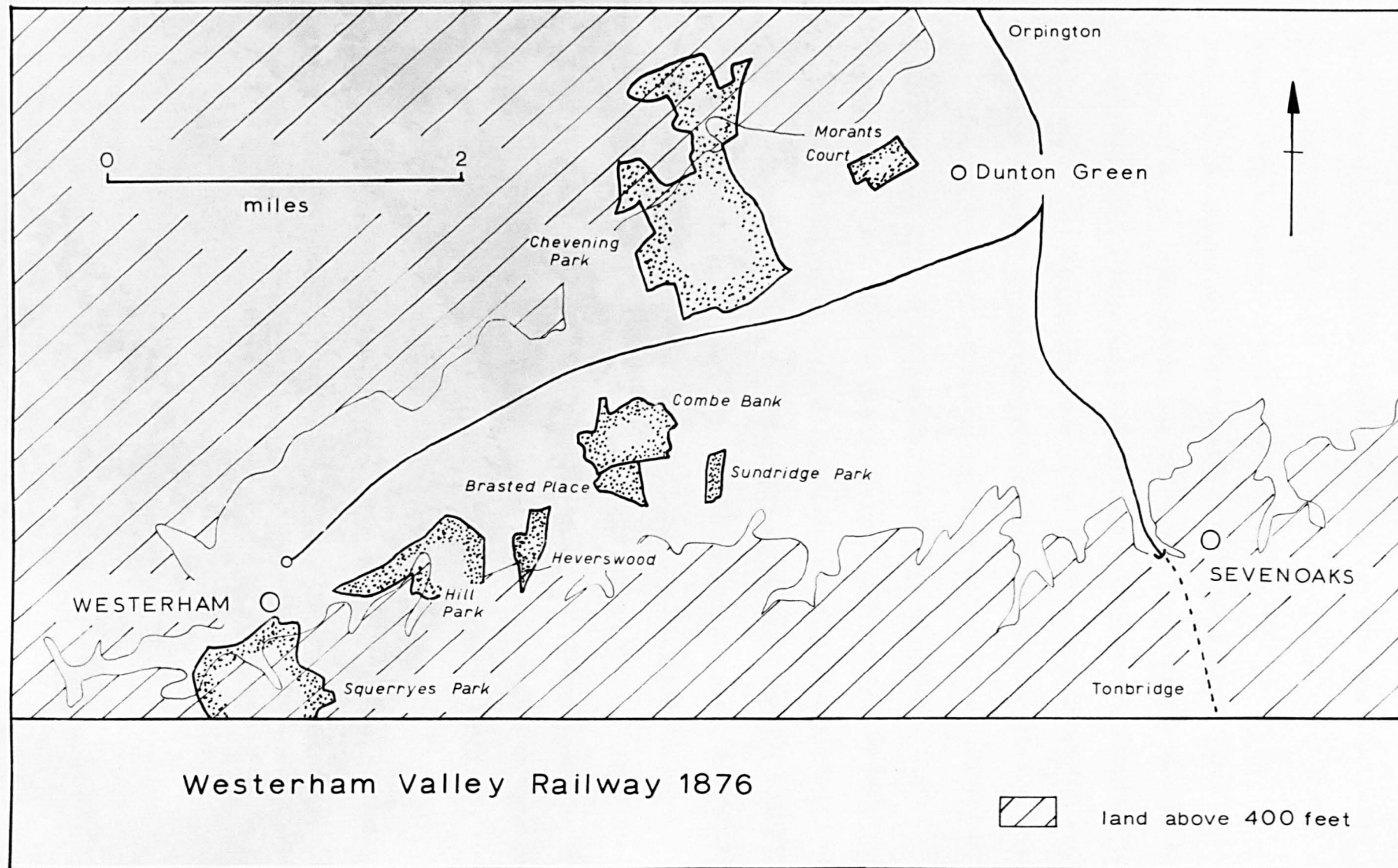
Q. This is not quite every man for himself, it is what should be done for your neighbours.

Tonge: I beg your pardon, I want to protect my estate for my children after me.

(1) *ibid.* pp.33-6, 44-5

(2) *ibid.* pp.100-1

Fig. 64



Q. Do you really seriously think that is a reason why Westerham should not have a railway, that if it has you will see the trains pass 1,000 yards off?

Tonge: Yes, I think it is a great objection.⁽¹⁾

The line was authorised the Committee not even granting Tonge protective clauses. The railway was to be just four and one-half miles long, one group of landowners felt that their estates would benefit from its construction, another disagreed. Thus the idea that an estate would be irreparably damaged by the construction of a railway was felt by the landowner concerned to be as valid an argument as it had been 50 years earlier, and was put forward as equally valid 20 years later.

Opposition was not limited to rural areas, nor was the landed promotion of railway companies. Perhaps one of the most significant phenomena of the latter years of the nineteenth century was the rapid growth in the number of railways constructed in the immediate vicinity of the larger cities, the suburban railways built to serve that expanding sector of society, the commuter. Perkin has argued that although the development of suburban railways began, somewhat tentatively, in the 1860s in the vicinity of London,⁽²⁾ in the provinces it would seem to have begun in the following decade⁽³⁾ and it has been argued that by the 1860s '... suburban railways could be regarded as sound propositions'.⁽⁴⁾

The landowners played an important part in the promotion of such railways. Perkin discussed their significance in the context of suburban

(1) *ibid.* pp.104-6

(2) H. Perkin: (1970) *op.cit.* pp.245-51

(3) *ibid.* pp.242-5 cf. Birmingham and Manchester, see also J.A. Patmore (1964) *loc.cit.* p.241

(4) H.J. Dyos: Victorian Suburb (1966) p.70, see also J.R. Kellest: (1969) *op.cit.* pp.354-83

development as a whole, in that the social character of a proposed suburb was determined largely by the landowners who also decided upon the number of houses per acre, and ultimately, if the area should be developed at all.⁽¹⁾

Kellett has substantiated this argument, and stressed the importance of the support of the landowners for the suburban railways.⁽²⁾

The Watford and Edgware Railway was promoted during the 1880s as '... a speculative scheme brewed up by hopeful landowners or contractors in the expectation of interesting either the Great Northern Railway or the Midland'.⁽³⁾ An Act for the line was eventually gained in 1897 but the powers lapsed and it was the landowners who once more promoted the line in 1902. The Hounslow and Metropolitan Railway of 1880 was promoted by landowners '... bent on increasing property values'.⁽⁴⁾ The Harrow and Stanmore Railway, authorised in 1886, was also promoted by a local landowner, Mr. F. Gordon, who subscribed 90% of the capital.⁽⁵⁾ The Wimbledon and Sutton Railway of 1910 was promoted by a syndicate of both land and property owners, who wished to increase the value of land and price of property in that locality.⁽⁶⁾

The Harrow Ealing and Willesden Railway came before Parliament in 1887. It was intended to run from South Harrow via Alperton to join the L. & N.W. Rly. at Willesden. The reason for the promotion of the line was explained simply as to develop an area of land for suburban housing⁽⁷⁾

(1) H. Perkin: (1970) op.cit. p.261

(2) J.R. Kellett: (1969) op.cit. pp.400-3

(3) A.A. Jackson 'Beyond Edgware' Railway Magazine (February 1967) p.64

(4) H.P. White: (1963) op.cit. p.133

(5) K. Jeffrey and D.N. Ratcliff: The Harrow and Stanmore Railway: Railway Magazine (February 1953) pp.91-4

(6) A.A. Jackson. The Wimbledon and Sutton Railway Railway Magazine (December 1966) pp.675-80

(7) HLRO Min. of Evid. HC 1887 vol.19 Harrow Ealing and Willesden Rly. 23 March p.4

and that the failure to sell the existing land and property was a direct result of the lack of railway accommodation.⁽¹⁾ The scheme had three main promoters, one of whom was a Mr. Horne, who was also chairman of a property development company which owned 130 acres of land on the southern slope of Harrow Hill.⁽²⁾ The railway engineer agreed that he had laid out the line to maximise the benefit to any property development in the area.⁽³⁾

In south London a railway was promoted to run from Nunhead via Catford to Shortlands and came before Parliament in 1889. (Fig.65) Again it was made plain that the landowners were promoting the line to develop their estates for housing⁽⁴⁾ and, consequently, the impact they had had on the alignment was considerable. A line had come before Parliament in 1884, promoted by the London Chatham and Dover Railway, which had been rejected, largely as a result of the opposition of the landowners whose estates, it was argued, would have been badly damaged.⁽⁵⁾ The line was revived in 1888 as an independent company, promoted by the landowners to serve their own purposes.

Q. One advantage of the promotion of the line is the way it has been promoted here, as compared with the line of 1884, in that the landowners can, . . . determine what is the course which the line should take in order to do the least injury to them (sic)?

A. Yes,⁽⁶⁾

(1) *ibid.* pp.45, 86-7, 163

(2) *ibid.* pp.1-4

(3) *ibid.* pp.220-30

(4) HLRO Min. of Evid. HC 1889 vol.26 Shortlands and Nunhead Rly. 14 May pp.44, 213-6

(5) *idem* 15 May pp.115-20, 310

(6) *ibid.* pp.129-30

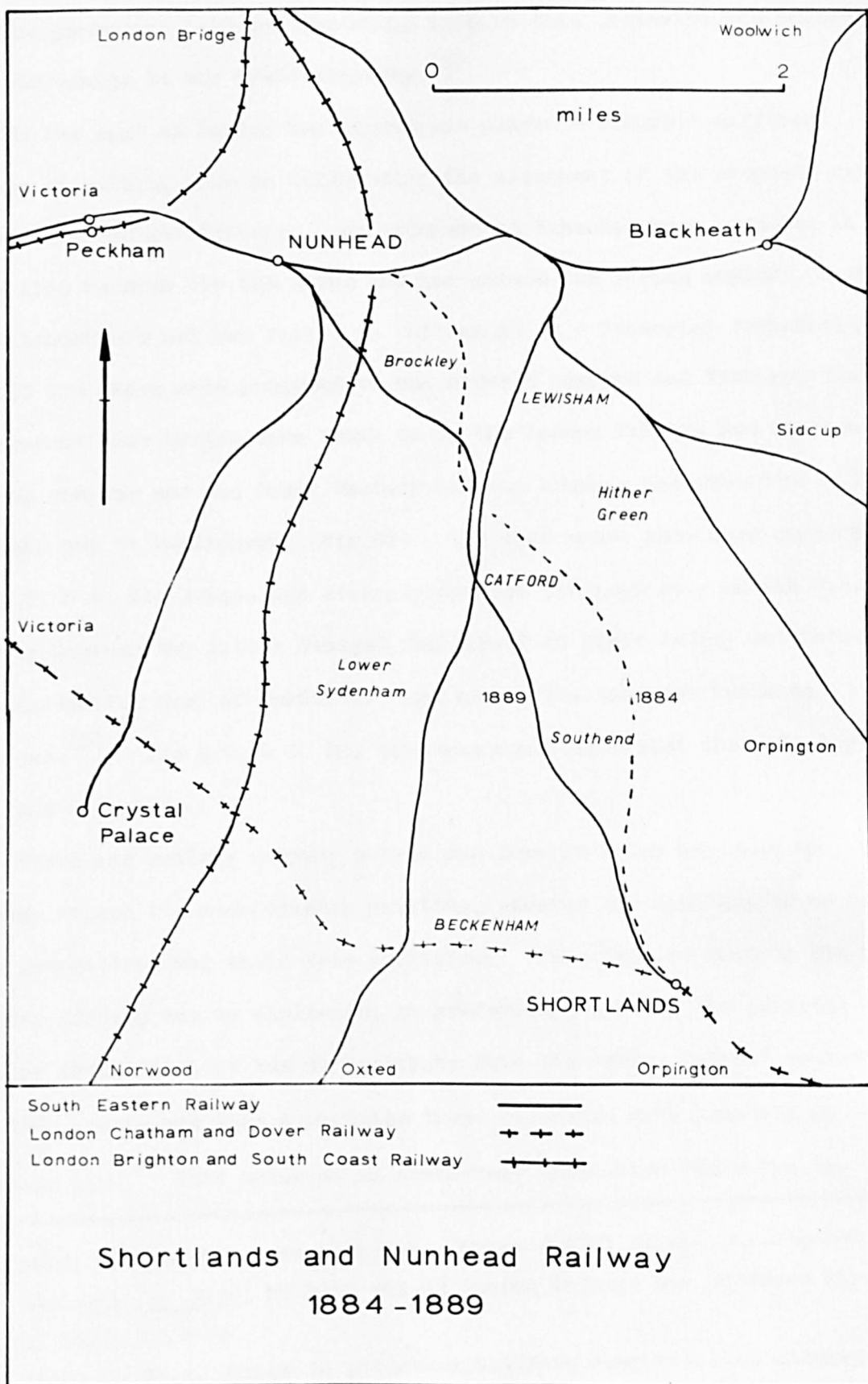


Fig. 65

The promoters laid out the whole line on this criterion and managed to avoid damage to any house property.⁽¹⁾

To the east of London the landowners played a somewhat different, but no less effective, role in influencing the alignment of the proposed railway between Romford and Tilbury. An independent line had been promoted in 1882 for a line between the two towns and had gained the strong support of the local landowners but had failed in Parliament on a financial technicality.⁽²⁾ In 1883 two lines were proposed to run between Romford and Tilbury, the independent line having been taken up by the London Tilbury and Southend Railway company and the Great Eastern Railway company had submitted a line of their own to Parliament. (Fig.66) The landowners once more supported the L.T. & S. Rly scheme and strongly opposed the proposals of the G.E. Rly, largely because the latter damaged the layout of their farms, cut through the residential area of Upminster, and spoilt the land for building purposes.⁽³⁾ The L.T. & S. Rly bill was accepted whilst the G.E. Rly's bill was rejected.

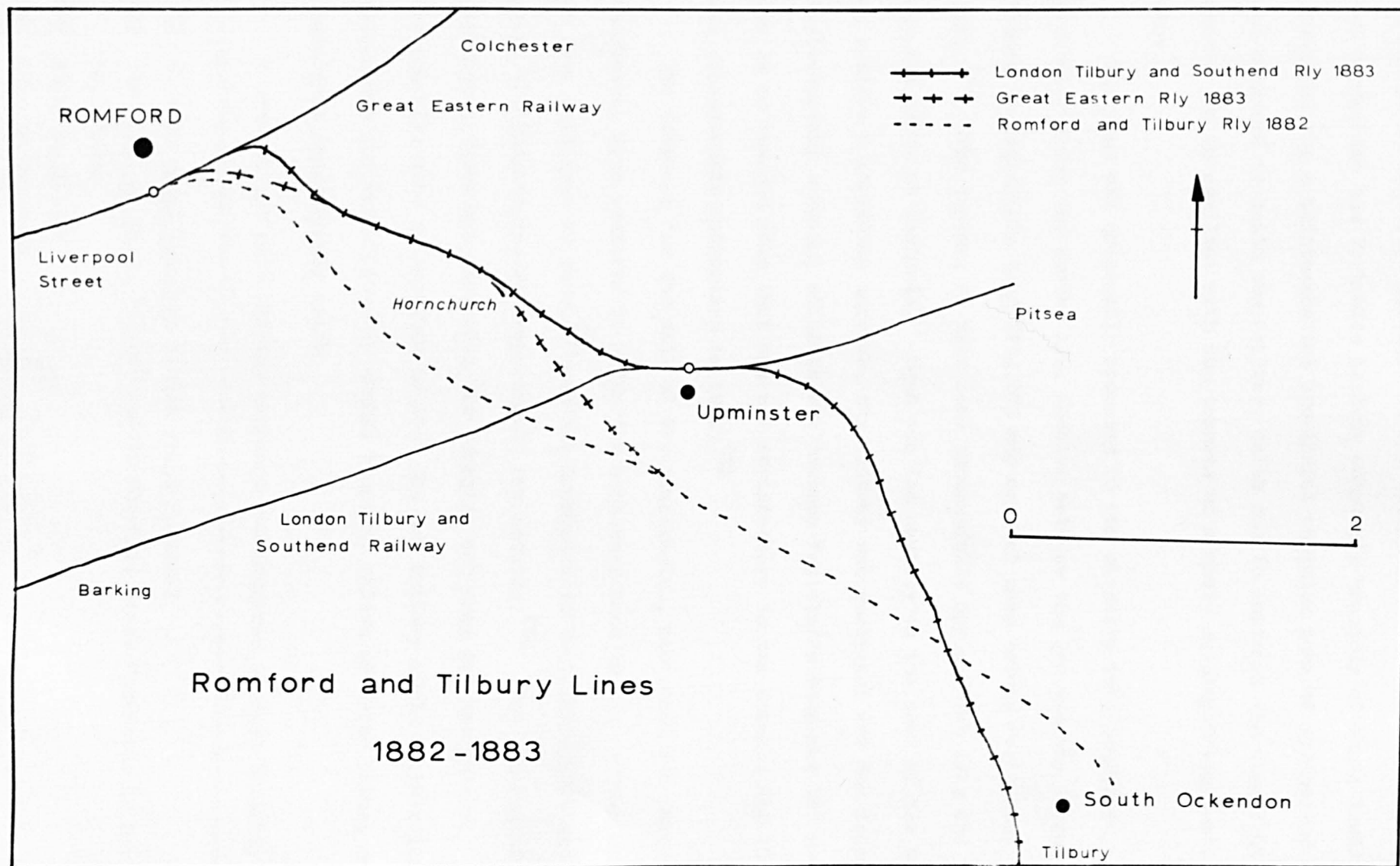
Where one railway company served one town it often happened that the company abused its monopolistic position, causing the inhabitants to feel that competition was their sole salvation. This implied that if the new railway company was to duplicate, or preferably, better, the existing railway facilities, it had to penetrate into the 'urban fabric' to reach the town centre and thus antagonise those residents with property on the proposed line. This occurred in south-west Lancashire where the in-

(1) *ibid.* pp.308, 311, see also E.A. Course (1958) *op.cit.* pp.298-300

(2) HLRO Min. of Evid. HC 1883 vol.42 London Tilbury and Southend Rly 27 April pp.2-10

(3) *ibid.* pp.53-4, damage to potential building land was also alleged at Leicester see HLRO Min. of Evid. HL 1872 vol.16 N.M. & L.Rly 17 July pp.153-88

Fig. 66



habitants of Southport appealed to the Cheshire Lines Committee to break the Lancashire and Yorkshire Railway company's monopoly of their traffic. Southport was a quintessential provincial commuter town of the period and the proposal to build the railway, which was to approach the town from the south, led to conflict with the tenants of a newly developed residential area.

The line was originally proposed to run directly into Southport, virtually along the beach, i.e. located between the sea and the large houses of Westcliffe Road (Fig.67) and as such came before Parliament in 1881.⁽¹⁾ The tenants of this road successfully opposed the line and it was cut short at Birkdale. Such was the anxiety on the part of the town to achieve a competing service, the railway was realigned for the following Parliamentary session, still to run between Westcliffe Road and the sea, but in an amended form that was now satisfactory to the tenants and it was consequently authorised in 1882.⁽²⁾

The trustees for the will of Mr. Scarisbrick, who owned two-thirds of Southport, were prepared to offer the necessary land to the railway company at five shillings an acre,⁽³⁾ and the landowner of Westcliffe Road had given the land to the railway company for nothing.⁽⁴⁾ The successful opposition therefore came from the tenants, not from the landowners. The conflict here is apparent in that the new railway would improve land values and yet would probably damage property values of those houses on Westcliffe Road already built.

A similar yet more complex instance had occurred in East Yorkshire

(1) G. Dow: Great Central: (1962) vol.2 pp.140-1

(2) HLRO Min. of Evid. HC 1882 vol.70 Cheshire Lines Committee 17 May pp.175-235

(3) *ibid.* pp.97-137

(4) *idem* 16 May p.38

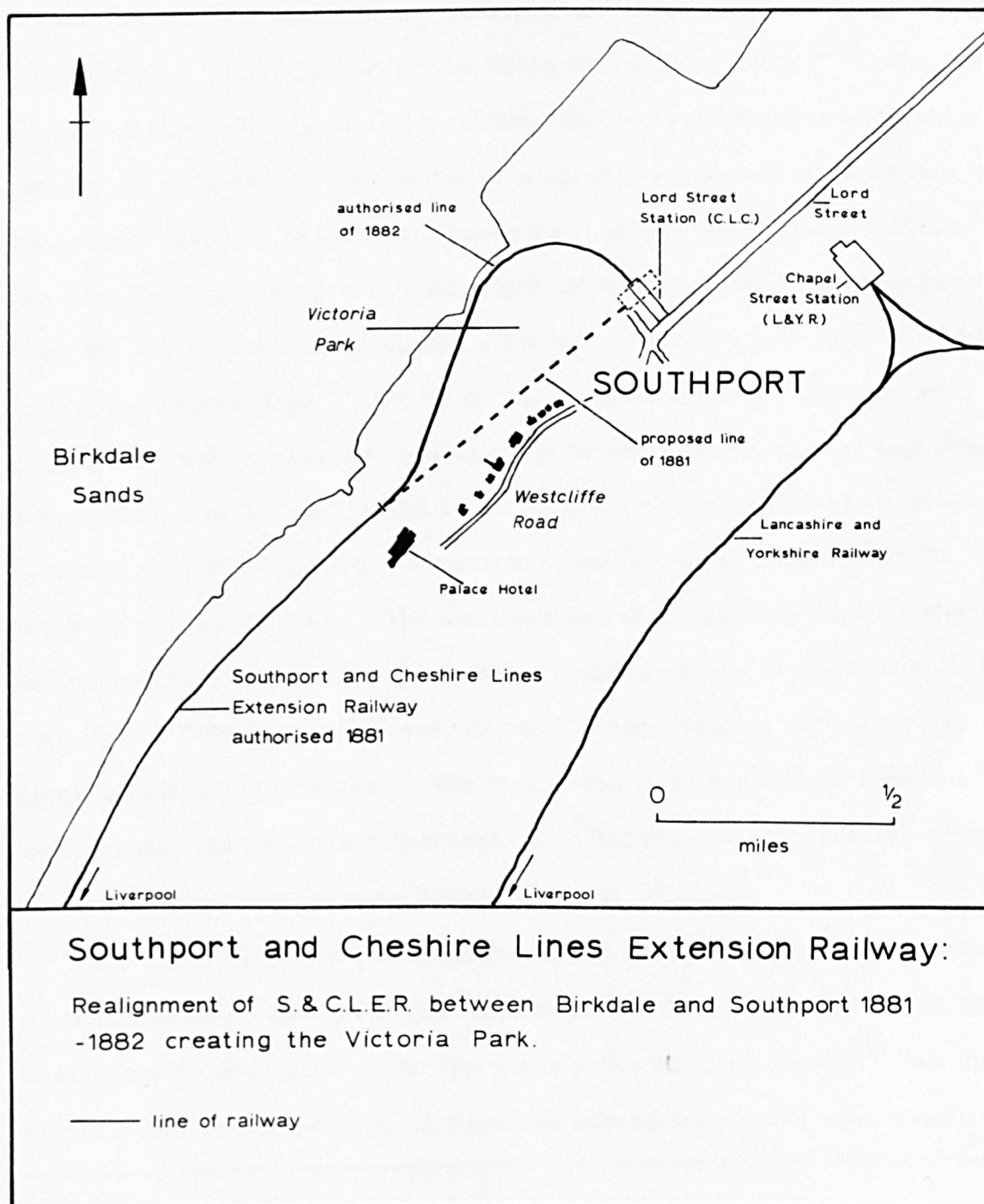


Fig. 67

some years earlier. In 1872 a railway was promoted to run from Hull westwards to Hessle and then under the Humber in a tunnel to emerge near Barton and join the Manchester Sheffield and Lincolnshire Railway in north Lincolnshire. This failed in the House of Lords in 1873.⁽¹⁾ The North Eastern Railway then promoted a railway for the following session which ran out to Kirkella. They gathered a sufficient number of witnesses to argue that this was merely to improve land values and property prices.⁽²⁾ The line was opposed by the Corporation of Hull who initially complained that the branch line would damage a number of streets and some water pipes in the Springbank area⁽³⁾ but it quickly became apparent that the main reason for their opposition was that the North Eastern company had aligned this branch line strategically in an effort to block the last feasible entrance to Hull, this being a narrowing of the Wolds between Little Weighton and South Cave. The Corporation, who were very anxious that an independent line should reach Hull, considered the Kirkella branch no more than a 'block line',⁽⁴⁾ and opposed it accordingly, but using the locus standi of landowners. The branch was rejected and in 1880 the Hull and Barnsley Railway was authorised which followed a very similar alignment to that of the North Eastern branch of 1874. (Fig.68)

The 1870s also saw the intensification of the opposition to railways on the grounds of damage to the environment. This had, to a large extent, been sporadic and indirect in the years prior to this decade⁽⁵⁾ but the conflict was widely publicised with the opposition of the poet Ruskin and

(1) G.G. MacTurk: op.cit. pp.161-4

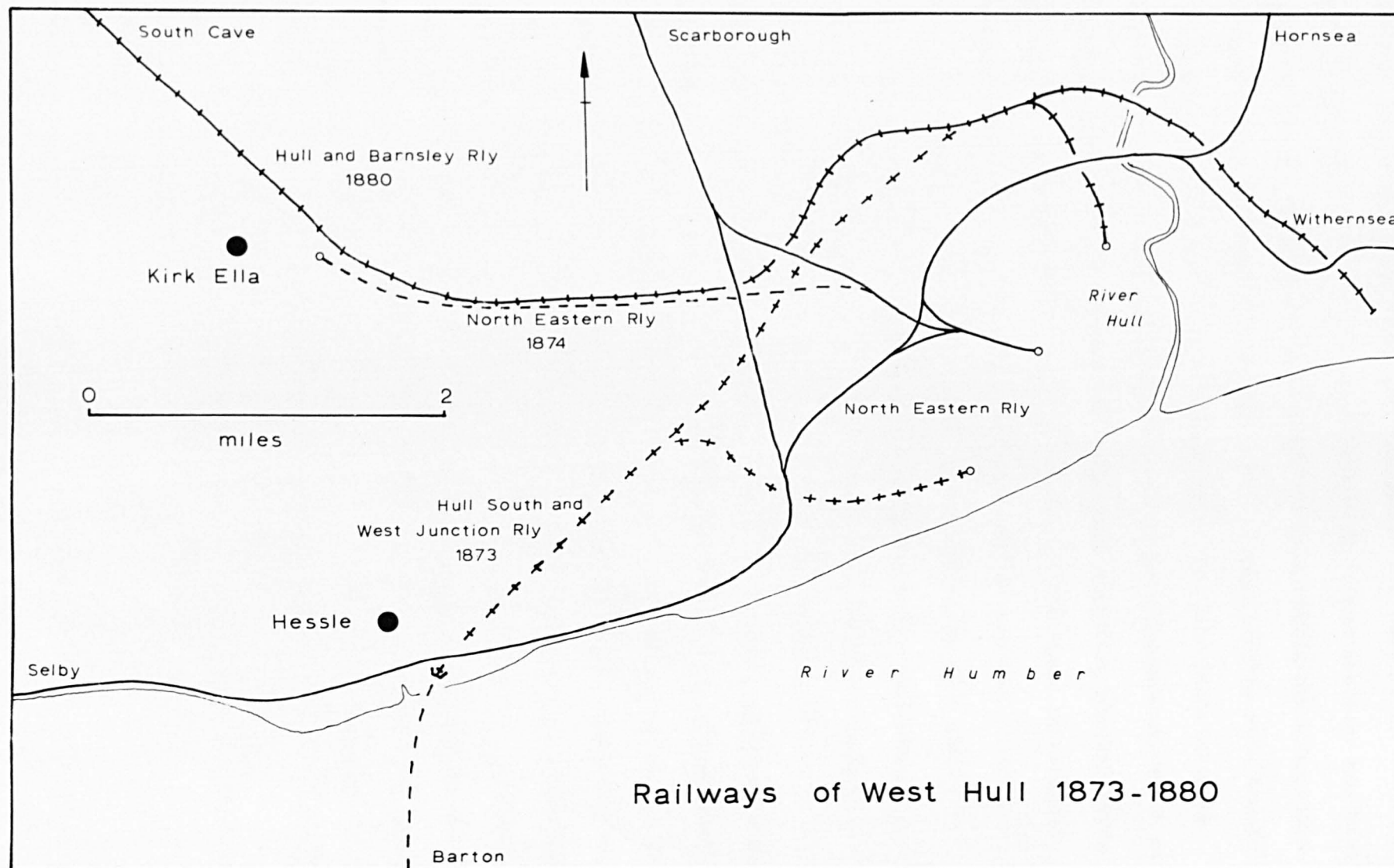
(2) HLRO Min. of Evid. HC 1874 vol.26 North Eastern Rly 30 April pp.5, 38, 68

(3) *ibid.* p.119

(4) *ibid.* pp.148, 171, see also W.W. Tomlinson: op.cit. p.669

(5) see above p.281

Fig. 68



others to the proposed railway from Windermere via Ambleside, Grasmere and Rydal to Keswick, of 1876. , Ruskin's attitude toward railways has been explained as one of approval of the through main routes but opposition ' . . . to their intrusion into the peace of quiet valleys off the main tracks'.⁽¹⁾

The arguments against the desecration of the Lake District were collated by Robert Somervell and incorporated into a pamphlet, which contained a preface written by Ruskin. The poet argued in general terms against the extension of the railway network in this area in a rather emotive manner⁽²⁾ and it was Somervell himself who stated

it is not to guard that district in the interest of a small section of society, but to preserve it for those - and they are found in every rank - who can enjoy its unsullied natural loveliness, that this movement has been set on foot.⁽³⁾

His main point hinged on whether an increase in material prosperity should outweigh ' . . . all other - even confessedly 'finer' - considerations'.⁽⁴⁾ Interestingly he suggested that ' . . . much of the injury which has been inflicted in this way has been due, not to the fact that a railway has been made so much as to the fact that it has been made in a particular way'.⁽⁵⁾ and went on to argue that the nation should have ' . . . a Government Department to see that . . . no needless injury shall be done to the scenery of the district'.⁽⁶⁾ He concluded that dependance upon the land-owners, who obviously had an interest in the economic development of the

(1) J.W. Graham: Harvest of Ruskin (1920) p.249

(2) R. Somervell: A Protest against the Extension of Railways in the Lake District (1876) pp.1-10

(3) *ibid.* p.21

(4) *ibid.* p.25

(5) *ibid.* p.38

(6) *ibid.* p.38

area, would be an insufficient form of protection. The opposition proved successful and the line was never built.

Attitudes toward the railway companies hardened during the latter third of the nineteenth century, and were often extremely critical. In 1865 W. Chambers had written:

the 'railway interest' has become a formidable power in the state, and is able to carry lines almost anywhere, in disregard of land proprietors or town authorities, as if the destruction of rural amenity and the wholesale ruin of dwellings were matters of perfect indifference.⁽¹⁾

Perkin felt that there was a strong antipathy toward the railway companies at this time and has argued that '... from the 1880s to the brink of the First World War the railways were the constant butt of public criticism, rising at times to a state of national crisis'.⁽²⁾ The arrogance of the railway interest is well illustrated by a brief report from Herapath of 1880:

The South Eastern intend to make a short extension line to serve the beautiful district of Hayes. No doubt such a line would pay handsomely, but we hear there are some who would regret to see Hayes invaded by the steam horse. These people should go to the backwoods of America.⁽³⁾

The idea of damage to the environment amenities was also referred to in the proposal to build a line from Harrow to Stanmore in 1886. The local landowners originally opposed the railway on the grounds that it

(1) W. Chambers: About Railways (1865) pp.24-5

(2) H. Perkin (1970): op.cit. p.283

(3) Herapath 17 January 1880, see also J. Simmons in H. Dyos and M. Wolff (eds): The Victorian City: Images and Realities vol.1 (1973) pp.303-4

would destroy the amenities of the locality.⁽¹⁾ The line was authorised in 1886 but was then realigned and the promoters instructed the surveyor '... to lay out a less costly route at the same time taking care not to spoil the beauty of the district'⁽²⁾ and the line was re-authorised in 1888.

The proposed line from Guildford via Cobham, and Kingston to Putney was also opposed on amenity grounds. The line was promoted by local landowners in 1881 as an independent company because none of the larger companies were prepared to help them.⁽³⁾ Despite the fact that the railway committee were '... careful to avoid their line crossing public open spaces and commons'⁽⁴⁾ their choice of alignment was strongly opposed where it skirted the northern edge of Wimbledon Common, between Kingston and Putney.⁽⁵⁾ As a result of the strong public reaction to the potential damage to the open space, the railway company negotiated a realignment with the Duke of Cambridge, the owner of the land adjacent to the Common, which allowed the line to be moved away from the common itself.⁽⁶⁾ (Fig.69) A Report was issued solely concerned with the alignment of the railway and its impact on the commons of Surrey, which conceded that the railway company had gone to considerable lengths to minimise any possible damage to the commons.⁽⁷⁾

Two proposed light railways were also opposed by amenity interests.

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- (1) (Anon) 'Stanmore Railway': Railway Magazine (July-August 1942) p.203
 - (2) K. Jeffrey and D.N. Ratcliff: loc.cit. pp.91-2
 - (3) HLRO Min. of Evid. HC 1881 vol.29 Guildford Kingston and London Rly 11 May p.3
 - (4) J.N. Faulkner: 'To Guildford via Cobham': Railway Magazine (September 1959) pp.589-96.
 - (5) HLRO Min. of Evid. HC 1881 vol.29 G.K. & L.Rly 16 May pp.128-30
 - (6) idem 11 May p.38
 - (7) idem 24 May pp.1-13, see also R. Christiansen: Regional History of the Railways of Great Britain vol.7: The West Midlands (1973) pp.107-8

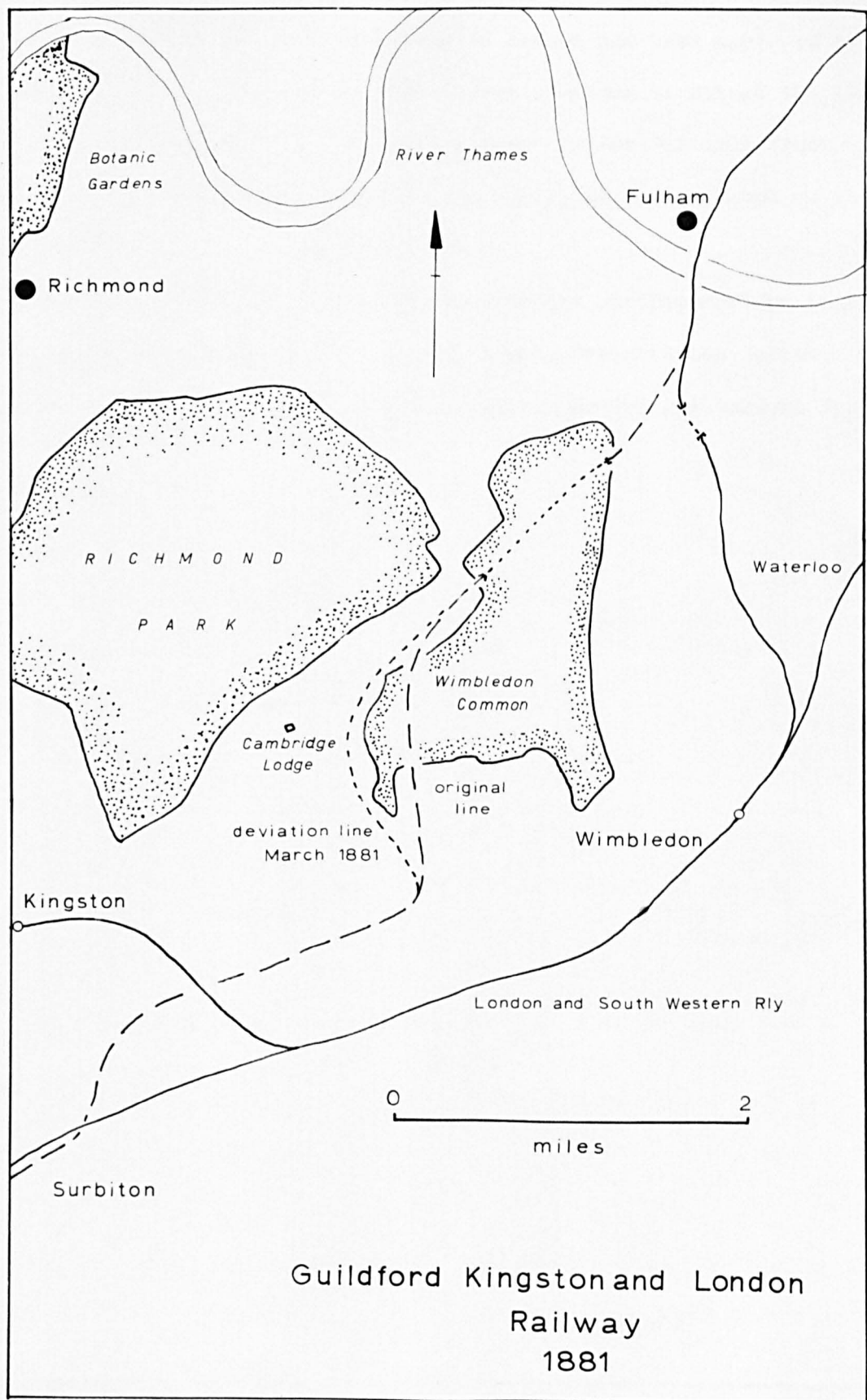


Fig. 69

SUMMARY AND CONCLUSIONS

The line from Didcot via Long Wittenham to Benson had been approved by the Commissioners in 1898 and in 1899 it was proposed to extend the line from Benson to Wallingford. This was opposed by the National Trust who argued that the railway would destroy the beauty of Benson Reach on the Thames and the line was never built.⁽¹⁾

Similarly, in Sussex, the Nutley Crowborough and Groombridge Light Railway was successfully opposed by the Commons Preservation Society in their bid to prevent the light railway running through the Ashdown Forest.⁽²⁾

largely unopposed by the realisation that the railway, as a concept, was spreading quite quickly from the established centre in the north-east of England to the other industrial regions and the full implications of this movement were rapidly recognised. To compound their suspicions a number of pamphlets, articles, and letters began to appear at this time campaigning for the speedy establishment of a national network of railways and there can be little doubt but that landed society felt the pressures of the mid 1830s were but a prelude of what was to come.

It has been argued that the Liverpool and Manchester Railway was widely regarded as an experiment for subsequent railway developments. (p.46) This is probably true in terms of the evaluation of the technology, of proportional and financial practices, and, perhaps, of alignment, but less so in terms of a direct conflict between landed society and the railway interest. The conflict that occurred in south Lancashire was essentially transitory between the parochial disagreements fought in the north-east over the alignments of the railway lines and the more "national" conflicts fought in rural England over the great trunk lines

(1) F.C. Clifford op.cit. vol.1 p.48 'The National Trust was born'

(1) J.S. Oxley: op.cit. p.74 'The National Trust was born'

(2) ibid. p.103 'The National Trust was born'

SUMMARY AND CONCLUSIONS

The 1820s saw a considerable upsurge of interest in the development of railways in England. The construction and opening of the Stockton and Darlington Railway had, apart from the application to Parliament in 1823 for the authorisation of the utilisation of steam locomotives,⁽¹⁾ caused little alarm in landed society but the proposals of 1824 and 1825 for the construction of railways in southern Lancashire, Cheshire, and the north-west Midlands were met with some concern. Landed fears were largely engendered by the realisation that the railway, as a concept, was spreading quite quickly from its established centre in the north-east of England to the other industrial regions and the full implications of this movement were rapidly recognised. To compound their suspicions a number of pamphlets, articles, and letters began to appear at this time campaigning for the speedy establishment of a national network of railways and there can be little doubt but that landed society felt the schemes of the mid 1820s were but a portent of what was to come.

It has been argued that the Liverpool and Manchester Railway was widely regarded as an experiment for subsequent railway developments. (p.85) This is probably true in terms of the evaluation of the technology, of promotional and financial practices, and, perhaps, of alignment, but less so in terms of a direct conflict between landed society and the railway interest. The conflict that occurred in south Lancashire was essentially transitory between the parochial disagreements fought in the north-east over the alignments of the colliery lines and the more 'national' conflicts fought in rural England over the great trunk lines

(1) F.C. Clifford op.cit. vol.1 p.49 'Parliament naturally watched the new experiment with some jealousy in the wish to protect private interests from nuisance or danger'.

of the early 1830s. South Lancashire was already an industrialised area, familiar with mass movement of freight by canal. This local conflict was confused by the intervention of the canal interests, who wished to protect their high incomes and inordinate profits. The line itself was just thirty miles long and a good proportion of this ran across the barren wastes of Chat Moss. Landed hostility was limited to the immediate vicinity of Liverpool and the successful opposition, and resultant realignment, bears stronger similarities to the conflicts of the 1840s than those of the early 1830s.

The dispute over the south Lancashire line can thus be easily overstressed. The mid 1820s also saw the failure of the Grand Junction Railway, the abandonment of the Leeds and Hull Railway, the withdrawal of the Newcastle and Carlisle Railway from Parliament in 1826, and although the debate over the Liverpool and Manchester Railway was vociferous it was of limited importance in a national context. Such landed hostility as there was tended to concentrate its attacks upon the steam locomotive, about which it knew nothing and feared everything. The early years of the nineteenth century had seen the landowners invest large sums in agricultural improvements and many estates had the remaining open fields enclosed and new farm layouts and roads laid out. (p.57) Large amounts of money had also been invested in em-parkment. (p.69) Interest in the enhanced economic performance of the estates and of improvement of the visual amenities was thus wide-spread and the advent of the railway, which threatened to damage by severance the newly established field patterns and to impose an alien feature upon a carefully composed and expensively created landscape, was met with considerable concern.

The conspicuous success of the steam locomotive at Rainhill in 1829 caused the landowners to undertake a further reassessment of their

attitudes toward the coming of the railway, and during the early years of the 1830s their opinions were rapidly polarised. They quickly realised that with the promotion of the London and Birmingham Railway the railway interest no longer saw their lines merely in terms of limited usefulness to an industrial area but more as a national carrier, which automatically implied that the construction of a national network was envisaged. The London and Birmingham line, being 112 miles long and tapping few traffic centres other than Coventry, ran for the vast majority of its length through rural England and came before Parliament in 1832. That year also saw the apparent victory of the middle class interests over the rural aristocracy with the sanction of the Reform Bill. The rural landowners saw the promotion of this railway as a further challenge to their already threatened authority. They felt that the railway, linking a manufacturing area to the main docks, would provide little, if any, benefit for the countryside whilst causing inestimable damage to the rural fabric and destroying the amenities of their estates; it was promoted by townsmen, for townsmen and to the erstwhile ruling class it symbolised the further advance of their most dangerous opponent, the middle class. The rejection of the Bill by the House of Lords was neither just nor objective. The Committee demanded no opposition case and no evidence was presented by the 'dissident landowners' to justify their claim of excessive damage. (p.102)

By 1833 landed society, through the medium of Parliament, had become somewhat calmer in its appraisal of railway schemes and both the London and Birmingham and Grand Junction Railways had little difficulty in gaining authorisation during that session. In the former instance bribery was used to ensure the successful passage of the Bill but it must be noted that bribery was completely ineffective unless the landowner was receptive to the idea and fully aware of the implications of

his acceptance. Vignoles discovered that landed hostility to the idea of a railway through the Vale of Mickleham in 1832-3, was so great that the offer of considerable sums of money to purchase the necessary land proved completely ineffective, such was landed dislike of the idea of close proximity to a railway. (p.130)

Once the national political situation resolved itself and landed society discovered that the so-called 'victory' of the middle classes was both transient and largely illusory, their attitude toward further railway construction became increasingly sympathetic. By 1834 Parliament had conceded the necessity of railways, this being a Parliament consisting almost entirely of landowners. (p.122) Landed society had traditionally assumed a responsibility to facilitate the increase of wealth of the nation, so much so that even an arch enemy of railway construction accepted

that the diversions of one class of society are but as a feather in the balance when weighed against the practical ability of any work tending to the advancement of the general good; that it is the duty of a Government to promote, to the utmost, all feasible enterprise and undertaking proved to be conducive to the interests of the state.⁽¹⁾

The landowners' rapid recognition of the extent of the potential contribution of railways to the economic welfare of the nation is consistent with this philosophy and is perhaps all the more remarkable when it is remembered that during the 1830s the coaching and turnpike system was at the peak of its efficiency, and that the canal system, although imperfect, provided a freight carrying service of reasonable effectiveness. Thus the acceptance of the implementation of a further mode of transport,

(1) F.P.D. Radcliffe op.cit. p.129

inimical to their own interests, smacks of considerable altruism and responsibility. In general the landowners felt that little benefit would accrue to the estates, apart from payment for the land necessary for the construction of the line, as it was yet to be conclusively established that land values rose in the immediate vicinity of a railway.

Perhaps the MPs who debated the merits of Gibbs' London and York Railway provide the best illustration of the prevailing landed attitudes of the mid 1830s with their appreciation of the need for a railway, their strong dislike of Gibbs' alignment, and their approbation of the alternative which they felt would fulfil the necessity whilst resulting in considerably less damage. Their dislike of the speculative nature of Gibbs' line is also apparent, their argument being that because of this it paid little, if any, reference to local interests or opinions. (p.124)

Landed society was unsure of the effects of the new phenomenon but recognised the permanence of its impact upon the landscape and thus strove to ensure that of all the possible alignments the one which was to be approved by Parliament was that which would cause the least amount of damage. The multiplicity of feasible alignments proposed for the railway between London and Brighton, (Fig.14), similarly the numerous alternatives suggested in the vicinity of Saffron Walden, (Fig.17), Robert Raikes' hesitancy at Welton, (p.137) and Captain Pechell's doubts over the Oxford branch, (p.143), all bear witness to this fear of commitment to an alignment that might, in some way, be improved. The attitude of the University of Oxford, who opposed proposals for a branch line to their city arguing that the case for railways was not yet proven, was merely this view in extremis and could be accepted as reasonably valid in that virtually no lines, apart from the Liverpool and Manchester Railway, were, at that time (1838), in operation. (p.145)

The turn of the decade saw a considerable slump in the English

economy which damped down any thoughts of further investment in railway construction. During the early years of the 1840s, however, the completion of many of those lines authorised during the previous decade and firm evidence of both their financial viability and general usefulness, coincided with the movement of the national economy into an upswing and, as a result, the investing public began to encourage and support proposals for the further extension of the existing network. The early 1840s also saw landed society contemplating its economic position as many accepted the full implications of their indebtedness and strove to place their estates on a sound financial basis. (p.67) This reappraisal manifested itself in strong investment in the improvement of agricultural practices and techniques, in an attempt to maximise revenue from their main source of income, but also saw an increasing number of landowners drawing up plans for the urbanisation of estates, particularly in coastal areas, and saw a movement away from direct involvement in industrial enterprises, especially in the field of mining, toward a position of rentier.

With the opening of most of the main lines authorised during the previous decade the landowners began to recognise that the potential benefits from railways to their estates, both agricultural and urban, were considerable and further noted that their capacity for damage to farmland and farm layouts was equally great. This, allied to the fact that the landowners could now assess the actual, rather than hypothetical, impact of a railway upon the landscape, caused them to undertake a gradual modification of their personal attitudes toward the coming of the railway. Landed involvement and support for the Yarmouth and Norwich Railway of 1842 is indicative of the new mood although this did occur in an area traditionally interested in agricultural improvements and investment. (p.163)

The onset of the 'Railway Mania' illustrated with great clarity the degree to which landed attitudes toward the railway had altered. It is

important to remember that 1841-46 saw the spokesmen of the middle classes make a violent attack upon landed society, in their campaign to repeal the Corn Laws. The landowners argued that the maintenance of the Corn Laws was imperative if their agricultural incomes were to be preserved and their eventual repeal, in 1846, caused a rapid intensification of their appraisal of their financial resources. It might be argued that the delicate political situation of the mid 1840s forced the conservative sector of rural landed society in Parliament to moderate its views toward railway promotion in order not to play into the hands of their middle class opponents. Lee has argued that the Marquis of Exeter's opposition to the London and York Railway was only tolerated by the right wing of the Conservative party because of their need for his support at that difficult time.⁽¹⁾ (p.240)

Despite this general restraint the very number of schemes extant during these years implied that the support, or otherwise, of a landowner was a vital prerequisite to the success, or failure, of a railway bill before Parliament. It quickly became apparent that the role of landed opposition, should 'residential damage' be proven, was of far greater significance than any promises of support, although the concerted action of these landowners in favour of the London and York Railway during 1845-6 played a large part in ensuring the successful authorisation of the bill. (p.242) Landowners discovered that their opposition would be paid for, or at least promises were made to that effect (p.181), a number were employed as directors of companies, and, occasionally, some went so far as to promote their own companies, although this was rare at this time.

Although their basic attitude throughout the decade was still an

(1) J.M. Lee op.cit. p.102

insistence that private property was to be protected and that unnecessary damage could not be tolerated, they were alive to their national responsibilities in their tendency to concede the necessity of railways, and Lord Howick's statement of 1844 is a vivid and articulate synthesis of this attitude. (p.194) The spirit of improvement apparent at this time, and the understandable resentment of damage to these schemes by railway construction, is evident in the arguments of both Lord Howick, whose father had just rebuilt a village which would have been destroyed by a proposed railway (p.192), and Lord Harborough, who had recently spent some £80,000 in improving his park which was to be invaded by a railway. (p.216) This abhorrence of unnecessary damage to parks and estates is a basic feature of landed attitudes in this, in prior and in subsequent decades.

Admittedly some landowners appreciated that the arrival of a railway in their locality could be of some personal benefit but the apparent regional, if not national, objectives of many railway companies tended to obscure this element of local usefulness. Actual landed financial involvement would appear to have been on a moderate and insignificant scale (p.251), possibly because of their increased investment in agriculture, their general indebtedness and the reassessment of their finances, with the concomitant unwillingness to invest in a new, untried, and hazardous field.

The years immediately subsequent to the mania saw, in general, a radical shift in the attitudes of the landowners, more especially those in rural areas, toward marked support for further railway construction. The established railway companies showed little enthusiasm to construct lines in unremunerative rural areas, largely as a result of pressure from their shareholders. The landowners, however, recognised the benefits a railway could bring to the local economy and in 1863 were exploring ways

and means of facilitating the construction of railways in the countryside. Being inexperienced in railway promotion their eagerness caused many landowners to fall foul of speculative engineers, lawyers and contractors who showed a similar readiness to build railways, but for rather different reasons. In 1863 this clash of interests was specifically discussed, the landed attitude being that they, and they alone, knew which alignment was the best for an area, this, rather surprisingly, being conceded by the more responsible members of the railway interest. (pp260-2)

Speculative promotion of lines into rural areas largely died away after 1870, as the agricultural depression began to take effect, and the latter decades of the century saw the landowners, virtually alone, attempt to rescue their estates by further railway construction. Despite their personal involvement they still maintained that the privacy of their estates was not to be violated; they desired the benefits of railway construction with none of the disadvantages and because of their financial involvement they were often, if not always, in a position to influence the alignment accordingly. The fine balance between perceived benefit and damage is well illustrated in the Westerham valley, where one group of landowners saw both the advantages and dangers, whilst another saw merely the railway's potential for damage. (pp.323-5)

A new phenomenon appeared after 1870, that of the landowner whose estate lay on the periphery of a major city and who wished to develop his land for suburban housing. In such cases a railway was usually regarded as a basic prerequisite and development schemes often included the construction of a short line of railway to maximise the attractiveness of a new estate. The fundamental attitude was similar to that of rural England, that the proximity of a line of railway increased land values, although in some instances conflict did occur between landowners and railway companies separate from one another when it was felt that a

railway was poorly aligned and threatened to depreciate the value of building land or existing property. (p.329)

The landed attitudes toward railways prevalent during the nineteenth century had a relatively uncomplicated influence upon the alignment of a railway. The railway engineers and promoters who chose the alignment recognised, understood, and accepted the basic landed fear of invasion of the privacy of their estates. The power of landed society quickly became apparent and thus railways were aligned in such a way that parks and residences were avoided wherever possible, and the amount of damage to an estate caused by a railway was kept to a minimum. In many cases negotiation with landowners occurred and their wishes were respected. This was as valid in the 1890s as it had been in the 1820s.

The actual process of alignment took landed attitudes into consideration at every stage. The general alignment, (i.e. that line between the two termini), had the greatest degree of flexibility (hence the vast number of alternatives usually considered) and landed influence tended to be of importance only in strategic locations, for example the Medway valley. (p.128) Having decided upon this general alignment it was up to the engineer to adapt this to the topography of the countryside through which the line was to run and, in dealing with the landed interests, he usually applied a two stage process in choosing the location of his line.

The engineer firstly chose an alignment that he felt caused the minimum amount of damage to an estate, and this can be termed 'initial avoidance'. Secondly, recognising that his conception of minimum damage and the landowner's might not coincide, negotiation between the two parties usually ensued which used the engineer's initial choice as a basis for discussion. A final alignment was then agreed upon which took the landed views into consideration and usually respected them. During the early decades of railway promotion negotiation often involved

the use of bribery to gain explicit consent to an alignment which already took the landed attitude into consideration.

The railway interest advocated and applied this diplomatic policy as early as 1826, bearing in mind the statements of the Liverpool merchants (p.92) and as late as 1898 when Mills argued that '... there may be important estates which must be avoided and private properties which must not be entered'. (p.307) Throughout the nineteenth century the engineers advocated this policy in both their general principles and in the alignment of specific railways. Paradoxically its value can be evinced by its failures. The dismissal of Gibbs' London and York Railway, which conspicuously failed to avoid damage to estates (p.124), the Stephenson's failure of 1845 to find a satisfactory alignment at Stapleford (p.214) and Fowler's crass failure at Scraftoft in 1872 (p.319) all bear witness to the basic necessity of the recognition of avoidance as a prime factor in alignment. There were also those engineers who felt that they had aligned their railway in such a manner that any possible damage to a landowners was minimised but then failed to complement this by further negotiation to ascertain the views of the landowners themselves. Brunel's failure at Ealing (p.118) and Forsyth's at Egginton (p.220) bear this out.

Although avoidance was paramount in the minds of the engineers they also paid due respect to the wishes of those landowners who requested that the railway should be aligned in such a manner as to benefit their estates, this occurring particularly after 1850. The realignment of the main line at Tuxford is a classic example (p.246), but, by and large, the influence of support was usually far less effective than opposition. Landed support tended to influence more the general, primary alignment in that representations were made that lines should be made into certain areas of the country, for example the Vale of Belvoir which may have had,

in the past, access restricted. (p.314)

The latter half of the century saw conspicuous landed encouragement of railway construction, especially of lines into rural areas, these being increasingly aligned to meet local wishes and needs, as between Bedford and Northampton (pp.267-9) and between Swindon and Marlborough (p.310). This also occurred in less bucolic surroundings where the influence was of a similar nature in that the railway was aligned to stimulate the maximum amount of economic benefit and cause the minimum amount of damage to estates, as between Shortlands and Nunhead (p.329).

The engineers and promoters tolerated this influence on their alignments because of their basic fear of landed power in Parliament. The circumstances were such that any railway company which wished to purchase land compulsorily, which was virtually every railway company, had to go before the legislature for authorisation by an Act of Parliament. (pp.73-7) Throughout the nineteenth century the membership of both Houses consisted almost completely of landowners naturally sympathetic to the landed point of view. (p.64) Their reaction to the canal mania of the 1790s had been to rapidly erect a barrier of comprehensive standing orders by which their estates were protected from rash assault. The landowner entertained similar suspicions of the early railways and the railway companies, recognising the landed fears and that their own position, before a Select Committee of landowners, was extremely vulnerable, especially after it had been made quite clear in 1825, 1832, and 1836, that unnecessary incursions onto private estates would not be tolerated, implemented a policy of avoidance and negotiation, which rapidly proved successful.

The railway interest also recognised that Parliament was a responsible body and felt that there was a public necessity for railways. They saw that once the initial distrust of and hostility toward railways by

Parliament was ameliorated, if not removed, by tactful alignment, any landed objection to any railway would have to be proved and justified, for example the ruling of the 1844 Select Committee which said that a landowner could only register opposition if his property was seriously affected (p.173). The comment of James Walker, a noted engineer, made in the 1830s, was of particular relevance when he said '... one is obliged in a country like this to meet the wishes of the proprietors' (p.143) (my italics), the emphasis being heavily on the recognition of the political facts of life which were extant in that and every decade of the nineteenth century.

In terms of expense it might appear that the engineers and promoters considered that avoidance proved more expensive and also resulted in poor alignments. They quickly found, however, that a tactful alignment ensured that the bill enjoyed an easy and inexpensive passage through Parliament (p.111). Those companies which preferred initial cheapness by a refusal to consider the landed point of view, rapidly discovered that this was a far more expensive mode of alignment should their bill be rejected or be delayed and be radically amended.

The political influence of landed society was maintained throughout the nineteenth century in Parliament. It would appear that at approximately the same time as landed power in society as a whole began to decline, landed involvement in railway promotion itself increased considerably and thus an indirect control was replaced by a more direct influence on alignment. It might also be argued that those members of society concerned in the promotion, alignment and construction of railways had a degree of respect for landed society far greater than pure expediency. George Hudson, Joseph Locke, and George Stephenson, all noted members of the railway fraternity, all purchased landed estates and became members of landed society themselves. During the nineteenth century possession of a landed estate was a mark of the highest social rank and thus those

members of the middle classes whose ambitions lay in that direction might hesitate to attack that which they were attempting to emulate.

Throughout the nineteenth century the balance of power in this context was such that the landowners tended to hold sway over the railway companies, for example the pithy remark of the Vice-Chairman of the Great Northern Railway, with respect to the alignment of the Gainsborough to Doncaster line (p.284), and the railway companies themselves could not help but recognise this power, for example Bidder's philosophical remark over the Admiralty's disapprobation of the line through Greenwich Park (p.202). It is interesting, therefore, to see that during the railway mania which, as has been argued, coincided with a virulent outbreak of class warfare, many railway companies assumed an air of arrogance and intolerance and attempted to force lines through estates, paying little heed to landed susceptibilities, under the dubious flag of 'public interest'. This philosophy had been first promulgated during the 1830s by engineers of the calibre of Gibbs and Cundy (pp.123, 152) who implicitly argued that the line which paid least regard to private convenience was concomitant with the greatest amount of public benefit. This was increasingly subscribed to during the 1840s with engineers such as George Stephenson refusing to sanction minor deviations as he felt that they were incompatible with the public interest (p.194) and spokesmen such as Mr. Rutter of Sherborne who concluded that '... the landowner's interests and conveniences must give way to the interests of the public' (p.171).

Many landowners themselves, in public conversation, conceded that railways were of 'great public benefit' (p.211) but they were also extremely alive to the fact that the fundamental reason for railway construction was speculative, that railways were being constructed to make the maximum amount of profit and scarcely to give the maximum

amount of public service. Both the House of Lords Select Committee of 1845 on compensation and W.E. Aytoun, the spokesman for the landed interests, were quick to infer that the argument of public interest was pure sophistry, their conclusions being that the railway interest saw avoidance merely in terms of added expense and thus lessened profits. As George Stephenson pointed out, somewhat tetchily, '... any line can be called a practicable line if there is plenty of money' (p.217). Landed society itself recognised that this was the case and their opposition was based on the view that avoidance was a mere matter of expense and very rarely, if ever, a matter of impossible engineering or direct conflict with the public interest.

Moorsom's argument of 1841 relative to investment in local railways is also of considerable interest. (p.161) His thesis was some ten years ahead of its time in that his arguments became increasingly relevant in the years after 1850 with the growing landed involvement in railway construction. As the landed members in Parliament favoured locally supported and locally promoted companies far more than speculative schemes, the subtle influence of landowners on alignment was of considerable importance.

Given that '... the very essence of government is restraint'⁽¹⁾ the initial attitude of the British legislature toward railway alignment was the purely negative reaction of insistence upon restraint of damage to private property. During the 1830s the Government toyed with the idea of a national plan for the construction of a railway network, similar to that implemented in Belgium,⁽²⁾ but basically it preferred

(1) J. Boswell 'The Life of Johnson' (1953 O.S.A. ed.) p.397

(2) H. Parris op.cit. p.16, E. Cleveland-Stevens op.cit. pp.61-2

see also First Report from the Select Committee on Railways 22 April 1839 p.34 Q.736 'You would like to see it put in the power of the Government to decide whether the line should go in a particular direction or not? A: It is an idea quite new'.

to leave well alone. In 1840 a Select Committee concluded ' . . . "that however improvidently Parliament may, in the first instance, have granted to the railway companies such powers, it is now advisable to interfere with them as little as possible" . . . in effect, the policy suggested was one of let alone, subject only to the general supervision of the Board of Trade'.⁽¹⁾ The Board of Trade were not concerned with the 'details' of alignment, merely the general merits of the case, and felt that the specific alignment was best considered by the Select Committees (p.78). In fact Sir G.S. Gibb, writing in 1908, argued that ' . . . the control under the system of Private Bill legislation . . . has been mainly negative; never constructive . . . Private Interests have been protected but the general interest has, in the main, been ignored'.⁽²⁾

Chambers, writing in 1865, bitterly criticised this laissez-faire policy - ' . . . refraining from all control over railway operations, the government left speculators to carry lines anywhere or anyhow that Parliament could be persuaded to sanction' and went on to attack the results of the government's timidity, the waste of capital and the poor alignments of the lines of the 1830s and 1840s.⁽³⁾ Both the railway interest and the landed spokesmen complained of the lack of control over alignment and tended to concentrate their attacks on the inefficiency of the Parliamentary Select Committees. H. Spencer, writing in 1854, was even more expansive in his criticisms and condemned the radical volte face of Parliament toward railways which he felt had occurred since 1850. He argued that its attitude had changed from ' . . . the extreme of determined rejection or dilatory acquiescence, to the opposite extreme of unlimited concession' and that this was a direct result of the change

(1) F. Clifford op.cit. vol.1 p.94

(2) E. Cleveland-Stevens op.cit. p.316

(3) W. Chambers op.cit. pp.12-13

of opinion of landed society toward the railways.⁽¹⁾ Parliament's encouragement of new construction became explicit in the 1860s with the passage of the Acts of 1864 and 1868, and culminating in the Light Railway Act of 1896.

Government therefore left control of alignment to the members of the Parliamentary Select Committees. Despite the fact that Parliament recognised the importance of these Committees and implemented trenchant reforms of their procedure in the House of Lords in 1836 and in the House of Commons in 1844 and 1845, their unchallengeable power, allied to their conspicuous failings (in that their members were self confessed amateurs in the judgement of the merits of railway engineering and often exercised personal prejudice (the Duke of Cleveland (p.275) and Sir John Hanmer (p.282) were both noted Committee men), generated a great deal of dissatisfaction. Committees could be as perceptive as that assessing the Scarborough to York line of 1844 (p.211) and yet be as crass as the Lords Committee appraising the Syston and Peterborough Railway a year later (p.218).

If landed attitudes were uniform and consistent throughout the nineteenth century they were equally uniform in a geographical context. There would appear to have been no significant regional variation in landed opinion toward the railway. There was a general fear of invasion of parkland and estates be it in Oldham, the West Riding, rural North-umberland, Central Kent, or the Dart Valley. Fig.6 gives a very clear indication of density, number and uniform spread of parks throughout the landscape of England. Thus the necessity of avoidance was equally valid in all regions. It is also worth noting that the railway engineers employed by the railway companies were few in number and tended to work

(1) H. Spencer loc.cit. p.429

throughout the country. Thus their general principles were applied irrespective of the local conditions, avoidance being as important in one region as in another.

It is to be noted, however, that the railway companies found their problems of alignment intensified where it was proposed to make use of a valley. Valley sites appear to have been popular for the location of residences and the creation of parkland and it was frequently the case in favourable localities that a number of such parks were sited in close proximity to one another, for example in the Thames Valley, near Pangbourne (Fig.12) and to the east of Westerham, in Kent (Fig.64).

In applying the principles of non-interference engineers were often forced to avoid valleys completely, for example the Aire Valley (p.94), the Avon Valley (p.121), the Medway Valley (p.129); the Mole Valley at Mickleham (p.130), and the Coln Valley (p.313), or, on a lesser scale, the number of residences caused the engineer remarkable difficulty in negotiating an alignment that managed to 'thread' its way between the various parks to the satisfaction of all the landowners, for example in the Tyne Valley (p.98), the Culm Valley (p.138), the Nene Valley (p.167), the Kennet Valley (p.205), the Tees Valley (p.273), the Chess Valley (p.288), and in the vicinity of Guildford (p.277). The added constraint of relief accentuated the engineer's difficulties but as his first priority was minimal interference it might be argued that a valley site was less attractive than might otherwise be imagined.

It has been argued that a number of towns offered considerable opposition to the coming of the railway,⁽¹⁾ this occurring particularly in the 1830s, and, as a result, some main lines were forced to pass these towns at a distance. Certainly neither the towns of Maidstone

(1) J. Hepple loc.cit. p.155

nor Abingdon, two oft quoted examples of such opposition, were hostile to the railway and in both instances the railway company avoided the town because of fear of threatened opposition by landowners (pp.129, 143). But how could a town oppose a railway at this time? It was not until 1853 that Parliament granted towns a locus standi to oppose a railway before a Select Committee (p.80). The unsuccessful attempts of the town of Bakewell to influence the alignment of the M.B.M. & M.J. Rly. during 1846-48 is evidence of the singular lack of power of such a 'town' (p.179), as is the frustration of the hopes of the inhabitants of Stamford in the failure to have the London and York main line realigned in 1847 (p.238). At Clifton it was landed opposition that forced the railway company to avoid the village (p.211) as it was at Twickenham (p.209). Again at Cheltenham the inhabitants certainly exerted a strong influence upon the alignment of the East Gloucestershire Railway but it was just two landowners who caused the realignment of the original proposals (p.300). Admittedly the inhabitants of Leeds, through the intervention of the City Council, forced the North Eastern Railway company to amend its proposed alignment through the centre of their city. However this occurred after the ruling of 1853 and the town council would have had a valid locus standi before Parliament (p.302).

The last one-third of the nineteenth century saw a movement quickly evolve, and become established, which aimed to minimise the damage caused to the environment as a consequence of further railway construction. The debate of the 1870s, stimulated largely by the proposals to extend the Kendal and Windermere Railway northwards, was of national proportions and basic points of principle were discussed. The landowners, once seen as the guardians of the environment (cf. Creswell Craggs p.279) were now believed to have relinquished this responsibility as they appeared to prefer the economic benefits of railway construction to the damage the

railway caused to the increasingly remote rural areas into which they were being promoted. The mantle of protection thus passed from landed society to the educated general public and it is interesting to see the results of the new conflict in the enforced realignment of the Guildford and Kingston Railway in the 1880s, a landowners' line which proposed to interfere with public commons (p.339).

It has often been suggested that landed hostility toward railways sprang from a fear of damage to the hunting country (p.105). Despite Radcliffe's bitter attack of 1839, it would appear that landed society quickly reconciled themselves to the new phenomenon and concluded, admittedly after a number of years had elapsed, that the damage was far less than they had initially expected. They were also responsible enough to recognise that any opposition based solely on a plea of damage to hunting would prove totally inadequate if their pleas were to be upheld (p.244). In fact an article published in 1887 was, if not sympathetic toward railways then certainly tolerant of them and argued '... without doubt they have been in some respects injurious; but it is also equally certain that in others their influence has been altogether beneficial', the author concluding that the railways had allowed visitors to hunt all over England and thus increase the numbers, and subscriptions, advantageously.⁽¹⁾

(1) (E.S. Roscoe) 'Hunting' Edinburgh Review vol.166 no.340 (October 1887) p.399

The influence of landowners' attitudes toward railways as a factor in alignment theory.

Discussion of the factors that influence the alignment of railways in particular, and also the alignment of the single routeway in general, has, in the past, concentrated upon the relative impact of 'economic' and 'physical' forces. Initially 'economic' forces were considered to be the dominant factor, this being revised in latter years with Appleton arguing for a reassessment of the importance of the 'physical' influences as a force in determining alignment. This rather simplistic interpretation became confused during the 1960s with the publication of work which suggested that the specific morphology of any alignment could only be understood in terms of the relationship with the total environment and although geographers recognised that there were a number of factors which influenced the location of a routeway, only tentative suggestions were advanced as to the full extent of the content of this environment.

This may stem from the mode of analysis favoured by geographers inasmuch as it is essentially retrospective, in that alignments are explained in terms of their final shape as found in the field, (or more usually, on the map). During the 1960s railway historians, notably Simmons and Course, have recognised the complexity of factors that can influence alignment, in this instance specifically railway alignment, this stemming largely from the radically different approach, the historical perspective rather than the spatial. Even as recently as 1972 geographers were still confused as to the exact content of the environment which influenced any alignment and consequently had made little progress toward an analysis of the relative importance of each factor. (p.28)

It would appear that Meinig's argument that human influences are

of considerable importance in any analysis of alignment has been largely ignored. It is argued that the evidence drawn from a study of the influence of landowners' attitudes on railway alignment in nineteenth century England complements and strongly confirms his argument. Although this is but one manifestation of the influence of the 'human' factor, albeit a seemingly important one, the significance of the 'human' factor in terms of alignment theory should be radically reassessed. As a direct consequence of the lack of knowledge pertaining to the factors which influence alignment it is impossible to evaluate the importance of this 'human' factor in terms of the other influences. There is considerable scope for further work in this field. However, there is evidence to suggest that in the context of the process of alignment landed influence was of greater significance at the secondary rather than primary stage - the *kleinlinienführung* rather than the *grosslinienführung*.

It appears to be axiomatic that alignment is a two-stage process, firstly the choice of a general route between two fixed points, secondly the adaptation of this general route to the topography of the country through which the line was to run. A classic explanation of this process can be found in the evidence of those witnesses discussing the alignment of the Great Western Railway's main line between Bristol and London (pp.115-6). On occasions landed pressure was such that the primary alignment was influenced, especially where it was proposed to make use of a strategic valley or gap and this was denied (for example the London and Dover Railway p.129, and the M.B.M. & M.J. Rly p.178), but more usually landed influence was at its strongest at the second stage, in determining the specific morphology of an alignment. To take one particular instance amongst many, the Nene valley was considered admirably suitable for the primary alignment of a railway to serve the south-east Midlands and north-west East Anglia. The specific alignment

of this railway was influenced largely, if not totally, by the dictates of the landed society of that valley. (pp.164-7)

The evidence presented in the main body of the argument, the statements, both general and particular, of the engineers, of the promoters, and of the landowners themselves, that avoidance of estates and deference to landed wishes occurred throughout England in the nineteenth century would seem to indicate that this is a factor which must be included in any explanation or analysis of alignment. It is argued that the tact of the vast majority of the railway engineers who were responsible for deciding upon the specific alignments and the subtlety of the landed influence, might explain why the importance of this factor has not been given the recognition which it merits and why the 'human' factor has tended to remain unacknowledged. It is therefore argued that the specific morphology of any railway in England cannot be fully explained or understood without some reference being made to landed influences in particular, and human influences in general, along the line of that railway.

The lack of acknowledgement is possibly a consequence of the method of analysis practised by geographers in their explanation of alignments. Studies appear to be largely retrospective in that an explanation is provided of the alignment as it is on the map. This is typified by Farrington's use of quantitative techniques which measure deviations away from a theoretical desire line, with an attempt then being made to explain the reasons for the occurrence of any deviations. This method scarcely enumerates or evaluates the factors initially involved nor yet why that final route was preferred to a number of alternatives.

Any comparison with a theoretical desire line, (the use of the word desire itself implies an arbitrary element of choice and conflicting objectives), automatically appears to imply that an optimum line exists.

However the number of alternatives usually considered for any railway must indicate that an optimum line was never obvious and may, in fact, be non-existent. It also seems to imply that purely objective criteria can be applied to determine an optimum alignment. This is of doubtful validity as a present day interpretation of an optimum is as likely to be as subjective as that of the promoters and engineers of the last century. It might thus be argued that an optimum alignment, in the literal sense of the word, is merely a matter of opinion; vide George Stephenson discussing his desire to achieve the 'best' line. (p.177)

Any analysis should thus approach the problem from first causes rather than from the end result. The basic questions are surely why was this route preferred to the multitude of others that were equally feasible, what are the factors that influenced the decision makers in favour of one rather than the others. The number of alternative lines proposed to run between London and Brighton (Fig.14), in the vicinity of Saffron Walden (Fig.17), and even at Egginton (Fig.37), all bear witness to the fact that there were always numerous feasible alignments considered before the final route was decided upon.

The retrospective analysis has tended to presume that economic and physical forces were immutable and somehow independent of human influences. Yet these forces must be perceived by those choosing the alignment in exactly the same manner that landowners' wishes were perceived and taken into consideration. Economic forces were seen as the 'commercial country' (p.133) and its importance varied according to the overall objectives of the promoters and the engineer, it was never an implacable force. Similarly physical forces were perceived differently by different engineers. In 1836 Moorsom carried a line over the Lickey Hills utilising a gradient that was ten times as steep as that avowed by George Stephenson to be the maximum permissible. In fact the sheer

multitude of alignments proposed and considered would appear to indicate that economic and physical forces were of less importance than has, in the past, been suggested and that the human element in decision making should be given far greater prominence in any analysis of alignment.

Apart from that discussed above there are many ways in which this work can be extended. There is one basic tenet to the developments proposed in that the author firmly believes that only by the close study of original documents and maps will some understanding of the principles that govern alignment evolve.

One fertile field of study will lie in an elaboration of the study of landed attitudes toward railways in particular, and industrialisation in general. The argument of Sir John Hanmer, that the railway was to be considered as a work of art and yet his insistence that the railway should be aligned in a certain direction is evidence of the many paradoxes found in landed attitudes. (p.282)

There is a basic need for a comprehensive study of emparkment and the creation of parks, both in eighteenth and nineteenth century England, but more especially the latter. It would appear that emparkment continued unabated into the nineteenth century as did country house construction. Little is known, however, whether the boundaries of parks remained static, expanded or contracted during the railway age, whether the actual number of parks increased, although Prince has argued that in the Chilterns the maximum number of parks was reached in the 1880s. The further study of landed attitudes might well incorporate some analysis of attitudes toward landscape gardening and why there was so great an interest in such gardens during these two centuries.

There is a considerable amount of work to be done by economic historians into the finance of the railway companies. The Minutes of Evidence of the Parliamentary Select Committees often contain com-

prehensive and detailed share lists of the early railway companies and although outside the range of this study, there is some evidence to suggest that landowners were more involved in the early lines than has been given credit.⁽¹⁾

As Mowat has so eloquently argued⁽²⁾ there is a considerable need to study the railway system at its peak, from 1870 onwards. Despite the fact that one third of the mileage ever constructed was authorised after 1870 little, if anything, is known of the reasons for this continued expansion, of the promoters, of the sources of finance, of the expectations. The generalisations that are in current usage are based on minimal evidence and need substantiation. There is, above all, a necessity for a dedicated cartographer to produce an atlas of the expansion of the British railway network.

Hopefully this research has questioned the conventional wisdom that alignment is a consequence of the interplay of economic and physical forces. There seems little reason to doubt that the human influences were equally valid during the canal era, and were of significance in the motorway era but in a different form being more akin to the complaints of the general public against unnecessary railway construction which evolved in the 1870s. Research into contemporary documents will test these ideas. Before any quantitative assessment of the importance of the various factors can be attempted all of the factors must be identified and the opinions and thoughts of those evaluating those factors be ascertained.

(1) HLRO Min. of Evid. HC 1836 vol.29 Midland Co's Rly 17 March pp.5-6
(see Appendix 2)

HLRO Min. of Evid. HC 1836 vol.18 Northern and Eastern Rly 18 April pp.6-7, 29-70

HLRO Min. of Evid. HC 1836 vol.3 Cheltenham and Great Western Union Rly 7 March pp.13-20

(2) C.L. Mowat: 'The Heyday of the British Railway System: Vanishing Evidence and the Historian's Task': Journal of Transport History N.S. vol.1 no.1 (Feb. 1971) pp.1-17

APPENDIX 1

The matters upon which a Parliamentary Select Committee on a railway bill, of both the House of Lords and House of Commons, were required to report. (A Standing Order of 1836)

- (1) Capital - the amount, loans, names and addresses of directors, and various other details as to subscribers and the amount of their subscriptions.
- (2) Present means of conveyance - its sufficiency or insufficiency with figures as to traffic and charges.
- (3) Number of passengers, and weight and description of goods expected.
- (4) Income expected.
- (5) Whether the proposed railway was a complete line or part of a larger scheme.
- (6) Whether any competing lines existed or were contemplated.
- (7) Assistant engines - whether there would be any used on any or what part of the railway.
- (8) Engineering difficulties, if any.
- (9) Ventilation of tunnels.
- (10) Gradients and curves.
- (11) Length of the line.
- (12) Fitness, from an engineering point of view.
- (13) Level crossings over highways.
- (14) Estimates of cost, and whether adequate.
- (15) Annual expenses.
- (16) Calculated revenue: adequacy of.

(17) Number of Assents, Dissents, and Neuter, and details of property held by each.

(18) Names of the engineers examined both for and against.

(19) Petitions against - allegations of these, and whether these had been considered.

(20) Any other circumstances of which the House should be informed.⁽¹⁾

Earl of Donbigh	Northampton, Northants.	£ 500
Lord Viscount Melbourne	Downing Street, London	25,000
William Gillson	Claybrooke, Leics.	25,000
E.V. Wood	Leicester	£ 500
James Brooks	Griff, Leics.	23,500
Chas. Meredith	Leicester	23,000
Chas. D. Robinson	Leicester	27,000
Saml. Brookhouse	Leicester	£ 500
Thos. Pagett	Leicester	21,000
William Buckett	Reulstone, Leics.	23,000
Ed. Basil	Quorndon, Leics.	23,000
Jos. Pagett	Loughboro', Leics.	23,000
W. Heyrick	Thurmaston, Leics.	£ 200
C.F. Pucke (trustee)	Ravenstone, Leics.	23,500
Sam. Waters (trustee)	Leicester	£ 300
John Palmer	Loughboro', Leics.	21,000
William Paget	Loughboro', Leics.	21,000
G. Syng Paget	Critton Bonnington, Notts.	21,000
Jos. Gales	Hidborough House, Derby.	23,500
J. Wright	Leiston, Notts.	210,000

(1) O.C. Williams op.cit. vol.1 pp.62-3

APPENDIX 2

Table of Landowners subscribing to the Midland Counties Railway 1836.
from HLRO Min. of Evid. HC 1836 vol.29, Midland Counties Rly 17 March
pp.5-6.

Duke of Newcastle	Clumber Park, Notts.	£2,000
Earl of Denbigh	Newsham, Warwicks.	£ 500
Lord Viscount Melbourne	Downing Street, London	£25,000
William Gillson	Claybrooke, Leics.	£25,000
R.W. Wood	Leicester	£ 500
James Brooks	Croft, Leics.	£2,500
Chas. Meredith	Leicester	£2,000
Chas. B. Robinson	Leicester	£7,000
Benj. Brookhouse	Leicester	£ 500
Thos. Pagett	Leicester	£1,000
William Hockett	Houlstone, Leics.	£2,000
Ed. Basil	Querndon, Leics.	£2,000
Joc. Pagett	Loughboro', Leics.	£3,000
W. Heyrick	Thurmaston, Leics.	£ 200
C.W. Packe (trustee)	Ravenstone, Leics.	£3,500
Sam. Waters (trustee)	Leicester	£ 300
John Palmer	Loughboro', Leics.	£1,000
William Paget	Loughboro', Leics.	£1,000
G. Byng Paget	Sutton Bonnington, Notts.	£1,000
Jas. Oakes	Riddings House, Derbys.	£2,500
J. Wright	Lenton, Notts.	£10,000
J. Hood	Beeston, Notts.	£ 500
J. Pearson	Chilwell, Notts.	£ 500

Parliamentary Papers consulted

Sam. Parsons	Nottingham	£ 800
Will. E. Moorby	Derby	£2,000
W. Evans	Allistree, Derbys.	£5,000
T. Pares	Hopwell Hall, Derbys.	£ 500
E.M. Munday	Shipley, Derbys.	£1,000
Henry Howett	Long Eaton, Derbys.	£1,500
W. Jessop	Bullerby, Derbys.	£5,000
F. Wright	Ratcliffe, Notts.	£10,000
J. Cope	Debdale House, Notts.	£5,000
W. Palmer Morewood	Alfreton, Derbys.	£5,000
T. Silverwood	Riddings, Derbys.	£5,000
Total		<u>£94,300</u>

Report from the Railway Department of the Board of Trade 1845 (no. 279)
vol. XXIX: On the Amalgamation of Railways (I.W.P. Transport vol. 7)

Report from the Select Committee: Two Reports (no's 200, 274) vol. XLII:
On Railway and Canal Amalgamation 1845 (I.W.P. Transport vol. 7)

Two Reports (no's 380, 657) from the Select Committee on Railway and
Canals 1845 vol. XLV (I.W.P. Transport vol. 7)

HC Select Committee on Private Bill Legislation 1863

HL Select Committee on the Charging of Retained Rates for Railways 1863.

Railway Journals consulted

Northampton	Railway World
Railway Chronicle	The Engineer
Railway Herald	Illustrated London News
Railway Magazine	Journal of the Railway and Canal Historical Society
Railway Times	

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Two Reports (no's 590, 687) from the Select Committees on Railway Acts Enactments 1846 vol.XIV (I.U.P. Transport vol.7)

HC Select Committee on Private Bill Legislation 1863

HL Select Committee on the Charging of Entailed Estates for Railways 1863.

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Railway Chronicle	The Engineer
Railway Herald	Illustrated London News
Railway Magazine	Journal of the Railway and Canal Historical Society
Railway Times	

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