

THE TROLLEYBUS PROPOSAL AT STROUD, GLOS., IN 1903: THE STROUD DISTRICT & CHELTENHAM TRAMWAYS BILL

by D. G. Tucker

THE Stroud District and Cheltenham Tramways Bill of August 1903 was of importance and interest because it included a proposal to run trolleybuses on those portions of the approved routes where the expected traffic was insufficient to justify the capital cost of ordinary electric tramways. Had the system materialized it would have been the first trolleybus system in Britain, for it was not until 1911 that the trolleybus actually first appeared in Britain, at Leeds, Bradford and Aberdare,¹ although it had been adopted in France and Germany in 1900 and 1902 respectively. The question of the electricity supply for the system was also interesting in that the electricity was to be provided from a bulk generating-and-supply undertaking, the Gloucestershire Electric Power Company, set up by Act of Parliament in June 1902. There was no public or substantial private electricity supply in the Stroud area at that time. Indeed Stroud was remarkable in that, although a public electricity supply was proposed as early as 1888 and Provisional Orders for such a supply were proposed by private companies and the Urban District Council on numerous occasions from 1890 onwards (and actually obtained by the Council in 1903 and by a company in 1913), yet Stroud did not get a public electricity supply until towards the end of the First World War. It never got its tramways or trolleybuses.

The year 1903 was near the peak of electric tramway construction in Britain. The provision of electric street tramways had started in the U.S.A. with the Richmond, Virginia, line constructed by F. J. Sprague in 1887-8, and in that country had reached over 22,000 miles of track, with an investment of over \$2,000m, by 1902. In Britain, as in other European countries, the development was much slower, reaching only about 1,200 miles by 1902. Many of the new tramways were conversions and extensions of old horse-drawn systems, and this was the case at Stroud's neighbouring town of Gloucester, which was in the throes of negotiations for conversion and new building at the time of the Stroud bill. At Cheltenham, involved with this bill as the distant terminus, a quite extensive, completely new electric tramway system was already in hand, the section to the north-east of the town having been completed in June 1901. Most tramways were basically urban, but the Stroud proposal involved a long link to Cheltenham, through open country, and was unusual in this respect too.

Although neither the Stroud District & Cheltenham Tramway Company nor the Gloucestershire Electric Power Company ever provided the services they were set up for, they remained in existence for some time. The Tramway Company retained a full entry in Garcke's Manual of Electrical Undertakings until 1911, with the comment in

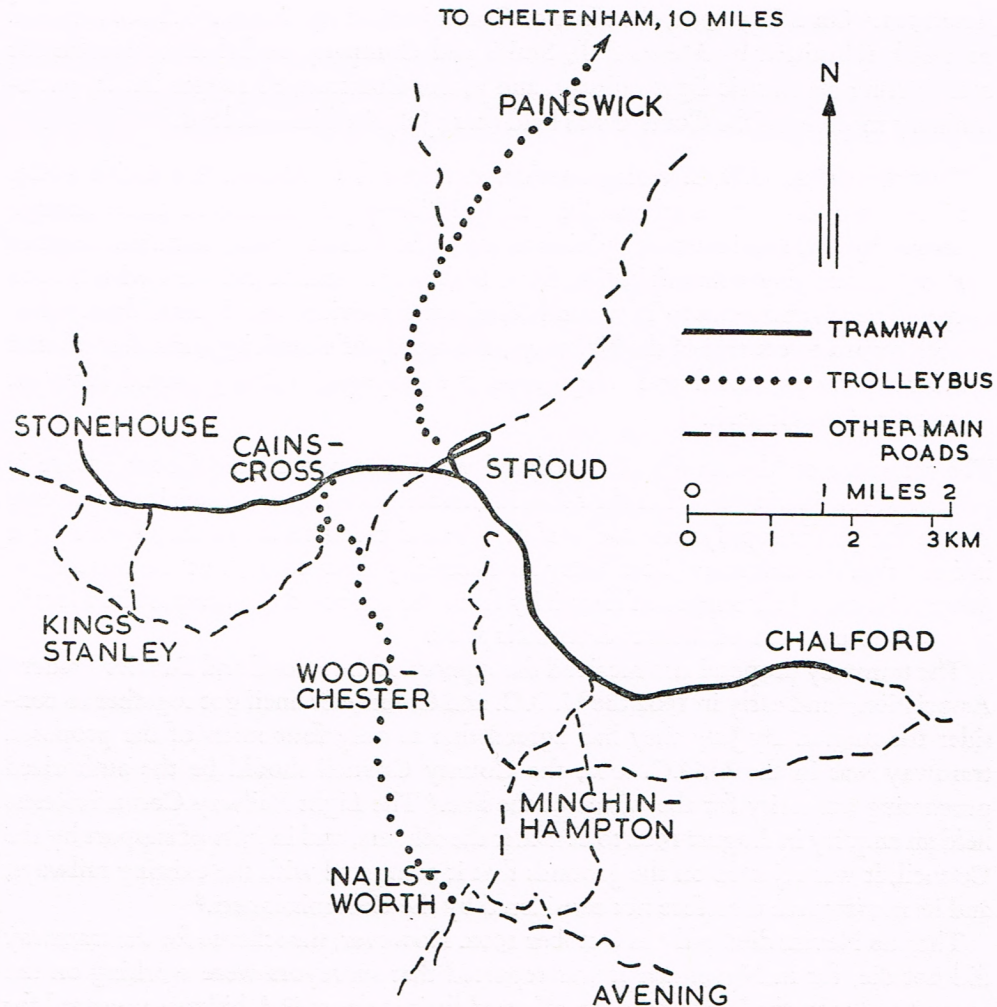
THE HISTORY OF THE CITY OF BOSTON FROM 1630 TO 1800

BY
JOHN H. COOPER

The history of the city of Boston from 1630 to 1800 is a story of growth, struggle, and triumph. It begins with the arrival of the first settlers in 1630, who founded the city on a small island in the harbor. The early years were marked by hardship and conflict, but the city grew steadily, becoming a major center of commerce and industry. The American Revolution brought a period of intense struggle, but the city emerged as a leading center of the new nation. The years 1800 to 1850 saw the city's population double and its economy diversify, laying the foundation for its future as a world-class city.

The city's history is a testament to the resilience and spirit of its people. From a small settlement of fishermen and farmers, it grew into a major center of commerce and industry. The city's leaders were visionaries who saw the potential of the harbor and the surrounding land. They built a city that was a model of good government and civic order. The city's history is a story of the triumph of the human spirit over adversity.

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Stroud District and Cheltenham Tramways: proposed system, 1903.

1910 'The Order remains in abeyance', and the Power Company remained in being until after the West Gloucestershire Power Company virtually took over its powers in 1922, after they had been formally revoked by the Minister of Transport in March 1920.²

The story of the tramway and trolleybus proposal is the subject of this article. It is very far from clear why it came to nothing, but the reasons probably include the death of its chief promoter and the lack of electricity supply, in addition to the lack of subscribed capital.

The original tramway proposal emanated from Thomas Nevins, said to have been an American, but domiciled at Nevins Park, Gorey, Ireland,³ who had successfully provided the first part of an electric tramway system at Cheltenham, completed in

June 1901.⁴ On 2 July 1901, the Finance Committee of the Stroud U.D.C. received proposals submitted by Messrs Ball, Smith and Company on behalf of Nevins for constructing an electric light railway, and at the Committee's suggestion an extraordinary meeting of the Council was held on 24 July,⁵ which resolved:

That the Stroud U.D.C. having considered a letter from Messrs. Ball Smith & Co. giving an outline of the scheme for a Light Railway proposed to be made through Stroud by Mr. Nevins are of opinion that a Light Railway of the standard gauge of 4' 8½" connecting Painswick, Chalford, Nailsworth and Stonehouse with Stroud would be advantageous to Town and District and provided the rights of the Council with regard to control of the highways, the supply of electricity and other matters are properly protected and safeguarded the proposed Railway should have the support of the Council.

The reference to 'the supply of electricity' was made because the Council were in process of considering whether they should themselves set up an electricity generating works for public supply; no doubt if they had decided to do so they would have insisted that the tramway should buy its electricity from them, but the concurrent proposal for the bulk supply of electricity from the proposed Gloucestershire Electric Power Company caused them to defer their plans.

The tramway proposal also received the support of the Stroud and District Traders' Association,⁶ and early in 1902 the U.D.C. and County Council got together to consider the matter. By July they had agreed that as only four miles of the proposed tramway was in the U.D.C. area, the County Council should be the authorized purchasing authority for the whole of the line.⁷ The Light Railway Commissioners held an enquiry in August 1902 to consider the scheme, and in spite of support by the Council, it was rejected on the grounds that it competed with the existing railways, and its merits were therefore not considered by the Commissioners.⁸

Thomas Nevins died early in October 1902. However, the scheme for the tramway did not die, for in November it was reported that surveyors were working on the route,⁹ and soon the local traders re-affirmed their support.¹⁰ A bill was prepared for submission to Parliament for the incorporation of a company to construct and operate the tramway. The Urban and Rural District Councils at Stroud, and the County Council, expended much time and effort in arguing about the nature of their support for the bill and what contribution they would make to the expenses.¹¹ The Bill proceeded through Parliament from 23 February until it received the Royal Assent on 14 August 1903. It was debated in the Lords,¹² but the most thorough consideration had already been given to it by a Select Committee under the Chairmanship of Sir Lewis McIver, which met on 29 and 30 April and 1 May 1903. It was in the proceedings of this committee¹³ that the significance of the proposal to substitute trolleybuses for tramways on some of the routes first fully emerged, although the idea of introducing 'trolley omnibuses' in the system had been announced as early as the beginning of February 1903.¹⁴

Although the Committee comprised only four members, the meetings were large as there were 17 representatives of the various county and local councils involved, 8 counsel (3 for the promoters, 3 for the Great Western Railway and 2 for the Midland Railway) and several solicitors and expert witnesses. Among the latter were Mr A. A. Campbell Swinton, consulting engineer to the promoters and a very well-known and reputable electrical and civil engineer, and Mr Alexander Siemens, a Past-President of the Institution of Electrical Engineers, also appearing for the bill. A good deal of time was spent on various local opinions as to need, expected traffic, and the inadequacy of the railway services, and also on the railway companies' objections to the bill. Under cross-examination, Swinton denied that the scheme originated in the Gloucestershire Electric Power Company and stated that only three of the promoters were connected with the Power Company, but that, of course, it was desirable that the company should supply as many tramways as possible. It was clear from the discussion, however, that the tramway and power schemes were linked.

The routes envisaged in the Bill¹⁵ are shown in the map, where the way in which they radiate from Stroud is apparent, and where the distinction is made between those routes in the more densely-populated areas which were to be ordinary tramways, and those in more sparsely-populated areas which were to have trolleybuses.

Mr Balfour Browne, K.C., opening for the promoters at the Select Committee's enquiry, said that

There was one novel feature in the Bill. They not only proposed to make tramways, but before the trams were necessary in some of these valleys the promoters intended to run motor cars by means of overhead wires, and without rails. That system had been adopted in many places abroad and had proved very successful. The only thing against it was that two wires instead of one were necessary, but this really contributed to safety. Of course, there was greater friction in running on roads, and more power was required, but whereas an ordinary tramway cost £7000 a mile, this would only cost £1000 a mile. This cost was comparatively a small matter, and for the development of these country districts it was very important that places which could not bear the large expense of tramways should be given accommodation at once. Stroud would be the centre of the system, the points to which the service was to extend being Chalford, Nailsworth, Stonehouse and Painswick, thence up to Cheltenham. The opposition of the Railway Companies was only upon competition, but it was evident that the Midland and Great Western could not compete with this Bill for 'pick-up' traffic, and the promoters had all the local authorities in favour. The estimate for the entire scheme, including the construction of tramways not at present to be proceeded with, was £250,000. . . . The Light Railway Commissioners rejected the previous scheme on purely technical grounds.

The 'purely technical grounds' were presumably the legalistic objections of competition with the railways, already mentioned.

Later, Mr Swinton added other information:

It was proposed to run the northern line by means of trolley omnibuses from Stroud to Cheltenham in the first instance, but it was hoped that before long they might convert the portion between Stroud and Painswick into ordinary tramway constructions. . . . The poles would carry two trolley wires. . . . The motor omnibuses he saw in France were about three tons, and they were rather too heavy. Something lighter was required in this scheme. The omnibuses should carry 16 to 20 people. . . . A 15-minute service was contemplated for the Stonehouse route, to be increased on Fridays and Saturdays, and for the Nailsworth section the service would be a little under half-an-hour. For the Painswick and Cheltenham route a two-hour service was suggested. . . . There would probably be special cars for goods, but light parcels could be taken on the ordinary cars.

All witnesses seemed to think the scheme would be profitable.

It also transpired that there was some suggestion that the public might be allowed to use the wires for supplying electricity to their own electric vehicles, but Swinton said it was not contemplated initially. The possible use of wires by the public appealed to the Committee and at first they wished to include in the Bill definite provision for this; but they finally decided to leave it for later development.¹⁶

The Company was finally authorized to raise £135,000 by shares and £45,000 by borrowing; this was adequate to enable the system to be built and operated, although, by being £70,000 below the estimated need, it would probably not have permitted the later conversion of the trolley-bus sections to tramway.

Nothing came of the scheme; no shares were actually issued, and Stroud never got trolleybuses or tramways. Both Dix¹⁷ in 1906 and Owen¹⁸ very recently have stated that the scheme was killed by the inauguration of a rail-motor service by the Great Western Railway. This service¹⁹ provided an hourly shuttle on the existing railway line between Stonehouse and Chalford with stops at Stroud, Brimscombe, and four intermediate level crossings; it started in October 1903 and was immediately successful in attracting traffic.²⁰ Indeed, it was soon copied in many other parts of Britain. However, not only have I failed to find any local evidence that this was a cause of the failure of the tramway scheme, but there are many positive references up to November 1904 to the continued hope that the tramway would be proceeded with.²¹ Indeed, so great was the need for the kind of service that the tramway and trolleybus system would have given that from January 1905 onwards road motor omnibuses were introduced to provide it,²² both by private operators and by the G.W.R. Company, the first of these being between Stroud and Painswick. By then, of course, hope that the tramway company would proceed had faded away, and once the buses were established it was hardly practicable for the tramway scheme to be revived.

We are left with the problem of why the tramway and trolleybus scheme failed to advance during the year-and-a-half after the bill was approved. Nevins' death in October 1902 may have removed some of the driving force, and there may have been

a failure to get financial backing on a sufficient scale. The connection with the Gloucestershire Electric Power Company has already been emphasized; indeed, the probable formal amalgamation of the Power and Tramway Companies was announced and discussed in March and April 1904.²³ The failure of the Power Company to get on with its schemes for producing electricity must have been an important factor in the demise of the tramway and trolleybus scheme. Had Nevins survived, he might well have made other arrangements for electricity – it would have been easy to have generated his own – but there was, as we have seen, a suspicion that the company which promoted the bill after Nevins' death was concerned primarily with providing a customer for the Power Company, and if this was true, it provides a probable explanation for the failure of the tramway and trolleybus scheme.

Although no specific explanation can be given for the failure of the Gloucestershire Electric Power Company to provide its proposed electricity supply, it is fairly clear that lack of potential consumers was the main reason. By 1903 there were, in Britain, 20 bulk-supply electric power companies which had been sanctioned by Act of Parliament. Of these, nine were already in operation or nearly so, and prospects looked promising. Yet by 1910, the Gloucestershire Company was only one of seven of the companies which had made no progress since 1903, and was thus not particularly untypical. The power companies which got ahead were all in densely industrial areas, while those which did not were all in the more rural areas.²⁴ Power companies were required to be bulk-suppliers, and could not supply power to individual consumers for lighting purposes unless their main load was non-lighting. Municipalities generally preferred to remain independent and generate their own electricity; in areas like Gloucestershire, with little industry (and much of that water-powered), there was little market for a power company – hence the interest in creating a customer like the tramway company. But, by itself, the tramway proposal was not enough to get the power company into operation.

Acknowledgments

My thanks are due to my wife Mary for much patient help in searching old newspaper files and minute books, to Mr W. D. Wilson, Clerk to the former Stroud Urban District Council, for making the Council's old minute books available to us, and to the Gloucestershire County Record Office for assistance.

NOTES

1. E. Garcke, *Manual of Electrical Undertakings*, xvi (1912–13); also *Chambers's Encyclopaedia* (1950 edn), vol. 13, 740. There had been an experimental trolleybus at the Hendon depot in 1909, but this did not run on the public streets.

2. Garcke, *op. cit.*, xxvii (1923–4) and later volumes.

3. *Electrical Engineer*, xviii (31 July 1896), 137.

4. J. B. Appleby, *Cheltenham's Trams and Buses Remembered* (Transport Publishing Co., Glossop, 1973).

5. Stroud U.D.C., Minute Book No. 7.

6. *Electrical Engineer*, xxviii (4 October 1901), 496.
7. Stroud U.D.C., Minute Book No. 7, 8 January and 1 July 1902. This presumably referred to the option of compulsory purchase after 21 years granted to local authorities under the Tramways Act of 1870.
8. *Electrical Engineer*, xxx (22 August 1902), 281.
9. *Ibid.*, 7 November 1902, 679.
10. *Ibid.*, 5 December 1902, 820.
11. *Stroud News and Gloucester County Advertiser*, 9, 16, 23, 30 January, 6 March 1903.
12. *Ibid.*, 24 July 1903.
13. Reported in *Stroud News and Gloucester County Advertiser*, 1 May 1903.
14. *Electrical Engineer*, xxxi (6 February 1903), 208.
15. Garcke, *op. cit.*, viii (1904-5); also plans in Gloucestershire County Record Office, ref. Q/RUM 580 and 581.
16. *Stroud News and Gloucester County Advertiser*, 24 July 1903.
17. C. Dix, 'Rail and road motors as auxiliaries to railway development', *Railway Magazine*, xviii (1906), 393.
18. N. Owen, *History of the British Trolleybus* (1974), 19.
19. *Railway Magazine*, xiii (1903), 252 and 372-3.
20. *Ibid.*, xiv (1904), 487, and xv (1904), 91.
21. E.g., *Stroud News and Gloucester County Advertiser*, 6 November 1903, 1 January, 4 March and 25 November 1904.
22. *Ibid.*, 6, 13 January 1905, and numerous other references in succeeding weeks.
23. *Ibid.*, 4 March, 29 April 1904.
24. D. G. Tucker, *How Towns got Electric Light and Tramways: A Case Study of Gloucestershire and Neighbouring Towns* (forthcoming, H.M.S.O. for the Science Museum, London).