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The History and Development of British Tramways and the Impacts That It Had

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The Development and Impact of Tramways in Nineteenth Century London

The main factor that contributed to the desire to develop tramways in nineteenth-century London was that earlier systems such as steam tramways were generally unsuccessful with their development. One of the issues with the development of those systems was their electrification scheme. Additionally, the overhead system that was used was not favorable aesthetically. This means that it did not look good from the outside. Because of that, the overhead system was not accepted. London needed a better transportation system and tramways offered the best possibity.

People also often ask themselves whether it is true that technicians in England were possibly reluctant to acknowledge that overhead conductors might be better for the country. However, people now know that that technicians in England were more willing to acknowledge the superiority of the overhead system than they had figured. A classic example of this is when Edward Hopkinson wrote a paper that demonstrated how he had developed his own overhead conductor system to carry passengers on the Bessbrook and Newry Tramway in Ireland. He had begun

developing this system in July of 1884 when the idea was recommended to him by Mister Henry Bercroft from the Bessbrook Spinning Company. After considering that suggestion, he eventually implemented a system that combines both the third rail and overhead conductor system and the tramway was then officially opened in October of 1885. After the opening, Hopkinson was able to convince people that the general costs were much less for his continuous conductor system than they were for battery traction. Although the early overhead conductor system was definitely beneficial in those regards, it was not very beneficial aesthetically. The aesthetic problems with the system were enough for people to generally arrive at the conclusion that there were other potential systems in England that could be more advantageous than the overhead system. Therefore, these earlier failures had stimulated a good amount of interest in improving transportation throughout London and the other surrounding neighborhoods in England (McKay 164, 165).

At around the time that improvements on transportation in England were beginning, there was high interest in the battery traction system. There are multiple reasons why people tended to favor that system. One of the reasons was that installing poles with electric wires on the city streets of England was an impossible task. Another reason was that there was no large immediate outlay or major change of plant required. Additionally, aesthetic conditions were very important in the development of systems for the tramways. Because the earlier overhead system was not very favorable aesthetically, the new battery traction became increasingly favored by people in England.

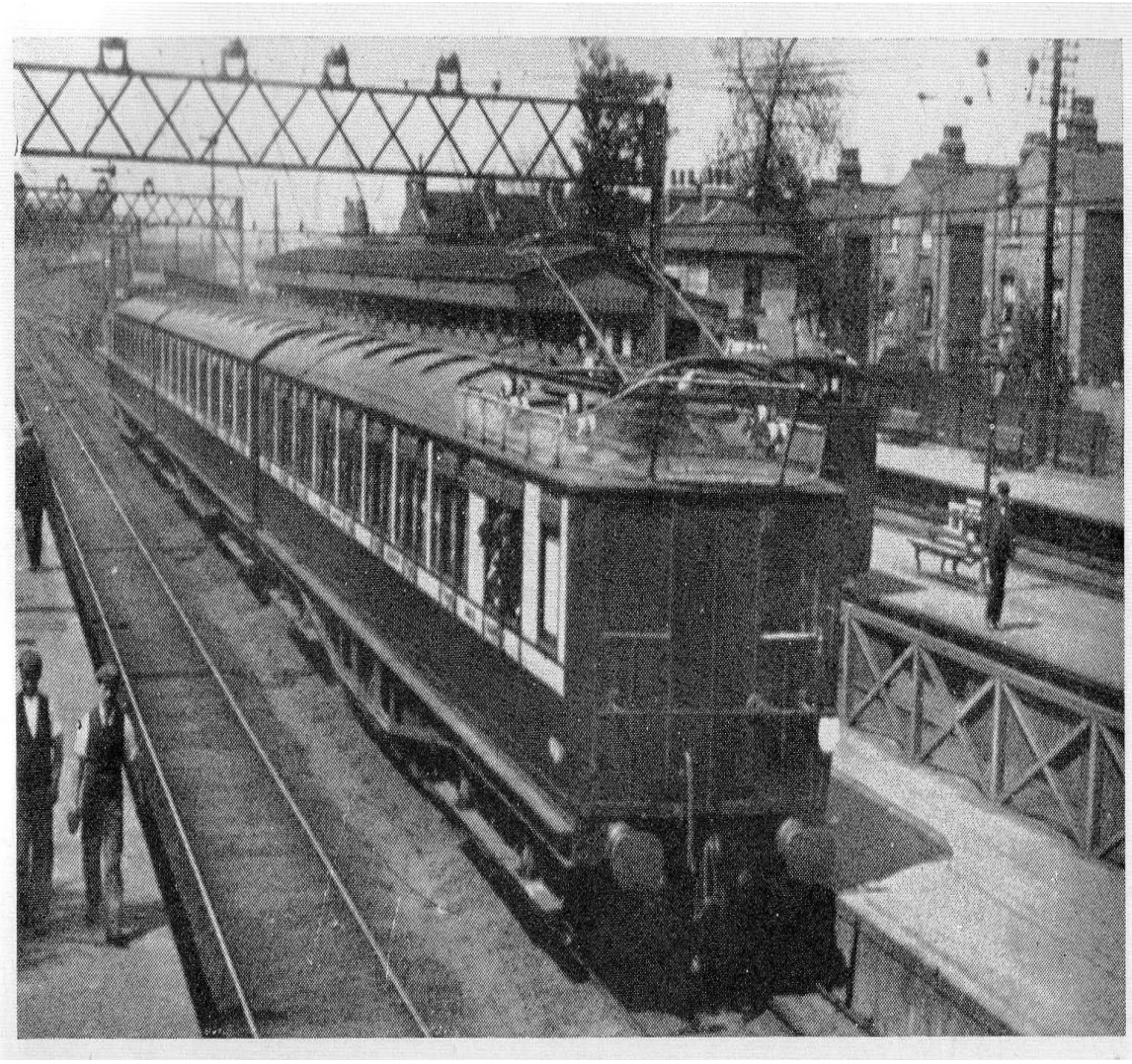

Figure 1

From: http://www.wikiwand.com/en/Railway_electrification_in_Great_Britain

This is an example of an electrified railway in Great Britain which is what the early battery traction system would eventually lead to electrification of the tramways

One of the most essential attempts to find a satisfactory form of battery traction technology was the North Metropolitan. It was so important in the development of battery traction that other attempts were considered unimportant. After performing trials with battery cars as early as 1882, the company chose to bring about accumulator traction on its Barking Road Line. The General Electric Power and Traction Company had performed the installation of the system of battery cars. Although the company had been performing installations of accumulator lines on other tramways, they had been expecting a major success with installing accumulator lines for the North Metropolitan. They were ultimately able to construct moderate inclines and a track that was not extremely smooth. This showed people in England that battery traction had a lot of potential to be a successful system (McKay 165).

Following this trial, battery traction started to gradually spread to other lines all over the country of England. Consequently, the electric tramway in England came to be regarded as more and more secure. The spreading of battery traction in tramways to other parts of England essentially killed two birds with one stone insofar that there was a perfect transportation system and that the long lines of electric posts were no longer seen (McKay 166).

Although many people were certainly in favor of this new system of battery traction throughout the tramways in England, there were still other people who were less sure about the potential effectiveness of the system. This was largely because of its low efficiency in terms of mechanical ability, its quick weakening of

the batteries, and the unsanitary gases that formed as a side result of the gradual development of the system. All of these factors taken together led to people developing a desire to avoid this new system as much as they can. Once the contract with the General Electric Power and Traction Company got renewed in early 1891, the North Metropolitan had decided to pay a bit more per car-mile for the new battery traction system than they had previously agreed to pay (McKay 166).

This had led to disappointing prices as well as to problems regulating the battery traction system. Although the North Metropolitan Company had gotten a license from the British Parliament and the London County Council to utilize electric traction for a period of seven years, the West Ham Corporation had not agreed to grant such terms for train lines that were running through its territory. In fact, that corporation had not agreed to grant anything higher than a temporary license. In addition to that, the temporary license could be canceled within a twenty –four hour period. While these difficulties were occurring, the North Metropolitan Company had canceled its contract with the General Electric Traction Company in 1892. Immediately after that, they had put horse-drawn service back into use on the Canning Town Line. Therefore, the hopes that people had for the new system of battery traction had been destroyed and shattered in some areas (McKay 166, 167).

However, this result had largely differed with another experiment with overhead equipment that was used for the Roundhay Park line at Leeds. In September of 1890, the American producer of train lines had offered to build this new line for the city and then take it away if needed. However, the city would agree

to buy the installation if they were completely satisfied with its layout and design. Because it was a reasonably long train line and very suburban in nature, the city had agreed to the offer. This line ended up operating very well and efficiently. As a result of that, new proposals and offers for overhead traction systems were to follow. In addition to the new proposals and offers, there was also much more debate over the extent and length of the line combined with conduit traction in the center of the city (McKay 167).

In addition to this experiment, there were multiple other experiments that had been conducted that had caused technical people in England to eventually make up their minds in regards to which system of tramways was generally more favorable. When the Institution of Electrical Engineers had eventually gathered and met in 1894 and discussed the classic issue of electric tramways and traction, a generally unanimous opinion that the overhead trolley system was definitely the best and the cheapest system in more ways than one had swept over almost all of the members of the Institution of Electrical Engineers. However, this conclusion had increased the frustration of the engineers instead of alleviating it. This was largely because there appeared to be a definite possibility that construction and the equipment of various electric lines will only start to be profitable for people after the generation at the time was to disappear into dust (McKay 168).

In addition to the conflict and debate between technical and economic efficiency and expediency and cultural and aesthetic perception, there was much more that had contributed to the lack of efficiency in Britain electrifying the

tramways. The full structure of the British tramways was actually very inadequate. This led to a kind of blockage whenever an idea was pitched about the tramways in Britain and a decision was made to attempt to implement it. Within that blockage, hostility towards the overhead system became more and more used as an excuse to turn down every idea for an electrification project which various private enterprises had wanted to advance (McKay 168).

The Tramway Act of 1870 had said that cities could finance their tramways but that actually operating and putting the tramways into use had to go through various private companies. However, the private companies were limited to a lease of twenty-one years regardless of how it was operated. After those twenty-one years, the city was legally able to buy the tramways at their physical value. It was very clear that companies would not electrify their systems without having renegotiated their leases. Another questionable point was if twenty-one year extensions would be enough for fully amortizing investment in electric traction. Largely because of that, the interests of private companies were strongly urging to have the law rewritten so that it allows the maximum time period of forty-two years that electric companies from England would potentially be allowed to negotiate (McKay 168, 169).

A definite solution to this would be to make attempts to try to renegotiate the basic contract within the general foundation of the strictly regulated private monopoly company. However, the hindrance to that was that the relationships between the private operating companies and city administrations had been

steadily getting worse. With that, there was a lack of friendliness toward a lot of the companies in Great Britain. A large part of all of that was that the British companies had gradually been less willing to make various investments and potentially improve their service. This was largely due to the fact that their leases were getting very close to their day of expiration. Additionally, cities did not want to give new leases to companies that they had felt were undeserving of them. Often, this would be because the cities had felt that the companies had not used their powers effectively or appropriately. However, this would usually be a false accusation. The failure of the various companies in attempting to successfully equip their systems was often largely because of being financially unable to afford the necessary equipment. Unlike their counterparts from other various parts of Europe, the companies in Great Britain were also not in a very strong bargaining position. They were essentially unable to potentially implement a possible alternative of years more than their past horse tram service if there was no agreement that was reached beforehand (McKay 169).

Another major difference that was largely seen between British electrical companies and various continental electric companies and electric companies in the United States was that the British companies were not as concentrated and organized as other European companies and companies from the United States. They were much less strong when it came to negotiating agreements with city officials. Between all the years of 1890 and 1894, there were a number of British tramways that had gotten an overhead electric traction system from a number of

certain competing firms. A good majority of those firms had happened to be British firms (McKay 169, 170).

Because there had been a large hindrance to British street tramway development during the time period of the early 1890s, a good amount of the critics of the older horsecar companies had wanted to potentially institute the policy of municipalization. This was largely due to the desire to get out of the problem that they had helped produce with the British tramway development being blocked. Because municipalization was gradually becoming extremely well-known around England, the supporters of municipalization in tramways had a good argument (McKay 171).

There were generally about three major arguments that seem to have worked the best when various advocates had argued in favor of municipalization. One of the major arguments was that people had generally wanted to change the gradual weakening of the private operation of the tramways in England and to generally improve the quality of the service provided to the people who had wanted to ride the tramways in all of the possible aspects. Those aspects included lower prices to pay for riding the tramways, more frequent tramway service, and more comfortable train cars to ride in. This largely had to do with better planning. This argument was mainly made by people who were city engineers and by street departments. Since those people and departments could potentially exert influence, this argument certainly did carry weight.

One of the other arguments largely had to do with the economic factor of the British tramways. Since the tramways were definitely considered a public necessity, a lot of people had believed and argued that the various profits that were made should flow into the pockets of the public people instead of exclusively into the pockets of the shareholders and stockholders. Additionally, people who had largely advocated for the policy of municipalization had also said that managing and maintaining the tramways in a better and more efficient manner could potentially even lead to more profit than the company itself was making on some select occasions. This argument was generally made largely by business leaders. Although those various business leaders were definitely not doctrinaire socialists, the idea and argument that profits should flow into the public purse instead of into the pockets of the shareholders was still extremely important to them (McKay 172).

A third argument that was made in favor of municipalization was that utilizing municipal operation in an attempt to get the tramways to work and function could potentially lead to better payment for the workers and employees as well as better working conditions. There were originally various standards for the amount of payment and the hours that the employees worked that work that had been set by the market. Although many of the private companies had essentially wanted to follow these standards as closely as possible, the city tramways had wanted to deviate from the norm and put pressure on the standard wage for the workers that is associated with unskilled labor. This kind of pressure would ultimately extend way beyond their own employees (McKay 172, 173).

Although all three of these different arguments were certainly of great importance, they were still very hypothetical arguments going into the very late nineteenth century. The only tramways that was actually operated municipally at that time were the tramways of Huddersfield and the only reason for that was because they could not get any private company to lease their tramways. Additionally, there was still the long-lasting prohibition on municipal operation of the tramways as imposed by Parliament. Additionally, there were various potential risks in investing in the tramways. This was albeit the possibility of large profits. Some sources had even come to arrive at the conclusion there is almost absolute certainty that no possible change could be made if the British tramways came to be municipally operated (McKay 173).

If this prediction would ever prove to be erroneous, it was largely because of the model of tramway innovation that had been developed by the city of Glasgow. As that particular model became more and more fully developed, more cities would look to imitate that model as much as possible. As a matter of fact, the model of Glasgow had a very profound impact on the history and development of the British tramways. This was specifically true in terms of the municipalization of British tramways. There were a lot of particular big companies and models that had exerted a considerable amount of influence on various developments in different nations. Another classic example of this is the French Thomson Houston Company and the impact that it had made on private enterprise in France. Therefore, the impact that the Glasgow model had on British tramways should not go unnoticed (McKay 173)

One aspect of the British tramways that particularly stood out was the fact that the production of the electric current was very cheap. This was especially true for the new British electric tramway systems back in the late nineteenth century in England. As the electric tramways developed towards the end of the nineteenth century, they gradually became more and more efficient and marketable for the various citizens and residents of England. In addition, the prices for riding the tramways were generally very cheap. In addition, the adage saying that "Trade follows the tramway" was becoming very commonplace and major streets around England were generally expected to have an electric tramway running along them (Jackson-Stevens 15, 18).

Figure 2

From: https://www.theguardian.com/cities/2016/jun/06/tram-cars-killed-efficient-urban-mass-transport-system-christian-wolmar

This is a tramway on Castle Street in Liverpool. It represents tramway efficiency.

The first railway that was open to the public and authorized and approved by the British Parliament was the Surrey Iron. This happened in 1801. Not too long after, the Oystermouth Railway was approved in 1804 as the fifth public railway and eventually evolved into the first railway to provide a service for passengers. In 1806, it had originally opened as a toll tram road that was specifically suited and used for freight. Shortly after, a man named Benjamin French had offered to provide a payment of 20 pounds a year in an effort to obtain permission to run some other train cars on the Tram Road for a year (Klapper 8, 9).

When the tramways were initially being constructed in London and around England, it was required that the main branch of tramways in England have four trams with 60 seats apiece. In order to successfully finance the construction of that project, the company had to put aside fifty thousand pounds. That was definitely considered a lot of money to be taken out of the budget of a company back in that time (Klapper 15).

In 1859, a man by the name of George Francis Train had begun to assist England in the general financing of the street tramways. A lot of people had assumed that he was an emissary of a man named Robert Morris, who had essentially assisted in the financing of a few of the streetcars in the United States of America. Additionally, he had envisioned the possibilities of taking advantage of the potential of the urban passenger transport of the crowded streets of England. Another man that had been played a decent role in the financing of the construction of the British tramway schemes was James McHenry of Birkenhead (Klapper 16).

Train had eventually ended up finishing the construction and building of the British tramway rather quickly and the opening of the main tramway was done on August 30, 1860. The whole tramway line had cost approximately 2,000 pounds per mile (Klapper 17).

Originally, tramways had generally been limited to only running along the pier and essentially serving only the pier. As the tramway had started to gradually extend from the mainland of the town into the pier, it started to become very urgent to connect the tramway stations that were located on the mainland with the pier. Additionally, another tramway that was essentially built to run along the pier but also to stimulate a good amount of action around the mainland had cost a capital of 10,000 pounds along with 2,500 pounds in loans. This all goes to show that the general construction and maintenance of the tramways were certainly very expensive (Klapper 27, 28).

According to a speech given by George Francis Train at the opening of one of the tramway lines, it was very baffling that people were objecting to the Bill of 1861 that he had suggested and passed. He then went on to mention that because the Bill that he had passed was very permissive and lenient and by no means a required bill, he could definitely not understand all of the complaints and disputes regarding the Bill. Although he was somewhat able to understand and comprehend that there were a lot of people in the land who could not afford a carriage, he still could not understand why people would essentially refuse his offer to provide a convenient and elegant carriage that can hold an entire family for only two pence for each

member of the family. This was especially true considering that this was generally to benefit everybody. This was known as The People's Carriage (Klapper 30).

The gradual development of the British tramways definitely took a lot of money and financing from the general budget of Britain. There are some various examples that can illustrate this. One case in point of the amount of money that was required for the development of the tramways is when the tramway line at Birkenhead was being constructed. That had costed roughly 2,000 pounds. Another classic example of this is when Henry Hughes and the Company of Loughborough had essentially built and constructed a tramway engine according to the legitimate designs of John Downes from Birmingham in 1875. This had cost 600 pounds, which was a good amount of money then (Klapper 17, 44).

Although the development of the British tramways definitely took a lot of money from the budget in Britain, it was still generally a very worthwhile development. Additionally, the building and construction of the tramways in England did affect the economy of Britain very drastically or badly. Naturally, a major undertaking such as this one would require a lot of money and financing.

From the early development to the legislation to the mechanization to the electrification of the tramways, there was certainly a lot of financing that inevitably had to be involved. Because the economy of Britain was not very affected by all of the various projects that were associated with the building of the tramways in nineteenth century England, it could be said that the development of the tramways were generally very beneficial to Britain. The tramways essentially laid the

foundation for other public transportation systems that were to follow. From the original horse trams to the electric tramways, these were all generally very major developments throughout the course of one century. Additionally, the general development of the tramways had allowed commuters to get from place to place in a very fast and efficient manner. This became more and more true as the development of the tramways progressed from horse trams to steam trams and eventually electric trams. Although horse trams were definitely efficient to an extent, they were substantially slower than the steam trams and electric trams. Therefore, this gradual progression had made commuting to locations much easier and more effective for people. That is why the general impact that the tramways had on Britain financially had minimal bearing on the general success of the tramways.

Ever since the British tramways have been replaced by other British transportation systems such as buses and more advanced forms of trains, many people do not always remember the tramways that came before the various British forms of transportation that is often taken for granted. Therefore, a lot of the books that have been written on tramways over the years were essentially written in order to inform the "tramless generation now…and their fathers, too" (Wilson, vii, Introduction). This essentially implies that although the general development and construction of the tramways did heavily influence the demographic populations back in that time period, they can still potentially be forgotten. Therefore, it is important to write books on the history of tramways to keep the early development of public transportation in England alive.

The earliest passenger tramway cars were used in New York. Although this idea was originally exclusively implemented in New York, the idea had essentially spread to various parts of Europe including London and a lot of England shortly after. Although passenger tramway cars had originally produced a fair amount of accidents including one that had occurred during the initial opening ceremony for them, the passenger tramway cars had gradually become more and more successful. Albeit the fact that the original tramway scheme did not instantly get approved by the legitimate British Parliament, it slowly but surely became more accepted. This was largely with the help of George Francis Train and his successful installation of a tramway line at Birkenhead. This was a major development had made transportation and commuting all the more easier (Wilson 4).

Another key development with the British tramways that largely influenced Britain demographically is the beginning of double-decked cars on the tramways in Britain. According to a work of literature on the British tram, "Old prints of the opening ceremony…started very early" (Wilson 4). This generally shows that the general development of double-decked cars on the tramways was a much earlier development than people might have assumed. People would naturally assume that single-deck cars would essentially be created well before double-decked cars. However, double-decked cars on British tramways were produced slightly earlier than single-deck cars. In either case, the development of double-decked cars was very influential on residents of England largely because the cars were essentially able to seat a lot of people.

Although the tramway development in Britain in and of itself certainly benefited Britain in many ways, there were still some problems with the tramways in terms of the companies and how the disagreements of the companies that were financing the tramways had generally affected the electrical supply and development of electricity in England. The quote that "One historian avers that…the control of electric tramways" (Wilson 7) generally implies that the arguments and problems that had existed within the main tramway companies in Britain had substantially hampered the production of British electrical supplies. Therefore, this would often lead to disputes between major tramway companies and major electrical supply production companies in Britain. This would therefore hinder and delay the production of both aspects of Britain.

According to Turner, "Horse haulage was the natural…roads, canals, and tramroads" (Turner 5). This generally shows that people would typically rely on horses pulling trams to get them places instead of electric trams. These would potentially include double-decked trams as well as single-decked trams. Albeit the fact that they were simply built and constructed and could generally be operated relatively easily, there were also multiple difficulties with the horse trams that would ultimately lead to them being replaced by steam trams and electric trams. Those difficulties had included being slow and not good for going on steep hills. Additionally, they were not very beneficial in essentially advancing the technology of Britain. This was not very efficient in getting people places in a timely manner.

Immediately after horse haulage became less used and less popular, it became replaced by steam trams. According to Turner"Although the steam locomotive…pulling a commodious trailer" (Turner 6). This generally means that there was a good amount of difficulty getting the steam tramway approved by British legislation despite the fact that it had been around globally for a long time. Although the steam trams had initially been an invention in the United States of America, it had come to various locations in England relatively quickly. Additionally, the steam tramway had promised both the British parliament and the British people a lot of safety and security. This was especially the case considering that the earlier horse trams had not been as reassuring of safety. This had largely calmed the apprehension of the public and eventually gave way to some passenger cars.

Although the cable trams had come shortly after the steam trams and had been intermittently successful depending on the particular time period, the electric tramways had an especially big influence on the tramway development in Britain and how much people would utilize the tramways. Although "Electric traction had been a theoretical possibility…a self-propelled motor on rails" (Turner 8), there were still various issues that were associated with successfully building and constructing an electric tramway in Britain. These had included producing enough current and transferring the current to the motor. In the general time period of the 1870s, these problems were eventually solved with the invention and creation of the dynamo. This machine largely involved the concept of using different resistances in an attempt to control the motor of the electric tramway.

One very major system that was essentially associated with the electric tramway was the conduit system. Because the first system of third-rail working was not very reassuring of the potential safety of the people riding the electric tramways, the idea of the conduit system was essentially first adopted in the city of Blackpool in the year of 1885. This was done by generally burying the conductor. The main process with the conduit system was that a metal plough from the conduit would pick up the current for the tram. However, the further progress of the conduit system was largely impeded by various foreign bodies such as sand and dirt filling up the ploughs that fueled a lot of the current that had essentially powered the conduit system. This general problem had generally lead to the replacement of this system by the overhead wire system. (Turner 9)

In addition to largely influencing Britain in terms of its demographic population, the British tramways also largely influenced the respective neighborhoods of England. From Leeds to Sheffield to Liverpool, all of the legitimate neighborhoods in England were very heavily influenced by the general development of the British tramways. Although there is not very much of a trace of the British tramways left in most of the neighborhoods in England currently or even in the past century, the city of Blackpool is quite an exception. According to a book, “Only Blackpool remained not only…built some most luxurious rail coaches” (Klapper 2). This generally goes to show that there are still some neighborhoods in England that still want to essentially preserve the precious history of the development of the tramways and at least keep some legitimate remains of those tramways.

Another classic case in point of a part of Britain that has preserved an aspect of the original British tramway system is Wales. In the general location of Wales, "the Great Orme cable tramway provided a summer attraction to Llandudno visitors" (Klapper 3). Although the cable tramways were not generally the most successful of the tramway systems, they are still legitimately preserved in certain parts of Britain. The cable tramway that is located in Wales is called the Swansea and Mumbles Railway. Although this had already essentially developed into a railway, the double-decked cars that were featured in this railway largely resembled legitimate tramcars. Because Parliamentary authority had eventually been obtained for this railway system, it unfortunately had to be abandoned in the year of 1959. The abandonment actually took place a year later in 1960.

The first legitimate public tramway that was authorized and approved by Parliament was the Surrey Iron. This company had generally gotten its powers in the year of 1801. The fifth public railway that was essentially authorized in 1804 was the Oystermouth Railway or Tramroad. This would later go on to become the abovementioned Swansea and Mumbles Railway. Despite the fact that it was originally intended to be used as a freight train for mineral traffic, it had later became the first railway ever to provide a service for passengers. However, passenger service on this tramway was not very continuous. This was largely due to the fact that a turnpike road had been built right between major stations on the tramway and the macadam service had led to the development of a horse bus service to replace it. (Klapper 8, 9)

Figure 3

From: http://www.thesummitcomplex.co.uk/tram.php

This is an illustration of the Great Orme Cable Tramway in Wales

One example of a tramway company that had some of its ideas turned down for tramways that could potentially extend through quite a few various neighborhoods in England was the London Omnibus Tramway Co. Limited. According to Klapper, "The line of route it had favoured…Bayswater Road to Notting Hill Gate" (Klapper 15). This would account for a good amount of neighborhood in the territory of Britain. Although the company had set aside a good amount of money for the general construction and financing of this project, this general scheme was still turned down. This was largely because there were a lot of requirements that did not look like they could be fulfilled such as four trams of sixty seats and a fleet of twenty-four for the main line. The company was eventually able to partner with George Francis Train and ultimately bring tramways to Europe.

Although there were some neighborhoods where the British tramways were generally very successful and had a considerably good impact on the neighborhood, there were still some areas that the development of the British tramways did not considerably impact. One case in point of such a neighborhood is the British Isles. The main history of this is that "In the British Isles tramways…exceptions of the kind which prove the rule" (Wilson 2). Although there were a few areas in the British Isles that were positively influenced by the general construction of the British tramways, the vast majority of the legitimate neighborhoods in the British Isles were not very favorably influenced by the British tramways. However, this is still not to say that the British tramways did not influence a lot of areas of England. The British tramways still had a very considerable influence on many areas of Britain.

Birkenhead is an example of a neighborhood that was generally very positively influenced by the development of the British tramways. According to a work of literature, "The four cars used on this line…of a generally similar pattern" (Wilson 4). This generally shows that this project that was being implemented from Woodside Park and Birkenhead Ferry was largely adopted from the idea of a project in Philadelphia. Since the idea of tramway cars was generally pioneered in the United States of America and this idea was directly taken from a project that was done in Philadelphia, this would naturally mean a higher chance of success for this project. Ever since the opening ceremony that revealed the general completion of this project, this tramway line would gradually prove to be very successful. This was especially true with the emergence of double-decked cars.

In that same year of 1861, there was another line that was being constructed in another general neighborhood of England. However, a lot of those projects had proven to be unsuccessful as well. Those included projects that were done around locations such as Kennington, Westminster Bridge, and Victoria Street. These projects were failures largely because they had interfered with some of the already existing traffic and transportation in England. Another reason for the lack of success of those projects was the fact that George Francis Train, the main director of the projects, was generally very insistent about utilizing the step rails. Had he used the relatively new Crescent rail which was not as much of an impediment to other road traffic, those projects may have been generally more of a success and the neighborhoods may have been affected differently (Wilson 5, 6).

Figure 4

From: http://www.geograph.org.uk/photo/128760

This is an example of a tramway in the British neighborhood of Birkenhead

After that series of failures, Train had went up to other various authorities without that much result and outcome of success. However, there was also another stone tramway that was being constructed at around that time. This was generally being done along Oxford Street. A classic example of a railway town that had displayed some of the first railways and tramways was the town of Darlington. It was essentially started when Train had begun a horse tram service in Northgate in the month of December of 1861. This had been functional for two years. After Train had essentially left to go back to the United States of America, the original step rails were generally replaced by grooved rails. This was what had saved the tramways at Birkenhead from being completely forgotten. Moreover, the demonstrations that were given after led to the development of more successful tramways (Wilson 6).

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