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**EDITORIAL NOTICE.**

*The news issues of the Street Railway Journal are devoted primarily to the publication of street railway news and current happenings related to street railway interests. All information regarding changes of officers, new equipments, extensions, financial changes and new enterprises will be greatly appreciated for use in its columns.*

*All matter intended for publication must be received at our office not later than Wednesday morning of each week, in order to secure insertion in the current issue.*

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**Consolidation at Wheeling, W. Va.**

The consolidation of the Wheeling Railway Company, Citizens' Railway, Moundsville & Wheeling Railway and the Bellaire, Bridgeport & Martins Ferry Railway is announced. The name of the consolidated company is the Wheeling Traction Company, and its incorporators are: A. R. Manning, Henry Ford, A. M. Snyder and L. M. Hildreth, of Cleveland. The financial details are not given. T. B. Condeman, of Philadelphia, is to be president of the company.

**Municipalities Can Levy Such Taxes as They Choose in Georgia**

The Supreme Court of Georgia has just rendered a most important decision affecting the right of cities to levy a special tax on street railway companies. This opinion is handed down in the case of the Savannah, Thunderbolt & Isle of Hope Railway vs. Mayor and Alderman of the City of Savannah. The city of Savannah levied a tax of \$100 per mile on the street railway, or \$1,306 for its 13 miles of track. The company refused to pay, and the matter was carried before the Superior Court of Chatham, which held that the tax could be collected. The Supreme Court affirms the decision of the Superior Court.

**Purchase of Illinois Road**

A special dispatch from Cleveland announces the purchase of the Elgin City, Carpentersville & Aurora Railway by the Cleveland, Western Reserve and American Trust companies, of Cleveland. The road is 31 miles in length, and the purchase price is said to have been \$550,000. This purchase give rise to a rumor of a consolidation of the electric lines of northern Illinois and the building of an extensive system. The Cleveland Western Reserve and American Trust companies completed and financed the consolidation of the Southern Ohio electric roads as the Southern Ohio Traction Company.

**The Electrification of the London Metropolitan Road**

The engineering world is eagerly awaiting the final award of the contract for the electrification of the London Metropolitan District Underground Railway. The contract calls for the relaying of about 50 miles of subterranean railway, and among the contracts competing for the award are the most prominent engineering firms of the United States, England and Germany. It is an international engineering contest. The contract is expected to be awarded by Jan. 1. Among the companies which have submitted bids are: Sprague Electric Company, of New York; Westinghouse Company, of Pittsburgh; General Electric Company, of New York; Dick, Kerr & Company, of London; Mather & Platt, of Manchester; Electric Construction Company, of Wolverhampton; Siemens & Halske Company and Schukert & Company, of Berlin.

**Improvements at Knoxville**

The announcement was made in the STREET RAILWAY JOURNAL for Dec. 8 that the Knoxville Traction Company had decided to expend \$2,000,000 in improvements during the next two years. C. C. Howell, vice-president and general manager of the company, in making a public announcement of the improvements, stated that he had no details to give out, but in a general way said that, during the spring and summer, \$150,000 would be spent in improving the property of the Knoxville Traction Company, over and above what the property would take in; about \$25,000 or \$30,000 upon the Knoxville Electric Light & Power Company's plant, and probably \$250,000 or \$300,000 would be spent in building a gas and coke plant during the spring and summer. Mr. Howell further stated that he had arranged for and would expend \$1,000,000 on another enterprise, which he did not care to say anything about at this time.

Contracts will be made for ties and poles, new rails and new cars, extension of the present car house, and the completion of the car house at the power house just as soon as the plans could be finished, he said.

**Maine Franchise Tax**

Some time ago an order was introduced in the Portland Council requesting the City Solicitor to give his opinion as to whether or not the franchises of the various street railways operated in Portland were indeterminate, and, if so, how they might be terminated;



also the method to be taken by the city in moving for legislation to provide for taxation of franchises or exacting from the companies a suitable rental for the franchises enjoyed. The solicitor, in giving his opinion, states that the original charters of the street railways are for twenty-five years, with the privilege of renewal for a period not exceeding fifty years at any one time. The franchise of the Portland Street Railroad Company was extended for the fifty-year period in 1886. The street railways pay a State tax of 1.10 per cent per mile on the gross receipts where said gross receipts do not exceed \$1,000 per mile, and, for each \$1,000 additional gross receipts per mile, an increase of one-tenth of 1 per cent. These State taxes take the place of all municipal taxes, and have been held constitutional by the Supreme Court. In closing his opinion the solicitor states it would be necessary to repeal the present tax law, and substitute a new law, in order to bring about municipal taxation.

### Denver Company Appeals Tax Case

The Denver Consolidated Tramway Company has filed an appeal in the tax suit in which an adverse decision was recently handed down by the District Court. The company contended that the valuation of its property should be fixed by the State Board of Equalization, and not by the county assessor. The latter included a tax on the franchise, amounting to over \$9,000. The company held that it should be assessed as a railroad, but the court overruled the contention. The attorneys for the county and the company agreed upon an application to the Appellate Court that the case should be disposed of as soon as possible. The company naturally wishes the suit settled as quickly as possible, as the interest on the back taxes, if the final division is adverse, will amount to nearly \$1,000 a month. There are five grounds on which the bill of exceptions is based: First, it is alleged that the lower court was in error in sustaining the motion to dissolve the injunction restraining the defendants, the County Board of Commissioners, from selling the company's property for the payment of taxes and in dismissing the complaint; second, in finding that the State Board of Equalization was not the proper authority to assess the company's property; third, in rendering a decree against the plaintiff for the costs; fourth, in examining the articles of incorporation of the company and admitting them as evidence; fifth, in holding that the company is not a railway corporation in the meaning of the revised statutes of the State. The company gave an appeal bond of \$100,000.

### Street Railway Taxation in Connecticut

The tax returns of the different street railways of Connecticut to the State for the year ending Sept. 30, 1900, show a total amount of \$157,451, made up from the following companies:

Hartford Street Railway.....	\$36,624
Danbury & Bethel.....	2,685
East Hartford & Glastonbury.....	2,000
Enfield & Longmeadow.....	933
Fair Haven & Westville.....	39,998
Hartford, Manchester & Rockville.....	3,526
Middletown.....	1,545
Manufacturers.....	220
New London.....	3,365
Montville.....	2,750
Norwich.....	4,343
People's Tramway.....	2,840
Stamford.....	2,112
Torrington & Winchester.....	1,950
West Shore.....	940
Winchester Avenue.....	15,083
South Manchester Light, Power & Tramway Company....	100
Bridgeport Traction.....	23,148
Derby Street Railway.....	2,505
Meriden Electric.....	5,758
Norwalk Tramway.....	4,181
Shelton Street Railway.....	2,278
Westport & Saugatuck.....	543
Milford Street Railway.....	656
Farmington Street Railway.....	480
Connecticut Lighting & Power Station, New Britain.....	5,298
Connecticut Lighting & Power Company, Waterbury.....	7,035
Connecticut Lighting & Power Company, Norwalk.....	2,120
Meriden, Southington & Compounce Tramway.....	2,350
Bristol & Plainville.....	1,553

### Changes in Yerkes' Interest

During the past two weeks there have been some very important changes in the management of the properties in which Charles T. Yerkes is interested. D. H. Louderbach has resigned as the London representative of Mr. Yerkes; H. C. Davis has returned from London, where he was in the interests of Mr. Yerkes; Howard Abel has resigned as president of the Lake Street Elevated Railroad, of Chicago, and has been elected to succeed Mr. Louderbach in London, and Charles E. Yerkes has been elected as president of the Lake Street Elevated, to succeed Mr. Abel.

Mr. Louderbach's resignation is ascribed to the failure of the health of his wife. He is still in London, but will return to the United States shortly. Mr. Louderbach has been associated with Mr. Yerkes in all his Chicago enterprises. He supervised the erection of the Union Loop, and also had charge of many of the outlying suburban lines now merged into the Consolidated Traction Company. He was with Mr. Yerkes in London when the latter completed the purchase of the Charing Cross, Euston & Hampstead Railroad, and then returned to the United States when the financial details were completed, only to be selected as the official representative of Mr. Yerkes in London.

Mr. Howard Abel, the successor of Mr. Louderbach in London, has been associated with Mr. Yerkes in his Chicago enterprises for a number of years. He is a young man, thirty-two years of age, and was born in Strensall, Yorkshire, near York, England, Nov. 27, 1868. He was connected with the Northwestern Railway in England, Leeds Forge Company, and was private secretary of the secretary of the latter company. Mr. Abel came to the United States in 1890, and entered the employ of the Fox Solid Pressed Steel Company, at Joliet, Ill. He became associated with Mr. Yerkes in 1893, and has been president of the Lake Street Elevated Railroad, and secretary and treasurer of the Northwestern Elevated and Union Loop, of Chicago.

Charles E. Yerkes, the successor of Mr. Abel at Chicago, is a son of Charles T. Yerkes. He is thirty-seven years of age, and his first business training was obtained in the Philadelphia office of his father in 1882. He remained with his father at Philadelphia for several years. Later he became identified with the Siemens-Halske Electric Company as president, a position he filled for several years, during which he divided his time between New York and Chicago. Mr. Yerkes is a member of the brokerage firm of Dewar & Yerkes, and will not sever his connections with the company because of his election as president of the Lake Street Company.

H. C. Davis is a member of the firm of A. A. Houseman & Company, of New York, and has been identified with the Yerkes' London deal since its inception. He will return to London with Mr. Abel, and will be directly connected with the Charing Cross, Euston & Hampstead Railway.

### First Annual Report of the British Westinghouse Company

The first annual meeting of the British Westinghouse Electric and Manufacturing Company, Ltd., was held Nov. 23, at Cannon Street Hotel, London, and was presided over by the Hon. R. Clerc Parsons, M. I. C. E., A. I. E. E., chairman of the executive committee. The annual report showed the sales of the company for the preceding year amounted to £550,000, as compared with £266,528 during the preceding year. During October, 1900, the sales were £32,550, and up to Nov. 22 the November sales amounted to £31,890. The profit for the year was £10,777.

The chairman explained that while there had been some delays on the work of constructing the factory at Manchester, the work was being pushed forward as rapidly as possible. These works will have a staff of from 3000 to 5000 men. The main shop will cover eight acres, and will be devoted to electrical machinery. Another shop will be devoted to the manufacture of gas engines, and another to steam engines. The chairman then referred to the proposed equipment of the Metropolitan and Metropolitan District lines as follows:

"In considering this complicated matter it occurred to us frequently that, in order to assist those companies to carry out the transition from steam locomotion to electric locomotion, various requirements in the shape of parliamentary powers were absolutely necessary. Within the last two months those companies—the Metropolitan District and Metropolitan Railway—have issued invitations to the leading manufacturers of electrical machinery asking for schemes to be submitted for carrying out this great work. We have given this matter our most careful attention, and, in order



to submit as complete a proposal to those companies as possible, it was found to be absolutely necessary to apply to Parliament for powers for doing certain things in connection with the running of those railways. Those powers which we have asked for consist in this—that we shall present a proposal to supply the entire outfit of electrical machinery, rolling stock, etc., of those companies at a given figure; that the payment for this work would be either in the shape of Lloyd's bonds, which carry a first lien upon a company's property. These bonds would be issued to the contracting parties on the certificate of the engineers of the railways, and these bonds would be negotiated by this company in any way they might think fit. Another proposal which we intend to submit, and for which we have asked Parliament to sanction powers, is to lease the sites for the generating stations, for which those companies have secured parliamentary powers; to erect on those sites the necessary generating stations; to lay the necessary conductors to the lines in question; to supply the rolling stock, and all that is necessary for carrying on the traffic; that we should receive from those companies something in the shape of a guarantee upon the receipts of those companies; and this would be, practically, in the form of a contract with those companies, not interfering in any way with the preference, debenture, or any other shareholders, of which there are a large number. Our sole object in presenting this application to Parliament was with the view of giving those companies, if they thought fit to entrust us with the contract for the electrification of these railways, to be able, and be in a position, to carry out that contract without hindrance and delay."

### Development of the Zurich Tramways

United States Consul Lieberknecht, writing from Zurich, under date of Nov. 1, says:

"Most of the street railways of Zurich are owned by the municipality, and it is only a question of time when the few private lines still holding franchises will also be under the control of the city officials. Municipal ownership of street railways is gaining ground greatly in Europe.

"The fare in Zurich is to-day 2.5 cents, when buying the tickets in block books, but will within the course of a few years be lowered to 2 cents. It is remarkable that the city can run the street railways so cheaply, considering the expensive and solid way in which the tram lines are constructed and the high price of soft coal, which costs from \$6.37 to \$7.72 per ton, delivered at the power station.

"During the years 1898-1900, the city of Zurich has changed its horse car lines into electric lines with the overhead trolley system, and also largely extended the mileage. The total length of track is now 25 miles, and the number of cars 150, of which forty are trailers. The electric lines have all been constructed by J. Sigfrid Edström, a Swedish engineer, who received his technical education in the United States. Mr. Edström, upon his arrival in Switzerland, found the electric street car lines in a very bad state, in consequence of using inferior material. In rebuilding and extending the tramways of Zurich, Mr. Edström did his best to introduce American street railway material. In buying the rails, however, he found that, owing to difficulties in the ocean transport, the American rails could be had only in lengths of 30 ft., while 60-ft. rails were desired. As rails of this length could not be had on the Continent, it was finally decided to use Phoenix girder rails (German) of 40-ft. length. Without doubt, the American manufacturer of steel rails would have a great field for his overproduction if rails of greater length could be shipped across the ocean.

"The electric rail bonds used in Zurich are from a New York firm. One of the new lines has been built with cast-welded joints without any electric bonds. The track itself is laid very securely on heavy stone or concrete foundations. The overhead trolley wire is generally fastened to the houses, a special sound breaker being used to avoid the transmission of noises into the house. This arrangement is very satisfactory from an æsthetic point of view, as there are very few poles in the streets. Where houses could not be used, the wires are fastened to tubular steel poles of German origin, solidly fastened in concrete foundations. Many of these posts also serve as poles for gas or electric lamps.

"The cars were built by two Swiss factories, but with Peckham (New York) trucks. The street car motors and controllers are all of American manufacture.

"The underground cables, as well as the electric generators, the steam engines, and the switchboard, are from Swiss factories. Several machines of American make are used in the repair shop.

"Mr. Edström, the engineer in charge, has recently accepted a

position as director of the tramways of Gothenburg, Sweden, where extensive construction of electric street car lines will take place within the near future."

### Annual Meeting of the Engine Builders' Association of the United States

The annual meeting of the Engine Builders' Association of the United States was held at New York, Dec. 4. Prof. John A. Sweet, the retiring president, in his address set forth the objects of the association as follows:

"The promotion of the interest of the engine trade by the advancement of engineering knowledge and practice, by the cultivation of mutual respect and acquaintance and the maintenance of a high professional standard among members; comparing and standardizing methods promoting economy in operation, and the advancement in general of the interests of the trade as a whole."

Three papers were read before the association; one by H. C. Ebert, of the Westinghouse Electric & Manufacturing Company, on "Inter-relations Between Engine and Generator Builders in Connection with Engine Type Units for Power Purposes"; another by E. T. Armstrong, of the Ball Engine Company, on "Economy Guarantees of High Speed Simple Engines," and a third by H. G. Reist, of the General Electric Company, on "Some of the Requisites of Modern Lighting Generator Sets."

Mr. Ball reported to the association as a member of the committee appointed by the American Society of Mechanical Engineers on the subject of standardization, that a meeting of the committee had just been held and progress reported. The committee asked that no action be taken at the present time, and that no standards be adopted until the A. S. M. E. committee had an opportunity of meeting and discussing the matter with the committee appointed by the American Institute of Electrical Engineers on the same subject, as the standards suggested by the A. S. M. E. did not entirely agree with the suggestions which they understood the committee of the A. I. E. E. has considered advisable. Continuing, he said, the object is to find out what has been done in the past and render the practice uniform as far as possible. It was probable that two standards for the size of the shaft will be necessary, one for center and one for side-crank engines. The two committees agreed on the subject of speeds, and at present would not take up alternating-current generating sets.

Most electrical companies use one size of armature, thus doing away with the necessity for sleeves, nuts, etc. The committee asked if the association considered one or two standard sizes for shafting desirable. The most serious difficulty seemed to be in the length of the shaft between the center of the engine to the outer bearing.

Two types of generators were in use, one parted horizontally and the other vertically, thus necessitating two styles of bases for dynamos. Possibly one style of base might be made, having the plane low enough for one type, and stools used, either cast into the base or bolted to it for the other type.

Mr. Ball asked that Mr. Sweet should attend a conference between the two committees to be held the next day. Mr. Ames, in behalf of the society, thanked the committee for its work.

Mr. Wood asked Mr. Ebert what suggestions he could make for the engine man to follow in order to meet the requirements of the electrical manufacturer. Mr. Ebert suggested that they should get together at the start instead of finding changes necessary after the customer had received the generating sets, and had discovered that the engine and the dynamo did not agree. He said he believed that consulting engineers were largely to blame for making requirements which were sometimes altogether unreasonable.

Mr. Bird spoke on the subject of the pressing on of the armatures. He said that it was a great inconvenience, that it was not always understood who should do the work. That in their plant (Ball & Wood Company) they now bore a hole in the end of the shaft of a uniform size and use a stud bolt to insure the fit. Mr. Ebert approved this practice and suggested that the electrical manufacturers would welcome it becoming general.

Mr. Palmeter discussed the question of overhead capacity, the subject of the length of the shaft and the height of the base. Mr. Ball stated that the height of the base would probably soon be settled now, and that the General Electric Company was already meeting this question, but that the overload capacity was a serious matter. If too much is asked, the plant becomes unnecessarily costly, and frequently prevents a man investing because of the initial cost. The electrical engineer was largely to blame for this in encouraging a man to ask for too large an overload capacity as compared to his actual needs, and Mr. Ball suggested that there should be a limit placed on the overload capacity to be called for. Mr. Ebert



stated that that would probably adjust itself, that the Westinghouse Company now would not agree to over 50 per cent overload capacity, and is now doing all it can to keep down the demand for excessive overload capacity. Mr. Gates said that the engine builders would gladly join the electrical manufacturers in that move.

Mr. Stett suggested that it would be well for dynamo builders to specify more exactly what would be required of the engine in regard to the speed variation in each case.

Colonel Dick said that when the dynamo first came into use electricity was regarded as an "occult science." Men entirely ignorant of electrical subjects were put on the road and made propositions, which the purchaser, knowing very little if any more than the seller about the subject, accepted as necessary, and which the engine man had to meet, no matter how absurd. Fortunately that condition has passed now, and the engine builder and the dynamo builder are gradually coming closer together. The engine builder and electrical men should have a standard that all could agree upon, and that would set aside unreasonable demands.

Mr. Stett brought up the question of getting plans more promptly from the electrical manufacturers so that the engine builders could have more time on their work. Mr. Ebert said that if no special designs were called for plans could be quickly given, but so many special machines had to be built, and they naturally were hindrances to getting out plans promptly. Mr. Reist suggested that a standard of units should be adopted.

Mr. Wood made a motion that the committee from this association should meet the committee of the other associations concerned and take this matter up thoroughly, as the question was one of great importance, and one which should be decided as soon as possible for the mutual benefit of both the engine builder and the dynamo builder.

At the end of the executive session William M. Taylor, of the Chandler & Taylor Company, extended an invitation to the association to hold their next annual meeting at Indianapolis, which invitation was accepted. In the evening a dinner was served at Sherry's, at which some thirty-five members and guests were present.

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**London Letter**  
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[From Our Regular Correspondent.]

London is at present full of interesting opportunities for electrical investments, a number of new underground and surface electric railways being now far enough along to give the directors a chance of offering their stock for publication. Among the most important surface schemes is the excellent system that J. Clifton Robinson has been identified with so long, and under whose skilful guidance has become the most important system in the vicinity of London. During the last session of Parliament many very valuable extensions were granted to them, and as much of the electric equipment is already completed the company is now offering for public subscription an issue of £350,000 4 per cent first mortgage debenture stock, of which £34,125 is reserved for allotment to the holders of existing debentures, and the remaining £315,875 is now offered for public subscription at par. The company, which was incorporated in 1894, is authorized to establish a system of electric tramways in the western districts of London, embracing the territory bounded cityward by Hammersmith, Broadway and Shepherd's Bush respectively, and extending westward by the main roads to Uxbridge, to Hounslow, and to Hampton Court. The mileage of these electric lines amounts to 38 miles of route and 74 miles of single track. Under the company's acts and orders, the periods to elapse before the local authorities have an option of purchasing the lines are, as to 12 miles twenty-five years, 17½ miles twenty-three and a half years, 4½ miles nineteen and a half years, and 4¼ miles nine and a quarter years, giving a general average of about twenty-two years. In case of purchase, the local authorities would, as to 22 miles, pay the market value as a going concern, and as to the remainder tramways act terms. The company's central power station at Chiswick, now rapidly approaching completion, is one of the finest tramway traction stations in the kingdom, and has been designed to accommodate all the generating machinery which will be needed for the entire system of 38 miles. The first portion of the scheme to be carried out comprises 16 miles of route, of which 11 miles have already been completed, and are about to be put into operation electrically; the remaining 5 miles are in course of construction, and should be opened for traffic in the ensuing summer. When this portion, with the power station, depots and equipment comprised in the security for the first mortgage debenture stockholders, has been completed, the undertaking of the company will have involved a capital outlay estimated at over £800,000, and of this amount the outlay to the present time has been over £500,000. The cost of property in real estate, depots, power station, and fixed plant,

apart from the value of the tramways and rolling stock, will exceed the amount of the present issue. The company has had in successful operation for the past six years 9 miles of tramways (including 1¾ miles between Kew Bridge and Richmond, for which authority to use electricity has not yet been obtained), and, although worked under all the disadvantages of horse traction, the profits have enabled the company to pay dividends upon its ordinary capital of 8 per cent per annum for the first four years, and 10 per cent per annum for the last two years.

The Baker Street & Waterloo Railway Company, one of the new underground electric railways, which will join the immense southern terminus at Waterloo, with many most important centers of traffic in the West End and northwest of London, is also making satisfactory progress, and it has just opened its subscription list to the public. The share capital is £2,385,000 in 66,000 4 per cent preference shares, and 172,500 ordinary shares at £10 each, interest at 3 per cent being paid during construction. The directors of the company are: Theodore Julius Hare, chairman; the Marquiss of Dufferin and Ava, K. P., G. C. B., G. C. M. G., etc.; Quintin Hogg, Major-General C. S. Hutchinson, C. B., late R. E.; the Right Hon. Sir Algernon West, K. C. B.; and the engineers are, Sir Benjamin Baker, K. C. B.; W. R. Galbraith, C. E.; R. F. Church, C. E.

Sir Benjamin Baker, it will be remembered, was also the engineer for the Central London Railway, which has achieved such marked success since it was opened three months ago. As we have not previously published much with regard to this most important enterprise, we give the following facts, which are taken from the company's prospectus:

The Baker Street & Waterloo Railway, as authorized, is about 5 miles in length, and will be formed by the construction of two separate parallel tunnels throughout its entire length, on the Greathead system. Starting at the Elephant and Castle, on the south, it passes Waterloo station, thence under the river, up Northumberland Avenue, Charing Cross, the Haymarket, Regent Street, Portland Place, Regent's Park, Baker Street, Marylebone station (the terminus of the Great Central Railway), and Edgware Road, to Paddington station. The site for the necessary depot and generating station is about a quarter of a mile to the south of Waterloo station.

A large portion of the land required has been already purchased, and satisfactory arrangements have been concluded for the greater part of the remainder.

They are being constructed by Perry & Company, the well known firm of contractors, who have carried out large and important works for the London and Southwestern Railway and other companies, are in full operation, and this section will be completed and opened for traffic independently of the rest of the line. The motive power will be electricity.

The speed of the trains will be about 13 miles an hour, including stoppages. The entire distance between the Elephant and Castle and Paddington will be accomplished in about twenty-five minutes, as against about an hour-and-a-quarter by omnibus. There is no direct through competition by any railway or tramway with this line. From statistics prepared by the London County Council, it appears that the Elephant and Castle is the second largest point of concentration of passenger traffic in London, the next largest is Charing Cross, the Piccadilly Circus, then Oxford Circus, so that it will be seen that this line will soon be one of the largest centers of traffic in London. Unlike the railways running east and west, which carry chiefly a morning and evening traffic, this line, running as it does, through the most important shopping districts in London, and near to the government offices, clubs, large hotels and many theaters and other places of amusement, as well as serving important business centers, and also tapping one of the most densely populated artisan districts in London, will doubtless carry a large and continuous traffic throughout the day and a great part of the night.

The engineers of the company estimate that the total working expenses of the line, allowing for 300 trains each way on week days and 150 trains each way on Sundays, may be taken at £100,000 a year. On the basis of the results of the Central London Railway, which has been open for several months, with an increasing traffic, the directors consider a moderate estimate of the annual receipts to be:

Passenger traffic .....	£ 260,000
Parcels, advertisements, etc.....	10,000
<hr/>	
Total gross receipts.....	£ 270,000
Deduct working expenses.....	100,000
<hr/>	
Net revenue .....	£ 170,000
Interest on £794,000 4 per cent debenture stock.....	31,760
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Balance available for dividends.....	£ 138,240



More than sufficient to pay dividends of 4 per cent on the preference and 6 per cent on the ordinary shares.

The company has entered into contracts with the London & Globe Finance Corporation, Ltd., for the acquisition of the necessary land, the construction of the works, and the equipment of the railway with all its appurtenances, including working plant and sufficient rolling stock for a three-minute service, complete in all respects as authorized by the company's acts, to the satisfaction of the Board of Trade and of the company's engineers, for the sum of £3,096,000, payable as to £2,322,500 in cash or shares, and £773,500 in debenture stock bearing 4 per cent interest. The corporation undertakes all risks and contingencies of every kind in connection with the construction of the railway and works; it will provide for all Parliamentary, legal, engineering, administration and other expenses whatsoever during construction; will maintain the line for one year after its opening for public traffic, and will pay to the company the sum of £50,000 for working capital. In addition to this sum there will be available for the general purposes of the company £83,000 from the authorized capital unappropriated. Payments will be made to the contractors on the certificates of the company's engineers. The London & Globe Finance Corporation has disbursed to date in regard to the railway the sum of £654,705 10s. 7d.

The success of the Central London Railway and the City & South London have undoubtedly stimulated interest in the other projects which are on foot to honeycomb London underground in all directions. During the recent festivities in London, on the occasion of the return of the C. I. V., it is stated that the Central London in one day carried 250,000 passengers, so that the companies operating other schemes are making the most of the times. The City & South London Company has completed its extension from the Bank Station to Moorgate Street, and is now busily engaged upon the projected further extension of the line to the Angel, Islington. The Great Northern & City Line, which will run from Finsbury Pavement to Finsbury Park, and probably further north, is making good progress, though we understand that no decision as to electrical apparatus has yet been made. A shaft has been sunk near the New North Road by the side of the Regent's Canal, and the work of tunneling has been proceeding toward both termini. About 1½ miles of single tunneling has been completed, and the progress is at the rate of about 43 ft. weekly. The shaft at New North Road will not be used as a station for passengers, but as a generating center for the whole line. It is conveniently placed by the side of the canal, and supplies can readily and cheaply be brought up. There will be four stations on the route, viz., Finsbury Pavement, Old Street, Essex Road, and Drayton Park. The size of the tubes will differ from those on the Central London Electric, inasmuch as they will be built so as to receive the carriages of the Great Northern Railway, with which system it will effect a junction. The line will, in effect, be a city feeder to the Great Northern Company's system. The tubes will be some 16 ft. in diameter. Besides running the carriages of the Great Northern line through from Finsbury Park to Finsbury Pavement and beyond, there is a further project of running smaller carriages, as on the Central Electric, for the convenience of their own passengers who do not require to be taken further than Drayton Park.

I have already referred to the Baker Street & Waterloo as regards its prospectus, which shows that material progress is being made, and capitalists are now at work organizing a new underground electric scheme, which will fill a long felt want, namely from the Bank, paralleling Queen Victoria Street, the Strand, Fleet Street, Piccadilly, and so on West to Hammersmith. In the meantime the Metropolitan and District Railway Companies have fixed Dec. 1 for the receipt of tenders from the various electric traction firms, which have been invited to submit tenders for the conversion of the Inner Circle from steam to electricity. Whether this is feasible or not is a much mooted point, chiefly owing to the expense. The electric installation could not cost much less than £500,000, and probably a similar sum would have to be expended on the whole underground tunnel structure to put it into first-class condition, as it is reported that the action of the gases on the iron has put the tunnel into such a condition that much costly repairs would be necessary. As the companies have never paid satisfactory dividends, it is not thought that financiers look upon the investment very favorably. It is to be hoped that some way will be found out to accomplish the object, as the conversion from steam to electricity of this system in these enlightened days has now become an imperative necessity.

Relating to the Charing Cross & Hampstead Railway, the new underground project, which was recently purchased outright by Mr. Yerkes, the following particulars will be found interesting: hoped that it may be finished in two years. The power station for generating the electricity which will provide the motive power

The work will probably be begun in February next, and it is will be at Highgate Road. There will be two sets of lines, one starting from High Street, Hampstead, and running down under Haverstock Hill, and the other from a station adjoining that of the Midland Railway at Kentish Town. They will unite at High Street, Camden Town, and run to Euston Station. The line will then go under Tottenham Court Road to a station connected with the Central London Company's at Oxford Street, and thence to Charing Cross, thus linking together the Midland, London & Northwestern, Central London, and South Eastern Railways. The trains are to be worked on the "multiple unit" system, each carrying its own motor underneath, so that there will be no engines. There will be an all-night service, and during the busy portions of the day trains will run every two and one-half minutes.

One of the most important contracts that has lately been placed is that for the electric equipment of the tramways of Durban, Natal, a city which has recently become so well known. Hubert, Davies & Spain, of Durban and Johannesburg, have secured the contract for laying the track at the price of £38,000, while Macartney & McElroy, of London, have secured the contract for the overhead equipment for £16,994 10s. 10d., and also the contract for the cars at £18,600. The contract for the power house and generating plant was secured by Dick, Kerr & Company, of London, for £26,240 10s. The contracts were not secured by the lowest tenderers, the Municipal Council taking into consideration the power of completion to time and other matters. As usual, interesting facts are disclosed by a comparison of the several tenders. The lowest tender for the overhead equipment was that of Reunert & Lenz, Durban and Johannesburg, which amounted to £16,427 14s. 3d., and the highest that of Willing Brothers, Ltd., London, for £125,368. The lowest tender for the cars was that of Lowden Brothers, Dundee, for £15,905, and the highest that of Willing Brothers, Ltd., London, for £26,300. For the generating plant the lowest tender was that of R. W. Blackwell & Company, Ltd., London, at £20,417 10s., as compared with alternative tenders submitted by Hubert, Davies & Spain, Durban, of £24,010 and £30,723 10s.

For the overhead work the specifications stipulated for steel poles and cast-iron bases, with wrought-iron brackets at the top. Where the track is doubled on the main line, center poles with ornamental bracket arms are to be used. On the single track section the span-wire system is to be employed. The cars are of the double-decked, four-wheeled pattern, with seating capacity for twenty persons on the lower deck, and thirty on the upper. Wide curves on the trackway being the rule, enables the adoption of a 7-ft. wheel base. The car body is 26½ ft. long by 8 ft. 2 in. broad. There are no footboards, but a platform at each end. There is a central gangway on each deck, between pairs of turn-over seats, made to accommodate two persons each. The cars are to be elegantly decorated with embossed molded cornices, plate glass mirrors, etc., and each fitted with signal bells and ten 16-cp glow lamps. The sides are specially made with the upper structure open for hot weather, with roller sunblinds, canvas rain curtains, and glazed fanlights and doors, and an awning is provided on the upper deck for protection against the sun and rain. American trucks and electrical apparatus are required; but the car bodies may be either of English, Canadian or American construction, in the option of the Council. The number of cars in the contract is twenty-two, which are to be landed complete and ready for use.

The contract for the generating plant stipulated for three 400-hp compound engines, working up to 600 hp; three large dynamos, and three boilers—all of English manufacture. Cooling and condensing apparatus are also included. The plant is to be erected and maintained by the contractors for three months.

A. C. S.

## Notes from Germany

[From Our Regular Correspondent.]

A compilation of the traffic density on street railways in some of the principal European cities is certainly interesting. The number of car-km occurring on one day over 1 km of track during 1899 was: In Berlin (length 268 km), 523; in Vienna (80 km), 740; in Hamburg (123.7 km), 588; in Dresden (104 km), 433. The number of average yearly rides per inhabitant was: In Vienna, 57; in Berlin, 90; in Buda-Pest, 92; in Hamburg, 131; in Dresden, 162 (including transfers). The number of cars per km of track in Berlin was 7.5; in Vienna, 11; in Buda-Pest, 6; in Hamburg, 5.5; in Dresden, 6. Of the cars in daily use there are the following per day and per km: In Berlin, 4; Vienna, 7.6; Buda-Pest, 4; Hamburg, 4.5; Dresden, 3.8. During the year 1899 the largest number of



car-km per day and km occurred in Vienna, but the yearly rides per inhabitant are smaller in number in Vienna than in the other cities mentioned.

The Building & Operating Company of Municipal Railroads, of Vienna, has issued its first orders to motormen and conductors. The hours of work per day, unless otherwise ordered by legislation, are to be twelve. The following time is counted as working time: One-quarter of an hour before starting on the first trip, one hour for meals, between 10 a. m. and 2 p. m., and one-quarter of an hour when returning from the last trip. Besides, if employees or substitutes have to work later than 6 p. m. a quarter of an hour is given them for supper. It is understood, however, that if the occasion demands it, the men must work as long as fourteen hours per day, the extra time to be paid for, and, in case of extreme emergency, even longer than fourteen hours. After uninterrupted service of six days, each employee is given one day leave of absence, for which he receives full pay.

The electric service on the Wannseebahn has been opened to the public. Until further notice a complete train will make six trips daily between Berlin and Zehlendorf. As the fact was not advertised, the regular commuters were somewhat surprised upon entering the train to find that there was no locomotive, but apparently the train moved along without it.

The Freie Vereinigung der Strassenbahn-Betriebsleiter Rheinlands, Westfalen's und der Benachbarten Bezirke, held its forty-fifth meeting at Frankfurt-a.-M., on Oct. 25. The following was the programme:

1. Remarks on the "Maintenance of Electric Motor Cars," by Director Geyl, Frankfurt.
2. "Heating of Electric Motor Cars," by Mr. Gunderloch, Elberfeld.
3. "Current Consumption on Single and Double Motor Cars," by Dr. Kollmann, Frankfurt.
4. "What are the Greatest Permissible Grades and Lengths of Grades for Electric Roads Using Trailers?" by Dr. Kollmann, Frankfurt.
5. Remarks about pressed axle bearings on street cars, as well as the latest improvements in oiling and enclosing devices on the same, by Royal Railway Director Sürth.
6. "Experiments on the Behavior of Tracks on Concrete Foundation," by Mr. Kurz.
7. "What is the Practical Result of Running Workingmen's Trains on Electric Lines?" by Mr. Battes.
8. "Are Time-tables with a Map of the System Printed Thereon Commendable?" by Dr. Kollmann.
9. Association business, choice of place and date of next meeting.

The above papers were thoroughly discussed. At 2 p. m. the delegates met at a dinner, and at 4 p. m. the new plant of the local system was inspected. The delegates also visited an exhibition of railway apparatus set up by the world-renowned Georgs-Marien Bergwerks und Hütten Verein, of Osnabrück.

The first trial trips on the Siemens & Halske electric elevated road in Berlin have been made on a portion of the road 5 km in length. The trips are being continued with two cars, loaded with small stones, at a speed exceeding that of the trains of the city line. The roadbed, which is laid with broken stone, and extends over the entire distance now completed, is expected to dampen the noise considerably. Everyone is anxious to see whether this object has been attained. A comparatively noiseless and jarless riding is expected, however, on account of the use of the lap joint (Halbstoss).

The city of Berlin is in hard luck. As is known, the municipality in expressing itself so favorably to the private companies by extending their franchises, also decided to build and operate its own street railways in the future. A plan had been worked out which contemplated the laying of 50 km of double track in those streets not already traversed by the Grosse Berliner Strassenbahn, and the city had asked the government for a franchise. The following reply was received: "In accordance with an agreement made with the municipality some time ago, which is uniform for all street railways, the building and operating of a new street railway line will only be permitted when the public interests demand the establishment of such a road. If the same is not demanded by local conditions, the line will be considered as a nuisance on the public highways and streets. It is, therefore, unwise to grant the franchise for the 50-km road which has been planned without regard to the existing lines. Only such roads will receive a franchise which can be proven to be a public necessity." The city authorities, of course, are in mourning, as they announced their intentions with great *eclat*, and now find that but few small road franchises will be granted to them in the future, as the Grosse Berliner Strassenbahn fairly well supplies the public wants.

In consequence of the requirement of the government to the

Grosse Berliner Strassenbahn to abolish the accumulator service within a short time, the Berlin City authorities have raised objections, as in a recent agreement with the company it was decided that the latter should pay the city for the privilege of using the streets 8 per cent of the gross receipts. On account of using more street space for poles, conduits, etc., in the future, the city demanded 10 per cent instead of 8 per cent of the gross receipts. This extra 2 per cent would amount to about M.500,000. The company deemed this too large, and offered to pay M.10,000 yearly, a sum which would have to be paid to the government if the road were a State road. The city deputation further demanded that the company pay the extra expenses which will be incurred by the city in building its underground road through the streets where the surface conduit road will run, as the former will have to be built  $\frac{3}{4}$  in. lower than was originally intended. The portion of the road where both roads would run (if the underground road will ever become a reality) is about 2 km in length, and to lower the tunnel, as stated above, would cost millions. Again, the city and company are at odds, and the damage suit will be taken to the higher courts, which have heretofore shown a friendly attitude toward the company.

During the month of July nine persons were killed by the cars of the Berlin street car lines in Berlin and vicinity, three on one day, and thirteen were seriously injured. In August seven persons were killed and fifteen were seriously injured. In September four were killed and sixteen were seriously injured, making a total of twenty-one deaths and forty-four seriously injured, a number of which died from their injuries.

Many remedies have been tried without success to avoid the damages which the heavy electric cars are exerting on the asphalt pavements. Lately, however, a new method has been applied in Berlin, from which good results are expected. While up to now the rails have been laid directly on a sub-base of concrete, and were in immediate contact with the asphalt, on the trial road they will be laid on base of rough broken stone, and there will be a row on the sides of strips of hard wood. For it has been shown that the best resistance medium to the weight of heavy electric cars is afforded by the ordinary block pavement, which is laid, not on concrete, but on a bed of stones. This bed, it is assumed, gives the rails a chance to sag or spread a trifle as the car passes over them. This is not the case with a bed of concrete, and the result is that when the gage of the car is a trifle larger or smaller than the track gage, the adjoining asphalt pavement receives a severe shock when the car passes over the rail, which in time will destroy the pavement. It is expected that these shocks will be transmitted downward with the new pavement. It is also hoped that the noise will be dampened considerably, as cars passing over tracks laid on block pavements make less noise than those in asphalt pavement. The experiment is of especial interest for Berlin, where a large number of streets have been asphalted recently without regard to the street railways. Besides, the maintenance of these pavements, demanding the tearing up of the streets, are a source of constant trouble to the city and company, and an annoyance to the public. Other cities have taken into consideration the laying of new pavements whether the same is suitable for the laying therein of street railway tracks.

A novel, and for both sides an agreeable and practical form of municipal street railway management, has been adopted by the city of Brünn in Austria. The city has organized, in conjunction with the Union Elektrizitäts-Gesellschaft, an offspring from the General Electric Company, of America, a company which is to build and operate the street railways in and around Brünn. In this way the city retains its ownership, and private operation is secured. The capital of the company is 6,200,000 kronen, divided into 31,000 200 kronen shares. The city only retained 200 shares. Some of the franchise conditions are as follows: The maximum speed within city limits is 12 km, outside of the city 16 km, if the road runs along a public highway. On its own roadbed a speed of 25 km per hour is permitted. The overhead trolley system will be used, and the pressure with direct current is to be 500 volts, and not over 250 volts with alternating current. (Direct current will be used.) The rolling stock will consist of forty-one two-axle motor cars, each having two motors, of 37 hp each, seating at least thirty-four persons, and twelve two-axle trailers, seating twenty-eight persons. All apparatus, including wires, motors, etc., are to be bought and manufactured in Austria. In the latter country this clause is now so frequently inserted that foreign manufacturers have very little chance to do any business there.

Sooner than was anticipated, the cities operating their own roads are confronted by the problem whether it is advisable for them to build the suburban roads, that is on territory which is outside of their city limits, or whether they had better have private companies build such roads. This question was not considered by the authorities at the time when small street railway lines could be



very cheaply bought, for they now find that with the lines they undertook the obligation to spend millions for the construction of roads which would be perhaps unprofitable for a number of years, and extended far out of their own and into the limits of other towns. This question of serving the suburban districts will probably determine the much larger question whether cities can be efficient street railway managers. This will show whether they acquired the road for the public good, in order to extend the system, or whether they bought it as a gold mine, which promised returns and brought with it no obligations.

The conditions of Frankfurt-a.-M. has brought this question to the front. The city expended M.25,000,000 for the purchase and electrical equipment of the road and the building of a power house. In order to meet competition and derive all the benefits possible the city was forced to apply for all the franchises asked for by private companies for the building of suburban roads, which involves considerable money. The authorities have now decided to take the consequences of their decision to operate the street railway lines themselves, and have adopted the following resolutions:

1. The city will be the owner of the franchise, builder, owner and operator of all street railways within the city limits. Roads to be built outside of city limits may be built by private companies or by the city in conjunction with the towns benefited by such roads.
2. These outside roads must be joined to the city lines wherever it is possible. For the regulation of through traffic the city will make agreements with the private company.
3. The suburban roads should be built on their own roadbeds wherever this can be done. This will be considered in the laying out of roads closely bordering on the city limits.
4. Municipal suburban roads will be built as soon as traffic conditions demand it.
5. The first large road which it is proposed to build in conjunction with a private company is the one leading to Hamburg, where the Dowager Empress Frederick resides.

### Annual Report of the Brooklyn Rapid Transit Company

The official annual report of the Brooklyn Rapid Transit Company, supplementing the preliminary statement issued several months ago, and which was given in the STREET RAILWAY JOURNAL at that time, has just been made public. The report of the company is for the year ending June 30, and, in presenting it, President Rossiter, of the company, says: "The general result of the business of the system comprising the Brooklyn Rapid Transit Company and constituent companies, for the fiscal year ended June 30, 1900, showed gross earnings from passengers, freight, mail and express, advertising, rents, and miscellaneous income of \$11,768,550; expenses of \$7,106,373; net earnings of \$4,662,177; fixed charges and taxes of \$4,135,405, yielding a surplus of \$526,772. Adding to this the surplus of June 30, 1899, \$96,654, gives a total surplus on June 30, 1900, of \$623,426.

"The fiscal year opened inauspiciously with a strike, declared on July 16, the effect of which, though the actual operation of the cars was interfered with but for a brief period, was, nevertheless, far-reaching, and was reflected in receipts and operating expenses for several months thereafter.

"Progress has been steadily made throughout the year in developing plans outlined in the previous year's report for the general improvement of the property. Upon the elevated lines 13.23 miles of new steel rails (1,646 tons) have been laid, and a considerable portion of the floor system and guard timbers renewed, while several miles of safety walk and guard handrail have been constructed. There has also been installed on the elevated lines 32.29 miles of third-rail conductor, and electricity substituted for oil and gas in lighting of all stations.

"Large additions have been made during the year to the equipment of the surface lines, including 330 open car bodies and trucks, 250 closed car bodies and trucks, 1652 motors and controllers, and five snow plows. To the elevated equipment has been added during the year twenty-five cars and trucks, forty-eight motors and controllers, and a considerable sum expended in the electrical equipment of cars.

"There are owned by the various companies some fifty-two separate parcels of land not required for railway purposes, many of these having buildings thereon, with an aggregate value of, approximately, \$1,800,000. The assessed value of these combined properties on the last assessment roll amounted to \$1,551,800. Sales of this property are being made from time to time, the proceeds being applicable for improvements and betterments. The funds thus realized do not, of course, increase interest or fixed

charges, while the disposition of needless real estate actually reduces the items of taxes and realty maintenance.

"Each fiscal year since the inauguration of the Brooklyn Rapid Transit system has seen a considerable extension of track mileage, naturally yielding increased earnings; but notwithstanding the fact that less than 2 miles of new track was added during the fiscal year ended June 30, 1900, and the car mileage reduced 1,600,000 car miles, as shown by the auditor's report, operation for the year resulted in largely increased passenger earnings.

"During the fiscal year your company has paid directly and indirectly in city and State taxes and through free transportation of policemen and firemen over \$1,000,000, or about 9 per cent of its gross earnings, and is the largest single taxpayer in the Borough of Brooklyn. The taxes, direct and indirect, paid by the company represent about \$2,900 of earnings for each day in the year.

"To the 8076 employees upon its payrolls at the close of the year your company has paid in salaries and wages \$4,691,878.50.

"There was paid during the year in the settlement of negligence claims \$797,789.91, or 6¾ per cent of the gross receipts, and in addition, for legal expenses in connection with negligence claims, the sum of \$106,068.06, making a total of \$903,857.97. Your company has pursued the policy of not taking into court actions which should and could be compromised, and the wisdom of this policy is shown by the fact that out of the 565 actions disposed of in court during the year, 407, or over 72 per cent, were victories for the company. Notwithstanding this success, however, suits multiply, and the evils with which we are obliged to contend in negligence litigation are sufficiently great to demand rebuke from the courts and self-respecting members of the bar.

"For all damages for which your company is responsible, it expects to make ample compensation, and it is sparing no efforts to reduce to a minimum the necessity for such expenditure; but against the scandalous attempts of unscrupulous attorneys to mulct the company by the prosecution of fraudulent suits, your company needs and asks the co-operation and assistance of the courts and the public. The evils which exist are a menace to justice, and taint the good name of an honorable profession.

"Well considered plans for further relief of the existing congestion on the Brooklyn Bridge during the commission hours are awaiting indorsement by the Bridge authorities, and will, it is confidently hoped, result in largely improved facilities for handling the traffic on that structure, and inure greatly to the convenience of the traveling public."

Following is a statement of Brooklyn Rapid Transit and constituent companies for years ending June 30, 1900 and 1899:

	1899	1900
Receipts		
Passengers .....	\$10,793,984	\$11,206,716
Freight, mail and express.....	36,791	61,305
Advertising .....	109,487	108,783
Rents .....	140,811	167,253
Other miscellaneous income.....	234,960	224,493
<b>Total .....</b>	<b>\$11,316,033</b>	<b>\$11,768,550</b>
EXPENSES		
Maintenance of way.....	\$374,947	\$415,720
Maintenance of equipment.....	983,216	882,183
Operation of power plant.....	948,749	964,665
General expenses.....	582,175	494,530
Operation of cars.....	3,593,367	3,551,476
Damages .....	738,837	797,790
<b>Total .....</b>	<b>\$7,221,291</b>	<b>\$7,106,373</b>
<b>Net earnings.....</b>	<b>\$4,094,742</b>	<b>\$4,662,177</b>
DEDUCTIONS		
Taxes .....	\$6,636,635	\$736,721
Net fixed charges.....	3,659,988	3,398,684
<b>Total .....</b>	<b>\$4,296,623</b>	<b>\$4,135,405</b>
Surplus or deficit.....	(D)201,881	(S)526,772
Surplus June 30, 1899.....		96,654
<b>Total surplus June 30, 1900.....</b>		<b>\$623,426</b>

The condensed balance sheet for all companies June 30, 1900, shows the following:

ASSETS	
Cost of road and equipment.....	\$85,984,973.47
Additions and betterments not yet distributed.....	85,773.39
Equity Brooklyn City construction.....	5,018,105.10
Equity Prospect Park and Concy Island construction .....	108,426.96



Guarantee fund .....	4,005,755.00
Treasury bonds .....	5,513,000.00
Stock Brooklyn Rapid Transit Company .....	146,228.00
Accounts receivable .....	311,903.62
Prepaid insurance .....	34,260.51
Supplies .....	516,606.88
Cash on hand.....	1,470,287.54
Total .....	\$103,195,320.47

## LIABILITIES

Capital stock Brooklyn Rapid Transit Company...	\$45,000,000.00
Capital stock, constituent companies not owned by Brooklyn Rapid Transit Company:	
Nassau Pref., outstanding.....	\$448,000.00
Brooklyn Union Elevated Pref., outstanding .....	285,646.58
Brooklyn Union Elevated common, outstanding.....	807,027.87
	1,540,674.45
Funded debt:	
Sea Beach Railway Company.....	\$650,000.00
Brooklyn, Queens County & Suburban Railroad .....	6,574,000.00
Brooklyn Heights Railroad Company .....	250,000.00
Brooklyn Rapid Transit Company .....	7,000,000.00
Nassau Electric Railroad Company .....	15,000,040.00
Brooklyn Union Elevated Railroad Company.....	23,000,000.00
	52,474,040.00
Loans .....	1,000,000.00
Interest accrued .....	116,578.62
Taxes accrued .....	596,052.04
Rentals accrued .....	686,140.19
Audited vouchers .....	641,396.85
Accounts payable .....	110,106.30
Real estate mortgages .....	226,725.50
Contingent liabilities .....	180,181.27
Surplus .....	623,425.75
Total .....	\$103,195,320.47

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### PERSONAL MENTION

MR. SAMUEL LITTLE has resigned as president of the West End Street Railway Company. He is to be succeeded by Mr. Joseph B. Russell.

MR. THOMAS F. CALFER, treasurer of the Laclède Car Company, of St. Louis, died suddenly of heart disease, Dec. 1. He was fifty-three years of age, and a native of Waterford, Ireland. He was instrumental in organizing the Laclède Car Company, and has been its treasurer since its organization, ten years ago.

MR. GEORGE W. EDWARDS, general superintendent of the elevated division of the Brooklyn Rapid Transit Company, has resigned. Mr. Edwards has been connected with the elevated systems of Brooklyn since their beginning. For a long time he was assistant superintendent under General Manager Barton, of the Brooklyn Elevated Railroad. When the latter road was absorbed by the Brooklyn Rapid Transit Company, Mr. Edwards was made general superintendent of the entire system.

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### ENGINEERING SOCIETIES

ST. LOUIS RAILWAY CLUB.—A regular meeting of this club will be held in the Southern Hotel parlors Friday, Dec. 14. Mr. Morris Wuerpel, Jr., signal engineer, Terminal Railroad Association, will present a paper describing the method of signaling trains through the St. Louis tunnel, illustrating the same with a stereopticon.

ENGINEERS' CLUB OF PHILADELPHIA.—In place of the stated meeting of the club, on Dec. 15, the anniversary of the founding of the club will be celebrated. President Edgar Marburg, of the club, will make an historical address entitled, "A Brief History of the Club." Carl Hering will present an illustrated paper entitled, "Popular Features of the Paris Exposition."

### NEWS NOTES

LOS ANGELES, CAL.—The Mount Lowe Railway Company has perfected its reorganization. New officers and directors have been elected, and a new bond issue will be authorized.

SAN FRANCISCO, CAL.—Despite the fact that all previous attempts to secure a reduction in the rate of fare on street cars here have proved futile, it is proposed to introduce an ordinance in Council requiring that school children be transported at reduced rates.

MERIDEN, CONN.—The Meriden, Southington & Compounce Tramway Company will shortly apply for franchises in Southington, Walcott and Waterbury. The franchises are desired so as to permit the extension of the company's lines from Milldale to Waterbury.

MERIDEN, CONN.—Application will be made to the Legislature in January for the incorporation of a company to construct an electric railway from Meriden to Waterbury, extending through Cheshire. Among those interested in the new project are: Francis Atwater and Colonel C. L. Upham, of Meriden; James R. Lanyon, George W. Keeler and Walter Scott, of Cheshire; F. B. Rice and Thomas D. Barlow, of Waterbury.

NAUGATUCK, CONN.—Application is to be made at the coming session of the Legislature for permission to construct an electric railway from Naugatuck to Seymour, a distance of 7 miles. The route of the new line is from the terminus of the Connecticut Lighting & Power Company's tracks at Naugatuck, in a southerly direction, partly on the highway and partly through private rights of way, to Beacon Falls, and from thence on to Seymour.

NEW HAVEN, CONN.—The Winchester Avenue Railroad Company has begun the work of improving its Savine Rock & Woodmont Road. The line will be practically rebuilt. The tracks are to be relocated in three places and the grade of the old roadbed is to be cut down and several sharp corners eliminated in several other places. A number of new sidings will be put in, and it is thought that it will be necessary to eventually double track the entire road.

WILMINGTON, DEL.—When the Wilmington City Railway Company, People's Railway Company, Wilmington & Chester Electric Railway and the Wilmington & New Castle Electric Railway Company complete their new construction work here, the city will have the greatest street railway mileage of any city in the United States of its population.

NEW CASTLE, DEL.—The officers of the Wilmington & New Castle Electric Railway Company are considering the advisability of extending the line from Delaware City to Middletown. It is probable that the subject of extending the road will be discussed at the next meeting of the directors. Should it be extended the line would be constructed from Delaware City to Port Penn, thence to Kirkwood, St. Georges, Odessa, McDonough to Middletown. The officers of the company recently made an extended inspection of the new territory through which it is proposed to extend the road.

BRUNSWICK, N. J.—Michael Brown, of Barnwell, S. C.; F. D. McEwen, of New York; T. W. Passailaigue, of Charleston, S. C., are interested in the company which recently received a franchise here. The franchise is granted for a period of fifty years. It is required that work be begun by April 1, 1901, and that cars be in operation by Jan. 1, 1902.

BOISE, IDAHO.—The Boise & Payette River Electric Power Company has been incorporated, with a capital stock of \$1,000,000, to construct an electric railway and do general electric lighting and power business. Nelson & Bramhall, of St. Paul, Minn., are the attorneys for the company.

CHICAGO, ILL.—Two attempts were made to hold up street cars on the West Side on Dec. 6. The first hold-up resulted in the capture of two of the robbers by the crew and passengers of the car. The robbers did not succeed in securing any plunder in the second hold-up, and made good their escape.

CHICAGO, ILL.—The Chicago & Grand Avenue Street Railway Company proposes to build an electric railway from Harlem and Chicago Avenues north to Grand Boulevard, and thence west to Elmwood and Franklin Park. C. C. Harris, of Montclare, is the president of the company.

CHICAGO, ILL.—The City Council has passed an ordinance providing for the equipment of all street cars with lever brakes capable of being operated from the motor cars. It is effective in the case of trailers which have been connected with the other cars simply by the coupling, and which, it was claimed, have been responsible for the inability of motormen to bring their cars to a sudden stop when necessary.

MICHIGAN CITY, IND.—The City Council has just passed an ordinance granting the Laporte & Michigan City Railway Company a franchise here. The grant is for a period of fifty years, and the company has ten days in which to file its acceptance of the grant. The franchise stipulates that the road must be completed and in operation by July 1, 1901, and, as a guaranty of good faith, the company is required to make a cash deposit of \$500 with the City Treasurer, to be forfeited if the road is not finished in the stipulated time.

LEBANON, IND.—The Lebanon & Indianapolis Traction Company, which was recently granted a fifty-year franchise by the Marion County Commissioners for the construction of an electric railway on the Lafayette Pike, has filed a petition with the Boone County Commissioners, asking for a fifty-year franchise on the Lafayette Pike in this county, and also for a franchise on the Lebanon and Frankfort Pike. W. J. Devol, president of the First National Bank, is interested in the new company.

WABASH, IND.—Townsend, Reed & Company, of Sharon, Pa., are said to have secured control of the tow-path along the abandoned Erie Canal in