

entomologist, has just issued a bulletin on the subject telling how to deal with the beetles, caterpillars and other insects that do the damage, but so long as the sparrow is allowed to drive away the wrens, bluebirds, martens and yellow birds that once kept these insects down by feeding on them, we don't see how any other cure can be very effectual. We are sorry to learn that the grand old trees are shedding their leaves in July and August, but now that instead of complaining about electricity the people know what the real trouble is, they do not need sympathy. As a matter of fact, in view of what has been done with electricity as a stimulus to plant life, we should like to hold a brief for the contention that but for electricity as a tonic—if they really got any—the trees would long ago have been in the condition of the proverbial coffin nail.

The Trolley and the Commercial Traveler

The possibilities provided by the numerous interconnecting trolley systems in different sections of the country for making pleasure trips have frequently been extolled by those tourists who, tired of traveling by steam trains, have preferred the shaded highways traveled by the electrics. There is much to say in favor of this kind of touring, and those who have tried it, and their number among the public is constantly growing, are most enthusiastic in its favor. The passenger sees the main streets of the cities through which he passes, its monuments, parks, churches, public buildings and residences, instead of passing through back yards and underneath streets, as he would if he traveled by the steam roads. In this way he revives the former pleasures of the post coaching, and when he arrives at his journey's end, knows something about the country through which he has traveled. There is one feature of this method of touring, however, which has never been referred to, to any extent, so far as we are aware, in the technical papers, and that is the possibilities and advantages which it offers to the commercial traveler in making his visits. This is what one of them said recently in regard to the Ohio interurban lines, as reported in one of our exchanges:

In the matter of the trolley system of transportation, the newspaper fraternity seems to be unmindful of the immense benefit it is to the traveling salesman who can carry their samples in a grip. Let me give you a sample of my experience. In May last a friend of mine in New York City wanted Northern Ohio drummed, and engaged me to do the drumming. I found that section "chuck full" of trolley car lines. I was at the work just forty-eight working days, moved over 1300 miles, and 700 of the miles I used the trolley. I interviewed 184 people, sold to 168 of them. It would have taken at least three months to have done the same work had I been compelled to rely upon the steam railroads for transportation. A detail of one day's experience will tell of all the days.

I stayed over a Sunday at Youngstown. Had five people to see there. Saw them on Monday. At 10.30 o'clock a. m. boarded a trolley car and went to Girard. Had one to see there. At 12 o'clock noon was on my way to Niles. Had three to see there. Saw them, and had dinner. At 2 p. m. was on my way back to and through Youngstown to Lowellville. Had one to see there; saw him, and was back at Youngstown a little before 6 o'clock. I had moved close on to 40 miles and at a cost of 60 cents, and sold to the ten I had called upon. At night, curiosity prompted me to see what time I could have made had I been compelled to use the steam road. It would have taken until Tuesday night, a little after 8 o'clock, and would have cost \$1.54. These are the figures:

Cost, transportation, steam roads.....	\$1.54
Breakfast, dinner and supper, Tuesday.....	1.50
	\$3.04
Cost by trolley .....	.60
Saved	\$2.44

And one day's time.

This is a sample of the benefits the trolley is to the commercial tourist.

The Jamestown Labor Theory

The curious situation that has been developing for some months past at Jamestown, N. Y., is one that furnishes much food for thought, as to what men can expect, even if governed by right purpose, when they allow their acts to threaten the welfare of the entire community, part of which at least may be supposed to sympathize with them. There was a time when Jamestown, busy and growing, was a tolerably comfortable place to live in, but latterly the point has been reached when it becomes doubtful whether the

new unions there may not kill her trade and prosperity just as those of England have been ready to sacrifice the greatness of that country. Without going into the history of the disaster caused by other unions and strikes, it may be noted that last May a local barber organized a street-railway union. Some time later, when three men were discharged, one for being drunk, one for rudeness to passengers, and one for sheer incompetence, the strike, of course, was immediately on. A committee of local business men commanding the respect of the city took the matter in hand, and after a most exhaustive investigation, this Conciliation Committee found as follows, and advised the men to go to work:

The published rules of the company are presumptively reasonable rules; the company has an undoubted right to demand, as a condition of continued employment, that the employees shall conform to such rules, and a violation of them is a sufficient justification for the discharge of the men, and it can not be doubted that there have been violations of these rules in some measure by the men discharged.

The committee's laudable effort failed, and the scope of the grievances has since been enlarged so that the original cause of the trouble has been quite forgotten. But judged by their fellow-citizens, the company had evidently done no wrong.

Step by step the lawlessness that marks the attitude of extreme men has pervaded the situation, as it always does, making those of us who like to see labor organized wonder why it is that the serious and thoughtful members can thus allow themselves to be so unworthily dominated. Shouting "scab" is in reality a form of amusement; and "spotting" business men who ride on the ears might be treated as only an annoying interference with personal liberty, of the kind one sometimes sees in politics; but when it comes to using sticks of dynamite and bombs in order to injure tracks, ears and passengers, the cause of labor is seriously hurt, and public sympathy, if it exist, is weaned. That is what has happened in Jamestown, and the last step of the labor leaders is of such a portentously foolish nature that it would seem impossible for any self-respecting human being to approve it, whatever his occupation or status in society. The League of American Municipalities is to have its convention in Jamestown this week, and the citizens had generously raised a fund of \$2,000 or more for its entertainment. Thereupon the street-car men on strike sent out notices requesting members of the League to stay away until the street railway company did its duty to its employees. Inquiries began to come in, furious indignation was aroused among the citizens, and the street-car union denied its action, but the evidence was too much. The result is that the Mayor of the city has had to issue a proclamation denouncing this action and setting forth the story of the strike, as well as the decision of the Conciliation Committee against it. Moreover, the proclamation says: "The Central Labor Council of Jamestown does not approve of the action. It recognizes that the interests of Jamestown are superior to those of individuals, and it joins with the city as a whole in guaranteeing a welcome to all who may come to the convention." In addition to this, the Central Labor Union, at its meeting on Aug. 14, denounced the whole attempt of the men to boycott their own city. Indeed, a more dastardly and preposterous piece of narrow-mindedness it would be hard to imagine. If we look at the money side alone, allowing that the convention sat three days and there were 500 people in attendance, the outside money brought to, and spent, in the city would probably exceed \$5,000. Yet for their own purposes solely, these men would have debarred their fellow-citizens from that income and the social intercourse, etc., that the convention promises. We have puzzled ourselves not a little to see just what the strikers expected to make out of such a "strike," but we must give it up as hopeless. They have certainly judged themselves, and the whole people of Jamestown will do the rest.

Since the above was written a special telegram in the newspapers of Aug. 19, from Jamestown, says:

"An attempt was made to destroy the Coleron Theater at two o'clock this morning. The theater belongs to the Jamestown Street Railway Company, on which a strike is in progress, and on which different efforts have been made of late to blow up cars

with dynamite. A large can of oil and waste was placed on the rafters under the theater, which extends out over Chautauqua Lake, and ignited. The flames were discovered before the oil-can burst and its contents escaped, else the burning oil flowing in the water would have made it impossible to extinguish the flames."

This is evidently in keeping with all that has gone before, and stamps the perpetrators of such deeds not as men indignant at any real grievance, but criminals, who do not stop short at fire and murder. There must be an end to such practices in Jamestown, it is felt locally, or soon there will be no Jamestown left.

Street Railway Travel in New York

The records of street railway travel in New York show some curious ebbs and flows, but, taken as a whole, illustrate one fundamental truth, which stands out so clearly that it is impossible not to recognize it in any consideration of the annual reports of the different transportation companies. This fact is that the street travel in New York will respond rapidly to any improvements made in transportation methods, and that the annual increase in demands for transportation is so large that it will practically keep pace with all improvements as rapidly as they may be made. Thus, if we glance at the traffic reports of the main transportation lines in New York City for the past ten years, we will see that a decade ago the Manhattan Railway Company was carrying by far a larger number of passengers than either what now constitutes the Metropolitan Street Railway system proper or what may be termed the Third Avenue Railroad system, although all of the Third Avenue system is now controlled by the Metropolitan Company. At that time the Manhattan gross receipts were increasing at the rate of about a half million dollars yearly, and reached their culmination in 1893, when 221,407,000 passengers were carried. During the next two years, however, they fell off at the rate of about \$900,000 per annum, caused, undoubtedly, by the adoption of improved motive power on the surface roads, *i. e.*, the cable on the Broadway and Third Avenue lines. This decrease was continued during practically all of the four years following 1895, but with the difference that it was no way near so great annually as in the two previous reports. In 1898 there was, it is true, a slight increase, but the general drooping tendency was accentuated by the greater drop in 1899, making the annual decrease for the four years average \$150,000. On the other hand, during this general adoption of electricity on the longitudinal surface lines of the city, the receipts on these lines increased rapidly; in fact, from a study of the total gross earnings of the reports of the surface lines, it is possible to tell almost exactly by years the number of lines to which the electric system was extended. In 1900 a change occurred, and in this year the increase in passengers carried by the Manhattan over the previous year was 6,600,000, and in the report which has just been issued, and which is published elsewhere in this issue, the gross receipts are \$9,416,886, or an increase of practically the same as in the previous year. In other words, while the company has not yet put in operation its improved motive power, the demand for transportation in New York City has so far filled up the surface lines that passengers are again employing the elevated, and it is safe to say that the ebb point in the Manhattan situation was reached in 1899, certainly under present conditions of operation.

Three factors remain to be considered as having an important result upon the future gross earnings of the Manhattan Company. The first is the equipment of the lines by electricity, which will undoubtedly be completed, or practically so, within a year. The second is the opening of the rapid transit railway, which must be ready for operation about 1904, and the third is the expiration of the traffic agreement between the Manhattan Railway and the Third Avenue system, which will also occur in 1904. It is safe to say that so far as surface competition is concerned, the Manhattan Railway has seen its worst. All the longitudinal lines on Manhattan Island are now already equipped with mechanical traction, with the exception of the Seventh Avenue, the Belt Line, and First Avenue, the electrification of none of which would seriously affect the traffic on the Manhattan system. The equipment of the cross-town lines with mechanical traction would increase, if it affected at

all, the traffic of the elevated railroad. Its own electric equipment must, however, have a most beneficial result, and while we hardly expect that this will cause much, if any, decrease on the surface lines, the great bulk of the increase in traffic between 1902 and 1904 will undoubtedly fall to the lot of the Manhattan Company, and these years will undoubtedly see the most rapid increase in its gross receipts which has occurred since 1887, or when the company adopted 5-cent fares for all hours of the day.

With the opening of the rapid transit line, there will have to be another redistribution of traffic, and it is safe to say that in this the Manhattan Railway will suffer more than the Metropolitan, though neither will be seriously affected. The through traffic, by which we mean that above Eighty-Sixth Street, along the route of the tunnel to the lower part of the city, will undoubtedly nearly all go to the tunnel, and this will have to be subtracted from the Manhattan business. The tunnel will undoubtedly also take a large part of the business from the Grand Central Station down town, and this loss will have to be borne by both surface and elevated lines. Fortunately for both of these companies, however, the rapid transit tunnel will not touch two of the most important sections of the city from a traffic standpoint, *i. e.*, the immensely populous East Side, from Forty-Second Street north, which supplies three times the traffic of the corresponding district on the other side of the city, and the retail shopping district on Broadway and lower Sixth Avenue. In other words, both companies will yield to the rapid transit the business which they can best afford to do without, will still retain the choicest traffic districts, and will divide between them all, or nearly all, of the middle haul and short-haul business. It is impossible to tell just what effect this redistribution of traffic will have on the gross earnings of the Manhattan Company, but if considerable, we believe that it will be only temporarily, and that a few years will soon make up the difference. In no case do we believe that the decrease will be anywhere near as serious as that which the company experienced between 1893 and 1895. The effect of the opening of the rapid transit system on the Metropolitan Company can only, in our eyes, be advantageous. It will not only allow the company to do practically all of the short hauling business, but it will also bring a great many people to the upper end of Manhattan Island and the Bronx, who will patronize the Metropolitan cars at both ends of the rapid transit line to carry them nearer their residences and places of business.

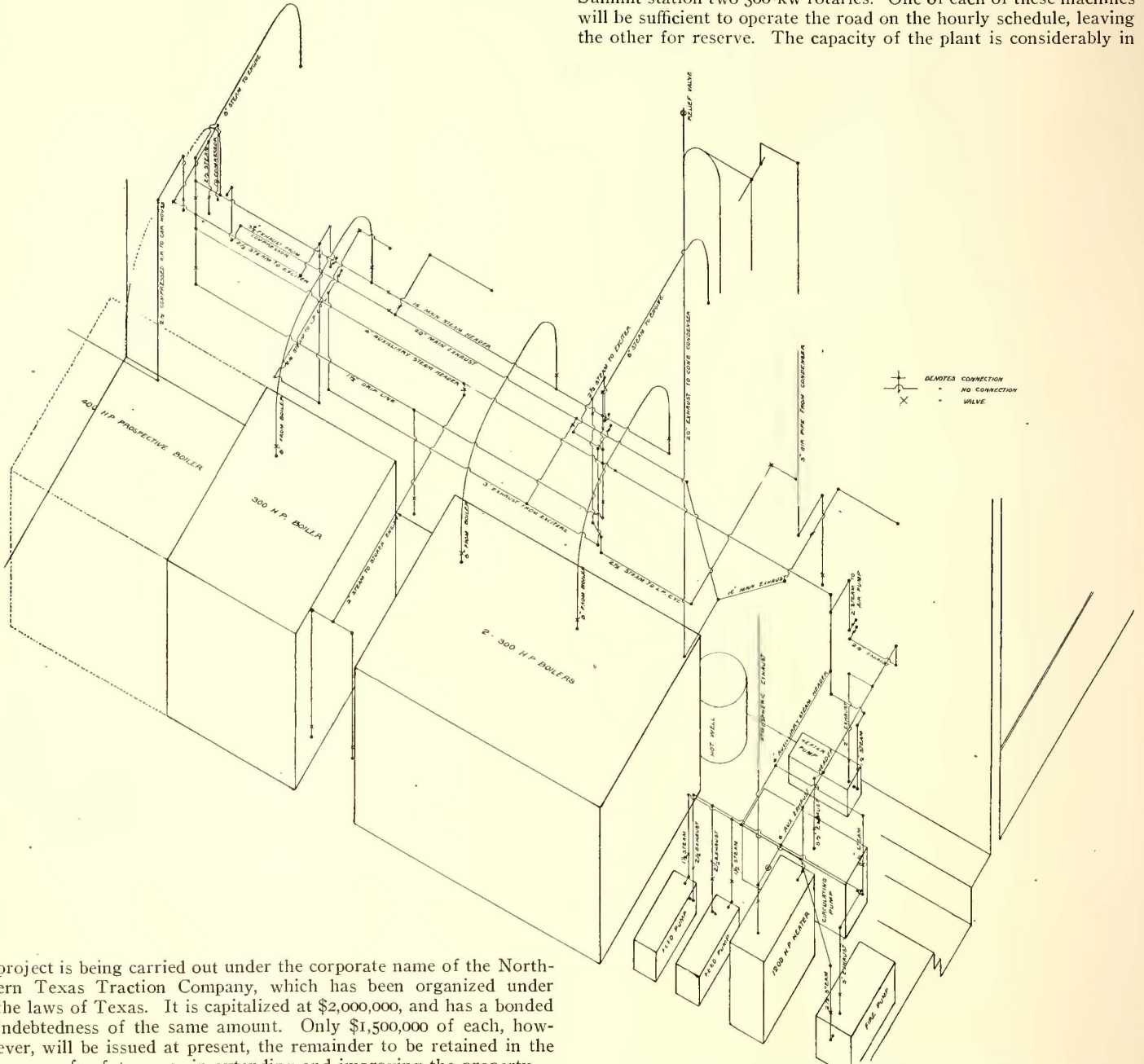
The only factor which yet remains to be considered is the effect on the Manhattan Company of the possible abrogation of the traffic agreement between it and the Third Avenue system, by which transfers are given from one system to the other upon payment of 3 cents additional fare. The extent to which this privilege has been exercised by the public is not generally known, as the Manhattan's annual report, as filed with the Board of Railroad Commissioners, does not separate the receipts from transfers from the receipts from cash passengers, and that of the Third Avenue Company makes no difference between Manhattan transfers and transfers to its own system. The average fare paid the Manhattan Company for transportation, however (for the year ending June 30, 1900), was 4.954 cents. If the "number of passengers carried" did not include those traveling on passes, this would make only about 4½ per cent used transfers, but as the figures of passengers carried undoubtedly do include a considerable number on passes, the proportion using transfers must be very much less. The small number, then, who would not use the elevated through absence of the transfer agreement, would undoubtedly be made up by those who would pay a straight 5-cent fare; but as the total amount of this business is so small, the abolition of the system would, in our opinion, have practically no effect on the traffic of the company.

Broadly speaking, then, the increase in traffic during the coming year will be largely along present lines, until the Manhattan is electrically equipped. During the following two years that road may be expected to show the greatest gain, while, after the opening of the rapid transit, both will have a larger and much more profitable patronage, though the elevated increase may be slightly checked for a short time by competition from its underground competitor.

Interurban Railway Between Dallas and Fort Worth

A few particulars of the proposed high-speed electric railway between Dallas and Fort Worth, Tex., have been published in previous issues of this paper, and in this number, through the courtesy of E. P. Roberts & Company, consulting engineers of the line, plans are given of the machinery which it is proposed to install. The

Manufacturing Company, and consist of two 600-kw three-phase alternators, and two 250-kw rotary converters in the power house, and the necessary step-up transformers to raise current to a voltage of 15,000 for transmission to the sub-stations. There will be two sub-stations, one at Fort Worth and one at Cockerell Summit, about 6 miles from Dallas. The Fort Worth sub-station will contain two 400-kw rotaries, and the Cockerell Summit station two 300-kw rotaries. One of each of these machines will be sufficient to operate the road on the hourly schedule, leaving the other for reserve. The capacity of the plant is considerably in



ISOMETRIC DRAWING OF STEAM AND EXHAUST PIPES

project is being carried out under the corporate name of the Northern Texas Traction Company, which has been organized under the laws of Texas. It is capitalized at \$2,000,000, and has a bonded indebtedness of the same amount. Only \$1,500,000 of each, however, will be issued at present, the remainder to be retained in the treasury for future use in extending and improving the property.

Cleveland capital, which is so largely interested in interurban projects in other parts of the country, is also engaged in this undertaking, and most of the officers are residents of that city, as shown by the following list: George T. Bishop, president; John Sherwin, first vice-president; George F. McKay, secretary and treasurer, all of Cleveland; F. M. Haines, second vice-president and general manager; C. A. Taylor, assistant secretary and treasurer, both of Fort Worth, Tex. The company now has in operation 22 miles of electric lines in the city of Fort Worth.

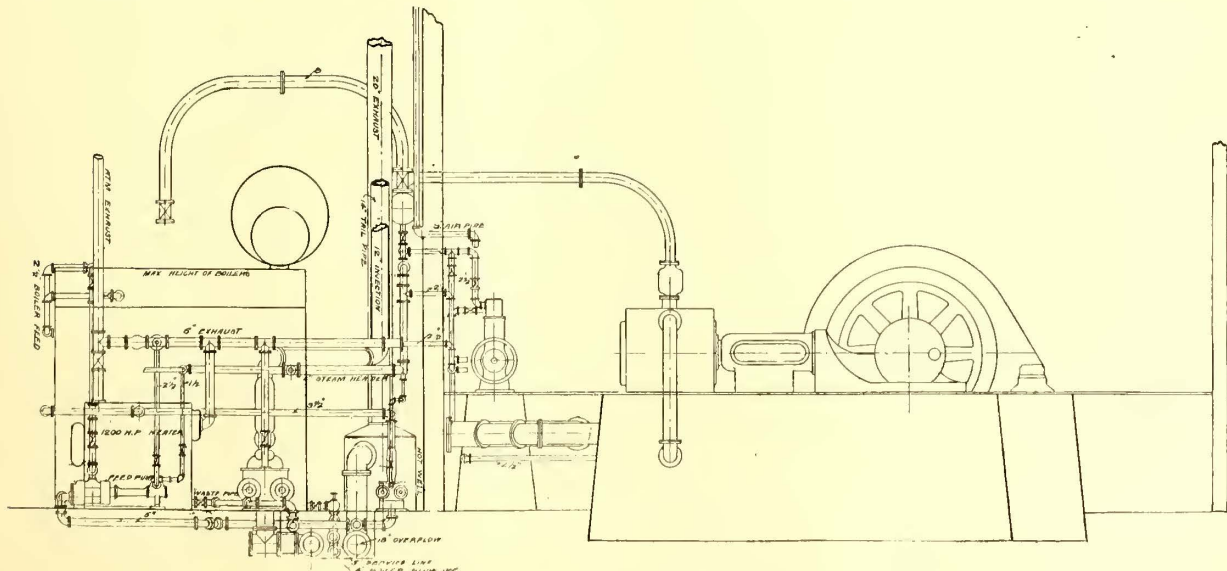
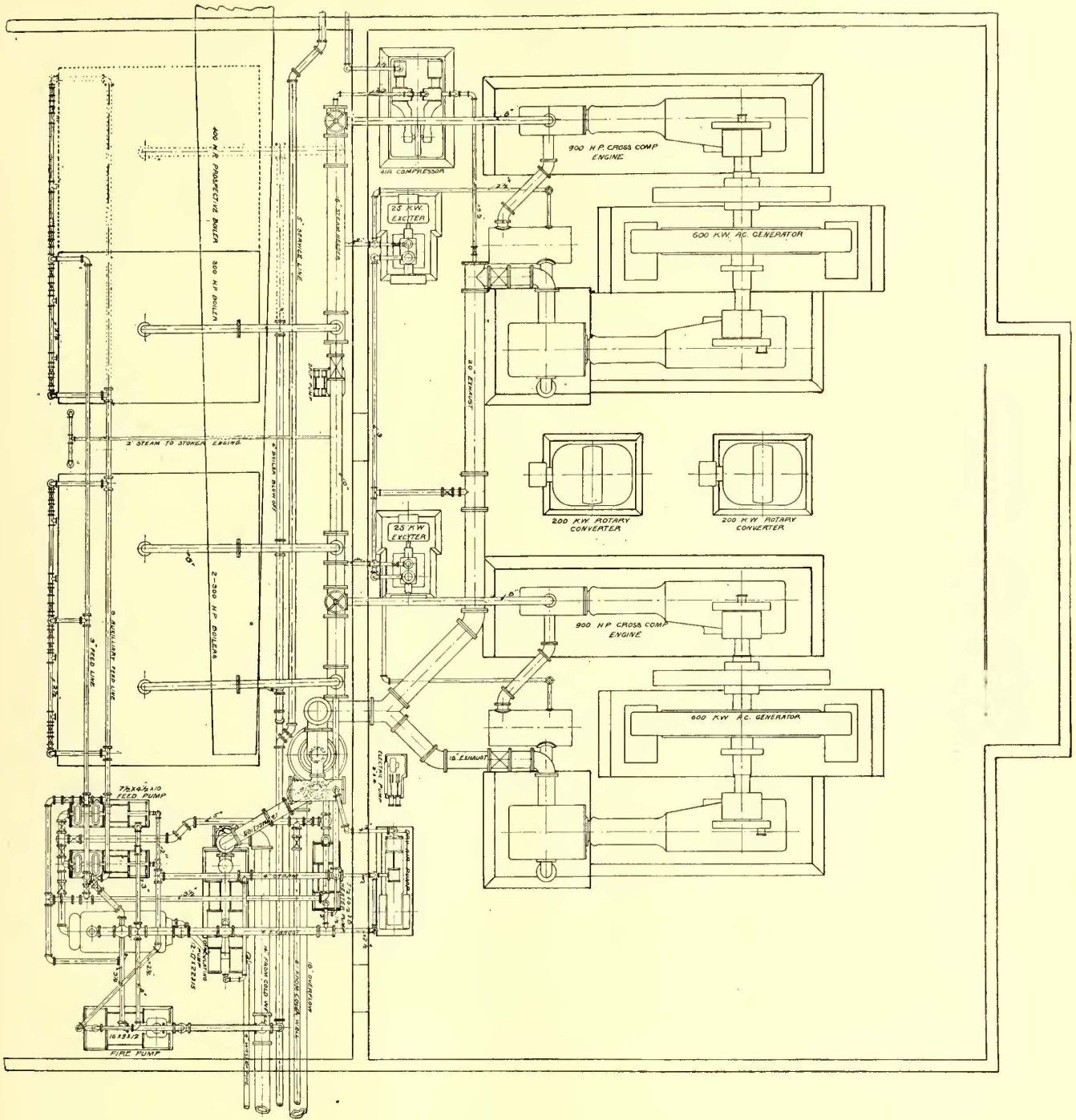
Work has been commenced on the line to Dallas, which is being built on a private right of way with favorable franchises in towns along the route and in Dallas, where it reaches the center of the business and hotel districts on its own tracks. The company also hopes to create a considerable pleasure traffic between Fort Worth and "Cross Timbers," where a large pleasure resort, one of the most extensive in the South, is being laid out.

The system of power distribution adopted is three-phase with rotary sub-stations. The main power station will be located at Hanley, 10 miles from Fort Worth, and will contain three 300-hp Stirling water-tube boilers, arranged for burning coal or oil, and supplying steam to two Cooper-Corliss cross-compound condensing engines of 900 hp each, running at 100 r. p. m. The electric equipment will be furnished entire by the Westinghouse Electric &

excess of what would be required to operate the interurban alone, as it is intended to furnish current from the Fort Worth sub-station to operate the city cars in Fort Worth.

The main power station is 103 ft. x 88 ft. with an addition of a transformer room 11 ft. x 57 ft. The building will be of brick, with steel roof trusses and composition roof. There will be a traveling crane in the engine room for handling the heavy machinery. The car house, which is situated near the power house, has storage room for twelve cars, and a repair and machine shop in addition. This building will be of the same general style as the power house. The sub-stations are one-story brick buildings, 33 ft. x 37 ft. In addition to the above buildings, there is an office building next to the main track at the power house grounds, which will contain a superintendent's office, waiting room, and men's room, and a large sheltered platform for the benefit of excursionists to the park.

For the operation of the interurban line there will be eight passenger cars, equipped with four 50-hp motors each, two of which will contain baggage compartments, one regular baggage car with the same equipment of motors, and three open trail cars. The cars are being built by the Kuhlman Car Company, of Cleveland, and the



PLAN AND CROSS SECTION OF PROPOSED STATION

trucks by the McGuire Manufacturing Company, of Chicago. The motors are included in the contract of the Westinghouse Company.

The air brakes will be supplied by the Christensen Engineering Company, of Milwaukee, and will be on the storage system, having a compressor in the power house and large storage tanks at a convenient point near the main track, where cars receive a charge of air in their storage tanks at a pressure of about 300 lbs. per square inch. This pressure is then reduced for use in the brake cylinders.

The overhead construction is to be furnished and erected by the Electrical Installation Company, of Chicago, Ill., and will be of heavy and substantial construction. Three No. 2 wires will carry the high-tension current of the Cockerell Summit sub-station, a distance of about 19 miles, and three No. 6 wires will carry the current to the Fort Worth sub-station, a distance of $5\frac{1}{2}$ miles. One direct-current feeder will run the entire length of the line, and will be supplemented by another feeder from Cockerell Sum-

Roofless Summer Car in St. Louis

The demand for special cars for summer service has induced the managers of the St. Louis Transit Company to put in service the novel car illustrated herewith. This car, which has no roof, will comfortably seat 128 passengers, and is, of course, built especially for hot-weather service. It has been named "Moonlight," and it will run between the junction of Delmar and De Baliviere Avenues and Creve Coeur Lake every evening the rest of the summer, except when rain threatens.

The "Moonlight" is built much on the lines of the ordinary summer car, except that no part of it comes between the passengers and the sky. And there are no lights in view from the seats, unless one wishes to turn round and gaze into a cluster of incandescent lamps placed in front of a large reflector. This is



MOONLIGHT EXCURSION CAR IN ST. LOUIS

Photo by Palfrey

mit sub-station toward Dallas. The trolley consists of two No. 000 Fig. 8 wires; the feeder and high-tension wire will be aluminum, and the trolley wire hard drawn copper.

E. P. Roberts & Company are the engineers for the electrical and mechanical equipment and buildings. Engravings showing the plan of the station and layout of the piping are presented herewith.

A magnificent royal car—probably the first in the world built for royalty—is now under construction by the Ottawa Electric Railway. The company is not sparing expense to make it one of the best electric cars that has ever run on any track. It is to be finished in a most elaborate manner, and on the front will be painted the name of the car, "The Duchess of Cornwall," and on either side will be carved the royal coat of arms. The car is to be finished in the royal colors, and on the inside, besides the fancy brass work and plate mirrors, will be a number of wicker and upholstered chairs. The car will carry the royal party to Britannia, where the Ottawa lumbermen will have a timber crib, which will be boarded for a trip through the Deschenes rapids and down the timber slides at Chaudiere Falls. The design of the car has been approved by Lord Minto and Sir Wilfrid Laurier.

A. J. Purinton, general manager and treasurer of the Springfield & Eastern Street Railway Company, of Palmer, Mass., calls attention to certain errors in the route of that railway, published in the last issue of this paper. He writes that the line between Palmer and Warren has not been built, and at present the company has no intention of building this line. He also states that the line to Ludlow does not pass through Three Rivers, as indicated in the map, but goes west directly from Palmer. This alters the route considerably, and attention is called to it, as it makes quite a difference to those who might undertake to make a trolley trip from Springfield to Boston.

placed on the slender structure in the rear, which supports the trolley. The Transit Company officials say riding on this car will be like traveling over a steel track in a huge automobile.

Electric bells to signal the conductor are provided just as with ordinary cars. The cords by which the conductor registers fares run along beside the footboard. The cars will be run on a regular schedule, and the usual fare will be charged. If the car proves as popular as the Transit Company officials expect, several others will be built for service in the city.

Freight Haulage in Ohio

Milk and cream form a most important item in the freight carried on interurban roads radiating from Cleveland. It is figured that in the neighborhood of 10,000 gallons of this commodity are brought into Cleveland daily by the various lines. The Northern Ohio Traction Company alone averages over 2500 gallons daily, special cars being used for the purpose. On the return trips several hundred gallons are carried to Akron. The Cleveland & Eastern Railway handles about 3000 gallons of milk daily. The milk question has proved a perplexing proposition to the city authorities. The interurban companies have been in the habit of unloading cans at various points inside the city, frequently delaying city cars for ten or fifteen minutes. The authorities undertook to force the companies to unload all cars at their downtown stations, but this far they have been unsuccessful. It is claimed that the State has acknowledged the right of interurban roads to carry freight, and there is no restriction or provision as to the manner of unloading, hence the companies claim they can unload freight at any point, the same as passengers.

Central New York Trolley Scheme

The plans of the gigantic scheme of the Cleveland capitalists, who recently purchased the trolley and other street surface railroads in Central New York, are now developing, and have reached a point where some understanding of them is possible to the outsider. The "Cleveland syndicate," so-called, which is composed mainly of Horace E. Andrews and John J. Stanley, of Cleveland, Ohio; Robert E. Drake and Paul T. Brady, of Syracuse, and L. Allen, of Oneida, first bought up the roads and franchises in Utica. Then one by one the roads in the vicinity have been picked up, and mile by mile the extensions have been mapped out, until now it is a certainty that there will be a trunk line from Oneida to Little Falls, with branch lines to Clinton, Rome and possibly to Sylvan Beach. This will be a straightaway course of about 50 miles, or a total trackage of something like 100 miles. The towns and village west of Utica that will be brought into communication with that city that are now reached by trolley, are: Rome, Oneida, Vernon, Kirkland, Clark's Mills, Westmoreland and Clinton. The towns and villages on the east that will be accommodated in the same way are: Frankfort, Ilion, Herkimer, Mohawk, Jacksonburgh, Fort Herkimer and Little Falls. The villages of Deerfield, Yorkville, New York Mills, Whitesboro, Oriskany and New Hartford are now connected with Utica by trolley. Next year the company proposes, and has some franchises already for, another branch, which will be constructed southward from Utica, through the Sanquoit Valley. This proposed branch will reach the towns of Washington Mills, Chadwicks, Clayville, Sanquoit and Cassville. This makes a total of twenty-six thriving villages that will be brought into close communication with Utica, the richest city in Central New York. The towns to be connected are all thriving.

The syndicate now owns and operates the following roads: The Utica Belt Line Street Railway, the Utica & Suburban Railway, the Utica & Deerfield Street Railroad, the Utica & Mohawk Street Railway, the Herkimer, Mohawk, Ilion & Frankfort Street Railroad, and the Oneida Street Railway.

It is the above lines that are to be extended. At the present time surveyors are at work on the different routes selected, while in other cases work on the extensions has been started. The company has promised to have the extension from New Hartford to Clinton completed before snow flies, and the same promise has been made for the extension from Utica to Frankfort and from Oriskany to Rome. Of these the extension to Frankfort is most complete. When this is finished the company will have a straightaway course from Oriskany to Herkimer, a distance of 22 miles. All the roads bought up, with the exception of the Deerfield road and the Oneida road, are operated by electric power. The other roads are horse car lines, but plans are under way to install electricity for these branches.

Another extension talked of, although nothing has been done as yet, is a line running from Utica, on the north, to Trenton Falls, some 20 miles distant. The line, if constructed, would touch three or four more villages. In all probability the Oneida road will be extended to Sylvan Beach, a popular resort on the shores of Oneida Lake. The beach is only 7 miles from the terminal of the Oneida line. Half a dozen more villages would be connected by this route.

The important feature about the street railroad plan is the great east and west route, paralleling the New York Central and West Shore railroads for over 30 miles, part of a system that, it is said, will reach from Albany to Buffalo. None of the gentlemen interested will say anything about this plan if it exists.

The main line is being constructed with as much care as though it were for a steam road. On the extensions now being built, from the different villages, the route leaves the highway and takes immediately to the fields. A right of way has been purchased through the farms 100 ft. wide. On this the roadbed is graded for a double track. Grades are kept low, with as much care as they would be for any railroad. The bridges are to be of regular railroad construction and the culverts are of concrete. Heavy ties are to be used, and the rails now being delivered weigh 90 lbs. to the yard.

No effort, as far as known, has been made by the controlling syndicate to buy up the street railroad, now being operated in the city of Rome by air power. The Cleveland people will, however, enter the city, and franchises permitting this have already been signed by the Rome authorities. It will depend upon the attitude of the city of Rome as to whether the system will be extended to its streets in general. The company has made application to extend its lines through the streets of Little Falls.

The company recently entered into a nine-year contract with the Trenton Falls Power Company, to furnish power for operating its cars. Three different supply stations will be built. The company also has a larger power house in Utica, but the Trenton Falls power, when it is installed, will be used as far as possible.

A number of Utica investors have subscribed for stock, which

amounts to \$100,000. The Uticans are: Walter N. Kernan, Nicholas E. Kernan, Charles B. Rogers, William E. Lewis, N. Pierrepont White and others.

The company has not yet been incorporated or named. So far the purchases have been made by individuals, and the companies bought up have retained their corporate names. A new company will be formed soon, and attorneys are now at work preparing the papers. The new company will be capitalized at \$3,500,000. A comprehensive name will be given the company, and the general headquarters will be in Utica.

The Coming Convention of the New York State Street Railway Association

The programme of the next annual convention of the New York State Street Railway Association, which will be held at Rochester on Tuesday and Wednesday, Sept. 10-11, has just been announced by its president, G. Tracy Rogers, of Binghamton.

The first day will be given up entirely to the business meeting, followed in the evening by the usual banquet, which will probably be held at Ontario Beach. A portion of the second day will be occupied by a business meeting, followed by an excellent programme of entertainment, arranged by T. J. Nicholl and the local committee.

The papers will be short and from topics selected from the list printed below. A number of these topics have already been assigned, and excellent papers may be expected:

- The Third Rail.
- Storage Battery.
- Care of Dynamos.
- Indemnity Insurance.
- Municipal Ownership.
- Street Railway Taxation.
- Track Bonding.
- The Repair Shop.
- Car Mileage Record.
- Rotary Transformers.
- The Modern Power House.
- Loss of Current in Return.
- Electrically Welded Joints.
- Street Railroads vs. State.
- General Track Construction.
- "Receipts from Other Sources."
- Power Brakes for Electric Cars.
- Employees' Benefit Associations.
- Transfers—Their Use and Abuse.
- Points on Overhead Construction.
- Street Railways vs. Automobiles.
- Long-Distance Power Transmission.
- Low Joints—How to Prevent Them.
- The Care and Maintenance of Fenders.
- Three-Phase Power Transmission.
- Suggestions on Financial Organization.
- The Relation of Manager and Employee.
- Reading and Club Rooms for Employees.
- Care and Inspection of Wheels and Axles.
- Signal Systems for Single-Track Roads.
- Maintenance and Repair of Car Bodies.
- Pleasure Resorts as Traffic Stimulators.
- Suggestions for Report Blanks and Forms.
- Why Rates of Fare Should Not Be Reduced.
- The Selection and Management of Employees.
- Amusements and Special Attractions for Parks.
- Care and Inspection of Motors and Equipment.
- Effect of Interurban Service on Small Towns.
- The Power Station, from an Economical Standpoint.
- How Can We Increase the Efficiency of Employees?
- Economical Maintenance of Boiler Room.
- Best Method of Treating Accidents and Complaints.
- The Best Method for the Prevention of Accidents.
- The Relations of Municipalities vs. Street Railroads.
- Hints on Making Small Electric Railroads Profitable.
- Compressed and Liquid Air for Street Car Operation.
- Store-Room Accounting and the Distribution of Supplies.
- Mail, Freight and Express Service on Electric Railways.
- How Can We Enlarge the Field and Scope of the Association?
- Practical Experience with Double-Deck and Convertible Cars.
- The Use of the Booster in Connection with Electric Railway Circuits.
- Removal of Snow and Ice—The Most Economical and Efficient Methods.
- Single and Double Trucks—Their Relative Advantages and Disadvantages.

Operating Electric Light Plants in Conjunction with Street Railways in Smaller Cities.

In addition to the papers mentioned and in accordance with the following resolution: "Resolved, That the topic 'How to Increase the Efficiency of Employees' be separated under different heads, to be suggested by H. H. Vreeland, and that he allot to the various street railway companies throughout the State the various sub-topics suggested, and that representatives of the respective roads prepare to discuss the same at the next annual meeting"—the following assignment to make ten-minute addresses upon this subject under the following sub-divisions has been made by Mr. Vreeland (for the purpose of opening discussion):

"Discipline"—E. G. Connette, general manager Syracuse Rapid Transit Company.

"Benefit of Benefit Associations"—Oren Root, assistant general manager Metropolitan Street Railway Company, New York.

"The Proper Selection and Training of Employees"—J. P. E. Clark, general manager Binghamton Railroad Company.

Besides the business to be transacted, the reading and discussion of the papers and the entertainments, the association will arrange for an exhibit of street railway apparatus, as mentioned below. In addition, a cordial invitation has been extended to all manufacturers of street railway apparatus, whether they exhibit or not, to be present at the convention and participate in the excursions, banquet and other features. Upward of 600 invitations have been sent to supply houses, asking them to send representatives and make exhibits. From the responses received thus far, it is believed a large number of supply men will be present. The association wishes it thoroughly understood, however, by those who may not have received a personal invitation, that every person interested in the street railway industry, whether as an operator, manufacturer or investor, is welcome.

This invitation, of course, applies to street railway officials in States outside of New York, if they find it convenient to attend. The meetings of the New York association have always attracted a certain number of managers from neighboring States, who have added very much to the pleasure of the meetings and value of the discussions, and it is hoped that this year the number of such visitors will be largely in excess of that in previous years.

Exhibits at the New York State Convention

The New York State Street Railway Association will hold its annual meeting in Rochester on Tuesday and Wednesday, Sept. 10 and 11, 1901. It is expected that this meeting will be very largely attended, and, to add to the interest of the occasion, the local committee has made arrangements for the accommodation of exhibits. Fitzhugh Hall, which is but a few steps from the Powers Hotel and the center of the city, has been secured for this purpose, and the business meetings will also be held there. This hall affords about 500 sq. ft. for exhibits. There will be no charge for space, which will be allotted in the order that applications are received, and in the hope of pleasing everybody.

All manufacturers intending to exhibit are requested to notify promptly the chairman of the exhibit committee, F. D. Russell, Postoffice Box 1000, Rochester, N. Y., (1) what he will show, and (2) how much space will be required. Exhibits should be in place complete by Monday night, Sept. 9, and should be removed on Thursday, Sept. 12.

The committee would like to be advised soon as to intending exhibits, as the space is limited and the time is short.

St. Louis Quarterly Reports.

In April, May and June of this year the street railway companies of St. Louis carried 34,216,370 passengers in 1,335,134 trips. Last year, in the same time, 19,902,994 passengers were carried in 599,495½ trips. The St. Louis Transit Company conveyed 30,210,677 passengers during the second quarter of this year in 1,262,436 trips. Last year the company accommodated 14,723,621 passengers in 447,049 trips. The second quarter of this year shows an increase in patronage of 15,487,056 in 815,387 more trips. In the same months last year the St. Louis & Suburban Railway Company carried 5,179,373 passengers in 62,446½ trips, and in the same months this year, 4,005,693 passengers in 72,698 trips. The Suburban report shows a decrease in patronage of 1,173,680 and an increase of 10,251½ in the number of trips. The results reported last year by the Suburban are not properly comparable with this year's statement, for the reason that the strike last year on the Transit lines caused an increase in the Suburban's business.

The Tramways and Light Railways Exhibition

Preliminary arrangements for the Second International Tramways and Light Railways Exhibition have now been completed, and the exhibition will be held at the Royal Agricultural Hall, Islington, London, N., from July 1 to 12, 1902.

Readers may recall that the first exhibition was held from June 23 to July 4, of last year, under the patronage of the Tramways and Light Railways Association, the Lord Mayors and Mayors of the principal cities of the United Kingdom, the chairmen of municipal tramways committees, and the leading tramway companies. The exhibition was initiated by *The Tramway and Railway World*, and arrangements were in the hands of a committee, consisting of a number of the leading tramway managers in the United Kingdom. The exhibition was opened by the chairman of the London County Council, in the presence of a large and representative gathering, and the hall was daily visited by official deputations from the Councils of all the principal cities and towns of the United Kingdom. In many instances the Mayors and tramway committees of the Councils, and the engineers of corporations, came in a body, and spent one or more days in examining the exhibits, which comprised every kind of apparatus for the equipment of tramways and railways. The exhibition was completely successful, and it is no exaggeration to say that the development of facilities for rapid transit was greatly advanced by it. Since the exhibition the wish has been expressed, both by representatives of local authorities and manufacturers, that it should be repeated, and the date chosen—July 1 to 12—has been fixed at the request of the Union Internationale Permanente de Tramways, or the International Street Railway Association, comprising a membership of about 500 tramway engineers, managers and directors. The Union will hold its bi-annual congress in London, at the invitation of the Tramways and Light Railways Association, from July 1 to 4, 1902. The invitation to meet in London was accepted, on the condition that the exhibition should be repeated, in order that members of the Union might have the advantage of inspecting a comprehensive collection of apparatus.

The following gentlemen will act as a committee for the second exhibition:

Alfred Baker, Esq., manager, London County Council Tramways.

C. Reville Bellamy, Esq., general manager, Liverpool Corporation Tramways.

G. C. Cunningham, Esq., general manager, Central London Railway.

A. L. C. Fell, Esq., general manager, Sheffield Corporation Tramways.

C. W. Gordon, Esq., manager, Dublin United Tramways Company.

E. George Mawbey, Esq., borough engineer, Leicester Corporation Tramways.

J. M. McElroy, Esq., general manager, Manchester Corporation Tramways.

Andrew Nance, Esq., manager, Belfast Street Tramways Company.

J. Erskine Pitcairn, Esq., general manager, Edinburgh & District Tramways Company, Ltd.

William Wharam, Esq., general manager, Leeds City Tramways.

John Young, Esq., general manager, Glasgow Corporation Tramways.

The offices of the exhibition are at Amberly House, Norfolk Street, London, W. C.

Although the exhibition does not occur until next July, most of the space on the ground floor of the Agricultural Hall has already been applied for, and there is every reason to anticipate that the exhibition will be even more successful than the first.

Great interest is now being taken in the question of rapid transit throughout the United Kingdom. Most of the local authorities are engaged in attempts to effect some solution of the housing problem, which daily becomes more pressing, and it is now felt that no scheme which does not provide rapid transit into the suburbs of the great cities will be of any value. It is recognized that the United Kingdom is far behind American and most Continental cities, and the local authorities have at length determined to bestir themselves. The committee of the exhibition believes that a large and comprehensive exhibition will serve effectively to inform the public as to what is being done in the field of tramway and light railway enterprise, and thus create confidence and encourage both municipal authorities and private enterprise to take up the work in a more determined manner.

Annual Report of the Twin City Rapid Transit Company, for the Year Ending July 1, 1901.

This report is as follows:

The Twin City Rapid Transit Company was incorporated under the laws of the State of New Jersey, to commence business on the 4th day of June, 1891, and to terminate the 1st day of June, 1941.

The objects for which said company are formed are:

(1). To form, promote or aid in the formation of railways, street railway, lighting, heating or other corporations, or of corporations for the producing or furnishing of motive power of any kind, or for the manufacture of machinery and apparatus and appliances for such corporations, or for any of the same, and to construct or aid in the construction and equipment of railways or street railways, lighting, heating or other corporations.

(2). To acquire, hold and deal in stocks, bonds, securities, obligations, contracts, grants, concessions and franchises of every kind, and in goods, wares, merchandise and chattels, and in real and personal property.

(3). To hold, acquire, and lease railways, including street railways, to maintain and operate the same by the use of steam, electric or other power; to hold, acquire, maintain and carry on any lighting, heating or other corporation, and to maintain and carry on the business of transporting freight and passengers.

(4). To borrow or raise money by the use or sale of bonds, notes or debentures of the company or otherwise, and to make guarantees of every kind, and to secure all or any of the above obligations by mortgage or otherwise.

(5). To do all and every necessary, suitable or proper thing for the attainment of any of the objects hereinbefore enumerated, either alone or with corporations, firms or individuals.

STOCK

It has an authorized capital of \$20,000,000, of which \$17,000,000 may be issued as common stock and \$3,000,000 as 7 per cent cumulative preferred stock, each of the par value of \$100 per share. All of the preferred stock has been issued and \$15,010,000 of the common stock, leaving \$1,990,000 of the common stock unissued and subject to sale at not less than par.

The company owns all the stocks of the Minneapolis Street Railway Company, the St. Paul City Railway Company, the Minneapolis, Lyndale & Minnetonka Railway Company, and the Minneapolis & St. Paul Suburban Railway Company, the aggregate amount of these stocks being \$10,685,000.

DIVIDENDS

A fixed quarterly dividend on the \$3,000,000 7 per cent cumulative preferred stock; 1/4 per cent is payable on the first days of January, April, July and October. The common stock is entitled to all surplus after the payment of 7 per cent has been provided on the preferred shares.

EARNINGS—GROSS

The following statement shows the gross receipts of the subsidiary companies for twenty-three years, or from 1878 to 1900, both inclusive:

1878.....	\$65,157.60
1879.....	87,005.07
1880.....	111,085.21
1881.....	178,298.93
1882.....	279,501.27
1883.....	399,725.84
1884.....	487,009.87
1885.....	519,291.00
1886.....	666,295.79
1887.....	824,481.78
1888.....	980,470.41
1889.....	962,645.28
1890.....	1,383,865.82
1891.....	1,814,739.86
1892.....	2,136,657.52
1893.....	2,164,925.31
1894.....	1,981,705.64
1895.....	1,964,772.65
1896.....	2,037,934.80
1897.....	1,982,785.20
1898.....	2,145,092.95
1899.....	2,476,879.75
1900.....	2,814,205.10

The average increase per year has been 20 per cent. The increase for 1898 over 1897 is 8.19 per cent; for 1899 over 1898 is 15.47 per cent; 1900 over 1899 is 13.62 per cent.

NET EARNINGS

The net earnings of the Twin City Rapid Transit Company over all fixed charges and dividends on the preferred stock, and applicable to dividends on the common stock, are as follows:

For 1897.....	\$235,133.74
For 1898.....	373,655.69
For 1899.....	550,025.26
For 1900.....	705,591.04

**COMPARATIVE STATEMENT FOR EIGHT YEARS
Ending Dec. 31, 1900**

Years	Gross Earnings	Operating Expenses	Net Earnings	Interest	Taxes	Dividends	Total Payments	Balance Surplus
1893.....	\$2,189,137	\$1,410,233	\$778,904	\$611,491	\$51,144	-----	\$662,635	\$116,291
1894.....	2,003,678	1,044,547	959,131	686,022	52,939	-----	738,961	220,170
1895.....	1,988,803	979,485	1,009,319	642,170	49,071	\$59,598	750,839	258,479
1896.....	2,059,218	995,158	1,064,059	626,357	58,170	79,534	764,061	299,998
1897.....	2,009,121	1,002,080	1,007,041	625,354	66,469	79,604	771,907	235,134
1898.....	2,170,716	1,019,392	1,151,324	593,600	64,214	119,854	777,668	373,656
1899.....	2,522,792	1,156,972	1,365,821	556,337	71,906	562,803	1,191,046	174,775
1900.....	2,839,356	1,304,689	1,534,667	533,125	91,201	655,050	1,279,376	255,291

STATEMENT OF FUNDED DEBT

Jan. 1, 1901

Minneapolis Street Railway Company.		Total Debt
First Mortgage, 7 per cent, due 1910.....	\$270,000	
Second Mortgage, 6 per cent, due 1913.....	600,000	
First Cons. Mortgage, 5 per cent, due 1919.....	4,130,000	
		\$5,000,000
The St. Paul City Railway Company		
First Mortgage, 6 per cent, due 1932-34.....	\$680,000	
Cable Cons. Mortgage, 5 per cent, 1937.....	3,708,000	
		\$4,388,000
Minneapolis & St. Paul Suburban Railway Company		
First Mortgage, 5 per cent, due 1924.....	\$450,000	
Total.....		\$9,838,000

PROPERTY

The company owns and operates all the lines of street railways in the cities of St. Paul and Minneapolis, and a suburban line from St. Paul to White Bear Lake and to the City of Stillwater, besides the local street railway lines in the City of Stillwater. The combined trackage of all lines is 255 miles, divided as follows:

Minneapolis, 127 miles; St. Paul, 104 miles, and Suburban, 24 miles.

COON RAPIDS DAM

The company owns a franchise granted by Congress to build a dam below Coon Rapids, about 4 miles above Minneapolis on the Mississippi River, and has secured options at very reasonable prices on most of the land to be overflowed. This dam, when completed, will furnish about 10,000 hp, and should give the company a handsome net revenue over operating expenses and interest on the cost of investment.

RATE OF FARE

The rate of fare is irrevocably fixed at 5 cents in each city and 10 cents on all lines running between the cities of Minneapolis and St. Paul; and on the Interurban Line, connecting the cities of St. Paul and Stillwater, the rate of fare is 30 cents each way.

FRANCHISE

The company's franchises are practically exclusive and granted by the respective City Councils and confirmed by the Legislature of the State of Minnesota. (See Legal Opinions below.)

SPECIAL REPORTS

The following is an extract from a special report made Jan. 18, 1893, to Kuhn, Loeb & Company, bankers, 26 Pine Street, New York, by Frank Trumbull, of Denver, Col., president of the Colorado-Southern Railroad.

The conclusion of his report is as follows:

"This property is the finest that I have ever examined, considering its magnitude, its exclusive control of business, superiority of power plants, etc., and I believe it to be, all things considered, the best at present of its kind in the West. The franchises are exceptionally good and give the corporation an impregnable monopoly in providing for a great public necessity."

Extracts from special report made for Vermilye & Company, bankers, 16 Nassau Street, New York, Sept. 21, 1899, by William Barclay Parsons, consulting engineer and chief engineer of the New York Electric Subways:

"In its physical condition, the Twin City system is equal to any-

thing I have ever seen in street railway construction. The rail is of the ordinary T section, although rolled with an extra height in order to accommodate itself to the pavement. In the streets that are paved, the company has laid an 80-lb. rail 7 ins. deep. This rail, instead of being placed on ties in the usual manner, is laid directly on a bed of concrete and held in place by iron tie rods. The joints are not fished, but cast welded, and then the rails are packed solid with concrete, and the pavement is laid right up against them. This produces a track which is as close to being permanent as is possible, there being no parts liable to rot, and the only thing subject to wear being the actual railhead. There are 20 miles of such track laid down. The rest of the track consists of rails weighing 40 lbs., 50 lbs., 56 lbs. and 60 lbs. to the yard, all T section. Of the 40-lb. rails there are a very small amount in service, the bulk of the track consisting of 56-lb. and 60-lb. rails. Of the total mileage 70 miles have welded joints, the rest having joints of the usual type. Some of the boulevard lines have grass sown between the rails and between the tracks, in keeping with the street.

"The 'specials' at street crossings and at junctions and switches are of the best possible type, and are so arranged that the parts most subject to wear can be easily slipped out and replaced. The overhead work is supported on iron poles. In Minneapolis, where the streets are wide, these poles are placed between the tracks, with the two trolley wires supported by neat and ornamental brackets. In St. Paul, where the streets are narrow, the poles are placed on the curb lines, and the trolley wire is supported by cross wires, although in certain streets the center pole and bracket is used where there is sufficient width.

"Power is furnished principally by a large plant constructed by the Pillsbury-Washburn Company, and leased to the Twin City Rapid Transit Company for a period of forty-three years. This plant, which has installed ten 1000-hp generators, takes its power from the Falls of St. Anthony at Minneapolis. The company has in addition a reserve steam power in its various plants of 8000 hp."

LEGAL OPINIONS

The following is an opinion rendered Oct. 8, 1891, by Judge M. B. Koon, of the firm of Koon, Whelan & Bennett, attorneys-at-law, Minneapolis, Minn.

Minnesota Loan & Trust Company:

"Gentlemen—In response to your request for an opinion as to the validity and character of the franchise of the Minneapolis Street Railway:

"I have been for the past five years general counsel for the company and have given all matters pertaining to its corporate existence, chartered rights and franchises, as well as its bonded indebtedness, careful study and thorough consideration, and, in my opinion, without any doubt, the company is legally and properly organized.

"Its franchise to construct and operate in the streets of the city of Minneapolis a system of street railways operated by animal power or pneumatic power, granted to it by the City Council and confirmed by the Legislature, is exclusive and is undoubtedly valid under our laws and decisions.

"In regard to the length or term of the franchise, it is my opinion that the franchise from the city runs during the life of the corporation. When this company was organized in 1873, the statute provided fifty years as the limit of the life of such a corporation, in the first instance, but that it might be renewed from time to time for periods of not longer than fifty years.

"During my connection with the company, all of these questions touching its corporate existence and powers, and the validity and exclusiveness of its franchise, have been repeatedly investigated, and every one, so far as I know, who has investigated the matter, has given an opinion agreeing entirely with my own.

"C. C. Beaman, of the firm of Evarts, Choate & Beaman, of New York, examined the whole matter with great care in connection with the issue of bonds, and his opinion, or copy of it, can be obtained for your examination if you desire."

Yours truly,

M. B. KOON,

Attorney-at-Law, Minneapolis, Minn.

Thomas Lowry, Esq., President:

"Dear Sir—I have carefully examined all questions to which the above opinion of Judge Koon relates as to the mortgage and franchises, and fully concur in the views expressed by Judge M. B. Koon."

HENRY J. HORN,

Attorney-at-Law, St. Paul, Minn.

St. Paul, Oct. 27, 1891.

OPINION OF HENRY J. HORN, ATTORNEY-AT-LAW, ST. PAUL, MINN.

Thomas Lowry, Esq., Minneapolis, Minn.:

Dear Sir—In response to your request for my opinion as to the validity and extent of the franchises and legal status of the St. Paul City Railway Company;

I am familiar with the subject, having conducted the proceedings as counsel leading to the reorganization of the company, and from my professional connection with the company ever since, and also from a critical examination made by me of the status and legal questions affecting the incorporation and franchises of said company.

The charter of this company, as you are aware, originated in a Special Act of the Legislature of the Territory of Minnesota in 1853, which was amended by the Acts of the Legislature of Minnesota in 1868 and 1872.

A general ordinance was approved by the City Council of the city of St. Paul, Feb. 8, 1882, and ratified by an act of the Legislature, Feb. 28, 1883. The said ordinance, in connection with the said legislation, covered all the streets and bridges of the city of St. Paul, present and future, and was unlimited in point of time. All these grants were made with the sanction of the Legislature; they are properly franchises which can not be revoked or impaired by the city, or even by the Legislature, without the consent of the company.

The question of the validity of these franchises was set at rest by the decision of the Supreme Court of Minnesota in the case of *Nash vs. Lowry*, 37 Minnesota Rep., page 261.

My conclusions are:

First—That the St. Paul City Railway Company is a valid corporation of the State of Minnesota, with a perpetual charter, having the perpetual franchises to construct and maintain lines of street railway upon any of the streets and bridges of St. Paul, present and future (with the few exceptions designated in Ordinance No. 57, or exempted by said company in said Ordinance No. 1227).

Second—That said company has the additional right for fifty years from time of publication of said ordinance, being Sept. 23, 1889, to use electricity or other power upon any street within said city, present or future.

Third—That the powers or rights granted to said company by subsequent ordinances are in addition to the franchises and powers previously and perpetually vested in said company, and do not impair or abridge the said perpetual franchises and powers of said company.

Respectfully,

HENRY J. HORN,

Attorney-at-Law.

St. Paul, Oct. 29, 1891.

MINNEAPOLIS, Minn., Oct. 30, 1891.

I have examined the foregoing opinion of Henry J. Horn, of St. Paul, Minn., relative to the franchises of the St. Paul City Railway Company.

I am also familiar with the subject matter of said opinion, having heretofore given the same careful examination and consideration, and I fully concur with Mr. Horn in his conclusions as stated in said opinion.

M. B. KOON,

Attorney-at-Law.

The original opinions and reports can be found on file in the office of J. Kennedy Tod & Company, 45 Wall Street, New York; or the office of the Twin City Rapid Transit Company, Minneapolis, Minn.

Official Denial of the Purchase of the Philadelphia Franchises

The Union Traction Company, of Philadelphia, has, through Thomas Dolan, a director of the company and member of the executive committee, issued the following official notice, refuting the statements that the franchises granted under the new transit loans had been sold, or that arrangements for their sale had been made: "No man with authority to act for, or to speak for, the Union Traction Company, or for any of the men in control of that corporation, has ever been asked to buy or lease anything owned by the gentlemen who are identified with the syndicate headed by Messrs. Mack, Foerderer, Murphy and Wolf. No person with authority to act or to speak for myself or my associates in the directory of the Union Traction Company has ever made any offer or even suggestion looking to the lease or purchase of any franchises that may be owned by Mr. Foerderer, Mr. Mack or their associates. I want to make it clear to the public that these deals and stories of deals are fakes, pure and simple. This is not a technical or quibbling denial of these stories, but a final repudiation of the entire proposition. We have not bought any franchises, we are not going to buy any and none have been offered to us on any kind of a leasing, sharing or renting scheme. The public has been fooled by these stories long enough, and I assume full responsibility for the assertion that there is no deal on now and that there has never been one under consideration. I do not know that these repeated fakes injure the new syndicate; they do not affect the interests of the Union Traction Company, but they deceive the public and should not be published."

Municipal Operation of Electric Railways

(From Our Regular Correspondent.)

At the convention of Mayors of the cities of Prussia, held toward the end of January, 1901, the question of the legal status of street railways with respect to the owners of highways, *i. e.*, the cities, was discussed at length. As might have been expected, the authorities who have granted liberal concessions, as well as the street railway companies, were fiercely assailed by those present. A feeling even seemed to be manifested that the government in many instances has favored private corporations by the granting to them of franchises. Quite naturally the various remarks, an-

In private plants, exclusive of Berlin central station... 10.56 pfs.
 In private plants, exclusive of Berlin central station.... 10.56 pfs.
 In municipal plants.....16.233 pfs.

Moreover, the author points out that the municipal stations were in general located more conveniently for coal supply and that they were frequently operated in conjunction with city gas and water-works. Regardless of this, the cost of production was from 54 to 62 per cent greater than for private plants.

As a consequence of this, the price of current is larger in cities operating their own plant than where a private company operates. The average price charged for current by cities is:

Municipal plants, 69.1 pfs. per kw-hour for light.
 Municipal plants, 23.29 pfs. per kw-hour for power.

TABLE COMPARING THE DEVELOPMENT, PRICE OF CURRENT AND COST OF CURRENT PRODUCTION OF CENTRAL STATIONS IN GERMAN CITIES HAVING MORE THAN 100,000 INHABITANTS, FOR THE YEAR 1898-1899.

CITIES.	Inhabitants.	Years of Operation.	Number of Kw Supplied.	PRICE OF CURRENT PER KW HOUR IN PF.		COST OF PRODUCING A USEFUL KILOWATT HOUR IN PF.						
				Light.	Power.	Coal.	Oil and Waste.	Wages.	Main-tena.n.c.c.	Inc. Lamp Re-novels.	Miscel-laneous.	Total.
Berlin.....	1,810,000	15	31,400	55	16	3.19	0.18	1.07	0.4	---	0.05	4.89
Hamburg.....	600,000	12	8,636	60	20	3.69	0.38	3.25	1.28	---	0.23	8.83
Leipzig.....	398,000	5	4,217	79	20	3.53	0.5	4.35	1.39	---	1.39	11.16
Frankfort-on-the-Main.....	252,000	6	8,104	60	20	5.43	0.38	5.55		---	0.45	11.81
Magdeburg.....	228,000	4	2,647	60	20	4.7	0.56	2.46	0.42	---	0.17	8.31
Chemnitz.....	176,000	6	1,964	70	18	6.5	0.63	3.1	0.6	---	1.67	12.5
Stuttgart.....	174,000	5	3,523	60	20	3.97	0.12	2.77	0.56	0.16	1.28	8.86
Strassburg.....	146,000	5	4,789	54	20	5.00	0.43	2.05	0.57	---	0.51	8.56
Stetun.....	143,000	11	2,710	60	40	6.4	0.64	3.50	2.10	0.52	2.17	15.33
Aachen.....	135,000	7	1,710	70	18	4.23	0.25	3.76	0.24	0.14	1.66	9.68
Total, including Berlin.....	4,062,000	76	69,700	---	---	---	---	---	---	---	---	---
" excluding ".....	2,352,000	61	38,300	---	---	---	---	---	---	---	---	---
Average, excluding Berlin.....	250,222	6.8	4,255	62.67	21.78	---	---	---	---	---	---	16.56
" including ".....	---	---	---	61.9	21.2	4.664	0.407	2.923	0.84	0.27	0.898	9.993

MUNICIPAL OWNERSHIP PLANTS.												
CITIES.	Inhabitants.	Years of Operation.	Number of Kw Supplied.	Light.	Power.	Coal.	Oil and Waste.	Wages.	Main-tena.n.c.c.	Inc. Lamp Re-novels.	Miscel-laneous.	Total.
Breslau.....	494,000	9	2,058	68	---	4.2	0.52	6.87	3.06	---	1	15.65
Dresden.....	404,000	5	5,350	60	25	6.44	1.23	5.92	4.07	---	2.36	20.02
Koeln.....	238,000	9	3,126	70	22	3.93	---	---	---	---	---	12.07
Nürnberg.....	230,000	4	4,117	70	20	9.12	0.39	5.05	0.96	---	1.74	17.26
Hannover.....	228,000	9	3,267	60	20	3.53	0.46	4.31	1.68	0.16	1.82	11.96
Düsseldorf.....	202,000	9	2,131	70	20	2.94	0.42	4.77	1.75	---	0.71	10.59
Königsberg.....	185,000	5	1,771	75	22	7.1	1.2	4.8	5.4	---	2.6	21.1
Elberfeld.....	151,000	13	1,186	68	27	5.51	1.01	8.25	2.76	---	1.85	19.4
Bremen.....	142,000	7	3,120	80	27	4.46	0.35	5.06	3.52	---	0.29	13.68
Barmen.....	140,000	12	1,000	70	27.5	5.14	0.3	7.4	5.48	---	1.98	20.6
Total.....	2,324,000	82	27,126	---	---	---	---	---	---	---	---	---
Average.....	232,400	8.2	2,712.6	69.1	23.30	5.237	0.653	5.86	3.187	0.16	1.594	16.233

tagonistic to the railway companies, could not long remain unchallenged, and at the forty-sixth meeting of the "Freie Vereinigung der Strassenbahn-Betriebsleiter," which was held at Strassburg on Feb. 14, 1901, a request was sent to the Verein Deutscher Strassenbahn und Kleinbahn-Verwaltungen, to take up the resolutions passed by the convention of municipal authorities and to investigate the problem. The Verein has consented to do this, and will discuss the matter at its Stuttgart meeting.

The entire question seems to resolve itself into several questions, which may be stated as follows:

Have the street railway companies, operated by private individuals, adopted a narrow, mercenary policy, without regard for the general traffic interests?

How does the cost of operation of a municipal road differ from one operated by a private corporation?

Would it be advisable for a city having an opportunity to acquire a road to lease the same to a private company to construct and operate it under the best possible terms?

Lack of space does not permit a reply to these questions in great detail but the accompanying table, prepared by Director Erhardt, of Stuttgart, shows how costly municipal railway operation is, as exemplified by cities having over 100,000 inhabitants. The table does not show the cost of operating railways, but gives the cost of producing electricity, which, however, may be of value in the discussion of this question.

The author of the table took great care that the figures of total cost of current production were made up on the same basis. In cases where they were not so, the figures were corrected accordingly. The itemized accounts, however, differ somewhat owing to variations in methods of accounting. The stations generating current for lighting only are given for Dresden and Hamburg. As the table shows, the average cost of producing a kilowatt-hour at the switchboard, exclusive of interest and sinking fund payments, is as follows:

Private plants, 61.9 pfs. per kw-hour for light.

Private plants, 21.2 pfs. per kw-hour for power.

The table further shows how slow the growth of the municipal plants has been. With a total number of inhabitants of 2,324,000, or an average of 232,400, the city plants sold 27,126 kw, or an average each of 2712.6 kw. The private plants, in cities having a total of 4,062,000 inhabitants, disposed of 69,700 kw. Excluding Berlin, with its extraordinary conditions, the other nine cities, with a total of 2,252,000 people, or an average of 250,222 people, were furnished with 38,300 kw, or an average of 4255 kw. It should, furthermore, be stated that these figures were reached in a total of seventy-six years (61 excl. Berlin), or an average (excl. Berlin) of 6.8 years, while the city plants have been operated for eighty-two years, or an average of 8.2 years.

The private plants, therefore, in 18 per cent less time, have developed 57 per cent more rapidly than the municipal plants.

Another striking example was the recent announcement of the municipally operated street railway company of Düsseldorf that it must raise its fares, because there a big deficit has developed. Before its electrification and while it was operated with horses, this road was leased from the city by a citizen who paid a rent of M.90,000 annually, and yet made a handsome profit. After one year's municipal operation the M.130,000 to M.150,000 profit was turned into a M.400,000 deficit.

In the article published in the June issue descriptive of the Glasgow system of tramways, it was inadvertently stated that the four three-throw air pumps were manufactured by the Edwards Air Pump Syndicate, Ltd., of London, instead of by the Mirrlees-Watson Company, Ltd., of Glasgow, the form of air pump being that known as Edwards' Patent, but made by the Mirrlees-Watson Company, under royalty.

Mr. Emory Goes to Milwaukee

Richard Emory, who has been connected with the Nashville Railway and the Cumberland Electric Light & Power Company for more than two years as superintendent and general manager, has resigned to take a responsible position with the Milwaukee Electric Railway & Light Company. When the street railway went into the hands of receivers Mr. Emory tendered his resignation, to take effect July 1, but, at the request of Receivers Warner and Lewis, consented to remain until September. The Milwaukee companies becoming urgent, however, the resignation has been accepted, and Mr. Emory will leave immediately for his new post.

His successor in the office of general manager has not yet been selected and the management of the street railway will devolve directly upon the receivers, and that of the electric light company upon President Warner.

Mr. Emory is a man of large experience in the management of street railway systems, having been connected with the Baltimore system for eight years before coming to Nashville. In Baltimore he began at the bottom, received an early practical mechanical education, and at the end of eight years, when he left to come to Nashville, he had been promoted to a prominent position.

He came to Nashville as superintendent and was soon placed in charge as general manager. During his service in this capacity he has demonstrated his thorough knowledge of the business and his ability to conduct it properly. Difficulties of the most perplexing nature confronted him in the run-down condition of the system. These he met in a manner most commendable, and, although he could not, of course, entirely eliminate all the inconveniences caused by them, he provided a very satisfactory service. Among the improvements inaugurated and completed during his administration of the affairs of the system are several important extensions, the installation of new boilers and machinery in the power house, and improvements in the transfer system and general service.

Eighteenth Annual Convention of the American Institute of Electrical Engineers

The eighteenth annual convention of the American Institute of Electrical Engineers is being held this week at the New York State Building at the Pan-American Exposition in Buffalo, N. Y.

Preceding the meeting at Buffalo many of the members met in New York City, according to programme, held a dinner and visited a number of the electrical plants in this city. The first event on last week's meeting was on Wednesday, Aug. 14, when there was an assemblage at the house of the American Society of Mechanical Engineers, 12 West Thirty-First Street, New York City, at which President Steinmetz delivered an address of welcome to the foreign guests and others in attendance. This was followed by a collation.

On Thursday, Aug. 15, the members made a visit to the Crocker-Wheeler Works, Ampere, N. J., and in the evening enjoyed a dinner at the Hotel Marlborough. T. C. Martin, editor of the *Electrical World and Engineer*, acted as toastmaster, and the speakers included Dr. Hallock, of Columbia University; M. Janet, of Paris, and others.

On Friday the members met at the Edison Thirty-Eighth Street power house, East River, and made an inspection of that station. They were then transported by a special steamboat, "Crystal Stream," to the power stations on the water front of the following companies: The Metropolitan Railway Company, the Metropolitan Street Railway Company, the New York Edison Company, the Brooklyn Edison Company. At each station they were received by delegations of engineers of the respective companies and shown around the stations. The return was made to New York about 5:30 p. m. A collation was provided on board the boat.

On Sunday, Aug. 18, the party, consisting of about one hundred persons, met on board a special steamboat, "Montauk," foot of West Forty-Second Street, New York, at 9 a. m., and proceeded up the Hudson River, arriving at Albany about 6 o'clock p. m. The party was met at the wharf at Albany by special street cars and were taken to their hotels. On Monday they left, by special train, for Schenectady at 8:30 a. m., and paid a visit to the works of the General Electric Company. They left Schenectady by special train at about 1:30 p. m. and reached Buffalo about 8 o'clock p. m.

Tuesday was the opening of the convention at the New York State Building. An address of welcome was delivered by his Honor the Mayor of Buffalo, and the afternoon and evening was devoted by most to a preliminary tour of the Exposition.

The business sessions of the institute were confined to the mornings of the next four days, and the papers to be presented are as follows:

"Synchronism and Frequency Indication," by Paul M. Lincoln.
 "Some Fundamentals of Electric Meters," by Caryl D. Haskins.
 Papers on topics relating to meters and metering of electric energy, by Harry P. Davis and William Stanley.

"Performance of an Artificial 40-mile Transmission Line," by William S. Aldrich and George W. Redfield.

"Power Factor Indicators," by William Hand Browne, Jr.

"Elements of Design Particularly Pertaining to Long-Distance Transmission," by F. A. C. Perrine.

"The Control of High Potential Systems of Large Power," by E. Wilbur Rice, Jr.

Papers on topics relating to electric transmission systems, by Charles F. Scott and Charles P. Steinmetz.

"A Description of Niagara Falls Transmission Plant," by Lewis B. Stillwell.

"Development of the Nernst Lamp in America," by Alexander Jay Wurts.

Papers on topics relating to the supplying of light and power in large and small cities, by L. A. Ferguson, William Lispenard Robb and others.

"Notes on Modern Electric Railway Practice," by Albert H. Armstrong.

"Electric Railway Apparatus," by Ernst J. Berg; followed by a general discussion on topics relating to electric railroading.

"Marine Steam"

Although, perhaps, not originally intended for street railway readers, the latest publication from the office of the Babcock & Wilcox Company can not fail to interest all land as well as marine engineers. The installation of marine boilers in stationary plants has become familiar practice, so that the distribution of this new descriptive catalogue among railway power plants is in no way illogical, and no manager can peruse the well-written and handsomely illustrated pages without obtaining valuable information regarding the operation and future enlargement of his own station. The word catalogue hardly applies to Babcock & Wilcox literature, as, notwithstanding the company describes and illustrates most thoroughly its own efficient apparatus, it has the happy faculty of including in the text so much interesting and authoritative matter regarding steam boiler operation, that its well-known book entitled "Steam" has become a standard work on this subject. "Marine Steam" is practically a second volume devoted to marine boilers. The same style has been continued, and a great number of tests are given, from the results of which most instructive conclusions may be drawn. Not only are the boilers themselves illustrated, but the book is full of half-tone engravings of many representative ships of the mercantile marine and navy in which the boilers are installed. Technically and artistically, the present volume will undoubtedly make as great a reputation as its predecessor, "Steam."

Street Railway Patents

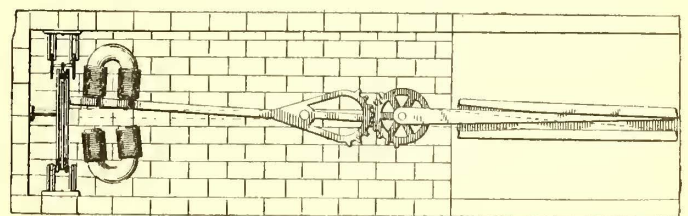
[This department is conducted by W. A. Rosenbaum, patent attorney, 177 Times Building, New York.]

UNITED STATES PATENTS ISSUED AUG. 13, 1901

680,212. Car Fender; N. Abrahams, St. Louis, Mo. App. filed April 9, 1901. The fender is mounted on rollers in a tilting guide; when the obstacle is struck the guide is tilted and the fender rolls downward and forward, when it becomes locked.

680,286. Trolley Guard; C. E. Stanley, Canton, Ohio. App. filed March 20, 1901. A yoke supports two conical wheels above the main wheel.

680,333. Aligning Bar for Railway Tracks; F. H. Koelling, Augusta, Mo. App. filed March 29, 1901. The bar, which carries a pivoted hook for engaging under the head of the rail, is pivoted in an inclined support, reaching over the rail.



PATENT NO. 680,626

680,338. Automatic Railway Switch; C. F. Luther, Pawtucket, R. I. App. filed Dec. 21, 1900. A projection from the car strikes a lug on a wheel in the roadbed and rotates it a given distance; a

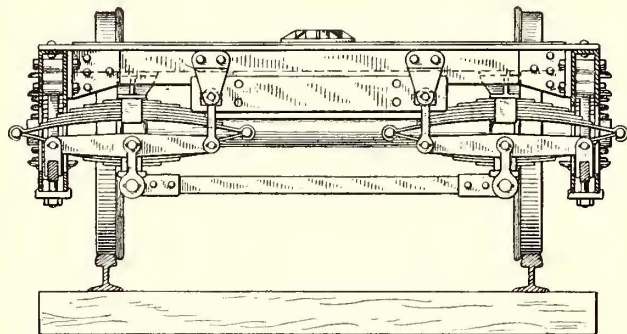
cam groove in the wheel engages with a crank connected with the switch point.

680,437. Trolley Stand; E. J. Parker, Worcester, Mass. App. filed Jan. 31, 1901. Details of the spring attachment.

680,516. Car Truck; E. S. Woods, Chicago, Ill. App. filed April 22, 1901. Roller bearings are inserted between the truck frames and a cap resting on the spring through which the weight of the body is transmitted to the axle box.

680,567. Trolley Wheel; W. C. Cottrell, Asbury Park, N. J. App. filed Nov. 22, 1900. The wheel is provided with inner and outer sections independently revoluble.

680,574. Transfer Table; R. Eben, Paderborn, Germany. App. filed June 8, 1901. In order to enable vehicles to be transferred from a broad-gage track to a narrow-gage track, or vice versa, without breakage of continuity of the rail of the broad-gage track which is to be crossed and without jolt and damage to the broad-gage rail, the flanges of the wheels of the narrow-gage vehicles, or



PATENT NO. 680,587

trolleys, which serve for receiving and transporting sail broad-gage vehicles, are made so wide that they can not descend into the channel or groove between the tread-plates and the rail of the broad-gage track which is to be crossed, through which channel the flanges of the wheels of the broad-gage vehicles can easily pass.

680,587. Railway Truck; N. H. Heft, Bridgeport, Conn. App. filed May 2, 1901. An arrangement of equalizing bars and springs affording increased spring motion. The construction is also such that the bolster maintains a horizontal position when the car rounds a curve.

680,626. Electrical Switch-Operating Mechanism; C. B. Russell, Marlboro, Mass. App. filed May 3, 1901. Two electromagnets placed upon opposite sides of an armature lever are alternately energized to move the switch point.

680,634. Railway Switch; S. W. Baer, Atlanta, Ga. App. filed Feb. 8, 1901. Levers in the roadbed connected with the switch are moved by a projection from the car under the control of the motorman.

680,662. Trolley Stand; E. J. Kelley, Baltimore, Md. App. filed Dec. 14, 1900. Details.

680,663. Trolley Stand; E. J. Kelley, Norfolk, Va. App. filed May 18, 1901. Details.

PERSONAL MENTION

MR. H. F. VOGEL, general manager of the St. Louis Car Company, of St. Louis, Mo., was in New York last week on a business trip.

MR. J. B. INGERSOLL, superintendent of the rolling stock of the Montreal Street Railway and leased lines, has severed his connection with that company.

MR. J. ROBERTS, manager of the Melbourne Tramways & Omnibus Company, of Melbourne, Australia, is making a short visit in this country. He expects to sail for England early in September.

MR. GEORGE R. WALKEM, of Kingston, Ont., formerly superintendent of the British Columbia Electric Railway Company, of Vancouver, B. C., has been appointed manager of the Vancouver Engineering Works.

MR. FRANK L. FULLER, assistant to the president of the United Power & Transportation Company, of Philadelphia, has recently been appointed to the additional office of general manager of all the companies controlled by the United Power & Transportation Company.

MR. HORACE I. BETTIS, formerly connected with the accounting department of the Jersey City, Hoboken & Rutherford

Railway Company, has recently been appointed assistant general auditor of the Union Pacific Railroad Company, with headquarters at Omaha, Neb.

MR. S. B. FORTENBAUGH, formerly one of the electrical engineers of the Walker Company, of Cleveland, Ohio, and recently of the English Electric Manufacturing Company, of Preston, England, has joined the engineering staff of the Metropolitan District Electric Traction Company, of London, the company recently organized by Mr. Yerkes.

MR. R. T. GUNN has resigned as superintendent of the Lexington Railway Company, of Lexington, Ky., to accept the position of superintendent of the station and light department of the Norfolk (Va.) Railway Company. Mr. Gunn was most popular with the employees of the company, and had endeared himself in the hearts of the residents of Lexington. His popularity is attested by the glowing tribute paid him by the local press.

MR. R. E. DANFORTH, heretofore general manager of the Lorain & Cleveland Railway and the Sandusky & Interurban Railway, has been appointed general manager of the entire Lake Shore system, which embraces the Everett-Moore lines between Cleveland and Toledo. Mr. F. J. Stout, heretofore superintendent of the Toledo, Fremont & Norwalk Railway, one of the consolidated roads, has been appointed general superintendent of the entire system.

MR. ASA H. MOORE, at one time owner of the Bloomington & Normal Street Railway, of Bloomington, Ill., is dead. Mr. Moore was eighty-one years old. He was born in Rutland, Mass., and, after a few years as conductor running between Boston and Plymouth, he went West, locating at Laporte, Ind., where he was connected with the Michigan Southern Railroad. Afterward he became superintendent of a branch of the Alton. Later he became connected with the Bloomington & Normal Street Railway. Mr. Moore retired from business life fifteen years ago.

MESSRS. R. M. DEELEY AND G. W. WOOLISCROFT, the engineers attached to the locomotive department of the British Midland Railway Company, who have been in this country for the last four months for the purpose of studying the best American electrical engineering methods, locomotive building and our shop practices in general, have returned to England. Though these gentlemen were somewhat reticent in stating to what extent American manufacturers would ultimately benefit by their visit here, it is believed by parties usually well informed as to foreign trade that Messrs. Deeley & Wooliscroft will embody, in a report to the Midland directors, several recommendations as to American electrical apparatus, machine tools, etc., which, it is anticipated, will result in the placing of considerable contracts in the United States in the near future.

MR. JAMES F. DAVIDSON, who became assistant general superintendent of the St. Louis Transit Company, of St. Louis, Mo., Aug. 2, began his career as a street railway man in St. Louis in 1881. Mr. Davidson was then a conductor on the Olive Street horse car line, and he held that position for three years under Superintendent Rolla Wells, now Mayor of St. Louis. Mr. Davidson was then made road officer, or starting agent, of the Company, and when the road was sold, which occurred shortly after Mr. Davidson's promotion, his ability was further recognized, and he was appointed superintendent of the entire road. Mr. Davidson continued as superintendent of the road during the reconstruction and electrical equipment of the Market Street and LaClede Avenue lines, and the substitution of cable for horse power on the Ohm Street line, the operation of which road he continued to superintend while the road was operated by cable. When that road was sold in 1897,



JAMES F. DAVIDSON

Mr. Davidson was made superintendent of the whole division, and continued in that capacity after the consolidation. Mr. Davidson came to St. Louis from the East, when twenty-three years old, and is now considered one of the most capable street railway men in St. Louis. He is modest, retiring and of pleasant address, and is known as one of the most tactful of men. Mr. Davidson is held in high esteem by the employees of the company.

FINANCIAL INTELLIGENCE

THE MARKETS

The Money Market

WALL STREET, Aug. 21, 1901.

The decline in exchange is the most important incident of the week in the money market. As was pointed out in this article a week ago, the prospect of gold exports had not aroused any great concern, because it was felt that such a movement would be wholly abnormal at this season, and that it could not be heavy in view of the near approach of the period when local money rates are high. Nevertheless, the advance in sterling exchange to within a slight fraction of the gold-shipping level was regarded with some sentimental uneasiness in view of its suggesting that the balance of our trade credits abroad had been exhausted, and that, therefore, what had been looked upon as a most important reserve factor in the domestic money market had disappeared. The relaxation in exchange rates has been reassuring, in that it has modified these inferences decidedly. It still is true, no doubt, that there is no great accumulation of credits abroad like there was a year and two years ago. The enormous foreign liquidation of our securities during the recent winter and spring apparently wiped out all this balance. But this foreign selling movement is of temporary significance beside the record of commercial exports and imports, which shows that the international trade is still running as heavily in our favor as it has at any time. What the week's turn in the exchange market has done is to remove the doubt existing as to whether the foreign security operations or the excess merchandise exports was the preponderating influence. It now appears that Europe has ceased to sell American stocks, and that we are in a position, with a heavy demand for our wheat and cotton in prospect during the next few months, to build up rapidly a new reserve of credits in the markets abroad, which can be drawn upon in case of need. Meanwhile the other factors in the domestic money situation are pointing distinctly toward higher rates before long. The New York banks, to be sure, succeeded in curtailing their loans last week some \$1,500,000, and this was encouraging, in so far as it went to show that the special borrowing which has caused the recent excessive inflation of the loan and deposit accounts is over, for the time being, at least. But this development was more than offset by the heavy drafts of the Treasury, principally in collecting its customs revenue, and by the beginning of a more decided outflow of funds to the interior. The usual speculation as to the size of the country bank demands for crop-moving purposes is now in full swing, and varying opinions are expressed. There is no doubt, however, that these demands, from now on, will be heavy, and that, in conjunction with the payments to the Treasury, they will considerably more than counterbalance the arrivals of new gold from Alaska and such scattered consignments as may be received from Australia. The main hope of avoiding a tight money market under these circumstances lies in the possibility of a quiet liquidation of the loans made during the last few months to the large financial syndicates and in the chances of gold imports from Europe. But how far these can be depended upon as relieving agencies must, for the present, remain uncertain.

Call money has grown slightly firmer, the rate advancing to 3 per cent. There is a stronger undertone in time money, also, but as yet rates are unchanged at 4 per cent for sixty to ninety days, and 4½ per cent for the longer periods.

The Stock Market

The extreme dullness of midsummer still encircles the Stock Exchange. Dealings have not altered either in their volume or character from what they were a week ago, and are dominated entirely by the professional traders. Good judges of the trading, however, can easily detect where there has been large accumulation of stocks by strong interests at the low prices recently prevailing, and they are inclined to believe, both from this fact and from the action of the market itself, that holdings of the more important securities are more highly concentrated than they have been in a long time. It is obviously much harder for manipulation to depress prices, even temporarily, than it was three or four weeks ago, and unfavorable outside incidents have very much less effect. In other words, the liquidation, which was precipitated by the devastation in the Western corn fields and by the labor outbreak in the steel industry, seems to have run its course, and these two factors, although continuing to hold the trading in check, have lost their depressing influence. The downward tendency is not likely to be resumed unless something unforeseen should happen to weaken the confidence in the future, which has begun to reappear during the last fortnight. Wall Street did not

take serious notice of the action of the Western branches of the Amalgamated Association of Steel Workers, in reversing their first decision not to join the strikers, because it believes that the labor party has not the financial resources for a prolonged struggle. The feeling is that the strikers will have reached the end of their rope before serious loss is inflicted either upon the Steel Corporation or upon any outside interest. It is plain, moreover, that the disturbance is not going to spread to other industries, as was feared at first, because the heads of other labor unions are opposed to the course which President Shaffer has advocated in breaking contracts which had been solemnly made with employers. Altogether, the strike has changed from a positive to a negative influence in the market, and it will continue in this way unless there should be reason to alter the prevailing view that the contest will not be long drawn out. The crop damage from last month's severe drought has encountered a new offset in the discovery which has not been generally made before this week, that the foreign wheat harvests are unusually short, and that a season of prosperity is in store for the wheat trade of this country second only to the year 1897-98. Exports of wheat during the last two weeks have far eclipsed all former records, averaging 9,000,000 bushels a week. Foreign consuming interests are also bidding urgently for supplies as far ahead as October. The reason for this is that the latest estimates of foreign production show that they will need every bushel of the 300,000,000 bushels which America will have for export. This assures the farmers of this country an exceptionally good market and an exceptionally high return for their heavy crop of wheat, which will go far toward compensating for their losses in the corn crop. It is this consideration, probably more than anything else, which has kept the general share list steadily on the road to improvement during the week.

The local traction specialties have kept pace with the gains in the rest of the market. The excellent statement of Manhattan earnings recently published for the June quarter has raised the hopes of an increase in dividends on the stock in the not distant future. Metropolitan has risen principally on purchases by brokers, who are frequently employed by inside interests, but whether or not any fresh developments are ahead of the movement can not yet be learned. Brooklyn Rapid Transit has been strong in sympathy with the advance in the other traction stocks. The buying of Twin City Rapid Transit for the account of certain Canadian financiers continues at intervals.

Philadelphia

Another sharp rise in Indianapolis Street Railway has been the principal change in the Philadelphia traction market during the week. Interest in the movement, however, is comparatively slight because no general dealings are possible in the stock. The price was bid up on Thursday last from 44 to 48½ before any offerings were attracted. At the latter figure 50 shares changed hands and 100 more sold at 47 on Friday. It looks as if the floating supply were being accumulated for a purpose, but there is nothing more definite than last week's story of an impending consolidation deal between the trolley companies of Indianapolis. The 4 per cent bonds have risen from 82 to 83 on moderate transactions. The announcement that the Union Traction Company had made certain concessions to their employees in reply to the grievances which the latter presented a short time ago disposed of the fears of a strike on the road, and helped the stock recover the ground lost during the previous week. The dealings have been fairly active, and have apparently resulted in a reduction of the outstanding short interest. Nothing occurred during the week to throw light upon the future of the new rapid transit franchises. Philadelphia Traction has been sympathetically strong around 96. Railways Company General dropped from 2½ to 2 under liquidation by speculative holders, who were disappointed that the expectations of a reduction of the capital stock had not had a better effect in advancing the price.

Chicago

Quite a flurry was occasioned among the officials of the Chicago elevated roads during the week by the decision of the Board of Overseers to tax all visible property of the companies as personal property instead of merely placing the personalty tax upon the cash on hand. If this new system were adopted it would raise the aggregate assessed valuation of the elevated lines from \$700,000 to over \$20,000,000. It is not seriously believed that such a radical change in the tax levy will actually be made; at any rate, the matter would be fought to the bitter end in the courts. But the uncertainty has served to restrict dealings in the elevated securities, and to cause some recessions in prices. There has been some

talk this week of an alliance, possibly extending to a consolidation, between the Metropolitan and the South Side lines, each to build branches into the Stock Yards district. This is looked upon as a counter-project to the recent plan of a general elevated combination. It is now said that the "Alley L" will make no further effort to build its third track until the dispute about its franchise has been definitely settled. Rumors are current that the recent increase in the capital stock of the City Railway will be followed by a reduction in the rate of dividends. The price of the shares, which was about 255 before the extra issue was made, was quoted at 206 immediately after the issue and has dropped this week to 201 bid. Union Traction stocks are slightly higher on the week, but the interest in them which was aroused when the question of preferred dividends was under discussion has now ceased.

Stock Quotations

The following table shows present bid quotations for the leading traction stocks, and the active bonds, as compared with a week ago; also the high and low since Jan. 1, 1900:

	Jan. 1, 1900 To Date		1891 Closing Bid	
	High	Low	Aug. 13	Aug. 20
American Railways Co.....	48¼	27	40	40
Boston Elevated	192	b95	178	178
Brooklyn R. T.....	88⅞	47⅞	74½	74⅞
Chicago City	‡285	200	201	201
Chicago Union Tr. (common).....	..	..	15⅞	15½
Chicago Union Tr. (preferred).....	..	..	58	58½
Columbus (common).....	48	20	46	46½
Columbus (preferred)	103	80	102	102
Consolidated Traction of N. J.....	69½	57	66	67
Consolidated Traction of N. J. 5s.....	110	..	109	108½
Consolidated Trac. of Pittsburgh (common).....	30¼	20¼	21	20¾
Indianapolis Street Railway.....	48¾	15	40½	46½
Lake Street Elevated	16¼	6½	13	13½
Manhattan Ry.	131¾	84	117¼	118½
Massachusetts Elec. Cos. (common).....	43¼	15	38½	38½
Massachusetts Elec. Cos. (preferred).....	96	70	92¾	92½
Metropolitan Elevated, Chicago (common).....	37½	24½	35½	36
Massachusetts Elec. Cos. (preferred).....	98½	70	92¾	92½
Metropolitan Street	182	143¾	166¾	166½
Nassau Electric 4s	97½	..	97½	97½
New Orleans (common).....	33½	18¼	27½	28
New Orleans (preferred).....	108	90	100	100
North American	*106	*74	99¼	98
North Jersey	36	21	22¾	22½
Northwestern Elevated, Chicago (common).....	52	..	47	45
Northwestern Elevated, Chicago (preferred).....	97½	..	92	85
Rochester	31½	12	25	25
St. Louis Transit Co. (common).....	35	16½	26½	26¾
South Side Elevated (Chicago).....	119	93	105	108
Syracuse (common)	b23	10½	22	23
Syracuse (preferred)	b65	25	62	62
Third Ave.	135¼	45¼	122½	121
Twin City, Minneapolis (common).....	98	58½	97	97¼
United Railways, St. Louis (preferred).....	82	..	79¼	81¼
United Railways, St. Louis 4s.....	91½	..	89	89
Union Traction (Philadelphia).....	40⅞	24¼	26¾	27½
United Traction (Providence).....	110	107	109	109

a Asked. b Bid. * Quotation of new stock. † High quotation previous to the issue of new stock.

Iron and Steel

Reports from all over the country indicate a decided improvement in the condition of the iron market, as compared with a week ago. This is partly due to the relations of production and consumption, which are highly favorable, and partly to the growing confidence that the steel strike will not be unduly prolonged. The figures of the *Iron Age* show that the coke and anthracite furnace capacity was reduced during July from 303,800 to 297,200 tons weekly; but that during the same time stocks of pig iron on hand fell off also. This proves again that consumption, even during the slack season of trade, is fully up to the level of production. So far as the strike is concerned, the disclosure that the funds which the union will have to use are incomparably less than what will be required to support the men out of work, gives abundant reason to expect that the strikers will soon tire of the struggle. In all, the finished products, as well as in the unfinished material, an active demand is reported both for immediate and for future delivery. Quotations are \$15.25 for Bessemer pig, \$24 for steel billets, and \$28 for steel rails.

Metals

Quotations for the week are as follows: Copper, 16½ cents; lead, 4¾ cents; tin, 26¾ cents; spelter, 4 cents

SAN FRANCISCO, CAL.—Negotiations are said to be in progress for the sale of a controlling interest in the Market Street Railway Company to an Eastern syndicate. The par value of the company's stock is \$18,617,000. H. E. Huntington, president of the road, is now in New York, and is said to be conferring with the capitalists who desire to purchase the property.

GAINESVILLE, GA.—The stockholders of the Dahlonega & Gainesville Electric Railway Company have increased the amount of bonds issued from \$600,000 to \$750,000.

COVINGTON, KY.—The Cincinnati, Newport & Covington Railway Company reports earnings as follows:

	1901	1900
July		
Gross receipts	\$76,619	\$72,703
Operating expenses	33,458	31,134
Earnings from operation.....	\$43,161	\$41,569
Tolls, taxes, damages, rent.....	12,562	30,629
Net earnings	\$30,599	\$10,940
Seven months ending July		
Gross receipts	\$461,258	\$442,642
Operating expenses	194,550	180,928
Earnings from operation	\$266,708	\$261,714
Tolls, taxes, damages, rent.....	87,323	104,681
Net earnings	\$179,385	\$157,033

ANNAPOLIS, MD.—The Washington & Annapolis Electric Railway Company has decided to increase its capital stock from \$1,500,000 to \$2,000,000 by the addition of 10,000 additional shares of stock, of the par value of \$50 each. Messrs. Mandelbaum, Christy and others, of Cleveland, are interested in the road.

LYNN, MASS.—The Railroad Commissioners have issued an order authorizing the Lynn & Boston Street Railway Company to transfer the proceeds of the stock issued under the authority of an order of Nov. 6, 1900, so that \$217,700 shall be spent for additional car equipment and the remaining \$336,700 for the payment of certain floating indebtedness incurred in the construction of the road.

MILFORD, MASS.—The Railroad Commissioners have authorized the Milford, Attleboro & Woonsocket Street Railway Company to increase its capital stock by the amount of \$65,000. This sum will be expended for construction and equipment and the establishing of a pleasure resort.

WOBURN, MASS.—The Woburn & Boston Street Railway and the Lowell & Boston Street Railway have been granted a joint use of tracks in the city of Woburn.

FALL RIVER, MASS.—The Railroad Commissioners have authorized the Providence & Fall River Street Railway Company to reduce its capital stock from the amount named in the papers of incorporation (\$200,000) to \$165,000, which latter amount it is authorized to issue.

NORFOLK, MASS.—Judge Lowell, of the United States Circuit Court, has entered a decree in the case of the American Loan & Trust Company against the Norfolk Southern Street Railway Company, authorizing the petitioner to foreclose the mortgage of \$125,000 given to it as trustee by the defendant, and to sell the property subject to the mortgage. The date for the sale will be fixed later.

KALAMAZOO, MICH.—The Railway Company's General is reported to have disposed of its interest in the Michigan Traction Company, the property passing into the hands of Western financial interests. The company, at last reports, held \$330,000 of a total stock issue of \$500,000. It is expected that the company will make formal announcement of the deal this week.

DETROIT, MICH.—The Detroit United Railways Company reports earnings as follows:

	1901	1900
July		
Gross receipts	\$291,388	\$231,247
Operating expenses	142,961	120,632
Earnings from operation.....	\$148,427	\$110,615
Seven months ending July		
Gross receipts	\$1,544,934	\$1,381,976
Operating expenses	827,472	778,112
Earnings from operation.....	\$717,462	\$603,864

BUFFALO, N. Y.—Various rumors have recently been heard regarding a change of ownership of the International Traction Company. The report has been circulated that J. P. Morgan is to secure control of the company and depose several of the present officials. It is also reported that an alliance is to be made with the Buffalo, Rochester & Niagara Falls Electric Railway, which proposes to construct an electric railway to connect Buffalo, Rochester and Niagara Falls. The stories emanated from the press, and little faith is put in them.

BUFFALO, N. Y.—George W. Houck, of Worcester, Mass., was appointed receiver of the Buffalo, Hamburg & Aurora Railroad on the application of creditors whose claims aggregate about \$12,000, Aug. 19. The appointment was made in spite of the opposition of bondholders from Boston, holding \$179,000 worth of bonds, and the opposition of the Buffalo Loan, Trust & Safe Deposit Company, which holds a mortgage for \$400,000. The operation of the road will be continued, and it is said that a reorganization will be attempted.

ROCHESTER, N. Y.—The Rochester Railway Company reports earnings as follows:

	1901	1900
Quarter ending June 30		
Gross receipts	\$246,161	\$229,970
Operating expenses	144,024	143,322
Earnings from operation.....	\$102,137	\$86,648
Receipts from other sources.....	2,517	8,287
Gross income	\$104,654	\$94,935
Fixed charges	75,289	69,419
Net earnings	\$29,365	\$25,516

NEW YORK, N. Y.—The Manhattan Elevated Railway Company reports earnings as follows:

	1901	1900
Quarter ending June 30		
Gross receipts	\$2,499,207	\$2,316,883
Operating expenses	1,327,686	1,303,275
Earnings from operation.....	\$1,171,521	\$1,013,608
Receipts from other sources.....	241,171	242,362
Gross income	\$1,412,692	\$1,255,970
Fixed charges	647,568	647,756
Net earnings	\$765,124	\$608,214
Dividend	480,000	480,000
Surplus	\$285,124	\$128,214
Year ending June 30 *		
Gross receipts	\$9,416,886	\$9,138,573
Operating expenses	5,253,230	5,232,621
Earnings from operation.....	\$4,163,656	\$3,905,952
Receipts from other sources	836,353	831,325
Gross income	\$5,000,009	\$4,737,277
Fixed charges	2,677,706	2,707,665
Net earnings	\$2,322,303	\$2,029,612
Dividend	1,920,000	1,920,000
Surplus	\$402,303	\$109,612

The general balance sheet of the company as of June 30 compares as follows:

	1901	1900
Assets		
Cost of road and equipment.....	\$68,432,898	\$64,561,728
Cost of leases	14,014,000	14,014,000
Real estate.....	3,268,348	3,185,865
Supplies on hand	347,908	257,245
Due by agents; traffic.....	392	32
Due by others	9,361	13,991
Due by companies and individuals.....	203,207	12,492
Cash on hand	150,697	173,506
Kuhn, Loeb & Co. redemption Mt. 2d mort. bds....	9,000	122,000
Prepaid insurance	17,215	3,646
Loaned on collateral	9,604,416	12,461,516
Est. J. Gould suretyship.....	300,000	300,000
Central Trust Co., trustee, etc.....	4,533	4,524
Sundries	240,557	220,892
Total	\$96,602,594	\$95,331,440
Liabilities		
Cons. capital stock	\$47,999,700	\$47,999,700
Sub. to inc. capital.....	300	300
Funded debt	39,554,000	39,665,000
Interest on funded debt.....	362,709	292,709
Man. 4 per cent bonds, special.....	300,000	300,000
Dividends unpaid	27,358	7,358
Coup. due, not present.....	60	60
Due for wages	80,288	68,552
Due for supplies, taxes, etc.....	376,804	333,323
Open accounts	53,118	69,807
Conv. bond certificates.....	42,035	44,035
Taxes in litigation	2,663,911	1,945,558
Sundries	36,038	33,738
Surplus	5,106,273	4,571,298
Total	\$96,602,594	\$95,331,440

OSHKOSH, WIS.—F. S. Donnell and his Boston associates have purchased the property of the Winnebago Traction Company, the deal being consummated Aug. 12. Control of the road was held by Emerson McMillin & Company, of New York. The company is capitalized at \$650,000, and operates the local street railway lines, an amusement park of 15 acres at Oshkosh and an interurban railway extending to Neenah and Menasha. Thirty miles of line are operated in all.

BELLEVILLE, ONT.—The sale of the Belleville Street Railway, which was advertised to take place July 29, has been postponed. The postponement was made at the urgent request of several intended purchasers.

Tables of Recent Traction Earnings

NAME	Week or Month	LATEST GROSS EARNINGS		LATEST NET EARNINGS	
		1901	1900	1901	1900
American Rys. Co.....	July	\$89,657	\$83,718	\$.....	\$.....
Binghamton Ry. Co.....	July	22,480	19,875	12,328	11,351
Brooklyn R. T. Co.....	June	1,181,023	1,105,006	448,283	447,126
Chicago & Mil.El.Ry.Co.	July	23,459	18,378	15,770	13,232
Cincinnati, Newport & Covington Ry. Co.....	June	72,201	73,965	42,452	42,700
City Elec. (Rome, Ga.)..	July	3,873	.....	e 260	.....
Cleveland El. Ry. Co....	July	210,329	181,856	101,210	87,977
Cleveland, Painesville & Eastern.....	Apr.	10,184	8,966	4,249	3,163
Consolidated Tr. (Pittsburgh).....	July	276,053	254,973	140,965	132,099
Denver City Tramway...	July	143,223	119,910	64,320	59,026
Detroit United Ry.....	June	250,668	220,584	116,764	98,109
Duluth Superior Tr.....	May	37,205	.....	.....	.....
Herkimer, Mohawk, Ilion & Frankfort Ry. Co...	May	4,508	4,146	1,935	908
International Tr.....	May	283,403	203,389	120,993	87,903
London St. Ry.....	July	15,303	11,159	6,531	3,818
Montreal Street Ry.....	June	180,371	168,244	.....	.....
Northern Ohio Traction..	July	66,898	54,468	33,414	21,587
Olean St. Ry. Co.....	Apr.	3,749	3,505	1,741	1,100
Richmond Traction Co..	July	23,543	20,979	8,569	11,434
Rochester Ry. Co.....	May	80,401	75,749	32,900	26,011
Scranton Ry. Co.....	July	64,195	59,196	32,299	27,794
Southern Ohio Trac. Co.	July	35,866	31,215	18,855	18,154
Syracuse R. T. Ry. Co...	June	56,952	48,211	26,010	21,305
Twin City Rapid Transit.	July	290,649	249,842	155,299	129,331
United Tr. Co. (Albany).	June	125,831	119,148	27,306	25,127
United Tr.Co.(Pittsburgh)	Mar.	157,792	148,009	70,741	65,511

NAME	Period Ending	GROSS FROM JULY 1 TO LATEST DATE		NET FROM JULY 1 TO LATEST DATE	
		1901	1900	1901	1900
American Rys. Co..	June 30	\$844,297	\$778,042	\$.....	\$.....
Binghamton St. Ry.	June 30	190,910	176,210	86,835	79,108
Brooklyn R. T. Co.	June 30	12,101,198	11,751,595	4,130,563	3,758,369
Chicago & Milwaukee El. Ry. Co...	a July 31	88,920	71,565	46,829	40,828
Cincinnati, Newport & Covington Ry. Co.....	a June 30	384,638	369,938	223,546	220,145
City El.(Rome,Ga.)	a July 31	24,138	.....	e 2,970	.....
Cleveland El.Ry.Co	a July 31	1,264,620	1,147,653	565,227	511,572
Cleveland, Painesville & Eastern ..	Apr.30	119,666	102,359	61,454	50,781
Denver City Tramway	a July 31	838,502	722,301	378,268	304,849
Detroit United Ry..	a June 30	1,263,546	1,150,728	569,035	493,249
Herkimer, Mohawk, Ilion & Frankfort Ry. Co.....	May 31	48,895	47,026	20,247	21,063
International Tr...	May 31	2,698,332	2,331,632	1,303,216	1,085,748
London St. Ry. ...	a July 31	75,416	60,629	26,698	13,475
Milwaukee El. Ry. & Lt. Co.....	d June 30	918,104	830,674	426,071	389,333
Montreal Street Ry.	* June 30	1349,214	1,256,116	.....	.....
Olean St. Ry. Co....	Apr.30	43,019	39,322	21,735	18,475
Richmond Trac.Co.	c July 31	175,594	164,197	66,948	77,064
Rochester Ry.	May 31	898,156	835,543	337,248	328,021
Scranton Ry. Co...	July 31	374,723	345,044	175,982	144,013
Seattle Elec. Co...	d May 31	514,386	412,705	193,192	97,253
Southern Ohio Tr.	a July 31	178,821	157,855	74,792	74,172
Syracuse R.T.Ry.Co	May 31	564,347	504,191	254,458	211,962
Twin City R. T. Co.	a July 31	1,748,182	1,575,641	924,502	807,433
United Tr. Co. (Albany).....	June 30	1,340,356	.....	186,131	.....
United Tr.Co.(Pittsburgh).....	Mar 31	1,434,145	1,321,158	634,423	604,154

* Nine months. † Caused by strike of employees. a From Jan. 1. b Three months. c Ten months. d Five months. e Excluding taxes.

NEWS OF THE WEEK

CONSTRUCTION NOTES

MONTGOMERY, ALA.—J. W. Watts, president of the Montgomery Northern Railway, is reported to have stated that negotiations are being conducted for the consolidation of the Montgomery Northern Railway Company and the Anniston & Montgomery Railroad Company.

REDLANDS, CAL.—The San Bernardino Valley Traction Company will begin the construction of its proposed road about Sept. 1. Twenty-five miles of road will be constructed, and the lines will connect Colton, San Bernardino and Redlands. Six motor cars and one trolley car will be operated. The contracts for equipment have been let. The Illinois Steel Company, of Chicago, has been awarded the contract for the rails, the J. G. Brill Company, of Philadelphia, has been awarded the contract for the rolling stock, and the General Electric Company, of Schenectady, has been awarded the contract for the motors. The general contract for constructing the line will be awarded about Sept. 1. The company will install one 200-kw generator, but no engines or boilers will be installed, power being taken from the lines of the Edison Company. The officers of the company are: Henry Fisher, president; A. C. Denman, Jr., vice-president and manager; Harvey H. Duryee, secretary; Edward S. Graham, treasurer.

GREENWICH, CONN.—The lines of the Greenwich Tramway Company have been completed, and the road is now in operation. The new line forms an important link in the through line from New York to Boston.

SUFFIELD, CONN.—The East Granby & Suffield Railroad Company filed articles of incorporation with the Secretary of State Aug. 12. The company is organized to build an electric railway from East Granby, to complete the line of the Tariffville extension of the Central New England Railroad, which was successfully blocked in the Legislature during the recent term. The company is capitalized at \$100,000. C. E. Hurst, of Cambridge; ex-Governor Lorrin A. Cooke, Rufus D. Holmes, David Strong, Winfield J. Garvin, of Winsted; Theodore M. Maltbie, Arthur F. Eggleston, John R. Buck, Charles E. Perkins and Arthur Perkins, of Hartford; Charles T. Bissell, of Suffield, and Charles N. Bates, of East Granby, are interested in the company.

WASHINGTON, D. C.—The Washington, Leonardtown & Point Lookout Railway Company has been organized by Philadelphia capitalists to construct an electric railway from Washington to Point Lookout. The line will be 98 miles long, and traverse the three Maryland counties between the Potomac and Chesapeake Bay. Former Attorney-General R. C. White, of Delaware, is president of the company.

GAINESVILLE, GA.—The Dahlenega & Gainesville Electric Railway Company has purchased 750 acres of land, extending from the limits of Gainesville. The company secures important water power privileges by the purchase.

ATLANTA, GA.—The Atlanta Railway & Power Company has filed eight petitions for improvements, turnouts, switches and connections on its lines. The petitions have been referred to the committee on electric and other railways.

ATLANTA, GA.—The County Commissioners, Aug. 8, granted street railway franchises to the Atlanta Railway & Power Company and the Atlanta Rapid Transit Company. The franchise to the former company gives it the right to extend the East Point line from East Point to College Park, and the franchise to the Rapid Transit Company permits the company to construct a line from near the corner of Oak Street and Holderness Street, West End, to a point near Westview Cemetery.

GRANITE CITY, ILL.—The Venice, Granite City and Madison Electric Railway Company has been granted a franchise for the construction of its proposed road through this city.

JOLIET ILL.—The engineers in charge of the construction of the Chicago & Joliet Electric Railroad have announced that the line will be ready for operation during the first week in September. The road will be 37 miles long, and, besides operating the line between Chicago and Joliet, controls the local lines at Joliet. The American Railways Company owns and controls the company.

CHICAGO, ILL.—The Springfield, Chicago & Calumet River Railway has been incorporated with a capital of \$100,000 to build an electric railway from the First Ward in Chicago to the town of Hammond.

CHICAGO, ILL.—William A. Conover, a lawyer in the Reaper Block, has sent to Mayor Harrison a novel proposition for a renewal of the street car franchises which expire next year. The proposition contemplates paying to the city all revenues in excess of a certain fixed income for the company conducting the business, and Mr. Conover declares he has assurances of being able easily to raise the money in case it were accepted. The plan proposed is that the city grant to a company which is to be formed for the purpose franchises for street car lines on the North Side, South Side and West Side, covering the streets in which the Chicago City and Union Traction Companies are now operating. In return for the franchises the company will obligate itself to build and equip an up-to-date street car system, the city having the power to supervise the construction of the roads, and, within certain limits, to direct the manner in which they are to be operated. In case the city ever wants to acquire the roads it can buy out the company at any time. The fare to be charged shall be 5 cents for a continuous ride. Mr. Conover's offer has been referred to the Council committee on local transportation.

MUNCIE, IND.—E. P. Roberts & Company, of Cleveland, have been retained as chief engineers, by the Muncie, Hartford & Fort Wayne Railway Company, of which S. M. Hexter, of Cleveland, is president. A force of engineers is now in the field, and contracts will be let as soon as a survey is made, and plans and specifications completed.

LOGANSPOUT, IND.—The County Commissioners have granted the Indianapolis & Logansport Interurban Electric Railway an extension of franchise over the Burlington pike in this county. The promoters are endeavoring to secure an extension of franchises in all the counties through which the road is to pass. It now looks as though the road would finally be constructed.

INDIANAPOLIS, IND.—The Indiana State Tax Board is giving much attention to the appeals made from assessments made against electric railways in the State. The Indianapolis Street Railway Company has notified the board that it will ask for a reduction in the assessment made against it, and, if denied, will appeal to the courts. The assessment of this company last year was increased from \$2,500,000 to \$3,500,000, and this year it was again increased until the total is now over \$4,000,000. Taxpayers of Terre Haute have appeared before the board asking that the assessment of the Terre Haute & Brazil Interurban line be materially increased. The company is at present assessed on a valuation of \$5,000 per mile.

INDIANAPOLIS, IND.—The Indianapolis & Martinsville Rapid Transit Company has graded its line to Friendswood, and President Smith announces that he has arranged for materials for the construction and equipment of the road. The three bridges are about completed, the construction of the power house is well advanced and cars are expected to be running by Oct. 1.

KOKOMO, IND.—The promoters of the Central Traction Company have not entirely abandoned their project for the construction of an electric railway from Kokomo to Elwood. Horace E. Stillwell, of Anderson, and several others interested in the company, were recently in consultation with representatives of Townsend, Reed & Company, of Chicago, and it is said that propositions were made to have that company build the line. No definite announcement has been made.

LAPORTE, IND.—The County Commissioners of Laporte have granted the Chicago, Valparaiso & Michigan City Railway Company, which intends to connect Chicago, Valparaiso, Laporte, Hobart, Crown Point, Hammond, Westville, Michigan City, and Chesterton with an electric railway, a franchise to construct and operate a road on the highways in the county. Chicago capitalists are behind the project and the announcement is made that the line will be running within a year.

INDIANAPOLIS, IND.—The County Commissioners have granted a franchise to the Indianapolis, Morristown & Rushville Traction Company for the construction of an electric railway line from the National Road to the Brookville Road, on Sherman Drive, thence on the Brookville Road southeast to the county line. The company proposes to build the road through Marion, Hancock, Shelby, Rush and Franklin Counties, and the points reached will be intermediate between Indianapolis and Laurel, Ind.

UNION CITY, IND.—The organization of a company to build an interurban electric railway from Richmond to Portland, via Union City, a distance of about 60 miles, has been completed. The company is capitalized at \$50,000. The officers of the company are: C. S. Pierce, president; S. H. Dunn, vice-president; William Kerr, treasurer; D. P. Shockney, secretary; L. C. Huesman, general manager, all of Union City.

SIREEVEPORT, LA.—The People's Belt Railroad Company has been incorporated, with capital stock of \$100,000, to construct a 5-mile belt railway. Among those interested in the company are: C. H. Minge, William L. Ingersoll, L. M. Carter and J. D. Wilkinson.

UPTON, MASS.—The Selectmen of Upton have voted to grant a franchise to the Milford & Upton Electric Railway Company, requiring a deposit of \$5,000 when construction is begun, and providing that the line is completed and in running order by Jan. 1, 1902. The Milford & Upton Electric Railway Company will use the tracks of the old Grafton & Upton Railway, equipped with electricity. The road is backed by the Messrs. Draper, of Hopedale, and it will be operated by the Milford, Holliston & Framingham Street Railway Company, having a loop extending from West Upton.

GRAND RAPIDS, MICH.—Franchises and right of way for a road projected by A. D. Prosser to extend from Grand Rapids to Kalamazoo have been purchased by George T. Bishop and others of Cleveland. Mr. Bishop has just completed an inspection of the route and states that surveys are being made. He expects the line will be in operation by July 1, 1902. The line will touch Plainwell, Otsego, Allegan, Martin and other towns. Mr. Bishop is interested in a number of electric roads in various portions of the country.

DETROIT, MICH.—The Detroit United Railway Company has completed and put into service its overhead crossing with the tracks of the Grand Trunk Railway, on its Detroit & Northwestern division near Orchard Lake. While the original company objected seriously to a separation of grades at this point, principally on account of the expense, the company is more than satisfied with the improvement, and points with pride, not only to the safety to travelers provided thereby, but also to the splendid view of the surrounding country and lakes to be obtained from the bridge.

SAGINAW, MICH.—It is reported that an electric railway will be built from Saginaw to St. Johns via Elsie, where coal has recently been discovered. At St. Johns it will connect with the Lansing, St. Johns & St. Louis Railway, and while the names of the projectors have not been made public, it is believed that the stockholders of the latter company are interested.

LANSING, MICH.—The Common Council of Lansing has granted a franchise to the Gordon Transportation Company for its line through the city. This proposed road will run from Battle Creek to Lansing.

ST. LOUIS, MO.—The power house of the St. Louis Transit Company at Jefferson and Geyer Avenues was slightly damaged by fire last week. The loss is estimated at \$2,500.

ST. PAUL, MINN.—Newspaper reports say: "The Chicago Great Western contemplates the installation of electric motive power for all its suburban service out of St. Paul, reaching as far south as Randolph, 30 miles. Edward C. Boynton, of the engineering department, it is said, on reliable authority, has been engaged in making estimates and drawing plans for the proposed change from steam to electric power, and has already submitted two plans to the company, one on the third-rail system, and the other on the overhead trolley, with return circuit."

PERTH AMBOY, N. J.—The Raritan Traction Company has been granted a franchise for the construction of its lines through Metuchen. This is the second franchise that has been passed by the Council of Metuchen, the first one having been declared void by the Supreme Court. The granting of the franchise will enable the company to finish its line between Perth Amboy and Metuchen; thus direct communication between the former and the county seat at New Brunswick will then be established.

ATLANTIC CITY, N. J.—New life has been injected into the Atlantic City Passenger Railroad Company, which was incorporated Feb. 10, 1869, and which has done practically nothing more than pay its State tax since that time, and now the announcement is made that the company proposes to carry to successful completion the work it was originally incorporated to do. The company was given a franchise some thirty years ago for the construction of railroad lines in Atlantic City, and it is under these grants, which were duly accepted, that the company proposes to construct a system of underground electric railways. The directors of the company are: W. H. Bartlett, I. A. Sweigard, Thomas F. Durham, George T. Lippincott, A. M. Jordan, George A. Aldrich and R. J. Purcell. W. H. Bartlett is president of the company, and Eli H. Chandler, secretary and treasurer.

TROY, N. Y.—J. A. Scriven, of Petersburg, is reported to be interested in a plan to construct an electric railway from Troy to Petersburg and Williamstown.

AMSTERDAM, N. Y.—The Amsterdam Street Railroad Company has purchased a site for its new power house, and plans for the plant have been submitted to contractors for bids. The company has decided on a route for its extension to Johnstown, and the locating survey for the line from Amsterdam to Schenectady is now being made. A final decision in regard to the route of the latter line will be made in a few days.

ROCHESTER, N. Y.—It is stated that the Rochester & Southern Railway Company has completed arrangements for financing the road, and has awarded the contract for the construction of the road to a New York firm. The name of the contractor is not given. The lines of the Rochester & Southern Railway will connect Rochester with Dansville, Mt. Morris, Hornellsville and other important towns.

SYRACUSE, N. Y.—The Syracuse Rapid Transit Railway Company has secured a franchise for the construction of an electric railway through Graves Street and Douglas Street, from Highland Street to Oak Street. The franchise was offered at public auction, and was secured by the company for \$150. The Syracuse Rapid Transit Railway Company was the only bidder for the franchise.

UTICA, N. Y.—The Council of Rome has passed the ordinance granting the Utica Suburban Railroad Company the right to construct a line into Rome. The company is to build over Murphy Road to James Street and Whitesboro Street in Rome. The ordinance requires that the road be completed by Nov. 1.

UTICA, N. Y.—The local street railway companies have made arrangement with the Utica Electric Light & Power Company for securing additional power to operate their lines. Power will be taken at 2000 volts, and transformed for use on the railway lines. The transformers will be installed in the plant of the Utica Electric Light & Power Company.

NEW YORK, N. Y.—Considerable comment has recently been caused by transactions in the stock of the American Elevated Railroad, a mysterious corporation which, it is claimed, proposes to build elevated lines to operate at a speed of 200 miles per hour. The claim of the company is that it holds a franchise for the construction of an elevated railroad on Broadway, from Fourteenth Street to Harlem. The company claims to have secured this charter in 1880, from the Legislature, and "it has been legally advised that the charter is still operative, and that the road can be built at any time." Osborn Conleton, of 96 Broadway, is president of the company; George H. Cook, secretary; Henry F. West, treasurer. The financial interests behind the company are not, however, made public. The prospectus of the company describes the system as "an electric elevated road with a double central rail track and an additional inverted rail under each end of the ties, which serves as conductors and also to balance and bind the cars upon the track." It is asserted that the system revolutionizes railroading, "in that it insures a construction that removes absolutely the dangers from derailing and makes it possible to attain any desired rate of speed at a greatly reduced expenditure of power." The company claims to be arranging to install its wonderful system on several lines connecting populous centers.

BROOKLYN, N. Y.—General Superintendent W. W. Wheatley, of the Brooklyn Rapid Transit Company, announced Aug. 13 that 150 new cars of new model had been purchased for operation on the Halsey Street and Seventh Avenue lines in Brooklyn, and that such cars would arrive and be placed in commission by Sept. 1.

WATERFORD, N. Y.—The Hudson Valley Railroad Company, into which the electric railway in Central New York, controlled by the Powers-Colvin syndicate, are to be consolidated, was incorporated Aug. 15. The company is capitalized at \$2,600,000 and the roads it will take over include the Stillwater & Mechanicsville Street Railroad Company, Glens Falls, Sand Hill & Fort Edward Street Railroad Company, Greenwich & Schuylersville Electric Railroad Company, Warren County Railway Company, Saratoga Traction Company and Saratoga Northern Railway. The officers of the company are: Addison B. Colvin, president; George E. Green, vice-president; Thomas O'Connor, secretary; Frank S. Cowles, treasurer, and Joseph A. Powers, Peter

McCarthy, Edwin Langdon, A. B. Colvin and Thomas O'Brien, executive committee and managers.

TIFFIN, OHIO.—The Tiffin & Southern Railway Company has been organized with Michael Riley, of Pittsburgh, president, and B. F. Brough, of Toledo, secretary and treasurer. Judge Allen Smalley, of Toledo, one of the promoters of the Findlay & Marion Railway, is also interested. The two lines will connect at Upper Sandusky and will give through connection from Columbus to Sandusky and Port Clinton. The company has asked for a franchise in Wyandotte County and has been granted one in Seneca County.

STEUBENVILLE, OHIO.—The Pennsylvania Railway has commenced open warfare against the Steubenville, Mingoe & Ohio Valley Railway Company, which is cutting into its suburban business. The Pennsylvania is blocking the extension of the traction line to Brilliant, and last week a force of railroad laborers destroyed the girders and masonry erected for the Steubenville, Mingoe & Ohio Valley Railway Company's culvert near this place.

COLUMBUS, OHIO.—It is announced that the Pennsylvania Railroad Company will endeavor to compete with traction lines now being built by equipping some of its short steam roads with electricity, without interfering with the regular freight traffic. It is stated that a contract has been placed with A. E. Appleyard, the well-known electric railway promoter, to equip the Pennsylvania line between Springfield and Xenia as soon as possible. This will be done to forestall the Little Miami Traction Company, which is building between these points. It is said that branch lines will also be built to Clifton and Cedarville to compete with projected traction lines. It is said that the Pennsylvania has this plan in view for branch lines in several sections of the State.

CINCINNATI, OHIO.—The Cincinnati, Oxford & Western Railway Company has commenced work of surveying and has placed a contract for a large quantity of ties.

AKRON, OHIO.—Thomas L. Childs has applied to the State Canal Commission for the use of the berme bank of the Lake Erie and Ohio Canal, from Cleveland to Portsmouth, for electric railway purposes. Mr. Childs has been defeated in an effort to secure right of way through Cuyahoga County for a line from Cleveland to Akron, and he is now endeavoring to secure the canal bank for this purpose.

SPRINGFIELD, OHIO.—The Dayton, Springfield & Urbana Railway Company has applied to the city for permission to sprinkle its tracks within the city with oil. It is believed this will relieve the dust nuisance caused by the high speed of its cars.

DAYTON, OHIO.—G. M. Hodges, of Dayton, is promoting a road to be known as the Cincinnati, Hamilton & Muncie Traction Company. The intention is to build a third-rail electric railway from Cincinnati to Muncie, Ind., by way of Hamilton and Richmond. It is claimed that much of the right of way has been secured and arrangements completed to enter Cincinnati. W. D. Riddell, of Dayton, is the engineer in charge of surveys.

LORAIN, OHIO.—Practically the last barrier in the way of the through line of the Lake Shore Electric Railway Company between Cleveland and Toledo has been overcome by the settlement of right-of-way claims with parties near Vermillion. Work on the tracks and several large bridges near Vermillion is being pushed.

COLUMBUS, OHIO.—The new power house of the Columbus, London & Springfield Railway, near this city, has been placed in operation. It is furnishing power for the Columbus, Grove City & Southwestern Railway, which is being put in operation.

CINCINNATI, OHIO.—The Rapid Railway Company, which is promoted by G. R. Scrugham and others, of Cincinnati, has applied for a franchise in Hamilton County. The road will extend from Cincinnati to Lebanon and Dayton, closely paralleling an existing steam road. Considerable right of way has been secured.

CLEVELAND, OHIO.—The Cleveland & Southern Railway Company has completed its road almost to Medina, and has commenced construction work over a private right of way between Medina and Creston. Right of way is being secured to Wooster.

BRIDGEPORT, OHIO.—Work of grading has been started near this place on the Bridgeport-Cadiz Electric Railway.

FOSTORIA, OHIO.—The Toledo, Fostoria & Findlay Electric Railway Company instituted a regular hourly service between Fostoria and Findlay on Aug. 15. Reeves Park, midway between the two cities, was opened that date and the cars carried several thousand people to a picnic.

WHITEHOUSE, OHIO.—The Council has granted a franchise through this place to A. H. Detwiler, promoter of the Toledo, Waterville & Southern Railroad Company. A certified check has been deposited to insure compliance with the conditions of the franchise.

CLEVELAND, OHIO.—R. L. Andrews, general manager of the newly consolidated Cleveland & Eastern Railway, is making plans to greatly improve the Chagrin Falls & Eastern line, which is being extended to form the through line to Warren and Youngstown. The route is to be changed so that the direct line will be considerable shorter than at present, and two of the lines are to be connected by a short link touching Punderson's Lake. Much ballasting is to be done.

TIFFIN, OHIO.—The County Commissioners of Seneca County have granted a franchise through the county to the Tiffin & Port Clinton Railway Company, which is promoted by the Kerlin Brothers, of Toledo. The Toledo, Tiffin & Sandusky Railway, a rival company, has secured considerable private right of way over the same route.

EAST LIVERPOOL, OHIO.—J. J. Phillips, Thomas W. Latham and C. C. Jones have revived the project of constructing an electric railway from Salem to Lisbon and East Liverpool. A private right of way following river valleys will be necessary as the country is very hilly. A spur line will probably be built from Leetonia to Columbiana.

YOUNGSTOWN, OHIO.—Construction work has been started near New Castle on the Sharon & New Castle Railway. Work on the Youngstown & Sharon Railway is nearly completed, and the construction force of that company is being put to work on the Sharon & New Castle Railway, both being built by the same people.

TOLEDO, OHIO.—A company headed by Charles Sumner, of Toledo, is securing right of way for a line to extend from Toledo to Ann Arbor, Mich. The route practically parallels the route of the proposed Ohio & Michigan Railway, the promoters of which have secured a number of franchises and much right of way.

COLUMBUS, OHIO.—It is understood that the Columbus, Winchester & Lancaster Traction Company, which was promoted by Simons Brothers, of Columbus, to build an electric railway from Columbus to Lancaster, has withdrawn from the field in favor of the Scioto Valley Traction Company, although nearly all the right of way had been secured. This has resulted, so it is said, from an agreement between the Everett-Moore syndicate and the Pomeroy-Mandelbaum syndicate. The former is back of the Scioto Valley Company, while the latter is back of the Columbus, Delaware & Marion Railway, in which the Simons Brothers are interested, and they were induced to drop the first mentioned project and devote their entire attention to the latter.

TOLEDO, OHIO.—George B. Kerper, chief owner of the Toledo, Bowling Green & Southern Railway, has made a traffic arrangement with the Toledo Railways & Light Company to enter the center of the city over its lines. A new line will be built from Perrysburg to the city limits to connect with the city tracks. Heretofore the Toledo, Bowling Green & Southern cars have entered the city over the tracks of the Toledo & Maumee Valley Railway. The new arrangement gives the company right to operate express as well as passenger cars, which was not permitted under the former arrangement.

FINDLAY, OHIO.—Track laying has been started on the uncompleted section of the Toledo, Bowling Green & Southern Railway between Mortimer and Trombley. It is expected the work will be completed by Nov. 1, when cars will be operated from Toledo to Findlay.

CLYDE, OHIO.—J. C. Parker, promoter of the Sandusky, Clyde, Tiffin & Southern Railway, has been unable to agree on terms of a franchise through the center of Clyde, and announces that the road will be built over a private right of way just outside the corporation line. All right of way for the road has been secured and surveys are being made.

LISBON, OHIO.—The franchise granted by the County Commissioners to Smith & Haight, of Cleveland, promoters of the Salem, Lisbon & East Liverpool Traction Company, expired a few days ago because no work had been done. Some time ago the promoters secured a sixty-day extension, and announced that work would start at once. It is claimed that surveys over the route between Lisbon and East Liverpool have shown that a road over this route is impractical because of the severe grades, and it is believed that this portion of the project has been abandoned.

AKRON, OHIO.—The Northern Ohio Traction Company is rebuilding and re-equipping practically all its present city cars. Fifteen new city cars will be purchased for use next winter.

MEDIA, PA.—The Philadelphia, Morton & Swathmore Street Railway Company is preparing to begin work on the extension of the lines of the Media and Chester division of the Media, Middletown, Ashton & Chester Electric Railway, which it owns. Ties are now being delivered along the route of the extension. The company has until Jan. 1 in which to begin work.

JOHNSTOWN, PA.—The recently incorporated Conemaugh Railroad Company has completed a survey for the construction of its proposed road from Johnstown to Ebsenburg. Pittsburgh and Philadelphia capitalists are the promoters.

ALLEGHENY, PA.—The Mellon traction ordinances, notice of which appeared in the STREET RAILWAY JOURNAL for Aug. 17 and previous issues, have been passed by the Council. The franchise ordinances are passed in favor of the City View Street Railway Company, Allegheny Hill Street Railway Company, Benton Avenue Street Railway Company, Howard & East Street Railway Company, Superior Avenue & Shady Avenue Street Railway Company, and the East Street & Evergreen Street Railway Company. Messrs Mellon, as is well known, control the Monongahela Traction Company, of Pittsburgh, and the Monongahela Electric Light & Power Company.

EASTON, PA.—The Easton & Belvidere Street Railway Company has recently been incorporated to construct an electric railway from Easton to Belvidere. Interest identified with the company secured before its incorporation water-power rights and a large part of the right of way. The incorporators of the company are: C. A. Laros, Howard Mutchler, C. L. Hemingway, John H. McGrath, A. J. Cooper and B. Frank Miller.

BLOOMSBURG, PA.—The Bloomsburg & Benton Street Railway Company has been incorporated, with a capital stock of \$120,000, to build an electric railway from East Bloomsburg to Bloomsburg, Lightstreet, Orangeville, Stillwater and Benton, a distance of 20 miles. W. S. Moyer, of Bloomsburg, is president of the company.

PATTON, PA.—The Northern Cambria Street Railway Company has been incorporated with a capital stock of \$18,000 to construct an electric railway from Patton to Carrolltown. The incorporators of the company are: A. E. Patton, of Curwensville; W. H. Sanford, W. H. Denlinger and E. C. Brown, of Patton; J. E. Hedding, of Morrisdale; F. G. Harris and James W. Kerr, of Clearfield; T. S. Pearce, of Saltsburg; F. G. Harder, of Harrisburg; A. G. Palmer, of Corning, N. Y.; T. O. Snyder, of Kylertown, and J. A. Sweigard, of Philadelphia.

READING, PA.—The Reading & Southwestern Street Railway Company has increased its bonded indebtedness from \$75,000 to \$150,000, and has filed a new mortgage for the latter amount. The mortgage covers the entire road and is given to the Pennsylvania Trust Company, trustee for the sale of bonds. These bonds bear 5 per cent interest and are to run thirty years. Of the new issue \$75,000 will be used to retire existing bonds and the balance, \$25,000, will be used to cancel the company's floating debt.

DOWNINGTOWN, PA.—The Council of Downingtown has passed an ordinance granting the Uwchlan Street Railway Company the right to build an electric railway through Downingtown. The Uwchlan Street Railway Company was incorporated about Aug. 1, and its purpose is to build about 3 miles of new line. The directors of the company are: H. A. Raw, of Philadelphia, president; Henry Riffe, William Trimble, W. A. McDonald, W. L. Conwell.

PITTSBURGH, PA.—The stockholders of the Pittsburgh & Birmingham Traction Company held their annual meeting a few days ago, and elected the following officers and directors: W. L. Mellon, president; A. W. Mellon, vice-president; R. B. Mellon, treasurer; George S. Davidson, secretary and general manager; Weaver H. Rogers, assistant secretary. This is the road that was purchased by Messrs. Mellon, local bankers, last May, and the new management decided at the last meeting to make important improvements in the property. Two hundred thousand dollars will be spent upon one hundred new cars, which will all be in operation within four months. It has also been decided to relay the tracks along the entire line. The business of the company has shown marked growth during the last year, 11,408,673 passengers having been carried, which is 400,000 more than the year before.

CORNELLSVILLE, PA.—The Pittsburgh, McKeesport & Cornellsville railway is completed from Eighth Street, New Haven, to the Notter Road, the old line being abandoned. Engineers are working on the road between Mayer and Scottdale, and the roadbed has been prepared nearly to Pennsville. The line between Leisenring and Mount Pleasant is ready for operation. Two divisions have been created on the line between Mayer and Leisenring.

ERIE, PA.—The Conneaut & Erie Traction Company has just perfected its organization, but the company has not yet developed its plans for the construction of the proposed electric railway from Erie to Conneaut, Ohio. About 30 miles of line, all told, will be constructed. The officers of the company are: J. S. Van Cleve, president; Charles E. Shenk, vice-president; H. E. Fish, secretary; John R. McDonald, treasurer.

PITTSBURGH, PA.—The following companies have recently been incorporated by the same interests: Bellefield Street Railway Company, capital stock \$3,000, to build a one-half-mile electric railway in Bellefield; Beatty Street & Highland Park Street Railway Company, capital stock \$7,500, to build 1½ miles of line in Pittsburgh; Stanton Avenue Street Railway Company, capital stock \$3,000, to build one-half-mile line in Pittsburgh; Bellefield & Oakland Street Railway Company, capital stock \$9,000, to build 1½-mile line in Pittsburgh; Elwood City Street Railway Company, capital stock \$9,000, to build 1½ miles of line through Elwood City; Sheridan Avenue Street Railway Company, capital stock \$6,000, to build 1 mile of line in Pittsburgh; Atlantic & Neville Street Railway Company, capital \$6,000, to build a one-quarter-mile line in Pittsburgh; Matila & Dauphin Street Railway Company, capital stock \$12,000, to build 1¾ miles of line in Pittsburgh; Kentucky Avenue & Howe Street Railway Company, capital stock \$12,000, to build 2 miles of line in Howe; New Castle & Moravia Street Railway Company, capital stock \$30,000, to build 5 miles of line from New Castle; East End & Wilkinsburg Street Railway Company, capital stock \$12,000, to build 2 miles of line in Pittsburgh. Thomas S. Bigelow, Thomas J. Crump, John Jenkins, F. L. Roberts, John B. Barr and H. W. Mitchell are interested in the several companies.

RUTHERFORDTON, S. C.—It is reported that plans are being matured for the construction of an electric railway from Rutherfordton to Asheville and Chimney Rock, making connections with the Seaboard Air Line. It is estimated that the total cost of constructing the line will be \$400,000. Decatur Morrow, of Rutherfordton, is reported to be interested in the project.

NORFOLK, VA.—Work is being pushed forward rapidly on the track construction of the Bay Shore Terminal Company, of which H. H. Page, of Norfolk, is president. The line is now practically completed from Norfolk to Ocean View, a distance of 7 miles. The track is laid with 7-lb. T-rail, and a brick power house and car house have been built. Rights have also been received from the City Council of Norfolk for some 15 miles of rights in that city, covering, practically, every unoccupied street. The road is owned locally.

NEWPORT NEWS, VA.—The Hampton Roads Railway & Electric Company is making material progress on its power plant and its roadway between Newport News and Hampton. The contractor has been at work on the power plant and the other parts of the system for three months. About 4 miles of track have been laid. The poles have been set, and the wires are being strung. The contractor has also started work inside the city. Hampton and Marshall Avenues, where the road will run, are being graded.

WHEELING, W. VA.—The City Railway Company has made application to the Council for a franchise for the construction of an electric railway over a specified route. F. J. Park is president of the company.

WEST SUPERIOR, WIS.—The franchises of the Duluth-Superior Traction Company have been extended twelve years. The company's franchise is at present good for twelve years, but an extension was desired because of the many improvements being made by the company.

JANESVILLE, WIS.—P. Spooner, of Madison, has made application for a fifty-year franchise for the construction of an electric railway in Janesville. The franchise is desired for the proposed interurban railway between Madison and Janesville.