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EDITORIAL NOTICE

Street railway news, and all information regarding changes of officers, new equipments, extensions, financial changes and new enterprises will be greatly appreciated for use in these columns.

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

Address all communications to  
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Contents of this Issue

Dead Dogs and Cats..... 79  
When to Interfere ..... 79  
A Stop to "Shyster" Damages..... 79  
The Clash of Arms in Chicago..... 80  
The Position of the Chicago Traction Companies..... 80  
The New York Central Tunnel..... 80  
The Question of Electric Heating..... 81  
The Opening of the Manhattan Elevated Railway..... 82  
Rockford, Ill., as an Interurban Railway Center..... 82  
Opening of the Hartford & Springfield Street Railway..... 83  
Report of the Railroad Commissioners of New York..... 84  
The Everett-Moore Situation..... 86  
Plans for the Electrical Equipment of the New York Central..... 87  
Extensions During 1902..... 88  
Single-Truck Cars for Oil City, Pa..... 91  
Street Railway Patents..... 91  
Engineering Societies ..... 92  
Personal Mention ..... 92  
Financial Intelligence ..... 93  
News of the Week ..... 96

Dead Dogs and Cats

A recent requirement by some local authorities out in Ohio is that the street railway company must itself remove from the streets all the bodies of cats and dogs that are killed by its cars. Ordinances and regulations of this character have an air of reasonableness, but one can only infer that the place must be infested with the animals, and that the slaughter is on a wholesale scale. Regarded in that light, the street cars must be doing great service to the community in clearing off the mongrels, and ought not to be at once executioners and scavengers. Our general impression is that removing the dead dogs and cats which dispute the right of way with a swift trolley car is a work of supererogation, and we are reminded of the barber's bill sent in for shaving the corpse of the aqueduct workman dynamited to smithereens. On mature consideration, we are rather inclined to think that this queer ordinance is another addition to the burdens imposed on street car companies, as it gives an apparent chance for somebody to amuse himself by killing off the animals in this fashion and then collecting the fines because the conductor did not stop to gather up the debris of an unnoticed victim.

When to Interfere

To assist in rectifying an injustice is a common and natural instinct of the average man. It is sometimes said that Americans are rather inclined to stand by and look on, but while this may be true of individuals, our recent course in Cuba would scarcely go to substantiate it. As to individuals, also, the American tendency to endure a wrong over-patiently against oneself or neighbor would seem to be made too much of, judging by recent occurrences in New York City. In one case, a fire chief, rushing in plain clothes in his automobile to a fire, knocked down a passerby who was too slow in getting out of the way. A Mayor from out of town wanted him arrested, and to his intense surprise soon found himself under arrest. "Be sure you're right, then go ahead" had a pungent pertinency in that case, as in the next. Last week Captain Chapman and an aid in plain clothes caught a drunken policeman off his beat one evening, and to get him to the station house loaded him on to the rear platform of a street car. We don't quite see why a patrol wagon would not have done; but, anyhow, it was not called. On the car the policeman became restive and violent, and some of the passengers, seeing him at fisticuffs with two "onery" citizens, at once took his part. To say there was a big fuss and muss would be putting it mildly. When at last it was all over and the policeman was subdued, and explanations had been made, and the women had ceased to hystericise, the passengers who had interfered were profuse in their embarrassment and apologies. "Some of them said they would never interfere again in such a manner." Probably not. And really, on the whole, it is better to leave these little matters to the conductor, or to report him if he fails in doing his duty.

A Stop to "Shyster" Damages

That genus of legal light known to the profession as "shyster" finds no strong boxes so easy of attacking as those of street railway companies. The popular antipathy to admitting the justice of a corporation's legal rights exhibited by the ordinary jurymen has opened a most profitable field for numerous second-rate and none too scrupulous lawyers, who make a good living from their share, generally no small portion, of the booty forced by the aid of a too lenient jury from the railway company. The Metropolitan Street Railway Company of New York City has recently taken such a decided stand against this class of "ambulance runners" that the latter have been forced to adopt more nefarious efforts than usual to win their lawsuits, and a decision was given in New York last week which shows the class of men the Metropolitan's attorneys are fighting. Allegations were made by the counsel for the plaintiff in a suit for damages some weeks ago that certain agents of the railway company had tampered with the plaintiff's witnesses. It was specifically charged that one Milton A. Stern had been

offered \$250 to leave the city during the trial, and that Joseph P. Colinane was offered a bonus of \$25 a day to testify for the railway. Both these assertions were indignantly denied by the counsel for the company, who requested Justice Gildersleeve, of the Supreme Court, to make a thorough investigation of the charges. Arthur C. Palmer was appointed referee, and after a careful examination of the testimony of several witnesses, including Stern and Colinane, Justice Gildersleeve decided that the charges of attempted bribery or interference with the witnesses of the plaintiff were false. The complete vindication of the company will probably act as a decided check to further assertions of this character and will undoubtedly be of great benefit in securing reasonable verdicts. Another interesting feature of this damage suit was that the plaintiff, a woman, refused to settle out of court before the case came to trial and for a lump sum in cash which was just \$600 more than the damages finally awarded by the jury. This is a useful object lesson to those who contemplate suing a railway if their cases are justifiable.

### The Clash of Arms in Chicago

The developments in Chicago the past two weeks in regard to the matter of street railway franchise ordinances have not cleared the sky to any extent. In fact, it is doubtful whether anyone has now as clear an idea of the issues as before the franchise committee of the Council held its series of public hearings, where the representatives of various civic and labor organizations were heard from on the franchise question. Indeed, the public hearings would seem to have utterly disproved the theory that "in a multitude of counselors there is wisdom." From the demands of labor organizations for the right of street railway employees to organize and 3-cent fares, together with a threat to tar and feather any alderman who did not vote to settle the question according to the labor organizations' ideas, to the demands of a representative of a school teachers' organization, requesting the collection of back taxes from the street railway companies to help Chicago public schools out of a prospective deficit, the public hearings were a clearing house for confused ideas, and resulted only in a worse jumble than ever. Mayor Harrison, who was elected on a platform pledged to oppose street railway interests, has sent a long message to the Council, in which he practically agrees with the report of the local transportation committee, which appeared in our issue of Dec. 28, 1901. However, he does not lay down any very definite course of procedure, and he emphatically opposes any move toward the settlement of the question of franchise extensions until the State Legislature shall have passed a law enabling the city of Chicago to purchase and operate its street railway systems. This looks as if proceedings would be blocked for a while, as the present Illinois Legislature is not of the political color that will readily play into Mayor Harrison's hands. The street railway companies were to have been allowed a public hearing before the franchise committee of the Council, but as matters developed it appeared that any such public hearing would be a useless formality, and in the opinion of street railway officials would accomplish no useful end for the companies, as whatever might be said there would inevitably be a subject of much misinterpretation and criticism with public feeling in its present state in Chicago. The street railway companies' public hearing was, therefore, called off, and quiet reigns again.

### The Position of the Chicago Traction Companies

The agitation which is going on over the franchises of the Chicago traction companies, and which is referred to above, has occupied considerable space in these columns during the past year, and, in its various aspects, has also apparently been taking the greater part of the time and attention of the Mayor, Aldermen and various civic bodies. Through the agency of the Civic Federation of Chicago, the exhaustive article on the finances of the several railway companies of Chicago, by Milo Roy

Maltbie, which was first published in "Municipal Affairs," has been reprinted; and while the article at the time did not make any recommendations as to the settlement of the franchise question, and while the committee of the Civic Federation also expressly refrains from formulating any policy for the treatment of the several companies, from the attitude of the Federation it may be assumed that the article is republished in the interest of those who believe in municipal ownership. In the meantime an interesting contribution delivered on the subject has just been published in the Chicago *Economist*, written by a well-known lawyer, in which the fact is pointed out that while the Mayor and other civic bodies seem to go on the assumption that all of the franchises expire in 1903, this is very far from the case. The writer states that the Union Traction Company is the owner of 154 franchises, 22 of which, according to the theory promulgated, expire in 1903, 102 between 1904 and 1916, 25 in 1958, while 7 are perpetual. These franchises make up the system of the company, and all provide for 5-cent fares. Those which expire in 1903 are scattered over the West Side, and are mainly for parts of streets. They are detached from each other, and only six of them enter the business district from the West Side, and this only for a few blocks. If the company had to abandon these franchises in 1903 it would simply mean that the public would have to walk short distances, varying from a few blocks to 2 miles, to enter another car of the Union Traction Company, and pay another fare, and as the franchises are so detached no other company could operate these short sections to advantage. After 1906 the city will control slightly more track; but even after 1912 it is hardly possible to imagine an opposition company operating successfully the short distances of track which, under the theory of the city, the ownership of which will lapse to them. To quote from the article in question: "This state of affairs makes municipal ownership simply impossible, because the city, even if it could condemn the unexpired franchises, must pay all the profits that could be earned under them. This would be quite a large contract for Chicago to undertake even if not financially embarrassed. The importance and value of the 99-year act to the Union Traction Company can thus be seen at a glance. It is the great barrier which will prevent the confiscation of its property. The 99-year act is much more valuable now than in 1883, because now it has 102 additional franchises back of it which it did not have in 1883."

### The New York Central Tunnel

When it is stated, as it is said to have been by one of the New York Central officials—quoted by several newspapers—that "five hundred thousand dollars was waiting for a man who would give the road a satisfactory electrical system which would move heavy trains between Mott Haven and the Grand Central Station," we can only do our duty in resenting the implied reflection upon modern electrical methods and apparatus, while expressing our pleasure in believing that the highest authorities of the road have already satisfied themselves that electricity is quite adequate to the work. If there were such an easy half million lying around loose, we think it would not trouble us very much to pick out one or two men and one or two companies quite able and willing to pocket it. But we have occasion to know, and it has long ceased to be a secret, that that sum when paid out will go as part of the ordinary profit on apparatus purchased, and that the management of the road has already begun to summon to its aid some of the best electrical engineering talent in the country. Whenever its plans are announced, they will be likely to have the weighty indorsement of the best ability to be found in the electrical profession.

The change to electricity for motive power in the dismal Park Avenue tunnel could, indeed, have been made long since; but those of us who have lived in the very thick of the great development in electric traction of the past ten years are sometimes pulled up with an "emergency" jerk, when we ascertain suddenly that other people interested also in transportation have not yet familiarized themselves with facts and truths that we have come, from sheer

repetition, to accept as in themselves self-evident. We have got in the habit of reasoning from small trolley systems to large ones; from surface lines to underground and overhead ones; from urban traffic to rural; and from the Baltimore & Ohio tunnel and the London or Paris tubes to the New York Central's cavernous entrance into the metropolis of the West. The general and rising success of all this work justifies optimism in those who watch it daily, to whom each new advance brings a sense of personal triumph; but we fancy it is not hard to understand the feelings and views of those who have, on the other hand, assisted in the grand growth of steam locomotion and are slow to convince that anything can well take the place of a machine which, with its unlimited benefits to mankind, is one of the greatest features of modern civilization.

Still, when all is said and done, electric traction is here, and it lies with us once more to insist that in fit hands and under proper guidance it will be fully equal to the New York Central work. It is not to be denied that the conditions are exacting, far beyond what any of the flippant critics of the engineers imagine, and that the new motive power cannot be introduced in a day. But conceding all this, after such a terrible exhibition as occurred last week of what always impends with a tunnel filled by thick steam and smoke, and always most disagreeable to every passenger, it is evident that the change must be pushed forthwith. Costly as it may be, there will be profit in it in more ways than one, as well as the quieting of a public outcry that is not now to be silenced in any other way. The third rail and hauling locomotives appear to be feasible methods of operation, but should others be required they are well within the resources of the electrical arts.

\* \* \* \*

Just as we are going to press the announcement that the New York Central Railroad Company has determined on the construction of a loop terminal under the present station is made, and the company states that when legislative authority shall be secured for carrying out this proposed improvement, construction will be immediately commenced. The full statement issued by the New York Central Railroad directors on January 15 is published elsewhere, and means that a separation will be made between the local traffic, which will be hauled by electricity through the side tunnels to the underground station, and the through traffic, which will use steam and run through the central or main tunnel to the existing station. In other words, the plan adopted is very similar to that which has been carried out in the south terminal station in Boston, where an underground loop has been left for the accommodation of electric trains when the local lines shall be equipped with that motive power. Legislative sanction must first be secured for this proposed change, but this, it is needless to say, can easily be secured, so great will the improvement be over existing conditions.

### The Question of Electric Heating

We had occasion in a recent issue of this paper to refer to the scarcity of power which seems to be the prevalent condition on most of the electric railways of this country. The increase in traffic which has been enjoyed by most roads during the last summer and fall brought the load last October and November pretty well up to the previous maximum, and the additional current required for electric heaters during the present winter has thrown an additional tax on the power stations of the country. It is a perfectly conservative statement to say that probably three-fourths of the power stations operating cars with electric heaters in the United States are running at a considerable overload during the rush hours and when the heaters are in use.

This fact makes the subject of the control of electric heaters an important one at the present time, for although the winter has so far been very mild it would be unreasonable to expect this to continue through the season. It is a somewhat curious fact that while electric railway power stations are groaning at the additional amount of current required for heating, and railway managers are considering the most feasible way of supplementing the

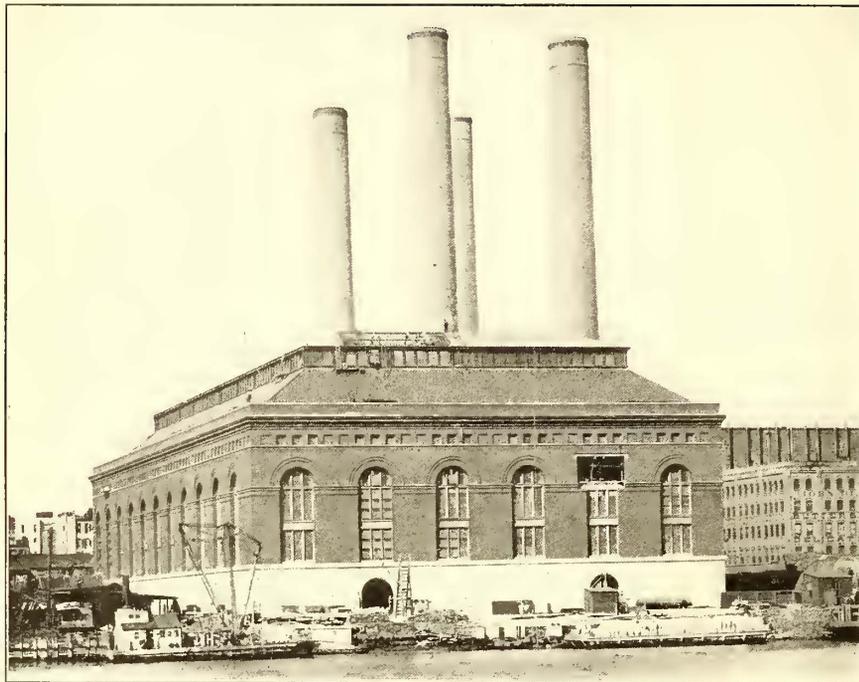
requirements for power on their lines in the way of current, the newspaper humorist is ringing the changes on the "broilers" which are put in the cars, and many passengers are objecting to the overheat to which they are subjected. It is safe to say that during the winter months the popular complaint in regard to the temperature of the cars on most roads is that it is too high, and not too low. We do not by any means think that this signifies that cars, certainly in our Northern latitudes, should be run without heaters. The average American passenger in most Northern cities demands a heated car, and the electric heater is certainly the most convenient form by which the car can be warmed; but that the average car is overheated rather than underheated admits, we think, of hardly any question. The power thus wasted would make a large difference not only in the cost of operating the power station, but often in the number of generating units required to supply the necessary current. In other words, judicious regulation of the heaters and their application only when their use is absolutely required would reduce the amount of coal which now, in another form, is only carried over the feeders to escape out of the car ventilators.

It is an undeniable fact that a careful conductor, by the exercise of discretion, can economize the amount of current used in the heaters, and thus figuratively shovel coal into the bunkers. The shutting of ventilators in cold weather, the closing of the rear door promptly when a passenger has made his exit or entrance into the car, the reduction of the heat when the temperature outside moderates or when the car is so full that the heat radiated from the passengers does not require to be supplemented to the same extent as it would be in a partially empty car, are all factors in the end to be sought. But these desiderata cannot always be obtained. It is far easier for the average employee not to take the trouble to do these things, and the conductor, who necessarily has to spend a good part of his time on the rear platform, finds a warm car so comfortable when he steps inside to collect a fare that he does not realize that it is uncomfortably hot for those who are occupying the seats. Many companies realize this, and do not leave the control of the heaters to the judgment of the conductors. The heater switches are under the entire control of the road inspectors, who can temper the temperature not only to the needs of the passengers, but also to those of the power station, and by cutting down the heat at the proper time, relieve the latter of a considerable portion of its load at a time when such action would prove very convenient.

But there are other considerations in the heating of a car besides that of the regulation of the heat. The first is that the heat should be well diffused throughout the car. With electric heating the location of the heaters is, by the construction of the car, practically confined to the riser, which is, on the whole, perhaps as desirable as any place that could be selected. In placing the heaters here, however, two points should be borne in mind; one is that it is a mistake then to install too few heaters, because not only is the car not equally heated, but the greatest advantage is not taken of the amount of heat produced. The theoretically best plan would be to have a continuous heater extending from one end to the other of each riser. This would give an equal amount of heat to all parts of the car, and while there might be objections to this arrangement for other reasons, so far as the heating of the car is concerned, the plan is more desirable than individual heaters. In the adoption of individual heaters, therefore, the aim should be to use as many heaters as possible, thus reducing the amount of heat per heater to secure the same temperature. Still another point is that as the heat passes into the car, both by radiation and through a flow of hot air, there should be as few obstructions as possible between the source of heat and the interior of the car. It is, of course, impossible to prevent female passengers from sitting directly over the heater, but if a carpet covering is used for the seat, it can, at least, be cut short so that it will not hang over the heater, obstructing the flow of heat and furnishing a pocket for the collection of all sorts of débris.

## The Opening of the Manhattan Elevated Railway

The first official trial trip of the new equipment of the Manhattan Elevated Railway was run Jan. 9, when an electric train composed of six new cars was operated over the entire length of the Second Avenue division of the Manhattan Elevated Railroad. The train left South Ferry at a few minutes after two, and after



PRESENT APPEARANCE OF POWER STATION

stopping at several stations on the way, it was given the right of the road to the end of the line, after which a return was made to the station at Seventy-Sixth Street. Among those present were Howard and Edwin Gould, Alfred Skitt, John B. McDonald, W. E. Baker, George Pegram, L. B. Stillwell, H. H. Vreeland, M. G. Starrett, Oren Root, Jr., W. Boardman Read, W. A. Pearson, J. C. Brackenridge, John Lundie, C. A. Coffin, W. B. Potter, John D. Rockefeller, Jr., Samuel Sloan, A. M. Waitt, of the New York Central Railroad; F. H. Taylor, Calvert Townley and T. E. Siemon.

As this was the first opportunity which has been given to inspect the cars to be used, they naturally attracted a great deal of interest. The interior seating arrangement is similar to that of the present cars, with which they correspond in size, being 47 ft. 1 in. over all, and 8 ft. 9½ ins. in width. An especially ingenious arrangement is that for the motorman's cab, which is located at the forward, right-hand end of the car, in a space 2 ft. 7 7-16 ins. x 3 ft. 4 ins. When occupied by the motorman, the door of the compartment is closed and a seat with a back is provided for him. When the motor car is not the first car of the train, the door of the compartment can be thrown back and locked, enclosing thereby the master controller so that it cannot be interfered with, and the motorman's seat, which is facing the direction of motion of the car, can be dropped down, furnishing two extra seats. In other words, no platform or seating room in the entire train is taken up by the accommodations for the motorman with the exception of the forward motor car, in which the space of only two seats is thus occupied.

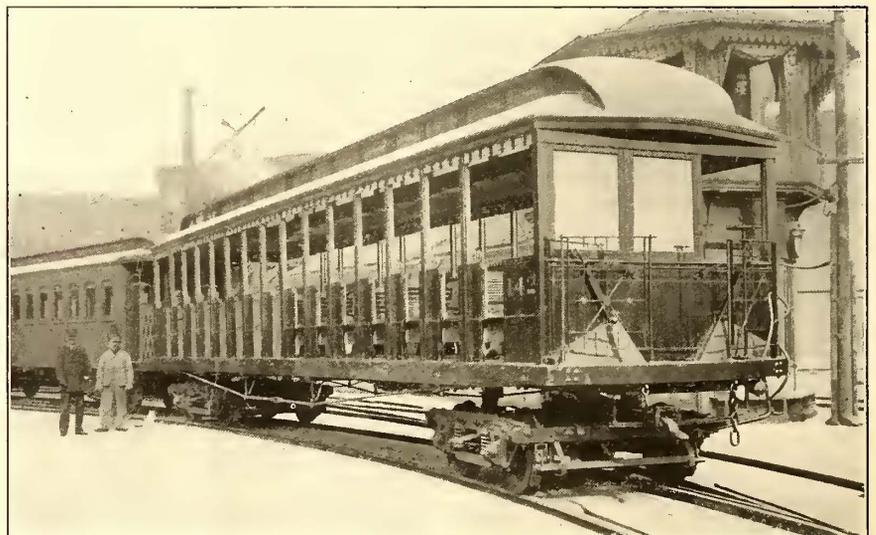
A stop was made on the trial trip at the northern terminus of the line, and the guests were invited to inspect a sample of the open cars which the company will run in summer. A view of one of these cars is given herewith; its main dimensions are, length over all, 47 ft. 1 in., width, 8 ft. 9½ ins. The car is capable of seating ninety-six passengers. The entrance is at the sides and through gates which are closed by the guard on leaving a station and opened when the next station is reached. The car attracted wide attention as a novelty in electric railway service. The open cars will be used only as trail cars.

On the return trip the greater part of the guests left the train at Seventy-Sixth Street and boarded a number of electric automobile omnibuses, which had been furnished by General Manager Saunderson, of the Electrical Vehicle Company, and were transported to the power station at Seventy-Fourth Street. Some views of this station were published in our last issue. One of the immense generators had been completed, and was supplying power for the service of the electric train, while two others were in process of erection.

It is understood that electric trains will be put in operation on the Second Avenue line, which is the first to be run with electricity, as rapidly as the cars are received from the manufacturers, and it can be only a short space of time before the entire line will be in operation. The company has already commenced running one electric train on the line, between 10 a. m. and 4 p. m., sandwiched between the steam trains, and the third rail is marked with the red signs to indicate that it is alive.

## Rockford, Ill., as an Interurban Railway Center

Roads are now building, or are under survey, which, when completed, will probably make Rockford the most important interurban electric railway center in Northern Illinois, always excepting, of course, Chicago. This due primarily to Rockford's location at a convenient distance from other towns of sufficient size to justify the building of roads to them. The Rockford Railway, Light & Power Company, of which T. M. Ellis is manager, owns all the city lines in Rockford, which has a population, according to the last census, of 31,051. Mr. Ellis is also manager of the Rockford & Belvidere Electric Railway Company, which is controlled by the same parties, and which has operated an interurban line from Rockford east to Belvidere for about two months. This line is fifteen miles long, and connects Cherry Valley and Belvidere with Rockford, giving an hourly service each way. The running time is fifty minutes. The total population served by this line is probably about 45,000. A line is also to be built from Rockford west to Freeport, by the same interests, and this is also under Mr. Ellis' management. The distance to Freeport is twenty-eight miles, and it is intended to



STANDARD OPEN CAR, MANHATTAN ELEVATED RAILWAY

give a high-speed service, covering the distance with express cars, making no intermediate stops, in one hour. A private right of way will be purchased, as was done on the Belvidere line, and 70-lb. rails will be laid. High-voltage, alternating-current transmission and distribution from sub-stations will probably be used.

The Rockford, Beloit & Zanesville Railroad is coming into Rockford from the North, connecting the towns indicated in its title. G. W. Knox, of Chicago, is engineer of this road, as well as consulting engineer of the Rockford Railway, Light & Power Company. Construction is being pushed rapidly. Entrance to Rock-

ford has been arranged for over the Rockford Railway, Light & Power Company's tracks. An old project to connect Rockford with Dixon by a line southwest along the Rock River has been revived, and is being put through. In regard to traffic agreements between the interurban companies and the local company at Rockford, Mr. Ellis jocosely remarked: "We had no difficulty making a satisfactory agreement with ourselves when we came into town with the Rockford & Belvidere Electric Railway Company's line, and I don't think there will be any trouble with any other company that may want to come in." The Rockford, Beloit & Zanesville Railroad has already made an agreement, and the others will in due time. The agreement made is that the city company furnish the power and tracks and terminal facilities, and charge the interurban company three cents per passenger. A five-cent cash fare is charged in the city limits, on the interurban cars, and is rung up separately from the interurban fares. The interurban fares are collected after passing the city limits going out, and before coming to the city on the way in. The interurban company assumes liability for all accidents that its cars may cause when in the city.

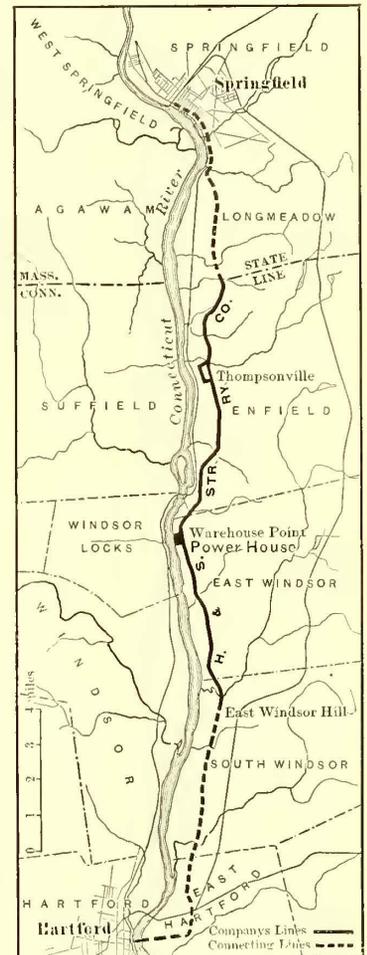
Freight business has not been developed extensively on the Rockford-Belvidere line, because of the lack of terminal facilities. A freight and express depot for the use of all the interurban lines will be built the coming year, adjoining the company's present passenger waiting room and transfer depot, near the center of Rockford. Here cars can be run in for loading and unloading, and a large

pany has done much in improving the roadbed of the old lines over which it will operate cars, so that from terminal to terminal the line will be modern in every respect. At the Scantic River there has been erected a temporary wooden bridge, which will be replaced in the near future by one of steel construction, but in all other respects the road has been built in the most substantial manner. There are many stone culverts over small streams, and where distances can be shortened or grades decreased in steepness the track is laid on the company's own right of way.

Owing to the opposition on the part of adjacent property owners, permission to build a railway bridge over the tracks of the New York, New Haven & Hartford Railroad has not yet been obtained. As the laws of Connecticut forbid grade crossings of steam roads and street railways, this gives rise to considerable inconvenience, as all through passengers must change cars a short distance out of Hartford, walking across the tracks of the steam railroad company. As soon, however,



STANDARD TRAIN OF CLOSED CARS, MANHATTAN ELEVATED RAILWAY



MAP OF THE ROAD OF THE HARTFORD & SPRINGFIELD STREET RAILWAY CO.

freight business handled. As Rockford and surrounding towns are important manufacturing centers, a large freight business is anticipated, and a number of freight cars are to be built soon in the Rockford Railway, Light & Power Company's shops.

### Opening of the Hartford & Springfield Street Railway Company

The electric railway connecting Hartford, Conn., with Springfield, Mass., was formally opened on Monday, Jan. 13. A large number of New York, Connecticut and Massachusetts capitalists and engineers took part in the celebration. The opening consisted in the running of three of the new cars over the road, with the party on board, and a lunch served in the new car house near Windsor Locks. The distance between the cities of Hartford and Springfield is about 26 miles, but the new road is only 13½ miles in length, bridging the distance between the outlying tracks of the local street railway companies.

In every manner have the promoters and engineers of the road attempted to make their permanent way and rolling stock conform to the most up-to-date requirements and design, and that they have most surely succeeded in accomplishing their object was shown by the many expressions of commendation made by the guests on the opening ride. The Railroad Commissioners were the guests of honor, and during the day they made their formal inspection of the road. Besides the new connecting link, the com-

as such opposition is removed a through service without change of cars will be installed from City Hall to City Hall.

On the opening trip last Monday were many men well known in New England railway circles. After the lunch in the car house several of these were called upon to speak by ex-Congressman Louis Sperry, who acted as toastmaster. President Philip L. Saltonstall, of the Hartford & Springfield Street Railway Company pointed out, in a few well-chosen remarks, the financial future of a road built through one of the most beautiful sections of the country, and promised the faithful endeavor of the management to in every way co-operate with the patrons in producing an efficient service. President E. S. Goodrich, who has been in the street railway business for nearly thirty years, ably showed the advantages of such connecting links as that established by the new line, and gave some reminiscences of his experience in the old horse-car days. State Railroad Commissioner Wilcox spoke of the pleasure he and his colleagues had had in inspecting the road and wished it a successful future. Some seventy-five guests accepted the invitation of the railway company, among whom were the following: Railroad Commissioners Wilcox, Seymour and Fyler; Philip L. Saltonstall, of Boston, president; Chauncey L. Eldridge, of Boston, treasurer, and Judge Arthur Perkins, secretary of the company; S. Reed Anthony, of Boston; Lyman W. Upson, of Thompsonville; Lewis Sperry, of East Windsor Hill, and Francis R. Cooley, directors of the company; President E. S. Goodrich, Treasurer Daniel R. Howe and General Manager Norman McD. Crawford, of the Hartford Street Railway Company; Vice-President Frederick Harris and Superintendent George Cook, of the Springfield Street Railway Company; General Man-

ager Henry Pearson, of the Wason Manufacturing Company of Brightwood; Mayor Alexander Harbison, of Hartford; ex-Comptroller Thompson S. Grant, of Thompsonville; Comptroller A. Chamberlain, of Meriden; Representative Abbe, of Enfield; Selectmen Alden, Pilkington and Thorne, of Enfield; Martin J. Reardon, of South Windsor; Dairy Commissioner John B. Noble, of East Windsor; Secretary of State Charles G. R. Vinal, of Middletown; Judge Charles Phelps, of Rockville, Attorney-General; Fish and Game Commissioner George T. Mathewson, of Enfield; Attorney J. Warren Johnson, of Enfield Street; John S. Crilly, adjuster of claims for, and Frank Caum, superintendent and chief engineer of, the Hartford Street Railway Company; W. C. Andrews, STREET RAILWAY JOURNAL.

**Report of the Railroad Commissioners of New York State**

The annual report of the State Board of Railroad Commissioners of New York State, just presented, contains the following statements in regard to surface railways:

Following is a comparative statement, giving details and totals, from these reports for the year ending June 30, 1900, and June 30, 1901:

STREET SURFACE RAILWAY (PRINCIPAL COMPANIES) RECEIPTS AND EXPENDITURES PER PASSENGER AND COST OF OPERATION PER CAR MILE FOR YEAR ENDING JUNE 30, 1901.

OPERATED WHOLLY OR IN PART BY MECHANICAL TRACTION.

| NAME OF ROAD  | Number of Passengers Carried, Including Transfers | Total Car Mileage | BASED UPON GROSS EARNINGS FROM OPERATION AND OPERATING EXPENSES |   | BASED UPON RECEIPTS FROM ALL SOURCES AND TOTAL EXPENDITURES, INCLUDING FIXED CHARGES |                                | Cost of Operation per Car Mile | Total Expenses per Car Mile, Including Fixed Charges |
|---|---|-------------------|---|---|--|--------------------------------|--------------------------------|--|
|   |   |                   | Average Earnings per Passenger                                  | Average Cost of Operation per Passenger | Average Receipts per Passenger   | Average Expenses per Passenger |                                |  |
| Auburn  | 2,082,619   | 508,032           | Cents 3.95  | Cents 2.81                              | Cents 4.06   | Cents 4.02                     | Cents 11.53                    | Cents 16.49  |
| Brooklyn Heights*   | 296,534,777                                       | 50,338,374        | 3.96  | 2.40                                    | 1.06   | 3.96                           | 14.16                          | 23.36  |
| Buffalo & Lockport  | 1,050,808   | 934,693           | 13.80   | 9.36                                    | 13.86  | 14.62                          | 10.52                          | 16.43  |
| Buffalo Railway   | 52,055,856  | 7,491,401         | 3.46  | 1.56                                    | 3.53   | 2.72                           | 10.88                          | 18.92  |
| Buffalo & Niagara Falls                                   | 1,740,972   | 1,102,957         | 10.85   | 5.29                                    | 10.95  | 8.39                           | 8.35                           | 13.24  |
| Coney Island & Brooklyn                                   | 35,489,353  | 6,210,743         | 4.10  | 2.36                                    | 4.14   | 3.13                           | 13.52                          | 17.87  |
| Crosstown Street (Buffalo)                                | 17,470,297  | 3,020,171         | 3.14  | 1.90                                    | 3.16   | 3.05                           | 11.03                          | 17.66  |
| Geneva, Waterloo, Seneca Falls & Cayuga Lake              | 1,298,458   | 418,475           | 4.89  | 2.90                                    | 4.92   | 5.16                           | 9.00                           | 16.02  |
| Glens Falls, Sandy Hill & Fort Edward                     | 1,094,141   | 476,090           | 5.26  | 3.08                                    | 5.31   | 4.10                           | 10.99                          | 14.61  |
| Forty-second Street, Manhattanville & St. Nicholas Avenue | 18,113,049  | 3,014,959         | 3.85  | 2.60                                    | 3.89   | 3.31                           | 15.51                          | 19.72  |
| Jamestown   | 2,944,944   | 617,335           | 3.64  | 2.22                                    | 3.69   | 3.20                           | 10.81                          | 15.55  |
| Kingston  | 1,457,314   | 270,000           | 4.81  | 3.12                                    | 4.81   | 3.90                           | 16.97                          | 21.05  |
| Metropolitan Street (New York)†                           | 420,810,316                                       | 43,659,439        | 3.34  | 1.60                                    | 3.49   | 2.68                           | 15.47                          | 25.85  |
| Newburgh  | 1,723,386   | 424,747           | 5.62  | 3.17                                    | 5.71   | 5.28                           | 12.85                          | 21.44  |
| Niagara Falls & Suspension Bridge                         | 1,973,857   | 412,331           | 4.32  | 2.62                                    | 4.37   | 4.57                           | 12.52                          | 21.81  |
| New York & Queens County                                  | 11,587,979  | 2,484,639         | 4.22  | 2.28                                    | 4.27   | 3.79                           | 10.68                          | 17.67  |
| Rochester   | 26,137,689  | 5,331,239         | 3.75  | 2.31                                    | 3.83   | 3.48                           | 11.96                          | 17.07  |
| Syracuse & Suburban                                       | 1,250,931   | 359,731           | 4.86  | 2.80                                    | 4.87   | 4.83                           | 9.74                           | 16.80  |
| Syracuse Rapid Transit                                    | 15,433,650  | 3,409,411         | 3.98  | 2.21                                    | 4.02   | 3.66                           | 10.00                          | 16.56  |
| Third Avenue (New York)                                   | 52,465,285  | 6,985,425         | 4.21  | 2.09                                    | 5.06   | 5.45                           | 15.68                          | 40.92  |
| Union (New York)  | 34,436,418  | 5,355,887         | 2.66  | 1.65                                    | 2.67   | 2.67                           | 10.59                          | 13.20  |
| United Traction (Albany & Troy)                           | 27,732,556  | 7,135,271         | 4.80  | 3.27                                    | 4.83   | 4.16                           | 12.72                          | 16.17  |
| Utca Belt Line  | 6,578,389   | 1,426,969         | 4.23  | 2.77                                    | 4.27   | 3.65                           | 12.07                          | 16.84  |
| Yonkers   | 5,628,489   | 1,176,399         | 3.34  | 2.65                                    | 3.36   | 3.73                           | 12.72                          | 17.86  |

OPERATED WHOLLY BY ANIMAL POWER.

|                                   |            |           |      |      |      |      |       |       |
|-----------------------------------|------------|-----------|------|------|------|------|-------|-------|
| Central Crosstown (New York)      | 18,352,406 | 1,605,676 | 2.59 | 1.83 | 2.63 | 2.41 | 20.95 | 27.54 |
| Dry Dock, East Broadway & Battery | 15,814,942 | 2,025,148 | 3.68 | 2.53 | 3.72 | 3.35 | 19.75 | 26.18 |

\* Includes all lines controlled by Brooklyn Heights not making separate reports.

† Includes all lines controlled by Metropolitan not making separate reports.

Included in the preceding figures are the statistics of the Brooklyn Union Elevated Railroad, which are included in the report of the Brooklyn Heights Railroad Company.

The percentage of dividends to capital stock of street surface railroad companies, for the year ending June 30, 1901, was 3.84; in 1900, it was 3.77. The total number of passengers carried in the State, including those carried on the elevated railroads in Brooklyn, and on horse railroads, including "transfers," during the year ending June 30, 1901, was 1,162,439,614, an increase over 1900 of 80,465,517. The number carried in the boroughs of the Bronx and Manhattan, New York City, including "transfers," was 594,790,910; an increase over 1900 of 27,646,811. The number carried in the Borough of Brooklyn (including some carried in the Borough of Queens), including "transfers" and including those carried by the elevated railroads was 347,155,911, an increase over 1900 of 23,925,272.

The inspection, by the board's expert, of street surface railroads has continued during the year, the reports of which will be found in this volume. Copies of these reports have been sent to the companies, with recommendations, and the companies have notified the board in almost every instance that the recommend-

ations would be complied with. These inspections have resulted in the installation of derailing devices at points where street and steam railroads cross at grade, and in many other improvements in roadbeds and cars. The board believes that the continuance of this system of inspection, rather than the investigation of so many accidents, is the better practice, although all accidents which seem to call for investigation will be investigated. The electrical expert of the board reports, generally, to the board as follows:

"Nearly all of the suburban roads of this State are single track. The gradual change which has been made in cars and equipment on this class of roads, and the higher speeds at which they are now operated, have largely increased the number of accidents. While this is especially true of the suburban roads, the accidents are not confined to this class of roads, a large number occurring on city roads.

"The physical conditions of the roads have been much improved in the past year. This has been done by replacing old rails with new, adding new ties, surfacing and ballasting track, replacing wooden structures with iron bridges, the placing of derail switches and guard-rails, the addition of improved brakes, sand boxes and oil tail lights. Many of the companies are now providing their employees with printed books of rules and printed time-tables showing the leaving time at the termini and the time at meeting

points. Several electric railroads are now equipped with block signal systems, and cars on three of them are now operated under a train-despatching system, as complete as is in use on most of the steam roads.

"A large portion of all the city roads is now constructed of 9-inch girder rail and 56-lb. to 80-lb. T-rail, which has replaced the 4-in. and 6-in. girder and the 35-lb. and 40-lb. T-rail formerly used. This improvement in construction is also true in cases of suburban roads.

"Notwithstanding what has been said in reference to the improvement of track, roadbed, cars, equipment and method of operation of the electric roads of the State, the large number of accidents occurring on them show that these improvements should be continued."

The board renews to railroad managers its general recommendations, changed in some respects, as to the operation of street surface railroads, especially in the following particulars:

First—Every street car which crosses a steam railroad at grade shall be equipped with a red flag for use during the day, and a red lantern for use at night. When approaching such crossings the car shall come to a full stop at least thirty feet from the crossing,

and shall not proceed until the conductor has gone upon the steam railroad, carrying the flag or lantern, and, after ascertaining that the way is clear, given the proper signal for the car to proceed. The board also recommends that at all grade crossings, on overhead trolley railways, a V-shaped trough of metal be constructed over the trolley wire or wires to insure the motor retaining the current while the crossing is being made.

Second—That where two or more street car lines cross, or where they merge, an agreement shall be made as to which line shall have the right of way. The car that has not the right of way shall come to a full stop before crossing the tracks of the other line, or entering on the joint track, and the car which has the right of way shall slow down before crossing the tracks of the other line, or entering on the joint track.

Third—That cars passing in opposite directions shall not meet on street crossings.

Fourth—That the speed of cars be reduced to the minimum on all curves where the view is obstructed.

Fifth—That passengers be prohibited from riding on the running boards or side steps of open cars.

frequent from Brooklyn, and in the last few years the board has made several recommendations of improvements in specific instances in that city. While cars in all parts of the State at many times are overcrowded, in most instances the public accepts the conditions in the belief that they cannot be remedied. It is likely, however, that in some cases, if more cars and power were available the conditions could be much improved. The board urges upon companies the most careful consideration of this matter. While the payment of interest is imperative, and of dividends desirable, the first duty of companies is to the public from which the franchises are derived.

Much of the mileage of street surface railways in the Borough of Manhattan, New York City, is still operated by horses. How long this condition will last the board does not know. Electrical storage battery cars are being operated on the Thirty-Fourth Street Crosstown Line, as they have been for some time, but their use has not been extended. The operation of compressed air cars by this company has been discontinued.

The cars of the Rome City Street Railway Company are operated by compressed air.

TABLE OF ACCIDENTS ON STREET SURFACE RAILROADS REPORTED TO THE BOARD OF RAILROAD COMMISSIONERS, CLASSIFIED AS TO CAUSES, FOR THE YEAR ENDING JUNE 30, 1901

| CAUSE OF ACCIDENT  | 1901       |         |           |         |        |         |        |         | 1900       |         |           |         |        |         |        |         |
|--|------------|---------|-----------|---------|--------|---------|--------|---------|------------|---------|-----------|---------|--------|---------|--------|---------|
|  | PASSENGERS |         | EMPLOYEES |         | OTHERS |         | TOTAL  |         | PASSENGERS |         | EMPLOYEES |         | OTHERS |         | TOTAL  |         |
|  | Killed     | Injured | Killed    | Injured | Killed | Injured | Killed | Injured | Killed     | Injured | Killed    | Injured | Killed | Injured | Killed | Injured |
| Fell from cars in motion.....  | 1          | 17      | 3         | 4       | 2      | --      | 6      | 21      | 1          | 22      | 1         | 4       | 1      | 5       | 3      | 41      |
| Getting on or off cars in motion.....                                    | 11         | 72      | 1         | 1       | 5      | 36      | 17     | 109     | 15         | 129     | --        | 2       | 5      | 54      | 20     | 185     |
| Putting heads or arms out of windows, or missiles thrown in windows..... | --         | --      | --        | --      | --     | --      | --     | --      | --         | 3       | --        | --      | --     | --      | --     | 3       |
| Walking or being on track.....   | --         | --      | 5         | 1       | 69     | 73      | 74     | 74      | --         | 1       | 1         | --      | 49     | 123     | 50     | 123     |
| Crossing tracks at street crossings.....                                 | --         | --      | --        | 1       | 21     | 90      | 21     | 91      | --         | --      | --        | --      | 30     | 175     | 30     | 175     |
| Deraillments.....  | --         | 58      | 1         | --      | --     | --      | 1      | 58      | --         | 21      | 1         | 3       | --     | 1       | 1      | 25      |
| Collisions.....  | 1          | 100     | 2         | 14      | --     | --      | 3      | 114     | --         | 100     | 4         | 16      | --     | 1       | 4      | 117     |
| Collisions at grade crossings of railroads.....                          | --         | 6       | --        | --      | --     | --      | 6      | 6       | --         | 5       | 7         | 3       | --     | --      | 5      | 10      |
| Other causes.....  | --         | 19      | 7         | 7       | 1      | 5       | 8      | 31      | 1          | 26      | 4         | 10      | 1      | 5       | 6      | 41      |
|  | 13         | 272     | 19        | 28      | 98     | 204     | 130    | 504     | 22         | 319     | 11        | 38      | 86     | 363     | 119    | 720     |
| From causes beyond their own control.....                                | 1          | 168     | 2         | 12      | --     | 1       | 3      | 181     | 6          | 137     | 4         | 12      | --     | 2       | 10     | 151     |
| By their own misconduct or inattention.....                              | 11         | 103     | 16        | 16      | 95     | 200     | 122    | 319     | 16         | 175     | 6         | 25      | 85     | 351     | 107    | 551     |
| Reported as caused by intoxication.....                                  | 1          | 1       | --        | --      | 3      | 3       | 4      | 4       | --         | 7       | --        | --      | 1      | 9       | 1      | 16      |
| Indeterminable as to want of caution or otherwise.....                   | --         | --      | 1         | --      | --     | --      | 1      | --      | --         | --      | 1         | 1       | --     | 1       | 1      | 2       |
|  | 13         | 272     | 19        | 28      | 98     | 204     | 130    | 504     | 22         | 319     | 11        | 38      | 86     | 363     | 119    | 720     |

Sixth—That passengers be not permitted to stand on the front platforms of open cars, and that only as many passengers be permitted on such platforms as can be conveniently seated. In the case of open cars that have no seats on the front platforms, passengers shall not be permitted to ride on the platform, and the side gates shall at all times be kept closed. Under no circumstances should passengers be permitted to ride on the front platforms of closed cars.

To some extent, electric railroads proposing to build outside of cities and villages intend to build on private right of way. It would show prudence and good business judgment if all such railroads contemplated construction on private right of way. In this connection the subject of crossings of highways by such railroads is pertinent. The State and municipalities are spending money in abolishing grade crossings of steam railroads, and it would seem that the logical policy would be to at least, in many cases, prevent the creation of new crossings at grade by electric railways. However, while the public allows, and apparently is anxious for the construction of such railroads along its highways, apparently fearing that they will not be built otherwise, it does not seem that public opinion would support an effort to require construction across highways other than at grade.

Some electric railways require power to be transmitted at a high voltage, rendering dangers from electricity much greater than those which accompany the ordinary city trolley line. Local authorities, in granting franchises, should insist that the supporting poles and transmission lines carrying these currents should be located upon and over private property, and that the construction should be adequate for the risks taken. It is not unlikely that the future will prove such lines, even where fairly well constructed, to be responsible for accidents, the possibilities of which are unappreciated until the happening. This matter is receiving the attention of the board in the inspections by its electrical expert.

Complaints as to the operation of street surface railways throughout the State are not frequent. They have been most

The construction of the tunnel railway in New York City, devised by the Rapid Transit Commission, is progressing. Its operation will have a beneficial effect upon the present difficult problem of rapid transit.

During the year ending Jun 30, 1901, the length of electric railway in the State increased by 117.837 miles.

During the year ending October 30, 1901, 34 new street railway companies were incorporated, with an aggregate length of proposed railway of 530¾ miles.

The average number of persons, including officials, employed during the year ending June 30, 1901, on all of the street surface railways of the State (including horse railways) was 27,914. The aggregate amount of salaries and wages paid them was \$16,434,083.30. The companies owned or operated, on June 30, 1901, 5190 electric box cars, 10 cable box cars, 3945 electric open cars, 8 cable open cars, 10 electric mail cars, 558 electric freight, express and service cars—the total being 9721. Twelve thousand four hundred and thirty-eight fenders were reported as used on these cars, some forms of fenders being transferred from one end of the car to the other terminals. Two thousand eight hundred and ten other cars, being cars operated by horses, and box, open, freight, express and service cars, not equipped with motors, are also owned and operated.

The number of tons of freight carried on the street surface railways of the State during the year ending June 30, 1901, was 287,311; during the year ending June 30, 1900, it was 153,343.

The annual reports for 1901 were made, and will be made in future in accordance with "a standard system of street railway accounting," as devised by the American Street Railway Accountants' Association.

During the year, the board granted certificates, under section 59 of the Railroad Law, that public convenience and a necessity required the construction of the following railways:

Troy, Rensselaer & Pittsfield Railroad Company, proposing to build an electric railway from Troy to the State line of Massachusetts, in the town of New Lebanon, Columbia County, and to Rensselaer, a total distance of about thirty-five miles. The

board has been served with a writ of certiorari in this matter on the relation of the companies opposing the application. At the time of writing this report the return has not been made.

Syracuse, Skaneateles & Moravia Railroad Company, proposing to build an electric railway from Moravia, Cayuga County, to Skaneateles and Syracuse, a total distance of about forty miles. The board has been served with a writ of certiorari in this matter on the relation of the companies opposing the application. At the time of writing this report the return has not been made.

Rochester & Eastern Rapid Railway Company, proposing to build an electric railway from Geneva, through Canandigua to Rochester, a distance of about forty-five miles. The board has been served with a writ of certiorari in this matter on the relation of the companies opposing the application. At the time of writing this report the return has not been made.

Cross Country Railroad Company, proposing to build an electric railway from Liberty Avenue, Brooklyn, eventually to Rockaway Beach. The board has been served with a writ of certiorari in this matter. The return has been made in this case.

Monroe County Electric Belt Line Company, proposing to build an electric railway in the towns of Brighton, Penfield, Perinton and Pittsford, and the villages of Brighton, Penfield, Fairport, Despatch and Pittsford, all in Monroe County, a distance of about twenty miles.

Genesee & Orleans Railway Company, proposing to build an electric railway from Batavia to Lake Ontario, a distance of about twenty-seven miles.

Ontario & Wayne Traction Company, proposing to build an electric railway from Canandigua to the village of Pultneyville, on Lake Ontario, a distance of about thirty miles.

Whitehall & Granville Railroad Company, proposing to build an electric railway from Whitehall to Granville, a distance of about twenty-one and one-half miles.

Golden Bridge Electric Railway Company (now Danbury and Harlem Traction Company), proposing to build an electric railway from Golden Bridge, on the Harlem Railroad, to the State line of Connecticut, a distance of about nine miles.

Canastota & Morrisville Railway Company, proposing to build an electric railway from Canastota to Morrisville, a distance of about fifteen and one-quarter miles.

Cooperstown & Mohawk Valley Railway Company, proposing to build an electric railway from Cooperstown to Springfield Centre, a distance of about ten miles.

Monticello, Fallsberg & White Lake Railroad Company, proposing to build an electric railroad from Fallsburg to Monticello and White Lake, a distance of about sixteen and one-half miles.

Carthage & Watertown Traction Company, proposing to build an electric railroad from Watertown to the village of Carthage, a distance of about twenty miles.

The board decided to grant such a certificate to the Buffalo, Niagara Falls & Rochester Railway Company, proposing to build an electric railway from Rochester to Lockport, Niagara Falls and Buffalo, a distance of about one hundred and twenty miles, mostly on the Ridge road highway, lying between the Niagara Falls and the Rome, Watertown and Ogdensburg branches of the New York Central & Hudson River Railroad. At the time of writing this report the company has not paid its organization tax and the certificate has not been issued.

There is pending before this board at the time of writing this report the application for such a certificate for the Lyons & Sodus Bay Railway Company, proposing to build an electric railway from Lyons to Sodus Point, on Lake Ontario, a distance of about sixteen and one-half miles. The petitioner has not finally proceeded in this matter.

At the time of writing this report there is pending before the board the application for such a certificate for the Syracuse & South Bay Railway Company, proposing to build an electric railway from Syracuse to South Bay, a distance of about twelve miles. The petitioner has not finally proceeded in this matter.

At the time of writing this report there is pending before the board the application for such a certificate for the Rockland County Traction Company, proposing to build an electric railway about thirty miles long. A hearing in this matter has not yet been held.

At the time of writing this report there is pending before the board the application for such a certificate for the New York & Portchester Railroad Company, proposing to build a third-rail electric railway from the Harlem River, New York City, through the Borough of the Bronx, Mount Vernon, New Rochelle, to Portchester, a distance of about twenty-one miles.

At the time of writing this report there is pending before this board the application for such a certificate for the Rochester, Syracuse & Eastern Railroad Company, proposing to build an electric railway from Rochester to Syracuse, a distance of about

one hundred miles, as proposed by the applicant. No hearing in this matter has yet been held.

During the year the board refused such a certificate to the New York & Brooklyn Union Transportation Company, and to the New York, Brooklyn & Jersey Rapid Transit Company (kindred companies), proposing to build a tunnel railway from the North River, New York, to and under the East River to Brooklyn. This application was refused because of the contemplated construction of a tunnel under the East River by the Rapid Transit Commission.

In the applications granted, which will be reviewed by the courts, as mentioned, the writs have been issued on the relation of steam and street surface railroad companies which opposed the certificates. The board will not discuss here the relation of proposed electric railways to steam or other railroads which oppose the granting of the certificates, as these subjects are treated in the consideration given to each case, and the determinations in each case are published in the annual reports.

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### The Everett-Moore Situation

Official news from the committee in charge of the Everett-Moore affairs is likely to be a scarce article for a short time. The committee has appointed sub-committees to make investigations into the accounts of the various traction and telephone properties, and as soon as possible they will prepare and present detailed reports to the general committee. While this work is going on the committee will endeavor to secure written agreements from all creditors, and no information will be given out until that time.

Chairman Newcomb was asked as to what steps had been decided on relative to the sale of the Detroit People's Telephone property. He said that as a matter of fact the committee had no authority to take any steps in the matter, since it has no legal jurisdiction in the premises. Neither will any recommendations be made to the syndicate as to the disposal of properties, until such time as all the creditors have been heard from. He declined to express his personal opinion in the matter.

E. W. Moore will go to New York, Thursday, and will endeavor to straighten up the Detroit & Toledo Shore Line tangle. If the bankers can be induced to take the securities which they have agreed to take, the receivership of the road will be terminated at once.

The large majority of creditors, as regards amounts, of the Federal Telephone Company, held a session lasting several hours in the Electric Building, Cleveland, Sunday, Jan. 12. The creditors of the company entered into details, examined the books of the company and discussed the situation largely in the light of the offers from outside parties, which have been made for the purchase of the entire properties. No definite action was taken, the discussion being informal.

It is now known that several direct propositions have been made for acquiring all of the Federal properties, in addition to propositions which have been made for individual plants, Detroit, for instance. It is stated that a positive offer has recently been made by the American Bell Telephone Company. It can be stated, however, that this offer will not even be considered by the bankers' committee. Tentative offers have also been received from Judge James M. Thomas, representing C. W. Morse and the Telephone, Telegraph & Cable Company of America; also from John R. McLean, of Cincinnati. The proposition made by Judge Thomas was simply a contingency proposition to prevent the Bell Company from securing control.

It was the consensus of opinion at the meeting mentioned, that the properties should not be sold if other arrangements can possibly be made. The creditors expressed favor for the collateral trust plan. That is for the Federal Company to deposit all of the stocks and bonds of the constituent telephone companies held by it, with one of the leading trust companies. These to be taken as collateral security for a new issue of bonds covering the entire block of securities. These bonds, according to the plan suggested, will be taken by the creditors as part payment for their claims. This plan of selling collateral trust bonds was first proposed some months ago, and it was the failure to place a block of the bonds with leading New York financiers, that was directly responsible for the embarrassment of the syndicate.

This plan, if carried out, will furnish the bankers' committee with funds to carry out all of the construction work now under way. If the plan is not carried out, it is stated that one or two of the incompleting properties will be disposed of. However, it is stated positively by the committee that if any of the telephone properties are disposed of, it will be at full market value, as matters have so shaped themselves within the past few days that the

confidence in the situation is daily increasing, and it is generally believed that there will be no need of selling anything.

The statement is made by the bankers' committee that none of the traction properties which are wholly controlled by the syndicate will be sold. These include the Cleveland Electric, the Detroit United (with interurbans), the Northern Ohio Traction Company, the Lake Shore Electric Company, the Detroit & Toledo Shore Line, and the Cleveland, Painesville & Eastern. The interest of the syndicate members in some of the properties not wholly controlled may be sold, but this will not affect the situation at large.

The bankers' committee, it is expected, will soon work out a plan to complete the financing of the Detroit & Toledo Shore Line and the Lake Shore Electric Railway, this having been made possible through the consent of nearly all of the creditors to the extension. It is probable that the committee will not attempt to consolidate all of the properties under a single parent company, as was planned by the syndicate before the bankers took charge.

Henry A. Everett returned from New York, Sunday, and reported to the committee that he had secured the extensions of time desired from all of the Eastern creditors. He denied that he had had a conference with J. P. Morgan and August Belmont, as had been reported in New York despatches. He stated that there was no intention of applying to these people for assistance.

The bankers' committee has provided a fund to take care of the current expenses of the various telephone properties under construction, so that the work of completing the plants will be pushed as though nothing had happened.

At a meeting held in Toledo, Jan. 13, between the Strang Construction Company, contractors for the Detroit & Toledo Shore Line, the receivers in charge of the property, and representatives of the Cleveland bankers' committee, all differences with the construction company were settled. By the terms of the settlement the Strang Company's claim of \$280,000 will be satisfactorily settled at an early date, probably by the payment of receiver's certificates, which will have the guarantee of the Federal Court, and the work of completing the road will be pushed. As the matter now stands, Receiver Allen F. Edwards, who was appointed at the instigation of the Cleveland bankers, will have practical control of the road, the Strang receivers having given way to him on the understanding that the Strang claim will be paid.

Speaking of the general situation, one of the members of the bankers' committee in charge of Everett-Moore affairs said in an interview: "The Federal Telephone proposition is entirely different from what we at first supposed it was. When we at first took hold of the affairs of the syndicate, we were of the opinion that the telephone properties were seriously embarrassed, and when we first looked into the various properties owned by the Federal Company, we concluded that it would be safest to eliminate it from the properties supposed to be on a paying basis. Later we found that in the electric railways alone the syndicate would clear up a surplus of \$3,000,000. We hoped to clear up enough out of these to offset all claims of the telephone company. To our surprise, we now find that the Federal Company will not only be able to take care of itself, but that in all probability there will be a big surplus in the equities of this company.

"This improves the situation and simplifies the problems that have confronted us. From now on our work will be comparatively easy. Ninety per cent of all the creditors of the syndicate have signified their willingness to sign the extension agreement. It will take two or three weeks to clean up the remaining 10 per cent, they being harder to reach than all the rest put together. We have enough of the consents, however, to insure the success of our original plan of securing an agreement from all creditors to allow the Everett-Moore syndicate eighteen months to liquidate its present indebtedness.

The importance of metallic packings in the engines of large and small central stations is being more and more appreciated by engineers. For piston-rods and valve-stems alike the metallic packing made by C. Lee Cook, Louisville, Ky., has proved itself most successful wherever installed. This packing has now been on the market for over six years, and in that time has been ordered in large quantities, not only by central stations and manufacturing plants, but by the engine builders themselves.

Four patents, Nos. 690,807 and 690,809, filed in 1892, and 690,808 and 690,810, filed in 1895, have just been issued to Granville T. Woods and by him assigned to H. Ward Leonard. The patents are claimed to cover broadly the control of the e. m. f. upon the terminals of a device by means of an auxiliary e. m. f., and thus to cover the use of boosters. The application for these patents were in interference with the claims of twelve other applications while they were in the patent office, which explains the long difference between their date of application and their date of issue.

## Plans for Electrical Equipment of the New York Central

A special meeting of the board of directors of the New York Central Railroad Company was held June 15 at the Grand Central station to pass on the plans for improving the tunnel, at which all the directors were present. It was voted at the meeting that the stockholders be asked at the meeting in April to increase the capital stock from \$115,000,000 to \$150,000,000. It is understood that the stock increase is to pay for the improvements proposed.

The statement as to the plan of the company follows:

### STATEMENT

The directors deplore the accident which occurred on Jan. 8, and have the deepest sympathy for the sufferers and their families. The tunnel was constructed by a board of four engineers appointed by statute, of whom only one was connected with the company, and the others represented the city and State. The plans for its construction and power to be used were fixed by law. In the use of the tunnel, under these limitations and conditions, the directors, acting upon the recommendations of the experienced officials charged with the responsibility, have adopted from time to time the latest and most approved appliances for safety, and these were installed in the tunnel. Under any method of transit, whether on the surface, elevated, or underground, whether by steam or electricity, the system of signals and rules to provide for the safe movement of trains is substantially the same, and their efficiency is dependent on the strict adherence to the rules established for their use.

The company now confirms the statements made from time to time in the public press that it has been preparing plans for the enlargement of the facilities of the Grand Central Station and changes in the methods of using the Park Avenue tunnel, so as to meet the demands of a constantly increasing traffic, and provide for the convenience of the traveling public. The best method of improvement, and one which the company desires, would be the abolition of the tunnel, and making in its place an open cut, similar to that south of Fifty-Sixth Street, but this, on account of the opposition it has encountered, has been impossible of attainment up to the present time, and therefore, after a thorough investigation of the subject, it was determined that the most practicable plan for caring for the enormous passenger traffic concentrated in the Grand Central Station would be the construction of a loop station under the present terminal, so that the suburban trains could be operated by electricity through the existing side tunnels, to be equipped with the most modern appliances for underground traction, and to the accomplishment of this plan the efforts of the company have for some time past been directed. In this way the passenger facilities of the present station would be nearly doubled, and, with the suburban business thus provided for, the through passenger and mail business can be moved through the center tunnel with promptness and regularity, which is very important to the traveling public, the city and the railroad.

Before determining that electrical or some other power shall be substituted for steam on all trains entering the Grand Central Station, it must be demonstrated that the business can be safely and promptly handled in that way; therefore it is contemplated to make the experiments in the side tunnels and the underground station.

To carry out its plan it will be necessary for the company to obtain from the Legislature and the city authority to use power other than steam (to which it is now expressly limited by statute), and to obtain changes in Park Avenue so as to give use of that street south of the tunnel, in order to lengthen the approach to the station; also the right to construct a tunnel underneath portions of Forty-Third, Forty-Fourth and Forty-Fifth streets, Park, Vanderbilt and Depew avenues.

These changes necessitate the purchase of a large amount of property in order to provide a new location for Park Avenue. Considerable of this property has already been acquired or contracted for, but more remains to be purchased, and this somewhat premature announcement of the company's intentions may make the accomplishment more difficult.

The company is prepared to proceed with the work substantially on the plan outlined above when the necessary legislation can be obtained.

## Standard Rules for Operation

At a recent meeting of the Massachusetts Street Railway Association a committee consisting of C. D. Wyman, of Boston, chairman; R. T. Laffin, of Worcester; E. P. Shaw, Jr., of Boston; E. E. Potter, of New Bedford, and R. S. Goff, of Fall River, was appointed to report upon "standard rules for the combined operation of urban and interurban electric cars, with suggestions as to standard equipments."

### Extensions During 1902

The result of a recent canvass of the street railway companies of the entire country, made by the STREET RAILWAY JOURNAL, for the purpose of obtaining an idea of the amount of new work to be done in 1902, would indicate that there will be no diminution in the vast work now being done. The plans of some of the companies had not been fully matured at this early date, and other companies, for various reasons, were not at liberty to make public announcement of the improvements in contemplation; but the following information direct from the companies shows that important improvements are to be made in all parts of the country.

CARLISLE & MT. HOLLY RAILWAY, of Carlisle, Pa., expects to build a power house and electric light plant, and to purchase two 150-hp engines, two 200-hp boilers, one 1200-light dynamo and a merry-go-round.

CHILLICOTHE ELECTRIC RAILROAD, LIGHT & POWER COMPANY, of Chillicothe, Ohio, will build a new power house and purchase two 400-hp engines, one 300-kw, 500-volt generator and two boilers. Contracts will be placed within the next four months.

PENOBSCOT CENTRAL RAILWAY, of Bangor, Maine, within the next three months will place contracts for construction from Corinth to Charleston, a distance of 6 miles, and from Six Miles Falls to Pushaw Lake, a distance of 3 miles. Six cars will be purchased.

HAGERSTOWN & BOONESBORO RAILWAY COMPANY, of Washington County, Maryland, is to build  $9\frac{1}{2}$  miles on line. The road will be operated in connection with the Hagerstown Railway Company, Public Square, Hagerstown, Md.

PORTSMOUTH, KITTERY & YORK STREET RAILWAY COMPANY, of Portsmouth, N. H., during the next nine months will place contracts for building from 6 to 20 miles of track (exact distance to be decided upon); also power and car houses. The necessary dynamos, engines, power house equipment, cars, trucks, etc., are to be purchased.

MOBILE LIGHT & RAILROAD COMPANY, of Mobile, Ala., reports that during the next three months it will place contracts for the building of 6 miles of new track, a new car house, carpenter shop and a paint shop. The company will purchase one 800-kw, direct-connected, 550-volt generator, one 500-kw, direct-connected, 2300-volt, alternating-current generator, and two 250-kw, direct-connected, 125-volt, alternating-current generators; also six new cars.

HANNIBAL RAILWAY & ELECTRIC COMPANY, of Hannibal, Mo., within the next six months will contract for the building of 4 miles of track and one or two bridges. Four cars and a merry-go-round will be purchased.

MILL CREEK VALLEY STREET RAILROAD COMPANY, of St. Bernard, Ohio, expects to build 7 miles of double track. A car house 50 ft. x 375 ft. will be built and ten double-truck cars will be purchased.

ROCHESTER & EASTERN RAPID RAILWAY COMPANY, Rochester, N. Y., a proposed new road, expects within the next two months to place contracts for building 45 miles of track, power station, sub-station, car house, bridges, etc. Rolling stock and power station apparatus will also be purchased. A. L. Parker, 1201-1216 Chamber of Commerce, Detroit, Mich., is general manager of the company.

DETROIT, HOWELL & LANSING RAILWAY COMPANY, Detroit, Mich., will purchase rolling stock, dynamos, engines, boilers, and will build new car houses, power stations, repair shops, buildings, bridges, etc. The company will also build 60 to 65 miles of new line. Contracts are to be let during the next two months.

DAYTON & NORTHERN TRACTION COMPANY, of Dayton, Ohio, will build a 45-mile extension during the ensuing year.

WILMINGTON & NEW CASTLE RAILWAY COMPANY, of New Castle, Pa., is to build an iron structure, 150 ft. x 40 ft., to be used as a storage barn for cars.

MARIETTA ELECTRIC COMPANY, of Marietta, Ohio, will contract within the next two months for four 50-ft. span bridges. A storage battery is to be purchased.

FORT SCOTT CONSOLIDATED SUPPLY COMPANY, of Fort Scott, Kan., will, within the next six months, contract for the building of 4000 ft. of new track and overhead work.

INTERSTATE TRACTION COMPANY, of Duluth, Minn., will purchase two single-truck motor cars and two trail cars.

ASHEVILLE & WEAVERVILLE RAILWAY & POWER COMPANY, Asheville, N. C., expects to place contracts within

the next two months for the building of two car houses, large enough to accommodate ten or twelve cars each. Nine miles of road will be built, 6 of which are already graded. Contracts for track and overhead construction have not yet been awarded. The company expects to purchase power from another company for the present, but will probably develop its own water power in the future. Freight and passenger cars for the entire line will be purchased. Some park attractions will be installed, but as to just what attractions is not yet definitely decided upon.

ALTOONA & LOGAN VALLEY ELECTRIC RAILWAY COMPANY, of Altoona, Pa., contemplates building in the near future from 3 to 4 miles of additional track in the city of Altoona, also repairing and renewing about 5 miles of old track, including the rebonding of a portion of it. Address correspondence to Samuel G. De Coursey, president, the American Railways Company, 905-913 Witherspoon Building, Philadelphia, Pa.

KANKAKEE ELECTRIC RAILWAY COMPANY, of Kankakee, Ill., during the coming year will build about 1 mile, and will require one engine and a storage battery. The company will also purchase one or two car equipments, including trucks.

MAUCH CHUNK, LEHIGHTON & SLATINGTON STREET RAILWAY COMPANY, Mauch Chunk, Pa., will build 15 miles of track, also a new power house and car house. Contracts for the necessary apparatus will be placed within the next five months.

UNION TRACTION COMPANY, Philadelphia, Pa., expects to build about 22 miles of track during the next year, which construction will in all likelihood cause the enlargement of some power houses and car houses. Several bridges will also have to be constructed on the route of the proposed extension. Double-truck cars and the necessary electrical equipment for same will be purchased, and new amusement attractions will possibly be installed at Willow Grove Park. The plans are not fully matured.

LIBERTY & JEFFERSONVILLE ELECTRIC RAILROAD COMPANY will within the next few months award contracts for building 19 miles of road, using a 56-lb. T-rail. The road will be operated by water-power. Some motor cars will be purchased. Address William P. Craig, superintendent and treasurer, East Orange, N. J.

TOLEDO & MONROE RAILWAY, of Monroe, Mich., during 1902 will purchase three interurban electric freight cars.

COLORADO SPRINGS & SUBURBAN RAILWAY COMPANY, of Colorado Springs, Colo., will place contracts during the next two or three months for the following construction work, apparatus and material: To build 10 miles of new track and relay about  $6\frac{1}{2}$  miles of old double-track line. The steel for same has already been contracted for, but contract has not yet been placed for the forty or fifty thousand long-leaf yellow pine ties, 6 ft. x 8 ins. x 8 ins. standard, which will be required. The company will build a general repair shop, 100 ft. x 190 ft., paint shop, carpenter shop, machine shop, armature room and storeroom combined. These buildings are to have steel roofs complete; also a car house for storage purposes, 50 ft. x 190 ft., also of steel-roof construction. The company will be in the market for machine shop tools and motors for independent driving of tools, both old and new. Ten to fifteen large, open, fourteen-bench, double-truck cars will be purchased, together with motors for same. The company is undecided at present as to just what extent it will enter into amusement attractions for promoting summer traffic, but expects to purchase at least one if not two electric fountains, and probably some other attractions. It is probable that a pavilion will be erected at the new park for the purpose of free entertainments, but nothing definite has been decided.

BUTLER PASSENGER RAILWAY COMPANY, of Butler, Pa., expects within the next six months to purchase three new cars, with electric motors, and three or four trailers; also one merry-go-round. An addition to car house will be built sufficient to accommodate three cars. The company will also build a power house and purchase the necessary power house equipment, including storage battery, steam engine, boilers, etc.

JOHNSTOWN PASSENGER RAILWAY COMPANY, of Johnstown, Pa., will, within the next three months, purchase four open cars and ten closed cars.

MONTGOMERY & CHESTER ELECTRIC RAILWAY COMPANY, of Phoenixville, Pa., will purchase several new summer or combination cars, and probably some winter cars. A new bridge, about 75 ft. span (over railroad crossing) will be built. It is possible that the company may make some extensions to its line, but this matter has not yet been definitely settled.

ATCHISON RAILWAY, LIGHT & POWER COMPANY, of Atchison, Kan., will probably purchase two new boilers within the next six months.

INDIANAPOLIS & EASTERN TRACTION COMPANY, of Indianapolis, Ind., is to build from Greenfield to Knightstown, as an extension of the Indianapolis & Greenfield Rapid Transit Company.

FAIRMOUNT & CLARKSBURG ELECTRIC RAILROAD COMPANY, Wheeling, W. Va., will award contracts during the ensuing year for building 24 miles of line and a power house. Car barns are to be built at Clarksburg and at Fairmount, each large enough to accommodate twelve cars. One 400-kw railway generator, one 400-kw alternator, 1200-hp boilers and engines, coal-handling machinery, elevators and mechanical stokers, miscellaneous rolling stock apparatus, summer and closed interurban cars and motors, etc., will be purchased.

MILITARY POST STREET RAILWAY COMPANY, of Burlington, Vt., will purchase two new fifteen-bench, double-truck open cars, including four 30-hp motors for same; also air brakes.

UNION ELECTRIC COMPANY, of Dubuque, Iowa, will build a new car house. It is possible that a power station will be built.

ORANGE COUNTY TRACTION COMPANY, of Newburgh, N. Y., will within the next three months purchase a double-truck freight car complete, two closed passenger cars and twelve new motor equipments.

LANCASTER & MT. JOY RAILWAY COMPANY, of Lancaster, Pa., will build 17 miles of line, the construction work to be done by the company. Six to ten double-truck cars will be purchased.

HORNELLSVILLE ELECTRIC RAILWAY COMPANY, of Hornellsville, N. Y., will purchase two double equipments, 35-hp motors.

AMHERST & SUNDERLAND STREET RAILWAY COMPANY, of Amherst, Mass., will build an extension of 4½ miles, and will purchase three open and three closed cars. An extension to power plant will be built, either a storage battery, booster, or a two or three-phase plant. This is to help out on the mountain, where there is a mile that will average about 6 per cent grade.

POTTSTOWN PASSENGER RAILWAY COMPANY, of Pottstown, Pa., will purchase two large open summer cars.

WAUPACA ELECTRIC LIGHT & RAILWAY COMPANY, of Waupaca, Wis., will shortly purchase one new or second-hand double-truck closed car.

WILKESBARRE & WYOMING VALLEY TRACTION COMPANY, of Wilkesbarre, Pa., will build 3 miles of new track in the city of Wilkesbarre.

THE IOLA ELECTRIC RAILROAD COMPANY, Iola, Kan., during 1902 will build 40 or 50 miles of track, to be operated by steam for the handling of freight and by electricity for passenger traffic. The necessary car houses, power stations, repair shops, buildings, bridges, etc., will be built, and the required apparatus installed, including rotary transformers. Rolling stock and equipment in sufficient quantity for the extension in question will be bought. First-class amusement attractions for the park will be purchased, including two or three electric or vapor launches.

ALTON RAILWAY, GAS & ELECTRIC COMPANY, of Alton, Ill., advises that extensions from Alton, East Alton and Granite City will be built under different corporate names. The company desires to hear from manufacturers of amusement attractions.

PEOPLE'S TRACTION COMPANY, of Galesburg, Ill., will build an extension of 10 miles, using 60-lb. steel rails. The company will also build power station and car houses, and purchase power station apparatus, four cars complete with motors, etc.

GAINESVILLE & DAHLONEGA RAILWAY COMPANY, of Dahlonega, Ga., is to build a two-span bridge over the Chattahoochee River and a one-span bridge over the Chestatee River. Water-wheels and dynamos are to be purchased. This road is now under construction, and the matter of rolling stock and rolling stock apparatus is not yet decided.

FORT SMITH TRACTION, LIGHT & POWER COMPANY, of Fort Smith, Ark., is to build a 2-mile extension.

SCIOTO VALLEY TRACTION COMPANY, of Columbus, Ohio, will complete the building and equipment of 80 miles of road. About 60 per cent of the roadbed has been graded.

MEMPHIS STREET RAILWAY COMPANY, of Memphis, Tenn., will build 3 miles of new track.

THE VON ECHA COMPANY, of Woodstock, Ont., is to build 9 miles between Brantford and Paris, Ont., and later 15 miles between Berlin and Galt, Ont., the same being portions of the Grand River Railway projected from Brantford to Berlin. The company will purchase four fifteen-bench open cars, and later two closed winter cars. The matter of building power stations, car houses, repair shops, bridges, etc., and the purchasing of the necessary apparatus for same has not yet been settled.

GRAND RAPIDS, KALAMAZOO & SOUTH HAVEN TRACTION COMPANY, of Grand Rapids, Mich., will build about 160 miles of line, also two main power houses and seven sub-stations, car houses, repair shops, three bridges over Kalamazoo River and three over Paw Paw River. The company will purchase a 6700-kw dynamo, forty car bodies with motors, forty freight cars and five electric locomotives.

BINGHAMTON RAILWAY COMPANY, of Binghamton, N. Y., will probably build a new sub-station and car house. A 7-mile extension is also contemplated.

JERSEY CENTRAL TRACTION COMPANY, of Keyport, N. J., will place contracts during the next six months for the building of 6 miles of track and overhead work.

GALESBURG ELECTRIC MOTOR & POWER COMPANY, of Galesburg, Ill., within the next three months will place contracts for 10 miles of construction work. Four double-truck, four-motor cars and two single-truck 18-ft. cars will be purchased.

OWASSO & CORUNNA ELECTRIC COMPANY, of Owasso, Mich., will build 8 miles of interurban road and purchase engines, generators (including lighting machine), motors, trucks, car bodies, etc.

DAYTON & XENIA TRANSIT COMPANY, of Dayton, Ohio, will purchase a car for express business, and will substitute four four-motor equipments for four two-motor equipments.

TWIN CITY GENERAL ELECTRIC COMPANY, of Ironwood, Mich., will purchase four new cars complete, and an extension of 3 or 4 miles will be built.

DANVILLE, PAXTON & NORTHERN RAILWAY COMPANY, of Danville, Ill., will place contracts for the construction of 5 miles of interurban road—60-lb. rail—equipped for direct-current trolley system. The company will buy water-tube boilers, 1000 hp, and automatic stokers for same.

WORONOCO STREET RAILWAY COMPANY, of Westfield, Mass., will build about 6 miles of new line and make some additions to power house and equipment, plans for which have not been fully matured. Some new cars will be purchased.

SEA VIEW RAILROAD, of Narragansett Pier, R. I., during the course of six months will place contracts for a 4-mile extension, for the building of two new bridges, for the enlargement of its power house. Two 200-kw dynamos, two 400-hp engines and two 300-hp boilers are to be purchased.

KITTANNING & LEECHBURG STREET RAILWAY COMPANY, of Kittanning, Pa., will place contracts within three months for 16 miles of construction. An iron bridge is to be built, and three new combination baggage and passenger cars are to be purchased.

SAN BERNARDINO VALLEY TRACTION COMPANY, of Redlands, Cal., will, within the next six months, place contracts for an extension of 7 miles between the cities of San Bernardino and Redlands, Cal., and for the building of a 300-ft. combination bridge across the Santa Ana River, with 100-ft. span. A merry-go-round for a pleasure park connected with the road will be purchased; also three new double-truck cars for interurban service.

BUTTE ELECTRIC RAILWAY COMPANY, of Butte, Mont., will contract for a storage barn, to be built of corrugated iron. The barn will be large enough to accommodate twenty summer cars.

FOND DU LAC & OSHKOSH ELECTRIC RAILWAY COMPANY, Fond du Lac, Wis., will build about 12½ miles of interurban road. The track will be laid with 70-lb. Am. So. C. E. section steel rails in 60-ft. lengths, laid on oak ties, 2-ft. centers, and the roadbed will be heavily ballasted with gravel. The company will use two No. 000 figure 8 trolley wire, but will probably rent power from other systems, so that a new power house may not be built. The rails have already been purchased, but contracts have not been placed for the other material. Correspondence should be addressed to the Columbia Construction Company, Colby & Abbott Building, Milwaukee, which has the contract for construction and equipment.

OTTUMWA TRACTION & LIGHT COMPANY, of Ottumwa, Iowa, will build 4 miles of track. The company will purchase four cars, four trucks, motors, etc., also alternators, coal-handling

machinery and one engine. Contracts are to be awarded within the next six months.

**BOWLING GREEN RAILWAY COMPANY**, of Bowling Green, Ky., will purchase twelve fenders, two summer cars and three 30-hp motors.

**DECATUR TRACTION & ELECTRIC COMPANY**, of Decatur, Ill., will rebuild about 2 miles of straight track. Sixty-two-pound 6-in. T-rail will be used.

**TOLEDO, FOSTORIA & FINDLAY RAILWAY COMPANY**.—The Dover Construction Company, of Canal Dover, Ohio, has just completed the Fostoria & Findlay division of the Toledo, Fostoria & Findlay Railway, and has contracted to construct the line from Fostoria to Toledo. The company will, within the next six months, award contracts for material, including power house equipment, cars, motors and such other material as is required for the complete construction of 32 miles of road.

**BENTON POWER & TRACTION COMPANY**, of St. Cloud, Minn., will purchase two new double-vestibuled closed cars, 20 ft. long, mounted on double trucks, cars to have rattan cross seats.

**VINCENNES CITIZENS' STREET RAILWAY COMPANY**, of Vincennes, Ind., will build a 4½-mile extension; also a new power plant. Three dynamos, three engines, three boilers and three cars, with three 50-hp motors, are to be purchased.

**FRESNO CITY RAILWAY COMPANY**, of Fresno City, Cal., will build 10 miles of road. Contracts are to be placed within the next two months.

**A. P. & A. J. GODDARD**, Freeport, Ill., within the next four months are to place contracts for the construction of 6 to 10 miles of road.

**MONROE COUNTY ELECTRIC BELT LINE COMPANY**, of Rochester, N. Y., within the next month will place contracts for the construction of 19½ miles of new line, to run between Rochester, Brighton, Penfield, Fairport, etc., which construction is to be commenced in the early spring. The company will purchase ten motor cars and necessary power station apparatus.

**NEGAUNEE & ISHPERING STREET RAILWAY & ELECTRIC COMPANY**, of Ishpeming, Mich., will probably extend its road 2 miles, but this has not been definitely decided upon as yet.

**INDIANAPOLIS & MARTINSVILLE RAPID TRANSIT COMPANY**, of Indianapolis, Ind., will build 15 miles of new road from Mooresville to Martinsville. The power house will be completed and a new car house will be built. Contracts are to be awarded within two months.

**RAPID TRANSIT RAILWAY COMPANY**, of Dallas, Texas, will purchase three double-truck open cars and two closed cars. Important extensions to track or switches will be made.

**THE AURORA, ELGIN & CHICAGO RAILWAY**, of Wheaton, Ill., has let contracts for all proposed work for 1902, except for building car houses and repair shops, and for girder bridges as follows: One 70-ft. girder, three 60-ft. girders, one 50-ft. girder, one 45-ft. girder, one 40-ft. girder and one 32-ft. girder.

**LANSING, ST. JOHNS & ST. LOUIS RAILWAY COMPANY**, of Lansing, Mich., has completed 22 miles of road between Lansing and St. Johns. The company will build 40 miles beyond St. Johns this coming season, to Maple Rapids, thence to Ithaca, Alma and St. Louis, and expects to build a power house at Maple Rapids during 1902. The general equipment for that portion of the road now uncompleted, as well as additional equipment for the 22 miles now completed, will be purchased.

**LEWISTON, WINTHROP & AUGUSTA RAILWAY**, of Augusta, Maine, is to build from Augusta to Winthrop, 14 miles, this spring.

**AUGUSTA, HALLOWELL & GARDINER STREET RAILWAY**, Augusta, Maine, will this spring enlarge its power house at Hallowell. An additional engine and generator of the direct-connected type will be purchased.

**PARIS TRANSIT COMPANY**, of Paris, Texas, will purchase six cars equipped complete. A 2-mile extension will be built. Track material has already been secured.

**HULL ELECTRIC COMPANY**, of Aylmer, Que., will build about a mile of single track in Hull. Part of the present line will be double-tracked through Ottawa-Hull-Aylmer traffic.

**PUEBLO TRACTION & LIGHTING COMPANY**, of Pueblo, Colo., is to purchase a 500-kw generator and an engine.

**RICHMOND TRACTION COMPANY**, Richmond, Va., has in contemplation the construction of a 2-mile extension.

**PHOENIX RAILWAY COMPANY**, of Phoenix, Ariz., will build about 2 miles of new track. Four new cars are to be pur-

chased. Some new attractions for the company's park will also be purchased, including a few boats.

**ESCANABA ELECTRIC STREET RAILWAY COMPANY**, of Escanaba, Mich., will purchase two 38-ft. interurban cars.

**REDLANDS STREET RAILWAY COMPANY**, of Redlands, Cal., is to build 1 mile west on San Bernardino Avenue to city limits and purchase a 200-kw motor generator. A 40-acre park is now being laid out on San Bernardino Avenue.

**BAKERSFIELD & KERN ELECTRIC RAILWAY COMPANY**, of Bakersfield, Cal., expects to purchase three or four 32-ft. double-truck cars complete. In the matter of amusement attractions for their park the company is open to vendors' blandishments.

**ASTORIA ELECTRIC COMPANY**, of Astoria, Ore., has decided upon an extension of 1 mile, and possibly 1½ miles, the contract for which will be placed within three months. The company will add a 200-kw generator and a 300-hp engine to its power house. A new car house will be built.

**KEY WEST ELECTRIC COMPANY**, of Key West, Fla., expects to let contracts for an extension to their line during 1902, but length of such extension and time of commencement is as yet undecided.

**NEBRASKA CITY STREET RAILWAY COMPANY**, NEBRASKA CITY, NEB., will reconstruct its entire line, changing the motive power from horse to electricity. A power house and a car house will be built, and everything needed for an electric railway will be purchased. Contracts will be awarded during the next four months.

**TOLEDO RAILWAYS & LIGHT COMPANY**, of Toledo, Ohio, will build car house and new repair shops.

**BERLIN & WATERLOO STREET RAILWAY COMPANY**, of Berlin, Ont., reports that the Berlin & Bridgeport Electric Street Railway Company may build 1½ miles of new line.

**ALTON & EAST ALTON RAILWAY & POWER COMPANY**, of Alton, Ill., will, within the next four months, place contracts for building 4 miles of new line; also a steel bridge.

**ELECTRIC STREET RAILWAY COMPANY OF CLARKSVILLE, TENN.**, Clarksville, Tenn., is to build 2¾ miles of track (60-lb. T-rail) and a new car house. A 150-kw or 200-kw generator and an engine are to be purchased, also two open and two closed cars, with motors, trucks, etc.

**SAGINAW SUBURBAN RAILWAY COMPANY**, of Saginaw, Mich., is to build an electric railway from Bay City to Flint, Mich., via Saginaw. It is expected that contracts will be awarded within the next two months. Specifications for car houses, power stations, apparatus for the same, etc., are not yet fully completed.

**INDIANAPOLIS, GREENWOOD & FRANKLIN RAILROAD COMPANY**, of Columbus, Ind., will, within the next six months, award contracts for a 21-mile extension from Franklin to Columbus, Ind.; also for the building of power stations and car houses. Engines, boilers, dynamos, cars, trucks, motors, brakes, fenders, etc., will be purchased. The company may also purchase some amusement attractions for its park.

**OLYMPIA LIGHT & POWER COMPANY**, of Olympia, Wash., will, during the next three months, purchase a freight car and a closed passenger car.

**PORTLAND RAILWAY COMPANY**, of Portland, Ore., will build an addition to shops and barns of about 20,000 square feet area. The company will purchase or build about twelve cars, besides additional equipment.

**EPHRATA & ADAMSTOWN RAILWAY COMPANY**, of Lancaster, Pa., contemplates building an 8-mile extension.

**ROCKLAND, THOMASTON & CAMDEN STREET RAILWAY**, of Rockland, Maine, will purchase a 500-hp engine and a 500-volt railway generator, together with a merry-go-round. Contracts have already been placed for a 5-mile extension.

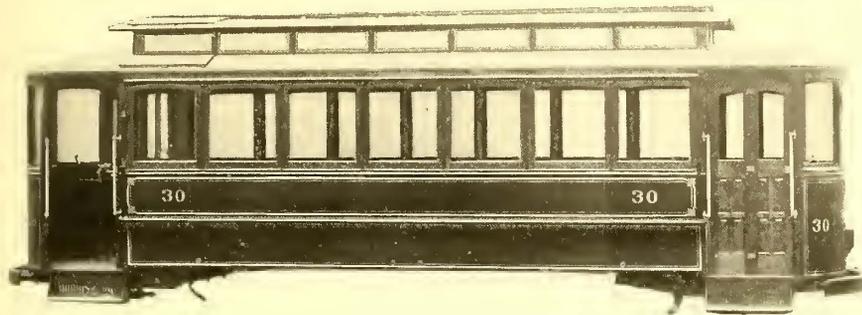
**MOUNT HOLLY STREET RAILWAY COMPANY**, Mt. Holly, N. J., a horse-car line at present, is considering the adoption of electricity as motive power.

**NEWARK & MARION RAILWAY**, Newark, N. Y., is to build 10 miles of new line. Inquiries should be addressed to the Syracuse Railway Construction Company, of Syracuse, N. Y.

**EDISON ELECTRIC ILLUMINATING COMPANY**, Cumberland, Md., which furnishes power to the Cumberland Railway Company, will purchase a 200-kw, 500-volt railway generator; a 200-kw, 250-volt lighting generator, and two 325-hp engines.

**Single-Truck Cars for Oil City, Pa.**

Although the long, double-truck car is rapidly approaching the position of standard for electric service, the single-truck type has not been driven from the field. There are many railway systems where a single-truck car is a necessity if a good service on an economical basis is desired, and consequently the car builders are obliged to fill orders for a large number of this style. The John



CAR BODY FOR OIL CITY

Stephenson Company, Elizabeth, N. J., has adopted a design of car for this kind of work which is illustrated in the accompanying engravings, and which has been made the company's standard single-truck car. As seen from the photographs which are reproduced, the car presents the appearance of strength, artistic design and serviceability, and on no road where this type has been operated has its looks belied it.

The car illustrated herewith is one of an order sent to Oil City, Pa. The view of the exterior shows the car body placed on a railroad flat car in the Stephenson yards ready for shipment. The general dimensions of these cars are as follows: Length over corner posts, 20 ft.; length over dashers, 29 ft.; width at side sills, 6



INTERIOR OF CAR

ft. 3 ins.; width at side posts, 7 ft. 3 ins. They have concave sides and a vestibule at each end. The vestibules are provided with two doors and are 4 ft. 6 ins. deep. The interior is especially handsome. The woodwork is decorated by marquetry, shaded holly being inlaid on a mahogany ground, and the seats are covered with a rich-hued carpet. The illumination of the car is amply provided for by the use of fifteen lamps on the interior. These lamps are arranged in three rows of five each, one on each side of the car and one in the center of the ceiling.

An interesting feature of the construction is the Stephenson spring bumper at each end. These bumpers have the general appearance of those of the ordinary rigid type, but are provided with strong spiral springs which are interposed between the bumper and the framework of the car body. A play of about 4 ins. is thus secured, and in collisions the car, as well as the vehicle or other obstacle struck, is relieved of a large amount of shock and consequent strain.

There has been introduced into the Legislature of Ohio a bill giving conductors on interurban lines the power of police officers, whether on or off their cars.

**Street Railway Patents**

[This department is conducted by W. A. Rosenbaum, patent attorney, Room No. 1203-7 Nassau-Beekman Building, New York.]

UNITED STATES PATENTS ISSUED JAN. 6, 1902

690,386. Electric Railway; F. M. Ashley, Brooklyn, N. Y. App. filed Feb. 26, 1898. The switch magnet controlling current from the main to the sectional conductor, is a solenoid whose core dips at one end in mercury, from which it is never withdrawn, and which forms one terminal, while the other end is lifted by the magnet against an upper contact to complete the circuit.

690,387. Electric Railway; F. M. Ashley, Brooklyn, N. Y. App. filed Feb. 26, 1898. The bare main conductor is placed in a sealed conduit, a portion of whose wall is flexible, that portion being pushed in by the car to make connection between contacts carried by the flexible wall and the conductor.

690,406. Electric Railway; G. Davis, West Kensington, England. App. filed Nov. 19, 1900. A trolley running on double rails, and consisting of a main and a supplemental contact, and an arm connecting the contacts, and so bent as to pass wholly without or wholly within the arm of another similar trolley running on the same rails in the opposite direction.

690,459. Switch Operating Device; E. L. Pence, Memphis, Tenn. App. filed July 17, 1901. A cam on the car strikes a lever to move the switch.

690,499. Electric Railway System; H. P. Wellman, Ashland, Ky. App. filed Oct. 9, 1896. Current from a storage battery on the car is directed through switch magnets by the co-operation of auxiliary brushes on the car and contacts in the roadbed.

690,547. Brake Beam; J. H. Baker, Allegheny, Pa. App. filed April 27, 1901. The brake beam proper is strengthened by a tension member, which takes hold of each end thereof near the brake-shoe fastening, and is put under strain by a strut. This patent and those which follow to the same patentee, cover various details of construction.

690,548. Brake Beam; J. H. Baker, Allegheny, Pa. App. filed July 31, 1901. See above.

690,597. Railway Track and Car Truck; G. Meader, Fowler, Ind. App. filed May 2, 1901. An auxiliary rail is placed at curves to receive a supplemental truck wheel mounted upon an independent axle between the two main axles of the truck.

690,603. Grooved Rail Appliance for Street Railway T-Rails; H. C. Phelps, Lee, Mass. App. filed May 29, 1901. To convert a T-rail into a grooved rail, a block giving shape to the grooved rail is fitted into the roadway beside the T-rail.

690,630. Trolley Harp; F. P. Crockett & O. P. Johnson, Kalamazoo, Mich. App. filed Oct. 21, 1901. Details.

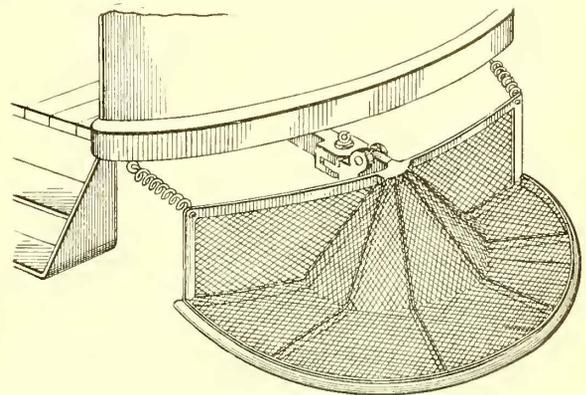
690,674. Car Fender; J. H. Surtin, St. Louis, Mo. App. filed Aug. 26, 1901. A semi-circular fender having a movement in a horizontal plane on a vertical central pivot.

690,738. Railway Vehicle Life Guard; G. Kirby, Kirkdale, Liverpool, England. App. filed June 15, 1901. Details.

690,757. Sleet Cleaning Device for Trolley Arms; M. M. Nash, Lowell, Mass. App. filed Nov. 8, 1901. A curved shoe is strapped on to the trolley wheel and held from displacement by engaging the harp, the shoe carrying a scraping blade.

690,769. Car Brake; S. H. Pocock, Hamilton, Canada. App. filed May 25, 1901. Details.

690,787. Independent Operating Means for Electric Switches;



PATENT NO. 690,674

Ind. App. filed May 2, 1901. An auxiliary rail is placed at curves to receive a supplemental truck wheel mounted upon an independent axle between the two main axles of the truck.

690,603. Grooved Rail Appliance for Street Railway T-Rails; H. C. Phelps, Lee, Mass. App. filed May 29, 1901. To convert a T-rail into a grooved rail, a block giving shape to the grooved rail is fitted into the roadway beside the T-rail.

690,630. Trolley Harp; F. P. Crockett & O. P. Johnson, Kalamazoo, Mich. App. filed Oct. 21, 1901. Details.

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690,757. Sleet Cleaning Device for Trolley Arms; M. M. Nash, Lowell, Mass. App. filed Nov. 8, 1901. A curved shoe is strapped on to the trolley wheel and held from displacement by engaging the harp, the shoe carrying a scraping blade.

690,769. Car Brake; S. H. Pocock, Hamilton, Canada. App. filed May 25, 1901. Details.

690,787. Independent Operating Means for Electric Switches;

J. H. Spangler, Crafton, Pa. App. filed April 17, 1901. One of the levers ordinarily operated automatically by an electro-magnet, can be moved by hand by turning a crank.

690,814. Car Checking Device; A. M. Acklin, Pittsburgh, Pa. App. filed June 27, 1901. An endless chain retarded in its movements in any suitable way, is fitted with hooks, to be engaged by a projection on the car to thus graduate the movement of the car down grade.

690,818. Ice Cutter for Trolley Wires; A. Ambuhl, Decatur, Ill. App. filed Dec. 6, 1900. A scraping blade attached to the trolley arm.

690,824. Brake Beam; J. H. Baker, Allegheny, Pa. App. filed May 10, 1901. See No. 690,547.

690,825. Brake Beam; J. H. Baker, Allegheny, Pa. App. filed Sept. 12, 1901. See No. 690,547.

690,826. Brake Beam; J. H. Baker, Allegheny, Pa. App. filed Oct. 21, 1901. See No. 690,547.

690,886. Operating Mechanism for Electric Switches; J. H. Spangler and R. Herman, Crafton, Pa. App. filed April 17, 1901. An electrically operated railway switch having means to prevent backward motion after each movement of the switch tongue.

## ENGINEERING SOCIETIES

**THE NEW YORK RAILWAY CLUB.**—The club has secured the facilities of the meeting room at 349 Madison Avenue, New York, for the season. The second meeting to be held in these new quarters took place on Thursday, Jan. 16, when a paper was read by B. D. Caldwell, traffic manager of the Delaware, Lackawanna & Western Railroad, on "Community of Interests from a Traffic Standpoint."

**CANADIAN SOCIETY OF CIVIL ENGINEERS.**—The sixteenth annual meeting of the society will be held in Montreal on Monday, Tuesday and Wednesday, Jan. 27 to 29. On Monday evening an illustrated lecture on the Shawinigan water and power development will be presented by Wallace C. Johnson, and on Tuesday an excursion to Shawinigan Falls will be made by special train. The Canadian railways have offered reduced rates for this meeting, and a large attendance is expected.

## PERSONAL MENTION

**MR. H. G. DIMON**, assistant general manager of the American Bridge Company, was killed in the recent terrible accident in the New York Central tunnel.

**MR. KIRK LATHROP**, of Detroit, Mich., has been appointed auditor of the Grand Rapids, Grand Haven & Muskegon Railway Company, of Grand Rapids, Mich.

**MR. GAYLORD THOMPSON**, at present general manager of the New Castle Traction Company, of New Castle, Pa., has been elected treasurer of the company, to succeed Mr. E. E. Hamilton, resigned.

**MR. HOWARD ABEL**, formerly president of the Lake Street Elevated Railway Company, of Chicago, and associated with Mr. Charles T. Yerkes in his London underground railways, has become president of the New Hampshire Traction Company.

**MR. A. H. POMEROY**, president of the Cleveland, Elyria & Western Railway, of Cleveland, Ohio, and a prominent member of the Pomeroy-Mandelbaum syndicate, is dangerously ill. Mr. Pomeroy was stricken shortly after Christmas, and little hope of his recovery is entertained. With F. T. Pomeroy and O. D. Pomeroy, his sons, Mr. Pomeroy built the Berea Street Railway, and later the Cleveland-Berea Railway, which was the first suburban road in Northern Ohio, forming the nucleus of the extensive system now owned by the syndicate.

**MR. FRANK J. DUFFY**, for eighteen months paymaster of the St. Louis Transit Company, of St. Louis, Mo., and for the last eleven years identified with St. Louis street railway corporations, has resigned his position with the Transit Company to become general superintendent of the Richmond Traction Company, of Richmond, Va. Mr. Duffy began his railroad career more than eleven years ago, when but 21 years old. His first position was in the office of his brother, Charles N. Duffy, then secretary and treasurer of the National Railway Company. His advance was rapid, and he soon became chief clerk in the treasurer's department. Shortly after the consolidation of local street railways Mr. Duffy was made paymaster. Mr. Duffy's successor has not yet been named, but it is understood that the position will be tendered to some one in the department of James S. Adkins, the company's treasurer.

**MR. ROYAL D. TOMLINSON**, who, until recently, has had charge of the Ninety-Sixth Street power house of the Metropolitan Street Railway Company, New York, has been appointed chief engineer of the Manhattan Railway Company's new power house at Seventy-Fourth Street and the East River. Before leaving his former position Mr. Tomlinson received a token of the esteem and affection in which those with whom he had been associated held him, in the shape of a handsome gold watch. The presentation speech was made by Mr. James D. Andrews at the little ceremony which was held to bid Mr. Tomlinson good-bye. He will be succeeded at Ninety-Sixth Street by his assistant engineer, Mr. S. F. Tripp, who was formerly employed in the One Hundred and Twenty-Ninth Street station of the Third Avenue road.

**MR. E. W. FARNHAM**, who has been connected with the C. B. & Q. Railroad for many years, in various responsible positions, and who has for the past few years been superintendent of car and special freight service, left that company at the close of the year, to give all his attention to the Rapid Traction Construction Company, of which he is president and general manager. This company will do a general railway contracting business, with special attention to the third-rail system of Mr. Farnham's invention, which was described in these columns Nov. 9, 1901, and with which some recent improvements have been introduced. Mr. Farnham's ability and experience in the management of large affairs insures that the new company will be well managed, and with the perfection of so important an invention it should enjoy the prosperity which all of Mr. Farnham's many friends wish for it.

**MR. FREDERICK B. BROWNELL**, president of the Brownell Car Company, and well known in business and political circles in Missouri, died Jan. 8 at Battle Creek, Mich., from the effects of an attack of la grippe that he contracted about a year ago. Mr. Brownell was born in Troy, N. Y., about fifty years ago. He was a son of the late Charles Brownell, and came with his parents to St. Louis in 1865, entering the employ of an older brother. Shortly thereafter he became connected with the Andrew Wright Car Works, and by persistence and industry gained for himself merited recognition. It was not long after he entered the employ of the company that Mr. Brownell was holding an important position, and he was later admitted to the firm. Mr. Wright died not long thereafter, and the firm became known as the Brownell & Wright Car Company, succeeded later by the Brownell Car Company. Mr. Brownell was a staunch Republican, and was for several years a member of the Republican State Central Committee. Mr. Brownell also took an active part in city politics, and in the recent mayoralty election he was a candidate for president of the City Council. In 1878 Mr. Brownell married Miss Anna Jones, of Indianapolis, Ind., who, with one child, a daughter, survive him.

**MR. PHILIP DAWSON**, whose resignation from the well-known firm of Robert W. Blackwell & Company as chief engineer and managing director was announced in a recent issue of this



PHILIP DAWSON

paper, has established a very high and enviable reputation as an authority on electric tramway and railway practice throughout the world. He is a member of all the principal engineering societies in Europe and America, and is the author of a large number of articles on engineering practice. He has been connected in one way or another with most of the traction and transmission installations throughout the United Kingdom and with many in the Colonies and all over Europe.

Mr. Dawson has carried out the engineering of tramways and railways aggregating over 1000 miles, over which thousands of motor cars circulate, and has equipped over a quarter of a million horse-power of central station plant. He was also the special witness retained by Mr. Yerkes to visit the Ganz installations at Buda-Pest and Sondrio and to report on same, and was also principal witness in the famous arbitration between the Metropolitan and the Metropolitan District Railways. He has had also a great deal of American experience, having visited America several times, and knowing all the chief installations which exist throughout that country intimately.

He has severed all his financial connections with his old firm, and is therefore at the present moment entirely independent, without any interest in any particular system or manufacture.

## FINANCIAL INTELLIGENCE

### THE MARKETS

#### The Money Market

WALL STREET, Jan. 15, 1902.

The developments of the past week in financial circles all worked for easier conditions in the money market, notwithstanding the fact that gold exports are not improbable during the current week. It is a well-known fact that our foreign credit balance is largely artificial, and that when we consider the offsets it is pretty clear that the amount due this country is rather small. The really important development in connection with the monetary situation is to be found in the improved conditions of affairs in South Africa, which suggests an early reopening of the mines of the Rand in a manner that will make the gold output of the same available for the London market within the next sixty days. The importance of this cannot be overestimated. Turning to local money conditions, the bank statement of Saturday last showed the very satisfactory increase of \$5,442,875 in surplus reserve, the greater part of which was due to an increase in the cash holdings of the banks, incidental to the large January disbursements for interest and dividends. Another favorable feature was a decrease of \$5,300,000 in the item of loans. Money is now coming here from the interior in large volume, the gain from this source during the past week having approximated \$6,000,000. At the same time the Treasury continues to absorb money, but not to an extent that will in any way adversely influence the local money market. Gold may be shipped abroad, but from present indications the amount will not be considerable, and even with such exports there is no reason to anticipate any flurry in the market for call money, and certainly no increase in the rates for time money.

#### The Stock Market

The stock market during the past week has been governed by conflicting influences, the majority of which have been unfavorable. The most important of these has had relation to the litigation in connection with the Northern Securities Company in which Governor Van Sant, of Minnesota, has attacked the so-called merger, on the ground that it was a consolidation of competing lines in the Northwest. It was expected that the decision of the Supreme Court on the question of jurisdiction would have been handed down on Monday last, but on that day it was announced that such decision would be deferred until Jan. 27. The speculative inference derived from this is that the decision of the court will be unfavorable to the opponents of the Northern Securities Company, and this cannot fail to have a beneficial effect upon the entire market. A decision in favor of the merger will stimulate activity and higher prices for Union Pacific and Southern Pacific, and should logically find reflection in higher prices for the entire list. One of the drawbacks to speculative activity at the present time is the absence of any public interest in the market. So much has been said in the public press regarding high prices for stocks that outside investors and speculators have become somewhat timid, and thus far have not come into the market as buyers, although there is every reason to look for some material purchases on their part later on. The decline in share values during the past week has been very substantial, and the lower level should attract no inconsiderable public buying.

The local traction stocks have been irregular during the week, Manhattan ruling strong on the establishment of electricity as motive power on the Second Avenue division, the stock having been bought on the theory that the insiders would move it up, while on the other hand Brooklyn Rapid Transit has declined, the selling of this stock having been predicted upon the anticipation of an unfavorable statement for November, due to knowledge that the company has been expending large amounts for improvements and betterments, and taking the same out of current income. While this is a policy to be commended, it is not one that finds favor in the stock market.

The expectations of an unfavorable statement of earnings by the Brooklyn Rapid Transit Company for November proved to be thoroughly well founded. Gross revenues were reported at \$997,812, an increase over the corresponding period of last year by \$55,794. Expenses and taxes, however, were swelled in the sum of \$102,880, and this resulted in a decrease in net earnings of \$47,086. For the five months of the fiscal year to Nov. 30 the company earned gross, \$5,498,519, a gain over the corresponding period in 1900 of \$338,589, and net \$1,736,160, a loss of \$194,286.

#### Philadelphia

The chief subject of interest during the last week in the Philadelphia stock market has been a slump in Philadelphia Electric,

the lighting combination of the city, which dropped from 4½ on Jan. 8 to 3½ on Jan. 13, with large sales, particularly on Jan. 13, when over 19,000 shares changed hands. This somewhat unsettled the rest of the market, but by Jan. 14 the scare had practically subsided, and the result of the week has been a gain in the local traction stocks from the figures a week ago. Union Traction has been quite active, and closed on Jan. 14 at 34, a gain of 1¼ points. A marked feature of the early part of the week in the inactive list was the 3¾ rise in Indianapolis Street Railway. The other traction securities dealt in in the Philadelphia market have shown little or no change during the past week.

#### Chicago

The status of the surface roads in Chicago remains about stationary, as far as the stock quotations are concerned, in spite of the agitation on franchises carried on by the city authorities and various civic bodies. In the meantime it is asserted that various politicians are improving the opportunity to pick up Union Traction stock at the present low prices, but to what extent this is being done is not generally known. The Elevated Railway securities, however, have been more active, particularly the bonds. Northwestern Elevated 4s are the subject of a strong investment demand, and at 97 are regarded by many as one of the cheapest things in the market. Northwestern common sold on Jan. 14 at 39, and preferred at 88. Lake Street varied during the week between 10⅞ and 11, and Metropolitan common between 40⅞ and 42½, while the preferred remained practically stationary at about 92.

#### Other Traction Securities

Boston Elevated remains practically stationary at 166 to 167, with no sales during the week to amount to much. Massachusetts Electric common and preferred closed on Jan. 14 at 34 and 93½, respectively. The refusal of the Baltimore City Council to give a franchise to the opposition company in that city resulted in the securities of the United Railways of Baltimore becoming firmer, and quite a business has been done during the week in incomes and 4s, these securities closing respectively at 68⅞ and 95½. Other transactions in the Baltimore stock market during the last week included Pittsburgh Traction 5s at 115½. The chief interest in the Cleveland market has been, of course, the effect of the embarrassment of the Everett-Moore syndicate on the securities of the company, and the appointment of Albion E. Lang, president of the Toledo Railway & Light Company, as receiver of the Lake Shore Electric Railway Company. An extended report appears elsewhere in this issue of the latest news from Cleveland, but it may be said in general that the creditors of the syndicate seem to be ready to co-operate with the committee in charge of the matter in granting extensions of time requested. The statement made by the bankers' committee that none of the traction stock which is controlled by the syndicate will be sold has had a stimulating effect. The last two weeks have been the busiest in the history of the exchange, sales for the week ending Jan. 4, amounting to 12,438 shares, and for the week ending Jan. 11, to only 9,536 shares. The falling off in values caused by the Everett-Moore embarrassment caused many doubtful ones to unload, and during the periods mentioned there were plenty of buyers, but the tendency to hold up prices has discouraged the bargain hunters. Telephone and traction stocks sold as follows during the week ending Jan. 11: Cleveland Electric Railway, 910 shares; Cuyahoga Telephone Company, 1329 shares; Detroit United, 1509 shares; Elgin, Aurora & Southern, 300 shares; Federal Telephone, 4576 shares.

#### Iron and Steel

The iron and steel market has remained firm but quiet during the past week and prices are the same as quoted a week ago, viz., Bessemer pig iron at Pittsburgh, \$16.75 to \$17; steel billets, \$28 to \$28.50, and steel rails, \$28.

#### Metals.

The lower prices for copper quoted last week do not seem to have appreciably stimulated the demand, and the market is still unsettled and uneasy in tone. The nominal quotations are lower than last week, being 11¼ cents for Lake Superior Ingot; 11⅞ cents for electrolytic, and 11 cents for casting. Tin has advanced on stronger London cables, and closed on Jan. 14 at 23.35 cents bid, and 25.50 cents asked. Lead is quoted nominally on the basis of 4 cents, and smelter at 4.35 cents.

**Security Quotations**

The following table shows present bid quotations for the leading traction stocks, and the active bonds, as compared with a week ago:

|   | 1902                  |         |
|---|-----------------------|---------|
|   | Closing Bid<br>Jan. 7 | Jan. 14 |
| American Railways Company                       | 44¾                   | 44¾     |
| Boston Elevated                                 | 167                   | 167     |
| Brooklyn R. T.                                  | 65¾                   | 63¾     |
| Chicago City                                    | 188                   | 187     |
| Chicago Union Tr. (common)                      | 10½                   | 10½     |
| Chicago Union Tr. (preferred)                   | 47                    | 47      |
| Cleveland City                                  | 112                   | 112     |
| Cleveland & Eastern                             | a31                   | 31      |
| Cleveland Electric                              | 72                    | 70      |
| Columbus (common)                               | 38                    | 39      |
| Columbus (preferred)                            | 90                    | 90      |
| Consolidated Traction of N. J.                  | 67                    | 67      |
| Consolidated Traction of N. J. 5s.              | 109                   | 109     |
| Consolidated Traction of Pittsburgh (common)    | 23                    | 22½     |
| Consolidated Traction of Pittsburgh (preferred) | 64                    | ..      |
| Detroit United                                  | 62¾                   | 60      |
| Detroit United Certificates                     | 62¾                   | 61½     |
| Electric-People's Traction (Philadelphia) 4s.   | 98¾                   | 98¾     |
| Elgin, Aurora & Southern                        | a40                   | 37      |
| Indianapolis Street Railway                     | 46                    | 46      |
| Indianapolis Street Railway 4s.                 | 87½                   | 87½     |
| Lake Street Elevated                            | 11                    | 10¾     |
| Louisville (common)                             | ..                    | ..      |
| Louisville (preferred)                          | ..                    | ..      |
| Manhattan Ry.                                   | 135½                  | 136½    |
| Massachusetts Elec. Cos. (common)               | 36                    | 34      |
| Massachusetts Elec. Cos. (preferred)            | 93½                   | 91½     |
| Metropolitan Elevated, Chicago (common)         | 42¾                   | 40½     |
| Metropolitan Elevated, Chicago                  | 92¼                   | 90¼     |
| Metropolitan Street                             | 162¾                  | 160¼    |
| New Orleans (common)                            | 28½                   | 28½     |
| New Orleans (preferred)                         | 104½                  | 104½    |
| North American                                  | 92                    | 90      |
| Northern Ohio Traction (common)                 | a42                   | 42½     |
| Northern Ohio Traction (preferred)              | 88¼                   | 88¼     |
| North Jersey                                    | 22                    | 22      |
| Northwestern Elevated, Chicago (common)         | 39¾                   | 37¼     |
| Northwestern Elevated, Chicago (preferred)      | ..                    | 86      |
| Philadelphia Traction                           | 97¾                   | 97¼     |
| Rochester (common)                              | 42                    | 42      |
| St. Louis Transit Co. (common)                  | 32¾                   | 33¼     |
| South Side Elevated (Chicago)                   | 107½                  | a107½   |
| Syracuse (common)                               | 21                    | 21      |
| Syracuse (preferred)                            | 61                    | 52      |
| Third Ave.                                      | 122                   | 121¼    |
| Twin City, Minneapolis (common)                 | 108½                  | 109     |
| United Railways, St. Louis (preferred)          | 85½                   | 86      |
| United Railways, St. Louis, 4s.                 | 89½                   | 89¼     |
| Union Traction (Philadelphia)                   | 32¾                   | 34½     |

\* Ex-dividend. † Ex-interest. (a) Asked.

**WABASH, IND.**—The Wabash River Traction Company has filed for record its mortgage for \$350,000 given to secure an issue of \$1,000 gold bonds, due in thirty years, with interest at 5 per cent. The proceeds of the mortgage will be used for the improvement of the road and for the construction of the Logansport extension.

**LEXINGTON, KY.**—The Bluegrass Consolidated Traction Company, which is to build a network of electric railways radiating from Lexington, will, it is said, issue bonds to the amount of \$7,000,000. Following are the officers and directors of the company: George B. Davis, of Detroit, president; M. C. Alford, of Lexington, Ky., vice-president; Harold C. Beatty, of Detroit, secretary; Paul Sheldon, of New York, treasurer. Directors, the above-named officers and E. E. Davis and Blaine Gavett, of Detroit; C. V. Kasson, of Chicago; W. J. Loughridge and Hal P. Headley, of Lexington, Ky.

**WAREHAM, MASS.**—The Middleboro, Wareham & Buzzards Bay Street Railway Company has petitioned the Railroad Commissioners for authority to issue bonds to the amount of \$75,000. The company has also petitioned for an extension of its system into the town of Falmouth.

**BOSTON, MASS.**—The Concord & Boston Street Railway Company has petitioned the Board of Railroad Commissioners for authority to issue bonds to the amount of \$50,000, to bear interest at 4½ per cent.

**BOSTON, MASS.**—The Boston & Northern Street Railway Company has petitioned the Railroad Commissioners for an increase of \$400,000 in its capital stock.

**BOSTON, MASS.**—The Old Colony Street Railway has petitioned the Railroad Commissioners for an increase of \$130,000 in its capital stock.

**AMHERST, MASS.**—The Amherst & Sunderland Street Railway Company has petitioned the Railroad Commissioners for an issue of bonds to the amount of \$21,500 to take up outstanding bonds.

**BOSTON, MASS.**—The \$1,800,000 West End Street Railway Company's 4 per cent bonds, due 1915, recently authorized by the Railroad Commissioners, have been awarded to R. L. Day & Company and Estabrook & Company jointly.

**DETROIT, MICH.**—On the petition of Henry Everett, the United States Circuit Court has displaced the receiver appointed several days ago for the

Detroit & Toledo Shore Line, and has appointed in his place Allen F. Edwards, general manager of the property. Under the new receivership cars will be operated through from Toledo to Detroit. The Strang Construction Company, which obtained the appointment of the first receiver, has representatives in Cleveland who will arrange an adjustment of the balances due the company for work on the road.

**KANSAS CITY, MO.**—The Kansas City & Leavenworth Electric Railway has issued \$2,000,000 5 per cent, eighteen-year bonds on its plant, through the Cleveland Central Trust Company.

**CLEVELAND, OHIO.**—The Hamilton & Lindenwald Electric Transit Company has executed a mortgage for \$250,000 to the Cleveland Trust Company.

**ASBURY PARK, N. J.**—Vice-Chancellor Pitney, in Chancery Chambers, Jersey City, heard argument this week on application by committees representing the bondholders and by a stockholder of the Atlantic Coast Electric Railroad Company, which operates an electric railway from Pleasure Bay to a point below Belmar, in the county of Monmouth, N. J., for the appointment of a receiver and an order declaring the company insolvent. The company was incorporated April 12, 1895, with an authorized capital stock of \$1,000,000.

**BROOKLYN, N. Y.**—The Brooklyn Rapid Transit Company reports earnings as follows:

|                            | 1901        | 1900        |
|----------------------------|-------------|-------------|
| November                   |             |             |
| Gross receipts             | \$997,812   | \$942,018   |
| Expenses, including taxes  | 730,839     | 627,969     |
| Net receipts               | \$266,973   | \$314,058   |
| Five months ending Nov. 30 |             |             |
| Gross receipts             | \$5,498,520 | \$5,159,936 |
| Expenses, including taxes  | 3,762,359   | 3,229,484   |
| Net receipts               | \$1,736,161 | \$1,930,446 |

**CLEVELAND, OHIO.**—The Everett-Moore syndicate has made the following preliminary statement of the passenger receipts of the various properties for the month of December and the total year of 1901. It will be seen that all of the roads have made excellent gains. The increase in the Detroit suburbs, which have been under the control of the Detroit United for something less than a year, is especially significant.

|                                  | Dec., 1900           | Dec., 1901  | Inc.,<br>per cent |
|----------------------------------|----------------------|-------------|-------------------|
| Detroit United (city)            | \$211,633            | 238,131     | 12.52             |
| Detroit United (suburbans)       | 22,787               | 27,888      | 22.39             |
| Detroit United (total)           | 234,420              | 266,090     | 13.48             |
| Cleveland Electric               | 180,864              | 195,872     | 8.30              |
| Toledo Railway & Light Company   | 77,599               | 86,169      | 11.04             |
| Northern Ohio Traction           | 34,148               | 41,287      | 19.64             |
| London Street Railway            | 11,043               | 12,947      | 17.24             |
| Detroit & Port Huron             | 23,148               | 23,341      | .83               |
| Lake Shore Electric              | 23,194               | 29,044      | 25.23             |
| Cleveland, Painesville & Eastern | 9,926                | 11,920      | 20.09             |
|                                  |                      |             | Inc.,             |
|                                  | Year 1900            | Year 1901   | per cent          |
| Detroit United (city)            | \$2,385,854          | \$2,670,393 | 11.92             |
| Detroit United (suburbans)       | 184,522              | 243,357     | 31.89             |
| Detroit United (total)           | 2,570,375            | 2,913,750   | 13.66             |
| Cleveland Electric               | 2,061,505            | 2,296,898   | 11.42             |
| Toledo Railway & Light           | 1,148,268            | 1,270,875   | 10.63             |
| Northern Ohio Traction           | 513,727              | 617,011     | 20.10             |
| London Street Railway            | 119,109              | 141,846     | 19.09             |
| Detroit & Port Huron             | 285,948              | 378,982     | 32.54             |
|                                  | (Oct. 1 to Dec. 31.) |             |                   |
| Lake Shore Electric Railway      | 72,577               | 89,463      | 23.26             |
| Cleveland, Painesville & Eastern | 141,112              | 164,971     | 16.91             |

**COLUMBUS, OHIO.**—The Columbus Railway Company has declared the regularly quarterly dividend of 1¼ per cent on its preferred stock, payable Feb. 1 to stock of record Jan. 16.

**DAYTON, OHIO.**—The capital stock of the Dayton, Lebanon & Cincinnati Railway has been increased from \$500,000 to \$2,000,000.

**YOUNGSTOWN, OHIO.**—The directors of the Youngstown & Sharon Railway Company met Jan. 7 and voted to issue \$1,000,000 in bonds for the purpose of building the New Castle-Sharon line, to establish a park near Sharon, to double track a portion of the present line, and to make general improvements.

**CANTON, OHIO.**—The Canton-Akron Railway Company has filed a mortgage for \$1,000,000 in favor of the Knickerbocker Trust Company, of New York. The proceeds will be used to complete the road. When fully completed, it will become a part of the system of the Northern Ohio Traction Company.

**PORTSMOUTH, OHIO.**—It is now stated that the Camden Interstate Railway Company will not exercise its option on the property of the Portsmouth Street Railway & Light Company, but it is said that the lines of the latter company will be extended to Ringing Rocks, where connections will be made with the lines of the Camden Interstate Railway Company.

**SALEM, OHIO.**—The Salem Electric Railway and the Salem Electric Light & Power Company have arranged to consolidate, and the new company will be known as the Salem Traction Company. The two companies have been under practically the same management for some time. The city franchise has been extended, and improvements will be made.

**PITTSBURGH, PA.**—The Philadelphia Company has filed for record its new mortgage given to secure an issue of \$22,000,000 5 per cent 50-year gold bonds. The mortgage is in favor of the Continental Trust Company, of Baltimore, and was referred to in the detailed plan for the consolidation of the Pittsburgh companies which appeared in the **STREET RAILWAY JOURNAL** for Nov. 23, 1901.

TABLE OF OPERATING STATISTICS

Notice.—These statistics will be carefully revised from month to month, upon information received from the companies direct, or from official sources. The table should be used in connection with our Financial Supplement "American Street Railway Investments," which contains the annual operating reports to the ends of the various financial years. Similar statistics in regard to roads not reporting are solicited by the editors. \* Including taxes. † Deficit due to strike.

| COMPANY   | Period           | Total Gross Earnings | Operating Expenses | Net Earnings | Deductions From Income | Net Income, Amount Avail-able for Dividends | COMPANY  | Period          | Total Gross Earnings | Operating Expenses | Net Earnings | Deductions From Income | Net Income, Amount Avail-able for Dividends |
|---|------------------|----------------------|--------------------|--------------|------------------------|---|--|-----------------|----------------------|--------------------|--------------|------------------------|---|
| <b>AKRON, O.</b><br>Northern Ohio Tr. Co.                 | 1 m., Dec. '01   | 53,384               | 30,968             | 22,516       | .....                  | .....                                       | <b>DULUTH, MINN.</b><br>Duluth-Superior Tr.        | 1 m., Nov. '01  | 39,217               | 22,149             | 17,018       | 9,195                  | 7,823                                       |
|   | 1 " " '00        | 38,395               | 22,089             | 16,306       | .....                  | .....                                       |  | 1 " " '00       | 37,487               | 19,362             | 18,125       | 8,929                  | 9,196                                       |
|   | 3 " Sept. '01    | .....                | .....              | .....        | .....                  | .....                                       |  | 11 " " '01      | 413,163              | 226,273            | 186,890      | 100,755                | 86,135                                      |
|   | 3 " " '00        | .....                | .....              | .....        | .....                  | .....                                       | <b>ELGIN, ILL.</b><br>Elgin, Aurora & Southern Tr. | 1 m., Dec. '01  | 30,190               | 18,579             | 11,621       | .....                  | .....                                       |
|   | 9 " " '01        | 462,800              | 263,361            | 199,439      | 98,973                 | 100,466                                     |  | 1 " " '00       | 27,595               | 18,318             | 9,277        | .....                  | .....                                       |
|   | 9 " " '00        | 387,972              | 241,782            | 146,190      | 109,786                | 36,404                                      |  | 7 " " '00       | 226,631              | 130,640            | 105,991      | .....                  | .....                                       |
|   | 12 " Dec. '01    | 617,011              | 350,885            | 266,166      | .....                  | .....                                       |  | 7 " " '00       | 195,541              | 123,557            | 71,986       | .....                  | .....                                       |
|   | 12 " " '00       | 513,725              | 317,475            | 196,249      | .....                  | .....                                       | <b>HAMILTON, O.</b><br>Southern Ohio Tr. Co.       | 1 m., Dec. '01  | 25,360               | 14,781             | 10,528       | 7,500                  | 3,028                                       |
| <b>ALBANY, N. Y.</b><br>United Traction Co.               | 1 m., Dec. '01   | 125,315              | 89,888             | 35,427       | 21,373                 | 14,055                                      |  | 1 " " '00       | 24,744               | 14,339             | 10,405       | 7,500                  | 2,965                                       |
|   | 1 " " '00        | 118,235              | 81,121             | 37,114       | 19,901                 | 17,213                                      |  | 12 " " '01      | 337,741              | 182,954            | 154,787      | 90,000                 | 64,787                                      |
|   | 6 " " '01        | 751,363              | 498,413            | 252,950      | 123,017                | 129,933                                     |  | 12 " " '00      | 294,907              | 154,465            | 140,542      | 90,600                 | 50,542                                      |
|   | 6 " " '00        | 713,763              | 474,083            | 239,680      | 119,830                | 119,850                                     | <b>LONDON, ONT.</b><br>London St. Ry. Co.          | 1 m., Dec. '01  | 12,947               | 6,280              | 6,667        | 1,859                  | 4,808                                       |
| <b>AUGUSTA, GA.</b><br>Augusta Ry. & Elec. Co.            | 1 m., Oct. '01   | 18,031               | 10,012             | 8,019        | .....                  | .....                                       |  | 1 " " '00       | 11,043               | 5,324              | 5,719        | 1,682                  | 4,087                                       |
|   | 1 " " '00        | 15,772               | 9,668              | 6,104        | .....                  | .....                                       |  | 12 " " '01      | 141,946              | 84,557             | 57,389       | 23,855                 | 33,454                                      |
|   | 10 " " '01       | 169,956              | 102,279            | 67,671       | .....                  | .....                                       |  | 12 " " '00      | 119,169              | 78,501             | 40,668       | 21,624                 | 18,985                                      |
|   | 10 " " '00       | 157,049              | 91,785             | 65,264       | .....                  | .....                                       | <b>MILWAUKEE, WIS.</b><br>Milwaukee El. Ry. & Lt.  | 1 m., Dec. '01  | 243,927              | 105,659            | 138,267      | 67,162                 | 71,105                                      |
| <b>BINGHAMTON, N. Y.</b><br>Binghamton St. Ry. Co.        | 1 m., Dec. '01   | 18,240               | 7,310              | 10,930       | .....                  | .....                                       |  | 1 " " '00       | 209,887              | 97,987             | 111,900      | 69,742                 | 42,158                                      |
|   | 1 " " '00        | 16,633               | 7,201              | 9,432        | .....                  | .....                                       |  | 12 " " '01      | 2,442,342            | 1,185,534          | 1,256,808    | 755,139                | 501,660                                     |
|   | 6 " " '01        | 113,390              | 55,932             | 57,459       | 30,890                 | 26,569                                      |  | 12 " " '00      | 2,220,698            | 1,129,787          | 1,090,911    | 824,665                | 266,247                                     |
|   | 6 " " '00        | 100,222              | 49,453             | 50,769       | 28,626                 | 22,143                                      | <b>MINNEAPOLIS, MINN.</b><br>Twin City R. T. Co.   | 1 m., Nov. '01  | 268,517              | 114,444            | 154,072      | 58,350                 | 95,722                                      |
| <b>BOSTON, MASS.</b><br>Boston Elev. Ry. Co.              | 12 m., Sept. '01 | 10,869,496           | 7,356,597          | 3,532,899    | 2,896,359              | 636,539                                     |  | 1 " " '00       | 239,713              | 109,477            | 130,235      | 51,965                 | 78,270                                      |
|   | 12 " " '00       | 10,236,994           | 6,828,110          | 3,408,884    | 2,932,839              | 476,044                                     |  | 11 " " '01      | 2,879,635            | 1,301,345          | 1,578,289    | 610,787                | 958,502                                     |
| <b>Massachusetts Elec. Cos</b>                            | 12 m., Sept. '01 | 5,778,133            | 3,915,486          | 1,862,648    | 937,206                | 925,442                                     |  | 11 " " '00      | 2,582,536            | 1,199,984          | 1,382,551    | 577,622                | 804,929                                     |
|   | 12 " " '00       | 5,518,837            | 3,659,337          | 1,859,500    | 994,294                | 865,206                                     | <b>MONTREAL, CAN.</b><br>Montreal St. Ry. Co.      | 1 m., Nov. '01  | 154,913              | 96,490             | 58,423       | 13,967                 | 44,456                                      |
| <b>BROOKLYN, N. Y.</b><br>Brooklyn R. T. Co.              | 1 m., Nov. '01   | 997,813              | * 730,840          | 266,973      | .....                  | .....                                       |  | 1 " " '00       | 147,016              | 96,257             | 51,358       | 9,190                  | 42,168                                      |
|   | 1 " " '00        | 942,018              | * 627,959          | 314,059      | .....                  | .....                                       |  | 2 " " '00       | 320,973              | 181,700            | 139,273      | 20,351                 | 108,922                                     |
|   | 5 " " '01        | 5,498,520            | * 3762,359         | 1,736,161    | .....                  | .....                                       |  | 2 " " '00       | .....                | .....              | 124,823      | 18,797                 | 106,026                                     |
|   | 5 " " '00        | 5,159,930            | * 3229,484         | 1,930,446    | .....                  | .....                                       | <b>NEW YORK CITY.</b><br>Manhattan Ry. Co.         | 3 m., Sept. '01 | 2,284,565            | 1,312,136          | 972,424      | 632,350                | 340,084                                     |
|   | 12 " June '01    | 13,135,559           | * 7216,008         | 4,919,551    | 4,341,748              | 577,803                                     |  | 3 " " '00       | 2,081,064            | 1,236,711          | 845,353      | 626,925                | 218,328                                     |
|   | 12 " " '00       | 11,768,536           | * 7106,773         | 4,662,177    | 4,135,405              | 526,772                                     |  | 12 " " '01      | 10,458,872           | 5,328,649          | 5,127,223    | 2,688,132              | 2,444,001                                   |
| <b>BUFFALO, N. Y.</b><br>International Tr. Co.            | 1 m., Oct. '01   | 601,241              | 268,989            | 332,252      | 100,928                | 231,323                                     |  | 12 " " '00      | 14,457,134           | 6,631,254          | 7,825,880    | 4,445,720              | 3,360,160                                   |
|   | 1 " " '00        | 240,417              | 120,454            | 119,963      | 82,758                 | 37,205                                      | <b>Metropolitan St. Ry.</b>                        | 3 m., Sept. '01 | 3,750,285            | 1,563,260          | 2,187,025    | 1,148,714              | 1,038,311                                   |
|   | 4 " " '01        | 2,477,793            | 1,029,687          | 1,448,106    | 408,134                | 1,039,972                                   |  | 3 " " '00       | 3,408,306            | 1,555,036          | 2,053,270    | 1,128,985              | 924,285                                     |
|   | 4 " " '00        | 1,081,887            | 469,199            | 562,688      | 324,551                | 238,137                                     |  | 12 " June '01   | 14,720,767           | 6,735,131          | 7,985,636    | 4,534,068              | 3,431,567                                   |
| <b>CHICAGO, ILL.</b><br>Chicago & Milwaukee Elec. Ry. Co. | 1 m., Nov. '01   | 12,041               | 5,804              | 6,237        | .....                  | .....                                       |  | 12 " " '01      | 14,457,134           | 6,631,254          | 7,825,880    | 4,445,720              | 3,360,160                                   |
|   | 1 " " '00        | 9,781                | 5,604              | 4,177        | .....                  | .....                                       | <b>OLEAN, N. Y.</b><br>Olean St. Ry. Co.           | 1 m., Nov. '01  | 4,200                | 2,044              | 2,156        | 1,146                  | 1,010                                       |
|   | 11 " " '01       | 159,453              | 68,234             | 91,218       | .....                  | .....                                       |  | 1 " " '00       | 3,934                | 2,302              | 1,541        | 1,507                  | .....                                       |
|   | 11 " " '00       | 131,065              | 53,940             | 77,125       | .....                  | .....                                       |  | 5 " " '01       | 25,816               | 11,077             | 14,739       | 7,163                  | 7,640                                       |
| <b>Lake Street Elevated</b>                               | 12 m., Dec. '01  | 786,462              | 388,739            | 397,663      | .....                  | .....                                       |  | 5 " " '00       | 23,837               | 11,005             | 12,832       | 7,276                  | 5,535                                       |
|   | 12 " " '00       | 757,954              | 378,661            | 379,293      | .....                  | .....                                       | <b>PITTSBURG, PA.</b><br>Consolidated Traction     | 1 m., Nov. '01  | 296,588              | 126,215            | 170,373      | 88,792                 | 81,581                                      |
| <b>CLEVELAND, O.</b><br>Cleveland & Chagrin Falls         | 1 m., Nov. '01   | 4,305                | 3,768              | 537          | 1,404                  | .....                                       |  | 1 " " '00       | 263,549              | 106,588            | 156,952      | 89,526                 | 67,436                                      |
|   | 1 " " '00        | 4,227                | 2,912              | 1,315        | 1,416                  | .....                                       |  | 8 " " '01       | 2,314,587            | 1,004,710          | 1,346,178    | 718,118                | 622,060                                     |
|   | 11 " " '01       | 43,670               | 29,583             | 14,087       | 12,642                 | 1,445                                       |  | 8 " " '00       | 2,191,236            | 904,171            | 1,290,065    | 709,897                | 580,188                                     |
|   | 11 " " '00       | 45,132               | 30,600             | 14,532       | 12,322                 | 2,230                                       | <b>PHILADELPHIA, PA.</b><br>American Railways      | 1 m., Dec. '01  | 82,270               | .....              | .....        | .....                  | .....                                       |
| <b>Cleveland &amp; Eastern..</b>                          | 1 m., Nov. '01   | 7,753                | * 5,332            | 2,421        | 3,479                  | .....                                       |  | 1 " " '00       | 68,301               | .....              | .....        | .....                  | .....                                       |
|   | 1 " " '00        | 5,591                | * 3,085            | * 2,506      | 3,247                  | .....                                       |  | 6 " " '01       | 501,217              | .....              | .....        | .....                  | .....                                       |
|   | 11 " " '01       | 82,916               | * 48,457           | 34,459       | 39,132                 | .....                                       |  | 6 " " '00       | 411,226              | .....              | .....        | .....                  | .....                                       |
|   | 11 " " '00       | 57,722               | * 32,941           | 24,781       | 34,865                 | .....                                       | <b>RICHMOND, VA.</b><br>Richmond Trac. Co.         | 1 m., Sept. '01 | 20,991               | 15,669             | 5,322        | 3,196                  | 2,126                                       |
| <b>Cleveland El. Ry. Co.</b>                              | 1 m., Nov. '01   | 101,295              | 105,538            | 85,757       | 21,635                 | 64,122                                      |  | 1 " " '00       | 20,727               | 10,770             | 9,957        | 3,843                  | 6,115                                       |
|   | 1 " " '00        | 174,734              | 96,808             | 77,926       | 20,795                 | 57,131                                      |  | 12 " " '01      | 218,569              | 139,542            | 79,027       | 38,618                 | 40,410                                      |
|   | 11 " " '01       | 2,097,310            | 1,158,183          | 939,027      | 222,526                | 716,501                                     |  | 12 " " '00      | 209,057              | 108,198            | 94,859       | 37,668                 | 57,250                                      |
|   | 11 " " '00       | 1,876,050            | 1,019,601          | 856,450      | 239,008                | 617,441                                     | <b>ROCHESTER, N. Y.</b><br>Rochester Ry.           | 1 m., Nov. '01  | 85,925               | 44,963             | 40,962       | 25,062                 | 15,900                                      |
| <b>Cleveland, Elyria &amp; Western.</b>                   | 1 m., Dec. '01   | 19,406               | 11,068             | 8,309        | 7,770                  | 538   |  | 1 " " '00       | 82,225               | 48,997             | 33,228       | 24,229                 | 8,909                                       |
|   | 1 " " '00        | 16,023               | 9,401              | 6,622        | 3,228                  | 3,395                                       |  | 5 " " '01       | 428,781              | 232,309            | 196,382      | 124,846                | 71,536                                      |
|   | 12 " " '01       | 249,260              | 196,865            | 112,334      | 57,023                 | 55,371                                      |  | 5 " " '00       | 405,917              | 244,182            | 161,736      | 120,760                | 40,975                                      |
|   | 12 " " '00       | 179,698              | 102,393            | 77,304       | 34,562                 | 42,742                                      | <b>SCRANTON, PA.</b><br>Scranton Ry. Co.           | 1 m., Oct. '01  | 2,638                | 29,300             | ad†26661     | .....                  | .....                                       |
| <b>Cleveland, Painesville &amp; Eastern</b>               | 1 m., Nov. '01   | 13,228               | 8,619              | 4,608        | .....                  | .....                                       |  | 1 " " '00       | 48,781               | 34,787             | 13,993       | .....                  | .....                                       |
|   | 1 " " '00        | 10,925               | 6,311              | 4,614        | .....                  | .....                                       |  | 10 " " '01      | 507,989              | 295,079            | 212,910      | .....                  | .....                                       |
|   | 9 " Sept. '01    | 124,184              | 63,243             | 60,941       | 54,375                 | 6,566                                       |  | 10 " " '00      | 504,852              | 298,122            | 206,730      | .....                  | .....                                       |
|   | 9 " " '00        | 106,187              | 49,979             | 56,207       | 54,375                 | 1,833                                       | <b>SYRACUSE, N. Y.</b><br>Syracuse R. T. Co.       | 1 m., Dec. '01  | 63,471               | 34,374             | 29,097       | 19,025                 | 10,072                                      |
| <b>DENVER, COL.</b><br>Denver City Tramway Co.            | 1 m., Nov. '01   | 118,863              | 64,838             | 54,024       | 32,437                 | 21,588                                      |  | 1 " " '00       | 58,365               | 31,122             | 27,243       | 18,606                 | 8,696                                       |
|   | 1 " " '00        | 109,768              | 60,858             | 48,911       | 31,607                 | 17,303                                      |  | 6 " " '01       | 346,670              | 188,286            | 158,381      | 114,096                | 41,288                                      |
|   | 11 " " '01       | 1,374,784            | 750,850            | 623,934      | 350,749                | 273,185                                     |  | 6 " " '00       | 304,930              | 166,236            | 188,693      | 111,754                | 26,939                                      |
|   | 11 " " '00       | 1,187,728            | 664,037            | 523,721      | 343,229                | 180,501                                     | <b>TOLEDO, O.</b><br>Toledo Ry. & Lt. Co.          | 1 m., Nov. '01  | 113,077              | 57,274             | 55,803       | 37,813                 | 17,991                                      |
| <b>DETROIT, MICH.</b><br>Detroit & Port Huron Shore Line  | 1 m., Nov. '01   | 27,979               | 17,447             | 10,532       | 9,466                  | 1,066                                       |  | 1 " " '00       | 102,083              | 52,038             | 50,015       | 24,271                 | 25,774                                      |
|   | 1 " " '00        | 25,039               | 16,921             | 8,118        | 9,692                  | .....                                       |  | 11 " " '01      | 1,184,706            | 572,775            | 611,930      | 317,855                | 294,575                                     |
|   | 11 " " '01       | 355,195              | 206,052            | 149,143      | 106,163                | 42,980                                      |  | 11 " " '00      | 1,070,669            | 563,509            | 507,160      | 264,780                | 242,380                                     |
|   | 11 " " '00       | 262,800              | 151,503            | 111,297      | 71,623                 | 39,674                                      | <b>W. NEW BRIGHTON, S. I.</b><br>Staten Island El. | 3 m., Sept. '01 | 80,197               | 42,103             | 38,094       | 27,221                 | 10,872                                      |
| <b>Detroit United Ry....</b>                              | 1 m., Nov. '01   | 254,807              | 148,682            | 106,125      | 62,658                 | 43,467                                      |  | 3 " " '00       | 78,432               | 46,155             | 32,277       | 27,348                 | 4,928                                       |
|   | 1 " " '00        | 219,802              | 129,659            | 90,143       | 56,253                 | 33,890                                      |  |                 |                      |                    |              |                        |   |

## NEWS OF THE WEEK

## CONSTRUCTION NOTES

**OAKLAND, CAL.**—The San Francisco & Piedmont Railway Company, recently incorporated to construct an electric railway from San Francisco to Oakland, will this year largely confine its work to constructing sea terminals. The authorized capital stock of the company is \$2,500,000, and the officers are: F. M. Smith, president; N. F. Kelly, vice-president and manager; S. J. Taylor, secretary; F. C. Havens, treasurer.

**REDDING, CAL.**—It is reported that the projectors of the electric railway from Redding to Keswick will ultimately build an extension west to Weaverville, a distance of 52 miles, and another to Red Bluff, a distance of 36 miles. Boardman Brothers, of San Francisco, have applied for franchises for the Redding-Keswick lines.

**SAN FRANCISCO, CAL.**—The Copper Belt Railway & Power Company has been incorporated in San Francisco, and has taken over the electric power transmission system in course of construction by the Shasta Electric Power Company on the McCloud River. Among the principal owners are Messrs. Lawson and Arnold, of Boston, who will be president and vice-president, respectively, when the permanent organization is effected. The capitalization is \$2,000,000. A temporary electric generating plant will be installed during the present year that will supply 6000 hp for operating the electric railway and works of the copper mines of the Copper Belt Mining Company. By extending the ditch 6 miles, more than double the head of water will be available, increasing the capacity of the permanent plant to 16,000 hp. The electric railway will extend 21 miles from the De Lamar Mine, at Copper City, to the Shasta King, near Kennett, on the Southern Pacific Railroad. Standard-gauge cars will be hauled to and from the mines.

**SAN FRANCISCO, CAL.**—The anticipated change in the control of the North Pacific Coast Railroad, terminating in Sansalito and connecting with San Francisco by ferryboats, was recently effected. R. R. Colgate, E. J. de Sabla, Jr., and John Martin have entered the directorate of the company, and the last-named gentleman is now the president of the road. The members of the syndicate which secured control of the road purchased 15,000 shares of the stock, and will arrange at once for rebuilding the entire system. A third rail will be laid to permit the operation of standard-gauge cars. The southern part of the line will be double tracked and converted into an electric road. The section from Sansalito to San Rafael will be first electrified, and large electric cars of Pullman type will be ordered. George H. Fairchild, formerly of the Market Street Railway, San Francisco, is general manager under the new regime. The management will very soon incorporate a new company, to be known as the North Shore Railroad Company. The capital stock will be \$6,000,000.

**COLORADO SPRINGS, COL.**—The Colorado Springs Rapid Transit Railway Company has placed orders for twenty-five Brill double-truck cars—fifteen to be of the open-type and ten of the convertible. The contract for the equipments of these cars was awarded to the General Electric Company.

**DENVER, COL.**—The Colorado & Southern Railway has now received the report of C. K. Durbin, who was sent to Europe last fall to investigate the desirability of substituting electricity for steam on several of the branch roads of this system. Mr. Durbin thoroughly investigated the New York, New Haven & Hartford electric system, as well as several other roads in the East, besides spending some three months abroad. His report was quite voluminous, and after fully discussing the situation, it is understood that Mr. Durbin recommended the substitution of electricity for steam on some of the lines.

**DENVER, COL.**—The new plant of the Denver City Tramway Company, which is being erected under the supervision of L. L. Summers, of Chicago, is now rapidly nearing completion. The first of the 850-kw units was started last week, and is now operating satisfactorily. The starting of this plant not only relieves the overloaded condition of the several other stations of the company, but enables the company to heat its cars, which heretofore has been impossible.

**DENVER, COL.**—It is understood that the Denver & Northwestern Railway has now adopted one of the three proposed routes for building its line from Denver to Boulder, and that work will be started within a few days. The parties interested in this road are practically the same as those in the Denver City Tramway, prominent among whom are Rodney Curtis, George Ross-Lewin and Thomas Keely. It is proposed to build this line from the terminus of the line of the Denver City Tramway Company to Louisville, Boulder and other towns to the north of Denver. Construction work will start within the next thirty days.

**WATERTOWN, CONN.**—Options have been secured on all the rights of way for the Watertown & Litchfield Electric Railroad, and the location surveys have been made. The project is fathered by the Connecticut Lighting & Railway Company, and will be operated in connection with that company's system. The road will be constructed during the present year.

**CHICAGO, ILL.**—J. M. Taylor and Willard Carver, of Omaha, propose to ask the City Council for a franchise to run cars from the Union to the Northwestern depots, using a track in a conduit and carrying cars on two iron beams projecting through the slot.

**BELLEVILLE, ILL.**—The St. Louis & Belleville Traction Company is installing new machinery at its power house 4 miles west of this city, with a view to improving its service between this city and East St. Louis.

**PANA, ILL.**—The electric railway that has been talked of for several weeks is now assured. The surveyors have completed their work, and the contract for the construction of the road has been let. The promoters, H. R. Woodcock, president of the First National Bank at Macon, and J. S. Bur-

trum, state that all the rails have been ordered, all right of way leased, and that the line will be completed in about eight months. The road will be known as the Decatur & Southeastern Electric Railway. It will serve twenty of the most extensive farming stations in Central Illinois.

**SPRINGFIELD, ILL.**—J. B. Hanna, president of the Central Illinois Traction Company, the Everett-Moore Company that is preparing to build an extensive system radiating from Springfield, states that he is thoroughly satisfied that the financial embarrassment of the Cleveland people will have no effect upon the Illinois proposition. It is believed that operations will not be even temporarily suspended.

**ROCKFORD, ILL.**—The surveys and right of way for the Rockford & Freeport Electric Railway are about completed, and the construction of the line will be begun in the early spring, so T. M. Ellis, superintendent of the Illinois Construction Company, of Rockford, says. The road is to be built on a private right of way.

**SHELBYVILLE, IND.**—The Shelbyville, Greensburg & Batesville Traction Company has been granted a franchise in Batesville. The company is required to begin construction work within sixteen months. The road must be completed twelve months from that date.

**MUNCIE, IND.**—Robert E. Kline is interested in a plan to construct an electric railway from Muncie to Richmond, almost paralleling the Cincinnati, Richmond & Muncie Railroad, a steam line. The Murdock syndicate owns the city line in Richmond and the interurban extension from Eaton, Ohio, to Richmond, and it is surmised that the same interests prevail in the new project.

**INDIANAPOLIS, IND.**—The Commissioners of this county have granted a franchise to M. D. Whitney and others to build and operate an interurban railway line from the city limits northeast to the county line along the Pleasant Run Road.

**DAVENPORT, IA.**—The Davenport & Western Electric Railway Company has been incorporated, with a capital stock of \$150,000, to construct an electric railway in this city and to build an interurban line from Davenport to neighboring cities and towns. The company will handle both freight and passenger traffic. The officers of the company are: Robert Mercheval, president; U. P. Hord, vice-president; W. E. Snider, secretary; Monroe Ebi, treasurer.

**IOWA CITY, IA.**—Messrs. Coffinberry and McKay, who are interested in the promotion of several electric railways within the State of Iowa, and who represent Cleveland (Ohio) capitalists, were in this city recently interviewing the Mayor and members of the City Council relative to the proposition of constructing and operating a street railway system in this city and the construction of an electric line from Iowa City to Williamsburg, Washington and Tipton, Ia. The members of the City Council seem favorably disposed, and it is understood will take up the matter at an early date of ordering a special election for the purpose of voting a franchise for the project.

**DECORAH, IA.**—A company has been organized in Minnesota for the purpose of constructing an electric railway from Decorah to Minneapolis and St. Paul via Preston, Minn., where the offices of the company will be located. The capital stock of the company is placed at \$500,000. The incorporators are all Southwestern Minnesota and Northeastern Iowa men.

**BALTIMORE, MD.**—The Baltimore & Frederick Electric Railway Company, promoting the proposed electric railway between Baltimore and Frederick, has been incorporated, with \$1,500,000 capital stock. The estimated length of the road is 45 miles, and it is proposed to build from the western suburbs of Baltimore along the Liberty Turnpike.

**DETROIT, MICH.**—The Detroit, Pontiac, Lapeer & Northern Railway Company has secured nearly all its franchises. One line is projected from Bay City to Lennox via Cass City, and the third is projected from Bay City through the thickly settled portion of Huron County to the summer resorts.

**DETROIT, MICH.**—The Hawks-Angus syndicate will shortly begin the construction of what will probably prove to be the most important line ever projected by it. The plan is to build an electric railway to operate between Detroit, Lansing and Grand Rapids, connecting with the local city lines at Detroit, and with the Grand Rapids, Grand Haven & Muskegon Railway at the other end of the route, thus giving through service between Detroit and Muskegon, a distance of 185 miles. It will be a single-track line, constructed for high-speed service. Much preliminary work has been done, and franchises have been secured in Jackson, Lansing, Coldwater, Ionia, Concord, Leslie and Huron. Private rights of way on highways and through smaller towns have also been secured. The official title of the new road will be the Jackson, Coldwater, Lansing & Grand Rapids Railway. Westinghouse, Church, Kerr & Company, of New York, are the engineers for the new road.

**MANKATO, MINN.**—Edward P. Burch, who has been investigating the cost of constructing an electric railway from Mankato to St. Cloud for Cleveland capitalists, has reported that the line can be built for \$2,000,000. The proposed line would be about 100 miles long. Beginning at Mankato, it would run through New Sweden, Gaylord, Kingston, New Auburn, Hutchinson, Kimball Prairie and Dassell, to St. Cloud. It is the intention to build platforms at frequent intervals for the benefit of the farmers, and all trains will stop on signal to take on either passengers or freight. A power house is to be built at each terminal and another at Hutchinson, the midway point. The promoters of the line have submitted to the residents of the territory to be served a proposition that the people of the cities interested pay a cash bonus of \$100,000 and furnish \$12,000 cash with which to make the survey. The cities of Mankato and St. Cloud are each requested to furnish twenty acres for terminal purposes, Hutchinson four acres for depot and power house, and each of the other towns one acre for depot purposes.