

Electric Railway Journal

Consolidation of Street Railway Journal and Electric Railway Review

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Lest We Forget, Let's Do It Now

NOW is the time to underline the dates Oct. 11 to 15 and to order reservations at Atlantic City. That resort is very popular and its hotels are always crowded. Hence, to avoid trouble and delay, those who intend to go to the convention should make their reservations with the hotels immediately.

Every indication points to a banner convention. There is a get-together spirit manifested this year that is very encouraging. All the committees of the association have been working hard and valuable material is certain to be presented at the meetings. Our "Daily" will be on hand as usual for the benefit of those in attendance.

Car Reassignments Aid Coal Speculators

EVIDENCE submitted to the various committees investigating the coal situation shows that a very vital element in the situation is introduced by the speculations of coal operators and dealers through the manipulation of markets by reassignments of coal cars.

With no reserve stocks on hand the demand for coal is so great that, even though production is almost normal, the transportation facilities are taxed to their utmost, yet evidence tends to show that speculators in the New York and Chicago districts have been keeping "tight" markets by locally reassigning cars and barges in order to aggravate the shortage and realize large profits. While no direct action has been taken, the Interstate Commerce Commission is on record as to the desirability of the railroads prohibiting reassignments and increasing demurrage rates.

It seems to us, in view of the coal shortage, car shortage and threatened railroad strike, that an immediate order forbidding the speculative reassignment of cars would aid greatly in relieving the situation. The fact that coal stocks are low should not offer opportunity for profiteering in a national necessity.

The Industry Has No Disease Which a Reasonable Fare Will Not Cure

SOME curious aberrations appear in the public mind because of the demand for higher fares from the railways. Even such an astute writer as Richard Spillane takes the text of a recent paper by a railway manager as indicating the trolley car is doomed because the manager said that yearly the costs of operation and maintenance of railway operation have gone up, leaving virtually no opportunity for the operating companies to lay aside reserves. But there is no dependable substitute for the trolley car, as the citizens of Toledo and certain cities in Connecticut and eastern Massachusetts can testify, and as people can hardly be expected to walk it is safe to say that the car is not

"doomed." It is still the cheapest means for popular transportation in cities, as Mr. Pardee showed in our issue of July 10 and as other competent observers have testified. All that the trolley interests want and ask for is a fair deal and that their increased expenses should be recognized in an increased fare. Statistics show that more people are riding on trolley cars than ever before. The industry is afflicted with no disease which a reasonable fare will not cure.

"Watch Your Step" Can Be Applied at Home

WE RECENTLY said that it is the sore spots in the fare situation rather than the good ones that stand out now, and this fact of itself is a healthy sign. At the same time we warned against undue optimism and decreased effort and urged those who healed the sore spots in the railway industry to be sure that they were well healed.

Now a word can well be said to those companies which at present are enjoying higher fares as the result of a realization of the facts by the public, and that is "to keep faith." We were just about to pen these words when there came to our attention a like message in a daily journal whose past record shows that it is in sympathy with the electric railways as well as conversant with the problems of the industry. It is therefore friendly, not critical, comment.

In commenting on the Bridgeport jitney situation the New Haven (Conn.) *Journal-Courier* of July 15, 1920, attributes the support given the jitneys by many people as due, at least in part, to resentment caused by remembrance of old faults in electric railway administration. "It has not been easy," the paper says, "for people to forget the arrogant attitude of trolley managements and their cold indifference to public opinion; their confidence in legislative protection rather than in public support." The passage of the Bridgeport ordinance restricting jitneys is attributed to the public's consciousness of the embarrassments which would result from a cessation of trolley service rather than any special tribute to the company. The editorial then tells the public that to nurse a grievance for past errors is useless and both public and trolley company should learn the lesson that in the future there must be a perpetual square deal. The protection now given the railway, it points out, will be worse than no protection unless in return the company maintains high efficiency with lowest possible cost. Finally it says that the company's "future must depend upon the service and the spirit in which it performs it, and not upon explanations and excuses. This we take to be the understanding that is tacitly formulating itself as the result of this struggle. The company is to do its best and the public is to keep an eye on it."

As in previous cases, we do not wish to apply this merely to the company in question, all of whose officers and men have already seen it, but for the benefit of all.

An instance of an act which, though probably merely careless, might well be taken by the public as the opposite of playing fair also came to our attention recently. It was a statement or argument which urged that, irrespective of future changes in price level, the electric railways do all in their power to maintain any increased rates of fare obtained at the present time. At the same instant, and rather incongruously, the speaker argued in favor of the service-at-cost principle, so far as it related to rate increases.

This sort of support is disingenuous and productive only of distrust of our motives on the part of the public. A perpetual square deal is needed, without equivocation.

The Electric Railways Need More and Better Publicity

WHY does the public still misunderstand the electric railway situation? This question is one which many friends of the industry find it hard to answer. During the past few years a great deal of effort has been devoted by railway men and others to explaining the issue, but a great part of the public still does not understand. Many men in responsible and authoritative positions seem bent upon distorting the facts. "I cannot understand," writes one of our readers, "why it is so hard for the railways to secure justice when the situation is so obvious and the future welfare of the communities served is so largely dependent on the fairness of the treatment which they give to their utilities."

The facts are undoubtedly obvious to railway men, but that does not mean that they are equally apparent to their neighbors who are engaged in other lines of work. They are the men to reach. Little is to be gained from publicity directed to men acquainted with the situation. Conventions at which railway men tell each other how bad the situation is do not advance materially the desired public knowledge of the situation, no matter how valuable they may be in other ways.

As we have said many times before, there is nothing mysterious in publicity work or the way of getting the facts to the public, and the message will get across finally if it is a worth-while message and it is pushed. But people are so much interested in their own affairs that they will not pay much attention to the affairs and troubles of other people, unless those who have the message to transmit assume the initiative and take some interest in becoming evangelists.

Through Service Should Be Extended, Not Disintegrated

THE advantage of through service over various connecting interurban properties has been referred to from time to time as a very desirable thing, particularly in connection with the haulage of freight by electric railways. The value of this interchange of freight between electric railways was particularly emphasized during the outlaw strike of the switchmen a few weeks back. In our issue of May 8, 1920, we commented on the extent to which freight had been shipped by way of the electric lines in the central territory and pointed out how the building of one or two surprisingly short pieces of track would greatly facilitate such through shipments. In fact, it may be said that the development of freight business in connection with electric railway

lines hinges in an important way on interconnection of lines and interchange between companies. The possibilities of the development of through freight shipments has scarcely been touched.

With these thoughts in mind it is with a good deal of regret that we note that the receiver of the Buffalo & Lake Erie Traction Company has made application for and received permission from the New York Supreme Court to discontinue its lines within New York State after Sept. 1. This company's line runs along Lake Erie from Erie, Pa., to Buffalo, N. Y., and forms the connecting link between the great electric railway network of the Middle West and the lines east of Buffalo. While we fully appreciate that an electric railway property cannot be kept in operation out of sentiment if there is not enough business to justify its existence, yet in view of the possibilities of through freight development in the future it does seem that the electric railway industry should take enough pride in interconnection possibilities and in the future aspects of the freight business to find some way to keep this piece of line in operation. We regret exceedingly to see the abandonment of an important connecting link in the greater electric railway system.

Lessons from and for the Motor Bus

THOSE who have hitherto curtly dismissed the motor bus with a sniff, snort and sneer, based upon their observations of the improvised jitney breed, will find a different kind of animal when they come to the productions of the high-grade manufacturers of motor trucks and, even more perhaps, to the specialized design of the experienced Fifth Avenue Coach Company of New York.

Our overdevelopment of trackage and underdevelopment of paved highways may not yet call for any such extended interoperation of trolley and bus as is the case abroad, but we do not think it is any too early for electric railway operators to begin acquainting themselves with the best practices in the newer form of transportation. For this reason we are presenting in this issue a comprehensive abstract of the paper on "Motor Bus Transportation" by G. A. Green, general manager and engineer Fifth Avenue Coach Company, at the summer meeting of the Society of Automotive Engineers. Discussion of this frank contribution might well be divided into what the electric railway can learn from the motor bus and what it can teach to its junior in the business of transportation.

It is in discussing the possibilities of a gas-propelled car that Mr. Green says bluntly of present trolley cars: "They are as a whole built as strong as possible, not as weak as possible, which is a much more logical and economical procedure." It is true that safety-car development has been a big help toward producing a lighter car, but we still expect car designers to secure automobile weight without using automobile materials. There is also something worth thinking about in Mr. Green's remarks about one-man buses and double-deck buses. We are far from having exhausted the possibilities of the automatic one-man car. On the average interurban, for example, a short-headway service would keep the Ford on the farm a greater part of the time. Nor is it beside the mark for electric railways to consider the use of either trackless electric or gas-line one-man buses for lighter traffic conditions. As for Mr. Green's other extreme, the double-decker, we

feel that if a two-story bus can be built low enough for our viaducts the same thing can and really has been done (at New York and Pittsburgh), with trolley cars. For use in ordinary traffic we have never been enthusiastic for the double-deck car, believing it slow compared with other designs of cars. But with the increases which have been taking place in the wages of the platform man every means, whether safety car, train or double-decker, which promises to increase the output per man must be kept in mind.

The splendid research organization of the Fifth Avenue Coach Company fortunately is an expense from which electric railways are almost entirely free because of the more than generous experimental work of many of our manufacturers. We would pause to add, however, that in such a matter as fuel the electric railway would do well to study the almost meticulous methods of the Fifth Avenue Coach Company. To paraphrase Mr. Green, power is the second largest item of expense. It is to be observed that every step in the use of this company's power, gasoline, is studied so that there shall be no waste in the generating (engine) or use (driving) thereof. How many electric railways are paralleling this company's practice by following up their power from coal pile to controller handle?

What now has the trolley car to teach the motor bus? First, that the flexibility which is of so much value in handling shifting or sudden traffic movements is more harmful than helpful when traffic over an always busy route has to be handled to assure maximum carrying capacity. A large motor bus has about as much chance to cut past or around flocks of automobiles as a lumbering crow has to fly rings around a kingbird. In no case could the bus do so without taking unwarranted chances. A vehicle that must stop and turn to the curb at every corner almost is quite as bad a blockader as any trolley car could be. We wish that certain bus promoters, or rather the "widows and orphans" they seek to beguile, understood this point as clearly as Mr. Green, who says that "No type of bus designed up to the present is capable of properly handling peak loads." We would make an exception to this, however, where it is possible that buses of the sightseeing *char-a-banc* type might be used by electric railways to carry part of the peak loads on express schedules through short cuts away from congested thoroughfares. Service of this kind would not be justified in itself, but would be worth trying if it afforded a substantial relief to congested railway traffic points and was subsidized by a higher fare or in some other way by the people who are especially benefited by the service.

The second lesson for the motor bus is the demonstrated absurdity of a fixed fare. The Fifth Avenue Coach Company, with its 10-cent franchise rate for any distance, is facing trouble in view of ever-rising gasoline and wages as surely as any electric railway which is trying to make ends meet on 5, 6, 7 or even 8-cent fares. Only the combination of unexcellible riding territory, a large volume of business permitting a small margin of profit per bus-mile and experienced management have kept the company's financial head above water. The failure of the Chicago Motor Bus Company, aside from any questions of bus design or operation, indicates that the field for *de luxe* service is highly limited, and in any case such service must have a flexible unit if not a flexible distance fare to be successful. Mayor Hylan of New York, with his notions of a 5-cent universal transfer bus system, might well

ponder Mr. Green's statement: "The theory that the car systems in any of the larger systems can be supplanted by any standard type of bus now obtainable is absurd and not worth any serious discussion." So, quoting for the last time, as "The bus is not more economical than the trolley car on the basis of cost per passenger carried, which is the only real basis," we must conclude that the best way to exploit the bus is to use it to supplement rather than supersede the electrically operated car.

Squandering Money Badly Needed for Constructive Purposes

WHAT an absurd position is being taken by the city hall politicians of Chicago, and what a wanton waste of money! The municipality is so hard pressed for funds with which to meet its payrolls and other necessary expenses that at the present time it faces a shortage of several million dollars before the end of the year, with no practical plan in sight to meet the deficit. Nevertheless, the City Council recently approved the expenditure by the Mayor of \$421,985 additional to fight the increases in elevated and surface line fares and telephone rates. This is in addition to previous appropriations amounting to \$323,858, making a total of \$745,843, which may be spent before Jan. 1, 1921.

No reference to this waste of money would be complete without comment on one or two other features of the situation. The Mayor has appointed a special traction commission for the purpose of working out a "people's ownership" plan, which seems doomed to failure from the beginning, although it has a certain vote-getting appeal. The appropriation for this commission is \$250,000. The counsel for this commission is also counsel for the Mayor in traction matters before the Public Utilities Commission and receives for his services on each a per diem payment of \$150, although, in the opinion of those competent to judge, in all of the hearings in the Chicago fare cases he has never presented a pertinent constructive suggestion. This is not only wasting money but "rubbing it in."

Leaving the financial side for a moment and turning to the absurdity of the fight, one cannot avoid being concerned over the unwarranted attack. When the supreme legislative authority of the State has set up a tribunal such as the Illinois Public Utilities Commission, and provided all the necessary machinery and authority to safeguard the interests of the people in their dealings with the public utilities, it would seem that the decision of such a body would be satisfactory to the public. We believe that to be the case, and that the expenditure by the city hall of Chicago to fight these decisions or for any other similar purpose is unwarranted and a waste of the public's money. This belief is made more apparent in the case of Chicago when it is recalled that the city hall is continuing its fight against the decisions of the commission, despite the fact that the city has repeatedly lost its cases in contention with the Illinois Public Utilities Commission; that the commission has been upheld in every decision fought by the city in every court save one, and that this unfavorable decision was later reversed by a higher court and the lower court rebuked.

Yet this legal brawl goes on and on, utterly without hope of any good save the discreditable appeal that any fight for lower fares makes to the ignorant and unthinking.

This is Number Five of a Series of Articles on Salient Phases of the Electric Railway Situation

Detroit Muddles Along

By Edward Hungerford

MR. HUNGERFORD tells in this issue how the transit situation in Detroit has long been the football of politics. Various solutions of the question, involved through the expiration of some of the franchises of the present company, have been suggested, including service-at-cost and municipal ownership. The latest plan of the city is to own and operate an opposition system, which has many disadvantages from the standpoint of both the taxpayer and car rider.

For at least a quarter of a century now the Detroit traction system has been the making—or the unmaking—of the local politicians. In all that time, beginning with the rule of the late Hazen S. Pingree as Mayor of the Motor City, there has not been a year or a month or a week hardly in which the community has not been torn with doubts and perplexities as to its trolley service. It has been told, and in all probability has believed, that the Detroit United Railway, which is almost the sole purveyor of that service, is not only merely bad but sin-filled; far past the point of any possible redemption. Yet Detroiters who wandered far from their firesides and perhaps into less favored communities have been apt to return home feeling that their street railway service was far and away better than that of many of the cities which they had visited. But their local newspapers quickly informed them of the error of such thinking. Detroit trolley service was bad. It was hopeless. The company itself narrowly escaped being com-

pletely criminal. At least so the newspapers said.

Some day some one is going to have the ability and the courage to write of certain public prints as they in turn have written of certain American industries and utilities which have not chanced to be numbered among their large and generous advertisers. It is my personal opinion that such an analysis will be almost certain to show that there are good and bad newspapers, just as there are good and bad trolley companies, as well as other public utili-

This view was taken at the corner of Monroe Street and Woodward Avenue, in front of the City Hall and at the downtown civic center of Detroit.

ties. The problem will then remain to separate the sheep from the goats in newspapers fairly, just as certain folk have endeavored to separate them in the transportation business, with varying degrees of success. To my own mind, even this last is passing difficult. Seemingly the point might be reached by an exact and accurate comparison of the different traction service in cities of the same general type—their fare charges, the service rendered and the like. As a matter of actual practice, however, such a method would be both inaccurate and unfair, because one might find two American cities of almost exactly the same area and population and still differing widely in their transit necessities because of their topography or conformation or peculiar type of industry or of population, or any one of a dozen other characteristics or the temperaments of the traction operators themselves, which it seems might be allowed a fair degree of human variation.

But none of these things, I think, should permit the city transit ques-

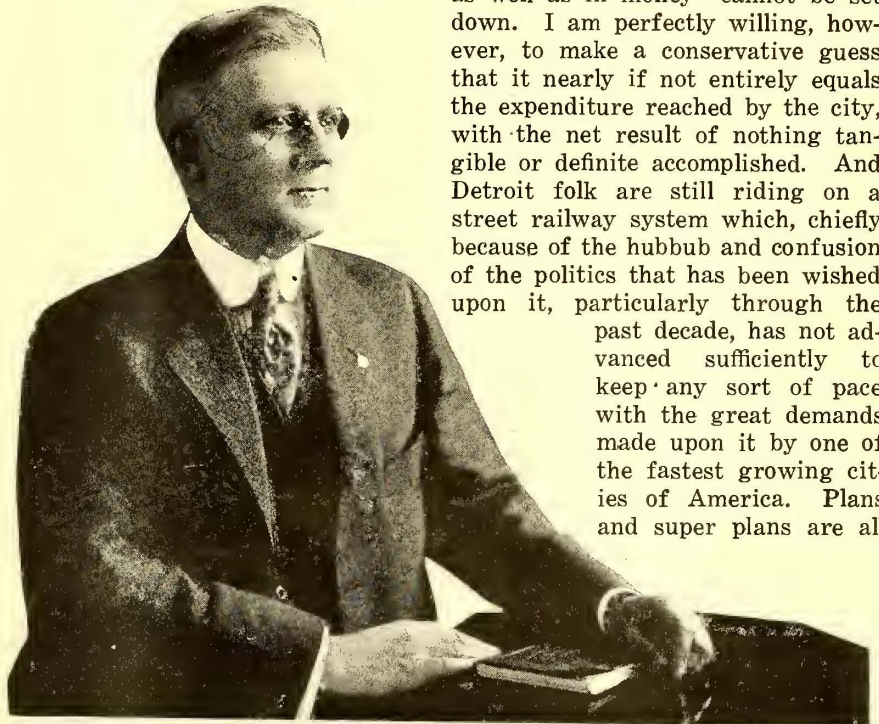


tion to be the mere football of politics, as it has so long been in Detroit. There, as in neighboring Toledo, the city should do one of three alternatives: It should cease criticising the service rendered—such criticism will inevitably have a calamitous effect upon the morale of the trolley patrons as well as the employees—or it should permit a fair rate of return, or it should buy the property itself. In the case of Detroit the company long since signified its willingness to sell its city lines—at a fair valuation, of course. It is hardly two years since a commission appointed by the present Mayor, James Couzens, agreed upon a physical valuation of \$29,000,000 for these lines. The company wanted something for the good will of a going concern. After some deliberation Mayor Couzens expressed his willingness to add \$2,500,000 to the foregoing figure for this asset.

Unfortunately, however, Mayor Couzens did not have the last say in the matter. If he did the D. U. R. might today be a matter of mere history in the city of Detroit. Outside, it probably still would be a large factor in the traction situation in the United States, inasmuch as but 300 miles of its 900 miles of trackage are situated within those city limits. It is an interurban property of real importance, in addition to owning the city systems of Flint, Pontiac, Ann Harbor, Port Huron and one or two other fairly important Michigan towns. The remarkable recent growth of them, due to the rapid expansion of the automobile industry, has given greatly increased earning capacity and value to the larger long-distance lines of the Detroit United Railway. Of themselves they are today to be classed at the head of the few prosperous interurbans remaining across the land. And grouped together they would form in almost any event a going traction property of no small dimensions. The D. U. R. is far from being at death's door.

The Detroit traction question apparently could not be permitted so simple a solution, however, as a choice between the three pathways which I now just indicated, in accordance with the terms of the city charter. Such an important civic matter must necessarily be submitted to the electorate for its approval. So it was that the street railway purchase plans could only become effective upon a 60 per cent vote being cast in its favor.

In all probability the electorate of Detroit does not differ greatly from that of a good many other large industrial cities in the United States, particularly those of recent rapid growth. It does very little thinking for itself. It prefers to let its politicians, and the newspapers which they control, do its thinking for it, while it hies itself to the perennially popular movies or for automobile rides off into the country. In this particular instance, however, the City Hall had approved of the D. U. R. plan. But the newspapers for once apparently were not in accord, it seemed, with this font of wisdom.



FRANK W. BROOKS

President and general manager of the Detroit United Railway, from his most recent photograph. Mr. Brooks is both steam and electric road trained from the ground up, his having been no flowery bed of ease. He can talk in engineering terms with the company engineers, in electrical terms with the power men, in construction terms with the track department and he knows car building from trolley wheels to truck wheels. He is equally familiar with publicity, having in his younger days been connected with the detail workings of a newspaper. Golf and fishing constitute Mr. Brooks' recreation.

At any rate, the proposal was voted down.

COMPANY OFFERS VARIOUS SOLUTIONS

The traction company then turned toward the well-known Tayler plan of Cleveland as a possible pathway out of its troubles. In conjunction with the then existent street railway commission of Detroit it sought to work out an adaptation of this scheme which would be best suited to the needs of its own community. For the moment, a charter mandate looking toward a genuine municipal city railroad was overlooked. Perhaps

Uncle Sam's experiments with the steam railroads, the telephone and the telegraph were bearing some sort of real fruit up there in Michigan.

Once again the Detroit United's experts turned their patient attention to a workable and possible permanent solution of a problem that had begun to seem well-nigh unending. In this connection it is perhaps worth noting that in the past eleven years upward of \$750,000 has been spent by the city of Detroit alone in attempts to work out a solution of this one problem. What the D. U. R. has expended—in time and in worry as well as in money—cannot be set down. I am perfectly willing, however, to make a conservative guess that it nearly if not entirely equals the expenditure reached by the city, with the net result of nothing tangible or definite accomplished. And Detroit folk are still riding on a street railway system which, chiefly because of the hubbub and confusion of the politics that has been wished upon it, particularly through the past decade, has not advanced sufficiently to keep any sort of pace with the great demands made upon it by one of the fastest growing cities of America. Plans and super plans are all

right in their way. But they are neither tracks nor trolley cars.

Yet plans, by the dozen and by the score, have been made. Some of them are ingenious, some remarkably simple, the most of them highly practicable. Experts of nation-wide prominence, William Barclay Parsons, H. M. Brinckerhoff and Bion J. Arnold among them, have worked side by side with local men of no mean ability. The street railway commission which was appointed to work out the service-at-cost plan, based upon the Tayler plan of Cleveland, was itself composed of three Detroit men of long business

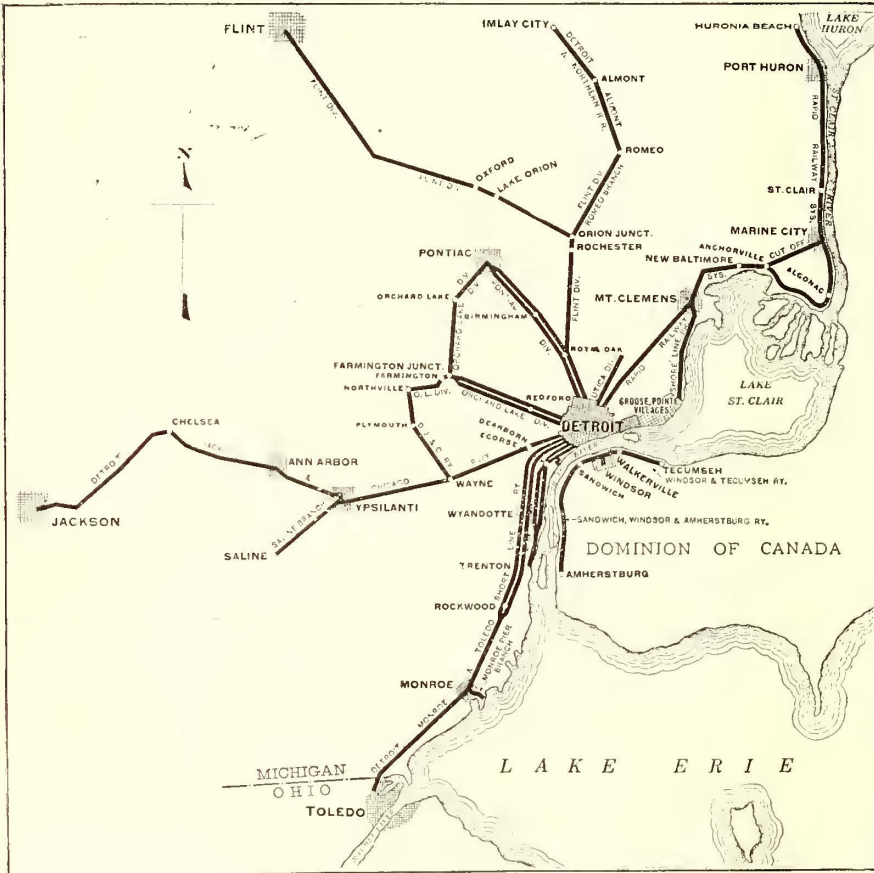
experience and sagacity. They worked long and faithfully on the problem.

But when they too were done the results of their labor also was *nil*. Mayor Couzens flatly refused to commit the city to the service-at-cost plan. He announced that he was for a straight municipal railroad and that at once; maintained stoutly that this was the spirit of the city charter which Detroit adopted two years ago. Therefore, despite stout demands on the part of many folk, he refused to put the plan to the referendum. The company, however, was not daunted by the doughty

I wish that I might accurately depict how much the new fourth city of the United States needs this relief; not elaborate subways or subway terminals such as Cleveland now seems bound to build for herself—although Detroit has already planned a subway terminal to relieve the almost interminable congestion in her civic heart—but new surface lines in her great outlying sections, which have come from truck gardens yesterday to acres upon acres of small, neat new homes today, as well as the main-stem and crosstown lines to concentrate and to distribute these new outlying routes.

Unquestionably Detroit is as badly a laid out city for a million folk today as she was well designed for the two or three hundred thousand that was thought would be her maximum possible size—up to ten or twelve years ago. Her ingenious plan of radiating streets, shooting out like spokes of a double wheel from her two civic centers downtown, was very good for a city whose homes and factories could be comprised within a radius of 3 miles or so. For one demanding a radius of 6 or 7 or 8 miles it is of little practical use; far inferior, in fact, to the straight checkerboard pattern of so many of our American cities. Yet her badly devised and much overgrown city plan could be fairly taken by crosstown lines—lines such as my friend, the fellow passenger down from Flint, needed to get him over to his home and supper.

Now what has happened in regard to these crosstown lines? For a long time past the Detroit United has stood ready and willing to finance and to build them. A route that it chose for one of these was through High Street. That was all of seven years ago. The very suggestion met with great acclaim on the part of the residents of one of the most rapidly growing and poorest served new sections of the city. People really want it. Was the line built? Answer: It was not. One of the then members of the Common Council was reputed to own property on another cross street which might have been used for a crosstown line, although, in the judgment of traction experts, not as effectively as High Street. The odurate Councilman, even if he failed to get a new trolley route past his own holdings, did succeed in preventing any other being built. And the Detroit folk who walked long blocks in bad weather getting to and from the nearest trolley cars did not understand why they could not have genuine transit relief.



Detroit is the center of one of the largest and most important interurban systems in the country. All of the lines shown on this map are controlled by the Detroit United Railway

Mayor. It went right past his office and into the hall of the Common Council. To that august body it put its necessities—and its plan. The Council inclined toward the plan, passed the necessary enabling resolutions and ordinances, which the Mayor promptly vetoed. The Council then moved to pass the measure over the Mayor's veto. And nearly did it. The vote of a single Councilman prevented this practical and wise compromise measure coming into effect—the practical solution of a vexing problem. And Detroit still was without transit relief.

A man who rode beside me one day not long ago in the fast limited car on the interurban down from Flint complained bitterly of the lack of crosstown service.

"I live over on Grand River Avenue," said he, "and when this car comes by the Ford plant on Woodward Avenue I will be within 3 miles of my house. But there is no way to get across to it, other than walking. So I am compelled to ride 6 miles down into the heart of the city at night, transfer there and ride out 6 miles again. All for the lack of a well placed crosstown line."

A TEST PERIOD OF FARES

With the service-at-cost plan buried—and seemingly without the slightest hope of resurrection—the harassed and perplexed traction company turned toward at least temporary relief in its fare situation. Its term franchises expired on the downtown section of two of its main-stem streets—Woodward Avenue and Fort Street—and yet with its cars operating on those tracks merely as a public necessity and on a day-to-day basis, it still possessed nearly 300

miles of other trackage in Detroit, to say nothing of those 600 miles of interurban line that we have already seen. Yet even if *all* of its city franchises had expired it still would be in need of fare relief—of a definite sort. For Detroit has by no means been exempted from the causes and conditions that have jammed up the cost of street car operation in the towns big and little all the way across the land. On the contrary, her local industrial situation has made her a remarkably difficult and expensive town in which to conduct a business of any sort.

Mayor Couzens, under the pressure of a real traction crisis, announced his perfect willingness to put this question of increased fares up to arbitration. Mr. Couzens may be radical, but he does not seem to be mean. His attitude is one of extreme generosity. He is pledged, however, to the idea of a municipal street railway for Detroit and is nothing if not consistent.

So it was that the question of increased fares—the D. U. R. had intimated that the retention of the 5-cent fare, but with a charge of 1 cent for transfers, would give it a breathing chance. In fact it went so far as to endeavor to put such a fare into effect—with the almost usual accompaniments these days of a strike of its platform men for additional wages and a three-day suspension of trolley service and great expense and annoyance to the citizens of the town. Out of the protests of these bewildered folk, in fact, came the Couzens agreement to arbitrate the entire fare question. Arbitrators were appointed and a test period of three months chosen to see if the company needed the raises in fare.

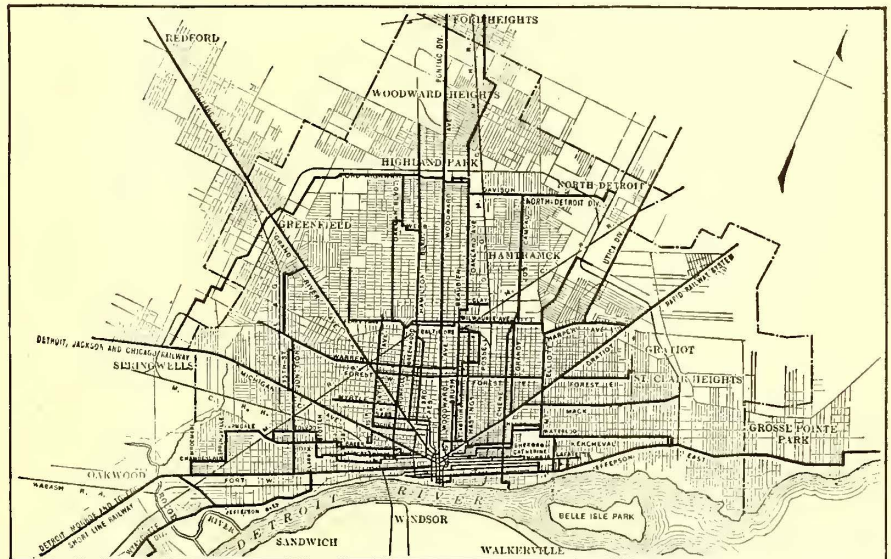
Once again the Detroit United played out of luck. It almost seems fated—hoodooed is perhaps a still more expressive word. In the three test months—July, August and September, 1919—it did a humming business. The flush after-the-war period was well upon the city by the straits. People rode upon the trolley cars of Detroit—in dull hours as well as the busier ones—as they apparently had never before ridden. The company failed to make its hard-up showing and its fare remained at 5 cents with free transfers. And so still remains.

PLANS FOR A MUNICIPAL RAILWAY BECOME DEFINITE

In the meantime Mayor Couzens had not been idle. He is not of the

idle sort. In these repeated failures of the various plans of the D. U. R. he saw the hour of his own opportunity looming large. He decided last spring that the time had come to make his plans for a municipal street railway definite. So more experts and more engineers were imported and, with the aid of the city's own engineering department, a scheme was evolved for the construction of 163 miles of new trolley line. In addition to these the Mayor planned to take as downtown main stems the lower portions of the Woodward Avenue and Fort Street lines of the Detroit United Railway, upon which

a day last April he went to the people of Detroit and asked them to give him a referendum appropriation for this very sum. And still the Detroit United Railway played out of luck. Its hoodoo is a most persistent sort of bird. Only about 45 per cent of the intelligent electorate of the town voted, but more than the required 60 per cent of the actual voters approved of the Couzens plan, whereupon the Mayor proceeded toward actual construction of his street railway—until the existing company stepped in and tied up the matter in an action in the federal court. It claimed that there were doubts as to the validity of



With its system of radiating avenues from the civic center, Detroit is well adapted for street transportation

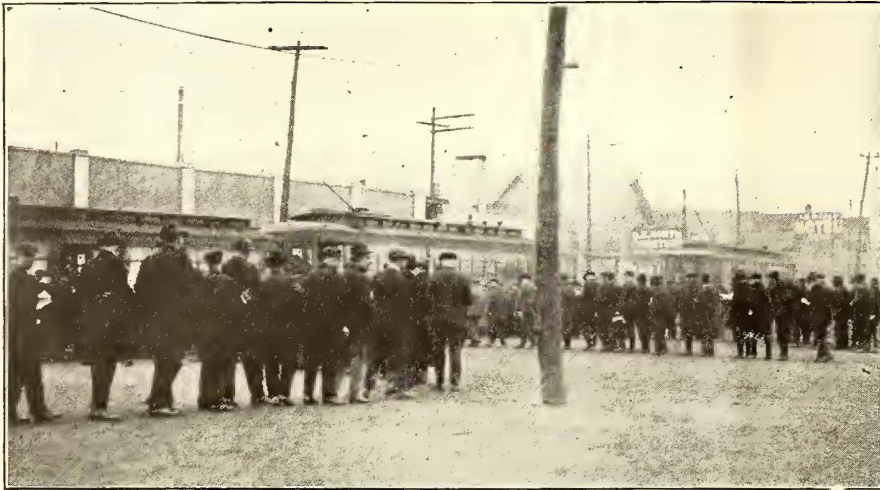
you will remember the term franchise had expired and where the company was, and still is, operating without franchise and under a so-called day-to-day agreement as a public necessity. There are 55 miles of this last type of line, including a few miles of new trackage built as an emergency and also operated on a day-to-day basis, which brings the mileage of the proposed municipal system to nearly 218 miles.

The new trackage of this civic railway is practically all of it located in the outlying sections of the city. It is divided into three groups—for convenience lettered alphabetically—and of which the third grouping, Group "C," about 59 miles, is not planned to be built at the present time. That leaves about 103 miles of actual new trackage to be constructed. To build this new line, as well as to equip it with cars, carhouses, shops and power houses, Mayor Couzens' engineers have estimated will cost \$15,000,000, and on

the election; as to the way in which it was held and the manner in which the votes were cast. All of which are technical questions and will be finally decided by the Federal Supreme Court, in due course.

POSITION OF CAR RIDERS IN JEOPARDY

In the meantime let me attempt a final analysis of this most perplexing Detroit question. The Couzens railway scheme if carried out as planned provides a traction system of most unusual appearance. It is forced by that self-same peculiar street conformation of the city to use the expired franchise routes of the Detroit United in Fort Street and Woodward Avenue to bring its new lines, built almost entirely in the new outlying sections of the city, downtown. In the case of Woodward Avenue this is particularly unfortunate, for with the utter lack of foresight, common to so many of our American cities, Detroit failed a dozen years ago or more to widen this street to the



This photograph shows the men leaving work at the Ford plant lined up to board cars. In this way rapid loading of cars has been obtained

dimensions that its real importance as the chief thoroughfare of a city of more than a million folk demanded. Now it is too late. Great and permanent new buildings of a type not easily removed or altered line it upon either side. Yet through Woodward Avenue there pours today a trolley traffic that is reputed to be greater than that of any other street of the United States, although the D. U. R. pours no feeding lines whatsoever into this main thoroughfare, reserving it for the cars of the Woodward Avenue service alone and an occasional interurban in from Ann Harbor, Pontiac or Flint.

WHAT THE COUZENS PLAN MEANS

With the Couzens municipal plan in effect four outlying surface car lines to the west and one to the east of

the outer sections of this street will have to be poured into and through its narrow and congested downtown section—between the Boulevard and the Grand Circle. And congestion worse congested.

"But how about the Detroit United's service and that of the interurbans too?" you interrupt. "How are these to be brought down into the heart of the city with the downtown Woodward Avenue section taken from the old company

Please do not worry about the interurbans. The local merchants will see to it that they are not disturbed in getting to downtown Detroit. They bring too many millions of dollars in trade to their stores in the course of a twelvemonth to be easily turned aside. And as for the D. U. R. cars in outer Wood-

ward Avenue, they can also be taken care of, quite easily. The company, perhaps with an anticipation born of real foresight, long ago paralleled Woodward Avenue with double-tracked relief routes; one on each side of that great main-stem street. Its position is quite secure.

It is the position of the car riders, of the million or more Detroit folk, which is most in jeopardy, it seems to me. With two systems their general system of universal free transfers, such as they are enjoying at this moment, becomes an impossibility. Two fares, in some cases three, will have to be paid where they now ride for one, and could continue for a long time to ride for one, with the possible addition of a penny or two for transfers. The burden of the worry has been shifted to their shoulders.

For impressive as the Couzens plan is in all of its maps and prospectuses, it is somewhat less so when one comes to examine its financial outlines. According to the Mayor's plan, as outlined to the Council, the sum to be expended reaches \$15,022,000, divided as follows: \$2,220,000 for the 55.5 miles of trackage now being operated by the D. U. R. under the day-to-day agreement, \$7,052,000 for the new trackage, \$4,000,000 for 400 motor cars, \$750,000 for 150 trailers and \$1,000,000 for carhouses, tools and equipment. Analyze these figures for a moment. Start with the second item. Mr. Couzens proposes to spend \$7,052,000 for 103.05 miles of new track—the Class C group of 59.7 miles being, as we have already seen, deferred for the present—which figures close to \$68,432 a mile. Yet, coming back to the first item, the Mayor of Detroit only proposes to pay the D. U. R. \$40,000 a mile for its 55.5 miles of line.

"The Mayor counts without his host," said President Brooks of the Detroit United to me the other day in referring to this very point. "He has no right to assume that we would sell at this or any other price yet fixed. He is proceeding upon an entirely unwarranted assumption."

To an unprejudiced outsider it might seem a little inconsistent that the city should expect to buy existing line at \$40,000 a mile when it proposes to pay \$68,000 to build new trackage. Assuming for the moment that it could force the D. U. R. actually to tear up its tracks in the franchiseless streets—although I am quite sure that such a stroke would



This view was taken on Jefferson Avenue, which runs nearly parallel with the Detroit River. The photograph was taken near the junction with Woodward Avenue

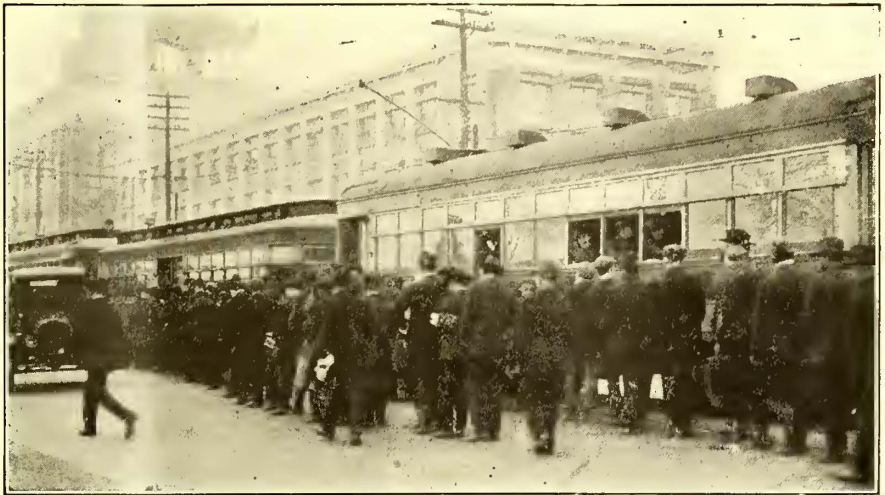
bring down almost interminable legislation—it immediately would be forced to the latter figure of expenditure.

In fact, it is interesting to notice that Parsons, Klapp, Brinckerhoff and Douglas in making their estimates of an enlarged transit for Detroit placed the cost of new surface lines there at an average of \$75,327 a mile—considerably ahead of Mr. Couzens' figure. At these figures the Mayor's 103 miles of brand new track would cost \$7,762,447, or about half a million dollars in excess of the budget which his own engineers have prepared and which was used as the basis of the special election.

It would look as if Mayor Couzens has been equally conservative in some of the other items of his estimate. It allows \$10,000 apiece for modern motor cars and \$5,000 for trailers. The Mayor may have an inside line on the equipment market such as the D. U. R. does not possess. Its current prices on the first of these is \$15,000 each, on the second \$9,720. Applying these to the Mayor's car necessities, we find his rolling stock item increased from \$4,750,000 to \$7,458,000, a mere matter of some \$2,700,000. Similarly, I have been assured that the Mayor's items for carhouses and shop equipment show equal if not greater conservatism. This is not the day of low building cost, particularly in the city of Detroit.

I am setting these facts down without any rancor or prejudice whatsoever. It may be that the time has come for Detroit to own if not to operate her city transportation service. I talked with a pretty big business man of that town within a fortnight after its most recent traction election—a man, incidentally, whose business affiliations do not ally him with or against its street railway organism—and he expressed his opinion that the city should now buy the D. U. R. and then turn it over to that company for simple and efficient operation. His thought was that a plan which would be somewhat similar to that of the operation of the New York subways would best meet the present necessities of the Detroit situation.

"I know Jim Couzens and like him very much," said he, "but for the life of me I cannot see why he should want to expend \$15,000,000 or more for a parcel of indifferent suburban trolley lines when by an expenditure of hardly more than twice that figure



Another view at the Ford plant. Queue loading has been employed at congested points in Detroit for some three years and has been applied even in the heart of the city

he could have the whole city traction system—lock, stock and barrel—and by the expenditure of a very few extra millions the essential feeding lines from the outer districts could be laid down."

DETROIT MUST WORK OUT ITS OWN PROBLEM

For myself, I think that this hard-headed Detrouer has much the right point of view. The problem for him—and really not so much for him as for the trolley riders of that big and overgrown town—is to give proper expression to it. It is not a matter in which the traction interests of the city can help him in the slightest. Their turn is over. They have had their hour in the court of public opinion.

The courts of justice are their final resource. In the meantime their cue is silence. They must sit back. Detroit must work out her own salvation—in this as in her other great and grave civic problems. No one can do that for her. If she fails in this she will have no one to thank save herself. If she succeeds, it will be she herself who will reap the full results of her triumph.

In his next two articles Mr. Hungerford will describe interesting situations on the Pacific Coast. In San Francisco there is actual competition between a municipal line and one privately owned and this will form the topic of the first article by Mr. Hungerford.



The Junction of Woodward Avenue and Michigan Avenue. The trolley line on Woodward Avenue carries a traffic almost as heavy per mile of track as that on the New York elevated lines

C. E. R. A. A. Meets at Ottawa Beach

Daily Versus Weekly or Monthly Freight Settlements Chief Subject of Discussion at Accountants' Convention

FOLLOWING the meeting on July 8 and 9 of the parent association, the Central Electric Railway Accountants' Association met at Ottawa Beach, Mich., July 10 for a half-day session. Those present were A. R. Baxter, vice president of the association, who presided; Secretary Neereamer and assistant and Henry Friede, Toledo, Ohio; F. A. George, Kokomo, Md.; W. E. Livingston, N. M. Viergwer and Miss L. E. Jones, Grand Rapids, Mich.; F. Pantel, Michigan City, Ind., and J. P. Longon, Dayton, Ohio.

The small attendance of this and several preceding meetings led to the passing of a resolution by the executive committee, later ratified by the general body, instructing the executive committee to address a strong letter to all members urging attendance and stating that unless greater interest were taken and unless the next meeting were attended by 60 per cent of the members it would seem that the association should be abolished and that steps probably would be taken in this direction. It was pointed out in the discussion that a great many of the members show a distinct interest in the work done by a meeting, but are unwilling to give any time or effort to the association.

Two amendments to the constitution, one defining who shall be members of the executive committee and the other changing the number of regular meetings of the association from four to two a year, were adopted.

It was decided that the next meeting will be Jan. 21 and 22 at Dayton, Ohio. The following nominating committee for report at the January meeting was appointed by Mr. Baxter: F. Pantel, chairman; J. P. Longon and L. T. Hixon.

The remainder of the meeting was devoted to the reading of two papers on daily rather than weekly or monthly freight settlements, by Mr. Longon and H. F. McColgin. The latter was read by the secretary in the absence of the author. These papers are printed below.

Mr. Pantel discussed the subject briefly, pointing out the practice of his company, the Chicago, Lake Shore & South Bend Railway, of making a weekly settlement to conform with steam road practice, this company being a member of the American Railroad Association. He said there was great difficulty in getting even weekly settlements made, the agents contending there was not sufficient time to make out these reports. He thought the expense of daily settlement would be too great.

Daily Reporting of Freight Accounts

BY J. P. LONGON

Auditor Cincinnati & Dayton Traction Company, Dayton, Ohio

THE question has come up several times relative to the merits of daily reporting of freight and express business by agent to auditor, and as a means of ascertaining the true merits of the daily system a committee was appointed at the last meeting of this association, held at Indianapolis, Ind., April 24, 1920, consisting of J. P. Longon, Orin A. Small and H. F. McColgin. The

committee sent out a request for a set of forms and an expression from the various auditors as to the merits of their systems and the approximate amount of clerical energy expended in the carrying out of their respective systems. Only a few of the auditors responded to the request and to the ones who responded the committee extends its thanks; to the ones that ignored it we feel that the spirit of indifference or procrastination kept them from conforming with the wishes of the committee. It was found that of thirteen companies which replied to our request five used the daily system and six used the monthly, while one used a semi-monthly system and one used the weekly. It was found that of the companies using the daily system most all were the smaller companies, while the larger companies used the monthly system. The clerical energy used was in most cases the same, as more labor is required in checking daily reports in the same amount of volume than is required by monthly checking, as the monthly audit is a comparison of totals from one station against the total of other stations, and where they agree no further checking is required, while where they disagree it is necessary to check back to locate errors. We find that the monthly system is the cheapest for large companies, but the question of economy is sometimes open to argument, for it has been the experience of the writers that very often an agency is located in a country store where the railroad work is a side issue and the agent is paid on a commission basis and the agent withholds the company's cash to run his store business until the end of the month, while if a daily system were used he would have remitted all of the cash to the auditor daily. On one line that the chairman of this committee was sent to systematize he found a comparatively fair-sized station located in a village post office. It was arranged with the United States postal inspector to audit this station on consecutive days. The government inspectors found that no segregation of cash was kept, which was contrary to government rules, and this postmaster only escaped serious trouble by his plea of ignorance and the influence of his friends. His real trouble was encountered the following day when his railroad accounts were audited, for he had taken all of his cash to satisfy the post office account and was considerably short in his railroad accounts. He had been speculating in stocks and was using the railroad company's funds, using the argument that he did not have to settle up but once a month, although a daily cash remittance was expected and was made, but same was short daily.

The most meritorious feature of the daily system is the fact that it compels all agents to remit in full for each day's work and it enables the auditor to drop in at any station for a surprise check, needing only the last day's report. This cannot be done with the monthly system in vogue. With the daily system the agent shows the balance due from yesterday and all debits and credits affecting the current day's business and balance due company; this balance is supported by uncollected expense bills on hand. It is a wonderful aid to an agent,

for he gets his corrections daily and can take them into account the same day as received. A summary book is kept by some companies using the daily system, into which the agent enters the totals of all his books, which in turn must agree with the totals of his various debits and credits on his daily balance sheet; the totals of this summary book are the figures he uses on his monthly balance sheet. It is possible to have the agency account at all stations clear by the 5th of the following month, as his monthly totals are ready as soon as his last day is balanced; as sub-totals are carried in his summary book, all that is then required is to draw off a list of his uncollected expense bills. This could be ready by the 3d of the month, but it is good practice and saves listing of many current bills by allowing the agent to withhold his list of uncollected until the 5th, listing all bills open on that date and showing the amount of cash remitted to auditor between the 1st and the 5th as transit cash; the total of both these items must agree with balance due company on monthly report.

The agent should not have any ancient items on his list of uncollected if auditor will issue reliefs promptly upon proof of agent's request.

Statement of differences are not required, as agent gets reports of his differences daily, and if he takes these into account daily he should balance clean at the end of the month.

Agent should stamp off his cash book postings against his received collect and prepaid forward, so that in event of his uncollected not balancing with amount due company he can check his list of uncollected against the unstamped items in the received and forwarded books.

The freight accountant keeps a register on file of all corrections sent to agents and as soon as agent takes same into account he removes his copy of corrections from this file, so that at all times he has file of corrections issued and not taken into account. Copies are sent to agent if not taken into account in due time.

Another feature of daily reporting is in furnishing the traffic department with information relative to the movement of freight daily both c.l. and l.c.l. On some lines considerable car-load business is done and special reports are kept on these movements.

In Cincinnati during the barleycorn days the steam lines made a special effort to get the whiskey business between Cincinnati and Toledo. The daily reports divulged a falling off of whiskey shipments and investigation was begun before the end of the month in question, and not only did the interurbans regain the lost business but were successful in procuring considerable new business.

Again we were short on trail car equipment and it was necessary to refuse carload shipments, and within a few days the daily reports divulged a falling off of business from Middletown station. This was pointed out to our traffic department and it found the tobacco companies closed for inventory and repairs. The equipment used in this service was pressed into Cincinnati service and daily revenue again picked up. It follows that in many instances the agent will pursue the course of least resistance and will not report the falling off of business, but the daily report is the "telltale." It follows also that a telltale that points out daily a decrease in revenue is far more valuable than one which acts but once a month.

It appears to us that the economy effected by the monthly system is of a false nature, inasmuch as it does

not give the operating officials the information which enables them to regulate their service to the best advantage. It does not show up any falling off of business from any specific station until the end of the month. It does not show the loss of certain kinds of shipments, as often happens through failure of some one along the line to give the kind of service expected, until possibly a month after it occurs. It also does not show the fruits of solicitation or advertising.

In this age of motor transport it behooves the inter-urban railroad to be on the alert and give the shipper 100 per cent efficiency in service, for that is our stock in trade, as this is all we have to sell; let us be ever on the alert to keep our shippers satisfied, and the daily system is our ace card, for it tells the daily progress of our transportation department; it enables us to tell, by passing records and abstracts, the daily movement of each and every piece of freight from station to station, which reduces tracing and claims, also the clearing up of O.S.&D. items, and these also tend to retain your shippers by giving satisfactory service.

The wise business man today is he who knows what he is doing in volume today, not thirty days from now. It behooves us to give careful and scientific study to our work, and if we are to be properly recognized the system of accounting installed in our departments must give the best results, not merely the "getting by," but the furnishing of the most valuable information in time to be of value, and not to be rendered as ancient history, with the time-worn label of "too late" to be good.

Daily Freight Settlements by Agent to Auditor

BY H. F. McCOLGIN

Auditor Indianapolis & Louisville Traction Railway

THE question of the daily freight settlement is advocated by some and opposed by others. The writer, being a believer in the daily method, will attempt to show in a brief way the grounds for his belief. Having been at one time connected with the Pennsylvania Railroad Company, I have taken its system as the basis for my arguments. In order to discuss the subject, I will divide it into two parts, the old and the new.

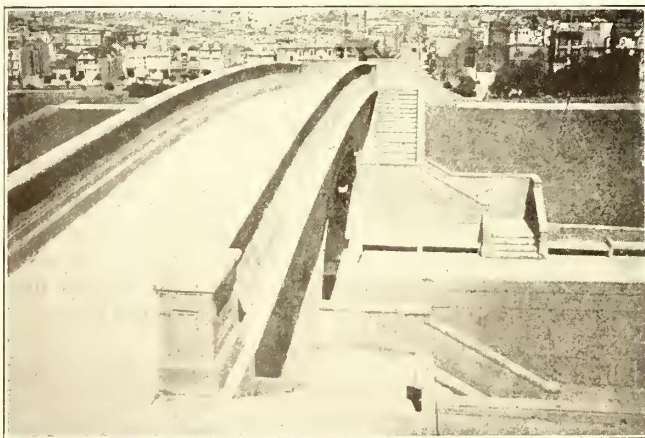
I will first take up the old plan of monthly settlements. I regret that I was unable to secure a set of the old blanks for exhibit, but will refer to them by their form number. Under the monthly form of settlement the agent filed his waybills each day, usually filing the larger stations separately and smaller stations in one file; by that I mean stations from which a number of bills are received daily would be kept separate, while stations from which only a few bills were received would be placed on the miscellaneous file. At the close of the month's business (by that I mean when all bills dated in the month for which report was being made were supposed to be in) the agent would separate his waybills, according to number and station order, and list them on what was called the "B" report, showing date, waybill number, freight advances and prepaid. These reports carried two columns of waybills, and the average station would have from ten to forty sheets of received business to total recap and balance with his freight received book, thus making twice that all bills were written up. All forwarded waybills were recapped each day, and at the end of the month were gone through again and all prepaid waybills listed on a "C" report

and balanced. From these two reports the figures for the monthly freight settlements were taken. With this explanation, we will take up briefly the new or daily method.

METHOD WHEN DAILY SETTLEMENT IS USED

Under the daily settlement method a loose leaf system is used. When the extensions on the received waybills have been checked and any errors are corrected they are entered on the daily sheet, known as Form 723A, a carbon copy being made, which is retained by the agent for his permanent record. These copies are bound in binders furnished for that purpose. The original copy, balanced, and with all waybills securely attached, is forwarded to the auditor of freight receipts at the close of each day's business. Waybills for freight forwarded are handled in the same manner, except that they are listed on a separate form, No. 693A.

A day's business consists of the waybills actually issued and those actually received, with the exception that where the shipment is short the regular short report is made and the waybill is not taken into account until shipment is received. When these reports have been



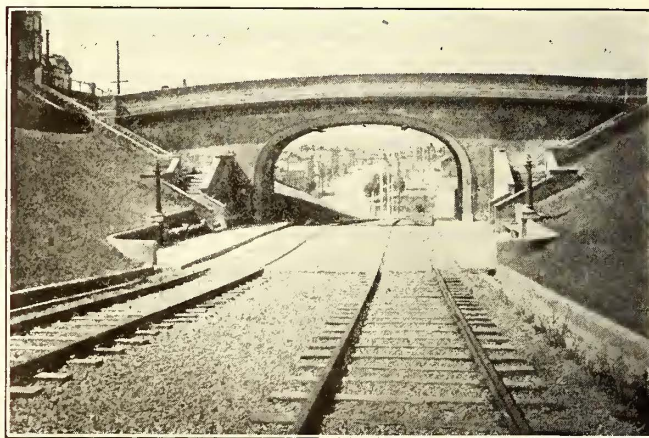
Combined Overhead Crossing and Landing Platform

San Francisco Municipal Railway Constructs Some
Concrete Work Along Pleasing Lines—
Mission Effect Used

THE accompanying photographs show an attractive reinforced concrete footbridge which was built by the Municipal Railway of San Francisco for carrying the Nineteenth Street pedestrian traffic over the line of the Church Street railway tracks, giving access to Mission Park from Church Street. In connection with this footbridge two concrete landing platforms were constructed. The entire structure is built in mission style.

One of the most interesting features of this construction is the electrical work. Two electroliers were installed alongside the landing platforms, each equipped with five 23-watt Mazda lamps burning five in series on 600 volts. A galvanized switch box installed on the face of the abutment wall and fitted with a G. E. combination switch and cutout permits control of the current for both electroliers.

Between the platforms 43-lb. guard rail sections were



AT LEFT, FOOTBRIDGE AND LANDING PLATFORMS BUILT BY MUNICIPAL RAILWAY OF SAN FRANCISCO. AT RIGHT, LOOKING DOWN ON THE CHURCH STREET TRACKS FROM WALK LEADING TO MISSION PARK

completed the totals are listed on a summary sheet, having a place for each day of the month, and, unless corrected by the auditor, the agent's record is finished. At the end of the month the summary is totaled and agent's report for month is complete and supposed to be in auditor's office on the third day of the succeeding month.

What is gained by the daily method:

1. A great saving in time to agents, who, as a rule, have more work than they can properly handle.

2. It gives the auditor's office a closer check on company's business and enables it to compile statistical information at any time it may be desired.

3. It practically eliminates, or, at least, greatly reduces, the amount of on-hand uncollected at close of month, owing to the fact that any waybill not received by the last day of the month is carried to the succeeding month's account.

4. It enables the auditor's office to close up monthly records much sooner.

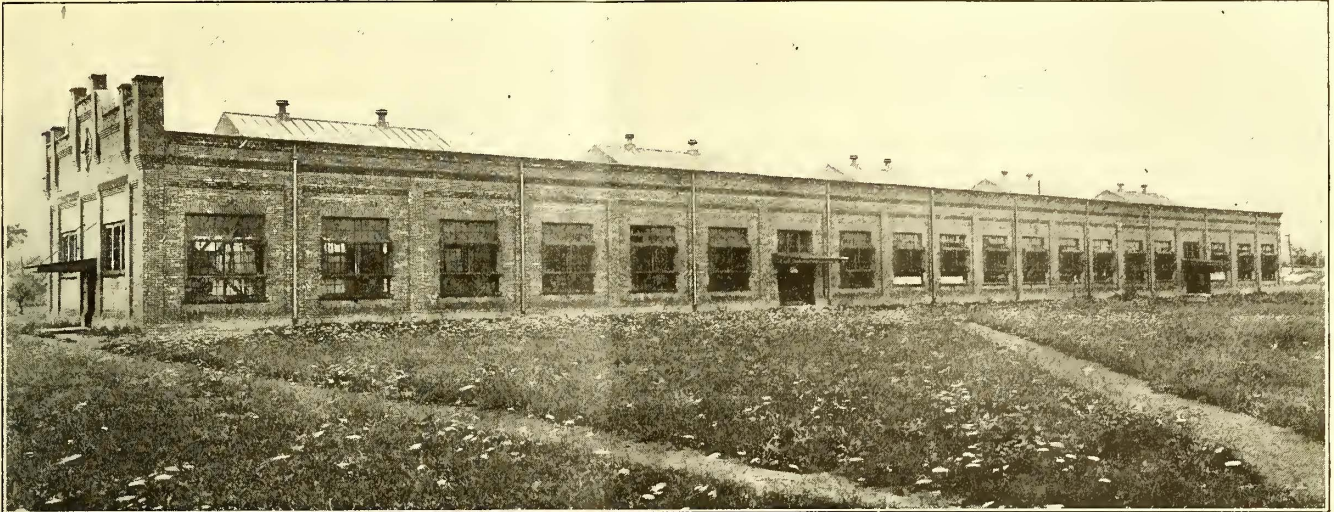
It is claimed by some that this plan requires a great increase in office force. However, I am informed by the auditor of the Pennsylvania lines that it causes about 5 or 10 per cent increase in office force. This would mean that an office employing twenty clerks would need one more clerk.

bolted onto the inside of both rails of both tracks with $\frac{3}{4}$ -in. track bolts. The spaces between all of the rails of both tracks and between the rails and the concrete curbs of the platforms were filled with ballast and screenings and covered with an asphalt wearing surface 1 in. thick.

All concrete floors and walks, stair risers, etc., were finished with a $\frac{3}{4}$ -in. top coat composed of one part cement and one part fine gravel, hand troweled to a smooth finish. Lamp black was used to give the finished work a uniform dark slate color.

The entire inside surface of the arch from face to face and all exposed concrete surfaces of the bridge were finished with two coats of cement mortar. The first coat, $\frac{3}{8}$ in. thick, was composed of one part cement, hydrated lime equal in volume to 10 per cent of the cement, and three parts sand. The second coat was applied by means of the cement gun. It consisted of cement mortar in the proportion of one part cement to two parts of sand.

An open-joint drain is carried through Mission Park, laid between the tracks. Concrete gutters also parallel the tracks through Mission Park. At landing platforms these gutters connect with pipe that extend under the platform, as shown in one of the illustrations.



OFFICE BUILDING

Some "Empire United" High Spots

On a Recent Visit the Writer Was Favorably Impressed by the Operation of This Interurban Road in Central New York

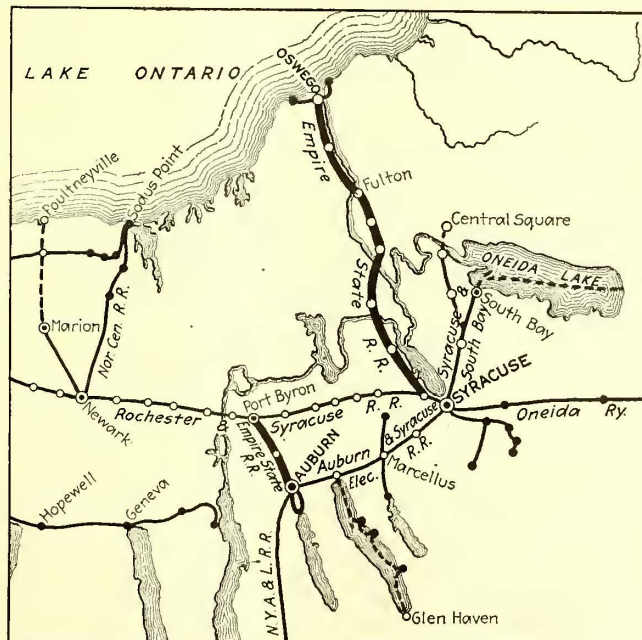
By M. C. TURPIN

Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

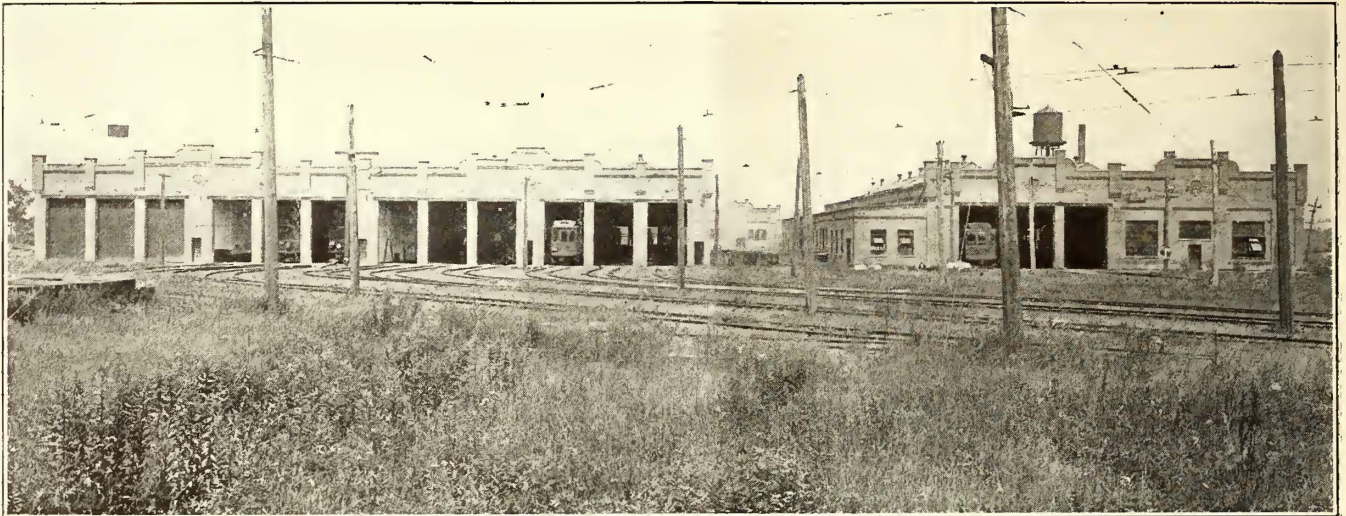
A REFRESHING example of an electric railway property that is successfully endeavoring to reduce operating expenses and at the same time furnish better service is to be found in the Empire State Railroad. This property was formerly a part of the Empire United Railways, Inc., which a few years ago was reorganized and divided between two companies. The Empire State Railroad Corporation, with its main office at Syracuse, N. Y., assumed the ownership of the line from Syracuse northward to Oswego and the line between Auburn and Port Byron, connections being made with the New York State Railways, the Auburn & Syracuse Electric Railroad and the Rochester & Syracuse Railroad, as indicated on the accompanying map. The territory served, which includes the cities of Syracuse, Auburn, Baldwinsville, Phoenix, Fulton and Oswego, has a population of approximately 250,000. It is an unusually fertile country as well as one supporting many industries, forming withal one of the most attractive sections of a state noted for its scenic beauty. The line between Syracuse and Oswego, a distance of 40 miles, is paralleled by both the New York Central and Delaware, Lackawanna &

Western Railroads, but through superior service the electric line gets a good share of the business. The distance is covered by regular electric trains in one hour and forty minutes and by "limiteds," operated on Saturdays and Sundays, in one hour and twenty minutes. In addition to the interurban service the company operates city cars in Fulton and Oswego and handles an extensive summer business between Syracuse and Long Branch Park, a pleasure resort on Onondaga Lake. The advantages of handling freight traffic are fully appreciated

by the company, which operates two two-car trains each way every day, except Sunday, between Syracuse and Oswego for handling local freight between these and intermediate stations. Handsome, stucco-type, combination passenger and freight stations are located at Syracuse, Baldwinsville, Fulton and Oswego, at each of which an agent is maintained. Attractive stained-wood shelter stations are located at various numbered stops along the lines. An effort was made to heat these shelter stations with electric heaters, but owing to the destructive proclivities of children and maliciously inclined adults who made a practice of breaking up the heaters, these efforts were abandoned.



MAP SHOWING LAYOUT OF EMPIRE STATE RAILROAD AND SURROUNDING TERRITORY



AT LEFT, CARHOUSE; AT RIGHT, SHOP



AT LEFT, VIEW OF THE TRACK, CAR, TRANSMISSION LINE AND CATENARY LINE CONSTRUCTION; AT RIGHT, TWO-CAR TRAIN



LEFT TO RIGHT—SHOP, CARHOUSE AND OFFICE BUILDING

The length of road operated by the company is 57.6 miles, the trackage being 83.9 miles, about 50 per cent of the route being double-tracked. The rolling stock consists of seventy-four cars, apportioned as follows: Interurban, closed, eighteen; open motor and trailer, fifteen; city, closed, seventeen; city, open, six; freight, four; work, two; snowplows, four; sweepers, two, and miscellaneous, six.

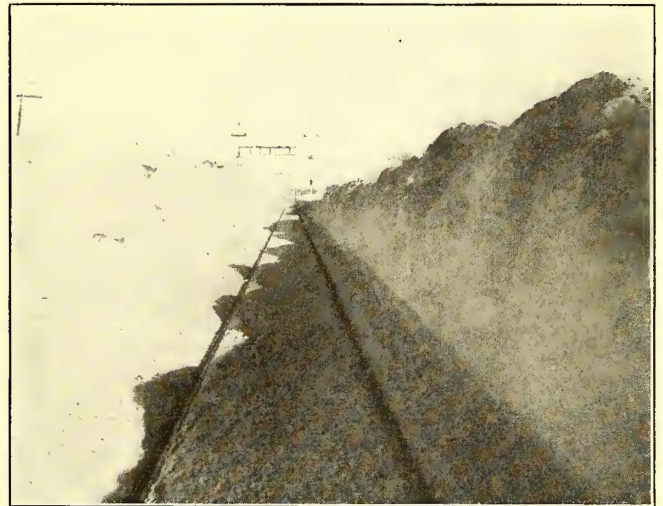
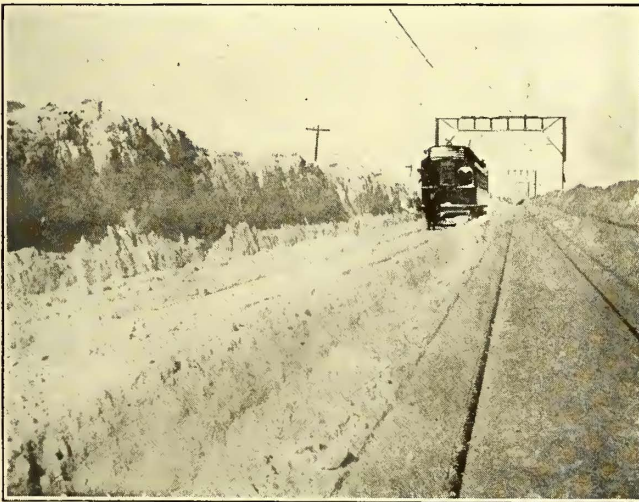
The original closed interurban equipment consisted of twelve cars, each having four Westinghouse-119 motors, the electrically heated cars having a seating capacity of fifty-eight passengers and the stove-heated cars a capacity of fifty-six passengers. Appreciating the saving to be made by operating lighter weight cars, the company converted six trailer cars into motor cars by installing vestibules, sash, electric heaters, etc., and equipping them with four Westinghouse 101-B motors, which were in use under open motor cars. These converted trailer cars weigh approximately 56,000 lb. completely equipped, as compared with a weight of 95,000 lb. for the original interurban equipment.

The lighter cars are generally used for the shorter runs and extra service. In the summer these motor cars draw the open cars, from which the motors were taken,

The writer, on a recent visit to this property, could not fail to be impressed with a number of features connected with the operation of the road that seemed to indicate a progressive spirit on the part of the management, and not only a laudable purpose of reducing operating expenses but also one of furnishing better service and catering as well to the needs of the employees. A few of the "high spots" among these features may be mentioned.

Every passenger car is washed at frequent intervals, at least every week. This not only keeps the paint on the cars in good condition, but improves their appearance and creates a much better impression of the road among the passengers. The company believes in furnishing service as well as transportation and believes that the average passenger, as a rule, will not notice a clean car particularly, but he or she will notice a dirty or ill-kept car and will not hesitate to condemn it in no uncertain terms. Therefore, every effort is made to keep the cars clean and sanitary. They are also painted at regular intervals, the company having adopted the Pennsylvania Railroad red as the standard color for all of its cars.

As fast as is practicable all the cars are being thor-



1920 SNOW SCENES ON THE EMPIRE STATE

as trailers. The company estimates that by the use of this equipment approximately \$1,000 per month is saved in the cost of power.

Power for the operation of the road is obtained from the Niagara, Lockport & Ontario Power Company at 33,000 volts and distributed to four substations, with a combined capacity of 2,900 kw., located between Oswego and Syracuse. Power for operating the Auburn-Port Byron branch is obtained from another substation receiving power from the same power company. Three of the substations are equipped with two 400-kw. Westinghouse rotary converters, and one with a 500-kw. converter of the same make, with the necessary transforming and switching equipment.

With the exception of about 7 miles, the line to Oswego is of catenary steel-bridge type construction, a 500,000-circ.mil feeder cable being used as a messenger wire. This construction was described in the *ELECTRIC RAILWAY JOURNAL* for Oct. 14, 1914. In the process of rehabilitating the road, the company has installed twenty miles of new No. 0000 trolley wire. The lines are protected throughout by automatic block signals.

oughly rehabilitated, the equipment overhauled, new toilets installed and the present side horizontal-burning lamps changed over to center vertical-burning ones. The relays for operating the control system have been mounted in the motorman's cab under a glass case so as to protect them from snow, dust and dirt.

Another progressive feature adopted by the company is the use of what is known as the queue, or single file, method of loading men on the cars at industrial plants located on the lines. This plan was put into effect as far back as 1917, at an army camp located near Syracuse, where considerable trouble had previously been experienced in loading soldiers on the cars. This method has been adopted by the Holcomb Steel Company and other industries along the lines with most satisfactory results. It entirely eliminates crowding and the fighting which frequently ensues, permits a quicker "get-away," and consequently improves traffic conditions.

As previously mentioned, the company does a good summer business to Long Branch Park on Lake Onondaga, which is greatly augmented by the handling of a large number of picnics. The regular excursion rate

from Syracuse to the park is 25 cents per round trip, whereas the company sells tickets in lots of 200 or over at 20 cents, allowing the organization holding the picnic to make the extra 5 cents. Nor does the company overlook the needs of its employees. The offices and shops are located in a well-built and well-lighted, spacious group of buildings, about four and a half miles from the center of the city. This location is, therefore, not well situated in regard to lunching facilities. The company has installed in the office building a diner and cafeteria open to all employees. Food is bought in town, brought out over the company line, cooked on an electric range and served by girl employees. It is supplied practically at cost prices. An electric dishwasher is included.

The management of the company is under the supervision of Ford, Bacon & Davis, engineers, with J. C. Nelson, recently elected president, in direct charge.

Saving \$900 a Month on Printing

**The Railway and Electric Company of Atlanta Has
Cut Its Printing Costs in Two by
Doing Its Own Work**

UNABLE to get satisfactory composition from the printers of Atlanta, the Georgia Railway & Power Company determined to do its own printing work. To this end it has gradually equipped a print shop in the office building of the company with the necessary machinery until, during the past year, it has been able to do the greater part of its own printing.

The start on this policy was made by installing two multigraph machines as a means of demonstrating what could be done in the way of savings for the company without too great an investment. These machines were used for about a year, and W. H. Smaw, purchasing agent, was satisfied that there were possibilities warranting further investments. With about 750 sq. ft. of floor space available in the company's office building, equipment has been added until at the present time it includes one Kelly automatic press, two 10-in. x 15-in. Chandler & Price presses equipped with Miller feeders, one 8-in. x 12-in. job press, one large and one small wire stitching machine, one power paper cutter, one power punch, one power perforator, two make-up stones and a large supply of type of various kinds and sizes. The investment involved is about \$8,000.

With this equipment, it is possible to do practically all such printing as the various office forms, the trip sheets, bills of lading, cash fare receipts, etc. There is, in addition, a certain amount of matter which has to be let out to the local printers. All linotype work is also done outside. The forms used by the company alone represent a very large amount of work, for there are more than 500 of them for the two companies, electric and railway, all of which are done in the company's own plant. The number of different jobs handled is shown, by months, in the accompanying statement of the plant operation. Transfers and tickets are printed only in emergency, but the company has the necessary plates always in readiness.

As a means of keeping an account of the savings which the printing plant makes for the company, as compared with the cost of having the work done outside, the cost of each job is figured according to outside printing shop unit figures, and this compared with the actual cost plus 40 per cent for overhead of doing the

work in the company's own shop. Figured in this manner, the print shop showed an apparent earning for the first ten months of 1919 of \$9,000.

The unit figures used in figuring the outside cost of a job are frequently checked up by submitting jobs to outside bidders. The company lets enough work out so that the local printers are always willing to bid, and by this means the foreman of the shop is able to arrive more accurately at the outside estimate for all jobs. An effort is made to figure the estimates very closely and to hold them down so that there will not be an unduly favorable showing for the company's shop.

JOBS HANDLED IN COMPANY'S PRINTING PLANT

1919	Number of Jobs	Estimated Outside Cost	Actual Cost	Approximate Earnings
January.....	100	\$1,284.85	\$687.56	\$597.29
February.....	79	1,100.75	564.33	536.42
March.....	52	770.65	360.20	410.45
April.....	96	2,090.95	1,134.01	956.94
May.....	94	2,086.67	1,055.17	1,031.50
June.....	94	2,266.60	1,067.49	1,199.11
July.....	92	1,777.10	709.32	1,067.78
August.....	98	2,044.30	1,148.77	895.53
September.....	85	2,580.09	1,267.73	1,312.36
October.....	95	2,055.95	1,062.90	993.05
Total.....	885	\$18,057.91	\$9,057.48	\$9,000.43

The actual cost figures include time and material only, plus 40 per cent for overhead expense, but with no allowance for maintenance and depreciation of equipment. The maintenance expense for the ten-months period was \$751.68, which should then be deducted from the \$9,000 apparent saving.

Belgium Plans Electrification

A RECENT Belgian government report on electrification recommends immediate electrification of the Brussels-Antwerp line, then the electrification of the Luxemburg main line and its branches, and at a later date the electrification of various radials out of Brussels and the Brussels Belt Line.

On the Brussels-Antwerp line it is proposed to use a two-unit train for passenger service, each unit consisting of a motor car with multiple-unit control equipment and two trailers. Each motor car is to be equipped with four 275-hp. direct-current motors. About 87 km. of main track and 15 km. of branch track are to be electrified and the service proposed is thirty-eight trains daily in each direction. Later developments recommended are double tracks between Brussels and Antwerp, with electrification for express, freight and omnibus trains in each direction. The maximum speed is to be 90 km. (56 miles) per hour with an average express speed of 83 km. (52 miles) per hour.

The freight locomotives are specified to haul 1,000-ton trains on a level at 45 km. (25 miles) per hour and are rated 1,650 hp. The freight and passenger traffic on the Brussels-Antwerp line is heavy and the power consumption is expected to exceed 100,000,000 kw.-hr. per year.

The proposed electrification of the Luxemburg lines is similar to the Brussels-Antwerp line as regards passenger equipment, but heavy grades require two freight locomotives per 1,000-ton train. The power consumption is estimated at 400,000,000 kw.-hr. per year.

Direct current will be used on the system but the specific system, whether third rail or overhead trolley, is left in abeyance until the French decision is made regarding their electrification in adjacent districts.

Motor Bus Transportation in New York*

Organization and Operating Details of a Successful Company Are Outlined—Discussion Also Given of Present and Future Possibilities in Motor Bus Transportation

BY GEORGE A. GREEN

General Manager and Engineer Fifth Avenue Coach Company,
New York

THE motor bus industry is of very recent growth, but is rapidly establishing itself in popular favor. Unquestionably, the so-called "jitney" is merely a fore-runner, but it is fulfilling a useful purpose, since it is creating a desire for a real bus service. I am expected to give my views on motor bus operation, and since the Fifth Avenue Coach Company is the only successful one of any size in the United States it necessarily follows that a rather lengthy description of the company's systems and methods must be given.

The three main divisions of the Fifth Avenue Coach Company are the engineering, mechanical and transportation departments. There are, of course, departments concerned with finance, auditing, disbursements, publicity, claims, etc., but these follow conventional lines and no further reference will be made to them.

ENGINEERING DEPARTMENT

At the head of the engineering department is a mechanical engineer, who has charge of all designs, research and experimental work. His duties follow closely along conventional lines. In regard to design, there is a rather general impression that the average truck chassis can be successfully employed for motor bus operation. We do not hold this view, for the average truck chassis is unsuitable for passenger transport, because the weight is excessive, particularly the unsprung weight; the center of gravity is too high, the gear ratios are unsuitable, the springs are too rigid, the spring and axle tracks too narrow, the radius too wide, the steering too stiff, etc. Briefly, it would be just as unsatisfactory to attempt to use a high-class twelve-cylinder touring car for general truck purposes as it is to expect the average truck to give efficient and economical service when used to haul human freight. The development of a new type of vehicle is an exceedingly slow process, for aside from the matter of design, an immense amount of time is necessary to prove the value of the product. Approximately 25,000 miles of operation is required to find out what is wrong after samples have been placed in operation.

We have since 1907 operated nineteen different types of chassis produced by domestic and foreign manufacturers, also twelve different types of bodies, and we have tested nearly all suitable standard engines from four to eight cylinders, as well as many different types of radiators, clutches, transmissions, axles and chassis frames. In none of these instances did we meet with entire success. Of course, our lack of standardization proved a very severe handicap. The net result of our effort was the production of complete buses that have today covered more than 20,000,000 miles. The performance of these vehicles is so remarkably superior to our previous models that no comparison is possible. In general, any large operating company will require at

least two distinct types, the double-deck for large loads and the single deck for smaller loads, faster operation, express service, etc.

Assuming good roads, wide thoroughfares and reasonable freedom from overhead structures, the fifty to sixty passenger, very low hung double-deck vehicle, capable of handling a trailer, seems to have great possibilities. This class of vehicle, jointly operated with the single-deck, one-man controlled type, pneumatic-tired bus, appears to me as being a logical scheme, especially where peak loads must be handled largely without surface car or subway aid.

There are those who believe that the trolley car propelled by a gasoline power unit may supersede the present equipment. In my opinion this theory will not bear close analysis, for the greatest asset the trolley car has is cheap power, and if you take this away the structure falls to pieces. A gasoline-propelled trolley car is a bus, minus nearly all the advantages of the latter. It is, of course, true that a much lighter and better design of trolley car could be produced and a gasoline power unit embodied in it. It is equally true that the cost of operation of such a vehicle might be less than that of existing types of trolley cars, but my contention is that if the same care and attention to design were applied to the conventional article still better results would be achieved. The fact is the present design of trolley cars is more or less crude and out of date, for they are as a whole built as strong as possible and not as weak as possible, which is a much more logical and economical procedure. To sum up, trolley car design has not marched with the times.

RESEARCH DEPARTMENT

This department co-ordinates the work of the design, repair and operating departments. Briefly, the duties and responsibilities of a research department are as follows: (1) Analysis and recording of all breakages, failures, etc., (2) operation of the dynamometer, (3) continual study of the fuel situation, (4) testing of materials, such as fuels, oil, etc., (5) perusal of all trade journals, (6) standardization program. We regard the analysis and recording of all breakages, failures, etc., as of great importance. The research department spends a great deal of time in studying the fuel situation, in testing devices for improving economy and in testing fuel and oil purchased by specification.

We believe it is essential that especial care and attention be taken in this matter of fuel economy. Throughout the year we average about 6.5 miles per gallon of gasoline. This figure takes into account all shrinkages, leakages and losses of every kind. There are a very large number of high individual averages, some as high as 15 miles per gallon. We have a number of men who can average 10 miles per gallon for a week at a time. High gasoline averages from our standpoint mean economy first, well

*Abstract of paper presented to the Society of Automotive Engineers, Ottawa Beach, Mich., June 23, 1920.

designed and maintained equipment second, and skilled and contented operatives. Gasoline is our second greatest item of expense. Our yearly bill is, in round figures, \$700,000. Since 1 per cent of this amount represents \$5,000 annually, it can readily be seen that losses of even 1 or 2 per cent must be remedied, regardless of whether these losses are due to mechanical or physical disabilities. Increased labor and material expenses, and gasoline falls under the latter head, cause us much greater anxiety than if we were manufacturing in the ordinary sense of the word, for we are selling a commodity which has a fixed price regardless of production costs. This means that every addition to our labor and material bill must be parallel with some form of economy. If this were not done we would soon find our expenses in excess of our income; for example, in 1911 our gasoline consumption averaged 2.9 miles per gallon and at that time gasoline cost much less than it does today, and if it had not been possible to increase our gasoline efficiency it is quite possible that the Fifth Avenue Coach Company would now be out of existence. Not only is our gasoline bill the second biggest item of expense but it is capable of greater reduction with less effort than any other single item. Our rising and falling gasoline averages are in effect the barometer on which we base our predictions. The gas barometer tells us in the most unmistakable language what is in store for us. Bad gasoline consumption means big fuel and repair bills, with the prospect of still bigger bills in the future; possibly also labor unrest, due to general dissatisfaction.

To attain high averages in fuel economy it necessarily follows that well designed and maintained equipment must be used. Our vehicles cover an average of more than 100 miles per day and are required to start and stop about 1,000 times each day, with several thousand gear changes, brake applications, etc. Furthermore, the vehicle is handled by several different drivers daily, so that none but the best material will stand up under such conditions.

TRANSPORTATION DEPARTMENT

The superintendent of transportation has charge of selecting all men for the transportation department, supervision of their training, administration of discipline, elimination from service, promotion, general study of traffic conditions, collection of statistics from which running time and schedules are prepared, supervision of inspectional forces, receivers, timekeepers and mileage departments, division foremen, etc. In this work the superintendent has a supervising force of forty-five men, comprising foremen, heads of various departments, inspectors and starters.

The chief of the department bureau is responsible for all men employed. Applicants are generally recommended by employees and are principally married men, twenty-five years or over, and with army or navy training.

Applicants must be inspected for weight and height and all applicants are interviewed by an examiner, who questions them as to their previous experience. Those who qualify are permitted to fill out applications and are then passed on to the chief, who questions them further as to their general knowledge of the city. If accepted, the applicant is sent to the company doctor for physical examination and eyesight test. The applicant's references for five years are then investigated, and those references within 25 miles of New York city are

checked up by a personal investigation. Only 20 per cent of all applicants qualify for positions.

Each applicant accepted is then sent to the conductors' school and given various forms of descriptive matter and instructed in detail on his duties. The applicants are assigned to conductor instructors on the road to receive practical working knowledge and then returned to the school for a final examination. Those passing the oral, blackboard and written examination with a proficiency of 75 per cent are recommended for appointment. Others receive further instruction until they are 75 per cent proficient. On an average the instruction period covers four days. After completion of the course the student is then outfitted by the company tailor and finally assigned to a division, where a get-together talk is given by the foreman. All new men are on probation for ninety days and during this time the chief conductor instructor rides with them as often as practicable for follow-up instructions.

The men who man our buses, including instructors, inspectors, starters, etc., must all graduate from positions as conductors.

Based on averages a conductor has an opportunity to become a driver after eight months' service. We attach great importance to the educational value of this position, for a driver without a conductor's experience can scarcely realize what a conductor must contend with and would be less likely to co-operate with the conductor. Promotion to driver involves an increase in pay of 13 per cent and is determined by seniority and operating record.

After passing another examination and being recommended by the foreman the drivers are sent to school to learn the duties they are required to perform. They are then shown on a stripped chassis the various units and the relation these units bear to the operation of the bus. They are then sent to a divisional instructor and receive practical experience in driving on the road without passengers. Upon passing the state examination and a license being granted, the student is permitted to drive a bus carrying passengers, under guidance of an instructor. He then is given a test by the chief driving instructor and if found satisfactory is assigned to a position as a regular driver.

On an average the instructional period covers sixteen days of ten hours each, the total of 160 hours being divided into forty-five hours of mechanical instruction, the same amount of driving instruction without passengers and seventy hours of driving instruction with passengers. From the time each man files his application for a position as conductor to the time he is made a driver the expense to the company for instruction is about \$200.

Complete records are kept of each man. These are in folder form and consist of application, reference blanks, photographs, doctor's examination and certificate, complaints, violations, accident settlements.

When a conductor becomes a driver the same record is continued and there is attached thereto his record of instruction as a driver, the doctor's re-examination certificate and the employee's contract, also a sheet showing entries of all delays, together with a report covering their investigation. In the instructional period students are paid. It is in reality a loan, and a contract is made in which it is stipulated that if he remains as driver six months or longer the loan is discounted.

Buses are run in accordance with time-tables very similar to those of any steam railroad. The construc-

tion of our time-tables is a most difficult and expensive matter, much more so than with steam railroads and electric systems. Because of the varying traffic conditions along our routes, we are obliged to have no less than six different running times. Of course these are based on average conditions, since it would be impracticable to meet every variation. Any simplification of our time-table arrangements must immediately result in decreased speed, which would be unsatisfactory to the public and would be costly for us. Our annual payroll for drivers and conductors is in round figures \$1,000,000, therefore a 1 per cent decrease in speed represents \$10,000 added to our working expense. There are also schedule changes in the different seasons of the year and to take care of the various conditions of riding. This change in riding must be closely watched and passenger counts be taken at various points to determine just what service is necessary. Altogether there are ten time-table changes throughout the year and minor changes almost weekly.

There are nine separate lines in our system, all of which converge on Fifth Avenue below Fifty-seventh Street. At the different periods of the day we at present operate the following number of buses:

Period	Buses per hour	Headway, seconds
Morning rush	193	18
Mid-day	107	33
Evening rush	184	20
Sunday	144	25

Foremen, chief instructors, inspectors and starters patrol the routes for the purpose of regulating the operation of the buses and give follow-up instructions to new conductors and drivers. We also employ an average of twenty operatives in civilian clothes in our inspectional bureau to inspect general operations on the route. Inspectors make out hourly checks of schedules, report defective equipment and pavements, check conductors' register readings and talk to the men on minor violations. Serious infractions of rules are reported to the respective foremen of transportation and they in turn give the man four chances before sending him to the superintendent of transportation. We have also instituted the right of appeal, so that a man who feels an injustice has been done can take the case to the general manager and if necessary to the president.

Crews are allowed ten minutes each morning and night for an inspection of their buses. The depot dispatcher is responsible for seeing that the buses leave the garage on schedule time. As soon as a bus reaches the terminal it is under the direction of the starters and the inspectors, who direct the buses in accordance with schedules, which are provided in small book form.

Parades must be always looked out for. New routes must be selected and inspected for overhead obstructions, pavement conditions, etc.

We maintain a fleet of thirty-eight snowplows and five sand cars, with which we keep our routes open during the winter. The snow-fighting force is patterned after the fire department. Each section of our routes has its allotted plows, in charge of a captain, and our organization is arranged so that, regardless of the time of day or night a snowstorm starts, the required men automatically report for duty.

We have a sunshine nurse and sunshine committee to take care of those who are ill or in trouble, and in addition we maintain a pension fund. We often give free legal advice to our employees through our attorneys.

Lunch and recreation rooms are maintained for employees at each garage, as well as barber and tailor shops, and the garages provide sleeping accommodations in the winter for men who cannot get home on account of unfavorable weather conditions, so that a man can practically live at the plant with all the various accommodations provided.

FUTURE POSSIBILITIES OF THE MOTOR BUS

It has already been pointed out that motor bus operation is a comparatively new art. The possibilities of improvements are practically unlimited. This applies to design for greater comfort and convenience as well as to economy of operation. The bus requires a minimum investment in garage and repair facilities, and its low unit cost is a powerful argument in favor of its adoption. Unquestionably if a motor bus service is to realize its possibilities of financial success it must be backed up not only by ample resources but it must also develop a highly specialized organization. The engineering force and the management must have specialized experience, for the motor bus traffic demands are distinctly special.

Employees must be trained in a branch of motor vehicle operation with many distinct and unique peculiarities, for which the operation of neither the automobile nor any form of transportation affords suitable experience. One of the chief differences between the bus and other forms of transportation is the matter of flexibility. As a matter of fact we prefer to train men for drivers who have never had automobile driving experience. Furthermore, we find that railroad operatives, while they possess useful knowledge, must forget so much that on the whole it is more satisfactory to employ men without this experience.

In my opinion the wisest policy, both from a financial standpoint and the service results to the city, is to entrust a single, well organized and equipped company, possessing ample resources, with the development of a unified motor bus service. Parceling out streets to two or more companies will never provide the Pullman car service which the true motor bus can give. The actual result of any form of competition must be multiplied fares and no transfers. With a unified system there can be no harmful monopoly, for the fare should be determined by the authorities and the company should be under public regulation, but so-called competition from a public utilities standpoint means bad service and financial failure. Cities cannot be prosperous without efficient utilities and utilities cannot be efficient without prosperity.

No satisfactory motor bus service can be given with seats for all on the basis of the 5-cent fare. It costs the Fifth Avenue Coach Company about 8½ cents for each passenger carried. A large proportion of our daily mileage is operated at a loss. Checks show us exactly where these losses occur, but we do not try to avoid them, as we are satisfied that by careful management on the whole a profit can be made and we should lose if we cut service to suit local conditions.

We know our success depends on the good will of the public and it has always been our aim to give in exchange for our earnings an equivalent measure of helpful service.

Unquestionably in the large centers it is desirable that the workers should be able to get away from the busy centers of industry and into the more wholesome surroundings of outlying districts and everything should

be done by city authorities to encourage this. Nothing is of more importance in this respect than providing expeditious, healthy, comfortable and easy means of public conveyance to and from these districts, for of course the development of the outlying districts raises values, so that the city will in this way obtain increased income from taxation.

Clearly, where car tracks do not already exist, the most careful thought should be given before they are installed. Quite apart from this, from a public service as well as an operating point of view, there can be no question as to the possibility of using buses for (a) extending the service of existing car lines by bus system into the outlying districts through the introduction of transfer privileges between the two, (b) extending service, the conditions of the streets permitting, into the outlying districts without transfer service between buses and cars and without disturbing the present local business or business logical to the existing car lines, by permitting the buses to operate beyond the present outlying terminus of street cars and by diverting the buses to other parallel routes after reaching such outlying terminus.

In my judgment, no kind of bus designed up to the present is capable of properly handling peak loads. In my opinion the theory that the car systems in any of the larger cities can be supplanted by any standard size of bus now obtainable is absurd and not worth any serious discussion. No man with any elementary transportation knowledge would back such a statement. The bus is not more economical than the trolley car on the basis of cost per passenger carried, which is the only real basis. Obviously it is useless to compare the cost per mile of two vehicles with such vastly different seating capacity.

It should be borne in mind that the financial success of the Fifth Avenue Coach Company is largely due to the 10-cent fare. On a 5-cent basis its development would have been absolutely out of the question. The extra fare is willingly paid by the public to the bus company because of the greater ease and convenience of bus travel.

The policy of the Fifth Avenue Coach Company may be summed up in two words—"service and courtesy." From an inside viewpoint we try to give every member of our organization a square deal in all the word implies. With us the word justice is not merely an empty phrase. The "right of appeal" guarantees this. The doors of the executive offices are always open and the heads of the departments as well as the rank and file have free access at all times. Our staff officers are carefully trained and are taken into our confidence where matters of policy are involved and their views are eagerly sought. Our working conditions are just as good as we know how to make them. The net result is that labor troubles are conspicuous by their absence and practically every member of our staff has worked his way up from the ranks. Our organization is not a one-man proposition in any sense of the word, as each man is willing and anxious to do more than is expected of him and to subordinate his personal interest. We all believe in the theory and practice of teamwork, so it naturally follows that the operation of our business is extraordinarily free from petty jealousies and other forms of industrial unrest. We are extremely proud of our equipment and organization, with its personnel that knows not the word "failure." There is nothing at present to indicate any change in the future.

Buses Supplement Electric Railway

A FLEET of six motor buses and four trailers is being used by the Okmulgee (Okla.) Traction Company to supplement its regular railway service. Regular schedules are being maintained over two through routes which reach into all four parts of the city. Fifteen-minute service is maintained. The buses are operated on paved streets only, with the exception of special service furnished to the ball park when regular games are being played. Each of the routes reaches from 1½ miles to 2 miles from the center of the city.

For this service Oldsmobile trucks are being used. The cars are equipped with special bodies designed by M. M. Simons, general manager of the Okmulgee Traction Company, and built by the Lantz Carriage & Motor Works, Muskogee, Okla. The trailers are Trailmobiles. They are also equipped with specially designed bodies. The motor buses are of the one-man, pay-as-you-enter type with the entrance at the front.



MOTOR BUS AND TRAILER USED BY OKMULGEE, OKLA., TRACTION COMPANY

They are equipped with electric bells, lights and heaters. The trailers are entered from the side. The motor buses have pneumatic tires, while the trailers have solid tires. The car and trailer combined seat forty-two persons. Their capacity in rush hours, however, is sixty persons. The fare is 10 cents cash, with three fares for 25 cents, and free transfers are given between routes. School children and school teachers are carried on special tickets for 5 cents each during the months schools are in session.

The Okmulgee Traction Company is still operating the full complement of electric railway cars, but it is said to be the intention of the company to abandon the railway, tear up the tracks and substitute a complete motor service if the present experiment with the buses proves successful.

Okmulgee is the county seat of one of the large agricultural and cattle growing counties of Oklahoma. It is also the center of a rich oil, coal and natural gas field, to which industries are being attracted by the enormous supply of all kinds of fuel which is available here. The gasoline with which the traction company's motor cars are driven is a product of one of the five big oil refineries located at Okmulgee.

The estimated production of bituminous coal in 1919 is 458,063,000 short tons. The amount of coal used by electric public utility plants during 1919 was 7.6 per cent of the total produced.

Coasting Recorders Give Striking Results

The Experience of One Year on the Lines of the Capital Traction Company Indicates Savings in All Directions—Transportation Department Must Take Active Interest to Realize Fully on Power Saving Installations

BY J. E. HEBERLE

Assistant Secretary the Capital Traction Company,
Washington, D. C.

NEXT to the cost of labor, the largest item of expense in the operation of a street railway company manufacturing its own power is the coal bill. Railways that purchase their power find this cost reflected in their power costs. With the constantly mounting price of coal, the importance of using every measure of economy is emphasized. One field of economy that deserves the attention of every railway man and that has been entered by a number of roads is the conservation of power through the installation of some one of the various forms of checking devices on the cars, recording or indicating the performance of each motorman, and accomplishing its purpose by a thorough follow-up system, including the instruction of trainmen in the most efficient and economical operation of their cars.

In 1919 the Capital Traction Company entered the ranks of companies which have adopted this meas-

	Per Cent		Per Cent
June, 1919.....	28.1	December.....	32.1
July.....	30.0	January, 1920.....	32.1
August.....	30.6	February.....	31.8
September.....	30.6	March.....	35.0
October.....	30.5	April.....	35.7
November.....	31.8	May.....	36.5

ure as a means of increasing efficiency, and it is with the thought that our experience may be of interest and possible benefit to the industry at large that this article is written.

The necessity of conserving coal, both as a patriotic measure during the war and as a means of economy, was recognized, and in 1918 an order was placed with the Railway Improvement Company for coasting recorders to equip all of our cars. The skip-stop system had been instituted in April, 1918, on the railway lines in the District of Columbia, and in August our schedules were revised and tightened up to absorb the slack occasioned by the new stop system. The coasting recorders were installed in the spring of 1919 and the entire system was equipped by June 1.

Briefly stated, our first year's operation with the recorders resulted in an increase in our coasting percentage of about 15 per cent and an estimated saving in fuel and brake shoes alone of \$36,717. This was accomplished with an investment of \$38,852 and an expense of \$7,913, giving a net return in twelve months of \$28,804, or 78 per cent of the outlay for recorders. At present our net saving in coal and brake shoes is approximately \$3,600 per month. Other benefits accruing are touched on later.

IMPROVEMENT IN COASTING

Our first week of operation with the recorders showed a coasting average for the system of 26.4 per cent. This was after the initial instruction and after several lines had been operating with the recorders for from

two to three weeks. From the first few days' performance of each division we estimate that our coasting percentage prior to the recorder installation was approximately 20 per cent. The system coasting percentages for each month from June, 1919, to May, 1920, inclusive were as shown in the table in the first column.

The building up of our coasting to 30 per cent offered no particular difficulties, the issuing of general instructions, posting weekly and monthly lists at the division barns showing the individual coasting records and periodic visits of the coasting instructor readily bringing this percentage. It required more strenuous measures to reach a higher mark. Starting with the last week of October, 1919, an intensive coasting campaign was inaugurated, with 35 per cent set as the goal. Coasting was "sold" to every member of the transportation department and the aid of the mechanical department was enlisted to see that the cars were maintained in good rolling condition. Our motormen so entered into the spirit of the campaign that they reached the coveted 35 per cent in March, 1920, increasing this to 36.5 per cent in May.

The individual records in the early period showed a vast range, some motormen having records as low as 8 per cent. A surprising feature was that many of the low records were turned in by men who in all other respects were excellent motormen. An idea of the improvement in this respect may be gained from the following table, showing the number of our men with various coasting percentages during the week ended June 7, 1919, and the last week of May, 1920:

Motormen with Records of	Percentages of Total Motormen Weeks Ended	
	June 7, 1919	May 28, 1920
10 to 15 per cent	4.2 per cent
15 to 20	18.1
20 to 25	28.7
25 to 30	22.8	4.8 per cent
30 to 35	11.4	34.2
35 to 40	7.8	38.7
40 and over	7.0	22.3

It will be noted that the first week our system was fully equipped, which represented a better condition than before the coasting clocks were installed, 73.8 per cent of our motormen coasted less than 30 per cent, compared with 4.8 per cent during the week ended May 28, 1920.

EFFECT OF INCREASED COASTING ON KILOWATT-HOURS PER CAR-MILE

Beginning with the first month the recorders were in operation a marked reduction in kilowatt-hours per car-mile became apparent. This is best shown by the following table, giving kilowatt-hours generated per car-mile operated for two years prior to the installation of recorders and one year with the coasting recorders

in use. The figures in italics represent the mean temperature for each month, obtained from the Weather Bureau.

KILOWATT-HOURS PER CAR-MILE

	Without Recorders		With Recorders	Percentage Reduction	1919-20 Coasting, Per Cent
	1917-18	1918-19	1919-20	1919-20 vs. 1918-19	
June.....	3.45	3.59	3.25	9.3	28.1
	<i>73</i>	<i>71</i>	<i>74</i>		
July.....	3.33	3.49	3.15	10.2	30.0
	<i>77</i>	<i>74</i>	<i>77</i>		
August.....	3.27	3.42	3.14	8.2	30.6
	<i>76</i>	<i>78</i>	<i>74</i>		
September.....	3.50	3.49	3.23	7.6	30.6
	<i>64</i>	<i>64</i>	<i>69</i>		
October.....	3.63	3.57	3.26	8.7	30.5
	<i>52</i>	<i>61</i>	<i>63</i>		
November.....	3.97	3.67	3.265	10.9	31.8
	<i>43</i>	<i>46</i>	<i>47</i>		
December.....	4.29	4.02	3.59	10.7	32.1
	<i>28</i>	<i>42</i>	<i>33</i>		
January.....	4.60	4.12	3.799	7.9	32.1
	<i>24</i>	<i>38</i>	<i>29</i>		
February.....	4.22	4.22	3.82	9.6	31.8
	<i>37</i>	<i>37</i>	<i>33</i>		
March.....	3.84	3.84	3.37	12.3	35.0
	<i>48</i>	<i>46</i>	<i>46</i>		
April.....	3.77	3.72	3.20	14.0	35.7
	<i>53</i>	<i>54</i>	<i>53</i>		
May.....	3.55	3.50	3.09	13.8	36.5
	<i>70</i>	<i>65</i>	<i>60</i>		

A detailed study made over two comparative periods, one preceding and the other subsequent to the installation of coasting recorders, showed that a greater proportionate reduction in kilowatt-hours occurred at the time of peak load than occurred during the non-rush period.

SAVINGS EFFECTED

The results of the reduction in power demand for car operation, both in kilowatt-hours and equivalent coal value, are shown in the following table:

	1919-20 Versus 1918-19		Increase in		Saving,	1919-20
	Increase in Car-Mileage Operated	Kw.-Hr. Generated	Kw.-Hr.	Fuel Value	Kw.-Hr.	Fuel Value
June, 1919.....	81,496	11.6%	29,923	1.2%	261,987	\$2,219
July.....	94,400	12.9	42,017	1.6	295,665	2,540
August.....	106,275	14.7	130,673	5.3	233,628	2,000
September.....	117,135	17.0	194,293	8.1	214,361	1,828
October.....	159,234	23.3	306,412	12.6	262,043	2,233
November.....	92,896	13.2	20,967	0.8	319,540	2,636
December.....	106,538	14.6	67,759	2.3	360,774	3,070
January, 1920.....	85,012	11.9	79,390	2.6	269,158	2,261
February.....	86,907	12.8	56,837	2.0	306,072	2,562
March.....	111,881	14.8	17,483	0.6	412,785	3,802
April.....	72,962	9.6	161,614*	5.7*	463,689	4,516
May.....	32,758	4.1	229,424*	8.2*	403,815	4,050
Totals.....	1,147,434		554,916		3,803,517	\$33,717

* Denotes decrease.

Our coasting campaign has had the effect of increasing the life of brake shoes from an average of 459 miles over a five-year period previous to the installation of recorders to an average of 699 miles during the past twelve months, or 52 per cent. The gross saving in brake shoes during the year of operation with the coasting recorders was approximately \$3,000, making a total gross saving in coal and brake shoes of \$36,717. The total cost of operating the recorders for the year was \$7,913.

Accompanying the saving in brake shoes was unquestionably a reduction in wheel wear, which should be reflected in a greater life of car wheels. As the average life of car wheels is from two to five years, we are not able at this time to approximate the amount of this saving. Other equipment economies were undoubtedly effected, due to less wear and tear resulting from increased coasting, but these are not of a measurable nature.

The average cost per motorman of operating the recorders was \$23.62 per year, divided as follows:

Coasting instructor.....	\$6.25
Recorder maintainer.....	5.42
Office employees.....	9.10
Paper tape for recorders.....	1.63
Envelopes and office supplies.....	.85
Recorder repair parts.....	.37
Total expense.....	\$23.62 per annum
Fuel and brake shoe savings.....	109.60 per annum
Net saving per motorman.....	\$85.98 per annum

We have 317 cars equipped with coasting recorders and the average number of motormen's records handled per day is at present 350. The operating force consists of one coasting instructor, one recorder maintainer, two clerks employed full time on detail record work and one clerk in charge of the record work, who devotes about one-half time to duties unrelated to coasting recorders.

EFFECT ON COLLISIONS

A close and continued study has been made to ascertain what effect a coasting campaign has on collisions, which has shown conclusively that such a campaign is not detrimental. Of the motormen involved in collisions during the first five months of 1920 63 per cent had coasting records below their division average. The total number of collisions of cars with persons, cars and vehicles during the first five months of 1920 showed a decrease of about 20 per cent over the corresponding periods of 1918 and 1919.

OTHER BENEFITS

Coasting records have been of considerable value in furnishing an additional vehicle for conveying to the management the relative efficiency and value of motormen. The economic value of coasting having been established, new light is thrown on the individual operating efficiency of motormen formerly classed as "good" motormen. We believe the effect of our coasting campaign has been beneficial in improving the general morale of our trainmen. We have been able to maintain a better inspection of our car equipment through following up claims of motormen that they were handicapped in their efforts to coast by cars not working properly. The recorders clearly demonstrated the economy of replacing trucks on thirty of our cars, and this work is now being carried out.

GENERAL

The ultimate success or failure of any form of power-saving device installed on the cars depends on the amount of interest displayed, particularly by the transportation department. We have established a fair coasting average as one of the requirements of the work of motormen. This standard must of necessity be flexible to fit the various individuals. The time of the coasting instructor is entirely devoted to instructing motormen who have not reached or who have fallen below this standard, and this instruction is almost invariably followed by an improvement. Our experience has been that a coasting campaign does not go very far of its own momentum, but requires constant attention from responsible officials, and the results are well worth the effort required.

An investigation, in co-operation with the National Electric Light Association, of the fundamental principles of inductive interference between power and telephone lines is under consideration by the United States Bureau of Standards. The bureau has not yet determined whether it could undertake such an investigation.

Federal Report Nearing Completion

Meeting of the Federal Electric Railway Commission Was Held on Thursday to Consider Final Draft

THE members of the Federal Electric Railway Commission met in Washington on Thursday, July 22, at the call of Chairman Elmquist to consider a draft of the report to be presented to the President. At the close of the meeting it was announced that it will be several days before the commission will have its report completed. The report will be submitted to the President before it is made public.

It will be remembered that the commission conducted a series of hearings last summer and fall on the electric railway situation. The first hearing was held in New York on June 19. All the other hearings were held in Washington, the last being in October. Altogether the hearings consumed twenty-eight days and more than a hundred witnesses presented testimony. In addition, a series of 174 questions was sent to mayors, chambers of commerce, boards of trade, central labor unions and state public utility commissions to obtain their views on the electric railway situation.

Shortly after the close of the open sessions the commission employed Dr. Delos F. Wilcox to assist the commission by making an analysis of the evidence presented. Originally it was expected that Dr. Wilcox could finish this analysis by Dec. 1. After getting into the work, however, and realizing the vast amount of evidence dealing with all phases of the question which had to be analyzed he saw that in order to make a report which he would consider worth while it would require a great deal more time. Accordingly, about the last of November he put the matter before the chairman of the commission, who authorized the enlargement of the scope of his analysis and the taking of whatever further time was necessary.

The task of studying the evidence relating to almost every possible phase of this question and covering the entire United States, as well as of digesting and analyzing all of this evidence, was such that with the meager help obtainable with the small appropriation of \$10,000 it was found not possible by Dr. Wilcox and the secretary of the commission, Charlton Ogburn, who assisted Dr. Wilcox, to finish the analysis before the end of May. As completed the analysis of the testimony covers about 800 printed pages and is divided into chapters dealing with the following subjects:

- The street railway an essential public industry.
- Restoration of electric railway credit a fundamental necessity.
- Fundamental importance of labor as a factor in street railway operations.
- Credit and co-operation the co-ordinate needs of the electric railways.
- Conditions in electric railway operation normally favorable to credit.
- Conflicting evidence as to amount of new capital required annually in the electric railway industry.
- Amount of new capital requirements not clearly shown, but necessity for restoration of credit proven.
- Why has electric railway credit been lost?
- Overcapitalization a cause of the failure of credit.
- Neglect to amortize excess capitalization.
- Failure to amortize normal accrued depreciation.
- Payment of unearned dividends and neglect of ordinary maintenance.
- Overbuilding.
- Holding companies and banker control.
- The uniform 5-cent fare.
- Special taxation and franchise obligations.
- Use of police power to compel more and better service.

Public regulation of stock and bond issues.
Shares of companies and public in responsibility for loss of credit.

Effect of automobile and jitney competition on credit.

Increasing demands of labor.

The war and the dollar.

How can credit be restored?

The pros and cons of public ownership.

Public co-operation and a new deal required.

Increase in margin available for capital.

Double purpose of unit fare increases.

Effect of fare increases upon traffic and revenues.

Table I—Analysis of traffic showing relation of revenue passengers to fare increases.

Table II—Analysis of gross passenger revenue showing relation of passenger revenue to fare increases.

Table III—Revenue passengers carried on principal urban street railway systems for the first six months of 1917, 1918 and 1919.

Table IV—Comparative summary of passenger revenues in relation to fare increases.

Table V—Comparative summary of traffic data in relation to fare increases.

Table VI—General summary of analysis of effect of fare increases upon traffic and revenues.

The zone fare or distance tariff.

Relief from taxation and other public burdens.

Efficiency in management and economies in operation.

Control or abolishment of jitney competition.

Co-operative relations between management and men.

Public subsidies.

Abandonment of unprofitable lines.

Financial reorganization.

No one remedy sufficient.

The valuation.

The rate of return.

Unrestricted state regulation.

Service at cost.

The use of public credit.

The electric railway labor problem.

Labor's public relations recognized.

Limitation of "The Right to Strike."

The program of the Amalgamated.

Labor's participation in management.

Electric railway employees as civil servants.

Service versus profits.

The four choices.

Abandonment of public interest no remedy.

Commission regulation not adequate as a solution of the problem.

Where "service at cost" falls short.

Public ownership and operation the ultimate solution.

One of the time-consuming parts of the work was the tabulation and then analysis of the traffic figures, *i.e.*, the number of revenue passengers and the amount of passenger revenue of virtually every company in the United States, month by month, for a period of three years. Special attention was given in this analysis to any factors, such as competition, strikes, and fare increases, which had a tendency to affect the volume of traffic, thus establishing a number of interesting relations.

Changes in Retail Prices of Food

THE cost of twenty-two articles making up the retail food index carried on by the Bureau of Labor Statistics of the United States Department of Labor attained a new high record in May. The increase on May 15 was 3 per cent over April 15 and 7 per cent over January 15, 1920. These increases are mainly accounted for by the great price increases of sugar, flour and potatoes. The cost of this food budget in May, 1920, had advanced 17 per cent over May, 1919, and 123 per cent over May, 1913. In June there was a further increase, the average family expenditure for these articles being 2 per cent higher on June 15 than on May 15. Figures by cities showed for the period increases in thirty-nine cities and decreases in twelve cities. Prices of food articles are reported to the Bureau of Labor Statistics every month by retail dealers in fifty-one important cities.

Letters to the Editors

July 10 Issue Is Commended

Letters from Manager, Manufacturer and Operative Present Different Points of View

Many complimentary letters have been received by the editors in regard to the issue of July 10. From them three typical communications, each representing a reader in a different group, have been selected and are printed below. The names of the authors are omitted, as the letters seem to have been written as personal communications and not primarily for publication.

Wants More of the Same Kind

July 16, 1920.

To the Editors:

Allow me to express my appreciation of the JOURNAL of July 10. Without any question it is the best issue I have ever read.

Although our troubles have been many and various, ranging from strikes to jitneys, we have always taken the position that the street railway industry was in the very nature of things bound to prosper. Urban transportation is absolutely essential to our modern civilization, and we have always felt that what was essential in this world would be supported. I am sure what we need now is more of the kind of stuff you gave us in the July 10 issue. "GENERAL MANAGER."

Thinks Business Men Fight Unfair Competition

July 16, 1920.

To the Editors:

I have just finished reading your issue of July 10, which is a splendid number and should accomplish a great deal of good in the industry. I cannot agree in every respect, however, with the sentiments expressed by "Engineer," who writes under the title of "Sell What the Public Wants." For example, in one place "Engineer" says:

Success in an industry depends, outside of indomitable courage and unflagging energy, upon the production at a reasonable cost of an article which the public wants, either through a natural or a created desire, and upon merchandising that article so that it is kept sufficiently attractive to the public to insure that it is demanded in such amounts and ways as to make its sale profitable. And, incidentally, the wise merchant brings out the shortcomings of his competitor, not by direct attack, which always breeds a sort of sympathy for the object of that attack, but by setting up the virtues of his product in such a way that the comparison is sure to be made by the desired customer.

Now, the comparison drawn, though ingenious, is not an accurate presentation of the facts. In the first place, in practically no industry except the utilities is the sale price fixed by law, with no reference to the cost of production. What the average business man would do under such condition would be to get out of that kind of business and start in some other that is not so restricted.

A great many railway executives have, of course, been guilty of the things set forth in this article in that they have tried to destroy their competitor—the jitney—by legal restraints on the grounds of unfairness, etc. But it is not a fact to say that other business men do not resort to this sort of thing. Most of them, if they see

a competitor using unfair methods, will do everything possible to stop it. The Federal Trade Board has been established for that very purpose, and if "Engineer" would review the complaints placed before this board by business men trying to curb the unfair practices of their competitors, he would find that the railway men have company in indulging in this sort of complaint.

On the other hand, "Engineer" is correct in that a great many railways have done nothing except make complaint, while other business men do resort to the things that "Engineer" sets forth.

"MANUFACTURER."

Let the Operatives Help

To the Editors:

Your article, "The Coaches Can't Do It All," in the July 10 number is to the point, but how many of the employees know the facts or understand them? I have often seen articles that have brought this same thought to me. The platform men in particular could do an inestimable amount of good, as they are the ones who meet the public and they are the ones who get the kicks. To say that the platform men get a thousand complaints to every one that goes to the office would, I think, be putting it mildly. And when the employee is not informed in regard to the facts and the reasons he will probably sympathize with the public, and this will make matters worse than they were before.

It is well worth while to educate the employees for their own good so that they may realize their duty more strongly, but when they are taught to become salesmen and representatives of the company a good job is done.

I suppose that where there are company sections of the A. E. R. A. this is done to quite an extent, but such companies are too few. If the company is not in a position to have an employees' club it might at least have the ELECTRIC RAILWAY JOURNAL and even other trade papers, such as the *General Electric Review*, on the table in the swing room so that the men could get the facts first hand. They are interested, I know, from their willingness to borrow my copies of the JOURNAL, and many of them are more than surprised when they find out that there are hundreds of companies in the country that are in the same position as their own.

Some companies, I know, have company papers, but the men are apt to think these are cut and dried—prepared for the purpose. They don't begin to know what a job the railways are up against. They think that if their run pays a few dollars more than platform expenses the road must be paying dividends. Officials should get the men posted and keep them so if they want to get in touch with the public. "CONDUCTOR."

Electric Welding of Rail Joints

ROBERT W. HUNT & COMPANY, ENGINEERS
CHICAGO, July 19, 1920.

To the Editors:

Your editorial in the issue of July 3 entitled "Making the Life of the Joint Equal that of the Rail" touches on a very important matter seemingly deserving of comprehensive study by the Electric Railway Association's track committee of the American Electric Railway Engineering Association. There is no doubt but that the electric welding of rail joints has been an efficient means of combating some of the troubles of bolted or riveted joints, but failures of them have occurred after comparatively little service. Considerable progress has

been made in recent years with bolted or riveted joints, to which the use of oil-quenched and possibly heat-treated materials have contributed. Cast-welded joints constitute what may be termed the third type of rail connection that should be included in an investigation of the whole subject. Original costs are exceedingly pertinent today, but should by no means influence, to the exclusion of other details, the question of what type of joint to use.

Defects, of course, may develop in any type of joint. Thus, bolts may stretch due to their low elastic limit. Electric welding of high carbon rails may produce such a change of structure in the steel as to reduce its normal ductility and resistance to impact. Rails after some years' service in cast-welded joints have shown a very appreciable deterioration due to moisture seepage, and mechanical looseness has resulted.

What constitutes the best type of joint is a question fraught with many difficulties, and the time is ripe for a thorough study and discussion of all the facts and experiences.

C. W. GENNET, JR.

Desirability of Commutation Tickets

BROOKLYN, N. Y., July 14, 1920.

To the Editors:

In the issue of the *ELECTRIC RAILWAY JOURNAL* dated June 26, 1920, you have an article on page 1291 entitled "Are Commutation Tickets Desirable?" in which you criticize a part of the report of the committee on public utilities on electric railway service in Camden, N. J. You seem to belittle the advantages to the railroad of wholesaling tickets. Personally, I believe it to be quite the reverse, especially when you consider the fact that most railroads selling commutation tickets allow thirty round trips per month, to be used only during that month, and only by the purchaser; also I believe some roads even have each ticket dated so that a passenger may ride "to and fro" only once per day. In numerous cases I know that passengers rarely use all their book of tickets during the month, and if there are any left, due to sickness or otherwise, they cannot be redeemed.

Furthermore, the commuters are the ones who make the traffic, because they ride regularly, their riding can even be counted on in advance. If it wasn't for the commutation traffic the passenger returns, I dare say, would not amount to very much.

The reduction in rate, even if small, and especially the fifty-trip ticket plan, that any member of the family may use, encourages riding, is convenient and means a certain good will among patrons, which is a thing not to be shunned nowadays. Taking it all in all, I don't think commutation tickets are such a losing proposition as you make it appear.

Further on in your article you lead your readers to believe that steam railroad commutation is less expensive to the railroad than electric commutation, due, as you say, principally to the fact that the steam coaches may be stored in a terminal during the day. You, of course, may have a specific case in mind, but you speak generally, and I should therefore like to know why an electric road cannot store its cars in a terminal also, as a good many electric lines running to suburban towns operate multiple-unit trains and have terminals located at their extremities, according to various articles that I have read from time to time in the *ELECTRIC RAILWAY JOURNAL*.

I should think that it would be much easier and economical for the electric road, inasmuch as it would require the switching facilities at the terminal necessary for the steam road, due to the fact that on the electric lines most of the cars are equipped with motors. From an operating standpoint the electric road must certainly be the cheaper. Not only is it possible to operate the electric car or train where and under conditions that would prohibit the steam locomotive, but it can also follow the traffic more closely, due to the ability to operate single-car units, or trains of any desired length, whereas the steam locomotive could not be operated alone, but must haul its tender and one car, anyway.

Another thing which ought to enable the electric railway to compete in rates with the steam road is the fact that the electric road, as a rule, does not offer the accommodations, such as upholstered seats, smoking compartments, lavatory facilities, etc.; neither is the riding usually as comfortable, due to the steam road's heavier equipment and better kept right of way. Then you finish by saying that there is no reason for an electric railway to reduce its fares during rush hours in order to get peak-load business. I don't think they should either; that is, any more reason than why a steam road should.

I should think, in conclusion, that as railroads in general claim there is no money made in passenger traffic alone they would try to develop enough riding so that it would pay, and I believe commutation tickets is a step toward that result.

HENRY B. DROWNE.

Burning Tie Rod Holes in Rails

CHICAGO & JOLIET ELECTRIC RAILWAY

JOLIET, ILL., July 19, 1920.

To the Editors:

I noticed an article on page 908 of your issue of May 1, 1920, regarding the burning of tie rod holes in rails. We are doing a considerable amount of work similar to this, and while I think the idea is rather absurd that these holes damage the rail to the extent of causing it to break, I would like, if possible, to know what experience other companies have had in this connection.

The web of the rail is subject to such a small amount of the stresses in the rail that I do not see where burning holes through the web very seriously affects the strength of the rail. It is true that the burning of holes may have more serious effect than drilling, due to the heating of the metal around the hole, which may cause additional stresses to be set up. But this heating is over such a small area outside of the hole that even if the entire area heated is considered damaged, still I cannot see how the strength of the rail is damaged to such an extent as to cause it to break.

I would appreciate very much any additional information you can give me.

JOHN B. TINNON,

Engineer Maintenance of Way.

(Note: We have received several letters similar to the above, seeking further information on the results that may be expected by this method of making tie rod holes. The economy of this practice makes it very attractive, but the experience of the company, as noted in the article referred to above, gives a doubtful aspect to this economy. In view of the general interest in the subject, we would welcome correspondence from other companies giving their experience along this line.—EDITORS.)

News of the Electric Railways

FINANCIAL AND CORPORATE • TRAFFIC AND TRANSPORTATION

PERSONAL MENTION

Detroit Case Carried Up

Company Still Fighting—City Going Ahead with Its Municipal Railway Plans

The petition of the Detroit (Mich.) United Railway for permission to carry the judge's ruling to the United States Supreme Court was granted by Judge Arthur J. Tuttle after a ruling had been handed down dismissing the action in equity of the company against the city of Detroit. The action against the city followed the municipal bond election, the company charging that ballots of illegal type were used in the election.

COMPANY HAS LEGISLATED RIGHTS

The company sought by the action to stay the city from constructing lines provided for by the bond issue that was voted, or from interfering with the construction program of the Detroit United Railway.

It was held by the judge that the Detroit United Railway enjoys no contract rights through the lapse of time on day-to-day agreement, but has only those which have been actually legislated.

The City Council has asked the Street Railway Commission for a written report stating its reasons for not permitting the Detroit United Railway to finish the St. Jean Avenue line, one of the so-called day-to-day agreement lines. This line was started by the company last spring, but construction work was stopped by the police under the direction of the city officials.

Councilman Bradley, who instigated the Council's action, gave two reasons for making the motion. The line, he stated, was badly needed and he had been unable to understand why the city had allowed the Detroit United Railway to complete the Twelfth Street line but had halted work on the St. Jean line.

FUNDS FOR MUNICIPAL LINE

It was asserted that the Detroit United Railway alone was to be blamed for the fact that the line was not being completed, for if the company would sign an agreement to waive legal claims to rights in the streets, it would be permitted to finish the line at any time. It was also pointed out that the company allowed a year and a half to elapse after the Council had granted it permission to construct the line.

Authorization of the sale of \$700,000 of the public utility bonds provided for at the April 5 bond election will soon be asked by the commission to furnish money to pay for the construction work and buy rails and ties for the first 30 miles of the municipal lines.

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Approximately \$1,400,000 in contracts have been let on the work for which plans have been drawn by the commission's engineers, and the \$700,000 will bring the total of bonds offered for sale up to \$1,000,000. No large amount has been sold to the public or to any one outside of the city itself. The first \$100,000 issue authorized was purchased by the city Treasurer out of the city's "invested funds." The second issue of \$200,000 was sold to the sinking fund commission at par and accrued interest.

Receivers Increase Wages

New York Railways and Brooklyn Rapid Transit Give Men Wage Increase of 10 per Cent

The operating force of the New York Railways, or approximately 3,500 persons, received on July 18 an increase in wages of 10 per cent. This agreement will run until Dec. 31, 1921. It will increase the operating expenses about \$500,000 a year. The increase was allowed by Job E. Hedges, receiver of the company, with the approval of Federal Judge Mayer. Twenty-one representatives of the Brotherhood of New York Railways employees were parties to the agreement.

Lindley M. Garrison, receiver of the Brooklyn Rapid Transit System, also has announced a similar increase to take effect on Aug. 6, 1920. At the same time H. Hobart Porter, vice-president and general manager of the Brooklyn City Railroad, authorized wage increases by the same amount.

The present increases in New York and Brooklyn are the third since the companies passed into the hands of a receiver. They aggregate 35 per cent. The New York Railways is not making any money, and in order to meet this added expense it is probable that an increase in fare will have to be made. An 8-cent fare has been suggested.

Under the new rates the wages of motormen and conductors on the New York Railways will range between 57 and 67 cents an hour, according to the length of service; substation operators from 71 to 94 cents, machinists from 40 to 70 cents, cable riggers from 48 to 71 cents, storage battery motormen 53 to 62 cents, and other workmen in proportion. Ten hours is to be considered a day's work, with time and a half for all overtime.

The shopmen of the Brooklyn Rapid Transit are understood to have rejected the company's offer. It is said that they will demand an increase of 25 per cent over present rates. The trainmen were considering the wage offer as the ELECTRIC RAILWAY JOURNAL went to press.

Duluth Service Suspended

Men Quit When City Council Refuses to Heed Their Appeal for Fare Relief

Service on the lines of the Duluth (Minn.) Street Railway was virtually at a standstill on July 21. Following the sudden walkout of employees, not a wheel turned until 10.30 a.m. and then only one crew went out. Full service was resumed the following day, however, when the men accepted the proposition of the City Council for a second referendum election on the 6-cent fare.

COUNCIL REJECTED FARE APPEAL

The strike was precipitated by the refusal of the City Council to introduce or consider the 6-cent fare ordinance presented by the employees of the company, who urged that it should be passed in order that their wages might be raised. A strike vote was taken on July 20, the polls closing at 9 p.m. The vote was 383 for a strike on July 28, and fifty-three to initiate a referendum petition. When the report was read later to the mass meeting of the employees, calls for an immediate strike were made.

No formal vote was taken then, but it was so agreed, although Herbert Warren, general manager of the railway, who attended the meeting, urged the men to keep their heads and not strike. He said the company was entirely unprepared for a strike and that while strike-breakers probably would not be ordered, an effort would be made to re-establish service.

There was no disorder during the time service was suspended. Special policemen and deputy sheriffs were stationed at the carhouses. The strike did not affect service on the Superior lines of the Duluth-Superior Traction Company, which controls the Duluth Street Railway. The cars in Superior ran as far as the Interstate Bridge.

ANOTHER ELECTION LIKELY

The City Commissioners indicated late on July 21 that steps would be taken at the meeting of the Council on July 26 to call another referendum election. Three of the five Commissioners present at the meeting on July 21 favored this plan. The company officials said if the ordinance was carried at the second election an increase in pay of 20 per cent as demanded by the employees would become effective, retroactive to July 1. Representatives of the employees who attended the conference at the City Hall indicated that if this was done the men would be persuaded to return to work immediately.

At the open conference on July 12 President Robertson explained the situation which now confronts the company. He said, among other things:

We cannot pay any increase in wages without an increase in fare. We are up against a stone wall. We simply haven't the money. The election showed that 6,000 of the citizens of Duluth are with us for an increased fare. We must not make threats or do anything that will cause them to lose the confidence they have shown in us. By the terms of our franchise from the city we are under a contract to provide street car service. If the worst comes to the worst—I want to make the matter

clear as to our duty and not by any suggestion or threat—if the worst comes to the worst, and you gentlemen decide to strike, the company officials will go to the limit of their ability to keep the cars running. We realize that you men are entitled to more money, that you need it, and we are trying to point out the way by which we hope to be placed in a position so we can give it to you. Six hundred votes the other way at the election would have carried the ordinance we desired. I feel that if we could have said to you that we could grant an increase in wages if the fare ordinance carried there would have been more work done in behalf of the passage of the ordinance. But we could not say that. We are prohibited by the corrupt practices act of the state.

Mr. Doherty Appeals to Courts

Wants Toledo Restrained from Voting on Traction Settlement at Election on Aug. 10

Toledo may not get a chance to vote on the two municipal ownership ordinances which were drawn up by a commission appointed by Judge Killits, passed twice by Council and referred to the people for ratification. The measures providing for \$7,000,000 were to go to a vote at the primary election on Aug. 10. On July 17 a bill of complaint was filed in the federal court at Toledo by Henry L. Doherty seeking to restrain the board of elections from submitting the ordinances. The case will now have to be heard in federal court. If Mr. Doherty's contentions are upheld the measures are dead for all time.

THE case is one of the most unique in the history of the Toledo traction disputes. The Toledo Traction, Light & Power Company, a holding company chartered in Maine, which owns bonds of the Toledo Railways & Light Company, has sued the county board of elections. The city is not made a party to the suit. The prosecuting attorney of the county must fight the legal battles of the board of elections.

CITY NOT INCLUDED IN SUIT

The elimination of the city entirely from the suit also eliminates its legal facilities from the fight which may be made against the granting of the injunction. However, Mayor Cornell Schreiber's first impulse was to ask the court that the city be made a party to the suit.

The bill recites the history of the present trouble beginning with the passage of the ouster ordinance last November and the consequent return of the cars under the joint protection of the federal court and a repeal of the ouster by Council. It outlines the plan agreed to for a settlement, but declares that the municipal ownership commission has "utterly failed to perform its function and duty of preparing a plan for acquiring or constructing a street railway system in the city of Toledo."

CITY BONDED FOR \$7,000,000

The two ordinances bonding the city for \$7,000,000—one for \$3,000,000 for acquiring a transportation system and the other for \$4,000,000 for constructing a transportation system—it is contended "do not designate what kind of a transportation system is to be acquired or constructed and do not contain any plan or suggestion with reference to where or what said transportation system shall be, or how same shall be acquired, constructed or operated."

It is pointed out that the service-at-cost ordinance which was intended to

be presented to the people at the same election as the municipal ownership ordinance is now in the hands of Council with a valuation not agreed to by Henry L. Doherty. But it also charges that Council has taken no step toward negotiating a settlement of this one remaining difficulty and that should the municipal ownership measures go to a vote the people would not "have the opportunity to express their opinion as between the proposition to bond the city for \$7,000,000 to be expended in some unknown way for some unknown system of transportation and the granting of a franchise for the operation of the street railway system in the city upon the service-at-cost plan."

ORDINANCE ATTACKED

The legality of the ordinance is also attacked. Section 121 of the City Charter is quoted and it is alleged that it was never complied with in the passage of the bond ordinances. This section provides that before an issue of bonds may be authorized the director of finance shall furnish to the Mayor, Council and publicity and efficiency commission a statement showing the condition of the city's bonded debt. The finance director is said to have made no such report and the company claims that the bonded debt of the city is now many millions of dollars.

It is shown that the Rail-Light now owns property for taxation in Toledo of a value of \$13,700,000, of which more than \$11,000,000 is real estate and \$2,600,000 personal property, and that the company is now paying more than 3 per cent of all the taxes collected in the city of Toledo.

On this premise it is claimed that the passage of the ordinances calling for heavy bond issues for no specific purpose would cast a "cloud" upon the title of the property of the Rail-Light against which there are mortgages to secure the bonds held by the petitioning company.

The net earnings of the traction company now are declared to be inadequate to pay the interest on the bonds and provide the fair return to the capital invested. If taxes were increased the earnings would become so low as to impair the financial stability of the company. The holding company has pledged the Rail-Light bonds as collateral for \$10,000,000 of notes which will mature on Dec. 1, 1921, and it is claimed that any cloud on the title of the property would make the difficulty of renewing or refunding these notes very expensive.

COMPANY MAKES DECLARATION

The bill claims that there is "design" in the submission of the ordinance which provides for \$3,000,000 of bonds to acquire a transportation system. It outlines the plan which has been put forth by the advocates of municipal ownership—that of condemning the paying lines of the Rail-Light and ordering others to be torn up and removed from the city.

In its petition the company declares:

Upon information and belief the plaintiff avers that the plan to submit the ordinance to the electors is but one step in the consummation of the wrongful and inequitable design and purposes aforesaid to ruin and destroy the property of the Toledo Railways & Light Company, and that should said purpose and design be carried out the security for the payment of the bonds owned by the plaintiff would be greatly reduced and impaired in an amount which the plaintiff cannot at this time calculate.

The two bond issues are \$5,999,000 of 5 per cent first mortgage gold bonds of the Toledo Traction Company and \$6,000,000 of 5 per cent first mortgage gold bonds of the Toledo Railways & Light Company.

Mr. Doherty declared that he felt it his duty to "save the people of Toledo from the enactment of a farce election seeking only to delay a permanent settlement of the street railway situation."

Judge Killits has been spending a vacation in northern Ontario. He did not intend to be in the city till Sept. 1, but has wired that he would come home to hear the case in court on July 22. Notice was served on Prosecuting Attorney Seney that the hearing would be held at this time.

If the injunctive relief asked for is allowed the ordinances providing for municipal ownership of "a transportation system" will never be submitted for a referendum vote.

Memphis Men Prepare New Scale

Preparation of a new wage scale for submission to the Memphis (Tenn.) Street Railway is being considered by the motormen and conductors. The present agreement with the company expires on Aug. 1. Both sides are said to have expressed themselves as prepared to arbitrate in the event the first scale is not accepted. Wages now range from 42 to 48 cents an hour. The maximum is paid to men who have been with the company for a period of eighteen months or more.

Service Resumed in Akron

Five-Cent Fare for Sixty Days Pending Permanent Settlement Basis —Wage Controversy Under Way Four Months

At a special meeting of the City Council of Akron, Ohio, on the afternoon of July 16, it was decided to amend the franchise of the Northern Ohio Traction & Light Company in such a manner as to allow the company to collect a straight fare of 5 cents for sixty days, with the idea that a permanent agreement on the rate of fare could be reached within that period. If this is found impossible, the time may be extended.

A. C. BLINN, general manager of the company, at once notified William Lemmon, business agent of the union, that the men would be granted the increase in wages allowed by the board of arbitration immediately on their return to work. Cars were put into operation the following morning, although many of the men were out of the city and it was thought that several days would elapse before the service would be complete.

ONLY ONE VOTE AGAINST

Gus Kasch was the only member of Council who voted against the amendment increasing the rate of fare. He declared that the Car Riders' League had not been informed of the movement to increase the fare and that none of its officers had been invited to the Council meeting. City Manager William J. Laub, who is president of the league, however, was privileged to be present at all meetings. Mr. Kasch threatened to invoke the referendum and expressed the belief that the recall might be exercised with reference to some of the members.

The controversy between the company and its men has been under way for four months. The men submitted a demand before the expiration of their contract on May 1 for a wage of 80 cents an hour with an eight-hour day. The company replied that this was more than could be paid and the matter was taken to arbitration. Based upon the condition that the company be allowed a rate of fare that would cover the increase, the board of arbitration awarded the men a wage of 65 cents an hour. Employees then notified the company that they would remain at work twenty-one days, in order that some agreement for an increase of fare might be reached with the city. Many conferences followed, but failure resulted in each attempt to reach an agreement. The men extended this period, however, because the last day fell on July 4, but left their cars on July 6.

UNION CONSIDERS MATTER ENDED

Officials of the union stated that the matter is ended as far as they are concerned, since the company has agreed to pay the wage awarded by the board of arbitration. It is understood that they will be given back pay from May 1.

Provisions in regard to transfers are to remain as they have been. Those who have tickets under the old rate may have their money refunded by returning the tickets to the office or the

holders may add 1 cent to each ticket and tender the ticket and the coin in payment of fare.

The following statement was made by the public utilities committee of the City Council:

As a result of wage differences between the company and its employees, the city, although not a party to the controversy, was drawn by arbitrators into the unfortunate situation where an award of increase in wage was made conditioned upon the city granting to the company a higher rate of fare.

A threat made by the men to leave their cars unless the higher wage was paid by the company was carried out, leaving the public without transportation.

The company then pressed on Council a request, first for a 7.4-cent fare and then for a 6-cent fare to meet the emergency that had thus been created.

While Council was in sympathy with the request of the employees for an increased wage, it was out of accord with both the manner of involving the city in the dispute and the high fare requested by the company.

Feeling satisfied that a 5-cent cash fare would provide the company with sufficient additional revenue to meet the wage increase, this offer was made the company.

It was refused and the city began suit to enforce its contract with the company and compel a resumption of car service.

Convinced that the public demands not only better service, but extensions to lines, negotiations had been taken up with the company in the meantime with a view of obtaining for the city a new contract in which such benefits could be secured.

Progress along these lines had been made.

Further, being satisfied that a new contract can be drawn within sixty days that will provide for better service and extensions, giving at the same time a large measure of supervision and control of operation by the city, we agreed to recommend to Council that a 5-cent cash fare be granted the company during the period for further negotiation and on the condition that resumption of service begin at once. The offer was accepted by the company.

That the public has been liberal in its views, patient and good natured, and has made no complaint about the situation which had arisen and over which the city had no control, has aided very much in bringing the matter to so early a settlement.

At Massillon, where the company operates a local line, the City Council has passed an ordinance increasing the rate of fare from 5 to 8 cents. It provides that the company must station four watchmen at the railroad crossings in the city, build new tracks on Akron street, put on two daily cars between Massillon and Cleveland and provide for a special service between Massillon and Meyer's lake. The company agreed to place fifteen new cars in operation there when the ordinance went into effect on July 15.

Threatened Strike in Buffalo

The employees of the International Railway, Buffalo, N. Y., have asked for increased wages and a closed shop policy. The company has refused to grant either request, claiming that 60 cents an hour is an adequate wage. The dispute has gone to a board of arbitrators after several threats of a

strike. On July 17 the men voted to put off indefinitely the calling of a strike, but gave their executive committee the power to act if it considered a strike necessary.

C. J. Joyce, Philadelphia, is the arbitrator appointed by the company and James H. Vahey the arbitrator appointed by the men. These two have agreed to the appointment of a third arbitrator by Governor Smith in the event a Public Service Commissioner will not serve.

In a statement to the men given to the press, President Tulley of the company said:

The International Railway increased the wages of its men 12 cents an hour, from 48 cents to 60 cents, effective on May 1, 1920. The cost of this advance approximates \$1,000,000 a year. The car fare was simultaneously increased from 5 cents to 7 cents, which is producing increased revenue of less than \$900,000 a year.

In granting the 12 cents increase the company has, therefore, already given the men more than the entire amount received by the company from the increase of from 5 cents to 7 cents in car fares, and can grant no further increase in wages without a corresponding increase in car fares.

East St. Louis Wages Advanced

The arbitration board appointed to settle disputes between the East St. Louis & Suburban Railway, East St. Louis, Ill., and its employees recently awarded the men increases ranging from 40 to 52 per cent. Conductors and motormen will receive an increase from 46, 48 and 51 cents an hour to 70 cents an hour, shop men from 48 cents to 63 cents an hour, and extras will be guaranteed \$80 to \$90 a month. The working day was fixed at nine and one-half hours, with time and a half for overtime. The new rates are effective May 1, 1920. The employees asked for a maximum of 87.5 cents an hour and an eight-hour day. They have voted to accept the award.

The award will affect about 310 men. It will mean an increase in the yearly payroll of approximately \$250,000. The present East St. Louis fare is 6 cents and an application is pending before the Illinois Public Utilities Commission for an increase to 8 cents to meet the 12 per cent increase in wages allowed a year ago by the War Labor Board. In order to meet this last award officers of the company estimate it will require an increase in fares to 10 cents or more.

C. E. Smith, representing the railway, in the course of a long dissenting opinion, said:

I was favorable from the very start to a reasonable increase and so stated, but I could not sign the award of the two other arbitrators, as the company's financial statements clearly showed that it could not pay any additional wages without increasing fares more than was necessary with past wages. I was unwilling to place upon the public the burden of paying the abnormally increased fares that will be necessary to give such an unfair and unreasonable increase in wages, especially at a time when all serious-minded men are engaged in efforts to reduce rather than to increase those expenditures that contribute directly and indirectly to the high cost of living.

It is an amazing fact that the chairman, a graduate of a reputable state university, a member of the Illinois bar, practicing with fellow members of the bar, should, when entrusted with such an important case as this, render a decision not substantiated by the record, entirely outside of and beyond the evidence and without ad-

vancing, in the deliberations of the board, a single fact or argument to substantiate his decision.

There is no recourse left the company except to petition the Public Utilities Commission for permission to raise its fares sufficiently to meet the increase of more than 40 per cent in its payroll and to secure a reasonable return on the fair value of its property. If the commission does not grant such rates or if, having been granted, the public refuses to ride and adopts other means of conveyance, the result, to the company, to the industries and to the community, will be disastrous.

The wage demands of the men on the Alton city line and on the single-track suburban lines remain to be arbitrated. The Alton men are being paid from 46 to 51 cents. They are demanding 92.5 cents an hour. The interurban men are getting 48 to 53 cents and demand 95 cents an hour.

Staten Island Case Decided

Federal Judge Thomas J. Chatfield, in Brooklyn, on July 14, handed down a decision upholding the right of the city authorities of New York to declare the franchises of the Richmond Light & Railroad Company forfeited in view of the failure of the company to live up to contract obligations. In his decision, Judge Chatfield said:

The Court of Appeals seems to hold that the action of the Board of Estimate in declaring by the passage of a resolution that a charter has been revoked is action of a legislative nature.

The decision of the Court of Appeals is controlling over the present application in this respect, and it must be held that this court has no authority to determine whether the passage of a resolution forfeiting a charter is purely an executive act like the canceling of a contract by a single official involving possible judicial determination.

The court, therefore, cannot grant the motion to enjoin the Board of Estimate from considering and passing a resolution declaring the franchises forfeited, and the temporary injunction order must be vacated.

Under the decision of the Circuit Court of Appeals in the Manhattan & Queens Traction corporation case this court has no right to determine collaterally that the city of New York, through its Board of Estimate, might be acting with no foundation of law and entirely outside its authority in declaring the franchise in question forfeited, if the Board of Estimate should see fit, acting under the advice of its legal representative, to attempt to pass such a resolution. But no individual employee or agent of the city, even if a resolution of forfeiture should be adopted, can, under the general injunction, proceed to interfere with the operation of the receiver before this court has an opportunity to pass upon the validity of the resolution in question.

Under the circumstances now set forth in the present case, the restraining order should be continued and the injunction applied for granted to the extent of specifically forbidding any physical interference with the operation of the receiver or any attempted action under or enforcement of the resolution declaring the franchises forfeited if the threatened action be taken until application has been made to this court for an order vacating the injunction forbidding such action.

Municipal Men Want \$6 a Day

A group of employees of the San Francisco (Cal.) Municipal Railway appeared before Timothy A. Reardon, president of the Board of Public Works, on July 14, and demanded an increase in pay of from \$5 to \$6 per day. Mr. Reardon told the committee that such an increase at this time is impossible, as the lines are now showing a deficit. Following the refusal of Mr. Reardon to grant the increase, the spokesman for the men announced that he would appear before the Board of Supervisors and demand that the wages of the men be raised to meet their request.

Service Being Restored

New Orleans Company Re-establishing Schedule—Court Will Not Be Intimidated or Coerced

The car strike situation at New Orleans, La., remains practically unchanged. Transportation facilities, however, are resuming normal slowly. The recent outstanding event was the submission on July 15 by Receiver O'Keefe to a committee representing the strikers of a form of contract he is willing to sign. Receiver O'Keefe recognizes the right of collective bargaining, the right of employees to be represented by officers and committees of their choosing. He stands for promotion according to seniority and ability with no discrimination against union men or the men engaged in the present strike. Wages will be left to arbitration, but will be raised only as fare increases granted by the Commission Council of the city provide revenue for the increases.

THERE is no recognition for the Amalgamated Association, although the right of employees to membership in the Amalgamated Association is not denied. Some of the men in the Amalgamated had advanced as a reason for their refusing to relinquish membership in the association the fact that they were insured under the Amalgamated auspices. In consequence of this the receiver offered a better insurance inducement than the men now hold under the Amalgamated membership.

Judge Rufus E. Foster of the United States District Court has issued the following statement in regard to the strike:

I notice the statement from J. B. Lawson, national executive officer of the Amalgamated Association, that the real question now is whether the company will renew the old contract with the understanding that the wage scale will be arbitrated.

The issue goes far beyond this. The Constitution of the United States guarantees liberty of contract to all men. Every man has the right to belong to a labor union, or to remain out of it, or to withdraw from one after he has joined. The receiver also has the right to contract with an association in which he has confidence and not to contract with an association he believes to be arbitrary and unfair in its demands.

The old contract referred to by Mr. Lawson has many objectionable features, apparent on simple reading, to any fair-minded man. The receiver has found it impracticable to operate the property to the best interests of the public under its terms and conditions. He is willing to enter into a contract with his former employees collectively, provided the contract is entirely removed from control of the Amalgamated Association.

The order of court I issued when it became apparent to me that it was impossible for the receiver and the representatives of the Amalgamated to agree on a contract which gives the men everything they could fairly expect under a contract. It provides for collective bargaining, representation through committees of their own choosing and arbitration of wages. The men could return to work under its provisions without affecting their union affiliation in the least.

The real question now at issue is, are the courts of the United States to be governed by the Constitution and laws of the United States in their decisions or be subjected to dictation from any organized group of men. This question is fundamental and paramount and superior to any temporary inconvenience the public may suffer, regrettable though that may be.

I will not be intimidated or coerced in deciding this question by sympathetic strikes or political clamor. I expect all good citizens of New Orleans, whether laborer or capitalist or that vast majority which falls into neither class, to support the courts of the United States. A proper decision of the question is vital to the very existence of our government.

The differences of the contending parties are being aired in page advertisements in the local papers. On Sunday morning the men announced that they were firmly resolved to maintain relations between the Amalgamated Association and through this association their affiliation with the American Federation of Labor. This step apparently blocks all avenues to a reconciliation.

The matter of wages and hours of labor which precipitated the trouble are now forgotten in the fight for recognition of the union. There have been but few disturbances on the cars growing out of the strike, and violators of the federal court's order that the employees of the company must not be molested have had swift and summary justice meted out to them. Varying periods of imprisonment in the various parish (county) jails of the State have been given them. None has been sentenced to the New Orleans parish prison, where they could be seen and visited by their New Orleans friends, relatives and sympathizers. They have been scattered all over the State, one strike sympathizer, in particular, having earned the distinction of drawing a year and a day sentence in the federal penitentiary at Atlanta.

The allied unions have refused to go on a sympathetic strike, but promise moral support and advocate the advisability of operating a jitney service, in opposition to the car company, the funds derived therefrom to be used in aid of the striking car men. The union representatives also asked that Judge Foster remove the deputy United States marshals that man the cars now and that he also modify his court order permitting the receiver to contract with them through the Amalgamated Association.

The men have also enlisted the aid of both representatives of the New Orleans District in Congress, who have been interceding with Judge Foster. To all of these appeals the court has turned a deaf ear and refuses to allow the receiver to contract with the Amalgamated Association, in any form, though the men may contract with the receiver as a local union and still retain membership in the Amalgamated Association.

Mayor Martin Behrman filed a petition on July 20 in the U. S. District Court asking Judge Foster to permit the city to intervene in the receivership proceedings and to consent to a modification of the court's order whereby the only obstacle to a settlement of the strike—recognition of the Amalgamated Association—may be removed. The Mayor's action was based upon a resolution adopted by the Commission Council. The court consented to hear the petition, but no date was set. If the appeal is granted the strike may be ended at once. The court had not acted up to July 22.

Chicago Car Strike Ends

Men Gain Unionization of South Shops and Abolition of Piece Work, but Wages Are Those Offered Before Strike Was Called

The strike of the substation operators formed the crippling blow in a walkout of some 300 employees of the Chicago Surface Lines on the morning of July 13. The employees who ceased work included the shopmen employed at the South Side shops, the linemen and later the trackmen and West Side shopmen in addition to the substation operators. The strike was called by the notorious "Umbrella" Mike Boyle, the issue being primarily that the company would not concede a closed shop at the South Side shops, which have always been operated as non-union with a large amount of the work done on a piece-work basis.

AS WAS noted in the telegraphic report of this strike which appeared in last week's issue of the *ELECTRIC RAILWAY JOURNAL*, the company had made an offer of liberal increases to the various crafts, but Mike Boyle staked everything on his determination to make the company grant a closed shop. Public opinion was thus aroused against the strikers and the company was fixed in its purpose to operate the cars despite the strikers.

SERVICE QUICKLY RESTORED

The strike began early Thursday morning and by Saturday sufficient substations had been manned so that normal service during non-rush hours was provided and about 50 per cent of rush-hour service. By Sunday practically normal service was being operated. The result was that at 4:45 o'clock Sunday afternoon Boyle and the other union heads, in the offices of the company, where they had earlier announced they would not appear for a conference, reached an agreement which ended the strike.

According to the terms of this agreement, the wages settled upon are practically those offered as the men went out. The South Side shops formed the bone of contention in the strike. They will be unionized, though on the open shop principle, thus placing these shops on the same basis as has applied to the West Side shops for years.

Work in the South Side shops was transferred from a piece-work basis to an eight-hour day basis, the hours to be equalized within the next ninety days. The result of this is that many of the men will now receive about \$1 a day less than they have been earning on the piece-work basis. This peculiar angle of the strike is better understood by the knowledge that most of the men were very well satisfied with the piece-work system and were finally induced to strike only through intimidation.

SHOPS ON EQUAL BASIS

Overtime in both South and West Side shops was put on an equal basis, time and one-half. Trackmen and machinists were placed on the same ratio of pay, but a raise to 70 cents an hour asked is still under consideration.

The union heads were defeated on their demand for an increase for the two groups of Class B electricians to a standard rate of pay. The same was true of the tanners. Their wages will remain as heretofore.

Metal workers received an increase of 5 cents an hour on night shifts.

Blacksmiths gained nothing by the strike. Helpers in these trades will receive 80 cents an hour instead of the 97½ cents demanded. Trackmen under the new schedule will be paid 54 cents an hour. Pavers will get 68 and 70 cents an hour, depending upon their length of employment. Workers in these trades employed in the shops will receive the same rate of pay as those outside. The rates offered by the company of \$9 a day for linemen, \$7 a day for helpers and \$10 a day for foremen were accepted.

Substation men were given \$120 a month during the first year of employment, \$125 during the second, \$130 for the third and \$145 for the fourth. Operators will get \$200 and \$210, the same figure offered by the company before the strike, while the union demands were \$225. The rainy day clause demanded by the linemen also was lost. It was disregarded in the settlement.

ELEVATED LINES NOT AFFECTED

An interesting sidelight on the strike was that the similar employees of the elevated system, who are unionized, were not called out by the union officials. The trainmen of both the surface and elevated lines have always worked in union in making their demands. The trainmen of the surface lines did not join in any way in the recent strike. The company paid them for full time for reporting and waiting in readiness to take cars out as rapidly as substations could be operated. The fact that the trainmen only recently received a handsome increase and signed a new contract with excellent feeling prevailing undoubtedly had much to do with their lack of sympathetic interest in the recent strike.

During the strike of the surface lines, the elevated lines put all of the cars available in operation in order to handle the enormous crowds which swarmed the elevated platforms.

Wage Jurisdiction Waived

Colorado Industrial Commission Declines to Exercise Jurisdiction in Denver Tramway Wage Case

On the grounds that its recommendations of May 10 have been totally ignored by the city authorities, and that it is therefore not for the best interests of the parties to the controversy nor of any advantage to the public that hearings or investigations be held, the Industrial Commission of the State of Colorado has declined to assume juris-

diction over the pending wage demands upon the Denver (Col.) Tramway by the local branch of the Amalgamated Association.

The employees were awarded an increase of 10 cents an hour by a local board of arbitration on March 18, which through inadequacy of revenues the company is unable to pay. Announcement by the company of contemplated reduction in wages and restoration of the National War Labor Board scales formerly in effect resulted in the Industrial Commission taking jurisdiction over the controversy. After investigating the matter the commission issued its findings and order on May 10, which substantiated in every detail the claims of the company and recommended

that the proper local authorities at once fix and establish a fair rate for the services rendered to the public by the Denver Tramway. Such rate, in order to provide revenues with which to pay the wages fixed by the arbitration board in its decision of March 18, cannot be, at this time, less than 7 cents for adult fares and 3½ cents for half fare.

The City Council ignored the recommendations of the Industrial Commission and without making an investigation in its own behalf refused to pass a 7-cent fare measure which had been initiated by the company.

COMPANY MUST CONTINUE

Through a temporary injunction granted by the District Court upon the application of the city of Denver, the tramway is literally compelled to continue in force the wage scales established by the arbitration board, at least until decision is rendered by the Colorado Supreme Court, which has now assumed jurisdiction over the injunction case.

The pending demands of the union are for a wage scale for trainmen of 70 cents the first three months, 73 cents the next nine months and 75 cents thereafter, with corresponding increases for employees in other departments. In ruling on this case the Industrial Commission in its order of July 15 said:

It now appears to this commission that its recommendations "that the proper local authorities at once fix and establish a fair rate for the services rendered to the public by said Denver Tramway Company" have been wholly ignored and said Denver Tramway is now operating upon the same fare as existed at the time of said award on May 10, 1920; that there has been no change in other conditions affecting the revenue and necessary expenditures of said Denver Tramway sufficient to alter or modify the said findings and award of said commission; that this commission has not investigated the question of a fair wage to said employees under present living conditions; that the ability of the said company to pay wages under a 6-cent fare and present conditions has been investigated by this commission as above set forth; that one of the primary objects of investigations by this commission of industrial controversies is conciliation between the parties and the discovery of a common ground upon which a settlement can voluntarily be made. In this case the difficulty between the employer and employee is not entirely the inability of the parties to reach an agreement upon the question of a fair wage, but the dispute arises over the inability of the parties to adjust for the employees a fair wage compatible with the ability of the company to meet such wage. The ability of the company to pay is not within the control of either party hereto nor this commission, but in the rate-fixing power of the public officers charged with that responsibility. Said company has refused to agree to the payment of a wage beyond its ability.

Six-Day Week Suggested

Plans Fast Being Lined Up for Thorough Inquiry at the Twin Cities

A six-day week has been suggested by a member of the Minneapolis arbitration board which is considering demands of the trainmen of the Minneapolis Street Railway for increased wages and an eight-hour day. The trainmen have postponed a referendum on this point until they learn what will be the status of their demands already before the board.

MANY TRAINMEN NEEDED

H. W. Ralph of the company's schedule department said it will require 14 per cent increase in number of trainmen. The plan was proposed because it was found that at \$150 apiece to teach new men to operate cars there is a heavy expense due to the turnover in men.

The board held its first meeting July 7 to listen to replies to questions asked H. B. Warren, who is studying the company's financial statement for the board. Milo R. Maltbie, New York, is expected to arrive on July 19 to aid in the investigation.

The company reports that operating expenses in Minneapolis in May were \$51,480 lower than the average for four months preceding. A net balance is shown for the St. Paul system of \$25,586, offsetting a deficit for four months and leaving a five months' balance of \$9,149. Reduction in payrolls, because not enough men could be had to man cars, is one reason for the increase in revenue. The St. Paul operating expense for May was \$49,926 lower than the average for four months.

Byron Gifford, Grand Rapids, Mich., has been selected by the City Council of Minneapolis, Minn., to audit the books of the Minneapolis Street Railway. The purpose is to get a report on which the Council can base action if it finds that an increase in fare from 5 cents is necessary to permit the company to pay increased wages demanded by the trainmen. Mr. Gifford's staff of five assistants is headed by G. H. Matthews, chief statistician for the Wisconsin Railroad Commission. A specific report is not expected before Aug. 2.

EXPERTS AT WORK

H. B. Warren, local expert, is continuing his investigation to answer questions proposed by the arbitration board. Milo Roy Maltbie will go over the Warren figures for the board. The board expert is to determine what it will cost to put the Minneapolis service back to the standard of 1917.

In St. Paul Dr. E. W. Bemis, Chicago, has been retained to make a revaluation of the property of the St. Paul City Railway. There a similar arbitration board is endeavoring to determine whether St. Paul can allow the company an increased fare.

The Twin City Rapid Transit Company has asked for a 7-cent fare with four tickets for a quarter.

News Notes

Dissatisfied with Street Railway Service.—Since the railway service in Windsor has been taken over by the Ontario Power Commission, great dissatisfaction has been felt by the patrons of the Sandwich, Windsor & Amherstburg Railway. It is claimed that the service is inadequate and that municipal operation does not meet the needs of the people.

Municipal Operation of Bridge Cars.—The Board of Aldermen of New York has authorized Grover A. Whalen, Commissioner of Plant and Structures, to purchase without public letting the cars and equipment necessary for the city to operate the electric railway shuttle service over the Williamsburg Bridge after he has the necessary funds to carry out the plan.

Company Accepts Winnipeg Award.—The Winnipeg (Man.) Electric Railway will accept the award of the Myers board of arbitration granting the men a 10 per cent increase in wages. The acceptance of this award will mean an additional \$300,000 in wages. The award has not, as yet, been accepted by the men, who had asked for practically a 50 per cent increase over present wages.

Platform Men at Columbus Refused Increase.—The Columbus Railway, Power & Light Company, Columbus, Ohio, has refused the demand of the motormen and conductors for an increase of 50 per cent in wages. In a statement issued by the company it was explained that no increase can be granted at this time. The men were scheduled to meet on July 13 to discuss the company's reply.

Road Unable to Purchase Cars.—Ralph Peters, president of the Long Island Railroad, in a statement replying to the order of the Public Service Commission requiring the company to buy 100 new cars, says that, under present conditions, the road is unable to purchase the cars, and that an increase of fares is the only solution. Mr. Peters says that the cars will cost \$3,000,000 and that capital for them cannot be secured.

Preparing for Arbitration at Dayton.—The local branch of the street railway men's union at Dayton, Ohio, has selected J. E. Duncan, secretary-treasurer of Typographical Union No. 57, as its member of the board of arbitration to fix a permanent wage scale. The company officials are to name a second member and these two will agree upon a third, if possible. If they fail the third member will be selected by the State Industrial Commission.

Bus Franchise Forfeited.—An ordinance to repeal the fifteen-year franchise granted to the General Omnibus Company to operate in Newark, N. J., has been ordered by the City Commission of Newark. The franchise was issued Feb. 19, 1919. The company was given a year to begin operations, and the extension on that time has now expired.

White Plague Exhibit Car.—The Tuberculosis Society of St. Louis, Mo., has fitted up a public health street car to educate the public in the fight against tuberculosis. The car contains exhibits showing the effects of the disease and simple measures to be taken to prevent its spread. During a recent week 12,000 people visited the exhibits and 40,000 pieces of literature were distributed.

Wage Terms in Strike Settlement.—The strike of the employees of the Jersey Central Traction Company, Keyport, N. J., which began on June 26, has been settled and service has been resumed. The new agreement provides for added compensation for the men, but the company refused to recognize the union. Seniority rights were also granted which give the men the privilege of selecting their runs. The new scale provides for the payment of 46 cents an hour for the first nine months, with 48 cents for the remaining three months of the year. After a year of service the pay is 50 cents. Under the old scale the men were paid 41 cents an hour for the first nine months, 43 the next three and 45 cents after a year.

Philadelphia Men Forego Wage Increase.—More than 10,000 employees of the Philadelphia Rapid Transit Company on July 22 voted not to demand payment of their increase in wages of approximately 7½ cents an hour granted on June 1 until the company's revenue increases sufficiently to pay the advance. The action was taken after Thomas E. Mitten, president of the company, had outlined to a meeting of employees' representatives the financial condition of the company and said it could not pay the increased wages until additional revenue was obtained. Application has been made to the Public Service Commission for the abolition of free transfers, which Mr. Mitten estimated would increase the company's yearly revenue about \$3,000,000. Under an agreement between the company and the men the wages are based on the average compensation paid electric railway employees in Chicago, Detroit, Cleveland and Buffalo. Wage increases granted in Detroit on May 16 and in Chicago June 1 necessitated under the agreement a wage increase by the Philadelphia company of from 65 cents an hour to 72½ cents.

Program of Meeting

Illinois Electric Railway Association

The mid-summer meeting and golf tournament of the Illinois Electric Railway Association will be held at Springfield on July 30.

Financial and Corporate

Mr. Stotesbury Resigns from P. R. T.

He and Two Other Banking Members of the Board Retire After Losing Fare Vote

E. T. Stotesbury, Horatio G. Lloyd and C. S. W. Packard all resigned as directors of the Philadelphia Rapid Transit Company at a meeting on July 19. They retired following the voting down of a proposal made by Mr. Stotesbury for a flat 7-cent fare. The other directors voted to withhold acceptance of resignations until the bankers had had an opportunity to reconsider their resignations if they desired to do so.

ANOTHER significant development at the meeting was the passing of the dividend. It was announced that the semi-annual dividend would be deferred because of lack of funds. A statement given out later said that it had been necessary to appropriate earnings for the first six months to meet expenditures and that as a result no action was possible in the direction of a dividend.

All accounts of the meeting seem to indicate that the breach between Mr. Mitten and Mr. Stotesbury has been widened and that there is little prospect of the chairman and the president of the company being able to reconcile their conflicting views on fare matters. It was over this question that the differences came about. At the meeting three different elements were represented: First, there were the bankers, led by Mr. Stotesbury; then came the stockholders, led by Mr. Mitten, and, third, the three city representatives, headed by the Mayor.

As soon as the matter of the dividend had been disposed of, Mr. Stotesbury, as chairman, passed on to the subject of fares. Mr. Lloyd, vice-president of Drexel & Company and the associate of Mr. Stotesbury in that firm, discussed the finances of the company and the fare proposition. He stated

that the present application for higher fares on file by Mr. Mitten with the Public Service Commission was inadequate to provide for the financial needs of the company. This proposal provides for the abolition of free transfers and the curtailment of the 3-cent exchange in the downtown business district. It has been estimated that these changes would increase the revenue of the company \$3,000,000 a year.

Mr. Lloyd moved the Mitten plan for higher fares be immediately withdrawn. In its stead he proposed that the company apply for a flat fare of 7 cents, with the understanding that the company issue rebate tickets for the 2-cent additional fare, so that the refund could be made at a future date if the fare increase were rejected by the Public Service Commission. In addition he proposed that the new fare increase be put into effect with the understanding that an appraisal of the company's property be presented to the city not later than Sept. 1. He maintained that the appraisal would justify the increase to 7 cents.

Mr. Mitten opposed this plan. He declared that the \$3,000,000 revenue that would be received under his proposition would be sufficient to defray the operating costs and provide for the dividend.

Mr. Lloyd's plan, when put to a vote, was lost, six to five. The directors who defeated Mr. Lloyd's motion were Mr. Mitten, Mr. Moore, Col. Sheldon Potter, Ernest T. Trigg, William J. Montgomery and J. J. Sullivan, Jr. The resignations of the directors previously mentioned were then presented.

The company, in announcing its abandonment of the dividend for the first time in three and a half years, made public figures that indicate that the earnings up to date are \$367,899 short of the amount needed to pay the dividend and meet the wage adjustments that are necessary. The figures of earnings are reproduced elsewhere on this page.

Mr. Stotesbury said that as soon as he was fully convinced that he should make a statement it would be forthcoming. He is quoted as follows:

I answer no questions, so there is no use asking any. I am still considering the proposition of issuing a statement setting forth my ideas on transit matters.

Mr. Packard said:

I resigned. I did not tender my resignation. I can say the directors who resigned did not represent large holders of stock, but they did represent other interests that are large stockholders. That is all for the present. Anything else must come from Mr. Stotesbury.

In connection with the resignations it is now recalled that last February the voting trust expired which had been in operation for ten years. During the life of the voting trust Mr. Stotesbury was all powerful. Mr. Mitten seemingly considered the fare matter an operating problem. On the other hand, Mr. Stotesbury looked upon the fare readjustment as a matter of financial consideration, subject to action by the directors before any steps were taken by the operating committee.

A statement made by Mr. Mitten follows:

The car riders of Philadelphia may rest assured that the management will continue to function to the very best of its ability. The record of achievement by the Mitten management in overcoming obstacles stands as an unmistakable index to the completion of the program adopted by the management.

Ordinance Allowances Increased

Board of Arbitration at Youngstown Increases Awards for Operating Expenses and Maintenance

The Youngstown (Ohio) Municipal Railway, the operating subsidiary of the Pennsylvania-Ohio Electric Company for the Youngstown, Ohio, city lines, recently found it necessary to submit to arbitration the matter of an increase in the allowances for operating expenses and maintenance under the terms of the service-at-cost franchise in effect there. This was referred to at length in the *ELECTRIC RAILWAY JOURNAL* for June 19, page 1277.

The board of arbitration, of which Col. J. H. Alexander, vice-president Cleveland Railway, was the company's member, after full consideration reached the decision whereby the operating allowance of the company was increased from 27 cents to 34 cents per

STATEMENT OF EARNINGS OF PHILADELPHIA RAPID TRANSIT COMPANY

June:	1920	1919
Operating revenue	\$3,177,848	\$2,963,631
Operation and taxes	2,358,336	1,907,465
Operating income	\$819,511	\$1,056,166
Non-operating income	53,590	33,991
Gross income	\$873,102	\$1,090,157
Fixed charges	816,444	808,156
Net income	\$56,658	\$282,001
Amount necessary to meet June 1 wage adjustment	\$187,500	
5 per cent return on P. R. T. paid in capital—one month	125,000	
Amount by which gross revenues are insufficient to provide for operating expenses, taxes, fixed charges, and the 5 per cent return upon P. R. T. stock	\$255,841	
Six months ended June 30:	1920	1919
Operating revenue	\$18,653,593	\$17,174,965
Operation and taxes	13,436,291	11,709,077
Operating income	\$5,217,301	\$5,465,888
Non-operating income	251,901	264,513
Gross income	\$5,469,203	\$5,730,402
Fixed charges	4,899,602	4,853,801
Net income	\$569,600	\$876,600
Amount necessary to meet June 1 wage adjustment	\$187,500	
5 per cent return on P. R. T. paid in capital—six months	750,000	
Amount by which gross revenues are insufficient to provide for operating expenses, taxes, fixed charges, and the 5 per cent return upon P. R. T. stock	\$367,899	

car-mile for all cars equipped with motors and 60 per cent of this sum for trail cars. In addition to this flat rate, the award provides that the sum of 0.8 cents per car-mile shall be added for each \$1 by which the average cost of coal per ton delivered to the North Avenue power house of the company shall exceed \$5 per ton. In other words, if the average cost of coal per ton is \$5.50 during any month the operating cost allowance per car-mile for that month would be increased by 0.4 cent, making the total operating allowance 34.4 cents per car-mile.

COMPANY PROTECTED BY COMPROMISE

The decision as to the allowance for maintenance, repairs and renewals increases the sum from 8 cents per car-mile for motor cars and 60 per cent of this amount for trail cars to 9 cents per car-mile.

During the proceedings the company asked for an operating allowance of 36 cents per car-mile and a maintenance allowance of 11 cents per car-mile. The operating allowance of 34 cents with an adjustment for the price of coal over \$5 is practically the same as 36 cents.

Dividend Vote in August

Referendum Likely on Increase in Dividend of Cleveland Railway to 7 per Cent

The Supreme Court of Ohio on July 16 ruled that the case of Edwin D. Barry, who sought to prevent a referendum vote on the ordinance increasing the dividend rate of Cleveland Electric Railway stockholders from 6 to 7 per cent, was of wide public interest, but that, since there was no error intervening, a hearing must be refused. Unless some other step is taken, the referendum vote on the ordinance will be taken at the August primaries.

When the employees of the company were granted an increase in wages several months ago, the company asked for an increase in dividends to stockholders on the ground that many of them needed the additional 1 per cent as much as the employees needed the increased wage. Council granted this in an ordinance. Petitions for a referendum were circulated. Mr. Barry, a stockholder, brought suit for an injunction on the ground that the number of names on the petition was not sufficient. The case was decided in his favor in Common Pleas Court.

SECOND SUIT STARTED

New names were secured to the petition and a second suit was filed by Mr. Barry for an injunction on the ground that the time for filing petitions had expired. This time the case was heard before Judge Thomas in Common Pleas Court. He decided in favor of the city. An appeal was taken to the Appellate Court, where the decision was sustained. From this tribunal the case was taken to the Supreme Court.

Financial News Notes

Walla Walla Lines Suspend.—Two lines of the Walla Walla (Wash.) Valley Railway, the Prospect Heights and East Walla Walla branches, have been discontinued. The lines have not paid expenses for several years.

Service Resumed to Squantum.—Regular car service was resumed on July 1 by the Eastern Massachusetts Street Railway between Squantum and Atlantic after one year's absence of cars on this line. The operation was discontinued more than a year ago because the Squantum line was unable to meet expenses and the City Council of Quincy was not willing to bear so great a burden.

Guelph Road Taken Over.—The Ontario Hydro Power Commission took over the Guelph (Ont.) Radial Railway on July 1. W. W. Pope, secretary to the commission, says that application has been made to the Lieutenant Governor-in-Council for permission to run the road and that arrangements have been made for disposing of \$150,000 of bonds, representing the purchase price of the road.

Mayor Asks Appropriation for Hyde Park Operation.—Mayor Peters has requested the City Council for an appropriation of \$30,000 to be paid by the city to the Boston (Mass.) Elevated Railway under the authority of the special legislation act for the public operation of street cars in this district. The accompanying order provided that the \$30,000 be raised by taxation in the city of Boston.

New Springfield Issue Approved.—The Department of Public Utilities of Massachusetts has authorized the Springfield Street Railway to issue twenty-year mortgage bonds to the amount of \$2,954,000, with interest not to exceed 7 per cent. The use of \$2,230,000 is approved for paying, refunding or retiring three loans maturing within three years, and balance for working capital, additions and betterments. The program of the company for carrying out local improvements has been referred to previously in the ELECTRIC RAILWAY JOURNAL.

Common Stock Dividend Reduced.—The American Light & Traction Company, New York, N. Y., has declared a quarterly cash dividend of 1½ per cent and a stock dividend of 1¼ per cent on the common stock, and the regular quarterly cash dividend of 1½ per cent on the preferred stock, all payable Aug. 2 to holders of record July 15. The company has been paying 2½ per cent in cash and 2½ per cent in common stock on the common stock each quarter for some time.

Successor Interurban Operating.—The Kansas City, Leavenworth & Western Railway has been authorized to do business in Kansas as the successor to the Kansas City-Western Railway, popularly known as the Kansas-Leavenworth interurban line. The company operates between Kansas City, Mo., and Leavenworth, Kan. The new company is the successor to the old under the terms of reorganization outlined in the ELECTRIC RAILWAY JOURNAL for March 13, 1920.

Dissolution Planned.—The Trenton (N. J.) Traction Company, organized as a holding concern in connection with the railway system of Trenton many years ago and inactive for approximately twenty years, is to be dissolved. A resolution to this effect has been passed by the board of directors, and a stockholders' meeting has been called for Aug. 13 for the purpose of completing the dissolution. John A. Rigg, Philadelphia, is the president of the company. Walter A. Rigg is vice-president, while T. W. Grookett, Jr., Philadelphia, is secretary-treasurer. These officials, together with F. W. Roebing, Jr., Dr. E. H. Ginnelly, Trenton, and R. L. Jones, Philadelphia, are the directors.

Amarillo System Resumes Under Municipal Ownership.—On July 1 the city of Amarillo, Tex., started the operation of the electric railway system of the Amarillo Street Railway under a lease from the owner of the system to the city of Amarillo, the lease running for three years with the option of extending under the same terms for a period of five years. The city of Amarillo assumes the responsibility of operating and the owner receives a rental for the use of the property. The system has been rehabilitated and the tracks and overhead rearranged so as to provide a more desirable system for the needs of the community. This system has not been in operation since October, 1917.

\$4,200,000 Issue of Certificates Authorized.—Federal Judge Farris has authorized Rolla Wells, receiver for United Railways, St. Louis, Mo., to issue certificates of indebtedness amounting to \$4,200,000 to provide for payment on bonds of the St. Louis Railroad which came due on May 1 last, and to take up receiver's certificates, due on Sept. 2, 1920. The issue may be dated and of such denomination to be decided upon by receiver and will bear interest at 7 per cent. The certificates will be a first lien on lines of railway properties and franchises of Union Depot Railroad, the St. Louis Railroad, mill tax judgment to city of St. Louis and liens of United Railways except liens executed by several companies whose lines were acquired by the receiver. The order also provides that the receiver shall make up the difference if discount and costs of selling certificates are not sufficient for this purpose. The War Finance Corporation went to the aid of the company with a loan during the war-time emergency.

Traffic and Transportation

Rhode Island Body Upheld

State Supreme Court Sustains Utilities Commission in Allowing Fare Increase

An opinion handed down by the Supreme Court of Rhode Island sustains the orders of the Public Utilities Commission allowing the Rhode Island Company, Providence, to increase its fares and to change the fare zones. Appeals were taken by the cities of Cranston and Pawtucket, and the towns of Warwick, Johnston, North Providence, Burrillville, West Warwick, Cumberland and East Greenwich at the time that the permission was granted the Rhode Island Company.

The appeals were taken from the order of the Public Utilities Commission entered Sept. 23, 1919. Arguments were made and briefs submitted by the City Solicitor of Cranston and the Town Solicitor of Warwick in behalf of those municipalities, and the cases of the other appellants were submitted without arguments or briefs.

COURT REVIEWS CASE

Judge Stearns, in his opinion, described the troubles of the Rhode Island Company leading up to the report of a special legislative committee presented April 2, 1918, together with an act authorizing the Public Utilities Commission to approve an increase of fares charged by the company from 5 cents to 6 cents.

On Sept. 23, 1919, the Public Utilities Commission entered an order whereby the Rhode Island Company was directed to file tariffs in modification of existing tariffs in accordance with "Plan B," so called. The effect of the order was to maintain zone limits existing at the time, to increase the fare from 5 cents to 6 cents in each zone and the charge for transfers from 1 cent to 2 cents. These tariffs were to remain effective during the receivership of the company and until otherwise ordered by the commission.

MANY TOWNS APPEAL

Various appeals were taken from the different orders entered prior to Sept. 23, 1919, and in each case the Supreme Court, on motion made, held that the appeal should not operate as a stay of the order. At the present time the receivers are operating the railway and are collecting the passenger revenue under the terms of the order of the Public Utilities Commission entered Sept. 23, 1919. The appeals from this order were the ones passed before the court. The court said:

No question is raised in regard to the power of the Legislature to give authority to the commission to regulate the public utility in question, but the argument is made that it has not done so. We think there is

no merit in this contention, and without detailed discussion of the matter we think the authority of the commission is clear and ample in regard to the subject matters under discussion.

The general result of the order was to cut down the radius of the central zone about the traffic center of Providence to a radius of 2 miles, to make the fares in all zones, suburban as well as central zones, 5 cents, to fix a charge of 1 cent for each transfer issued. In its order the commission directed that the tariffs and supplements made effective on Oct. 23 should remain effective until March 1, 1919.

That the State did not surrender unrestrictedly to the municipalities its governmental power of regulating rates is evidenced by the enactment in 1902 of the "Free Transfer Act." The paramount authority of the State to regulate rates of public utilities through the agency of a commission is well established.

The orders of the Public Utilities Commission appealed from are sustained and affirmed. The appeals therefrom are denied and dismissed.

Ten Cents in Waterloo

Three cities do not make a State any more than a single swallow makes a summer. Dubuque, Des Moines and Davenport may not at the outset have extended the olive branch of peace to the utilities operating within their confines, but not all Iowa is to be blamed on their account. Recent comment in these pages was intended as a warning. Facts were stated merely as facts concerning these three cities. The city of Waterloo proves this to be so. There the board of arbitration appointed to settle the matter of fares has just announced an award of a 10-cent fare to the Waterloo, Cedar Falls & Northern Railway, with 8-cent tickets for working people, good between 6 a.m. and 8 a.m. and 5 p.m. and 7 p.m. Tickets for school children are to be sold at 5 cents each, good going to and coming from school. Waterloo proves that the spirit of live and let live is abroad in Iowa just as it has always been. That city, however, was quicker to sense a real public need than some of its sister cities.

Fare Increase Allowed

On June 25 the North Dakota Railroad Commission granted to the Fargo & Moorhead Street Railway, a subsidiary of the Northern States Power Company, increased fares effective in Fargo and the village of North Fargo, N. D. A similar schedule of fares had been granted by the voters of Moorhead, Minn., at an election held during the month of May by a vote of four to one. The new rates of fare effective in Fargo, village of North Fargo, N. D., and Moorhead, Minn., are as follows:

Cash fare	7 cents
Ticket fare4 for 25 cents, 17 for \$1	
School tickets	20 for \$1

This increased fare was put in effect temporarily for a period of one year by the North Dakota Board of Railroad Commissioners, pending their valuation of the property.

New Plan for Buses

Mayor Hylan Wants Privately Owned System with City Supervision—
Railway Seeks Bus Grant

A city-wide system of privately owned, municipally supervised buses is now proposed by Mayor John F. Hylan of New York City as a solution of the transit problems of the metropolis. The Mayor's plan contemplates a bus service reaching all parts of the city. The fare would be 5 cents and universal free transfers would be given.

Mayor Hylan presented his new scheme to the Board of Estimate and Apportionment following the action of the State Court of Appeals in ruling that the city had no legal right to engage in bus operation. All the municipal bus lines paralleling the lines of the Brooklyn City Railroad are now out of business as a result of the court's decision. The new plan seeks to avoid legal difficulties by placing the operation of the buses in the hands of a private corporation under conditions of "the strictest municipal regulation and supervision."

FAIR RETURN PROPOSED

The Board of Estimate held a hearing on the matter on July 21, at which the Mayor explained his plan. Mayor Hylan would write the following conditions into the bus agreement:

1. An adequate and fair return to the security holders on an actual and honest investment for motor buses, garages and repair shops, but with a provision that there shall be no capitalization of franchise privileges granted.
2. A fair scale of wages for the employees.
3. An adequate, comfortable, sanitary, modern, safe and efficient service to the public for a 5-cent fare or less.

The Mayor said recently:

Such an agreement should provide for a proper system of audit, control and supervision over the transactions and operations of any operator entering therein. Securities should be issued only for value received, excessive salaries and exorbitant overhead charges eliminated, and the property be economically and efficiently administered in the public interest. There is little doubt that such a system would be successful and would aid immeasurably in building up and adding to the prosperity of this city.

The Third Avenue Railway has applied to the New York City authorities for permission to establish a number of bus routes in connection with its electric lines. The buses would serve outlying sections of the city which now lack transportation facilities. A 5-cent fare would be charged, with a 3-cent charge for transfers to the company's railway lines.

Seven Cents in Dayton Soon

Car riders of Dayton, Ohio, will begin paying 7-cent fares on Aug. 7. The City Commission has formally approved an ordinance allowing the Dayton Street Railway, the City Railway and the other roads operating the local lines to raise their rates on that date. Four adults' tickets and eight half-fare tickets are to be sold for 25 cents. The companies are directed to file monthly reports of income and expenditures. The city is given the right to exact better service.

Jitneys Still Operating

Bridgeport Auto Men Secure Injunction Against New Ordinance—Trolley Drivers Ready to Quit

Jitney operators of Bridgeport, Conn., have obtained a respite from the enforcement of the ordinance recently passed by the Common Council which would keep them off many of the city streets. Judge John W. Banks on July 22 refused to dissolve a temporary injunction, which he had granted on July 15, restraining the city from enforcing the terms of the jitney measure. Judge Banks held that while the Common Council had the right to fix bus routes, the clause delegating this power to the police commissioners was inoperative.

Judge Banks ruled as follows:

In my opinion, the Common Council may fix the routes to be traversed by public service vehicles in the city of Bridgeport and exclude them from all streets not included in said routes. This, however, is not what the Council has done in the ordinance under consideration.

The delegation to the police commissioners of the power to pick routes being inoperative, there is nothing left to the ordinance but a proviso that the commissioners shall not give their consent (which they would have no power to give anyway) to the operation of public service motor vehicles upon certain city streets.

I do not see how the City Council can make this part of the ordinance effective as an exercise of the power to fix traffic routes. For these reasons I feel compelled to hold that the ordinance in its present form exceeds the power conferred on the city by Chapter 233 of the public acts of 1919, and is, therefore, void.

The motion to dissolve is denied.

CITY'S PETITION DENIED

Previous to the issuance of the injunction, City Attorney William H. Comley, Jr., had applied to the court for an injunction to stop jitneys from operating on the streets named in the ordinance. The petition was denied after Mr. Klein had pointed out that the city had a remedy at law because it could make arrests for violation of the ordinance.

The court action was the outcome of a futile attempt to reach a compromise. There were at the conference Mayor C. B. Wilson, Mr. Klein, Mr. Comley and Lucius B. Storrs, president of the Connecticut Company.

Counsel for the jitney men said that section 30 of the public acts of 1919 regulating motor vehicles provides that a municipality may by ordinance fix traffic routes for public vehicles. The ordinance just passed, it is contended, is based upon an amendment of the ordinance passed in December of last year, which gives to the police commissioners the power to issue permits for certain routes. If too many jitneys run on certain streets the commissioners have the power to prohibit any more using these same streets.

The defense of the representatives of the jitney men was that the police commissioners of the city were delegated power which does not belong to them.

MR STORRS INSISTENT

Mr. Storrs insists that the jitneys shall be suppressed. In a letter to Mayor Wilson on July 19 he said:

The trustees of the Connecticut Company are advised that a suit has been brought to test the validity of the ordinance recently adopted by the Common Council of the city of Bridgeport for the regulation of jitney transportation, and that the Superior Court has reserved its decision upon an application for a preliminary injunction in such suit.

As you have been advised, the company is operating in the city of Bridgeport at an actual heavy loss and cannot continue for any extended period under existing circumstances.

By such action of the Superior Court the ordinance has, for a time at least, been rendered ineffective, and as our agreement to postpone discontinuance of service was conditional upon the ordinance being made immediately effective, the Connecticut Company is free to discontinue its service, but is unwilling to do so without notice.

As we are informed, however, that a decision upon the application for an injunction is expected within a very short time, we will continue operation, notwithstanding our losses, until July 26, but cannot undertake further operation if conditions remain unchanged.

The trolley-jitney situation in New Haven was brought before the Board of Aldermen of that city on July 21, when a message from Mayor Fitzgerald was read. The Mayor submitted a letter received from Mr. Storrs and a petition received from a committee of conductors and motormen of the company. At the suggestion of the Mayor, the entire subject was referred to a special committee.

Seven-Cent Fare Approved for Rochester

A 7-cent car fare will become effective on Aug. 1 on the Rochester lines of the New York State Railways. The Common Council of Rochester, at a special meeting on July 14, adopted the report of its law committee on the service-at-cost contract and this contract has been signed by both Mayor Edgerton and James F. Hamilton, president of the New York State Railways. Under the contract, the return to the company is determined, in a measure, by the rate of fare. The lower the fare the higher will be the rate of return.

The suggestion of James W. Routh, director of the Bureau of Municipal Research, that the contract be amended to include a provision for the easier discharge of the railway commissioner should he prove incompetent and the suggestion that some penalty be provided for raising the fare above the tentative figure of 7 cents were disregarded. In its report the committee says that there is adequate protection in the contract against unreasonable increases in fare, and that the committee believes the commissioner's service to the city would be impaired if provision was made for his arbitrary dismissal.

The contract was amended by the law committee by the addition of a provision for the appointment of a third arbitrator and appraiser should those appointed by the company and the city's representatives fail to agree on the third man. Provision is also made to prevent the renewal and depreciation fund from exceeding 2 per cent of the base value of the company's property at the termination of the agreement.

Zone System Rejected

Connecticut Company Operating 700 Miles of Line Wants Seven-Cent Fare—Hearing on July 29

The Connecticut Company on July 22 petitioned the Public Utility Commission to revoke the zone system imposed upon the company by that commission on March 30, asking as a substitute substantially the same distances as were used in determining rides under the 6-cent fare system, but with 7 cents as the base fare.

The Utilities Commission, whose zone plan for collecting fares superseded the company's own distance tariff plan which went into effect on Nov. 2, 1919, will grant a hearing to the company on July 29 at 10 a.m. daylight saving time.

The tariff proposed by President Lucius S. Storrs of the company is as follows:

Flat rate of fare 7 cents.

On rural lines fare limits to be 2.8 miles apart.

On short city lines flat rate to apply to entire line.

On all long city lines first fare limit to be approximately 3 miles from traffic center.

Free transfers to be given to all passengers from and to points not more than 2½ miles from the traffic center.

ALL COSTS ADVANCE

Unusual increases in operating costs, which include a payroll whose total is \$1,000,000 larger than that of last year, are given as the reasons for asking that the rate be increased. After stating that the requests of the cities of Manchester and New Haven caused the commission to insist on the company's issuing commutation tickets, the petition says:

Though your petitioner has made every possible endeavor to make such system a success and the same has had a fair trial, said system has not produced a revenue sufficient to cover the cost of service with any return whatever upon a fair valuation of the property, and does not now produce the actual cost of operation. Wherefore your petitioner prays leave to install forthwith a flat fare system of rates upon lines, with a base or initial fare of 7 cents in accordance with the tariff hereto annexed.

The petition of the company for an increase in fare allowance is a departure from precedent, as was the action last March of the Public Utilities Commission in imposing on the railway a fare system of its own. Heretofore the company has initiated fare systems, which were defended before the Public Utilities Commission when petitioners from towns protested. The company has at the present time an appeal before the Superior Court in the matter of commutation tickets, the company's attorneys taking the stand that the imposition of fares for ordinary riders by the Public Utilities Commission shows that these rates are reasonable, and therefore any rate below those is confiscatory and unconstitutional.

A statement issued to the press by the company, on the afternoon of July 22, read:

In order to meet increases in cost of operating the railway service the Connecticut Company must obtain a greater revenue. The payrolls for 1920 will be \$1,000,000 greater than last year, due to recent advances in rates of pay. Coal, which cost \$4 per ton a few years ago, is now selling for \$13 per ton and at times even more.

The authorities in the various cities where efforts are being made to restrict ruinous jitney bus competition have asked us to return to a flat rate of fare collection and we are, therefore, proposing a 7-cent flat rate of fare covering the largest portion of each city area, but not including the entire areas falling within the old 5-cent fare limits.

As we are now obtaining fares of 8, 10 and 12 cents from a large number of passengers whose payments will be reduced to 7 cents, it is clear that no lower rate will produce sufficient revenue. We have no means of determining whether the 7-cent rate will be high enough, although it is possible that with a restriction of ruinous jitney bus competition and a large use of the cars we may be able to establish a lower rate.

Every effort will be made to retain service upon all the lines now operated, including all those in the country areas, but of course sufficient revenue must be obtained to meet the cost of operating the cars.

The company has been in the hands of receivers since 1916. In 1917 it instituted a 6-cent fare system, which was changed on Nov. 2, 1919, to a distance tariff system. On complaint of several of the towns and cities of the state, the utilities commission discarded this system and put in a distance tariff of its own, allowing a cut rate for purchasers of fifty-zone tickets and granting commutation rates to daily suburban riders.

Fare Increase Contemplated

The Milwaukee (Wis.) Northern Railway has petitioned the Wisconsin Railroad Commission for permission to discontinue the sale of six tickets for 25 cents good on the company's line within the city of Milwaukee. The cash fare will remain at 5 cents, as at present.

The company operates an interurban service connecting Milwaukee, Cedarburg, Port Washington and Sheboygan, all points in Wisconsin. It also operates a city service over its line within the city of Milwaukee. The rate of fare for this service is fixed in its franchise at 5 cents cash or eight tickets for 25 cents. In July, 1918, the company was authorized by the Wisconsin Railroad Commission to increase the rate of fare by reducing the number of tickets sold for 25 cents from eight to six. A flat 5-cent fare is now sought because of increased labor and maintenance costs.

Wants Ten Cents in Scranton

Stating that the company can no longer continue to operate on a 7-cent rate, the Scranton (Pa.) Railway has filed with the State Public Service Commission notice of its intention to raise its fare to 10 cents. The company's action follows the recent award of a substantial wage increase to its employees by a board of arbitration. The Pennsylvania Supreme Court recently ruled that the commission has full power to fix rates for electric railway service.

Jilson J. Coleman, general manager of the company, gave out a statement supplementing that of the petition and laid particular stress on the fact that the company cannot continue to operate on a 7-cent fare and could not expect to get along with an 8-cent fare, hence

the request that a 10-cent rate be permitted. Mr. Coleman said the increases in wages since 1914 have totaled 124 per cent for the motormen and conductors; 135 per cent for the barnmen, and 189 per cent for the trackmen. In addition he pointed out that the cost of material has advanced more than 100 per cent on a general average during this period.

The company has lost more than \$58,000 since Jan. 1, and is continuing to earn less than the operating costs. Since 1917 the only increases have been from natural growth and increases in fare rates. Wages for this year will be increased more than \$150,000, the wages covered in the recent award amounting to \$148,000.

May Amend Louisville Plan

Passage in its present form of the ordinance recently submitted to the City Council of Louisville, Ky., providing for a cost-of-service franchise for the Louisville Railway, now seems improbable. Opposition to the measure as

of extra earnings into the city treasury; opportunity for the company to revise upward but none for the city to revise downward; failure to limit the period during which increased fares will be charged; the request for the city to guarantee dividends of 6 per cent on \$24,500,000 physical valuation shown by the company's books while the company's sworn statement in the City Assessor's office shows an actual physical valuation of \$4,700,000.

The company has been conducting an active campaign of education through advertisements in the Louisville newspapers. It calls attention to increases in the prices of commodities generally and asks the public to "know the truth" about electric railway service. One of these advertisements is reproduced in the adjoining column.

Seek Compromise in Tacoma

Company Wants Four to Eight per Cent Return on \$6,000,000 Valuation—Mayor Opposes Fare Rise

The Public Service Commission of the State of Washington, which recently completed its hearing in the matter of an increase from a 7 to a 10-cent fare on the lines of the Tacoma Railway & Power Company has deferred the announcement of its decision. In the meantime, a compromise will be attempted on the following basis: Commutation tickets to be sold 15 for \$1; 10-cent fare for casuals; the company to be granted some relief from gross earnings tax, street paving and free passes for city employees.

Mayor C. M. Riddell and Commissioner Fred Shoemaker, on the witness stand before the commission, declared that a straight 10-cent fare would mean granting franchises to jitney buses. It is stated that a local association in Tacoma has offered to put fifteen large jitneys in operation if the 10-cent fare is granted. City Councilmen have stated that, if necessary, they will grant franchises to the jitney men.

SEEKS ADEQUATE SERVICE

The railway, in its brief, demands a fare that will provide for cost of operation, depreciation, and from 4 to 8 per cent profit on a \$6,000,000 valuation.

City Attorney U. E. Harmon has suggested that a compromise be offered the company. The new proposition would provide for the city to have joint supervision of the operation of the lines for a period of one year, the fare to remain 7 cents; the city to appoint three supervisors to waive for the period of one year the payment of gross earnings, taxes and free transportation of city employees, provided the amount thus waived, plus the addition of sums necessary to put the streets in proper condition, be expended in such street improvement.

Commissioner of Finance Silver has gone on record as opposing such a plan. He has stated that he will make an effort to put the railway out of business on several of its best-paying lines, where franchises have expired.

The Heart Is Cut —from the nickel



There are 450 cars used to give
LOUISVILLE GOOD SERVICE.

In 1914 a car cost \$6,500. Today
the same car costs \$13,000.

Fair Play Suggests a Higher Fare

W. S. SPEED, Chairman,
JOHN W. BARR, JR.,
W. H. KAYE,
Executive Committee.

AN APPEAL FOR FAIR PLAY

presented by the executive committee of the railway has developed in the Council. Public sentiment is also unfavorable to the granting of the franchise without a number of changes.

Hopes for a compromise are held out as the result of a statement by W. S. Speed, chairman of the directors' executive committee, that the company would not object to changes in the ordinance as drawn as long as efficient transportation is given to Louisville and the lines are saved from bankruptcy. It has become known that if the company's present effort to obtain higher fares fails, a receivership is contemplated. Under the terms of the cost-of-service agreement the initial fare would be 7 cents.

The objections to the ordinance cited by civic organizations and members of the Council are: Compensation for members of the Board of Public Works to be paid out by the railway; the turning

Injunction Against Jitney Repeal Measure

A restraining order has been issued by Presiding Judge Mitchell Gilliam, at the request of counsel for the Seattle (Wash.) Jitney Drivers' Association, to prevent the city from suspending operation of jitney buses on city streets. The order was issued just in time to prevent the cessation of jitney activities, as Superintendent of Utilities Carl H. Reeves had served notice that no jitneys would be permitted to operate after midnight on July 6, except those to which permits had been granted, and the Council has granted no permit to drivers. Before the order had been issued, ten drivers who undertook to operate without permits were arrested. They were released when the restraining order became effective.

Major Reeves' order was issued, after the City Council had finally rejected the applications of all drivers for permits, on the recommendation of the public utilities committee, leaving a loophole which would allow the issuance of permits to short lines operating as feeders to the municipal railway.

The petition filed by the jitney drivers, calling upon the City Council to present to the qualified electors of the city an ordinance permitting jitney drivers to operate along routes of their own choice, in repeal of the existing city ordinance providing for strict regulation of jitneys, is being checked by City Comptroller Harry W. Carroll, to determine if the signatures of the petition are qualified as on the registration books of the city.

If it is found that the petition bears sufficient signatures of qualified citizens, the Council will be required to submit the initiative measure to the people. Adoption of the initiative ordinance by the voters at a special election would repeal existing jitney regulations, and require drivers to go through only the formality of applying for permits to operate on routes of their own choice. The city would have no power to refuse such applications or to specify routes and schedules for the jitney lines.

Bus Company Suspends

H. S. Albrecht, receiver for the Missouri Motorbus Company, operating in St. Louis, obtained a court order on July 1 authorizing the suspension of operation of the buses. He stated that the company did not have sufficient funds to meet its payroll or purchase gasoline and that he had been unable to borrow money necessary to continue operation.

The bus company was organized late in 1919 with a capital stock of \$300,000. It began operations on Feb. 9 with eleven double-deck buses having a seating capacity of sixty persons each. A regular schedule was maintained between Delmar and Hamilton Avenues and Sixth and Locust Streets. The fare was 10 cents. Contracts were let for

about forty additional buses, but deliveries were held up on account of lack of funds.

Wheeling Wants Zone Fares

The Wheeling (W. Va.) Traction Company is filing new passenger fare tariffs with the Interstate Commerce Commission, the Public Utilities Commission of Ohio and the Public Service Commission of West Virginia, asking for authority to establish a zone system beginning Sept. 1. It is proposed to make up the entire system with a series of so-called major and minor zones, the major zones being approximately the same as those now in effect and the minor zones dividing these major zones in half as nearly equal as natural loading and unloading conditions will permit.

The initial fare will be 8 cents cash or 6½ cents on the basis of the universal ticket to be good on any division of the property and to be sold by the conductors on the cars or at any regular ticket office of the company. These universal tickets will be sold on the basis of nine minor zone tickets for 30 cents, six two-minor zone tickets for 40 cents and three four-minor zone tickets for 40 cents. Each minor zone ticket would have a value of 3½ cents and two-minor zone tickets will be required for the initial ride in any zone.

The cash fare for any minor zone after the initial ride will be 4 cents. The ticket charge for a minor zone after any initial charge will be 3½ cents.

B. R. T. Will Seek Increases Under Recent Court Ruling

Lindley M. Garrison, receiver for the Brooklyn (N. Y.) Rapid Transit Company, has announced that he will apply for fare increases for those companies of the system which the Court of Appeals in its decision held were under the jurisdiction of the Public Service Commission. These were the lines the franchises of which were granted prior to Jan. 1, 1875, and subsequent to the passage of the Public Service Commission law on July 1, 1907. Mr. Garrison's statement said in part:

It is impossible in the short time now at my disposal to apply the decision of the court to each of the lines and separate the different franchises so that the one class that the court says is not within the jurisdiction of the Public Service Commission is picked out and put by itself. All but a very few of the franchises of these three companies are held to be within the jurisdiction of the Public Service Commission.

I shall immediately comply with the privilege extended to me by the court and present to the Public Service Commission proper applications for action in respect of the franchises that the court holds the Public Service Commission has jurisdiction over.

Dallas Increase Favorably Received

The very thorough publicity methods of the Dallas (Tex.) Railway in placing the case of the company before the public are believed to have been very largely responsible for the people of that city accepting so gracefully the recent increase in fares to 6 cents. The

Dallas News, voicing public sentiment on the fare question in a recent editorial, said in part:

All who were opposed to having the fare increased were given an opportunity to express their opposition, and not enough have done so even to bring about a referendum.

Six cents has become rather less than the average electric railway fare, so that, instead of having reason to complain, we have reason to congratulate ourselves on getting our transportation at the least cost made possible by the economic and financial conditions. But there ought to be a better satisfaction than this in the reflection that in increasing the fare to 6 cents we are doing justice to the railway and at the same time serving the best interests of Dallas. Already insufficient, our transportation facilities must have become increasingly inadequate under a continuance of the 5-cent fare.

The people of Dallas are to be congratulated on the disposition made of this matter, which is equivalent to saying that the Mayor and Commissioners are to be commended for the courageous and enlightened way in which they have solved this problem.

Seven-Cent Fare in Salt Lake

Under authority of an order issued by the State Public Utilities Commission, the Utah Light & Traction Company, Salt Lake City, Utah, on July 3 raised its cash fare from 6 cents to 7 cents. The commission ordered the company to sell four commutation tickets for 25 cents, and to raise the price of school tickets from 3 cents to 4 cents. The company's request for a 1-cent transfer charge was denied. The commission recommended the adoption of the one-man safety car by the company, and also called attention to the fact that the State law with regard to street paving was unduly increasing the cost of transportation to the car-riding public.

The cost of paving, it was pointed out, amounts to ½-cent a ride. The commission contended that by the adoption of safety cars the service would be bettered and that at the same time costs would be reduced. The commission urged that every possible method be made to reduce operating cost. During the first five months of 1920 there was an increase of 1,601,781 in the number of passengers carried as compared with the same months of 1919, while the financial returns for the first quarter of 1920 show an increase in the net operating income of \$17,033.

The company petitioned for a 7-cent fare early this year. It later applied for an 8-cent fare.

"Memphis Trolley Items"

The Memphis (Tenn.) Street Railway is putting out a little publication for its patrons which is distributed through pockets in each car. It is called *Memphis Trolley Items* and is for the information and entertainment of the patrons. "Avoid Accidents," "The 6-Cent Fare and Today's Prices," "Service Interruptions," "Executing a Public Trust," "The Women of History," "Week's Amusement," "Safety First Alphabet," "Transportation Necessary to City's Growth," "Help Keep Down Unnecessary Expenses" are parts of the *multum in parvo* in a recent issue. They are always bright and snappy.

Transportation News Notes

Fares Raised on Iowa Line.—The Clinton, Davenport & Muscatine Railway placed in effect on July 15 an increase in passenger rates of 6 per cent. The fare from Davenport to Clinton is now \$1.25 as compared with \$1.20 under the old tariff.

Eight Cents in Hornell.—An 8-cent cash fare took effect on the lines of the Hornell (N. Y.) Traction Company on July 9. The new rate was authorized by the Public Service Commission for the Second District. The fare was formerly 6 cents. The company has not met bond interest payments for the past five years.

Eight Cents in Hammond.—Fares on the lines of the Hammond, Whiting & East Chicago Railway, Chicago, Ill., in Hammond, Whiting and East Chicago, Ind., became 8 cents on July 1. The Indiana Public Service Commission, in authorizing the new rate, ordered the company to sell tickets at the rate of fourteen for \$1.

Three-Cent Line Denied Rise.—The Public Service Commission for the First District has denied the application of the Van Brunt Street & Erie Basin Railroad, Brooklyn, N. Y., for an increase in fare from 3 to 4 cents. The company has increased its earnings during the past year. The net corporate income for the nine months ending March 31, 1920, amounted to \$8,375. The line is three miles long.

Seeks Rise in St. Joseph.—The St. Joseph Railway, Light, Heat & Power Company, St. Joseph, Mo., has applied to the Missouri Public Service Commission for permission to increase its fare to 9 cents. Six months ago the commission allowed the company an increase from 5 to 7 cents. The company claims that during this period it has lost \$9,174.

Approves Bay State Rise.—A tariff schedule providing for an increase in fare from 6 cents to 10 cents on the lines of the Connecticut Valley Street Railway, Greenfield, Mass., has been approved by the State Department of Public Utilities. The new rate went into effect on July 13. The company is selling tickets at the rate of 7½ cents each.

Prefers Higher Rate to Shutdown.—The City Council of Findlay, Ohio, has notified the Toledo, Bowling Green & Southern Traction Company, Findlay, that it is willing to grant an increase in fare on the city line, if the company will withdraw its application for abandonment of the tracks, recently filed with the Council. Street assessments, it was stated, would be kept to a minimum.

Ten-Cent Fare in Portsmouth.—The New Hampshire Public Service Commission has authorized the Portsmouth Electric Railway, Portsmouth, to charge 10-cent fares on its lines. The company has also received permission to raise the price of transfers from 2 cents to 5 cents. The fare was formerly 7 cents. The company is a subsidiary of the Boston & Maine Railroad.

Will Extend Freight Service.—The Boston & Worcester Street Railway, Boston, Mass., will shortly put in operation through freight service in conjunction with the Worcester Consolidated Street Railway and the Springfield Street Railway to points west of Worcester. The new service will give early morning delivery at destination of all goods shipped the day before.

Ten-Cent Joint Rate Allowed.—The Public Service Commission for the Second District has authorized the Buffalo & Lake Erie Traction Company, Buffalo, N. Y., to charge a 10-cent fare between Seneca Street, Buffalo, and the plant of the Lackawanna Steel Company, Lackawanna. The company uses the tracks of the International Railway within the Buffalo city limits. It had sought to abandon this service.

Higher Fare in Savannah.—A 7-cent cash fare became effective on the lines of the Savannah (Ga.) Electric Company on July 16. The increase from the former 5-cent rate was authorized by the State Railroad Commission, which had had the company's petition under consideration for some time. The company was ordered to sell ticket books containing fifteen tickets for \$1. An increase in lighting and power rates was also authorized.

Three Cents a Mile in Maryland.—Fares on the line of the Washington, Baltimore & Annapolis Electric Railroad, Baltimore, Md., were placed on a basis of 3 cents a mile on July 11, under authority of an order of the Interstate Commerce Commission. The new fare between Baltimore and Washington is \$1.05, and the round-trip rate is \$2.03. The old rate was 92 cents, round trip \$1.50. The single fare in the District of Columbia to the District line is 8 cents.

Higher Rates on Penn Lines.—The Chambersburg & Shippensburg Railway, Chambersburg, Pa., has filed with the State Public Service Commission notice of increase of fares in Franklin and Cumberland Counties from 7 to 8 cents. The Altoona & Logan Valley Electric Railway, Altoona, has given notice of 7-cent fares, with advances in charges for funeral cars. The Irwin-Hermie Traction Company, Irwin, has advanced its zone fares, school rates, express and freight rates.

Plans Referendum on Fare Rise.—An ordinance authorizing the Sioux City Service Company, Sioux City, Iowa, to charge a 6-cent fare for a three-year period will be submitted to the voters of Sioux City for their approval at a

special election on Aug. 17. The measure provides that at the end of three years the company shall return to the present 5-cent fare. If the fare increase is authorized the company will pay its platform men a wage scale of 50 to 60 cents an hour. The present scale is 38 to 43 cents.

Operating Ratio Now 100 per Cent.—Mayor Walton of Oklahoma City, Okla., is to appoint a committee of five men to inquire into the affairs of the Oklahoma Railway. This company has operated thus far under a 5-cent fare. It is now hauling almost 80 per cent more passengers than four years ago with the same number of cars. In 1916 the revenue was 25 cents for each mile while the expenses were 16 cents a mile. At present the revenues and expenses are equal at 40 cents for each car-mile. The company has requested that the fare be increased to 7 cents on a cash basis, or 6¼ cents for tickets.

Eight-Cent Fare Not Yet Granted.—The need for immediate action authorizing an 8-cent fare was urged on July 9 by Andrew C. Gray, counsel for the Wilmington & Philadelphia Traction Company, Wilmington, Del. This company filed its petition early in June. All the requirements of the utility board had been complied with. The property had been looked over and from the appraiser's point of view a 9-cent fare would be required to net the company an adequate return. However, the company was willing to try operation on an 8-cent fare. What the company wants is action on the part of the Public Utility Commissioner, for the need now is very urgent. The company put the 7-cent fare in effect last fall under authority granted by the city utility board.

Eight Cents in Jamestown.—Authority has been granted by the Public Service Commission for the Second District of New York to the Jamestown Street Railway to charge a cash fare of 8 cents in place of the present 7-cent cash and 5-cent ticket fare, the order to remain in effect until changed by the commission, either on its determination, or under a complaint. The order provides that under the 8-cent fare the company shall place strips of five tickets on sale at 35 cents, purchasers to be limited to two strips at a time. Transfers are to be given on a cash or ticket fare to points within Jamestown on the Jamestown & Warren Railway line, and the Jamestown Street Railway is to accept transfers issued by the other local line. All Jamestown Street Railway tickets outstanding are to be redeemed by the company. Present regulations of the company including those relating to the transportation of children in Jamestown are not affected by the order, which is to become effective on one day's notice. No change is authorized in the order in the 5-cent cash fare applicable to passenger transportation between points within the town of Ellcott or the villages of Celeren, Lake-wood or Falconer.

Personal Mention

Commission Named to Inquire Into Ontario Hydro-Radials

The Ontario Government has announced the appointment of the special commission to investigate and report on hydro-radials. The members are as follows: Justice Sutherland, chairman; T. A. Russell of the Russell Motor Car Company, Toronto; Fred Bancroft, labor leader, Toronto; W. A. Amos, vice-president of the United Farmers of Ontario, Palmerston; A. F. MacCallum, city engineer and commissioner of works, Ottawa.

Justice Sutherland, chairman of the commission, was speaker of the House of Commons from 1905 to 1909 and was Liberal member for North Essex in the House of Commons. He practiced law in Windsor until his elevation to the bench.

Mr. Bancroft is a well-known labor man, having been vice-president of the Canadian Trades Congress. He has been on several arbitration and conciliation boards representing the men. He is a member of the Patternmakers' Union, but is at present in newspaper work. He is said to be a strong supporter of public ownership.

Mr. Amos, the vice-president of the United Farmers of Ontario, was formerly a Presbyterian minister. Illness caused him to retire from the pulpit, and he is now a farmer in Perth County. At the last provincial election he was the United Farmers of Ontario candidate in North Perth, but was defeated. He is one of the big men of the U. F. O. organization.

Mr. Russell is president of the Russell Motor Car Company and a prominent manufacturer. He served as a delegate from the manufacturers of Canada at the Imperial Commercial Conference in 1906. He has been secretary of the Toronto Manufacturers' Association.

Mr. MacCallum, at present commissioner of works in Ottawa, was formerly assistant engineer for York County, and later city engineer in the city of Hamilton. He has been on several arbitration boards.

The commission will start work immediately. All sittings will be public.

C. R. Barnes to Be Rochester Commissioner

Charles R. Barnes, electric railway adviser to the Public Service Commission for the Second District, has been appointed Street Railway Commissioner of Rochester, N. Y. In his new capacity Mr. Barnes will have supervision for the city of the local lines of the New York State Railways. The position which he will occupy is created under the terms of the cost-of-service agree-

ment which will go into effect on Aug. 1. Mr. Barnes will have control of schedules and will generally direct the operation of the Rochester lines.

Edwin Gruhl, Vice-President

Assistant to President Advanced by Board of North American Company

Edwin Gruhl has been elected a vice-president of the North American Company. He has been assistant to the president since November, 1912.

Mr. Gruhl was graduated from the



EDWIN GRUHL

University of Wisconsin, Department of Economics, class of 1908. While attending the university he delayed his course one year, during which time he was engaged in valuation work with the engineering staff of the Wisconsin Railroad and Tax Commissions. Following the resignation of W. J. Hagenah, Mr. Gruhl succeeded him as statistician of the Railroad Commission of Wisconsin. This position he occupied up to the time he joined the North American Company. He taught in his alma mater, lecturing to a class on public utility economics during the time he occupied the position of statistician of the commission.

Mr. Gruhl has been a frequent contributor to the technical magazines and the proceedings of the American Electric Railway Association. He represented the committee on cost of passenger transportation service, of which J. D. Mortimer was chairman, in the deliberations that led to the preparation of F. W. Doolittle's book "Cost of Urban Transportation Service."

Mr. Gruhl has for some years been vice-president of the Wisconsin Edison Company, Inc., and president of the

Wells Power Company, a subsidiary of that company. He has also been assistant to the president of the Milwaukee Electric Railway & Light Company and the Union Electric Light & Power Company, St. Louis.

C. E. Atkinson, superintendent of equipment of the Chicago, South Bend & Northern Indiana Railway, South Bend, Ind., has resigned.

Michael J. Walsh, chief dispatcher at the Brooklyn Bridge station of the Brooklyn (N. Y.) Rapid Transit Company, has been made depot master at the Flatbush Avenue station.

Morton S. Cornell, division superintendent of the Flatbush Avenue lines of the Brooklyn (N. Y.) Rapid Transit Company for the past ten years, has been transferred to the Fifty-eighth Street division, where he succeeds Edwin Gilchrist. Mr. Cornell has been connected with the B. R. T. since 1895.

Edwin Gilchrist, division superintendent of the Fifty-eighth Street lines of the Brooklyn (N. Y.) Rapid Transit Company, has been granted a leave of absence. Mr. Gilchrist has been connected with the B. R. T. system for the past twenty-nine years. Early in 1900 he was appointed dispatcher and later in the same year he was made depot master. In 1906 he was made a division superintendent.

Major Gustave Storch, master mechanic of the Paulista Railway, Sao Paulo, Brazil, is spending a few weeks in this country, familiarizing himself with the details of construction of electric locomotives such as those in use on the Chicago, Milwaukee & St. Paul and Butte, Anaconda & Pacific lines. The Paulista Railway will shortly have in operation sixteen electric locomotives, twelve General Electric and four Westinghouse, which will be similar in many particulars to the machines which Major Storch is examining. He is making a special study of maintenance practice. Major Storch is accompanied by his general foreman of shops and others.

George R. Green has been appointed superintendent of equipment of the Chicago, South Bend & Northern Indiana Railway, South Bend, Ind., to succeed C. E. Atkinson, resigned. Mr. Green was born in Butler, Ind., April 29, 1887. He began his work in the electric railway field when he was only fourteen years old. This was in 1901, when he went to work for the Detroit United Railway, where he continued for eighteen years, except for three years between 1909 and 1912, during which time he was master mechanic of the Saginaw & Flint Railway. During most of this period he was employed in the mechanical department, rising to the position of general foreman of interurban equipment, which position he recently resigned. During two years of his service with the Detroit United Railway he served as assistant division superintendent.

Manufactures and the Markets

DISCUSSIONS OF MARKET AND TRADE CONDITIONS FOR THE MANUFACTURER,

SALESMAN AND PURCHASING AGENT

ROLLING STOCK PURCHASES

BUSINESS ANNOUNCEMENTS

Deliveries of Rail Bonds in Good Shape

Traction Companies Ordering Only What Is Needed for Maintenance Work—Prices Appear Steady

Demand for rail bonds does not seem to be especially heavy just now as compared with past years, practically all of the ordering representing maintenance work, which is going forward at a normal pace, according to representative manufacturers of this material.

Delivery figures as quoted by several producers range from two to four weeks, although one company gave two months as its average, stating that deliveries, which they had been making in about a month, had now lengthened to twice that long as a result of slow shipments. Transportation troubles, as a matter of fact, seem to be the main factor in slowing up shipments, as there is no shortage of copper. One manufacturer, rather than depend upon the uncertainties of freight transportation, recently shipped a large order of rail bonds by express. Another big producer, however, believes the freight

situation is beginning to ease up. Production for this latter company is well up to its usual standard.

If the term "stocks" can be applied to this particular item, they may be said to be in pretty good shape, inasmuch as most producers make rail bonds according to specification, but such small stocks of standard material as are usually carried are in about normal supply.

No price changes have been recorded since the downward fluctuation of about four months ago, and opinions agree that prices are likely to continue steady.

Reports on collections are about evenly divided, one view holding that they are fairly good and better than in the past, while other manufacturers say the utilities are slow in meeting their bills on account of financial difficulties, with probably half of them being classed as delinquent in payments. Money tightness, nevertheless, apparently has not caused electric railways to cancel or reduce orders, as no steps in that direction have been reported. Nevertheless, traction companies are ordering this equipment only as absolutely needed.

public utilities, including street and inter-urban railways, electric power and lighting plants, gas plants, ice plants, water and sewer works, also hospitals, schools and other public institutions, may be kept supplied with coal for current use but not for storage, be and they are hereby authorized to place, furnish and assign cars to coal mines for the transportation of such coal, in addition to and without regard to the existing ratings and distributive shares for mines upon said railroads; provided no cars shall be so placed, furnished or supplied by any such carrier without written application therefor from the public utility, concurred in by the delivering railroad, showing that such coal is needed for current use, and not for storage, in order that the applicant may continue in daily operation, and provided further, that such coal shall not be subject to reconignment except to public utilities or public institutions, and that a written report of the cars placed hereunder shall be promptly made to the Interstate Commerce Commission by the railroad placing the cars.

WRITTEN APPLICATIONS NECESSARY

This order indicates that a written application and evidence of coal shortage, together with concurrence by the delivering carrier, are required by an electric railway, for example, before coal can be delivered for current use. No consideration is given to coal for storage.

There is no question that speculators and market manipulators have reaped harvests through abuse of the reconignment privilege. The ability to juggle cars from place to place is an incentive to speculators to manipulate the markets and not only aggravates the shortage but congests the yards in the large terminals and holds up coal car movement. An absolute prohibition of manipulative reconignment and a heavy advance in demurrage rates would, if rigidly enforced, eliminate this element from the situation.

Experienced coal men offer no prediction as to the trend of the coal market, but, based on production and transportation conditions, they look for no break in coal prices in the near future, as lack of reserve stocks forces most industries to purchase coal at once on the best possible terms.

Spot prices show wide variation and as high as \$23 a ton delivered has been reported paid by Eastern utilities within the past ten days.

The Public Service Corporation of New Jersey last week paid \$14 for one lot and had more offered at \$17.50 which it refused to buy on the basis that the cost was exorbitant. The Public Service Commission of the Second District of New York stated that New York utilities within the past few days had paid anywhere from \$16.40 to \$23.10 for coal. One shipment of 2,000 tons was bought f.o.b. Staten Island for \$14.50. This coal, delivered at the boilers, will probably cost between \$16 and \$18 per ton.

Priorities Help Electric Railways Get Coal for Current Use

Speculators and Market Manipulators, Through Abuse of Reconignment Privilege, Aggravate Yard Congestion and Hold Up Car Movement

A coal shortage exists, due to inadequate transportation facilities, and there is a mad scramble for priority by coal users. Reports are prevalent on coal hoarding, overproduction, market manipulation, etc., but an analysis of the situation by the staff of *Coal Age* and the universal industrial demand for coal all tend to prove that an actual shortage exists, although aggravated by speculators.

The Interstate Commerce Commission has attacked the problem on a priority basis by fixing a "preference list" and a "geographic list" for coal distribution for sixty days from June 21 last by the method of assigned cars. The essential industries and utilities are given preference and also those districts which are so situated that they must obtain a coal supply at certain seasons or do without. In agreement with this plan the commission has assigned open cars to the coal mines, has permitted priority on coal car assignments to public utilities and has assigned geographical priority in coal distribution.

It is hoped relief will follow the

remedies, but past experience with priority schemes indicates that they react to increase and not decrease transportation difficulties. When, therefore, inadequate transportation is the cause of the coal shortage prospects are not bright for immediate improvement in the general coal situation, even though the utilities themselves should more readily obtain coal by the aid of the priority order.

On July 8, 9 and 10, Division 5 of the Interstate Commerce Commission held a hearing in Washington on the coal situation. At this hearing the American Electric Railway Association was represented by Secretary E. B. Burritt for the committee on national relations, and as a result of the evidence presented the commission issued Order No. 9, which amends and suspends Order 7 and applies only to territory east of the Mississippi.

The part of the order relating to priority for utilities, including electric railways, reads as follows:

It is further ordered that until and including Aug. 19, 1920, all common carriers by railroad within said territory, to the extent that may be necessary in order that

It is interesting to note in this connection that tidewater coal for New York was quoted in 1914 from \$2.82 to \$3.25.

Coal Age reports the following prices this week for bituminous coal from the sections named: Boston, Cambrias and Somersets, f.o.b. mines, \$11.50 to \$13, net tons; f.o.b. Philadelphia, gross tons, \$14.75 to \$16.50; f.o.b. New York, gross tons, \$15.10 to \$16.85; New York, f.o.b. piers, from \$16 to \$16.25; alongside, from \$17 to \$17.25. Philadelphia, \$12.50 to \$14, f.o.b. Pennsylvania mines. Baltimore, \$11 to \$13 per net ton for f.o.b. mine. Buffalo, \$10 to \$10.50 f.o.b. mine. Union Town, Pa., \$11.25 and \$11.75 for classified coals. Columbus, Hocking screenings, \$5 to \$8 f.o.b. mine with 50 cents additional for mine-run. Chicago, mine-run, \$5.50 to \$6.50, f.o.b. mines. Birmingham, \$6.50 to \$8.50 for spot coal, f.o.b. mines. Louisville, western Kentucky mine-run, \$5 to \$5.25, f.o.b. mine.

The latest element in the situation is the hearing instituted by the Senate committee on reconstruction and production, of which Senator W. M. Calder of New York is chairman. This committee met in New York at the Engineering Societies Building early this week and intends to go into the situation thoroughly, particularly as regards transportation and the alleged profiteering.

Pole Line Hardware Stocks in Poor Condition

Heavy Demand Continues, but Much of It Seems to Be for Repair and Maintenance

Unusually strong demand for pole-line hardware seems to have virtually cleaned out manufacturers' stocks of finished goods. One large company states that its volume of business for June was the largest in its history, and the general situation seems to reveal more business on hand than can be taken care of.

Naturally, with transportation in its present state of chaos and steel mills accepting orders for material on condition of no promise being made as to date of shipment, deliveries are running rather long, and according to representative producers they range from three to five months. One important jobber however, states that he is able to obtain supplies in from six to eight weeks.

In spite of impatience at long unfilled orders, very few customers are availing themselves of the privilege of canceling their orders. This may be owing, as one of the manufacturers expressed it, to careful supervision of the new orders accepted, since producers can afford to use some discrimination in the matter.

Labor troubles in the past have been affecting this market, but at present little difficulty seems to be experienced in that respect, and though production probably is not yet up to normal capacity, it is said to be improving.

Back orders of long standing are generally the rule, thus effectually preventing the accumulation of any stocks worth mentioning, although a representative company in the field has very large supplies on the way, and with their expected arrival in about four weeks the situation for this firm will be relieved. Indications are that the greater part of the material used is for repair work rather than for the construction of new lines.

No price changes have been reported since the general increase of from 15 to 25 per cent about a month ago. Reports on collections vary considerably, one manufacturer stating that instead of his bills being met in thirty days, a large part of the customers were running over as long as ninety days. Other companies, however, gave a favorable reply to the interrogation as to collections.

Deliveries of Resistance Grids Lag

Producers Unable to Date to Fill the Demand Still Holding from Last Winter's Severe Conditions

Reports on market conditions for resistance grids, gained from a survey made among several of the large manufacturers, show a wide variance. One of the big producers stated that demand was moderate on the part of industrial plants, but that orders from electric railways were small. Other manufacturers, however, are at present experiencing a call for this material that is far in excess of available supply. This, they stated, was owing to the severity of the weather last winter, which caused an unusual number of grids to burn out on street cars, and traction companies consequently fell so far behind in replacing equipment that the situation has not yet returned to normal. This heavy call is in spite of the fact that summer ordering by these companies is usually rather light, and even at present seems to be mostly for maintenance work.

The estimated length of deliveries also covers a wide range, one company reporting ability to make shipments in small quantities of the railway type grid from stock. In general from about sixty to ninety days was quoted, although in the case of one producer a figure of eight months' delivery was given, as a result of the shortage of malleable castings. In spite of long delivery dates very few orders have been canceled.

The raw material supply has been materially impeding production, as orders for steel products at the mills are unfilled and transportation continues to tie up this class of goods in favor of coal movement. Nevertheless, one producer at least is running his plant far above its normal capacity of resistance grids, but other manufacturers less favorably situated report a subnormal output. This in part is probably due to labor troubles which the

latter have experienced, as this factor is not everywhere affecting the situation.

Recent price increases are reported, ranging from about 20 to 30 per cent. Collections are said to be fairly good considering all present conditions.

Rolling Stock

Athens Railway & Electric Company, Athens, Ga., has received the five cars which it recently ordered. It is expected these will be used on the Prince and Boulevard lines.

Virginia Railway & Power Company, Norfolk, Va., has secured bids for the construction and delivery of twenty double-truck closed cars and ten closed trailers to cost \$420,000. It has also secured bids for fifty safety cars at a cost of \$332,500.

Western Australian Government Tramways and Electricity Supply, Perth, West Australia, has asked for bids on twenty 15-ton standard street cars in this country, supplied with air brakes, electrical equipment and accessories. Bids are open until July 29.

Franchises

Central California Traction Company, Los Angeles, Cal.—D. N. Carmichael, Commissioner of Streets, is in favor of revoking the franchise of the Central California Traction Company because the company has been negligent in the matter of attending to its tracks. Eighth Street is in a very bad condition, the double track never having been completed and the single line running on one side of the street. The company maintains that it cannot obtain the money for such improvement.

Track and Roadway

Calgary (Alta.) Municipal Railway.—The Calgary Municipal Railway, through its superintendent, R. A. Brown, announces that it will spend \$172,646 this year on its railway.

Connecticut Company, New Haven, Conn.—John G. Lane, director of Public Works, announces that the work of widening and paving Temple Street will begin on Aug. 1. The Connecticut Company will remove the tracks from George Street to Congress Avenue. The cost of paving Temple Street will be paid by the Connecticut Company.

San Diego Electric Railway, San Diego, Cal.—The San Diego Electric railway company has made application to the State Railroad Commission for permission to build an additional track for the purpose of serving the terminal of the San Diego and Coronado Ferry company in San Diego. Heretofore this terminal has been served by a single track from the crossing of the Santa Fe railway tracks at Atlantic and Market Streets, but increased business at the ferry makes present facil-

ities inadequate. The improvement now being undertaken by the ferry company will involve the laying of about a quarter of a mile of new track by the electric railway company, and work is to start as soon as permission is obtained from the railroad commission.

Detroit (Mich.) United Railway.—It has been urged in a resolution to the Common Council that the Municipal Street Railway Commission enter into an agreement with the Detroit United Railway whereby construction on the St. Jean Street line will be completed.

Worcester (Mass.) Consolidated Street Railway.—The Worcester Consolidated Street Railway, through its general manager, announces that just as soon as the tracks are repaired the traffic on Thomas, Clayton & Laurel Streets will be continued. The matter of repair is awaiting the arrival of track equipment.

Eastern Massachusetts Street Railway, Boston, Mass.—The trolley tracks on the Essex Road of the Eastern Massachusetts Street Railway from Whipple's Corner to Whittier's Corner will be removed. Extensive alterations have already been started on the Brockton division of the Eastern Massachusetts Street Railway. The large brick carhouse at Campello will be turned into a repair shop for the entire district south of Boston, where it is said upward of \$30,000 will be spent in installing machinery. The cars which formerly operated from Campello to the carhouse will now go to Torrey Street. To take care of this additional store of cars at Torrey street eight new tracks will be laid.

Cincinnati (Ohio) Traction Company.—On August 1 the Cincinnati Traction Company will begin the work of extending its Sixth Street car line to Fairmount.

Dayton (Ohio) City Railway.—President Grimes of the City Railroad will ask the County Commission for the right to construct a double track up Eaton pike to the west end of the Soldiers' Home.

Power Houses, Shops and Buildings

Danbury & Bethel Street Railway, Danbury, Conn.—The Danbury & Bethel Street Railway is purchasing electric power from the Danbury & Bethel Gas & Electric Light Company. Judge J. Moss Ives, receiver of the railway company, explains that this temporary agreement was decided upon because of the high price of steam coal.

Morris County Traction Company, Morristown, N. J.—The Public Utility Commission has granted permission to the Morris County Traction Company to sell its power house at Chatham, N. J., to Martin Nordegg for \$18,000. The company is now receiving its power from the North Jersey Power & Light Company, the Morris & Somerset Electric Light Company and the Millburn Power Company.

Trade Notes

The Wagner Electric Manufacturing Company, St. Louis, announces the opening of a sales office and service station at No. 2007 South Ervay Street, Dallas, Tex., in charge of Charles O. Rauschkolb, branch manager.

The Coxe Stoker Sales Company, Maikle Bank Building, Hazleton, Pa., announces the appointment of Christian Schillinger, formerly engineer of steam equipment for the Delaware, Lackawanna & Western Railroad Company, as sales engineer, effective June 1.

Harold L. Hazeltine, formerly instructor of physics and electricity at the Trenton (N. J.) School of Industrial Arts, has become Eastern representative of the Sterling Varnish Company. He will make his headquarters in the New York district after Sept. 15.

The Granite City Electric Company, 21 Fifth Avenue, St. Cloud, Minn., has recently been incorporated to deal in electrical devices and supplies and also to repair and rewind motors and generators. William C. Johnson is president and business manager.

The Brown Instrument Company, Philadelphia, Pa., is building an addition to its plant costing \$100,000, which will afford better opportunity to take care of its customers. The company has also added six salesmen to its force, one for each district office in New York, Philadelphia, Chicago, St. Louis, Pittsburgh and Detroit.

The H. S. B. W.-Cochrane Corporation, Philadelphia, successor to the Harrison Safety Boiler Works, has acquired a group of factory buildings, including machine shops, foundry and offices, at 3120 North Seventeenth Street. The new plant will be utilized by the company in connection with its standard power-plant equipment and specialties.

Samuel H. Taylor, general manager of the Electrical Railway & Manufacturers Supply Company of San Francisco, which is said to be the oldest jobbing firm on the Pacific Coast, was chairman of the business program committee at the recent convention of the Electric Supply Jobbers' Association, held at Del Monte.

The Arthur Power-Saving Recorder Company, New Haven, Conn., announces that it has received the order for power-saving recorders for all cars in the city of Ottawa, Canada. This installation follows extensive study of the power-saving situation by officials of the road on various properties in the United States.

The Electric Storage Battery Company, Philadelphia, announces the appointment of George D. Luther as soliciting agent in Seattle, Wash., with offices at 811 White Building. Mr. Luther joined the sales force of the Boston office of the company in 1907, and in 1910 he was made soliciting agent in Denver.

The Ohio Brass Company, Mansfield, Ohio, advises that its new foundry, which is under construction, is for malleable iron rather than for malleable brass, as was stated on page 1236 of the ELECTRIC RAILWAY JOURNAL, June 12 issue. The company name was also incorrectly given.

The Arthur Power-Saving Recorder Company, New Haven, Conn., has received an order for the equipment with its recorders of the London United Tramway. This is the second large trolley company in London which has placed orders for these recorders, the order from the London Metropolitan Electric Tramways, Ltd., having been mentioned in the issue of this paper for May 29. Both of these properties are controlled by the interests represented by Lord Ashfield, formerly Sir Albert Stanley.

R. T. Roth of Philadelphia, Pa., has recently become associated with Schweitzer & Conrad, Inc., as sales manager, with headquarters in Chicago. Mr. Roth was for a number of years connected with the Western Electric Company at the Philadelphia office. In 1910 he left the company to organize the Lewis & Roth Corporation, Philadelphia, construction engineers and manufacturers of high-tension equipment, with which he has been actively connected for the last ten years. He recently disposed of his interests in the Lewis & Roth Corporation. Mr. Roth's experience in the purchase and sale of electrical equipment has covered a period of twenty years.

New Advertising Literature

Grinders.—Charles H. Besly & Company, 118-124 North Clinton Street, Chicago, is circulating a large catalog covering the "Besley" grinders and accessories.

Electric Hammers.—Bulletin No. 4, issued by the American Electric Tool Company, Petersburg, Va., describes and illustrates the Paulero electric hammer, type A, form 1.

Electric Hoists.—The Northern Engineering Works, Detroit, Mich., have issued catalog No. 43, covering their type D electric hoists.

Lubrication.—The Vacuum Oil Company, New York City, has issued a thirty-two-page bulletin on "Bearings and Their Lubrication."

Portable Machinery.—Portable Machinery Company, Passaic, N. J., has published a twenty-four-page catalog entitled "Portable Conveyors."

Jacks.—The Duff Manufacturing Company, Pittsburgh, Pa., is distributing Folder No. 803, illustrating and briefly describing Duff and Barrett jacks of the types most widely sold.

Track Work.—The Balkwill Manganese Crossing Company, Williamson Building, Cleveland, Ohio, has published a bulletin under the title "1920 Supplement No. 1 to Standardized Specifications for Manganese Crossings which were issued in 1919."